

The Impact of the Railways on Economic Development in the County of Berkshire 1830-1900

Doctor of Philosophy

Department of History

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Declaration of Original Authorship

Declaration: I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Richard Marks: October 2023.

Abstract

This thesis examines the impact of the railways upon the business history of the county of Berkshire during the nineteenth century after 1830. The major towns in the county were Abingdon, Maidenhead, Newbury, Reading, Wallingford, Wantage, Windsor, and Wokingham.. The county is located fifty miles from London with the Thames and Kennet valleys providing important transport passages through the landscape towards Bristol and the west with the already developed canal networks providing transport links towards the industrial midlands and north.

The years after the arrival of the railways saw considerable change to the business landscape of the county, although whether this was directly caused by the railways has been found to be doubtful.

The economies of the towns examined in this thesis exhibited very different trends within each sector of business and even between companies in the same trade. The critical factor in the success and development of a single business, or indeed a sector, was the ability of companies to take advantage of the new railway services and the reaction of owners and management to the demands of Britain's developing and changing economy through the provision of products and services at a quality and price point which enabled them to remain competitive, profitable, and successful.

Several factors of significance emerged from the research undertaken which directly challenge two common assumptions made about the relationship between the economy and the railways in Victorian Britain. Firstly, the railway has been found not to have been the sole reason for economic growth. They were only part, albeit an important one, of the development of the British economy. It has also been found that the situation was highly nuanced with changes found to have been different between places, and within types of business, and that growth was not necessarily the result. Secondly it has been found that the rural counties were important to the economy, and that they did have industry which evolved during the period of railway building. They are thus an important part of the study of Victorian industrial change, railway development and societal change, and require further study of other locations.

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List of Abbreviations

The following abbreviations have been used throughout this thesis

Term	Abbreviation
Great Western Railway	GWR
London and South Western Railway	LSWR
South Eastern Railway	SER
Staines, Wokingham and Woking Junction Railway	SWWJR
Reading, Guildford and Reigate Railway	RG&RR

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Chapter 1: Introduction to the Thesis

Historians interested in the effect of the railways on local economic development in nineteenth-century England have hitherto focused almost exclusively on large towns and cities, mining areas and heavy industry. This is quite understandable since railways were a major, and often highly visible, component of the transport infrastructure in such places, although it does not necessarily follow that they had a transformative effect on productivity. The industrialised parts of Britain do not reflect the experience of the population as a whole however.

We should remember that for most of the century, the majority of English men and women lived in small to medium-sized towns or in the countryside. As yet, we have very few studies of how railways affected such areas. This thesis is concerned with the economic impact of railway development on Berkshire, a predominantly rural county with a number of small towns and two medium-sized towns (Reading and Newbury), but no large towns, cities, coal mines and little heavy industry. The county's location close to London was important with Berkshire almost divided in two. The east was heavily influenced by the capital, whilst the west of the county remained mainly rural. The issue can also be found when examining the production centres of the South West of England, other than in the literature relating to the history of specific industries such as coal mining and brewing. The mines and steel mills of South Wales have received a little more coverage, but the overwhelming targets for research at this time have been the industrialised areas of the Midlands and North England, with the addition of Glasgow as an industrial centre. Kellett and Simmons both focus the majority of their research upon the manufacturing areas around Birmingham and the north, with Simmons particularly focusing on the northern towns in his *The Railway in England and Wales, 1830-1914*, and only considering Plymouth, Portsmouth and Folkestone in *The Railway in Town and Country, 1830-1914*.¹ The towns and production centres of Wales only receive a short

¹ John Kellett, *The Impact of Railways on Victorian Cities* (Abingdon, 2007); Jack Simmons, *The Railway in Town and Country, 1830-1914* (London 2008); Jack Simmons, *The Railway in England and Wales, 1830-1914* (London, 2008).

passing mention in the book, with places such as Manchester receiving more attention. G.R.Hawke does discuss the iron industry in South Wales, but in the context of the production only of rails for the railway companies.²

The concentration of a large proportion of the historiography on the economic impact of railways within heavily industrialised areas, can be summarised in a statement made by Emma Griffin, who stated in the relation to the speed of population growth between 1761 and 1801, that agricultural counties had ‘...little in the way of manufacturing, industry or mining’. Griffin referred to Berkshire, Buckinghamshire, Herefordshire, Hertfordshire and Wiltshire, seemingly ignoring the well-established textile and brewing industries in Reading and Newbury or other ‘light industries’ such as iron foundries and breweries well established in the other ‘agricultural’ counties.

Griffin moved on to say that the counties with most growth were counties with high concentrations of industrial employment such as Cheshire, Derbyshire, Warwickshire, Nottinghamshire, West Riding of Yorkshire and Lancashire, although Sussex appears from the statistics presented to have been growing the fourth fastest of all the counties surveyed, with Surrey the second fastest which is not explained in the text. The focus of the coverage of history of the industrial development in the English and Welsh economies are illustrated well in Griffin’s statements.³ It seems that the focus may have been upon areas, quite rightly, which were centres of heavy industry and extremely large textile mills rather than areas where light industry and smaller iron works proliferated.⁴

Berkshire is thus a particularly interesting and appropriate county for a study of this kind for a number of reasons. Firstly, it was traversed by one major trunk line, the Great Western Railway main line from London to Bristol, and the South Eastern and London and South Western Railway’s later secondary routes from London as far as Reading. There were also several branch lines

² G.R.Hawke, *Railways and Economic Growth in England and Wales, 1840-1870* (Oxford, 1970), 212-245.

³ Emma Griffin, *A Short History of the British Industrial Revolution* (Basingstoke, 2010), 55-56.

⁴ Heavy engineering includes manufacturing such as steel, ship building, and heavy armaments manufacture as well as iron, copper, tin and coal mining, whereas light industry includes textile, clothing and food production.

emanating from the GWR's route as well as the independent Didcot, Newbury and Southampton Railway's cross country route from the north and a tramway serving one town. The variety of rail connections in the county serve well as an exemplar for a study of how railways impacted upon the economy of rural areas.

Secondly, the county possessed a broad and diverse range of businesses and thus serves as a good example of how British industry evolved during the Victorian period. The county saw a number of its companies expand and become nationally renowned household names, whilst others declined in importance. Simond's Brewery and Huntley and Palmer of Reading, Plenty and Son of Newbury, and Nicholson's Brewery in Maidenhead among others became large mechanised concerns which became well known across Britain, and in the case of Huntley and Palmer and Plenty and Son, internationally. The growth of these companies provides a valuable insight into one element of the relationship between railway and industrial development. There are other examples, used throughout this thesis, where businesses contracted or failed, or even became stagnant after the opening of a local railway.

The coming of the railways to Berkshire in the nineteenth century saw an important and hugely influential change in transport infrastructure and communication speed not seen again until the advent of the affordable motor car, the next major change probably being driven by the advent of the internet.

The development of railways, much like that of the internet, began slowly, being available only to a small section of industry and society, until as demand for improved services increased, the network expanded to reach all corners of the United Kingdom. The railways made it possible to move freight quickly and economically and for people to travel quickly to destinations previously out of reach of many, both for business and social purposes.

Just as with the internet, it is widely assumed that railways boosted economic growth, an assumption that is widespread not only in the popular but also much of the scholarly literature.

However, the evidence base underpinning this assumption is patchy and incomplete. Most studies have focused upon a few large, and in many respects, atypical towns.

We know very little about the effect of railways on trade and industry in smaller towns and rural areas where more than half the population of Britain continued to live in 1881.⁵ The more frequent study of the industrial heartlands of Britain at the expense of the small towns and rural areas has given rise to a simplistic impression that the railways invariably and unproblematically fostered economic growth.⁶ This thesis seeks to extend the limited evidence base in this area through a study of the impact of railway development on the rural county of Berkshire. Many more such studies will be necessary before we have anything like a complete picture of the economic effects of railway development outside the industrial heartlands.

The Research Context

The focus of this thesis will be upon the impact of railway companies on Berkshire's trades, industries, and ancillary services, both directly and indirectly. It is not intended to undertake a survey of the railways and social change in Berkshire in this thesis as the effects of railways on population and social change has been quite well studied locally in studies such as those undertaken by Rosemary Stewart-Beardsley, Friedrich Newman, Diane Drummond and Joan Dils.⁷ The rationale for selecting the county of Berkshire will be explored fully in the methodology chapter.

⁵ The population density for the census returns for 1881 show that the majority of district/unitary authorities have population densities below 1.46 persons per hectare, with the most densely populated areas being around the industrial large towns. Thus, most of the population lived away from the centres which have been most studied. GB Historical GIS/University of Portsmouth, Great Britain Dep Through Time, Statistics for 'Population' | Mapping 'Population Density (Persons per Hectare)' in 1881 [Website] https://www.visionofbritain.org.uk/atlas/map/R_POP_DENS_H/MOD_DIST/1881/1Y (accessed 27th January 2022).

⁶ McCord and Rowe argued that transport facilities and particularly the railways were the facilitators of industrial growth, but do not reference any possible negative impact of the railways. N. McCord and D.J. Rowe, 'Industrialisation and Urban Growth in North-East England', *International Review of Social History*, 22 (1977), 31.

⁷ Rosemary Stewart-Beardsley, 'After the Railway: A Study of Social Change in Five Rural Thameside parishes 1831-1901', PhD Thesis, The University of Reading, 2009; Friedrich Newman, 'The Socio-Economic Impacts of the Coming of the Railways to Hertfordshire, Bedfordshire and Buckinghamshire, 1838-1900', PhD Thesis, The University of Hertfordshire, 2014; Diane K. Drummond, 'Crewe – The Society and Culture of a Railway Town,

This thesis will follow the methodologies used by John Kellett, and Jack Simmons by using case studies to provide a representative sample of eight towns to give a cross section of Berkshire's economic base.⁸ This will support targeted in-depth analysis of these places, and will make this study comparable to the work which has come before. The thesis will not only address the local picture, but also add a further piece toward the completion of the national picture.

Kellett and Simmons explored the relationship between railways and economic development in great depth, focusing on the industrial heartlands of Britain from which a foundation for further study of the interaction between train and factory could be built. Since little work had been undertaken of this type since the Victorian period, and considering the focus upon the industrial revolution and the nineteenth century among historians at the time that both were writing this is understandable. Many of the early railway historians, among whom Kellett and Simmons could be seen as the leading scholars, were students of the Victorian period and the second phase of the industrial revolution. As a new area of study it was logical to begin with Britain's industrial heartlands and, with reference to the railways, the link between the new transport network and economic development therein.

The work undertaken by Kellett, Simmons, Robbins, and others could however easily be misconstrued if taken out of context.⁹ The addition of more studies focused upon the less industrialised areas of Britain, such as this thesis, would provide a more complete picture of the

1842-1914', PhD Thesis, Royal Holloway College, University of London, 1986; Joan Dils, *Reading: A History* (Lancaster, 2019).

⁸ William Mavor stated in 1809 that there were twelve market towns in the county, thus a study of the largest eight should provide a balanced study which will give a clear picture of the county and the railways. Mavor, 15.

⁹ Joel Mokyr, for example, states that the second and third waves of industrialisation in the nineteenth century '...made continuous technological progress the centrepiece of sustainable economic growth...', although he does also state that, in reference to the canals that '...the notion that without the railroad industrial growth and economic progress would have ground to an early halt is no longer tenable.' Joel Mokyr, *The Enlightened Economy: Britain and the Industrial Revolution, 1700-1850* (London, 2009), 84, 211. Mokyr's reference to 'growth' and his assertion that the perception of railways causing it is no longer valid, shows both that there has been a perception that railways caused Victorian economic growth, but also that the nuances of economic change had perhaps not been considered to establish if growth was the ONLY trajectory businesses were experiencing.

nuances of the relationship between railway building and economic change in the nineteenth century.

This thesis aims to address this unsatisfactory gap in the historiography. The existing studies relate, in the main, to the traditional heavily industrialised areas of Britain, such as within the Leeds to Halifax corridor, the Wakefield, Barnsley, Sheffield triangle, the area which is now Greater Manchester, Birmingham and Glasgow. Rural areas have hitherto been largely neglected. This study is therefore focused on a rural county, Berkshire, located in the south of England far from the direct influence of heavily industrialised areas.

The study will also examine whether other factors not directly related to the railways which may have had an impact alongside the arrival of rail transport in a rural area. The evidence will be examined to establish how economic development was influenced by contemporary structural change. The rise of tourism and hospitality, for example, as well as residential development in rural towns will be examined to establish the role the railways had in causing or facilitating these factors.

The advent of regional concentration was important in Britain but its influence upon the fate of rural businesses elsewhere in Britain has not often been considered. The economic trajectory of business groups in areas where a specific trade, such as shoe making or engineering, had become the dominant employer will be compared to similar groups of smaller businesses in Berkshire. The study aims to establish how the combination of cheap and faster transport services provided by the railway network, combined with regional manufacturing, impacted upon smaller rural businesses.

The question as to whether the economy of scale achievable through concentrated mass manufacturing elsewhere was detrimental to smaller manufacturers in rural counties who were unable to compete with cheaper mass produced imports into the area through the new railways, will be examined as will the responses of local businesses to the potential threat of increased, low price, competition.

The ability of local companies to adapt to, or even take advantage of, the potential threat of cheaper products will be examined. The evidence will thus be used to establish whether other factors such as the role of good management, entrepreneurial skill and business diversification were as important in the success or otherwise of business ventures as the advent of the railways. The vision of company owners and directors in embracing potential competitive threats and turning them to their advantage by using the imports to compliment the productive capacity and product range of a rural manufacturer may have been of more importance than perhaps has been credited in the past for example.

The role of local companies in the evolution of local economies and their relationship with all the factors which drove those changes must include the railway companies themselves. The impact of the railways through the creation of employment and as businesses which may have contributed locally their through purchasing and franchising activities must be considered. The level to which the railway companies influenced the local economies in Berkshire will be explored to establish how businesses may have engaged with the railways as suppliers of goods and services. Despite the railways possessing their own engineering facilities, the companies did not produce everything they needed 'in-house' and may have been active locally through the purchase of goods to support their operations locally.

The only 'railway town' in Berkshire was Reading, where the Great Western Railway located its small early workshops which remained open until the 1970s even after the company opened Swindon Works. The locomotive depots at Didcot and Reading were however both considerable and their impact, alongside the workshops in Reading, will be examined in a chapter devoted purely to the economic impact of railway employment and local purchasing.

Finally, a rural county does not stand as an island and has a relationship with other parts of the country, although this could be limited through poor transport provision. The role of the railways in opening up a rural area will be examined to establish if the improved connectivity offered by faster

railway services allowed rural areas to communicate with a broader range of potential outlets for their goods and services once they were able to take advantage of freight services offered by the railways.

The role of the railway in providing easier and quicker access to London, and the major shipping ports will be explored in order to determine if this was of importance to the local business community and what benefits, if any, this brought. The impact of the availability of greater quantities of cheaper coal will be examined to establish the role in which the railway played in meeting demand for fuel, as well providing excess to potentially support economic growth as industry became increasingly mechanised.

In order to do meet the aims of the thesis outlined, the research questions to be answered have been defined as:

- *What impact did the railways have upon the development of manufacturing and associated services within Berkshire in the Nineteenth Century ?*
- *Was the impact of the railways upon manufacturing and associated services within Berkshire a positive, growth-promoting one, or was the situation more nuanced ?*

It is also intended to address the subsidiary questions:

- *Was the impact of railway development on different business sectors across the county broadly similar ?*
- *Was the impact of railway development similar across the same business sectors in different locations across the county ?*

In order to provide a consistent approach it was necessary to define three terms which will be used throughout this thesis, the terms 'railway' , 'Berkshire', and 'impact'.

Railway: In order to provide clarity, it is necessary to define the term 'Railway'. A common issue with early railway related history, according to John Giese, is the lack of a clear definition of what the term 'railway' is understood to mean.¹⁰

The definition of what a railway is can be problematic. If the definition of a railway is taken to be a route along which vehicles are guided along a prepared track, this can cause confusion. The technology required for a guided way can be found as early as The Diolkos built across the Isthmus of Corinth in 600 BC to carry ships on trucks across land along a pair of channels; similar channel (or rut) ways can also be found in the remains of the Roman mine at Tres Minas in Portugal but there were clearly not 'railways'.¹¹ To define the term precisely within this thesis Giese's definition of what constitutes a modern railway will be used, but with the additional requirement that the railway should be hauled by mechanical locomotives.¹² Thus for the purposes of this thesis a railway is:

A prepared route, guided by iron or steel rails, where vehicles are hauled by steam locomotion, and designed for the carriage of freight or people at a predefined rate and within an established timetable, or as a means by which materials may be moved within the confines of a large commercial site such as a colliery or factory.

Industrial railways in large factories such as those within Huntley and Palmer's plant in Reading will also be included under this definition.¹³

Berkshire: In order to provide consistency with the data and sources being used it is necessary to use the unitary boundaries in place at the time on which this study focuses. In order to match the locations of places to be found in the primary sources used to support the research for this thesis the county boundaries of Berkshire in force prior to 1974 have been used throughout.

¹⁰ John Geise, 'What is a Railway?', *Technology and Culture*, 1 (1959), 68.

¹¹ Andy Guy and Jim Rees, *Early Railways: 1569-1830* (Oxford, 2011), 5.

¹² Geise, 76.

¹³ Deacon, Nick, 'Biscuits for Britain, The Huntley and Palmers Railway: 1', *Railway Bylines*, 19 (2013).

Impact: For the purposes of this thesis the term 'impact' is deemed to mean the process by which the railway influenced change in business sectors over the course of the period examined. This change may cause either a negative or positive result, an increase in the numbers of businesses in one sector, or the ability for one company to achieve growth through the exploitation of railway services alongside its productive or commercial activities. Change may also be negative, where the advent of the railways causes, directly or indirectly, the reduction in business viability through external competition from other areas where mass manufacturing due to centralisation of productive capacity has occurred and economy of scale, coupled with fast and cost effective transport, gives a competitive edge regarding product pricing.

The time period selected has been carefully defined to avoid the impact of the Napoleonic Wars, and the rearmament prior to the First World War, on manufacturing which artificially elevated production through the need to support military operations undertaken by Britain's armed forces and those of her allies. The initial date has also been selected to avoid the main thrust of canal building in the late eighteenth and early nineteenth centuries.

The aim of this thesis is to fill a gap in economic history, by focusing on the effect of the coming of the railway on the economy of a 'rural' county in the nineteenth century rather than on the social or political history thus adding to the historiography of Britain's economy in the nineteenth century. The thesis will also add to the understanding of the impact of railways by examining whether growth was the only change experienced or whether the situation was more nuanced and variable.

Chapter 2: Literature Review

General Descriptive Overview of the Historiography and Sources available for Research related to Businesses and their relationship to Victorian Railways

The first part of the Literature Review will examine the general themes which can be found in the broad historiography of the Industrial Revolution period and the historiography of the Victorian railways and industrialisation in the nineteenth century specifically. The detailed historiographical debate will be examined in detail in the second and third parts of this chapter which will deal with the literature with reference to the national picture, and an analysis of the arguments presented against it, and the studies which relate to more local situations respectively and the arguments presented against research undertaken in a more local context.

The research questions raised in this thesis will also be considered in the context of the historiography. The literature review will compare how the arguments presented in the existing literature relate to the impact of Britain's railways on industrial development in the nineteenth century and whether an oversimplified and often exaggeratedly positive view has been presented in this literature. the influence of the railways was always positive. It will also examine whether the existing arguments satisfactorily address the relationship and impact of the railways to different industrial sectors and different towns local to each other.

The historiography of the railways in Victorian Britain is extensive. These works range from regional studies of the railways such as the David and Charles regional history of the railways of Great Britain series, two volumes of which cover the area examined in this thesis, to company histories concentrating on a single railway company and its development.¹⁴ Many of these are relevant to this study as they mention industrial areas and the arrival of the railways, often discussing the reasons

¹⁴ H.P. White, *A Regional History of the Railways of Great Britain, Volume 2: Southern England*, (Nairn, 5th Edn. 1992); Rex Christiansen, *A Regional History of the Railways of Great Britain, Volume 13: Thames & Severn* (Newton Abbot, 1981); Adrian Gray, *South Eastern Railway* (Midhurst, 1990; Jack Simmons, *The Maryport and Carlisle Railway* (Chislehurst, 1947) .

for the building of the railway lines. Whilst they may be more targeted at the railway companies, the reasons for their construction and rivalries between companies, such as the fierce rivalry between the London and North Western Railway and Lancashire and Yorkshire Railway around Manchester, they are an important part of the historiography when researching the impact that the railways had on industrial development and the resulting impact on place and sector. A knowledge of the construction of the railways, the local opening dates and the rivalries between companies is key to understanding how industry was influenced by railways, for better or worse, in different places. A broad understanding of the Victorian Railway industry can thus be used as a basis for more reliable and less generalised conclusions about how the railways impacted upon industrial development in a region such as Berkshire and places therein, as well as how different industrial sectors were influenced by them, and vice versa.

It is also important to include the numerous volumes covering the canal companies which have been published in any study of the impact of railways upon industry, as the canals had already changed the transport infrastructure in many areas long before the railways arrived, and had already been involved in the industrialisation of some areas, or were at least a key part of the transport infrastructure of others.¹⁵ An understanding of the British canal network is important in a study such as being undertaken by this thesis. The national picture needs to be understood so that a foundation for the study can be established. The canals has already had a degree of impact upon industrial development and localised specialisation, and were certainly key in the early development of industries such as cotton manufacturing in Manchester and the surrounding area, and to the development of Lancashire and Yorkshire as industrialised manufacturing centres.¹⁶ The historiography of canals, however, suffers from many of the unhelpful generalisations that the

¹⁵ Kenneth R. Clew, *The Kennet & Avon Canal* (Newton Abbot, 1968); Humphrey Household, *The Thames & Severn Canal* (Newton Abbot, 1969).

¹⁶ Joel Mokyr states, for example, the importance of the Bridgewater Canal to the development of Manchester, and also the importance of the Leeds and Liverpool Canal. In both cases the canals provided access to the port of Liverpool for heavy manufactures, and also internally for bulk transport of coal and iron ore, reducing transport costs and thus material costs. Joel Mokyr, *The Enlightened Economy: Britain and the Industrial Revolution 1700-1850* (London, 2011), 209-210.

railway and economic histories contain, especially with reference to how the canals impacted upon industry. Joel Mokyr states, for example that ‘...there is little doubt that this transport system helped technological progress’ and created integrated markets which ‘...multiplied the gains from innovation’ and led to growth.¹⁷

The library of works relating to railways and their impact upon the economy is also important in a study of the relationship between railway and industrial development, for example, Mark Casson’s *The World’s First Railway System* provides a detailed analysis of how the railway network may have been built in a more effective way under the aegis of a single national policy and without the inefficiencies that private enterprise and competition for traffic built into Britain’s railways.¹⁸ Roy Edwards’s work on railway organisation provides an additional insight into why companies cannot be assumed to be the same. Edwards made a valuable point in his study of the work of the Railway Clearing House after 1923, stating that in regard to the railway companies ‘...one size or type of organisation did not fit all, and that a great deal of variety existed in corporate form’.¹⁹

The same must surely be true for all businesses and probably more so during the nineteenth century during the evolution of the Britain’s economy. This thesis aims to examine the nuances within business sectors during the Victorian period, and how they may relate to the engagement between railway and industry in rural areas such as Berkshire. Another useful viewpoint on the influence of railways can be found in Colin Divall’s paper ‘Mobilizing the History of Technology’ in which he writes about the importance of expanding the study of railways and their impact to ‘...fill out the picture...’ in relation to the impact of railway travel upon consumerism and consumption as well as notions of citizenship.²⁰ The impact of railways upon manufacturing in the nineteenth century is likely to have been as nuanced as Divall suggests it has been for consumerism and ideas of

¹⁷ Mokyr, 154.

¹⁸ Mark Casson, *The World’s First Railway System: Enterprise, Competition, and Regulation on the Railway Network in Victorian Britain* (Oxford, 2009, repr. 2015).

¹⁹ Roy Edwards, ‘Keeping unbroken ways: The Role of the Railway Clearing House Secretariat in British freight transportation, c.1923-c.1947’, *Business History*, 55 (2013), 479.

²⁰ Colin Divall, ‘Mobilizing the History of Technology’, *Technology and Culture*, 51 (2010), 955.

citizenship. This study thus aims to add to the picture in the way that Divall suggests, the importance of expanding upon the 'broad brush' studies being a key rationale to the research undertaken to produce this thesis.

A large number of academic journal papers have been produced over time with reference to industrial development and the impact of the railways. Early articles appearing as far back at the nineteenth century can provide an interesting and useful perspective on the thoughts of contemporary authors and academics as the railway networks began to appear, as can publications which were produced by the railway companies themselves.²¹ The contemporary academic sources are revealing as they establish where the arguments that the railways were the driver of industrial development began. The documents produced by the railway companies themselves must be viewed with some level of suspicion as the companies would clearly have been attempting to sell their services to prospective customers and also to prospective investors, much as modern marketing materials may make claims that a product or service is the best offering in the marketplace. The latter sources are still useful in a study of this type as they also influenced what was written later, and had a definite impact on the general positive view of how industry was impacted by the arrival of the railways. The Great Western Railway, for example, was very capable of presenting itself as a major influencer in both social, and industrial development. In an interview with *The Railway Magazine* for its July 1897 issue, the Great Western's general manager, Joseph Wilkinson stated that "...last December [1896] the Great Western Railway possessed nearly 2,000 locomotives, upwards of 6,000 passenger vehicles and 50,000 goods and mineral wagons. Those figures alone will vividly convey...the important position the Great Western Railway occupies in the social economy of the nation".²²

²¹ R. Baxter, 'Railway Expansion and its Results', *Journal of the Statistical Society*, XXIX (1866), 549-595; E.T. MacDermott et al., *Great Western Progress: 1835-1935* (London, 1935, repr. Newton Abbot, 1972).

²² G.A. Sekon., 'Illustrated Interviews: No.1 Mr. Joseph Loftus Wilkinson: General Manager Great Western Railway', *The Railway Magazine Illustrated*, 1, (London, 1897), 1.

More recent journal papers and doctoral theses have discussed many topics relating both to industrialisation in its own right and also the impact of the railways in Britain upon industrialisation. Some have raised some degree of controversy with subsequent papers adding to the discussion such as the series of detailed papers relating to the use of small coal wagons on Britain's railways (an issue which has wider implications for understanding the history of innovation but which sheds only limited light on the economic impact of railway development across the board).²³ The last trail of papers and responses serves as a prime example of some of the discussions which have involved the minutiae of railways and Victorian industry, in this case focusing solely upon the small mineral wagon used by Britain's railways to transport coal from the collieries to the port or end user. There are, however, issues in this discussion which serve to illustrate some of the problems which can be found within the historiography of the railways and their impact upon industrialisation in the nineteenth century. These will be discussed in more detail in the subsequent sections of this chapter.

One secondary source often ignored is the broad range of railway enthusiast literature. This has been, in many ways, unfairly maligned in the past as being unreliable and not peer reviewed as academic journals are. Whilst it is true that the enthusiast literature can be of variable quality, and often focused on operational aspects of railway history or upon locomotives in service and so forth, there is still much work within that arena which can be of use to the academic study of the early railways and their impact. Some journals such as *Backtrack* and *Railway Bylines* often contain articles which are well researched and referenced, and cover a broad range of topics such as Britain's first railway strike, the Great Western Railway's public image work, or detailed studies of Huntley and

²³ Va Nee L. van Vleck, 'Reassessing Technological Backwardness: Absolving the "Silly Little Bobtailed" Coal Car', *The Journal of Economic History*, 55 (1995), 383-385; Va Nee L. van Vleck, 'Delivering Coal by Road and Rail in Britain: The Efficiency of the "Silly Little Bobtailed" Coal Wagons', *The Journal of Economic History*, 57 (1997), 139-160; Peter Scott, 'The Efficiency of Britain's "Silly Little Bobtailed" Coal Wagons: A Comment on Van Vleck', *The Journal of Economic History*, 59 (1999), 1072-1080;

Palmer's internal railway system in their Reading manufacturing facility.²⁴ Another reason the enthusiast literature should not be discounted is that there are often previously unpublished papers written by respected academics, such as Jack Simmons, presented through that medium.²⁵ Obviously the same rigorous care should be taken when selecting articles in these sources as would be undertaken for any other secondary source.

Turning to primary sources there are many useful sources available within both the National Archives (TNA) and the local county archives (in the case of this study, the Berkshire Record Office). The National Archive's collection of materials under the RAIL collections is most useful, containing record books from the railway company board meetings, details of contracts agreed between the railway companies and contractors for construction works or for the operation of the company's refreshment rooms across their networks as well as correspondence and agreements made between the various railway companies.²⁶ All of these primary sources have proved valuable in building an understanding the relationship between railways and industrial development in the county selected for this study.

The Berkshire Record Office (BRO) holds many useful sources related to Berkshire, and of key importance to this study, which complement and extend those to be found in the national collection. The plans of both proposed and completed lines are held in the collection and the reference books which accompany them can yield useful information regarding the immediate impact of the construction of the railway lines through the county through an analysis of the

²⁴ Anthony Dawson, 'The First Railway Strike', *Backtrack*, 33 (2019), 493-496; Alan Bennett, 'The Best Location: The GWR's Industrial Identity', *Backtrack*, 14 (2000), 578-581; Nick Deacon, 'Biscuits for Britain, The Huntley & Palmers Railway:1' *Railway Bylines*, 19 (2013), 4-15; Nick Deacon, 'Biscuits for Britain, The Huntley & Palmers Railway:2' *Railway Bylines*, 19 (2014), 68-75.

²⁵ Jack Simmons, 'The Victorian Railway in Retrospect', *Backtrack*, 18 (2004), 332-336.

²⁶ Some examples of the useful materials that can be found in The National Archives (TNA). RAIL579/2, Reading, Guildford and Reigate Railway Company, Minutes. Director's Meetings, 1847-1848; RAIL252/180, Draft Contract between GWR and James Thomas Bedborough (of New Windsor) for contract 6L (erection of Bridge over River Thames at Maidenhead); RAIL1181/2, Agreement between GWR and William Flanagan (hotel keeper, Great Western Hotel, Reading) for tenancy of refreshment rooms on Reading Up Station, Aug 1869; RAIL252/246, Agreement between South Eastern Railway Company, London & South Western Railway Company and Great Western Railway Company for Rates for London - Reading Traffic, June 1858.

properties which were to make way for the railway. For example, the plan and book of reference for the extension line to Oxford from Didcot provides useful data.²⁷ The company records of a number of companies such as Heelas Department Store in Reading, and Plenty of Sons in Newbury can also be located within the BRO collections.²⁸

In addition, many trade directories from the period remain in existence preserved in collections such as those held by the local studies collections in libraries alongside other collections of useful ephemera such as railway timetables and company advertising flyers.²⁹ These have been used as the basis for a statistical survey of the business landscape of Berkshire in the nineteenth century and the resulting data allows for a detailed set of conclusions to have been drawn without unnecessary generalisation on the local impact of the railways both by location and by industrial sector.

The availability of primary and secondary sources would at first glance appear to provide a wealth of support to the researcher engaged in a study such as being undertaken for this thesis, however as always, these sources need to be handled carefully.

In order to understand how the railways impacted upon industry, the records of those companies who were operating in the region are very important. The non-railway company records can be very revealing in providing details of with whom the company was trading, and where, volumes of trade of time which can be correlated to both population change, and the arrival of the railways locally.

The company records can also show where the railways directly impacted the industry in the region by undertaking commercial transactions with it. It can be seen, for example, that both the Great Western and London and South Western Railways purchased goods from Heelas in Wokingham and

²⁷ Berkshire Record Office (BRO), Q/RUM8, Plan and Section of the Proposed Railway from Oxford to Join the intended Great Western Railway and to be called the Oxford and Great Western Union Railway with the Proposes Branch Railway thereout to Abingdon, 1836; BRO, Q/RUM8a, Oxford and Great Western Union Railway Book of Reference, 1836.

²⁸ BRO, D/EHS, Records of Heelas and Company of Wokingham, 1798-1919; BRO, D/EX1739, Records of Plenty and Sons, Engineers of Newbury, 1762-1990.

²⁹ The Reading Library Local Studies reference collection contains a large collection of nineteenth century business directories from a number of different providers.

Reading in 1866.³⁰ In many cases the company records are incomplete, the Heelas and Company ledgers are missing between 1867 and 1890, although the other years between 1798 and 1919 are present in the collection. In other cases, the company records no longer exist at all in any detail which prevents a detailed analysis being undertaken of the engagement those companies had with the railway companies through an analysis of their accounts and agreements between them. There are however some contracts which remain extant and which can be retrieved from TNA or BRO collections.

Victorian trade directories, whilst useful, must be used with caution as they may not always provide a complete picture as some companies and traders may choose not to subscribe to any given directory, preferring one over another. An analysis of directories from different providers has been undertaken to reduce the number of missing enterprises in the statistics which has resulted in a more complete sample of data. Despite this the directories still provide a useful set of data from which statistics can be extracted and used to extrapolate the likely impact of the railways in the towns selected as case studies for this thesis.

In order to undertake a study of the kind being used for this thesis a broad approach to primary sources is required. Whilst direct evidence of the impact of the railways is not always available for company ledgers and so forth, indirect evidence through other sources can be revealing. Company advertisements promoting the sale of various products produced outside the county of Berkshire, such as the ales produced in the breweries in Burton On Trent, can be very useful as indirect evidence for the reliance of those companies upon the railways for example. The inference in this case would be that in order to support the transport of large quantities of heavy freight such as casks of ale, quickly and economically, the most likely route for the distributor to use would be to transport their wares by rail. The same can of course be inferred for goods being exported out of Berkshire during the period.

³⁰ BRO, D/EHs/B1/7 Ledger for Heelas and Co., 1850-1867.

Another useful tool can be the location of businesses in directories. If, perhaps, a coal merchant was to move their premises from the wharves on a canal to the yard of a railway station, it would be fair to infer that the company in question had become more reliant upon the railway for its supplies of goods than upon the canal.³¹ Other examples which indicate an individual enterprise's reliance upon the railways can be found through the use of maps where an independent siding link has been provided into a company's premises, or, as in the case of Huntley and Palmer in Reading, the company has invested in its own private railway network linked to the main railway companies.³²

The National Historiography and Debate

The Historiography of Industry and Victorian Railways at the National Level

The Historiography of the Industrial Revolution and particularly the socio-economic development of Britain and the impact of the railways during the nineteenth century focuses mainly upon a small sample of heavily industrialised cities in the north of England and Scotland. Whilst these studies provide a good analysis of these towns in the traditional industrial heartlands of Britain, they leave the picture incomplete. The gaps left in the national picture may be filled by studies focused upon different areas away from those already studied in detail. Studies of more localised areas, such as a single county allow for a more granular study to be undertaken which can address some of the generalisations which may have been made in the existing studies. By using only large industrial cities across the country no relationship between the two can reliably be established across the wider United Kingdom or between towns at the local level, nor can the impact be reliably examined between businesses in the same sector but in different locations, an issue which may be addressed in a more contained study which will complement those which have come before.

³¹ In Pigot's 1830 trade directory all of the coal merchants in Abingdon are based on the canal wharves in Ock Street or East St. Helen's Street, whilst in the 1887 Kelly's directory, Archibald Lees is listed as having moved to the railway station yard.

³² Deacon, Biscuits for Britain:1, 9.

The Debate

The main debate in the historiography of railway building in the nineteenth century, is whether railways are directly responsible for social and economic development in the nineteenth century.

The earliest argument concluded that the railways were solely responsible for industrial development and economic growth in Britain. Over time the controversy has arisen whereby there are now two points of view. The first supports the argument that the railways were the sole driver for economic growth in Britain in the form that it manifested, whilst the second argues that the railways whilst not the sole driver for economic growth were one of the most important vectors of change.

The perception that the railways were a fundamental instigator of economic development originates in the nineteenth century where contemporaries were advocating the railways as the foundation of Britain's development but with little discussion of variation between different places or different industrial sectors. This remains an issue even with some of the more recent historiography.

Commentators wrote much during the nineteenth century in support of the railways as the sole reason for development, among whom R. Dudley Baxter writing in 1866 examined the 'wonderful increase in traffic which has resulted from the railways'.³³ Dudley Baxter continued, stating that the railways were a prerequisite to the growing import and export trade from which Britain was benefitting, and that increased railway mileage and facilities was proportional to the increase in trade.³⁴ Dudley Baxter does not seem to have considered any of the questions raised by this thesis, no account being made of potential variation between place or industry sector, and no possibility of any localised negative impact being seen in his work. It is likely that many of the early writers were, at least partially, influenced by the statements made by the promoters of the early railways. The railway companies, when being formed and seeking investment and the necessary Act of Parliament,

³³ R. Dudley Baxter, 'Railway Extension and its Results', *Journal of the Statistical Society of London*, 29 (1866), 561.

³⁴ Dudley Baxter, 566.

often 'sold' their intended schemes with hugely positive statements. These statements, without exception, claimed that the railway would be beneficial to the areas and towns through which it would pass. The positivity around the promotion of railways was doubtless intended to convince potential objectors that the railway should be supported and that investment would give a good return to those who purchased shares in the project. It seems that this may have influenced the early writers, and resulted in an ongoing belief among some writers that the railways were the sole creator of economic growth, and only growth.

The argument in favour of the railway as the prime instigator of economic development can also be seen to have been strongly influenced by the railway companies themselves; they had a vested interest in attracting industry and its expansion in order to increase their own traffic receipts. The Great Western and London and South Western Railways, famous for their role in the development of the tourist industry in Devon and Cornwall (a development for which the companies can be fairly credited) Their creation of fast expresses to the new resorts, which became the 'Cornish Riviera' and 'Atlantic Coast Express' trains in the early twentieth century supported the marketing campaigns which were created to promote these destinations The railway companies were also extremely active in promoting the locations near their routes as being ideal for expanding industry during the 1920s and 1930s.³⁵ This enthusiasm for the railway as the catalyst of industrial growth can be seen in much of the early historiography.

Michael Robbins suggested that the railways, alongside the electric telegraph and steamship were the most important influence on the development of the world in the nineteenth century.³⁶ Robbins goes on to state that the railways were of prime importance to manufacturing as they were able to allow the manufacturer to ignore the distances to their customer and the costs of delivering to them, but does not consider the cost of rail transport for different load types (full wagon, part load, parcel) and the impact of rate setting agreements between railway companies to protect their

³⁵ Alan Bennett, 'The Best Industrial Location', *Backtrack*, 14 (2000), 578.

³⁶ Michael Robbins, *The Railway Age* (London, 1965). 11.

revenues.³⁷ Robbins also does not consider the impact of demand further down the supply chain upon manufacturing or mining, which is a weakness one finds elsewhere in the historiography too, nor does Robbins acknowledge the variations in experience between different regions of Britain.

In a similar vein, John Kellett argued that the railways had a major effect upon cities and their economies between 1830 and 1900, and this also reflects the common argument prevalent when both Kellett's and Robbins's work was originally published in 1969.³⁸ According to both Robbins and Kellett, the railways were the key facilitator of industrial and economic growth in the nineteenth century.

Neither Kellett, nor Robbins explore the differences in the impact of railways upon rural areas or smaller towns. The study of the impact of railways upon the economic development of such places has remained the domain of the doctoral thesis, many studies being undertaken on smaller sample areas, such as Rosemary Stewart-Beardsley's 2009 study of social change in the Thames Valley, John Duncan's study of the railways in the Royal Burgh of Peebles or Richard Joby's 1982 study of North East Norfolk.³⁹

John Kellett begins his study of the impact of railways on Victorian cities by stating that the main issue facing urban historians is finding valid ways to compare places which are by their very nature different, with varying types of industry, business communities and civic administrations.⁴⁰ But he then proceeds to select case studies which relate to very similar cities, all of which were heavily industrialised. Kellett selects the five largest cities of Britain (London, Birmingham, Manchester, Glasgow and Liverpool) '...with a view to illustrating the effects of railways'.⁴¹ This is a common issue

³⁷ Robbins, 22.

³⁸ Kellett, p.1.

³⁹ Rosemary Stewart-Beardsley, 'After the Railway: A Study of Social Change in Five Rural Thameside Parishes 1831-1901' PhD Thesis, The University of Reading, 2009; John Stuart Duncan, 'The Royal Burgh of Peebles in the Nineteenth Century: The Impact of a Locally-organised Railway on a Moribund Scottish County Town', PhD Thesis, The Open University, 2005; Richard Stanley Francis Joby, 'The Railway Development of North East Norfolk 1874-1914', PhD Thesis, The University of Leicester, 1982.

⁴⁰ John R. Kellett. *The Impact of Railways on Victorian Cities*, (Abingdon, 2007 Edn. 2007), 1.

⁴¹ Kellett, p.3.

with the work to this point. Lack of variation in the selected case studies, which are often based on the same big cities and towns has produced a similar set of results with similar conclusions. This would be very much akin to undertaking a study of finances in professional football in Britain by only studying the top teams in the English Premier League and ignoring any other clubs.⁴²

Kellett's five cities were important as locations served by railway companies and as rail hubs, Manchester being served by the Liverpool and Manchester, the London and North Western, the Manchester Sheffield and Lincolnshire, and many of the constituents of the Lancashire and Yorkshire Railways. However other places overlooked by Kellett and others can also be viewed as having become railway hubs in their own right. There are many other places which can claim this status. Reading had become a major railway junction by the middle of the nineteenth century, the Great Western Railway serving routes to Birmingham and the Midlands via Oxford, South Wales via Swindon, the West of England via Newbury and Exeter and connecting routes to the London and South Western at Basingstoke. The town was also served by the South Eastern Railway's route from London Bridge station in the capital and the London and South Western's route from Waterloo station.

In addition the studies do not consider the important railway towns which were developing during the expansion of the railways to become hubs of railway engineering with huge workshops such as could be found in Brighton, Crewe, Derby, Doncaster, Eastleigh and Swindon among others. Towns such as Barrow in Furness and Caerphilly became important railway workshop towns. The inclusion of railway towns and an examination of the effect the workshops had upon the economies of those places would make a useful contribution to the historiography of the relationship between railways and social, economic and urban development in the nineteenth century. The railway workshops

⁴² The top twelve clubs in the 2020-21 season relate coincidentally to the main studies of the railways and industrialisation in the nineteenth century. London, Manchester, Liverpool, Leeds, Birmingham and Newcastle dominate. BBC Sport, *Premier League Table*, [Website], <https://www.bbc.co.uk/sport/football/premier-league/table>, (accessed 6th June 2021).

established in such towns continued to offer mass employment until the 1990s when the railway workshops were privatised and began to decline as competition from elsewhere became more prevalent, and were thus an key factor in the economic profile of the local area, including the supply chain which supported the workshops.⁴³

Shrewsbury was a major junction for routes serving Merseyside, the Midlands and Wales, and Wakefield was an important centre for the agricultural and woollen trades, and as such was served by constituents of the Lancashire and Yorkshire, the Great Northern, the Midland and the Hull and Barnsley railways, both of which would have been useful comparisons to the five cities selected by Kellett. Barnsley would have also served as a useful example of how a railway was used to link a location with raw materials, in this case coal, with towns and cities which needed the fuel to support industry and for domestic heating, as well as linking the place of origin with ports for exports further afield in Britain and abroad. In the case of Barnsley, the colliery owners built their own railway company, the Hull and Barnsley Railway and the port of Goole purely for this purpose due to the excessive charges being levied by the North Eastern Railway. Studies of other places, such as Barrow in Furness, and the slate and coal mining areas of Wales where railways were built mainly for the transport of the mined raw materials to ports would have given a broader perspective of the impact of railways upon industrial growth, where they had been built expressively for that purpose.⁴⁴

⁴³ Richard Marks, *A History of British Rail Engineering Limited* (Barnsley, 2024).

⁴⁴ M. Edward Ingram, 'Formation of the Company in Hull' in: Ken Hoole (ed), *The Hull and Barnsley Railway: Volume 1*, (Newton Abbot, 1972), 15-26.

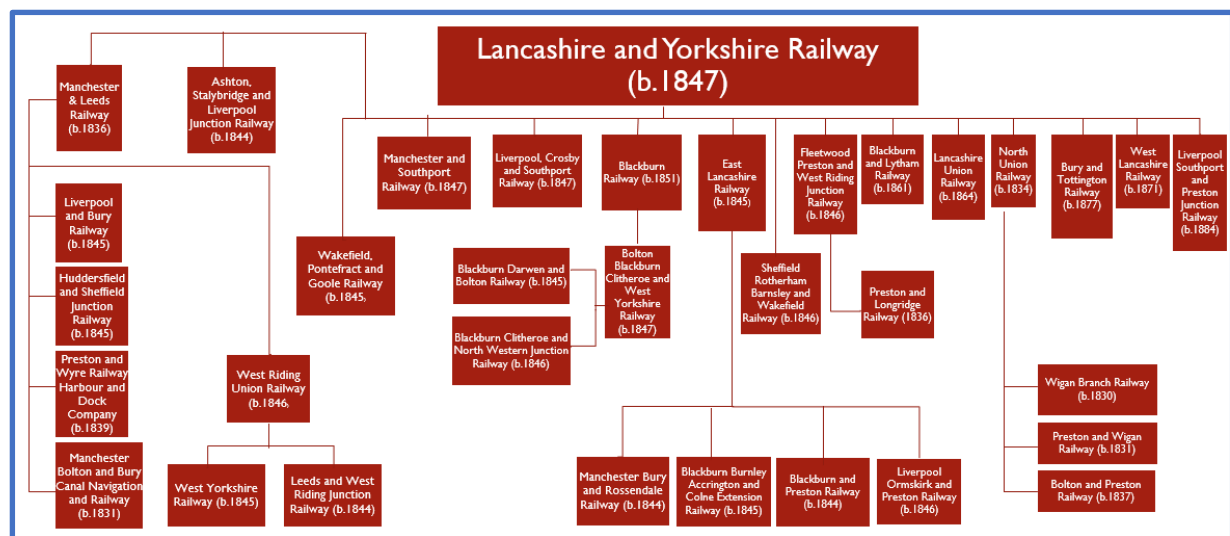


Figure 1: The Constituent Companies of the Lancashire and Yorkshire Railway

If Kellett had included a town such as Norwich or Bath in his study he may have achieved a broader view, with less inappropriate generalisation. Norwich and Bath were both served by the railway companies, and like those places he did select, were also cities. However, both differed from the sample Kellett selected. Both Bath and Norwich, whilst still important for religious practice as cathedral cities, were not as important economically as they had once been and were in the process of deindustrialising at the time the railways arrived. Both would have provided a potential case study illustrating how the railway corresponded with the improvement, or decline of their economies and how the railways influenced that change. The selection of cities such as Cardiff, Bristol, Newcastle Upon Tyne or Nottingham, all of which were either industrialised (Cardiff, Newcastle and Nottingham), or active ports. Bristol was a very important and active port and one of the reasons for the creation of the Great Western Railway, and would have served as a good comparison for Liverpool. Cardiff may also have been useful as a hub of the South Wales coal industry. A broader selection of cities would have provided a more balanced study and avoided the sweeping generalisations that recur in the historiography.

The second issue with this study is that it does not overly discuss the impact upon industry other than the possible locations of the large factories being made more flexible due to the availability of

rail links which allowed the plant to move away from the expensive centre out to the cheaper areas on the city edge.⁴⁵ A discussion of how rail links impacted upon existing factories in other industries such as coal or iron ore mining, the impact of a railway linking the cities and their industries to the major ports such as Hull or Ipswich or the impact upon coal mining of the railways in these areas would have illustrated a broader sample of industrial sectors and may have revealed some of the more negative impacts of the railways on industrialisation. A factor not considered by Kellett is the impact the railways had on regional specialisation in manufacturing and the mixed impact this had on different areas.

Kellett is not the only historian to have made questionable generalisations based upon narrow, targeted samples. Even the occasional inclusion of, for example, what Jack Simmons refers to as 'major towns' is limiting. The selection, by Simmons of places such as Middlesbrough, which was effectively created by the railways to compete with the docks on the Tyne, Stoke upon Trent and Coventry which were centres of industry, and Northampton and Leicester, which were centres for shoe making and hosiery, does not expand the evidence in his study as much as would be hoped.⁴⁶ Simmons does select Norwich and Barrow-in-Furness for his study but his conclusions are based more on the railway companies and their struggles to provide services against a backdrop of their commercial rivalries (such as that between the Great Western and Midland in Bristol) and to penetrate towns such as Bristol to provide a central station.⁴⁷ In his chapter on the 'Great Provincial Cities', Simmons does state that the 'railways had an important role to play' in the economy of these cities, but despite suggesting that this may have taken place at differing speeds and comparing the situation of Bradford, where the railways arrived later, and Leeds, where the railway were a relatively early arrival, which he believed disadvantaged Bradford when compared to its neighbour

⁴⁵ Kellett, p.346.

⁴⁶ Jack Simmons, *The Railway in Town and Country, 1830-1914*, 2nd Edn (London, 2nd Edn. 1986; repr. 2008), 141-170.

⁴⁷ Simmons, 102.

to the east, he does not expand further on why this may have been, and seems to be suggesting that the railways were a key driver in economic expansion.⁴⁸

This is a theme which is common in the studies of the effect of railways on the industrialisation of Britain. The same small group of cities which were already industrialised to a great extent appear in many of the studies, and the focus of many of those studies is mainly upon the socio-economic effect, that the railways had on individuals lives, work, housing and leisure, rather than the commercial impact they had upon the factory and supply chains within industry.

Neither Robbins nor Kellett make allowance for any potential negative impacts upon industry caused by the railways and the drive towards localised specialisation, a gap which this research aims to address by answering the question, in the context of Berkshire, of whether the railways caused differing industry development in differing sectors, be they drivers towards growth, or contraction due to specialisation elsewhere, with cheap transport being provided by the railways allowing centralised mass manufacturing to undercut and out compete the local manufacturer.⁴⁹

Historians writing in the 1960s and beyond continue to argue that railways were the driving force behind socio-economic development, with little consideration for sectoral impact nor potentially adverse economic consequences following the arrival of a railway in a particular locality. Michael Robbins stated that ‘...the result of building them was nothing less than a social revolution’, and extolled the virtues of the railways as exceeding the needs of the economy and creating new opportunity.⁵⁰ M.C. Reed uses the same argument in the preface to *Railways in the Victorian Economy*, arguing a little more conservatively due to the space limitations of the papers presented in the volume, that the railways had stimulated the growth of the British economy during the later

⁴⁸ Simmons, 124.

⁴⁹ The general terminology used in much of the historiography has issues in the context of how the railways impacted upon industry in one place versus another, or in one sector compared to another. Growth was by no means a guaranteed result of the arrival of the railways.

⁵⁰ Michael Robbins, *The Railway Age* (London, 1962, repr. London, 1969), 43, 54.

nineteenth century.⁵¹ The same position can be found in W.W. Rostow's *The Process of Economic Growth*, and B.R. Mitchell's *The Coming of the Railways and United Kingdom Economic Growth*, both of which advocate the railway as the single most important factor in economic growth.

Mitchell's stance is however more in line with the more nuanced recent conclusions to be found in the historiography, which give the railways less prominence but still view them as one of the prime catalysts for growth, no concept of any contraction due to localised specialisation elsewhere being considered. This issue is common in many studies, most likely as a result of a focus upon locations where industrialisation was a key part of business change in areas like Glasgow and Manchester. Mitchell argued, that the railways cannot be viewed as the initiator of economic growth in the United Kingdom, since many industries had already begun to '...take-off' prior to the coming of the railways, but he also states that railway construction may have been responsible for sustaining and on occasion accelerating economic growth in the Victorian economy.⁵²

More recently, Joel Mokyr argues that the railways created the integrated market in the nineteenth century (something which could also be compared to the role of the internet in the twenty-first century), but without reference to how this may have provided opportunity for the wider supply chain, or had a negative impact due to increased competition from established manufacturers in other regions which may have had a negative local impact.⁵³ Another example can be found in Roger Osborne's *Iron, Steam and Money*. Osborne argues that the railways were the single factor in the growth of the British coal industry in the nineteenth century, stating that 'it was to be the steam railways that drove the expansion of the coal industry during the nineteenth century' both as a consumer of large quantities for its own use, but also as a transport system which allowed the collieries to reach their customers.⁵⁴ Osborne's argument serves to illustrate some of the over-

⁵¹ M.C. Reed, 'Preface' in M.C. Reed (Ed.), *Railways in the Victorian Economy: Studies in Finance and Economic Growth*, (Newton Abbot, 1969), 7.

⁵² W.W. Rostow, *The Process of Economic Growth* (Oxford, 1960), 202-203; B.R. Mitchell, 'The Coming of the Railways and United Kingdom Economic Growth', *The Journal of Economic History*, 24 (1964), 320.

⁵³ Mokyr, 154

⁵⁴ Roger Osborne, *Iron, Steam and Money: The Making of the Industrial Revolution* (London, 2013), 281.

generalisations common in the historiography. The argument that the railways had a direct impact upon the coal industry as a major user of coal is clearly fair, the steam locomotive consuming vast tonnages of the fuel. The statement that the railways were the driver for the expansion of the coal industry is a prime example of the issues prevalent in the historiography. Whilst Osborne is considering how one sector, coal mining, is impacted by the railway, he makes the same generalised conclusions that are often seen. The statement that the railways are the single driver for growth for the collieries as a transport partner does not consider the amount of coal moved by coastal shipping, nor does it take into account that there has to be demand from a source further along the supply chain. Domestic use would no doubt have had a small impact, but the huge growth in both the number and size of collieries would not have been possible without the demand for the vast tonnages consumed by industry.

Without demand for their products, industries such as iron and steel, or the industrialised potteries around Stoke on Trent, for example, would not have had the need for the fuel. Without the need to import foodstuffs from abroad caused by demand for products such as tea or the need to import grain, or for the drive to export British manufactures across the globe due to demand for them overseas, merchant shipping would not have had the need to purchase the fuel in great quantities, nor would there have been demand for new shipping, which in turn created demand for steel and bronze, marine engine and boilers and other fittings, and finally created an increased demand for mined ores and coal.

It may perhaps also be argued that the large Victorian Royal Navy necessary to protect British trade interests and the empire, which was also a key user of the fuel source during the latter nineteenth century once the majority of its warships are steam powered, would not have been as necessary, and thus demand for military grade materials such as armour plate, naval guns and so forth would not have been so high.

The view that the railways were of primary importance to the expansion of the British economy during the Victorian period had, by the mid to late 1960s become fairly entrenched, however a new view was beginning to gain support.

The debate has more recently shifted towards an argument that the railways were more a facilitator of socio-economic development alongside other factors which created change rather than the only driver of it. But it remains the case that little consideration is given to potential variation by place or by sector, and 'growth' appears to be the only possibility that seems to have been explored. Whilst this may be indicated to be true if one were to look at local population increase, or the broad economic change that Britain in its entirety experienced, the picture, as may be seen in the case studies used in this thesis, can vary considerably in neighbouring towns, and also within different sectors of the economy of one town.

The more recent historiography is more concerned with exploring whether the railways were truly solely responsible for socio-economic development and if not to what extent the rail network acted as a vector for change alongside other drivers. Jack Simmons argues that the railway was not the only vector of change and, although it could aid in the development of new industry in a place, or in the expansion of existing industry, it was not the only factor in that change.⁵⁵ Friedrich Newman's doctoral thesis makes the same point, and also suggests that more local studies would be beneficial in expanding the historiographical debate from a more detailed position.⁵⁶ However as yet there has been little attempt to compare the impact of railways on different industrial and the over-simplified emphasis on railways as an agent of economic growth, even if not the only vector of change, remains.

⁵⁵ Jack Simmons, *The Railway in Town and Country, 1830-1914*, (London, 2nd edn. 1986; repr. 2008), 17.

⁵⁶ Friedrich Rudolf Johannes Newman, 'The Socio-Economic Impacts of the Coming of the Railways to Hertfordshire, Bedfordshire and Buckinghamshire, 1838-1900', PhD Thesis, The University of Hertfordshire, 2014.

Newman himself relied on census data and occupational titles rather than a study of business type and numbers in a region. The reliance upon census data alone, does not allow a clear picture to emerge of how the railways influenced change in the areas Newman explores. Population increase may not be related purely to economic growth caused by the arrival of the railway, even if the provision of a train service did have a positive and direct impact, and certainly would have had been little influenced by the railways. Other factors may have been responsible, such as improved public health and sanitation measures, as well as the improving standards of medical care over the course of the nineteenth century, both are measures which would have reduced mortality. The use of occupation titles can also have issues. The occupation titles may be related to how an individual wished to be perceived and also how the enumerator needed to classify the population in order to provide meaningful statistical grouping. The occupation titles alone cannot give an indication of what sort of work an individual undertook, nor whether the number of companies active in the location was changing, or how the types of business present was evolving. In order to ascertain the situation more clearly the census statistics need to be tested against other contemporary sources such as trade directories, and business documentation.

Newman argues in his doctoral thesis that the railways, whilst one factor among many, were an important influence in the economic and social growth of the counties of Hertfordshire, Bedfordshire and Buckinghamshire. He concludes that his research supports the argument prevalent at the time he was writing, that the railways were a facilitator to growth. He does not however, explore whether there is variation between industrial sectors or between different places, nor whether there is negative growth experienced in the region.⁵⁷ Had a wider exploration of these points been undertaken it would have made Newman's study even more valuable in the completion of the broader history of railways and the British economy in the nineteenth century. Although he suggests that his study is an analysis of the socio-economic impact of the railways, his research, like

⁵⁷ Newman, 344.

that of many other local historians is more focused on social changes which he extrapolates to support an argument about industrial change.

Newman's methodology has issues and shows the potential dangers of using population or occupation statistics to determine the impact of the railways on economic growth. By using occupation figures from the county census occupation summary tables the resulting statistical analysis does not represent how local companies responded to or engaged with the railways and their impact upon their business through the use of their services or on the availability of competitors products from other locations.⁵⁸ Furthermore the use of the method developed by N. Goose, where occupations are grouped by raw material will cause generalisations, as the materials may have been used as part of a drive toward mechanisation with the resulting loss of some occupations and creation of others.⁵⁹ These generalised methodologies can be found consistently in local studies which have been based upon either population change or occupational change. Neither of these, can be extrapolated accurately to determine how the railways impacted upon industrial change, as there are other factors which need to be considered.

The methodology adopts a statistical analysis of occupations, not by trade but by raw material used. There are some inherent difficulties with this as an occupation may use more than one material (for example locomotive boilerSmiths work with iron or steel for boiler barrels, and copper for fireboxes), carpenters, who work purely in wood, may work in a number of industries such as furniture or house building, but may also be found in foundries as pattern makers. Goose's methodology seems to be flawed and results in unclear and unnecessarily arbitrary groupings of occupations which may not have any relevance to each other.

Newman's reliance on Goose's methodology will limit the breadth of the data. By grouping non-related occupations into the same groups any possibility of comparing separate sectors to establish

⁵⁸ Newman, 88.

⁵⁹ Nigel Goose, *Population, Economy and Family Structure in Herts in 1851: The Berkhamstead Region* (Hatfield, 1996), 21-2, 30.

if the experience varied between them becomes impossible. Taking 'metals' as an example and looking at industrial occupations which could potentially be grouped into that classification, this group could encompass not only watch-makers and blacksmiths, but jewellers, boilermakers, ship builders, locomotive builders, iron works, gunsmiths and many more. These industries have very different requirements regarding raw materials, volumes and transport for finished goods. They are thus likely to have been affected in very different ways by railway development and from an analytical point of view it would be much better not to group them together in a study of the relationship between railways and industrial growth.

Newman points out that the grouping of occupations which are not related into a group, such as watch-makers and blacksmiths being grouped under 'metals' is rather arbitrary.⁶⁰ He acknowledges that there is a risk of a broad analysis 'being erroneous'.⁶¹ A much more useful method would be to group them by the SIC codes used by the British Government to classify industrial activity. This method would give a more detailed picture. Using the examples above would see a more logical classification result, thus Watchmakers (SIC 26520), Shipbuilding (30110), Boilermakers (25300), Jewellers (32120) would all be classified in a manner by which it would be possible to analyse how each sector was impacted.⁶² This methodology has not been adopted in previous studies, but has been used to shape the research for this thesis.

A further issue is the assumption that changes in occupation can be solely attributed to the impact of the railways is problematic. Changes in occupation may be related to many other factors, including the creation of new occupations by the adoption of new technologies (such as steam power in the factory), changes in the fortunes of one business over another through other economic factors such as loss of customers, or poor management and so on. Furthermore grouping together the occupations using the Goose methodology will hide any impact upon a given industrial sector,

⁶⁰ Newman, 90.

⁶¹ Newman. 348.

⁶² *Nature of Business: Standard Industrial Classification (SIC) Codes*, (website), <http://resources.companieshouse.gov.uk/sic/>, (Accessed 24 June 2020).

for example, whilst the number of watch-makers may increase, the railways may perhaps cause a decrease in the number of blacksmiths in the region due to the availability of cheap mass-produced metalware from Sheffield or Birmingham, sold through hardware retailers. The trends would in this case be hidden by the aggregation of occupations. This method will also not identify where occupations have evolved into a new trade due to the adoption of machinery in the factories which would most likely reduce the number of some occupations whilst creating new ones.

Newman begins his conclusion by stating that the railways may have affected occupations in different ways but then seems to lose sight of this, stating that whilst railways did not initiate economic growth, they 'certainly had a stimulus effect' and were a major influence in the development of industry in the region.⁶³ Newman came to this conclusion despite having previously stated that the needle manufacturing industry in Long Crendon (Buckinghamshire) had suffered from the mechanisation of the same industry in Birmingham.⁶⁴

There has been a third approach taken in the historiography to the role of the railways in economic change. The difficulty in assessing the impact the railways had in economic development has led a number of studies to ignore them entirely, or at best to give them a passing mention and no more.

In her *Short History of the British Industrial Revolution*, Emma Griffin gives the railways only a passing mention.⁶⁵ Abbott Payson Usher's paper exploring the industrialisation of Britain makes no mention of railways at all, despite discussing the consumption of iron between 1717 and 1900, and proposing that the British economy could be measured by coal consumption.⁶⁶ The only fleeting mention that transport systems which would have made mass consumption of iron and coal possible receives, is a passing comment that '*the steam engine was available...as a locomotive as well as a stationary engine*'.⁶⁷

⁶³ Newman, 1, 130.

⁶⁴ Newman, 105.

⁶⁵ Emma Griffin, *A Short History of the British Industrial Revolution* (Basingstoke, 2010).

⁶⁶ Abbott Payson Usher, 'The Industrialisation of Modern Britain', *Technology and Culture*, 1 (1960), 118,p.123.

⁶⁷ Usher, p.123.

Southern Ireland seems to have been ignored in the main despite being a part of the United Kingdom until the creation of the Irish Free State by the Act of 1920.⁶⁸ This first point could be argued to be a weakness in the historiography, very little work being completed on the impact of railways upon Irish industry other than a handful of studies relating to the railways of Southern Ireland. The railways of Southern Ireland certainly had an impact, according to P.J. Geraghty, the Dublin and Drogheda Railway was viewed by the citizens of Drogheda to provide '...advantages which will be derived...both to this town and to the county at large'.⁶⁹ Although this is a significant gap in the historiography, it is beyond the scope of this thesis.

The Local Historiography and Debate

The Historiography of Industry and Victorian Railways at the Local Level

The same evolution of the argument presented about the subject can be seen in the local studies as for the more nationally focused studies. The local historiography begins with similar arguments which propose that the railways were the prime driver for positive development whereas the more recent studies suggest that they may be more of a stimulus to socio-economic growth, but nevertheless that the result was growth.

The belief in the railways as prime instigator of local economic development in Britain remained the main vector of argument for many years. In 1947 Frank Walker wrote of the importance of the railways in the development of industry around Bristol, stating that the area around Stonehouse in Gloucestershire was likely to be a location that would see considerable industrial development in the near future due to its position at the convergence of the Swindon-Gloucester and Bristol-Gloucester railways.⁷⁰ T.H. Bainbridge wrote an interesting study of Barrow-in-Furness which looked at the prerequisites for the location of Industry, which he states as being influenced by geographical and

⁶⁸ Hansard. Government of Ireland Act 1920, (website), <https://www.legislation.gov.uk/ukpga/Geo5/10-11/67/contents/enacted>, (Accessed 7th April 2021).

⁶⁹ P.J. Geraghty, 'The Dublin and Drogheda Railway: The First Great Irish Speculation', *Dublin Historical Record*, 66 (2013), 87.

⁷⁰ Frank Walker, 'Industries of the Hinterland of Bristol', *Economic Geography*, 23 (1947), 275.

geological factors, and human factors such as the availability of railways, docks or canals.⁷¹ He argues that the rapid population growth of Barrow was due to the construction of the Furness Railway which made extraction of iron ore deposits from the local area possible.⁷² The study also looks at the development of Barrow as a metal working centre which was purely supported by the railways, due to the need for fuel (coal) to feed the furnaces which had to be transported from the Durham and Barnsley coal fields, as well as the transport of iron ore from the local mines.⁷³

Bainbridge's study is an example of the prevailing argument that the railways were the prime instigator of economic growth. He does not explore the wider demand for Barrow's products and the role the railways may have had in enabling its companies to fulfil their orders. The railways were no doubt an important transport partner enabling the mills in Barrow to fulfil orders from across the United Kingdom, but it could be argued that Barrow's convenient location on the coast of Cumbria with its own port facilities may perhaps have been equally as important for the development of Barrow Steel as the creation of the local railways. Whilst the conclusions drawn for Barrow in consideration of the metal working industries in the town, may well be fair given the reliance on the provision of high quantities of iron ore and coal from inland areas to supply the mills, there is an issue with respect to the wider impact of the railways since the study is only concentrated in one sector, and does not consider the impact on any other industries. Local ship building, for example, which existed prior to the arrival of the Furness Railway would have been likely to have had a direct impact upon the local steel industry as a source of valuable materials at low transport cost.

John Duncan's study of Peebles provides a detailed study, looking at the impact upon the town of initially being bypassed by the North British Railway and the later impact of the locally promoted Peebles Railway.⁷⁴ Duncan argues and provides compelling evidence for the railway as the prime

⁷¹ T.H. Bainbridge, 'Barrow in Furness: A Population Study', *Economic Geography*, 15 (1939), 379.

⁷² Bainbridge, 379.

⁷³ Bainbridge, 382.

⁷⁴ John Stuart Duncan, 'The Royal Burgh of Peebles in the Nineteenth Century: The Impact of a Locally-organised Railway on a Moribund Scottish County Town' PhD Thesis, The Open University, 2005, 282.

instigator of the regeneration of Peebles as a tourist destination, and the resulting growth of its hospitality industry.⁷⁵ Duncan also shows that the thriving woollen manufacturing in Peebles before 1828 had more or less collapsed by the 1850 when compared to other wool manufacturing towns, such as Hawick, which had been served by the new railway lines.⁷⁶ This new thesis aims to provide a detailed but more wide ranging study than Duncan's. Duncan looked at a single Scottish town, and established some very interesting conclusions, but this isolated approach limits consideration of the impact of Peeble's close neighbours, which were served by the same railway. The current thesis takes a broader, but no less detailed approach as it explores the impact of railways on an English rural county, closing gaps in the study of the British economy in the nineteenth century and the history of railways.

Rosemary Stewart-Beardsley adopts a more mixed approach to her doctoral thesis based upon the five parishes of Basildon, Goring, Pangbourne, Streatley and Whitchurch in Berkshire, however her study does not look at the more industrialised east Berkshire.⁷⁷ It is more focused on the social impact of the railways and uses a similar methodology to Newman's thesis in looking at occupation and population changes and the impact upon road hauliers and the hospitality industry after the GWR had passed through.⁷⁸ Stewart-Beardsley is, however, critical of the general approach in the historiography to the impact of the railways in this period, particularly of the claim that the railways caused the depopulation of rural districts, another of the generalisations that besets the study of railways and their impact.⁷⁹

The Local Debate

The local debate very much mirrors that seen at the national level. The generalised standpoint that the railways were the driver of economic growth can be found across the local historiography, until

⁷⁵ Duncan, 13.

⁷⁶ Duncan, 29-33.

⁷⁷ Rosemary Stewart-Beardsley, 'A Study of Social Change in Five Rural Thameside Parishes 1831-1900', PhD Thesis, The University of Reading, 2009.

⁷⁸ Stewart-Beardsley, 190-211.

⁷⁹ Stewart Beardsley, 250.

the conclusions became more nuanced in the late 1960s. and like the national, local studies adopted a position that the railways were one of the drivers of growth, albeit an important one for growth. Generalised conclusions are made, which do not take into account any sectoral variation, and make little, if any allowance for any negative impacts.

Bainbridge and Newman both proposed that the railways were one of the most important drivers for economic growth in their areas of study⁸⁰. Despite Newman's comment that the historiography is 'confused in places', and that the claims made had been based on urban areas which caused the historiographical conclusions to be based upon generalisations which 'fail to be wholly applicable' to other location, he continues to base his conclusions on questionable job role groupings based upon unsatisfactory decisions to place jobs which have no connection with each other together.⁸¹

The arguments seen in the historiography previously discussed appears to have influenced much of the local studies literature. In her *Reading: A History*, Joan Dils states that the 'railway was the catalyst for an expansion of local industries...' without explanation as to how the railways were responsible for this, although she comments on the closure of turnpikes and reduction of coach services (which as we will see in the Reading case study declined much more slowly than is commonly believed), she also states that the railway caused more growth and more jobs than those that disappeared.⁸² Many of the local town studies give the impression that the railways were the sole vector of growth, with little exploration of any negative changes. Stuart Hylton takes this stance in his *A History of Reading*, quoting the Great Western Railway's prospectus that was printed in the Berkshire Chronicle and Reading Mercury newspapers in 1833, which, among its many claims, stated that the railway would '...encourage manufactures...' and 'increase the prosperity of the neighbourhood', before stating that the Railway would fulfil all the claims it had made.⁸³

⁸⁰ Bainbridge, 379.

⁸¹ Newman, 50.

⁸² Joan Dils, *Reading: A History* (Lancaster, 2019), 204, 206.

⁸³ Stuart Hylton, *A History of Reading* (Chichester, 2007), 162-163.

It may be that the historiography has been influenced, not only by claims made by the railway companies in their prospectuses, which should be viewed with some degree of scepticism, since the company would of course promote the great things that their company would bring a place in order to attract subscribers and to remove objections to the construction of the line, but also by statements made by local councils and business owners in 'important' towns which had been bypassed by the first railway lines. The influence of the Victorians and the resulting perception that railways were always a positive addition to a town's transport links and industrial growth can be seen in Nigel Bray's study of the Devizes Branch. Bray takes the same stance that the railways were a promoter of growth, in this case through the increase in size of the town's market and increased tourism due to the railway facilitating day excursions from London.⁸⁴

The same conclusions can be seen in Reg Wilkinson's monograph of the Wantage Tramway, in which he also states that the link was advantageous to the town's growth due to the shopkeepers making great use of the tramway, and also its positive impact on the Wantage coal trade which, by 1870 was struggling with increased costs of road transport from Wantage Road station due to the effective closure of the Wilts and Berks canal which had until that time been the artery through which Somerset coal arrived in the town. The opening of the tramway is hailed as a saviour for the coal trade in Wantage, reducing cost and allowing the trade to flourish.⁸⁵ No consideration given to what may have happened if the railway had not out-competed the canal, nor, and particularly relevant in this case, the impact of the closure of the Somerset collieries as the seams became worked out.

The general conclusions that the railways were the catalyst for economic and industrial growth in national studies can thus be seen to have influenced writers of local and town studies where the question of the impact of the railways has been examined.

Conclusions

⁸⁴ Nigel Bray, *A Wiltshire Railway Remembered* (Chippenham, 1984), 12,20.

⁸⁵ Reg Wilkinson, *Wantage Tramway: A Concise History* (Wantage, 1974), 16-18.

Whilst the historiography of the impact of the railways on the industrialisation of Britain is extensive, it suffers from two main issues, both in the nationally focused studies and the local histories.

The reliance on social factors, such as population figures or occupations does not reflect accurately the development of industry. Performing this kind of study at a national level serves to aggregate out any depressive effects the arrival of railways (or in fact canals) had, where extreme growth in, for example iron and steel manufacture in Sheffield, or South Wales may well offset the collapse of the same industry elsewhere due to the availability of mass-produced product from such centres. At a local level the population or occupation figures cannot be relied upon. If a town in the selected area had a number of confectionery bakers prior to the railway arriving, then the occupation figures would suggest that the industry was potentially thriving, looking at the same figures forty years later may well suggest that it had completely collapsed, but what if only one company had flourished and mechanised, whilst the others had ceased trading, and the mechanisation of the works had changed occupations from 'baker' or similar trades to 'machine operator', or 'engineer' ? As this study will show this was the case in Reading.⁸⁶

If we look at two other industrial sectors in Reading, we see some interesting results which suggest that the conclusions drawn for the national picture are at best generalisations. The number of shoe factories in Reading increased steadily up until 1840, although the establishments were all modest affairs employing small numbers of people in the production of footwear. An analysis of the commercial directories for Reading between 1840 and 1859 shows a dramatic decline in the number of factories, although the number of separately listed cobbler's shops remained relatively healthy. The failure of the sector coincides with the opening of the GWR's line from Didcot to Oxford and on to Birmingham, from which the towns of Northampton and Leicester could easily be reached by rail. The number of shoe retailers increases hugely after 1874 and continued to do so. If the shoe manufacturing sector in Northampton is examined, which will be looked at in more depth in the

⁸⁶ Webster's, 1864

Reading case study to follow, a reciprocal trend in shoe manufacturing may be observed. It is likely that the small local manufacturers in Reading were unable to compete with cheaper mass produced footwear from the midlands and the businesses failed or became retailers. The gap in the statistics between the decline of the shoe industry and the rise of footwear retailing in Reading may be explained by the existing of a number of general ‘merchants’ and ‘grocers’ who may well have stocked shoes, as well as the arrival of Heelas department store in Reading, who were not listed as a shoe retailer explicitly.

This will be examined in detail in Chapter 6.



Figure 2: Number of Shoe Makers in Reading: 1827 to 1884⁸⁷

⁸⁷ Horniman's Reading Directory: 1827 (Reading, 1827); Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840); Macauley's Reading Directory Almanac and Official Register for 1859 (Reading, 1859); Macauley's Reading Directory Almanac and Official Register for 1865 (Reading, 1865); Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873); Stevens' Directory of Reading: 1884 (London, 1884)

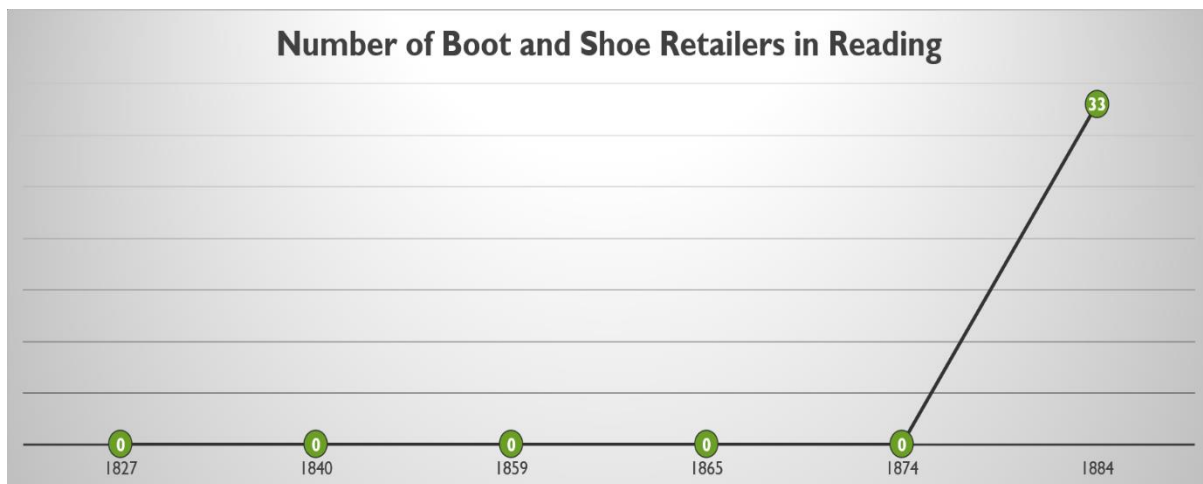


Figure 3: Number of Shoe Retailers in Reading 1827 to 1884⁸⁸

Using Newman's methodology, the statistics would have been unlikely to identify this extreme change in business types as both would have been classified under 'Leather' in his statistics and may well have aggregated to give a false perception. These issues will be examined in more detail in the case study section for the town of Reading in Chapter five.

Thus, it could be argued that the historiography requires a new approach to expand and develop on what has come before. The new approach should look at a more detailed selection of industries through a study of contemporary trade directories, with companies placed into groupings based upon SIC codes in order to establish if there was any difference in the experience of railways between sectors. This could be achieved by an analysis of numbers of businesses in selected towns of each type before and after railways opened in that town. In addition, where the statistics indicate a difference in impact between individual companies within a sector further research should be undertaken to establish, where the sources allow, if this was due to different management attitudes to rail or other factors such as market leading patented products which others did not have for example.

This thesis will provide that new approach by concentrating upon commercial enterprises and business statistics, using primary sources such as commercial ledgers, board minutes, advertising,

⁸⁸ Horniman's 1827; Robson's 1840; Macauley's 1859; Macauley's 1865; Webster's 1874; Stevens' 1884.

and entries in commercial directories, as well as railway company records, to establish how companies traded between 1830 and 1900, and to extrapolate evidence from those sources to support conclusions which indicate where there was an impact made by the railways, and to state whether the impact was negative or positive and why.

Chapter 3: Methodology

The research undertaken for this thesis has been based principally upon an in-depth analysis of nineteenth century commercial directories, and the relevant census returns for occupations. Further research using individual company records, newspapers and other contemporary primary sources (such as industrial exhibition catalogues and railway company papers) have also been used where relevant to expand upon the data retrieved from the commercial directories and census returns in order to present a much more comprehensive study than could have been achieved through the use of one of these sources alone. The research has been used to establish examples of how businesses engaged with the railways between 1830 and 1900.

The aim of this study is to contribute to the historiography relating to economic change and the impact of the Victorian railways, albeit using a more detailed and granular approach than may have been attempted in the past, through a contained geographical area in which the varying impacts of the railways upon economic change may be observed at a sectoral level.

In order to provide a meaningful set of data through which the research questions could be addressed, it was necessary to restrict the study to a set of selected case studies on a similar model to that used by Kellett and Simmons in their works as outlined in the literature review.⁸⁹ This would allow for a comparison of towns located close to one another but with different railway service provision provided at differing times. A meaningful comparison of the impact of the railways upon business at a local and sector level could thus be achieved through analysis of these towns, and their commercial eco-systems.⁹⁰ The selection of towns with a variety of different railway connections, will allow for conclusions to be drawn about how railways impacted by their absence as well as their

⁸⁹ John R. Kellett, *The Impact of Railways on Victorian Cities* (Abingdon, 2007 Edn.), 2-4; Jack Simmons, *The Railway in Town and Country, 1830-1914*, 2nd Edn. (London, 1986), 15-25.

⁹⁰ The interrelationship of businesses to each other can be compared to an eco-system in nature. Larger enterprises often consuming and relying upon the products and services of other companies, such as lawyers, engineers, raw materials suppliers and other service providers.

presence, in they did have an impact, and how the late arrival of a rail link impacted upon those towns who were connected to the system later in the century.

The case studies will also allow a business sector related analysis to be undertaken which support conclusions regarding the effect rail connection had on varying commercial sectors and how each sector related to others in the same place.

The methodologies used to define the boundaries of this research are outlined below.

Definition of Railway Routes

In order to select a group of case studies which reflect the impact of the railways upon different towns in the county of Berkshire, and to compare their impact on the different commercial sectors present in each, it is necessary to select towns which are served by a variety of different types of railway route. In order to do this, it is first necessary to define how the types of routes should be subdivided.

In order to provide a clear and consistent definition it is proposed that categories based on those suggested by Mark Casson are used in this thesis.⁹¹ Thus the categories of route shall be:

Trunk: Those routes designed for high-speed and heavy levels of traffic, which were provided with double track or later quadruple track in places and with moderate gradients.

Primary: Those routes designed for regular high-speed traffic at more moderate levels than the services provided on trunk routes, provided with double track throughout.

Secondary: Those routes designed for moderate traffic at lower speeds, provided with a mix of double track in areas with heavier traffic levels, and single track in less intensely used areas.

⁹¹ Mark Casson, *The World's First Railway System: Enterprise, Competition and Regulation on the Railway Network in Victorian Britain* (Oxford, 2015), 7.

Branch: Those routes designed as lightly used routes for local services which terminate in dead-end termini, and/or are lightly constructed and provided with single track only, potentially with passing loops at intermediate stations where justified by traffic levels.

Tramway: Cheaply constructed, lightly built routes providing connection to main railway services at junction stations and, often running alongside established roads, where the route was constructed under the framework laid down by the Tramways Act 1870.⁹²

These categories will give a consistent classification of the railway lines built within Berkshire, and thus a comparison of the impact of different types of railway upon the businesses in each town and the individual sectors across the county may be achieved.

Why Berkshire ?

Undertaking a complete study of the entire United Kingdom and the impact of the railways upon manufacturing and related services between 1830 and 1900 would be a huge task for one researcher to undertake alone. It is therefore necessary to break the study down into a smaller, more manageable, but still varied and broad selection from which useful conclusions may be drawn. Despite being based upon a single county the study will still reflect upon the national picture, providing an additional piece of the puzzle to complete the historical understanding of economic change in relation to the Victorian railways.

In order to provide a limit to the selected area, a defined boundary is required. Adopting the regional methodology used by David and Charles in their regional history of the railways of Great Britain series would still give an area too large for a meaningful thesis to be produced within a realistic timescale. The regions selected in that series, cover large areas but are focused mainly upon the railway companies within the regions of each volume. Selecting an area as used in the volumes by H.P.White or Rex Christiansen would give too large a sample to study at the level of detail

⁹² UK Government, *The Tramways Act 1870*, [website], <https://www.legislation.gov.uk/ukpga/Vict/33-34/78/contents>, (Accessed 20 November 2020).

required by this thesis.⁹³ A smaller defined area is required, and thus a study based upon selected case study towns within a limited area would not only serve to indicate how the railways impacted upon economic change during the nineteenth century, but also to serve as a useful comparison to those studies undertaken by Kellett, Simmons and others using cities from across the United Kingdom.

A number of factors have been taken into account in order to establish the regional boundaries which will be used within this thesis. Defining the boundaries of a study has, as argued by Nigel Goose, been a minefield for generations of economic and social historians seeking to study the one part of Britain. Goose argues that the difficulty is caused by the simple fact that the 'perfect region' does not exist.⁹⁴ The difficulty in establishing a satisfactory boundary can be seen in the manufacturing and mining development of South Yorkshire and North Derbyshire in the late eighteenth and nineteenth centuries, which ultimately formed a distinct industrial region which crossed county boundaries. The same could be seen with the mining areas of North-East Wales which coexisted with the mines of the Forest of Dean in West Gloucestershire which probably should be examined together.

Goose argues that the ideal definition of a region should be based upon 'a large and contiguous geographical area marked by a particular economic characteristic or set of characteristics' and that it ought to be recognisable and distinct in its own right.⁹⁵ The research for this thesis seeks to examine the industrialisation of a rural area in the nineteenth century, and it seems possible to limit the study to a single county area in southern England. Using Goose's recommendation, and the methodologies used by Kellet and Simmons to make this study comparable to those which have come before in the

⁹³ Rex Christiansen, *A Regional History of the Railways of Great Britain Volume 13: Thames and Severn* (Newton Abbot, 1981); H.P. White, *A Regional History of the Railways of Great Britain Volume 2* (Newton Abbot, 5th Edn. 1992).

⁹⁴ Nigel Goose, 'Regions, 1700-1870' 1939' in: Roderick Flood, Jane Humphries and Paul Johnson (Eds), *The Cambridge Economic History of Modern Britain: Volume 1 1700-1870* (Cambridge, 2014), 150-151.

⁹⁵ Goose, 159.

study of railway and economy in the Victorian period the best solution to the problem of defining a region for study seems to be a county boundary.

It is therefore proposed that in order to remain consistent with the evidence from the period to be studied, a county boundary be used as it existed between 1830 and 1900. The use of a recognised county boundary provides not only a limited area defined by a unitary political division, but also enables the study to be based upon identifiable maps created during the period, whilst allowing the data selected for the study to relate directly to the situation as stated in the contemporary sources.

In order to avoid any possible skewing of the research which may be caused by the impact of coastal sea freight, the discovery of new raw materials such as ironstone deposits in Cleveland or coal reserves in Kent, a land locked county with little in the way of naturally occurring minerals is required. The county selected should also have been provided with a comprehensive, and good quality road and canal network before the arrival of the railways. The combination of a lack of local natural resources, and a comprehensive existing transport infrastructure will serve to illustrate whether the introduction of the railways impacted upon economic development in separate places and sectors, or if the existing transport network had already allowed economic development to take its course, and the railways merely served to increase the speed of existing communications or the adoption of new technologies.

This will enable the study to focus not only on how the railways affected manufacturing and services in the county but also how they impacted upon the pre-existing transport industry. It is important to consider the influence of the transport network which existed prior to the arrival of the railways as this would most likely have influenced how and where settlements had occurred and to some degree how they may have developed prior to industrialisation in the eighteenth century. The influence that the canals played in economic change should not be ignored, and the impact that the railways may have had upon existing transport providers should also be considered.

Ideally a county served by more than one railway company should be selected, in order to minimise any issues resulting from the influence of a single railway company's monopoly within that county, as experienced for example by the counties of Cornwall or Suffolk.⁹⁶ Even where competition did exist, the dominant railway company in the county could still be a major influencer upon trade; a prime example of this influence can be seen in the virtual monopoly enjoyed by the Great Western Railway in respect of the London coal traffic from South Wales, where only marginal competition for the same traffic existed from the London and North Western Railway and had little impact upon the Great Western Railway's services or tariffs.⁹⁷ However the London and North Western Railway did provide stern competition for the Great Western with respect to the coal traffic to the midlands via its 'Heads of the Valleys' line.

The county of Berkshire meets all of these requirements. Located west of London the county is landlocked and does not have direct access to sea ports, avoiding the influence of coastal sea transport which may have impacted a study of Yorkshire or Lancashire which have direct access to the ports of Hull and Liverpool respectively. Berkshire was served by an established canal and river navigation network before 1830. The Thames Navigation (1751) linked to the Oxford Canal (1789) and on to Birmingham and the north, the Kennet and Avon Navigation and Canal (1723) to the Somerset Coal Canal (1801) and the through Bath to Bristol and the river Severn, and the Wilts and Berks Canal (discussed by William Mavor when writing in 1809) also connected it to Bath, Bristol and the Somerset coal fields.⁹⁸ Berkshire was adequately served by well-made roads before the start of the nineteenth century, William Mavor stating in his report to the Board of Agriculture that the

⁹⁶ Hansard, HC Deb 14 June 1894, Vol 25, Cols 1060 – 1069. The monopoly enjoyed by the GWR in South Cornwall allowed the company to charge excessive rates to such a level that the issue was raised in the House of Commons. Suffolk also suffered from having the majority of its rail services provided by the Eastern Counties Railway (later absorbed into the Great Eastern Railway).

⁹⁷ Hansard, HC Deb 24 July 1891, Vol 356, Cols 300 – 303.

⁹⁸ Kenneth R. Clew, *The Kennet & Avon Canal* (Newton Abbot, 1968), 25; Kenneth R. Clew, *The Somerset Coal Canal and Railways* (Newton Abbot, 1970), 51; Hugh J. Compton, *The Oxford Canal* (Newton Abbot, 1976) 52; Mavor, William. 1809. *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement* (London, 1809), 427-449.

majority of the towns in the county were no further than ‘...three miles from some good Turnpike road’.⁹⁹

The geography of the county also placed it in prime position to become an important railway crossroads, which is reflected in the number of railway routes which passed through Berkshire by the time the railway network was nearing completion, although the Berkshire Downs limited the routes that the railways could viably take. The Great Western Railway lines from London radiated out from Reading, eventually reaching out west to South Wales, north to Oxford and on to Birmingham and the Midlands, South West to Bristol, Exeter and Cornwall, and South to Basingstoke and Southampton.¹⁰⁰ Berkshire had become an important transport hub with the opening of the canal network in the later eighteenth century, a position that was improved upon and expanded by the network built by the railway companies.

Berkshire also provides a more controlled study than could be provided by Lancashire, Yorkshire or the Midlands and Birmingham. The areas around Manchester, Leeds, Birmingham and Stoke had already become heavily industrialised prior to the arrival of the railway companies, the canal network providing the essential trade arteries. In these areas it is difficult to observe whether the railways were built to serve existing businesses or if economic development was caused by the railways. Berkshire did not have the large industrialised cities of the north, despite having industrialised in some places and so serves as an ideal laboratory for a study of the impact of the railways upon economic change.¹⁰¹

The county has little in the way of valuable mineral resources and so little mining was to be found in the county, that which did exist exploiting the easily accessible chalk.¹⁰² The county was therefore

⁹⁹ Mavor, 422.

¹⁰⁰ Alan Jowett and David Shepherd, *Jowett's Railway Atlas of Great Britain and Ireland: From Pre-Grouping to the present day* (London, 1989), 85, 114, 116, 120, 141.

¹⁰¹ William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement*, (London, 1809), 15.

¹⁰² Mavor, 32.

dependent upon imports for new fuels (the county had been dependent upon coppiced wood as a fuel source until the arrival of the canal network) and iron unlike the situation in Yorkshire or Lancashire where large coal reserves existed locally.¹⁰³

As an important transport crossroads, the county of Berkshire serves as an ideal example of how the railways may have influenced economic change in the nineteenth century away from the heartlands of heavy industrialisation such as found around Leeds, Birmingham and Manchester.

Selection of the Case Studies

A study of the impact of the railways on every commercial sector in every town and village in Berkshire would be time consuming and likely to produce an unwieldy and complex set of data. In the studies carried out by John Kellet and Jack Simmons both relied on a series of case histories relating to industrialised towns across Great Britain, and a similar approach would be of benefit to this thesis, and would also allow it to be comparable to the existing historiography.

A selection of case studies based upon towns within the county will be used to assess how, if it all, the coming of the railways impacted upon both existing enterprises and the creation of new businesses within these towns. It will also be possible, through the use of this methodology, to assess whether the experience of the railway's arrival differed between the selected towns and also within commercial sectors across the whole group of case studies, thus answering the research questions posed by this thesis.

The selection of the case studies will be based upon the population figures enumerated within the 1831 Census returns.¹⁰⁴ The 1831 census has been selected to minimise the impact of the

¹⁰³ Mavor, 307, 315.

¹⁰⁴ Histpop.Org, *Census of Great Britain, 1831, Comparative account of the population of Great Britain in the years 1801, 1811, 1821 and 1831; with the annual value of real property in the year 1815: also, a statement of progress in the inquiry regarding the occupations of families and persons, and the duration of life, as required by the Population Act of 1830. BPP 1831 XVIII (348) 24-28* [website], www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%201831&simple=yes&path=Results/Census/1831&active=yes&treestate=expandnew&titlepos=0&mno=11&tocstat

Napoleonic Wars of 1803 to 1815 upon the population returns. The 1831 Census also occurred after the majority of the canal and turnpike road network in Berkshire had been completed, minimising their direct impact upon the population of the county in the census. The parish census returns have been combined by town and the summarised figures are presented in Appendix 2.1.

In order to provide a size of town for the study with a meaningful economic and commercial base, whilst selecting a manageable but representative group of case studies, it is necessary to restrict the selected towns based upon a minimum population return in the 1831 Census.

Town	Population
Reading	16042
Newbury	13051
Wantage	11761
Maidenhead	10517
Windsor	10114
Wallingford	6100
Abingdon	5632
Wokingham	5301
Speen	3044
Farringdon	3033
Hungerford	2283
Shrivenham	2113
Ascot	2009
Tilehurst	1878
Chieveley	1857

[e=expandnew&tocseq=500&display=sections&display=tables&display=pagetitles&pageseq=first-nonblank](#), (Accessed 10th June 2020).

Kintbury	1781
Lambourn	1553
Sunninghill	1520

Table 1: Towns in Berkshire with a Population Exceeding 1,500 Persons in 1831

In order to restrict the sample size a minimum population figure of 5,000 persons would give a good spread of case studies for exploration in this thesis. The selection of places with populations above this figure will allow a meaningful sample size of businesses to be taken, which will show meaningful and identifiable trends over the course of the nineteenth century. If smaller settlements were selected the number of businesses in, say Compton-Beauchamp in North West Berkshire, with a population of 156, would be likely to return only a small number of businesses from which meaningful trends would be difficult to observe.¹⁰⁵ The adoption of a minimum population level will also restrict the sample to a manageable size whilst still resulting in a representative selection of eight towns for use as historical case studies. These eight places are among the twelve major settlements in Berkshire listed by William Mavor in his 1809 report.¹⁰⁶

The eight towns give a broad cross section of towns across the whole of the County of Berkshire from Maidenhead in the east, to Newbury in the west, Wokingham in the south to Abingdon in the north of the county. The selection includes both county towns (Abingdon and Reading), the historically important Saxon town of Wallingford, the market towns of Maidenhead, Wokingham and Newbury (the second largest town in the county), Wantage, and the Royal residence, Windsor.

These places will give a broad cross section of economic sectors due to the level of population and resultant economic activity likely to be present in each, and will also provide a sample of every type of railway connection experienced by the towns of Berkshire. By this method conclusions may be

¹⁰⁵ *Census of Great Britain, 1831, Comparative account of the population of Great Britain in the years 1801, 1811, 1821 and 1831; with the annual value of real property in the year 1815: also, a statement of progress in the inquiry regarding the occupations of families and persons, and the duration of life, as required by the Population Act of 1830. BPP 1831 XVIII (348) pp.24-28*

¹⁰⁶ William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement*, (London, 1809), 15.

made as to how the railways impacted upon manufacturing (if they did), and whether the experience was different between the towns selected, and the businesses operating within the various business sectors therein.

An additional benefit of selecting towns located within a single county, can be found in looking for evidence for trade between them which if present, may suggest that there was still an element of localised industrial trade occurring between neighbouring towns where a company in one location was unable to provide expertise in manufacturing materials or parts, or where perhaps, the excess capacity of another company could be taken advantage of through the sub-contracting of work when required to meet the demands of full order books. Evidence of localised supply chains would also serve to suggest that perhaps the case of the impact of railways is more nuanced than it would seem from an initial high-level study, or a national study which has not considered the impact of localisation of supply. It may also suggest, if evidence of local business trading relationships is present in the archive sources, that company management and owners were aware of the importance of reducing transportation costs where possible through reducing the distance involved in the supply chain in order to control, where possible, the transportation costs which needed to be accounted for in the prices of finished products or materials. The need to control logistics costs was as key an element of the manufacturing and retail sectors in the nineteenth century as it is today in the twenty-first century. Where a local supplier in Reading could supply parts, materials or expertise to a manufacturer or retailer in, say Newbury, the cost per unit of transporting those products may be considerably cheaper than if the same item were sourced from Sheffield. The surviving business records, such as account books, purchase ledgers and so forth which survive in the Berkshire Records Office should provide a useful source for potential local business relationships, even though the surviving records are incomplete.

The Case Study Towns and the Railways

The eight towns had mixed experiences of railway building. The Great Western Railway's main route through the county was built to a high standard, provided with double track, later expanded to four tracks after the railway company exchanged Brunel's original broad-gauge for Stephenson's standard gauge, traffic increased and more high-speed express services were provided by the company. Brunel's broad-gauge and the infrastructure which followed it were designed to facilitate the running of trains at speed and thus the route can be categorised as a trunk line.¹⁰⁷ Reading (opened 1840) was served by the Great Western Railway's trunk line to Bristol, later becoming a major junction on the Great Western Railway's routes to Bristol, Exeter and the West Country, South Wales, and (via a junction at Didcot), Oxford, and Birmingham as those lines were opened.¹⁰⁸

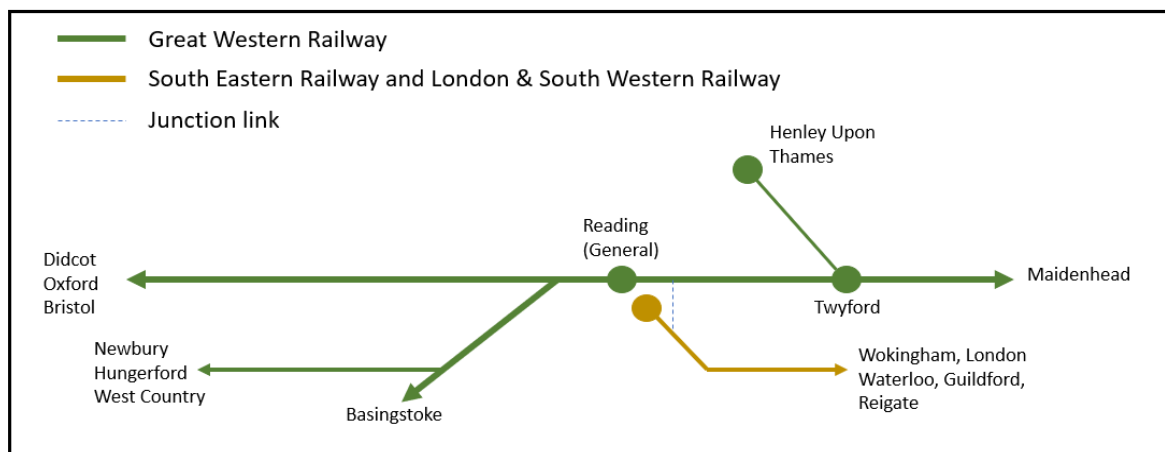


Figure 4: The railways around Reading

Reading was served by a second railway company when the Reading, Guildford and Reigate Railway (RG&RR) opened to a separate station from the Great Western's in 1849, later joined by the Staines, Wokingham and Woking Junction Railway's (SW&WJR) extension from the London and South Western Railway's line from Waterloo, joining the RG&RR through a junction at Wokingham.¹⁰⁹ The

¹⁰⁷ Maggs, Colin, *A History of the Great Western Railway* (Stroud, 2nd Edn. 2015), 22-26.

¹⁰⁸ Adam Sowen, *All Change at Reading: The Railway and the Station 1840-2013* (Reading, 2013), 13-15; Alan Jowett and David Shepherd, *Jowett's Railway Atlas of Great Britain and Ireland: From pre-Grouping to the present day* (London, 1989), map 116; Reading, Berkshire Record Office, Q/RUM8, Plan and Section of the Proposed Railway from Oxford to join the Intended Great Western Railway and to be called the Oxford and Great Western Union Railway with the proposed Branch Railway thereout to Abingdon: 1836.

¹⁰⁹ Adrian Gray, *South Eastern Railway* (Midhurst, 1990), 181

RG&RR was initially operated by the South-Eastern Railway (SER), and purchased outright in 1852, whilst the SW&WJR was initially operated by the London and South Western Railway (LSWR) and absorbed into the South Western in 1878. The company's lines into Reading were both provided with double track (the Staines line operated by the LSWR between Wokingham and Reading under running rights from the South Eastern) but were intended for less intensive traffic, but with a mix of faster and stopping local trains both routes can be classified as primary routes.¹¹⁰

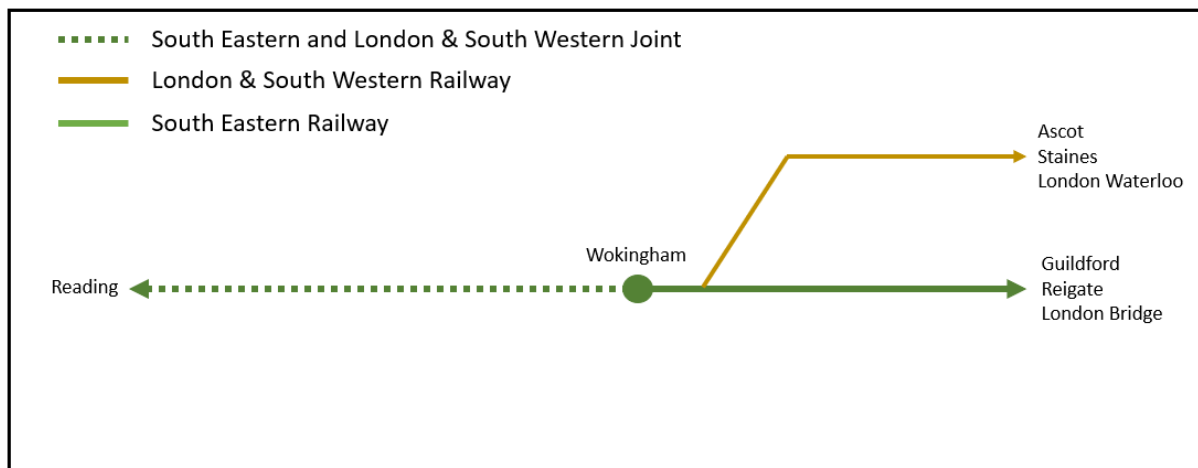


Figure 5: The railways around Wokingham

At Reading, a junction link to the Great Western was not initially provided due to the incompatible track gauges used by the two railways and political differences which existed between the two railways.¹¹¹ The lack of connection was later resolved through a mixed gauge link and a standard gauge link after the GWR had abandoned the broad-gauge. Reading was thus not only an important junction in the Great Western Railway's network, but was also served by three separate competing railway companies.

¹¹⁰ Adrian Gray, *South Eastern Railway* (Midhurst, 1990), 181-183; White, H.P., *A Regional History of the Railways of Great Britain Volume 2: Southern England*, (Nairn, 5th Edn. 1992), 127, 132.

¹¹¹ The Great Western Railway had adopted Brunel's 7' 0 ¼" gauge whilst the Reading, Guildford and Reigate Railway had been constructed to Stephenson's 'standard' 4' 8 ½" gauge.

Newbury station opened in 1847 as part of the Great Western Railway's extension westwards to Hungerford, later part of the trunk line to Taunton and Exeter.¹¹² Initially promoted by the Great Western, as the nominally independent Berks & Hants Railway, the line was provided with double track throughout and was intended for high levels of traffic, initially only as far as Newbury and Hungerford. Intended as a secondary route, the line was upgraded to trunk status when the western extension lines toward Taunton and Exeter and on to Cornwall were completed.¹¹³

In 1882, the Great Western Railway was joined at Newbury by the Didcot to Newbury section of the Newbury, Didcot and Southampton Junction Railway. The southern part of the line from Newbury to Winchester and on to Southampton through a joint running agreement with the LSWR opened in 1885, and completed an important north-south link, and a direct link to Southampton port to compete with the London and South Western Railway's main line from Basingstoke.¹¹⁴ Built to lighter standards than the GWR and LSWR's trunk routes the line was provided with single track for much of its length, remaining a secondary but potentially useful north to south route until its closure in 1966.¹¹⁵ The final addition to Newbury's railway network was added when the Lambourn Valley Railway branch opened in 1898, Newbury being the southern terminus of the line.¹¹⁶

¹¹² Stanley C. Jenkins and Martin Loader, *Berks and Hants Line Through Time*, (Stroud, 2013), 6, 26.

¹¹³ White, 133; Robertson, 9; Rex Christiansen, *A Regional History of the Railways of Great Britain, Volume 13: Thames & Severn* (Newton Abbot, 1981), 161.

¹¹⁴ Kevin Robertson, *The Didcot, Newbury & Southampton Railway: a new history 1882-1966* (Southampton, 2014), 13, 21.

¹¹⁵ Robertson, 322.

¹¹⁶ Maggs, *Branch Lines of Berkshire*, 107.

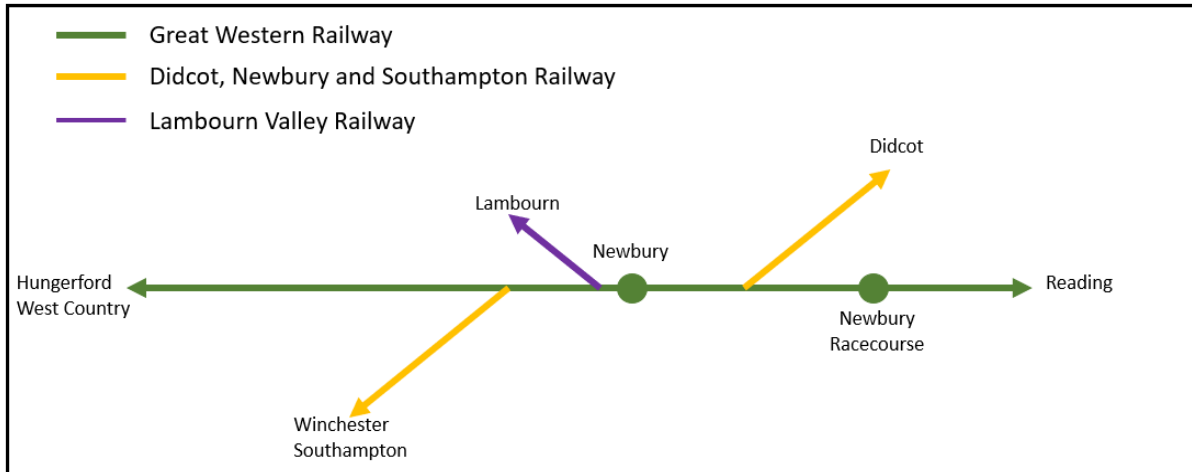


Figure 6: The railways around Newbury

Newbury, like Maidenhead, almost became the junction for another proposed but unbuilt line to join the Great Western Railway's line at Pangbourne west of Reading, shortening the circuitous route to Birmingham and South Wales via Reading.¹¹⁷

The town of Maidenhead was served by the Great Western's trunk route to Bristol from the beginning but also served as the southern terminus of the Wycombe Railway. Maidenhead was similar to Newbury in being a junction albeit on a more modest scale. The Wycombe Railway branch left the Great Western main line at Wycombe Junction, two miles from the site of the first Maidenhead station at the Dumb Bell Bridge over the Bath Road, which was replaced by a station in the current location which was opened in 1871, and from which the Wycombe branch curved directly away from the platform end.¹¹⁸ The route from Maidenhead to High Wycombe via Bourne End in Buckinghamshire was provided with single track throughout, and whilst built as a through route linking the Great Western Bristol line with the Great Western's line to Birmingham Snow Hill (later shared for part of its length jointly with the Great Central Railway line into London Marylebone on the latter's London Extension), it was only ever intended for light use as a through route, most

¹¹⁷ Reading, Berkshire Record Office, Q/RUm10, Plan of a Proposed Railway from Newbury to Join the Great Western Railway near Pangbourne: 1835.

¹¹⁸ Colin G. Maggs, *The Branch Lines of Berkshire*, (Chalford, 2nd Edn. 2011), 24.

train services provided terminating at High Wycombe and Maidenhead at either end of the journey, and thus operated as a branch with occasional through services.¹¹⁹

Maidenhead almost became a more important junction to rival Reading, with the proposal to construct a direct line to Guildford, which was, however, blocked by the Great Western Railway.¹²⁰

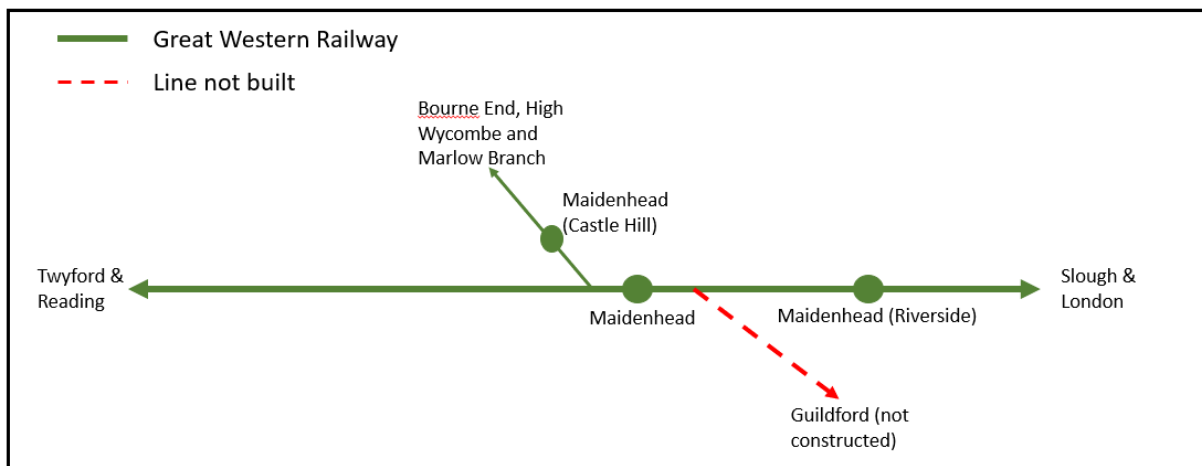


Figure 7: The railways around Maidenhead

Windsor was served by two unconnected lines, the Great Western branch from Slough and the London and South Western's secondary route from Staines, both of which opened in 1849.¹²¹ The LSWR line to Windsor from Staines was provided with double track throughout but intended for only intermediate levels of traffic and mainly provided with slower stopping services and can therefore also be classified as a Secondary route, however the Great Western Railway's line from Slough to Windsor, whilst provided with double track for the short distance between the two points, was only intended for very light slow traffic, and can be viewed as an exception to the rule and can be best classified as a branch.¹²²

¹¹⁹ Christiansen, 148.

¹²⁰ London, The National Archives, RAIL 1057/2995 Circular re proposed railway, request for support refused by Great Western Railway, 1878.

¹²¹ Jowett, map.116; Maggs, 7.

¹²² Christiansen, 28.

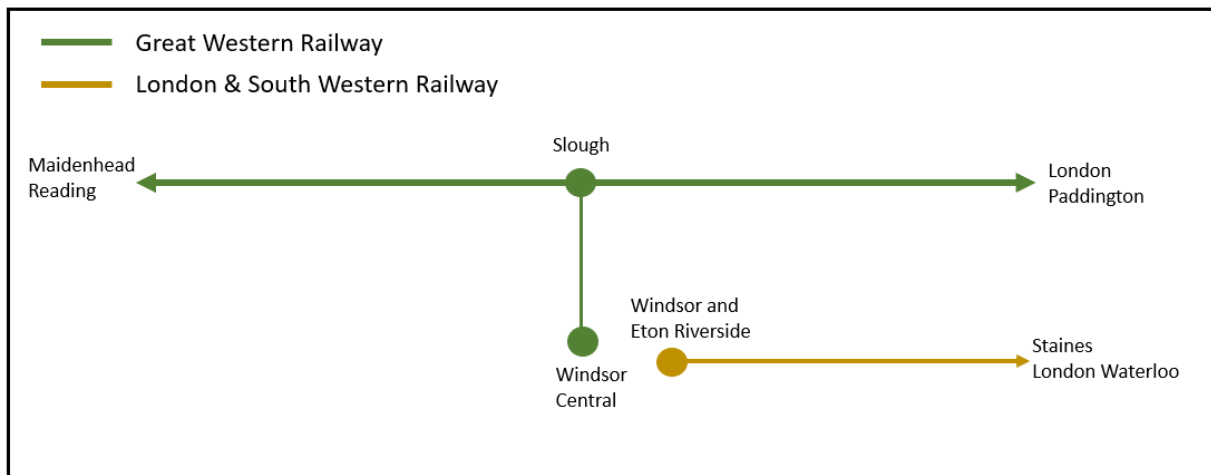


Figure 8: The railways around Windsor

Wallingford and Abingdon were similar in that neither were served by the main trunk routes of the railway companies which passed through Berkshire, both being provided with terminuses at the end of branch lines much later in the nineteenth century, after initially being by-passed by the Great Western Railway. In the case of Abingdon, the early Great Western Railway plans would have provided a direct line through Abingdon on the Didcot to Oxford route.¹²³ Due to local opposition the Great Western resurveyed their route to avoid the town, and intended to provide a short branch line from Radley on the diverted route instead.¹²⁴ The branch line plan did not come to fruition due to further opposition from the local council and the local MP, Mr. Duffield, however a realisation that the town was being impacted by the lack of a rail link led to the passing of the Abingdon Railway Act in 1855, the resulting railway company remaining nominally independent of the Great Western Railway with which the company had an operating agreement until 1904.¹²⁵

¹²³ Reading, Berkshire Record Office, Q/RUm12, Plan and Section of the Proposed Railway from Oxford by way of Abingdon to join the intended Great Western Railway and to be called the Oxford and Great Western Union Railway: 1836; Reading

¹²⁴ Reading, Berkshire Record Office, Q/RUm8, Plan and Section of the Proposed Railway from Oxford to join the intended Great Western Railway and to be called the Oxford and Great Western Union Railway with the proposed Branch Railway thereout to Abingdon: 1836.

¹²⁵ London, The National Archives, RAIL 5/3, Agreement between the Great Western Railway Company and Abingdon Railway Company for working of the Abingdon Railway: April 1860; London, The National Archives, RAIL 1110/3, Reports and Accounts: Railway Companies: Abingdon Railway: 1879-1904.

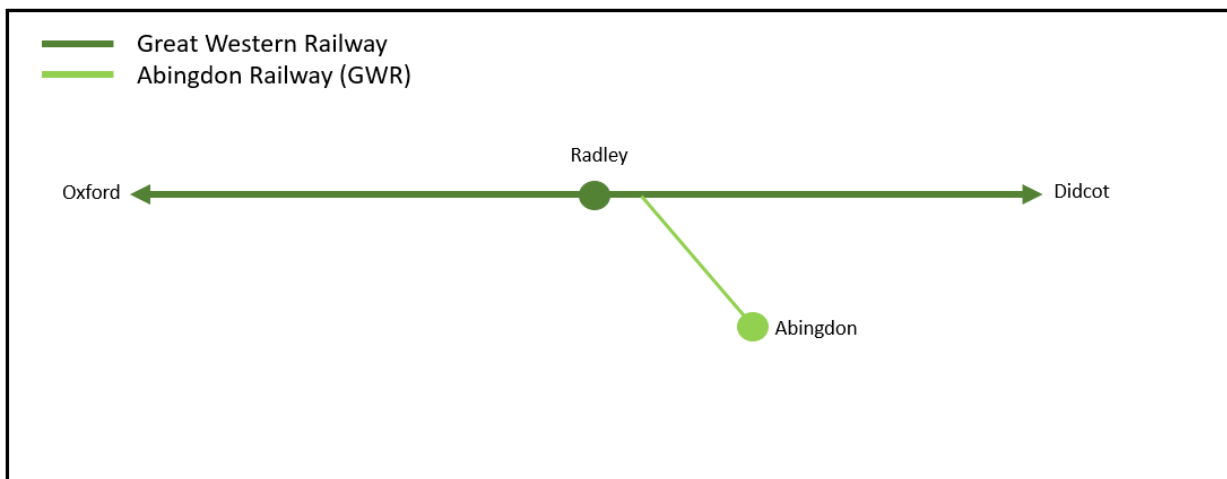


Figure 9: The Abingdon branch

Wallingford was bypassed by the Great Western Railway, being served by the remote Wallingford Road station, situated three miles from the town it purported to serve.¹²⁶ The inconveniences that this arrangement caused the town convinced the people of Wallingford that a line linking the Great Western's station to the town itself would be beneficial. An ambitious scheme to link the town via a through route from Wallingford Road to Watlington and onwards to join the Wycombe Railway at Princes Risborough did not come to fruition despite the authorisation of the Wallingford and Watlington Railway Act in 1864, the line opening only as far as Wallingford in 1866.¹²⁷

The Wallingford and Abingdon lines as completed, were both single track branches linking the respective termini with the main Great Western Railway at their corresponding junctions, despite earlier intentions to build secondary through routes, both lines were constructed as branches to their town termini only.¹²⁸

¹²⁶ Paul Karau and Chris Turner, *The Wallingford Branch* (Upper Bucklebury, 1982), 3.

¹²⁷ Paul Karau and Chris Turner, *The Wallingford Branch* (Upper Bucklebury, 1982), 3, 7; Reading, Berkshire Records Office, Reading, Berkshire Records Office, Q/RUM112/1-2, Wallingford Railway or Tramroad, 1863; Reading, Berkshire Records Office.

¹²⁸ Christiansen, 29-30, 148; Q/RUM113, Wallingford and Watlington Railway, 1863.

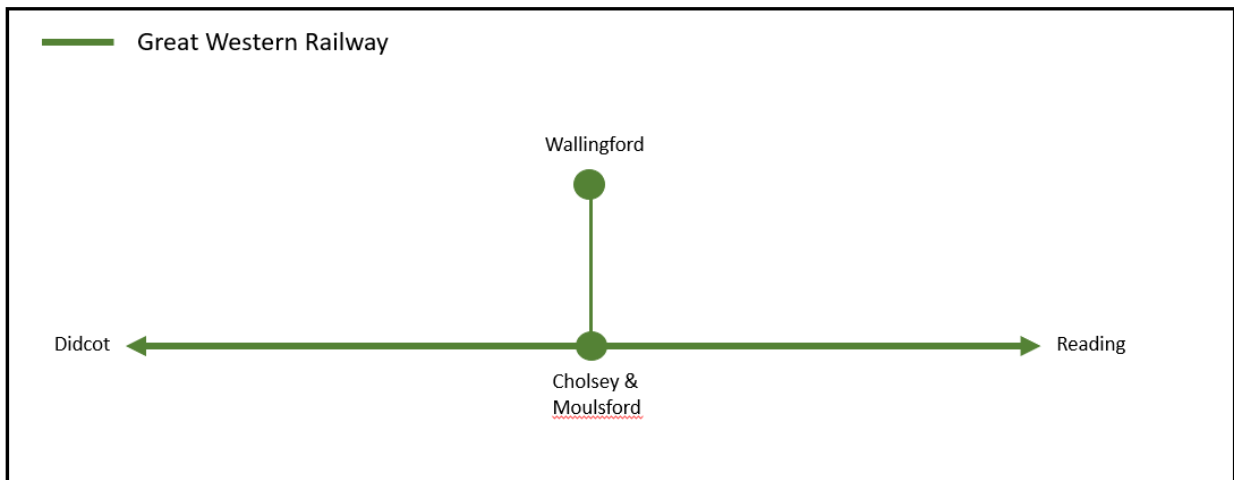


Figure 10: The Wallingford branch

The town of Wantage was also bypassed by the Great Western Railway, but unlike Wallingford it was never served by a branch line operated by the company, instead, the town benefitted from the passing of the Tramways Act in 1870, the Wantage Tramway opening from Wantage Road station on the Great Western's main line in 1875.¹²⁹

This line, as the name suggests, was constructed under the definition of The Tramways Act.¹³⁰ The tramway whilst wholly independent acted as carriage agent for the Great Western Railway and was restricted in the charges it was allowed to levy on its customers as well as having to state that it was the GWR's agent on its buildings and vehicles.¹³¹ Including Wantage in the research serves to the study of how the railways affected economic development in Berkshire in a town which was not directly served by the railways initially, and then only received a link through a locally promoted light tramway. The tramway in turn serves as a useful example of how the railway companies themselves

¹²⁹ Jowett, map.114; Maggs, 87.

¹³⁰ Reading Berkshire Records Office, D/WT28/1, Wantage Tramway Company (Limited). House of Commons RETURN OF STREET AND ROAD TRAMWAYS shewing the amount of Capital authorised, raised, and expended, the Length of Tramway authorised, and the Length Open for the Public Conveyance of Passengers, down to the 30th June 1876. 14th July 1876.

¹³¹ Reading Berkshire Records Office, D/WT27/6/3, Memorandum of Cartage Agents Agreement. The Great Western Railway and Wantage Tramway Company (Limited). 9th May 1876.

directly impacted upon the development of certain sectors through direct influence and interference in the operations of an independent company.

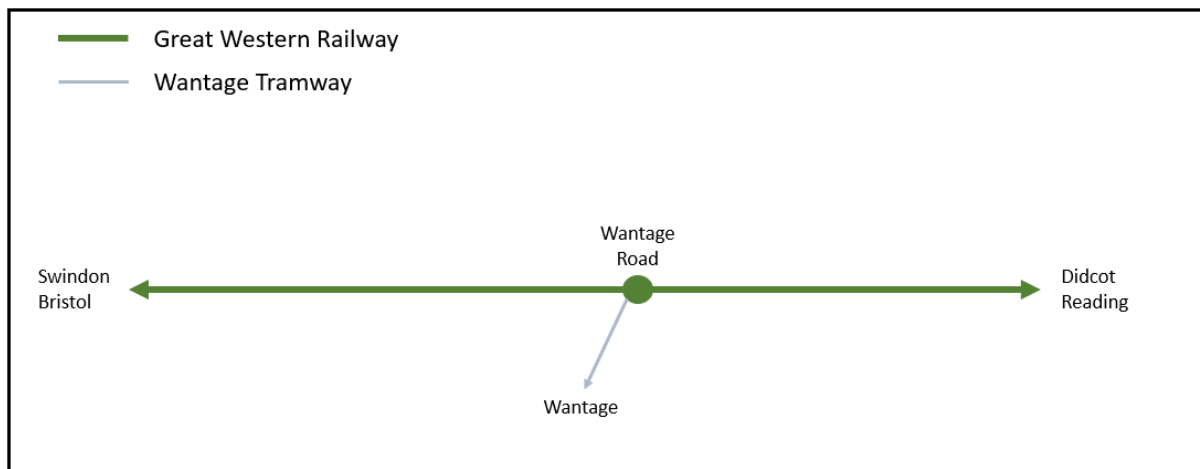


Figure 11: The Wantage Tramway

These eight towns and their varying types of rail links, provide varying population sizes in 1831; from Wokingham's five thousand, three hundred and one people to Reading's sixteen thousand and forty-two. Each was served, eventually, by a railway connection at some point before the end of the nineteenth century and the towns show a variation in the type of connections possible. Reading was probably best served by being not only one of the Great Western Railway's main junctions, but also the terminus of the South Eastern and London and South Western Railway's routes into Berkshire. Maidenhead and Wokingham were both junctions, although the former was served only by the Great Western Railway following the Wycombe Railway's absorption into the larger company, whilst Wokingham benefitted from two railway companies until the grouping of 1923. Newbury was also similar to Wokingham in that it was served by two railway companies, although in Newbury's case it benefitted from a north-south link giving direct access to one of Great Britain's major ports at Southampton. Newbury was also similar to Maidenhead in so far as both could have been junctions with cut-off routes had either of the proposed lines been completed.

Windsor, Wallingford and Abingdon gained connection to the rail network at different times, Windsor being the best served of the three being served, through separate terminuses, by the Great Western's branch from Slough, and the London and South Western's secondary route from London. Finally, Wantage completes the collection of case studies, with a very different connection, a tramway.

The eight selected case study towns exhibit various types of connection encompassing all types of rail connection from tramway to trunk line and all gained their connections at different times which enables a balanced study of how the railway impacted Berkshire's economic development between 1830 and 1900 to be achieved.

The Survey of Economic Development in Berkshire

In order to establish how the railways impacted upon the economic development of the county of Berkshire, and what nature that impact took, an analysis of the business landscape in the county is necessary. This study will provide data upon which a systematic investigation of the railways' impact in different locations across the county may be achieved.

The statistical data has been assembled through a detailed study of the commercial directories relating to the county of Berkshire and its businesses between 1830 and 1900. The number of businesses of each type has been extracted for a series of years throughout the period presenting trends in the changes, or otherwise, that occurred over the period being examined. In order to provide a measure of both business size and probable growth or otherwise within those businesses, the occupation statistics for the county enumerated in the censuses taken between 1851 and 1901 have also been analysed.

In order to produce a consistent data set from which a legitimate statistical analysis can be performed, some degree of arbitrary classification has been required in order to be able to compare like businesses. This classification has involved the placement of various businesses into groups

regardless of how they were classified by the publishers of the Victorian directories, and also to avoid complications created by how businesses wished to be classified in order to promote their products to their potential customers during the period.

In order to provide consistency each business has been classified according to the comprehensive system used in Pigot's 1830 Directory to avoid the inconsistencies between directories as discussed below.¹³²

The statistics for enterprises within each case study have been examined, through graphical analysis, to establish whether there are trends which become visible during the period across various types of business. The trends have also been tested to establish if change varied in similar types of business or between local manufacturing of a type of product (for example footwear) and the services which followed (for example shoe repairers) in order to establish if economic change was more nuanced than the historiography typically indicates. The statistics have been further tested against the first opening dates of railways in each location, and also with the arrival of further lines or extensions over the time period. The trends in the business statistics have been analysed to establish whether there are unexpected changes in their trajectory at the time of major railway activity. Where the trend does not follow a continuation of the path that it was following prior to that date, those changes have been compared to the experience in other sectors and also to other places and events (for example naval rearmament in the late nineteenth century or the development of new technologies which may have changed an indigenous industry) to establish the potential reasons for change and whether the change can be purely attributed to the arrival of the first or subsequent railways in that place or whether there was possibly a more complex reason for the economic or sectoral changes observed in the data.

¹³² Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830).

The study of commercial directories and a comparison of the resulting business statistics to the opening or extensions of the various railway companies coupled with some individual company case studies has provided a useful analysis from which conclusions may be drawn to possibly illustrate how the railways may have impacted upon economic change in Berkshire and how this appears to have varied across the county. The data has also been used to suggest whether a town which did not have a direct connection to a trunk or secondary line, but required a later branch line to link it to the national rail network had a different experience of economic change due to its more remote and less frequent connection.

In order to establish the likely relative sizes of businesses listed in the commercial directories reference has been made to the occupation returns from the Censuses between 1851 to 1901. The census prior to 1851 did not enumerate the occupations of the citizens of Britain prior to 1851 unfortunately so some allowance for the lack of data has been made, although reference to town maps cross-referenced to the addresses listed for businesses in the commercial directories has allowed for an estimate of the size of the business to be made related to the footprint of the property used by that business at that time. Reference has also been made to published company histories such as Corley's history of Huntley and Palmer in Reading which provide more detailed accounts of the situation of the company over time, and also any important change that may have occurred.¹³³ This allows a comparison between workers involved in occupations related to certain processes or professions, who are likely to have been employed by different sectors, which in turn allows for a reliable assessment of the size of businesses and thus whether growth or contraction was occurring. When this analysis is coupled with an assessment of surviving business records a clearer picture emerges from which likely conclusions may be drawn.

¹³³ T.A.B. Corley, *Huntley & Palmers of Reading: 1822-1972* (London, 1972).

Strengths and Weaknesses of the Methodology

The commercial directories relating to Berkshire for the period between 1830 and 1900, at first seem to offer a broad range of business statistics upon which a study of the economic development of the county may be based. The methodology provides a set of statistics upon which an analysis of the impact of the railways upon each of the selected towns may be reliably performed. Its main strength is in the use of contemporary commercial directories which provide a comprehensive listing of all businesses within each town categorised by business type. This will support both a general overview of the number of businesses in each place and a granular analysis of the numbers of each type of business present over time.

There are, however, potential problems with the directories that need to be addressed when used in this way. Gareth Shaw has written on the challenges implicit in the use of the commercial directory as a source if used alone. Shaw suggested that the use of directories has had a 'chequered history' both in their original creation and their use subsequently by historians, where the doubt about the completeness of a directory has pushed historians towards the use of census data alone, something which was explored in the literature review in chapter 2. Shaw explains, however, that there were a variety of types of directory which were produced with different aims which the research for this thesis confirmed.¹³⁴ The use of relevant types of directories, carefully selected, as suggested by Shaw, to give the best representation of the commercial landscape of the county, provided a good foundation, when coupled with the use of other sources, to build a picture of the economy of Berkshire in the nineteenth century.

The research methodology adopted for this thesis, is identical to that used by Lucy Newton in her thesis which looked at the Sheffield Banking Industry through a combination of directories, census returns and business archives. The research plan seeks to mitigate the potential issues inherent in

¹³⁴ Gareth Shaw, *Directories as Sources in Urban History: A Review of British and Canadian Material*, *Urban History*, 11 (1984), 36.

the use of commercial directories through an appreciation of the weaknesses of the source as well as its strengths.¹³⁵ The use of multiple types of source when combined avoids many of the potential pitfalls of using just a single source, as pointed out by Shaw. A number of hazards to the acceptance of the commercial directory as representative of the whole situation were noted and accounted for.

The surviving directories do not provide comprehensive coverage of every year in the period covered by this study, some years not being covered by a surviving source. However, this can be mitigated through the use of defined blocks of time, where the directories do survive and are accessible. The availability of source materials has driven a selection of approximately ten-yearly time blocks for the statistics, directories being available for those years.¹³⁶ There are benefits to the adoption of this mitigated approach as regular time blocks remove any annual fluctuation which may be caused by short term influences such as a poor harvest, weather influences upon canals or non-metalled roads, short term political and financial influences, or sudden population changes due for example to a Cholera outbreak, all of which may artificially skew the results and give a false interpretation of the data.

A second potential issue that may be found is in the way in which the publishers had constructed the listings in the directories, for example the classifications used by Kelly's varied from those used by Rusher's or Webster's.¹³⁷ In order to provide consistency in the data and to mitigate any potential issues, a standard approach to classification of businesses is vitally important, otherwise the statistics would be meaningless for an analysis of the impact of the railways on economic development and whether it varied between place or sector. In order to provide a reliable control

¹³⁵ Lucy Newton, 'The Finance of Manufacturing Industry in the Sheffield Area c.1850-1885', PhD Thesis, University of Leicester, 1993.

¹³⁶ Due to the nature of the available sources some time blocks may be slightly longer or shorter but within a small variance from the ten years.

¹³⁷ Reading, Reading Central Library, Rusher's Reading Guide: 1843 (Reading, 1843); Reading, Reading Central Library, Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873); University of Leicester Special Collections Online, Historical Directories of England & Wales, *Kelly's Berkshire Directory, 1848*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/261523/rec/4>, (Accessed 2nd June 2021).

check, the Standard Industrial Classification of Economic Activities codes used by the UK Government and Companies House and which have been in force since 2018 have been used to cross-reference when the directories are inconsistent with one and another, allowing the outlying classifications to be placed more consistently into a standard set of classifications to be used for this thesis.¹³⁸ Each business has been classified into a grouping which relates to the type of business the company was most actively involved in where the directory references a less reliable classification. For example, under this scheme of classification any company stated as being a boot manufacturer, shoe manufacturer or footwear manufacturer has been included in a single grouping for manufacturers of footwear (SIC Code 15200), whereas shops or warehouses selling shoes and boots have been classified as shoe retailers (SIC Code 47721), and small artisan footwear makers and repairers have been classified as cobblers in the study. Through the use of a standard set of cross-checked classifications any potential weaknesses in the statistics will be minimised.

The resulting raw statistics from the study are provided in the appendices relating to each case study. (Appendices 5.1 to 5.8).

A third issue is that the directories do not provide any evidence of the size of each business in respect to the number of employees, or turnover. The lack of granular company detail in the directories may provide false impressions of the situation where one company had grown to dominate the local economy at the expense of other small companies which may have been absorbed through acquisition or which had ceased to trade. The potential issue may be clearly observed within the town of Reading where the directory statistics suggest, at first glance, that there had been a contraction in the number of confectionary manufacturers in the town, and that only one single entity survived by the middle of the Century. The statistics present a false picture if used alone, as the single company indicated is Huntley and Palmer who by the later nineteenth century

¹³⁸ UK Government, *Nature of Business: Standard Industrial Classification (SIC) Codes*, [Website], <http://resources.companieshouse.gov.uk/sic/>, (Accessed 24 June 2020).

had grown to become one of Britain's major biscuit and confectionary manufacturers employing many people. The weakness evident in a study that purely relied upon commercial directory related research has been addressed through complimentary research using other primary sources such as Ordnance Survey maps, Goad insurance maps, and surviving business records in order to add context to the statistics. Whilst an in-depth business history is both outside the scope of this study and not achievable for many businesses due to the lack of surviving company records, those that do survive can provide useful insights into the relationship various companies had to the railways. For example, the sales order book for Plenty and Sons (Limited) of Newbury states against a number of orders that the finished product should be delivered to Newbury railway station and carriage to be paid to the customer's nominated delivery point.¹³⁹

A fourth potential issue may be seen in the use of language in the classifications used in the directories, that whilst understandable to the Victorian, are less meaningful in the twenty-first century and for which allowances must be made. An example of this can be found in the way retailers were often classified as 'warehouses', or the use of terminology no longer used.¹⁴⁰ In order to provide consistency with the sources the original terminology has been used in the statistics, but where necessary an explanation of the modern terminology relating to the Victorian has been provided in the appendices in order to mitigate any potential misunderstanding.

A related issue can be found within the directories where a company has elected to be listed within more than one business category, which may appear to artificially elevate the statistics, however, these businesses were found to continue to be listed consistently in this way across multiple

¹³⁹ Reading, Berkshire Records Office, D/EX1739/7/1/1, Records of Plenty & Son, Engineers of Newbury, Production Records, Engine and Boiler Order Book for Order Numbers 601-788 and 1189-1755 [Numbers 789-1188 were not used], 1882-1901. For example, order numbers 653 (Delivered at Newbury Station, carriage paid to Birkenhead), 655 (Delivered at Newbury Station), 656 (Delivered carriage paid to Gosport Station), 672 (Deliver to Newbury Station, carriage to be paid to Plymouth) all indicate that the company was taking advantage of the rail freight services offered from Newbury Railway Station.

¹⁴⁰ Smith's 1895 directory lists pram retailers as 'Perambulator Warehouses' and also lists 'Gutta-percha Merchants' a term referring to latex products which is no longer commonly used. Reading, Reading Central Library, Smiths Directory of Reading, 1895, 342, 324.

directories and years resulting in data that remained consistent. The small artificial increase in total business numbers for a town is not an issue for this study as the analysis of the data is concerned with the types of business being undertaken and the trends over time, rather than the absolute business numbers. It is also useful that one company has been listed against the services offered rather than just as a single business as this serves to illustrate how businesses evolved their offering over the time period, from which a useful statistical picture may be built.¹⁴¹

These issues can be mitigated through the use of the occupational census returns, which allow for an assessment of business size to be made, and also provides a clearer picture where business numbers change. If, for example, the number of businesses involved in the manufacture of widgets were to decrease in Reading from ten in 1851 to 2 in 1881, at first glance it would appear that considerable contraction is occurring, however, if at the same time the number of widget makers increases from thirty in 1851 (an average of three widget makers per company) to two hundred in 1881 (an average of one hundred widget makers), this actually provides a clear indication that considerable growth had occurred in relation to the two listed companies in the 1881 directory and that the other eight businesses have failed or been taken over by the surviving concerns. Reference to business records, the Goad insurance maps, and other sources should provide further detail related to these companies which will assist in the drawing of conclusions, based upon a logical assessment of the most likely situation over time.

The census occupation statistics are not without issues, and some careful consideration of how people were classified is required. With any set of statistics where group classifications are used, the actual occupation of an individual is not clear, however an understanding of manufacturing process, skill sets and material use allows for a reasonable assessment to be made of how each occupation

¹⁴¹ Smith's 1895 Reading directory lists Edward Margrett Engineers under Engineers and Brass Founders, Hydraulic Engineers and Sanitary Engineers, which serves to provide more evidence regarding the kinds of services offered and thus useful for a trend study of the town. Reading, Reading Central Library, Smith's Reading Directory, 1895 (Reading 1895), 315.

may relate to a business. The occupation statistics in the census are in some case quite clear, for example classification of 'blacksmith' or 'railway porter', where others are vaguer, for example 'general labourer' however with a study and understanding of manufacturing process the situation becomes much clearer and the data can thus provide a valuable insight into change over time.

The census of 1871 causes an issue unique to that year within the occupation statistics. The 1871 census for England and Wales does not enumerate the detailed occupation statistics that may be found in the other censuses produced between 1851 and 1901. The enumeration of the census provided occupation statistics at summary level only, whereas the other censuses for the period provide detailed analysis of occupation roles, for example, baker or railway porter.¹⁴²

The census of 1871 adopts a different approach for reasons which are not explained in the introduction to the census.¹⁴³ This apparent change in the methods used to provide occupational statistics is also not explained in the General Report for the census.¹⁴⁴ Whilst no detail is presented at town and occupation level, the census does provided statistics for the detailed occupations at county level, which is still useful for the thesis.¹⁴⁵ Town based statistics are provided but only at

¹⁴² University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

¹⁴³ Histpop.org., *Census of England and Wales, 1871, Preliminary report, and tables of the population and the houses enumerated in England and Wales, and in the Islands in the British Seas on 3rd April 1871 BPP 1871 LIX [C.381]* I [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%201871&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=43&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=5&zoom=4> (accessed 22nd June 2022).

¹⁴⁴ Histpop.org., *Census of England and Wales, 1871, Preliminary report, and tables of the population and the houses enumerated in England and Wales, and in the Islands in the British Seas on 3rd April 1871 BPP 1871 LIX [C.381]* viii [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%201871&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=43&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=12&zoom=4> (accessed 22nd June 2022).

¹⁴⁵ Histpop.org, *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872]* 79 [Website]
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Occupation%20AND%20Berkshire&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=17>

summary occupation grouping level.¹⁴⁶ Comparison of the summaries provided in the 1871 census to the summary level combined statistics in the other censuses can still be used to establish a general picture of change between the 1861 and 1881 censuses, although care has been exercised as the summary classifications used in the 1871 census do not precisely match those used as standards in the 1851 to 1901 censuses.

The combination of business statistics extracted from nineteenth century commercial directories, and occupation statistics from the censuses undertaken after 1851 gives a reliable basis from which to begin to examine the relationship between the Victorian railway and business. However, there is an issue with reliance purely upon a statistical approach. Even in combination the directory and

[1&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=172&zoom=4) (accessed 21st June 2022); Histpop.org., *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872] 80* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=172&zoom=5> (accessed 21st June 2022); Histpop.org., *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872] 81* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=173&zoom=5> (accessed 21st June 2022).

¹⁴⁶ Histpop.org., *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872] 86* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=178&zoom=5> (accessed 21st June 2022); Histpop.org., *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872] 87* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=179&zoom=5> (accessed 21st June 2022); Histpop.org., *Census of England and Wales, 1871, Population abstracts. Ages, civil condition, occupations, and birth-places of the people. Vol. III BPP 1873 LXXI Pt [C.872] 88* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire%20AND%20Occupation&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=50&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=180&zoom=5> (accessed 21st June 2022).

census statistics cannot provide a clear picture of why change occurred. The changes in business, agriculture, the professions and local government cannot purely be linked to the arrival of a railway. The situation cannot be linked to one event or technological change, rather the evolution of Britain during the nineteenth century is multicausal and the inter-relationship of different catalysts.

If the statistics are combined with broader research based upon surviving business records, reports, and so forth more informed conclusions may be drawn relating to separate business sectors, and also to the direct influence of the railways as a business in their own right.

Before embarking upon an analysis of the influence of the railways upon Berkshire it is first necessary to understand the commercial, agricultural and professional structure of the county before the railways arrived.

Chapter 4: Berkshire Before the Railways

In order to understand the impact which the railways may have had upon the economy of Berkshire, it is first necessary to establish the economic foundations upon which the mid to late Victorian economy of the county was based. The county of Berkshire was mainly a rural county, however there was a considerable amount of industry which had already been established in some of the county's town and alongside the rivers long before the railways reached the region.

The main land use was, according to William Mavor, related to farming in 1809. The 464,500 acres of land which formed Berkshire used for a mixture of arable, dairy and sheep farming which was well established by the time of the arrival of the railways in the county.

Type of Land Use	Acreage
Arable	255,000
Meadow and Dairy	72,000
Sheep-Walks	25,000
Dry Pasture, Parks etc.	25,000
Wasteland (Barren Heath)	30,000
Woodland	30,000
Other (Occupied by buildings, courts, road, river etc.)	30,000

Table 2: Land Use in Berkshire 1809.¹⁴⁷

Berkshire wool was an important part of the county's economy during the late eighteenth century. The wool was used by Berkshire's woollens industry until the advent of mechanisation in the wool factories of Yorkshire, particularly those in Bradford, Leeds, and Halifax during the later part of the seventeenth century. The producers of woollen goods in Berkshire had competed with textiles from the East Anglian producers, but it seems the industry was more robust around Reading and Newbury than in Norwich for example. Woollen sail cloth was still being produced in Reading for use by the Royal Navy, whilst Newbury cloth remained popular for export up until the woollen manufacturing towns of the West Riding of Yorkshire rose to prominence through the adoption of machine spinning and weaving and the eventual adoption of steam power in the factories. Norwich's worsted

¹⁴⁷ William Mavor, General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement, (London, 1809), 3.

manufacture had declined dramatically as the eighteenth century progressed, long before the mills in the West Riding of Yorkshire had significantly mechanised, and well before the advent of railways.¹⁴⁸ The Yorkshire mills, once mechanised and steam powered were able to produce cheaper products, causing the collapse of Berkshire woollen production, although this seems to have occurred later than that in East Anglia. The wool produced upon the Berkshire Downs was, however, still important after the decline of the Berkshire woollen industry. The high quality wool produced from the sheep on the Berkshire Downs was much valued by the northern textile producers and was sent to the mills in Yorkshire.

The rivers which flowed through the county provided a rich source of fish for the fishmongers of the county. Mavor stated that fishing was a common 'industry' upon the rivers Kennet, Loddon, and Thames. The fishing weirs which had been constructed on the Thames were said to be so numerous and large as to restrict the passage of traffic on the Thames Navigation.¹⁴⁹

The county had no established cities at the time of Mavor's report. The report listed the main market towns in Berkshire which consisted of twelve important settlements. The market towns of Abingdon and Reading were listed as sharing the role of county town jointly, a situation which would change during the nineteenth century and will be discussed in the case studies which follow. The other market towns which Mavor listed as important economic centres would experience mixed fortunes during the Victorian period, which will also be examined in the case studies. The towns were listed in order of importance in Mavor's report, which provides an interesting 'control' point against which to compare the impact of railways upon Berkshire's main economic centres. It seems that some places were experiencing a decline in their importance long before the Stockton and Darlington Railway began the acceleration of the construction of steam locomotive powered, longer distance railways in 1825 which would result in the creation of Britain's comprehensive rail network.

¹⁴⁸ Keith Sugden, 'Clapham Revisited: The Decline of the Norwich Worsted Industry (c.1770-1820)', *Continuity and Change*, 33 (2018), 216.

¹⁴⁹ Mavor, 38.

William Mavor's Sequence	Town
1	Abingdon*†
2	Reading*†
3	Newbury*
4	Windsor*†
5	Wallingford*†
6	Maidenhead*
7	Oakingham (Wokingham)* ¹⁵⁰
8	Faringdon
9	Hungerford
10	East Ilsley
11	Lambourn
12	Wantage

Table 3: Importance of the Market Towns of Berkshire according to William Mavor, 1809.¹⁵¹

The county had few natural resources, mainly being sited upon gravel and clay beds. Mavor's report outlined the resources with which the county had to work. The report stated that there were no minerals of any value, including a lack of local coal seams. The area around Reading consisted of deep sand beds and deep reserves of clay which, according to Mavor, was suitable for brick and tile making. Further deposits of clay were available around Shalbourne (three miles to the south-west of Hungerford partly situated in Wiltshire) suitable for pipe making, whilst clay suitable for making pottery was abundant.¹⁵²

¹⁵⁰ The town of Wokingham was referred to either as Oakingham or Wokingham until the mid-nineteenth century.

¹⁵¹ Mavor, 15. Towns marked † were parliamentary boroughs, those marked * were corporations.

¹⁵² Mavor, 32-33.

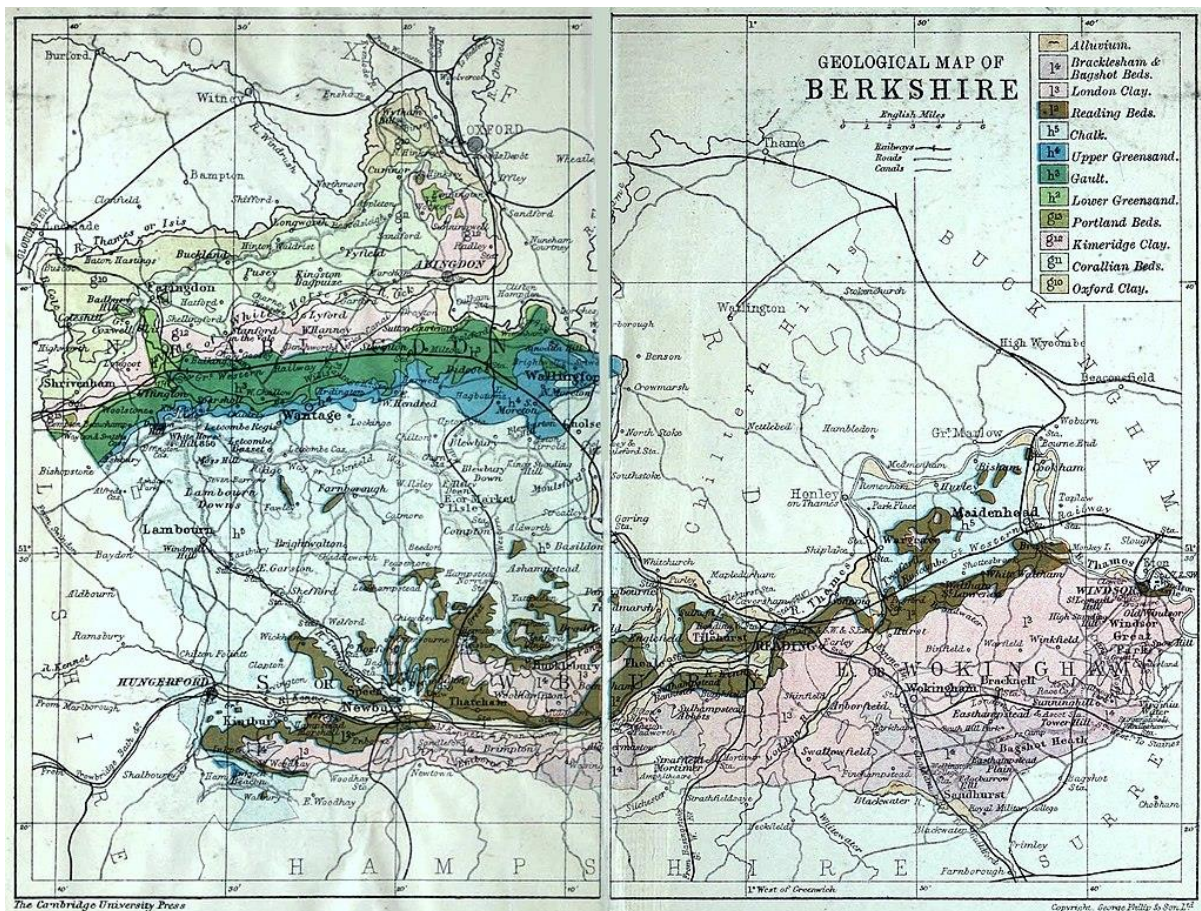


Figure 12: Geological Map of Berkshire.¹⁵³

With no local coal or ores, the county relied upon coppiced wood for fuel, often also shipping prepared wood to London through the boat services offered along the Thames.¹⁵⁴ There was thus a need for the county to import all the iron, copper and coal or coke that was needed to supported the nascent iron works, blacksmiths forges, and other industries which had formed across the county to support the needs its towns and farms. The county was provided with a network of turnpike roads and canals through which the required materials could be imported into the county, with finished products, agricultural produce such as grain, and dairy produce being exported to London and Bristol on the return trips.

¹⁵³ Wikimedia Commons, From a book by H. W. Monckton, Cambridge University Press, 1911, Public domain, via Wikimedia Commons, [Online Image]
https://commons.wikimedia.org/wiki/File:Geological_map_of_Berkshire,_1911.jpg, (accessed 25th April 2023).

¹⁵⁴ Mavor, 307.

Brunel's GWR was not the first long distance transport link to have been established in Berkshire.

The county was well served by a comprehensive canal network which served all the major towns in Berkshire. Several canals had opened by the beginning of the nineteenth century which linked the main towns to London, Bristol, Oxford and from there to Birmingham, the industrial midlands and on to the mill towns of Lancashire and Yorkshire.

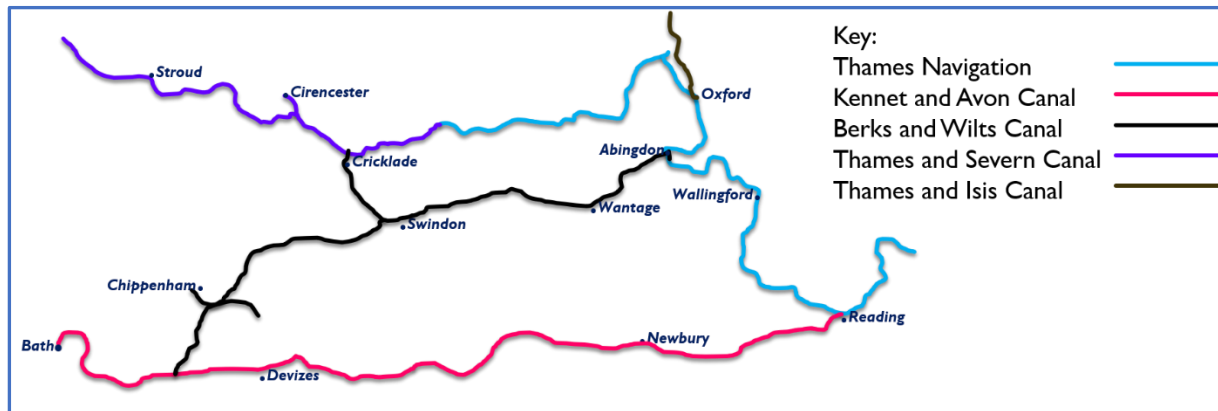


Figure 13: The Canal Network of Berkshire, c.1820.¹⁵⁵

The Thames Navigation had been used as a transport route since antiquity, linking Oxford, the Berkshire towns of Abingdon, Wallingford and Reading and London. The river had become blocked in places by sand banks, fishing weirs, and low water in places during dry periods. Two Acts of Parliament created the powers by which the Thames Navigation Commissioners, formed in 1751) would be able to resolve the issues through clearance of blockages and the construction of pound locks and weirs.¹⁵⁶ The Thames Navigation thus became an important transport highway through Berkshire both for local goods and for those from further afield.¹⁵⁷

The county would then be served by a broader network of canals which were constructed during the canal building phase of the later eighteenth and early nineteenth centuries. The first to reach

¹⁵⁵ Author's own work, 2022.

¹⁵⁶ Legislation.gov.uk, Thames (West of London) Navigation Act 1810 [Website] <https://www.legislation.gov.uk/ukla/Geo3/50/204/contents/enacted> (Accessed 25th April 2023); Legislation.gov.uk, Thames Navigation Act 1812 [Website] <https://www.legislation.gov.uk/ukla/Geo3/52/46/contents/enacted>, (accessed 27th November 2022); Stuart Oliver, 'Navigability and the improvement of the River Thames, 1605-1815', The Geographical Journal, (2010), 164.

¹⁵⁷ Oliver, 166.

Berkshire was the Thames and Severn Canal. The Thames and Severn Canal opened on 19th November 1789 with an end on junction connecting the canal to the Thames and on to Oxford, Reading and ultimately to the port of London.¹⁵⁸ The east end of Berkshire was now linked to Bristol through the latter canal, which opened access to coal from the Somerset coal fields.

The Oxford canal linked to the Thames Navigation through an unsatisfactory moving weir in 1790. The junction was improved in 1796 with the opening of the Isis pound lock which allowed the smooth transition of barges from the Thames onto the Oxford Canal without emptying the basin of water.¹⁵⁹ The Thames was now linked to Banbury and Coventry through the canal, with a junction to the Grand Junction Canal at Braunston in Northamptonshire. A flurry of canal openings completed the waterway network in Berkshire during 1810.

The Kennet Navigation had been in operation between Hungerford and Reading since 1723 but reached no further than the west Berkshire town as the Kennet was not suitable for barges after that point.¹⁶⁰ The new Kennet and Avon Canal opened throughout on 28th December 1810.¹⁶¹ The waterway then reached onwards to Bath where it joined the Avon Navigation and through that waterway reached the port at Bristol. The last addition to Berkshire's canal network would be the Berks and Wilts Canal which opened throughout on 22nd September 1810 with a branch west of Swindon connecting the waterway to the Thames and Severn canal at Cricklade.¹⁶²

¹⁵⁸ Humphrey Household, *The Thames & Severn Canal* (Newton Abbot, 1969), 69.

¹⁵⁹ Hugh J. Compton, *The Oxford Canal* (Newton Abbot, 1976), 63-64.

¹⁶⁰ Kenneth R. Clew, *The Kennet & Avon Canal* (Newton Abbot, 1968), 25; Mavor, 39.

¹⁶¹ Clew, 73.

¹⁶² Clew, 47.

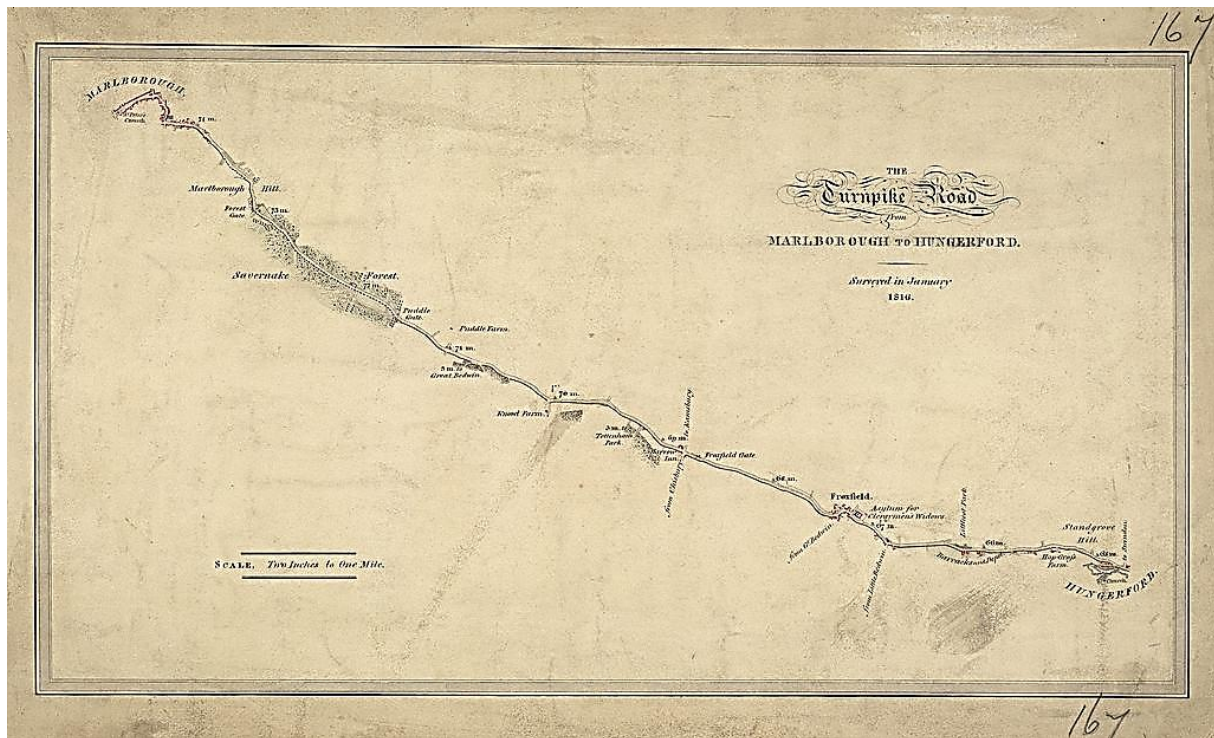


Figure 14: Ordnance Survey Drawing of the Hungerford to Wantage Turnpike Road.¹⁶³

The network of canals brought coal into Berkshire from the collieries in Gloucestershire and South Wales, via the Thames and Severn canal, and the Somerset collieries, via the Kennet and Avon and Wilts and Berks canals.¹⁶⁴ Mavor reported that ‘...no part of Berkshire is now (1809) above twelve miles...’ from a canal wharf.¹⁶⁵ It would, therefore, have been likely that the canals would have been used to transport iron and copper as well as other metals that were needed by the foundries in Berkshire as well as any other ores, fuels, machinery and so forth that could not be sourced from local companies. A limitation had been placed upon the ability of Berkshire to freely source its coal. The transport of some coals had been prohibited by statute. Newcastle coal was only transported as far as Abingdon and Wallingford, whilst coal that had been transported along the Oxford or Wilts and Berks canals was only able to be sent as far as Reading reducing the options available to some

¹⁶³ Wikimedia Commons, British Library, OGL v1.0OGL v1.0, via Wikimedia Commons, [Online Image], [https://commons.wikimedia.org/wiki/File:Ordnance_Survey_Drawings_-_Froxfield_\(OSD_167\).jpg](https://commons.wikimedia.org/wiki/File:Ordnance_Survey_Drawings_-_Froxfield_(OSD_167).jpg), (accessed 26th April 2023).

¹⁶⁴ Mavor, 420.

¹⁶⁵ Mavor, 420.

businesses and householders in other places.¹⁶⁶ The statute referred to be Mavor was aimed at protecting the collieries which worked the Somerset coal fields from the coals being shipped from the Durham and Newcastle coal fields. The Newcastle mine owners had formed a cartel and were price fixing to undercut the coal from elsewhere, however the arrival of the railways and the opening of the coal fields in Yorkshire, particularly around Barnsley and Wakefield provided competition which caused economic decline in the Durham coal fields for a short time. The canal network which served Berkshire allowed coals to be imported into the county, both from Newcastle and Somerset, although the merchants were limited were unable to send their fuel west of the county. It seems unlikely to have impacted the merchants, since local demand for domestic heating and the iron works in the county may have provided sufficient business to support the coal dealers who were operating. The legislation would, however, have impacted upon the canal barge owners who were unable to carry coal further west, although the traffic from Somerset is likely to have balanced the situation to a degree. It does not seem that any similar restrictions were ever placed upon the railways, although by the time the GWR opened its lines west of Berkshire, the Somerset coal fields were becoming worked out, and South Wales coal became available in increasing quantities.

The county was also well served by a network of turnpike roads. William Mavor described Berkshire's turnpike road network in his 1809 report as being comprehensive and in generally good repair, also stating that nowhere was more than three miles from a good turnpike road. Mavor's survey was less complimentary about the county's secondary roads which were not under the control of the turnpike trusts, and a small number of poorly maintained turnpikes in west Berkshire. He revealed a less than satisfactory network of rutted and uneven secondary roads which were insufficiently drained, missing mileposts and finger sign posts at road junctions. Some roads were

¹⁶⁶ Mavor 434.

described as little better than farm tracks in places, with rutted and damaged surfaces which were virtually impassable in winter.¹⁶⁷

The turnpike network linked London to Oxford through Maidenhead and Abingdon, with a branch of the road into Wallingford and Wantage. The latter two places would experience some economic difficulties due to being bypassed, much as they were by the main trunk railway routes, by the main turnpike road. They both benefitted from the continuation of their branch of the turnpike on to Hungerford and then onwards to the south which had brought back some road traffic supporting the coaching inns and other related businesses.¹⁶⁸ The main Bath Road from London to Bristol passed through the county, linking Maidenhead, Reading and Newbury and Hungerford. The road ran parallel to the Kennet to the west of the county, a route which Brunel's railway would later follow due to geographical constraints. Road, canal, and railway located just a stone's throw from each other as they proceeded west along the Kennet Valley.

Turnpikes linked several other places in the county. A turnpike road linked Lambourn to Newbury, later mirrored by the Lambourn branch from the GWR's Newbury station. The Oxford to Winchester and Southampton road passed through Abingdon, Steventon, East Ilsley and Newbury before heading south to Winchester. The road was to be later mirrored by another railway, the route of Didcot, Newbury and Southampton Railway following a similar route south. Pangbourne and Purley were linked to Reading through a turnpike whilst the main Oxford to Chichester road also passed through Pangbourne. A turnpike linked Reading to Basingstoke in Hampshire, the two later also being served by a railway link.¹⁶⁹

Reading and Newbury had been linked by the eponymous turnpike trust which managed to main road between the two towns, whilst Hungerford in the west of the county had been linked to

¹⁶⁷ Mavor, 422-426.

¹⁶⁸ Mavor 424.

¹⁶⁹ Mavor, 424-425. Mavor clearly did not mention the later railways in his report, focusing only upon the road network as it existed in 1809.

Marlborough by another turnpike trust's road. The Hatfield and Reading Turnpike had linked north London to Marlow, Maidenhead and Reading, with other turnpikes joining the county.

The improvement in road conditions was driven by an evolution in trade during the seventeenth and eighteenth centuries when, as Dan Bogart argues, interregional trade and travel began to increase.¹⁷⁰ The turnpikes and canals would serve to make the longer distance transport of manufactures and agricultural produce more viable.

The county of Berkshire was already developing a manufacturing base before the railways arrived in the county, supported by canal and road transport. The canals and turnpike roads were certainly not responsible alone for the development in the British economy but, much like the railways which would follow, were an important element of the economic system which propelled the evolution of British manufacturing over the course of the eighteenth and nineteenth centuries. The towns in the county seemed to have already begun to develop local specialisms in manufacturing, much as has been written about in relation to places such as Manchester, Sheffield, and Huddersfield.

Abingdon had a thriving sack manufacturing sector, which employed around three thousand people according to William Mavor. The town also produced 'biscuit bagging' for the government which was likely to have been destined for the army and Royal Navy. In 1809, Abingdon was also said to have had a large 'floor cloth manufactory' and a large brewery, although its malting trade was in decline. Manufactures were being sent to London by barge, the journey taken five days, with the return taking ten since it had to contend with the adverse current in the Thames on that leg of the trip.¹⁷¹

Hungerford had a thriving serge spinning industry but undertook little weaving, the spun threads being transported elsewhere. Leather was being produced in tanning yards in the town, although

¹⁷⁰ Dan Bogart, 'The Turnpike Roads of England and Wales', The Cambridge Group for the History of Population and Social Structure: Transport, Urbanisation and Economic Development in England and Wales c.1670-1911. <https://www.campop.geog.cam.ac.uk/research/projects/transport/onlineatlas/britishturnpiketrusts.pdf> (Accessed 26th April 2023).

¹⁷¹ Mavor, 451.

much of the town's economy was dependent upon agriculture and corn milling. The local mills, as can be seen elsewhere were situated along the river where a ready source of energy to turn the wheels was available.¹⁷²

Maidenhead's economy was based upon its corn markets, which sold corn by sample and the production malt for the breweries in London, which was transported along the Thames Navigation. The town was also producing sacking and cotton fabric, the manufacture of which was being undertaken alongside the river.¹⁷³

The town of Newbury, once a major woollen textile manufacturing centre, was no longer as important with only small manufacturers of textiles in the town. The iron foundries located in Newbury were beginning to supersede the textile industry as the town's main employers alongside paper manufacturing. The economy of the town had begun to respond to the erosion of its traditional business by the mechanised wool mills in Yorkshire, its evolution into a light engineering and paper manufacturing centre already progressing in 1809. The town was also a local centre for canal barge building, providing vessels for the canal transport companies which operated on both the Kennet and Avon and Thames waterways.¹⁷⁴

Reading, already a centre for transshipment of goods through its position on the junction of the Thames and Kennet navigations, and several turnpike roads, was also a centre of manufacturing. Iron and Coal was being traded extensively through a variety of merchants in the town, of which Blandy's company were one of the largest. Malt was being produced and exported to London in large quantities, as well as being used locally in the town's breweries. The Reading brewers consisted of five operations which Mavor described as being '...very considerable.' The largest of the five,

¹⁷² Mavor, 454.

¹⁷³ Mavor 457.

¹⁷⁴ Mavor, 458.

Messrs. Stephens, was said to produce twenty five thousand barrels of beer and porter each year, with the other four breweries producing a smaller but comparable quantity.¹⁷⁵

Corn flour produced in Reading, the Abbey Mills being particularly referenced by Mavor in his report, as well as by mills located along both the Thames and Kennet was being despatched to London regularly in large quantities.¹⁷⁶ The flour mills on the river Thames were so numerous that they had become a useful part of the transport infrastructure of the river. The weirs used by the mills to produce a head of water to power their machinery benefitted the barge traffic by increasing the depth of the channel along which they plied their trade, although the mill owners charged the barge masters for this 'service' since the passage of a barge in turn decreased the strength of the 'flash' when it transited through the weir.¹⁷⁷

Weaving was another branch of Reading's manufacturing tradition which was still successful in the early part of the nineteenth century. The production of silk and sail cloth remained a key part of the economy of the town, with one silk factory said to employing five hundred persons. The manufacture of twine and rope was also a major part of Reading's manufacturing base, with the products being exported to London.¹⁷⁸ Brick and tile making along the bank of the Thames near Reading and into the parish of Tilehurst remained a key employer and contributor to the town's economic success.

Wallingford's economy seems to have been relatively healthy at the end of the eighteenth and into the early part of the nineteenth centuries. Malt was being produced in very large quantities by seventeen malt houses located in the town, the majority of which was sent on to London. An amount was retained in Wallingford and used by Wells Brewery which was said to be the largest brewery in the county, outproducing the Reading breweries each week.¹⁷⁹

¹⁷⁵ Mavor, 465.

¹⁷⁶ Mavor, 463.

¹⁷⁷ Oliver, 166.

¹⁷⁸ Mavor, 465.

¹⁷⁹ Mavor, 466.

Windsor was also heavily involved in the brewing industry, with its two large breweries also flourishing in the early part of the new century. Mavor's report states that the two breweries were sending their beers less distance than they had once been doing, although he did not expand upon why this may have been.

Wokingham was still undertaking the production of its traditional manufactures in 1809. The output of silk through three large companies was mainly sent on to London each week, the town becoming a centre for the manufacture of ribbons, hatbands, fine net, and gauze used in dressmaking. One organisation, which specialised in silk spinning, had already mechanised by the time of Mavor's visit. The factory had four hundred and thirty-two spindle machines which were turned by horse power via a wheel in the yard allowing it to produce large quantities of silk thread which were used by the other two factories to weave their ribbons and nettings. Wokingham was also involved in the production of large amounts of parchment as well as beer from its large brewery.¹⁸⁰

It seems that the county's location gave it a favourable advantage in the supply of goods to London. The easy, although slow, access afforded by the Thames which took barges directly into the centre of the city allowed manufacturers to offer their products to customers in the capital, potentially more quickly than their competitors further afield. Mavor suggests that this facility may have been partially responsible for the '...great progress' that the county had made in agricultural improvement due to the '...certainty of obtaining a good price for every article of stock or produce...' which no doubt was also true for non-agricultural manufactures.¹⁸¹

The availability of a ready market for the produce of Berkshire, be it agricultural or manufactured would have been likely to have supported the rise of both agriculture and manufacturing within the county, albeit not to the levels of mass industrialisation seen around places such as Manchester, Birmingham, Leeds, Cardiff, Glasgow, and Belfast. The availability of good, albeit slow, road and

¹⁸⁰ Mavor, 451.

¹⁸¹ Mavor, 507-508.

water borne transport links to the capital and elsewhere also placed the county on a major commercial transport crossroads, which would have contributed to business's ability to exploit new markets and new customers to expand their reach and diversity of production. The road to the industrialisation of some parts of Berkshire's economy had begun to be travelled long before Brunel decided to build his civil engineering masterpiece through the county.

Chapter 5: Introduction to the Case Studies and the Prevailing Business

Landscape in Britain in the Nineteenth Century

The following chapters aim to present eight selected case studies which will explore how the railways impacted upon the economic development of Berkshire in the nineteenth century. Each case study will focus on the new area of research undertaken for this thesis; the manufacturing base and associated service companies that supported it as outlined in the methodology section of the introduction to this thesis. Whilst the main aim of this study is to examine the impact of the opening of railways upon the manufacturing industries of a rural area which had a small number of urbanising towns, it is also necessary to examine the status of the retail and service industries which complimented, replaced or supported the manufacturers. The general British manufacturing and service landscape will be examined now, rather than reiterating the same points in each of the case studies which follow.

The industrial base of Britain during the nineteenth century was steadily evolving as the small producer either developed into industrial manufacturers or became a supplier of services and parts to those larger concerns. The local blacksmith, for example, may have remained important in the more rural areas due to the need for the horses which were still being used as a key source of locomotion for carriages, carts and farm machinery, and also for repairs to farm machinery and the production of smaller tools which had been the traditional domain of the smithy. The adoption of steam power within larger factories in the manufacturing centres of Britain, among which the urban manufacturing centres of Berkshire. Newbury and Reading, were no different, changed the way in which production was achieved, the larger factory becoming increasingly common across the country.

Whilst the 'mills' of the north and the steel and iron foundries of the Black Country, Glasgow and South Wales are what many think of first when the history of iron and steel production in Britain is considered, rural areas also possessed not inconsiderable iron works. Examples of these works can

be commonly found in Reading, in relatively large numbers, and Newbury. Rural towns such as Wantage and Wallingford also possessed a small number of reasonable sized iron works.¹⁸²

Whilst Berkshire did not produce the raw pig iron from which iron products were made, the supply of iron was not difficult to access during the nineteenth century, and as the century progressed access to high quality steel from Sheffield and South Wales became increasingly available as production increased at the steel makers. Iron remained a key material in many light engineering works, although steel for boiler barrels became increasingly important as did copper for the inner fireboxes of steam boilers, locomotives and traction engines.

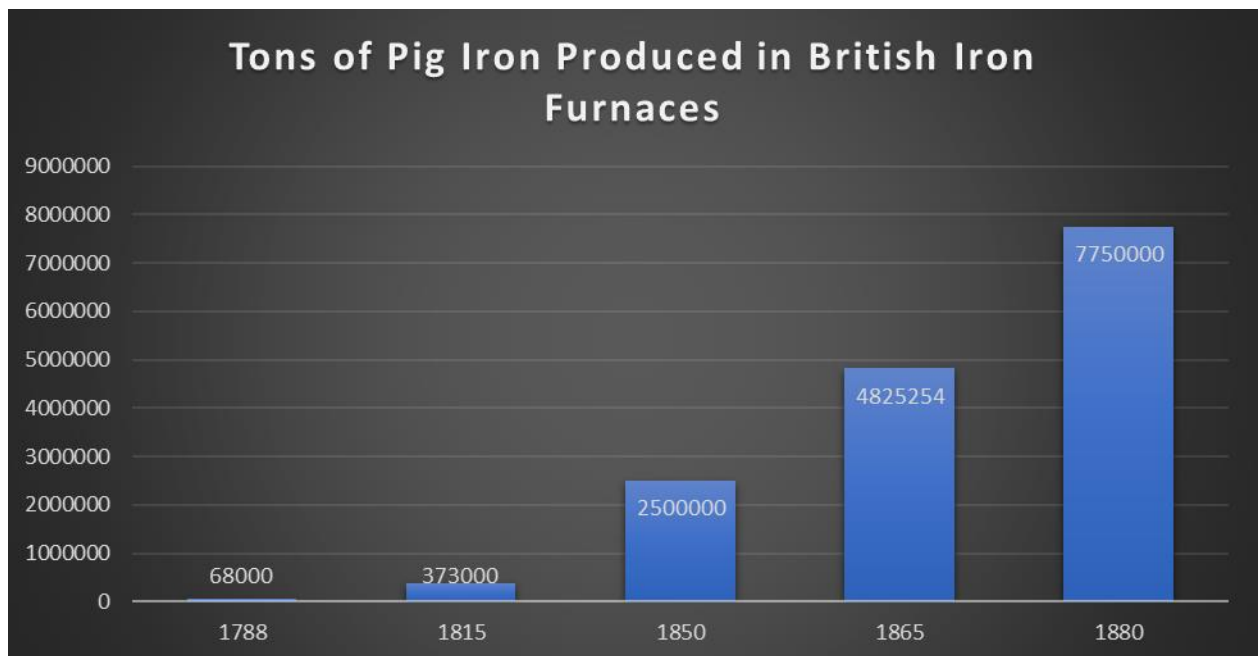


Figure 15: The Expansion of British Pig Iron Production between 1788 and 1880.¹⁸³

The expansion of British pig iron production was caused by increased demand for wrought and cast iron which became more important as larger buildings were being constructed to house the factories, workshops and offices that were developing as companies became bigger concerns, the

¹⁸² The trade directories for the nineteenth century list a large number of iron works across the whole of Berkshire, with the main concentrations situated within the case study towns, from where they were likely to be able to serve local rural communities.

¹⁸³ Alan Birch, *The Economic History of the British Iron and Steel Industry 1784-1879* (London, 1967), 121.

boilers and machinery that were needed to support manufacturing expansion and the increasing number of large civil engineering projects of which the Forth Railway Bridge was a major example.

The number of blast furnaces in operation across Britain continually increased during the long nineteenth century as demand, both domestically and from export customers, increased. In 1788 there were just 85 blast furnaces in operation in Britain, but this increased dramatically over the following century. In 1815, at the end of the Napoleonic Wars, a total of 200 furnaces were operating, although the expected fall in demand following the cessation of hostilities after the final defeat of Napoleon at the Battle of Waterloo cannot be seen, growth continuing despite the lower need for iron for military use.



Figure 16: Iron Furnaces Producing Pig Iron in Britain, 1805 - 1880.¹⁸⁴

Iron production continued to grow exponentially with a corresponding increase in the number of furnaces producing the material. In 1850 450 furnaces were producing 2.5 million tons of pig iron, and by 1865 a total of 650 furnaces were producing over 4.8 million tons of iron.¹⁸⁵ The production

¹⁸⁴ Birch, 124-125.

¹⁸⁵ Birch, 121.

of iron was widely spread across the country, with production centres located in Shropshire, Cumberland, North Lancashire and the North East around Newcastle upon Tyne and Sunderland producing large quantities of the material alongside the furnaces of South Wales and the Black Country.¹⁸⁶ The localisation of the production of the material, unlike later regional specialisation, was not based upon the availability of transport infrastructure which supported, but did not cause, localised specialisation and the development of mass manufacturing methods.

Iron production in the early part of the century was located where the raw materials, iron ore and charcoal, were readily available, the canal network being constructed to move the finished pig iron to the places where it was needed, such as Birmingham. It can be seen that industry caused canal growth in this case, rather than vice versa, a phenomenon which may be seen on occasion in the case of railways in the chapters which follow in this study. Two developments changed how iron was produced. Improvements in iron production allowed for the use of the more energy rich charcoal to be used in the production of iron, and later steel. The cooking of coal to remove impurities, which would create by-products which would become increasingly useful such as gas which could be used for street, factory and domestic lighting, coal tar used for the production of soap and for the metalling of roads and ammoniacal liquor which could be distilled to produce, among other products, carbolic acid which supported the creation and growth of a disinfectant industry.

The railways, built in the coal rich areas to transport coal to the ports, also served to connect coal rich areas to iron ore rich areas allowing the development of iron production in new places where it would have previously not been viable. This development was not caused directly by the railway, but was supported as an unintended result of railways constructed for a different rationale entirely.

The production of large quantities of cheaper iron allowed iron foundries in rural counties to grow, those in Berkshire being a valuable example. The connection of Berkshire to the iron producing areas by canal improved the supply of raw iron allowing companies such as Barrett, Exall and Andrews and

¹⁸⁶ Birch 127.

Huntley, Bourne and Stevens in Reading, Plenty and Sons in Newbury and Nalder and Nalder in Wantage to grow and become important suppliers of, initially, farming tools such as ploughs for which the industrialisation of agriculture created increasing demand, and later machinery such as threshing machines and factory machinery and steam boilers.¹⁸⁷ The availability of pig iron to iron works in rural areas would not have supported the foundries in Berkshire without one other fundamental material, coal.

The British coal industry was one of Britain's major industries by 1830 and was growing rapidly.¹⁸⁸ Demand was increasing as industry became more reliant of the fuel as a source of power for the factory, the adoption of the steam locomotive on Britain's growing railway network and the advent of the steamship, as well as increasing use of coal for domestic heating, around two tons per annum per capita being consumed.¹⁸⁹ The fuel had been supplied by canal to places distant from the coal producing regions, although the need to purchase large quantities for industrial use had, as will be seen in the case studies, some issues. The merchants, however, saw little issue with purchasing large quantities for their business since the coals were the basis of their business. Some merchants diversified into selling other materials alongside coal but coal would remain the major part of their commercial operations.

Railways would allow smaller quantities of coal to be purchased more frequently giving more flexibility in the use of a company's capital, a point which will be discussed in more detail in the case studies. The Great Northern Railway began to carry coal from South Yorkshire to London in 1851, breaking the near monopoly of the Durham and Newcastle coal fields in the South East.¹⁹⁰ Seeing the

¹⁸⁷ The machinery for Huntley and Palmers new factory in Reading was all supplied by Barrett, Exall and Andrews, the designs for the world's first biscuit making machinery jointly being created by George Palmer and William Exall. T.A.B. Corley, *Quaker Enterprise in Biscuits: Huntley and Palmers of Reading, 1822-1972* (London, 1972), 37, 53.

¹⁸⁸ Roy Church, *The History of the British Coal Industry: Volume III 1830-1913 Victorian Pre-eminence* (Oxford, 1986), 4.

¹⁸⁹ Church, 5.

¹⁹⁰ Church, 18.

opportunity to increase their revenues, the London and North Western, Great Western and Midland Railway carried an increasing volume of coal traffic from 1860, competing with the GNR.¹⁹¹

The competition benefitted not only the South Yorkshire and South Wales coal fields, the emerging collieries in the Nottinghamshire and Derbyshire coal fields and, in the 1890s, those in Leicestershire and Warwickshire also benefitting. The lower carriage rates would, of course, have benefitted the domestic and industrial consumer in the rural areas as well as the big cities. The opening of access to a broader range of colliery output, and the competition for the supply of similar coals would also have provided lower cost fuels to the end consumer. Competition was not always a factor in the price and supply of coal however. On occasion railway companies formed cartels with local smaller railway companies which directly served the coal fields as well as with collieries to which they had, or would, build a direct connection.¹⁹²

The development of new uses for coal as the nineteenth century progressed, saw the industry begin to differentiate the types of the fuel which were being produced. The chemical composition of coal differed, depending upon the seams from which it had been extracted and this made it suitable only for some uses. The main use to which coal was put was for burning as a fuel.¹⁹³ Roy Church argues this point but does not differentiate between the important types of use the fuel was put to. The chemical properties of coal make it suitable only for burning in certain environments. Steam coal from South Wales is only of use in factory or certain types of locomotive boilers, the Great Western Railway designing their later locomotives purely to use Welsh coal, whereas other companies

¹⁹¹ Church 18-20

¹⁹² TNA, RAIL 252/433, Agreement between Great Western Railway Company and Ruabon Coal Company for Carriage of Coal in Ruabon Coal District, October 1861; TNA, RAIL 252/374, Agreement between Great Western Railway Company and Somersetshire Coal Company for Coal Traffic for Radstock Branch, May 1861; TNA, RAIL 252/363, Agreement between Great Western Railway, South Wales Railway Company & Vale of Neath Railway Company and Thomas Powell the younger, coal proprietors, Newport, Monm) for Coal Traffic between Aberdare and Paddington, Reading, Basingstoke and Brentford, February 1860; TNA, RAIL 684/139, Agreement between Taff Vale Railway Company and David Williams (Coal Merchant, Aberdare, Glam) for Construction of Branch Line between Aberdare Railway and New Pit at Mountain Ash, June 1855.

¹⁹³ Church, 17.

designed their fireboxes for Yorkshire steam coals, such as Newmarket Silkstone. Bituminous coal is more suited to domestic burning for heating although some types were of value in coking ovens.

Distillation of coal to produce coke, used in iron and steel making and in the early railway locomotives; gas for lighting and later heating and cooking; and the production of by-products which were recognised as having other industrial uses requires coal with more impurities which can be 'cooked off' in the coking ovens.¹⁹⁴ A fuel for the coking ovens was also needed and the waste slack that had been discarded was later used to fuel the coking ovens.

Demand for coal thus increased steadily during the nineteenth century as more factories adopted steam power, households replaced wood with coal as a source of domestic heating and as a fuel for cooking, and urban improvement programmes installed street lighting using town gas. The importance of town gas grew as street lighting spread, and public buildings and theatres became lit before 1850, and later, factories began to be lit with gas lights allowing factories to work at night.¹⁹⁵ The advent of domestic gas lighting in an increasing number of homes saw the evening becoming valuable leisure time, where parlour games, dinner parties and reading books and magazines became increasingly popular. The latter became more common as the nineteenth century progressed and the population became more literate due to the need to be able to read factory instructions and written correspondence in the work place. The importance of town gas and the more common street, industrial and domestic lighting saw most towns construct their own gas works, with the cost of the town gas being subsidised by the sale of coke and processing by-products.

Coal had, despite the innovations of the nineteenth century, been an important part of iron product manufacturing as well as the production of raw pig iron from which wrought and cast iron products were made. The use of coal in iron production had reached 6 million tons by 1830, 19 percent of

¹⁹⁴ Church, 17.

¹⁹⁵ Church, 23.

British coal production, with iron production and the corresponding consumption of coal raising the use of coal to 25 per cent of British production by the 1850s and 1860s. Coal was as important to other industries, long before the adoption of steam power in the factory. The bakers, brewers, brick and tile makers, and tanners had been using coal as a fuel for heating water and fuelling ovens for many years before the common adoption of steam power and the mechanisation of production which was to be seen across Victorian Britain.¹⁹⁶

The canal and road networks, coupled with coastal shipping, had served the country well before the advent of the British railway companies, although as will be seen in the case studies, the railways allowed more flexibility and access to a wider range of coals of the correct chemical consistency for the processes of the manufacturer and brewers business. The railways, themselves a major consumer of coal production, switched to steam coal from the earlier use of coke due to the more robust nature of coal in storage and in bunkers. After the 1850s Britain's railways switched to using raw coal after experiments undertaken at Derby by the Midland Railway proved that a modified firebox would be capable of handling the more caustic fumes cast off by burning coal. The experiments undertaken by Charles Markham resulted in a firebox structure, with brick arch, which consumed the fumes in the firebox, providing more heat.¹⁹⁷ The combination of a more efficient firebox and cheaper fuel was keenly adopted by Britain's railways, and in turn many of its factories.

Coke, nevertheless remained an important fuel for iron and steel working, with the coking plants to be found in many town's gas works providing both fuels to the Victorians. The processes created a valuable suite of by products which were found to have uses elsewhere and supported the expansion of the other industrial sectors. The distillation of benzol, ammonium sulphate (ammoniacal liquor), and coal tar resulted in a broad range of useful products which were created by Britain's growing chemical industry. The new chemicals provided ingredients which supported the

¹⁹⁶ Church, 27.

¹⁹⁷ Church, 30.

manufacture of artificial dyes and pigments, perfumes, new medicines and antiseptics, and photographic materials among other products.¹⁹⁸

The role of coal in the evolution of Britain's industrial economy during the period should not be underestimated, although Clapham's remark that '...behind and beneath the technical development of all the industries lay coal and the technique of the collier and mining engineer' may be 'over-egging' the situation in a similar way to comments made about the railway causing the industrialisation and economic growth of Victorian Britain.¹⁹⁹ As discussed in the literature review, coal whilst very important was one part of an equation which included the railways, entrepreneurial innovation and governmental laissez faire approach to business which combined with other factors to support Britain's development as an industrial powerhouse. Mitchell's view that coal emerged as one of Britain's four staple industries during the nineteenth century is probably more reflective of the situation.²⁰⁰

Mitchell examined, in more detail than Birch, the role of the coal merchant in the supply of the fuel across Britain, and their relationship with the collieries. The supply of coal varied according to the size of the end user. The larger end users, such as the large iron works, coke producers, and later the railways, shipping lines and the Royal Navy, and merchants purchased their coals directly from the collieries paying pitmouth prices for the fuel. In turn, smaller consumers purchased coals from the merchants unless in the immediate vicinity of the pits.²⁰¹ The brewers and iron foundries in and around places such as Barnsley probably purchased directly from a local colliery, however with no collieries in Berkshire, the local industries would have been reliant upon coal merchants who initially brought their coal into the county using the canals and later the railways. There is evidence, however, that some of the larger consumers of coal in Berkshire purchased their coals directly from collieries and had the Great Western deliver truckloads of coal. It seems though, that most medium

¹⁹⁸ Church, 31.

¹⁹⁹ Church, 759.

²⁰⁰ B.R. Mitchell, *Economic Development of the British Coal Industry 1800-1914* (Cambridge, 1984), 1.

²⁰¹ Mitchell, 10.

and small enterprises, and certainly domestic burners of coal for heating and cooking, purchased their fuel from local merchants. Merchants often operated on small margins, relying on selling large quantities of coal, and in some cases other minerals, in order to make the business viable over the long term.²⁰² The small margins available to the coal merchants may explain two trends which emerge from the research which resulted in the case studies which follow.

Firstly, there seems to have been a process of gradual amalgamation as more successful merchants absorbed their smaller competitors in order to acquire their customer base. Secondly it seems that many of the merchants remained where they had originally been established, their location of the wharves of the canal indicating that these companies were still using the services of the canals to an extent, and that carrying truckloads of coal from rail yards to their depots was preferable to the investment involved in moving closer to the railway goods facilities. There are merchants who did open new yards at the railway however. The latter seem to be more successful as they remain visible in the commercial directories for longer than their competitors. Nevertheless, the coal merchant was a key element in the evolution of local economies, probably as important as rail and canal services were.

The importance of coal as one part of the foundation of British industrial expansion away from the traditional areas of heavy industry and mass production in the midlands and north can be seen through Mitchell's examination of the competition between railways to supply coals during the 1870s. The rate war between the Great Northern and Midland railways for the transportation of coal outside of Yorkshire during 1871 shows how industry may, on occasion, have been partly responsible for supporting railway growth as much as the opposite may have been true. The increasing demand for coal, particularly, as pointed out by Mitchell, from '...steam transport, and southern and eastern manufacturing, gasworks...' created an opportunity for the railway companies to increase their revenues. The GNR and MR both had direct access to London and the South East through their own

²⁰² Mitchell, 10.

services, and those of their partners, such as the South Eastern Railway through which they would be able to increase their profitable coal train services. Competition from the Great Western Railway who were able to supply coal from the Midlands and South Wales no doubt kept cost of fuel lower than a monopoly of supply would have done.

Britain's railways, clearly had no particular role in creating the iron and coal industries, and neither did the canal and road networks already in place. It is more likely that the increasing demands for coal and iron across Britain was partly the cause of railway expansion through potential and increasing traffic.

As will be seen in the case studies which follow, the railways did have a role in connecting more regions remote from the established centres of manufacture which allowed local businesses to flourish, although as will be seen later in this thesis, the opposite could occasionally be the case. It could be argued that the canals, roads and coastal shipping may have been able to support the industrial diversification of some areas and the adoption of mass manufacturing in others, although at a much slower pace, and with a less flexible service, which was more susceptible to extremes of weather. The railways did support, but it must be stressed once more that they did not necessarily cause, the expansion of iron manufacturing, machine making and industrial scale baking and brewing in the urban parts of rural counties.

Transport improvements during the later eighteenth and early nineteenth centuries did provide local businesses with access to a broader range of products and materials which they could use to either start or expand a venture. This would prove particularly important in rural areas, where the improving roads, the expanding canal networks and eventually the arrival of fast and mostly cheaper rail services linked peripheral regions to the industrialised northern production centres of cotton and wool textiles, and later steel products such as Sheffield cutlery, and Birmingham jewellery, pens, and other similar items. Access to a broader range of textiles was particularly important to the local tailors and dressmakers working in rural areas.

The woollen trade, as can be seen by an inspection of the trade directories for the period was in decline as mechanisation of the northern woollen textile producing centres began to take hold. The resulting cheaper cloth undercut the local producer in the rural areas who were less able to compete. Berkshire's woollen industry survived to a degree but only in specialist areas such in the production of sail cloth in demand by the Royal Navy and merchant ship owners before the adoption of marine steam engines during the latter half of the nineteenth century.

The woollen trade in Norfolk meanwhile was expanding to a small degree, but was mainly reliant on exports to do so during the 1770s and 1780s. Despite this, some areas of Norfolk experienced depression and high unemployment for a number of years followed by a general downturn across the whole of the Norfolk wool trade from the 1790s.²⁰³ The general depression of the worsted trade was particularly felt in Norfolk, although the end of the Napoleonic wars reopened some markets which had been inaccessible during the various conflicts across Europe. The Norfolk woollen manufactures responded with new cloths but this was not enough, Jenkins and Ponting arguing that there is strong evidence of a further decline in the Norfolk woollen trade during the 1820s and into the 1830s. No doubt the economic difficulty being experienced in the region was made worse by the cheaper and increasingly better quality machine made textiles being produced in Yorkshire.

These fabrics, alongside the Lancashire, Indian and Egyptian cottons, as well as silks, were the key raw materials for tailors and dressmakers. In some rural areas, and Berkshire was one these, the region retained some of its silk manufacturing capability, although much of this was destined for use by the ribbon makers who supplied Haberdashers. The tailors and dressmakers were a prime example of the producer-retailer discussed by James Jeffries which were of prime importance in the local economies of most areas of Britain before mass production changed the clothing industry.²⁰⁴

Whilst the main focus of this thesis is on the impact of railways upon manufacturing the evolution of the small manufacturer-retailer to either a major manufacturer or a dedicated retailer as a result of

²⁰³ D.T. Jenkins and K.T. Ponting, *The British Wool Textile Industry, 1790-1914* (London, 1982), 73.

²⁰⁴ James B. Jeffries, *Retail Trading in Britain 1850-1950* (Cambridge, 1954), 1-2.

changes to industrial production requires some degree of discussion to provide a more complete picture of how rail services were part of a change which British manufacturers were undergoing in the Victorian period.

In the case of tailors and dressmakers, the demand for clothing was a pure driver to business success. A tailor or dressmaker who could produce good quality clothing at a price the consumer was prepared to pay, whilst still returning a profit, would be successful. The only competition would be other local tailors and dressmakers, the relationships built with customers providing a regularly returning clientele who may develop a loyalty to their regular tailors. The producer-retailer clothes producers thus had a period of time when they were the only source of clothing to the majority of the local population, and the number of tailors and dressmakers seen in a place would be proportional to the population of the area that would support them.

The exception to this would have been the wealthier upper echelons of society who may fraternise the London fashion houses whilst in their London abodes, or similarly within the other major cities of Britain. The aspiration to show ones wealth by being seen in the right places wearing the latest designs from named fashion houses was common to the wealthiest people. The main reason, for example, that theatres were provided with boxes was not so much to see, but to be seen. Likewise horse racing festivals at courses such as Ascot and Aintree were used in a similar vein. Shannon argues that clothing served ‘...as the most immediate and visible cultural marker...’ of a person’s social status.²⁰⁵

Shannon argues that fashion is rooted in the class and social hierarchy system in place, and that social emulation through a ‘trickle down’ model impacted upon the clothing trade. He goes on to expand upon this by discussing the development of consumerism through social emulation, as first postulated by Thorstein Veblen in 1899. Veblen’s model argues, that material wants are caused by a

²⁰⁵ Brent Shannon, *The Cut of His Coat: Men, Dress and Consumer Culture in Britain, 1860-1914* (Ohio, 2006), 197.

need to emulate others, and particularly the wealthier members of society.²⁰⁶ The newly emerging middle classes no doubt felt the need to place themselves into the social hierarchy and were wealthy enough to do so, which would have impacted upon the trade in finer clothes as well as collectibles and ornaments which could be displayed in the home. Clearly this would benefit the clothing trade.

The working class, or at least the upper working class, with gradually improving wages and a better standard of living as well as the opportunity for social mobility which new jobs such as could be found on the railways, where advancement was subject to serving time and passing company examinations, or in the factories where newly developing technologies required a more highly skilled workforce to support it would have also been able to afford, to a small degree to purchase better clothes for 'Sunday best' as well as ornaments and collectibles. The local producer-retailer would have been able to support the additional trade which would have allowed them, at least modestly, to grow their businesses.

The situation would not last. Consumer practices and retailing changed dramatically between 1860 and 1914, which drove local clothes retailers, either out of business, or to return to the luxury made to measure market, no doubt helped by the drive towards the arts and crafts movement towards the end of the century. The small retailer was often replaced by a new phenomenon, the large department store, of which Heelas in Reading was a prime example, during the 1860s. The availability of magazines following the massive expansion of the popular press through cheap newspapers, magazines and books, was supported by entrepreneurs such as W.H.Smith and John Menzies, who acquired the sole rights to operate book stalls on English and Welsh, and Scottish railway station respectively making these publications even more accessible. The railways allowed publishers of periodicals to distribute their magazines across the entire country quickly and cheaply, raising circulation. The greater reach of these publications drove an investment from manufacturers

²⁰⁶ Shannon, 197.

in more sophisticated advertising which created demand for goods through greater awareness of products.²⁰⁷

The mass production of clothing required in order to support the greater demand from consumers caused the producer-retailer to evolve into just a retailer, or for the department store to take the market share away from the small trader through a broader and often cheaper offering as consumers adopted off the peg clothing in preference to the more expensive made to measure offering from tailors and dressmakers. There was a demand for made to measure clothing among the wealthier members of local society or for special occasions which continued to support the independent tailor's shop, although it seems likely, as argued by Shannon, that the majority of consumers opted to use the services of the department store. The dressmaker and tailor, who's skills were doubtless in demand seem, from the census returns to have moved into working in the factories which produced clothing for the fashion houses in places such as Maidenhead which will be explored further in that town's case study which follows. One interesting factor which emerges from the census returns is that the clothing trade seems to have been split by gender. Male tailors appear to have served the men's clothing requirements, whilst women appear to have served the lady's requirements, both almost exclusively.

The fate of the producer-retailer as the British economy evolved is an important factor which must be included in a study of this type, even though it focuses upon the impact of railway's upon industry. The small local producer often sold their own goods through a retail shop or market stall, some of Britain's industrial giants, such as Huntley and Palmer starting in this manner.²⁰⁸ Later the localised specialisation in manufacturing supported by the railways allowed for the mass manufactured cheaper products to often out-compete local producer retailers, as will be seen in the case studies. Retailers often replaced small local manufacturers who had ceased trading, sourcing

²⁰⁷ Shannon, 72.

²⁰⁸ T.A.B. Corley discusses the origins of Huntley and Palmer in great detail in the early chapters of his book on the company.

their wares from further afield through the railway's fast goods and parcels services. The change in retailing away from the producer-retailer did not happen quickly despite the arrival of a railway line nearby. James Jeffries argues that whilst the rapid rate of urban growth in the first half of the nineteenth century, increased the demand for an evolution of the retail trade, it was slow to respond.²⁰⁹ The larger towns in Berkshire were urbanising much as towns across Britain were so it would appear that Jeffries's argument is valid for the more urban parts of rural counties too.

Jeffries states that, and the evidence from the research undertaken for this study supports his claims, it was not until the second half of the century that a major shift in retail practice took place. Consumers had, before 1860, purchased finished products from retailers such as grocers, hosiers, haberdashers, and chandlers among others. The need for more specialised products was met the producer-retailer, who grew or made their own wares. These were skilled tradesmen such as cabinet makers, cobblers, tailors, blacksmith and bakers and butchers who 'manufactured' the finished product for the consumer on site, and who would later be threatened by mass produced products and foodstuffs made elsewhere.²¹⁰

Retail was forced to evolve as changes in agriculture through mechanisation, and the increase in volume of mass manufactured goods and food coupled with an improvement in transport resulted in a decline in local self-sufficiency and the adoption of cheaper goods imported into the region. As the geographical gap between producer and consumer widened through faster and cheaper transport services, mainly provided by railways, the role of fairs and markets declined. The local producer-retailer became less important in many areas and often ceased manufacturing, becoming a dedicated retailer only. Some sectors, such as tailoring and cobbling, continued to operate as producer-retailers due to the demand for their repair and specialist services.

²⁰⁹ James B. Jeffries, *Retail Trading in Britain 1850-1950* (Cambridge, 1954), 1.

²¹⁰ Jeffries, 1-2.

The period between 1875 and 1914 saw the establishment of fixed retailing, as retailers began to base themselves permanently in a shop. The new shopkeepers adopted novel techniques in selling, often marketing their wares through local newspapers and billboard advertisements. New types of consumer goods became the staple of these outlets, including mass produced sweets, children's toys, books and a broad range of other goods. The branding of goods by manufacturers, coupled with national advertising, and national sales efforts assisted the retailers in reaching a public who's demand for these products had been cultivated by the manufacturer to a degree. The adoption of bright and attractive packaging by manufacturers, coupled with flamboyant window displays created by retailers, and the adoption of fixed, clearly labelled prices which replaced haggling completely changed the distribution trades across Britain.²¹¹

The emergence of consumerism within the new middle classes and the upper working classes who had a degree of disposable income, added to the traditional consumer demand from the social elite. As the factory system provided progressively more affordable goods, working and middle class wages increased, and communications improved, the consumerism phenomenon became more accessible to a greater proportion of the population.²¹² A favourable environment was thus created for mass consumption which supported and was supported by the advent of modern retailing.

The increasing demand for consumer products saw an expansion within retailing. The working and middle classes were encouraged to spend through a variety of new outlets. The department store offered a wide variety of goods in one place, although it is more likely that the wealthier working class person would be found in Heelas in Reading, rather than in Fortnum and Mason in London. The more specialised retailers began to open more stores in other local towns beginning to create the 'multiples' of the retailing revolution which would later evolve into the national chain stores of the twentieth century. Penny Bazaars in covered markets offered another retail experience, and also

²¹¹ Jeffreys 6.

²¹² John K. Walton, 'Towns and Consumerism' in: Martin Daunton, Ed., *The Cambridge Urban History of Britain, Volume III 1840-1950* (Cambridge 2000), 717.

created some of the twentieth century's major retailers, such as Marks and Spencer. The development of covered arcades with ornate decoration made shopping a more attractive 'experience' which in turn drive greater spend with retailers.²¹³

A group of producer-retailers who were impacted by the changes that the distribution trades were undergoing, were Britain's brewers. A major change had occurred within the brewing industry when the licencing arrangements were amended in 1830 with the passing of the Beerhouse Act.²¹⁴ The new Act removed much of the power for licencing alcohol outlets which had resided with local magistrates. The licences which had been granted were almost entirely owned by local breweries creating local monopolies.

The Act allowed homes to be used as beer retailing outlets, and householder who paid rates was allowed, under the new legislation to apply for a licence to sell beer for a fee of two guineas. The licence also allowed them to brew beer on the premises, adding to Britain's producer-retailer economy in addition to the industrial brewers.²¹⁵ The effect of the legislation was an increase of 46,000 beer houses to add to Britain's 51,000 taverns and alehouses by 1838.²¹⁶

The brewing industry was thus split at the time of Victoria's accession to the throne. The majority of British beer was still produced in industrial breweries (55 per cent), although a third was produced by licensed victuallers who brewed their own beers locally. The proportion of beers brewed by Beer House keepers was, despite the huge increase in the number of such houses, just twelve and one half per cent. The remainder was produced by private brewers for their own consumption.²¹⁷

The brewing industry, already very acquisitive, began to buy out the beer house keepers and tavern owners who were brewing their own beers as the century progressed. A change in customer taste

²¹³ Jeffreys, 718.

²¹⁴ Beerhouse Act 1830 [Website] <https://www.legislation.gov.uk/ukpga/Geo4and1Will4/11/64/contents>, (Accessed 26 October 2024).

²¹⁵ T.R.Gourvish and R.G. Wilson, *The British Brewery Industry: 1830-1980* (Cambridge, 1994), 3.

²¹⁶ Alehouses had a licence to sell only beer, whilst Taverns were able to also sell spirits.

²¹⁷ Gourvish and Wilson, 67.

saw the demand for traditional vatted beers decline, as consumers began to prefer and request pale and bitter ales. The advanced equipment for brewing these newer beers was too expensive for the smaller owner brewers who had to resort to purchasing them in from the commercial breweries. As the traditional trade in porters and stouts declined the independent beer house and tavern owners were progressively left in debt to the industrial brewers which led to them having to make arrangements with the breweries either for the supply of beer, effectively tying the tavern to the brewery, or for outright purchase of the pub.

Commercial brewers began to purchase taverns, ale houses and beer houses on an unprecedented scale after 1865, ceasing production of beers on site in preference to supplying beer from the brewery itself. The aggressive acquisition of retail beer outlets forced the value of pubs to rise, and many owner publicans willingly sold to the breweries to take advantage of the high price that their properties commanded after 1870.²¹⁸

The breweries adopted a second method to expand their reach alongside the purchase of smaller breweries and untied public houses. The more established companies began to create a network of agencies and remote stores to service the free trade outside of their traditional areas of influence. Brewers such as Simonds of Reading, and the Dorchester Brewery were particularly notable for doing so, with both expanding their businesses in this way.²¹⁹ The Simonds and Dorchester breweries both took advantage of the railways as part of their expansion plans. The relationship between Simonds and the railway companies in Reading will be explored in the Reading case study but it is worth exploring how the Dorchester Brewery took advantage of the opportunity that its owners and management saw.

The Dorchester Brewery opted to build a large modern facility on a green field site, immediately adjacent to the London and South Western Railway's mainline at Dorchester. The new brewery was

²¹⁸ Gourvish and Wilson, 69.

²¹⁹ Gourvish and Wilson, 163.

rail linked from the outset and this was used to great benefit by the company. The Dorchester Brewery became the largest producer of beer in the South West, not because of the 117 tied pubs that it had, but because of the retail outlets it served through its depots in Bath, Bournemouth, Eastleigh, Portsmouth, Salisbury, Southampton, Weymouth and Winchester through which it supplied free houses and grocers in the local areas. The brewery, like many others, began to trade as a wholesaler in wines and spirits to compliment the offering to its customers.²²⁰

The brewing industry saw a number of mergers occur in the nineteenth century as breweries sought to expand. Edward Greene's brewery in Bury St. Edmunds serves as a good example. Greene's brewery was a successful concern, also seeing the promise offered by taking advantage of railway goods services to enable it to reach a wider area in which to sell its beers. After the mid-1840s the company steadily expanded its reach throughout East-Anglia, with travelling sales teams operating out of four locations in East Anglia as well as in London and Wolverhampton. The business, like many other successful breweries was able to purchase public houses which became tied to the brewery. In 1868, the company was able to acquire ninety pubs to add to its already growing property portfolio. The company remained successful and in 1887 was able to merge with F.W.King and Sons to form Greene King.²²¹ The story of Greene King is one which can be found echoed across the British brewing industry throughout the nineteenth and into the twentieth century.

The greater amount of money in circulation within these larger companies, which had expanded through organic growth created by increased demand, or through mergers and acquisitions, and the increasingly vibrant retail centres in towns, demanded a change in banking provision for the safe storage and management of cash, and the payment of the cheques which were increasing in use through the provision of mail order services by many companies, for example Suttons and Sons in

²²⁰ Gourvish and Wilson, 163.

²²¹ Gourvish and Wilson, 122.

Reading. The evolution of the banking sector may not have necessarily been of direct benefit to businesses seeking capital for growth however.

The financial services industry was not particularly stable during the early part of the nineteenth century. The period immediately after the end of the Napoleonic Wars following the defeat of Napoleon at the Battle of Waterloo was punctuated by a number of financial crises. The rapid post war expansion in the British economy as markets reopened across Europe and the rest of the world resulted in an export boom and easier credit facilities secured by the promise of vast profits, particularly within South America which was opening up to British imports.²²² The increasing demand for British products within South America during the 1820s created an export boom and a corresponding stock market rush to invest in the trade which promised rich returns, private bankers being especially keen to invest in the shares of the new trading companies which served the promising market.

The boom became a bubble and then in the Autumn of 1825 the situation deteriorated rapidly as the vast profits expected from the South American ventures failed to materialise. Bankers were left with illiquid assets, bankruptcies increased, and ready money became difficult to access, and the bubble burst.²²³ The impact was felt locally as banking houses who had invested in the now valueless stocks became less able to support local businesses or became bankrupt.

The banking system in Britain during the nineteenth century continued to rely upon relatively small and locally based businesses, despite changes in banking legislation. Many financial houses had only a few branches, with only a minority having a large branch network, with even those that did remaining locally rather than nationally based. The Victorian banks remained relatively local with, in 1854, the average bank operating from an average of just six branches, only expanding to an average

²²² Anne L. Murphy, 'The Financial Revolution and its Consequences' in: Roderick Flood, Jane Humphries and Paul Johnson (Eds), *The Cambridge Economic History of Modern Britain: Volume 1 1700-1870* (Cambridge, 2014), 389.

²²³ Murphy, 389.

of twelve branches by 1877.²²⁴ This was despite the boom years of the 1840s which saw an increase in the number of joint stock companies, including banks. The joint stock banks still remained local with a small number of branches as argued by Anne Murphy.²²⁵

The banks were not long term lenders, supplying only short term loans for immediate business use, and were funded mainly by deposits. The working methods of these smaller finance houses was caused by two factors. The Industrial Revolution in Britain between 1760 and 1830 had been based upon relatively small scale operations, compared to the second revolution in manufacturing which was to occur during the later nineteenth century as mechanisation and the adoption of steam power took hold in the factory. The basic machinery and expansion of workshops into factories with horse and later water power serving simple wooden machinery required little fixed capital investment to fund improvements. Manufacturing companies, rather than needing to fund capital expenditure investment, required funds to support the purchase of an increasing quantity of raw materials, funding of work in progress in the factories as manufacturing methodology began to move toward route and operation production in preference to artisan manufacture, and the payment of wages often before the customer had paid for goods received.²²⁶ Operating expenditure became the main drain on a manufacturing, or mining operation during the first phase of Britain's industrial evolution.

The industrialists and business owners in Britain did not resort to long term loans to fund business expansion, the banks being used to deposit moneys received, and occasionally for short term loans to support the business through short periods of poor trading. The industrialists instead used the company's own funds, combined with loans and investment into the business from friends and family, or through personal networks such as the Quaker communities, to finance investment in

²²⁴ Victoria Barnes and Lucy Newton, 'How far does the apple fall from the tree ? The size of English bank branch networks in the nineteenth century', *Business History*, 60 (2018), 453.

²²⁵ Murphy, 340.

²²⁶ Michael Collins, 'Banks and Industrial Finance in Britain, 1800-1939' in: Roderick Flood, Jane Humphries and Paul Johnson (Eds), *The Cambridge Economic History of Modern Britain: Volume 1 1700-1870* (Cambridge, 2014), 23.

fixed assets such as machinery, road carts, and buildings. The cost of equipping the venture with the equipment and facilities it needed were not often funding by the financial institutions.²²⁷

The banks were not overly willing to provide the long term investment which was needed to support manufacturing, mining, canals and railways as the nineteenth century progressed. Banks were, as argued by Murphy and Collins and Victoria Barnes and Lucy Newton, mostly small, local companies, the Bank of England's monopoly in joint stock banking not ending until 1826 following the passing of legislation permitting the establishment of joint stock banks.²²⁸ Banks saw growth, in the main, during the nineteenth century, seeing expansion through a small increase in the number of branches, and into new regions, as a means to lessen the potential risks associated with lending to local economies. The expansion of the bank's branch network further afield opened new opportunities and a wider potential customer base with a broader range of industries with which to interact. The broader range of industrial sectors which proliferated a wider geographical area allowed the bank to become less specialised in respect to the types of businesses it loaned to, lessening the risk to which the bank was exposed.²²⁹

The banks' main liabilities were notes and deposits held by the general public and businesses. These were all subject to immediate or short term withdrawal, with many bankers having experienced bank runs when confidence on the bank or the British economy following the bursting of an investment bubble resulted in the bank's customers withdrawing all of their funds, leaving the bank with no capital to supply customers with cash, or short term investments. These financial crises could often result in the failure of private banks such as could be seen during the banking crisis of 1825-1826 when ninety three banks, fifteen per cent of the total number of banks operating in England and Wales, became unable to meet the demands of depositors and thus bankrupt.²³⁰

²²⁷ Collins, 24.

²²⁸ Collins, 24; Murphy, 340; Barnes and Newton, 449.

²²⁹ Barnes and Newton, 449.

²³⁰ Collins, 24.

The banks were more robust in the later nineteenth century, although shocks still occasionally occurred, but in the main bank failures were far less common. Liquidity issues did still happen, even as late as 1866 and 1878, causing issues in commercial banking, but most organisations were able to continue to trade through support from London banking houses until the short term issue was resolved once customers began to redeposit funds restoring the liquidity of the bank.

In order to ensure liquidity the banks needed to ensure that there was a sufficient cash holding to meet customers every day needs through the tills, with a reserve able to support any extraordinary demands placed upon the bank by its customers. These requirements meant that the majority of loans and investments had to be able to be recalled by the bank quickly when needed. The bank alternatively needed to be able to sell on loans to another bank to realise a cash return, although the second bank was also likely to prefer the loan which it was to buy to be easy to realise in turn.²³¹

Despite the evolution of the banking system as described by Collins, and Barnes and Newton with banks opening new branches, mergers of local banks, and the creation of more joint stock banks industrialists still resorted to other means to fund business expansion. Even after 1870, when the costs of investing in more advanced technology in the factory was increasing dramatically due to the complexity and capability of machines, tools and steam engines to power them, most business expansion was funded through profits, or investment raised from private non-institutional sources such as family contacts, or investment into a company by an individual who in turn gained a directorship in the business.²³² These investments can often been seen through tracking a company within commercial directories with the title of the business changing to incorporate the name of the new directors or owners.

The railways were no different to other businesses in their need for finance, although often at a much higher level. The granting of a railway Act of parliament which was required before a company

²³¹ Collins, 25.

²³² Collins, 29.

could begin to construct its lines provides clear evidence of how railway building was funded. Each act granted powers for the railway to raise capital through the issue of a limited number of shares at a fixed value per share, with resort to bank loans only being authorised once the share capital had been entirely subscribed. The first enabling Act for the construction of the Great Western Railway, passed in 1835, allowed the company to raise funds of up to a maximum of two million, five hundred thousand pounds through the issue of shares of one hundred pounds each. In the original Act no powers to raise funds through bank loans were granted.²³³

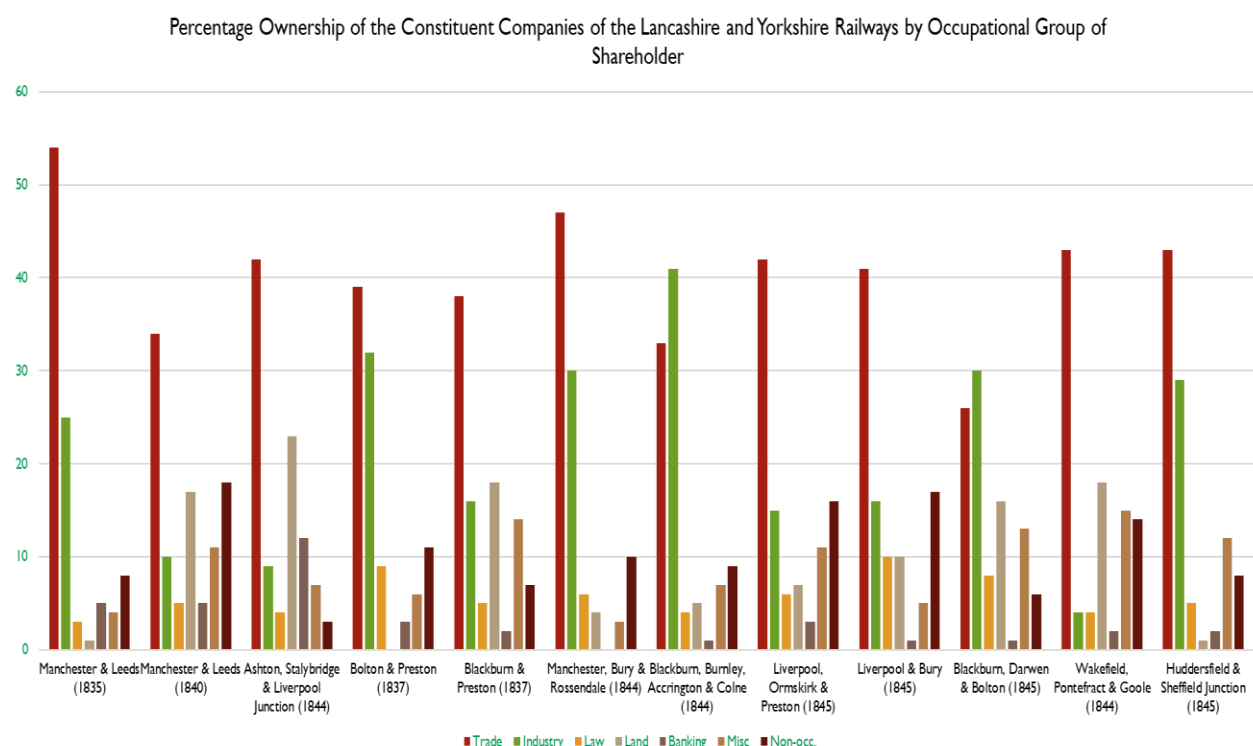


Figure 17: Ownership of the Main Constituents of the Lancashire and Yorkshire Railway.²³⁴

Whilst it might be expected that the financial institutions would invest in the railway schemes, and they often did, most of the owners of railway shares were private individuals. The Lancashire and Yorkshire Railway, one of the largest railway companies in Victorian Britain, which had formed from the amalgamation of a large number of smaller companies was capitalised mainly by local business

²³³ Great Western Railway Act 1835 [Website] <https://www.legislation.gov.uk/ukla/Will4/5-6/107/contents/enacted>, (accessed 20th November 2022).

²³⁴ S.A.Broadbridge, 'The Sources of Railway Share Capital', in *Railways in the Victorian Economy: Studies in Finance and Economic Growth*, Ed. by M.C.Read (Newton Abbot: David & Charles, 1969), pp.184-211

owners rather than the financial institutions. The majority of the owners of shares in the companies were commercial traders such as grocers, and industry with a small percentage of investment coming from banking. A large proportion of the shares in the Lancashire and Yorkshire Railway's constituents were owned by individuals listed as 'non-occ' in the company returns. These people were individuals with a private income who were not engaged in regular employments, many of whom were wealthier ladies and widows with capital available to invest for a return.

A similar picture can be seen on smaller railway companies, the Wantage Tramway, for example, being capitalised entirely by local subscriptions, with Colonel Loyd-Lindsay, later Lord Wantage, and a small number of local businessmen and women investing in the majority of shares in the company, although many others had a modest shareholding in the company. The tramway company made no use of bank loans, sourcing additional finance when required through loans made to the company by directors such as the company's secretary Edward Ormond.²³⁵

The combination of the availability of capital from private individuals and also from the banks for short term use enabled British retailers, manufacturers, mines, canals and railways to expand but these organisations needed a reason for expansion, and business to support it once undertaken. The support and demand for expansion of all of these areas of the British economy was created by demand. The increase in travel undertaken by the Victorians who had discovered a new passion for travel, supported the expansion of passenger services by rail and later by tramway within the expanding cities and major towns. The creation of suburbia created a need for better local travel to commute into town for work and for shopping and leisure. At the same time an increase in demand for products and consumables, as well as for an increasing variety of branded foodstuffs created a demand for a wider retail offering and a cheap and fast transport system to support it.

²³⁵ Richard Marks, *The Wantage Tramway: The Story of a Bucolic Road Side Steam Tramway* (Barnsley, 2024), 28, 76.

Demand from increasingly technological industries for new machinery, spare parts and new materials to support the production of increasingly sophisticated and varied manufactures drove demand upon those manufacturers which produced such items, and demanded increased output from mines, both of coal and ore. The growth of industrialisation also created an increased demand for foodstuffs as the urban populations increased, particularly once urban health schemes had reduced mortality rates. The increasing success of mining, manufacturing and the service industries that supported them allowed for pay to increase accordingly, which saw not only the middle class with a higher disposable income, but also the better paid upper echelons of the working class having a modest amount of disposable income.

More people, as a result, were able to afford a wider range of goods, and even the working class were often able to afford a modest amount of luxury items, especially collectibles. Consumers began to desire a new range of goods which in turn drove changes in production processes, and changed the relationship between households and markets.²³⁶ The availability of new imported and British products such as tea, china, and children's toys, created a new industriousness among the British working population to enable those people to be able to afford them and to satisfy both their own desires and the perceived need to emulate both their peers and the wealthier members of society.

The change in tastes and preferences drove demand, which in turn created a need for manufacturers to expand their production capacity, reduce costs to make their products more competitively priced for the retailer and ultimately the consumer. Changes which occurred in the tastes and demands of the upper echelons of society trickled down through the classes by emulation creating the early stages of consumerism.²³⁷ As a result ownership of goods by the 'middling sort' increased but with regional differences and locational variations as local fashions drove consumer behaviours. The working class began to be able to afford more as the nineteenth century progressed

²³⁶ Sara Howell, 'Consumption 1700-1870' in: Roderick Flood, Jane Humphries and Paul Johnson (Eds), *The Cambridge Economic History of Modern Britain: Volume 1 1700-1870* (Cambridge, 2014), 238.

²³⁷ Howell, 238.

and wages in some jobs rose. The higher demand for consumer products drove a need to changes to retailing, as outlined earlier in this chapter, which can be seen in the replacement to some degree of localised small batch manufacturing of products by mass produced cheaper equivalents. The increasing demands also saw an increase in freight and parcels traffic on Britain's growing railway network.

A product of the changes in the demand for products and services, coupled with the availability of fast and cheap railway services was a gradual move toward larger companies. As has been discussed this can be seen to have been a feature of brewing, but the same can be seen within other sectors. Huntley and Palmer in Reading, and Plenty and Son in Newbury serve as examples of an increasing number of large-scale companies that could be seen throughout the British economy. The railway companies were no different, growing through the acquisition of other railways in the region they served or wished to serve as well as a continuous programme of building new lines until the completion of the Great Central Railway's London Extension to London Marylebone in 1899.

The amalgamation of companies through mergers and acquisitions was a feature of the British economy after 1870.²³⁸ Payne argues that pressure had been building up within the British economy against the dominance of the small partnership or sole trader, and resulted in the creation of business units that were much smaller than those to be found in the United States which were less flexible and limited in the range of products they were able to produce.²³⁹ The research for this thesis, seems to indicate that something else was happening in Berkshire. Smaller companies remained dominant in the main, although large companies such as Huntley and Palmer were certainly extremely important parts of the local economy. Many of these larger companies, such as Auden and Auden in Wantage were able to produce a broad range of products, and even work as a subcontractor for maintenance of railway equipment for the Wantage Tramway. Huntley and Palmer

²³⁸ D.L.Payne, 'The Emergence of the Large-Scale Company in Great Britain, 1870-1914' in *The Economic History Review*, 20 (1967), 519.

²³⁹ Payne, 520.

created a broad range of baked products, including bespoke celebration cakes and 'ships-biscuits' and other goods for the Royal Navy. Large companies were no doubt being formed across Britain, but the smaller, specialist or more flexible manufacturer or trader still seem to have had a place.

It seems clear that much change was occurring in the British economy during the nineteenth century. This was the commercial environment that was developing during the nineteenth century in Britain, which the newly developing railways were playing an important part in supporting. With the general trends in the economy established, the thesis will now return to the research questions, in order to establish how the rural county of Berkshire compared to the prevailing general commercial landscape of Britain.

It is not viable to provide an analysis of each town and village in the county at the level of detail required to satisfactorily examine how the railways influenced economic development in the county. The selection of the representative set of towns for the case studies which follow gives both a group of towns of various sizes with different rail links and a broad geographical spread across the county. This will produce a broad range of data from which less generalised conclusions than found in much of the historiography may be drawn.

One factor which impacted upon all towns in Berkshire negatively but which was indirectly caused by the railways was the agricultural depression after 1870. The import of cheaper produce from the United States, Australia and across the rest of the British Empire caused a recession within British agriculture. The need to compete drove a demand for machinery to mechanise processes, and for cheaper fertilisers, often manufacturing by-product, with which to make the land more productive. As for other factors examined in this thesis, it was not the only driver of change. The case studies show how industries were effected differently by the recession in the early 1870s.

Chapter 6: Reading Case Study

The town of Reading lies at the confluence of the rivers Kennet and Thames and has been an important transport hub since the Anglo-Saxon period; the Viking king Swain established a campaigning base there in AD 1006.²⁴⁰ Reading has been an important transport centre on important arteries leading to the west of England from London since the Roman presence in Britain, and was also extremely important to the Saxons. The Gough Map of 1325-1350 shows Reading on a junction of the main river arteries linking the capital with the south west.

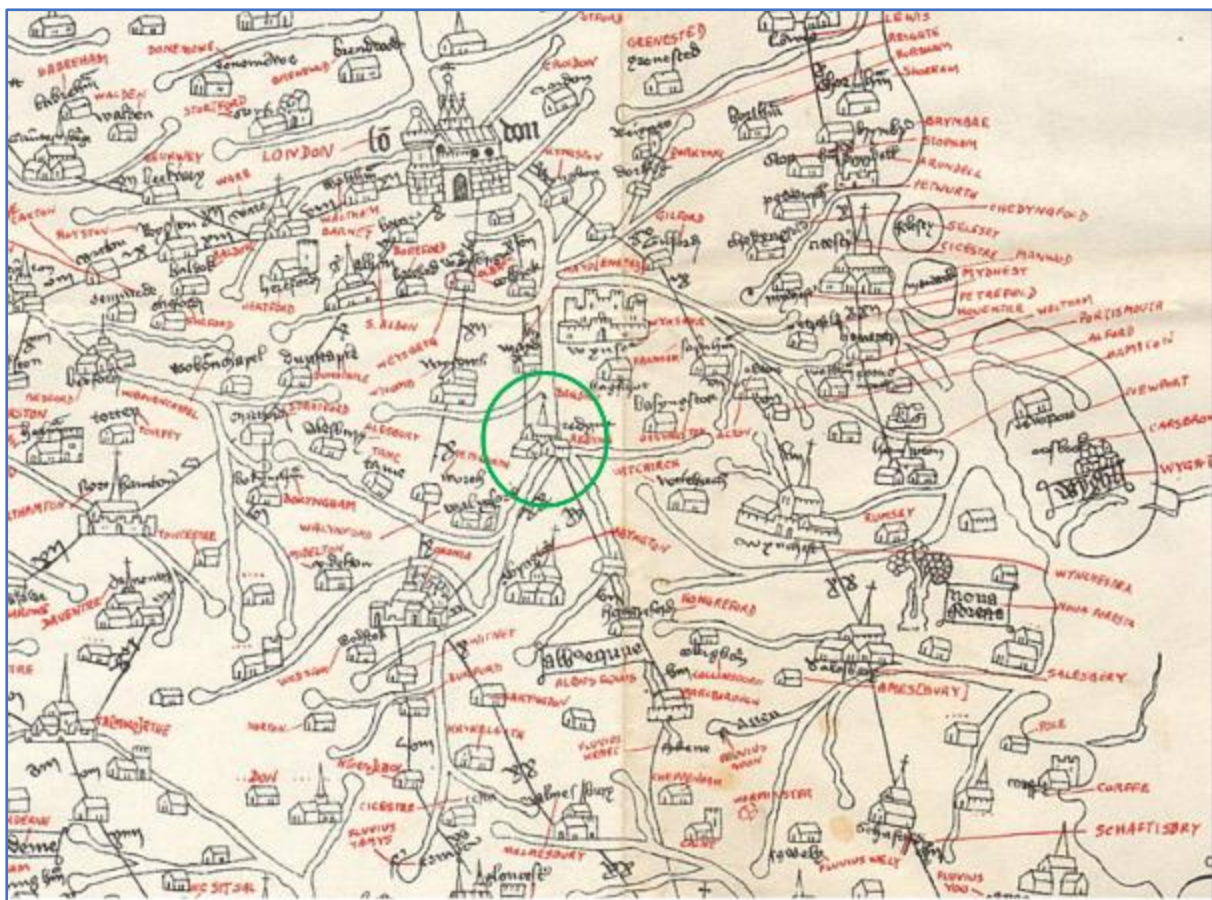


Figure 18: Ordnance Survey reproduction Bodleian map Britain 1325-1350 (The Gough Map)²⁴¹

²⁴⁰ Joan Dils, *Reading: A History* (Lancaster, 2019), 6.

²⁴¹ Director General of the Ordnance Survey, UK, Public Domain, via Wikimedia Commons, 'Ordnance Survey reproduction Bodleian map Britain 1325-1350 (The Gough Map)', Director General of the Ordnance Survey, UK, Public domain, via Wikimedia Commons, [Online Image], https://commons.wikimedia.org/wiki/File:Ordnance_Survey_reproduction_Bodleian_map_Britain_1325-1350.jpg, (accessed 5 July 2021).

The rivers Kennet and Thames were linked with the south-west of England and the midlands in the late eighteenth and early nineteenth centuries through the expanding canal network, reinforcing Reading's place as an important transport hub.²⁴²

The importance of Reading as a centre of the economy of Berkshire was defined during the medieval period by Reading Abbey. The economy of Reading continued to grow throughout the early Medieval period and, by 1350 the town had become an important centre of trade and politics gradually surpassing Wallingford as one of the two most important towns in the county.²⁴³ Berkshire did not have a recognised county town at this time, although Reading was beginning to become an important centre performing the role of such a town. The county gaol moved to Reading from Windsor in 1330, and the country session law courts had already been presided over in the town for over a century.²⁴⁴ The County Sessions would, however, later be shared between Abingdon, Newbury, and Reading. The Commercial Directory for Reading of 1833, stated that the Epiphany session was held in Reading, whilst Newbury held the Easter session and Abingdon the Midsummer and Michaelmas sessions.²⁴⁵

Reading, alongside Newbury had begun to develop as an important centre of woollen textile manufacturing and brewing by the mid fourteenth century, both towns remaining key centres of this industry until the seventeenth century. Textile manufacturing was still an important part of the economy of Reading during the late seventeenth century, woollens and sail cloth being the main output.²⁴⁶ Despite the strength of the cloth industry in Berkshire, by the middle of the eighteenth-century cloth manufacturing was in terminal decline in the county and Reading was particularly

²⁴² William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement*, (London, 1809), 427,438, 441 ; Humphrey Household, *The Thames & Severn Canal* (Newton Abbot, 1969), 70.

²⁴³ The tax returns for 1334 ranked Reading as the 40th richest town in England, Newbury ranked 22nd with Abingdon ranked 46th. Wallingford was not ranked. Dils, 23.

²⁴⁴ Dils, 24.

²⁴⁵ University of Leicester Special Collections Online, Historical Directories of England & Wales, *Berkshire Commercial Directory for 1833*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/260813/rec/5>, (Accessed, 2nd June 2021).

²⁴⁶ Dils, 132.

impacted. Brewing remained relatively unaffected, William Blackall Simmonds opening a new state of the art brewery in Seven Bridges Street (now Bridge Street) in 1782, which included a new Boulton and Watt Steam Engine.²⁴⁷ The brewery site at 24 Bridge Street was well chosen as it was located on the Kennet Navigation giving the brewery direct access to transport links to London and the West Country for the transport of coal and hops, the site still being used by the brewery in 1915.²⁴⁸

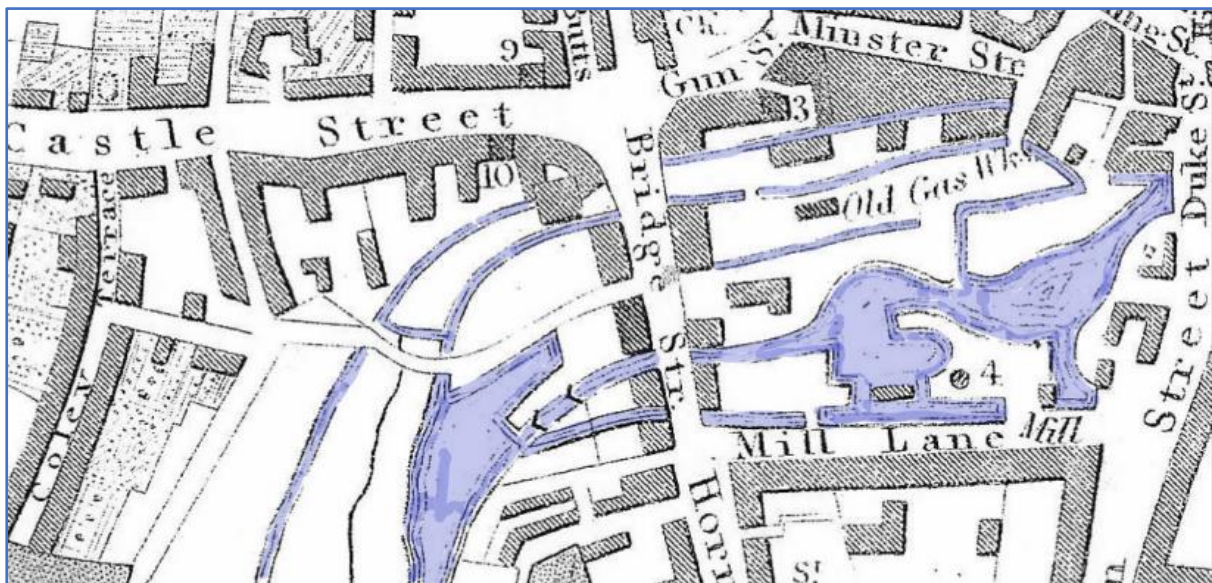


Figure 19: Bridge Street and Surrounding streets in 1840 with the Kennet Navigation marked in blue.²⁴⁹

The Kennet Navigation was one element of a comprehensive canal network which served Reading. Opening to Newbury in 1723, the Kennet Navigation was extended to Kintbury via the Kennet and Avon Canal in 1797, finally reaching Bath and the Avon Navigation in 1810.²⁵⁰ Reading was also served by the Thames Navigation, into which the Kennet flows, and which effectively extended the Kennet and Avon Canal to London and the docks therein.

²⁴⁷ Stuart Hylton, *A History of Reading* (Chichester, 2007), 129.

²⁴⁸ University of Leicester Special Collections Online, Historical Directories of England & Wales, *Kelly's Berkshire Directory, 1915*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/226757/rec/3>, 168. (Accessed 5 July 2021).

²⁴⁹ Reading, Reading Central Library, *A New Plan of the Borough of Reading, 1840* (Reading, 1840).

²⁵⁰ Kenneth R. Clew, *The Kennet and Avon Canal*, (Newton Abbot, 1968), 25, 57, 73.

Reading's situation on the Thames with its links to the Thames and Isis Canal, Berks and Wilts Canal and on to the greater English canal network preserved its place as a commercial hub. In 1809 William Mavor reported on the traffic passing through and into the town. Mavor commented on the volume of Newcastle coal being transported upstream from London to Reading.²⁵¹ Mavor also noted that consumption of Newcastle coal was reducing by the early nineteenth century due to the volume of coal being transported to the town from Staffordshire (carried on the Oxford Canal and the Thames Navigation), Shropshire and Wales (carried on the Thames and Severn Canal), none of which could be transported further than Reading due to legal limitations placed upon the canals.²⁵²

The report provided an analysis of the traffic passing through Reading in 1809 along the canals and their extensive connections. Mavor stated that Reading benefitted from the long-distance connectivity provided through the Thames Navigation's and Kennet and Avon Canal's connections which could clearly have supported the establishment of a manufacturing base in the town before the advent of the railways. Further evidence of this can be seen in the case of the Simmonds Brewery's Watt Engine, which would indicate a ready source of affordable coal to power the engine and the brewery.

The Thames and Severn canal gave access to the South Wales coal fields, whilst the Oxford Canal gave access to Birmingham, Manchester, Liverpool and the North of England, providing a competitive source of coal and reducing reliance on Newcastle coal transiting through the port of London.²⁵³ The Wilts and Berks Canal, which opened to Abingdon in 1810, was built, according to Mavor's report, to provide a means to convey coal into both Wiltshire and Berkshire 'a country where fuel of all kinds is extremely dear'.²⁵⁴

²⁵¹ William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of the Board of Agriculture and Internal Improvement*, (London, 1809), 433.

²⁵² Mavor, 434.

²⁵³ Mavor, 434-5.

²⁵⁴ Clew, 73; Mavor, 447.

This connectivity allowed Reading to become a transport hub, with the related service industries such as boat building and warehousing to support it. Mavor outlined the typical merchandise being carried to, or transhipped through Reading. Local processed corn (flour, meal, and malt) was sent to London as was local wool and timber. Iron and copper was transported from South Wales.²⁵⁵

Berkshire was well provided with a good network of turnpike roads, no place in the county, according to Mavor further than ‘...three miles from some good turnpike roads’.²⁵⁶ The network of good roads and comprehensive canals served Berkshire well before the advent of the railways and facilitated the development of not only a rural but also a manufacturing-based economy with the accompany services to support it. The cost of coal was extremely high at the time due to the monopoly of the Newcastle collieries, although much of Berkshire was able to access a ready supply of wood for use as an alternate fuel from the woodland common throughout the county and particularly that close to the Thames Navigation and other inland waterways serving the county. Competition from other coal fields later, especially the Yorkshire coal fields after the advent of the railways saw prices drop considerably as greater competition forced prices down.

Reading had developed into a vibrant commercial town by the beginning of the nineteenth century, and whilst it did not have the huge shipyards of Newcastle, and Glasgow, the steel mills of Cardiff and Sheffield, nor the vast numbers of cotton mills seen in Manchester or Blackburn, the town still contained a sizable number of manufacturing businesses.

Horniman’s Reading Directory of 1827 lists three hundred and seventy-nine businesses in the town.

Type of Business	Number in 1827
Artisan Cobblers	44
Tailors	30
Linen Drapers	20
Coal Merchants	16
Straw Hat Makers	14
Whitesmiths	12
Cabinet Makers	11

²⁵⁵ Mavor 442.

²⁵⁶ Mavor, 422.

Watchmaker	11
Brewers	10
Silversmiths and Jewellers	10

Table 4: Ten most frequently occurring manufacturing and associated businesses in Reading in 1827.²⁵⁷

The manufacturing base within Reading was complimented by ancillary service businesses, fifteen solicitor's practices and ten bargemasters being based in the town for example.

As has been outlined in the Methodology above, there may have been some degree of inconsistency between various publishers of directories but by using a selection of directories from different publishers and examining trends rather than absolute numbers of businesses it is possible to extract some meaningful information therefrom.

In 1837 the business landscape of the town appeared to be in recession, the number of businesses reducing to two hundred and twenty-eight.

²⁵⁷ Reading, Reading Central Library, Horniman's Reading Directory: 1827.

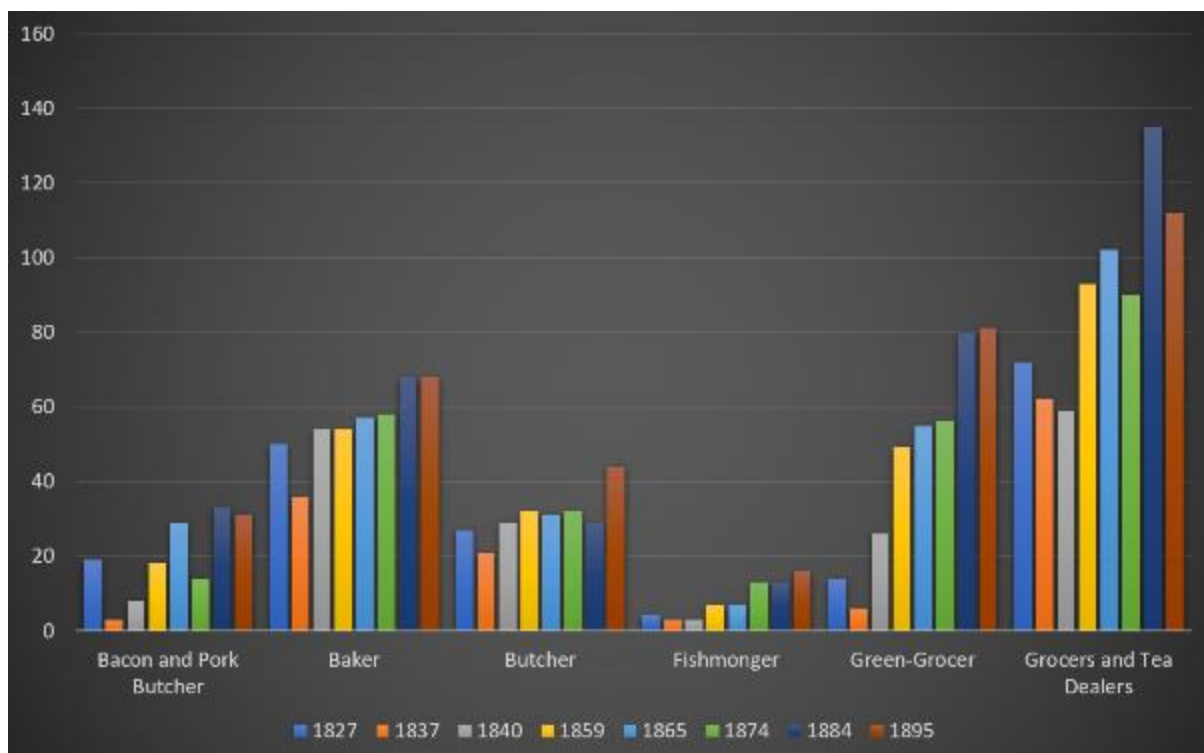


Figure 20: Food Retailers in Reading by sector, 1827-1884²⁵⁸

A study of the trend relating to food retailers alone between 1827 and 1840 shows a decrease in the numbers of traders between 1827 and 1837 with the statistics for 1840 indicating a small recovery in the meat trade, a faster recovery in the number of greengrocer's, continued decline in the number of grocers and fishmongers. The economy of Reading then seems to enter, mainly a sustained period of growth in most areas of food retailing. It is most likely that the increasing population of the town over the latter part of the nineteenth century was creating more demand for food, and that changes in tastes were driving a move toward different types of food. By 1859 most grocery sectors appear to have been experiencing growth, but this was most likely linked to increased demand due to population growth than to the direct impact of the railways. The number of butchers in Reading

²⁵⁸ Reading, Reading Central Library, Horniman's Reading Directory: 1827 (Reading, 1827); Reading, Reading Central Library, Ingall's Reading Directory: 1837 (Reading, 1837); Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840); Reading, Reading Central Library, MacAulay's Reading Directory, Almanac and Official Register for 1859 (Reading, 1859); Reading, Reading Central Library, MacAulay's Reading Directory, Almanac and Official Register for 1865 (Reading, 1865); Reading, Reading Central Library, Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873); Reading, Reading Central Library, Stevens' Directory of Reading: 1884 (London, 1884), Reading, Reading Central Library, Smith's Reading Directory 1895 (Reading, 1895).

reflects the general trends to be seen elsewhere in food retail, however within the sector pork butchers seem to be experiencing a more fluctuating trend than general butchers. Whilst both were experiencing growth until 1859, the next thirty years show very different trends. General Butchers experience a period of consistency, whilst Pork Butchers grow in number steadily until 1865, but then experience a very large decrease, followed by a recovery. This trend is unlikely to be caused by the railways, but more likely to be a result of changes in fashion and eating habits among the population of Reading. It is also likely to reflect a trend toward butchers handling all meats and not segregating pork products from others.

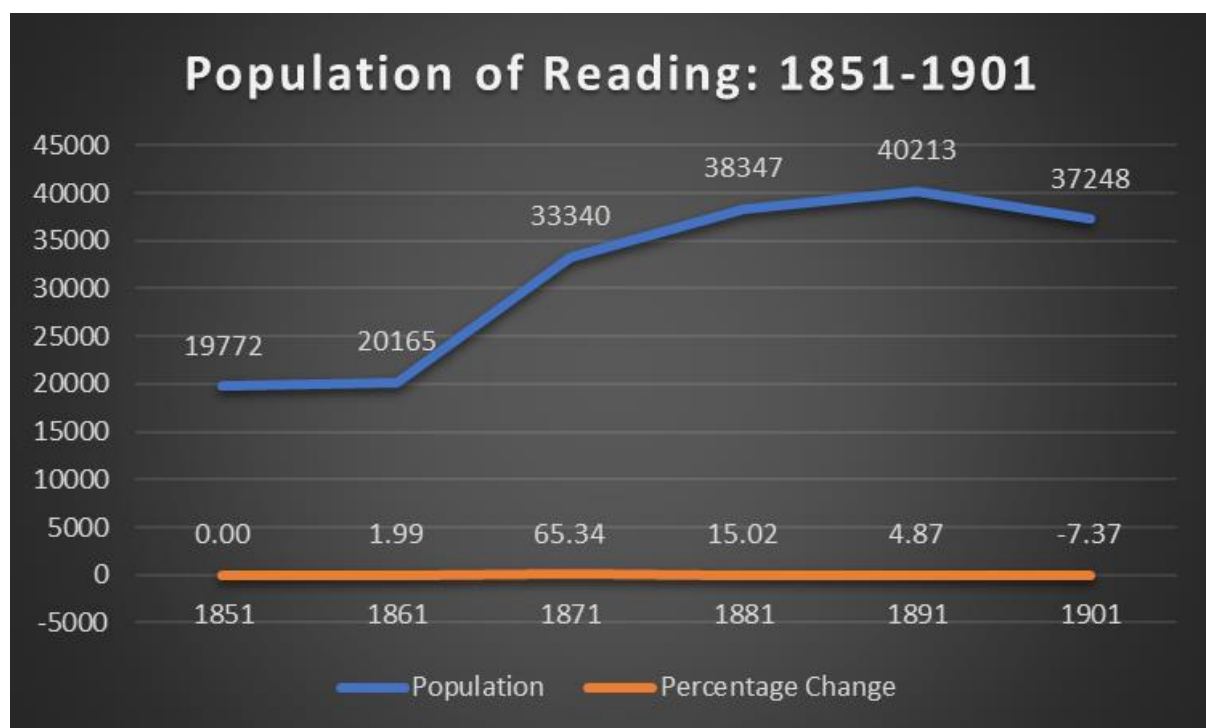


Figure 21: Population Change in Reading between 1851 and 1901.²⁵⁹

In this one sector there were different experiences of how trade trends progress, but in neither sub-sector is it likely that the railways were the major cause of change. The case of the butchery trade in Reading shows how a more detailed investigation of the economies of British towns would make an

²⁵⁹ Integrated Census Microdata; Census of England and Wales, 1871, Population tables. Area, houses, and inhabitants. Vol. II. Registration or Union Counties BPP 1872 LXVI Pt [C.676-I] 92 [Website] <http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Occupation%20AND%20Wokingham&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=46&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=104&zoom=4> (accessed 8th June 2022).

important contribution to the historiography of the impact of the railways upon local economies during the nineteenth century. The trade, much like many others, was probably unlikely to have been directly impacted by the railways, other than in the availability of fresh produce transported from further afield than the local farm once refrigeration was coming on railway rolling stock designed for that purpose. The improved speed of the railways as opposed to the canals would have allowed for a wider array of suppliers to have been used to source the produce for the butcher's shop but the local butcher was still likely to be buying from the local meat markets and farmers rather than sourcing their produce from wider afield.

The main driver to change with relation to this trade was most likely to have been population increase in the main; the number of people living in a place providing a customer base to support either larger or more butchers shops, although a population decline would clearly have the opposite effect. In Reading, the relationship between population and the number of food retailers seems to hold mainly to be true, with increasing population supporting a rising number of food retailers. There seems to be an exception which occurred in 1901. The number of food retailers mainly continued to increase although the population showed a decrease. The number of general grocers and tea dealers declined as would be expected, although the number of general butchers, fishmongers and green-grocers increased slightly. It seems that there are more factors influencing the food trades, most likely changes in tastes and the increasing wages of working class people which enabled them to buy more fresh meat, fish and vegetables than perhaps had been the case. Whilst the railway had no direct influence on these trends, they would have been important in the transport of fresh sea fish and fresh meat into Reading.

The general wealth of the local community, as well as eating fashions (for example the decline and resurgence of pork products as a cheap foodstuff and its re-emergence later in the century as a more desirable part of the Sunday roast or as part of the British cooked breakfast as the sausage) would also have caused variation in the number of butchers and particularly specialist pork butchers.

There were clearly more factors at play than just the arrival of a railway in the locality, and as has been outlined in the methodology it is necessary to undertake a detailed examination of various towns where the population demographic may be as varied as their economies and types of businesses trading there.

A few other sectors had also experienced contraction since 1827, particularly the number of coal merchants, which the increasing size of the town would have led one to expect an increase such as seen in the numbers of shoe and dress makers.

Type of Business	Number in 1837
Shoemakers	24
Brewers	17
Tailors	16
Dressmakers	13
Coal Merchant	11
Drapers	11
Linen Drapers	8
Straw Hat Makers	8
Coopers	6
Saddler and Harness Makers	6

*Table 5: Ten most frequently occurring manufacturing and associated businesses in Reading, 1837.*²⁶⁰

The town of Reading appears to have been experiencing economic growth in 1827, thirteen years prior to the arrival of the first railway link, followed by a recession in 1837 on the eve of the arrival of the GWR, the enabling Act of Parliament for which had been passed in 1835.²⁶¹ The canal network around Reading, which was complete by 1810 appears to have had mixed influence upon economic change evidenced by the variable change in different economic sectors. This suggests that, like the arrival of the railways, the economic impact was dependent upon how commercial traders engaged with the new transport infrastructure.

²⁶⁰ Reading, Reading Central Library, Ingall's Reading Directory: 1837.

²⁶¹ Reading, Reading Central Library, Reading, Reading Central Library, Berkshire Acts of Parliament Vol.2: An Act for Making a Railway from Bristol to Join the London and Birmingham Railway near London, to be Called the "Great Western Railway" with Branches from therefrom to the Towns of Bradford and Trowbridge in the County of Wilts (31st August 1835).

As Mavor suggests, the availability of affordable coal in the town following the creation of the canals was most likely to have had a positive influence. Further evidence of this can be found at Simmonds' Brewery where the choice to install a Watt Engine appears to indicate a reliable and affordable supply of fuel. However, as can be seen in the statistics, not all sectors were impacted positively, and some, such as greengrocers who were most likely to have been sourcing their produce from local farms, would have seen little impact due to the slow speed of the canals which would have made sourcing perishable produce from suppliers outside the county unviable.

A recovery can be seen within the statistics for the economy of Reading extracted from the trade directories in 1840, where the number of businesses has begun to increase once more. The influence of the arrival of the GWR is debatable as the directory was printed in 1840 and thus the entries may have been collected prior to the opening of Reading station on the 30th March 1840, although the imminent arrival of the railway may have encouraged economic optimism.²⁶²

The GWR was the first railway company to reach Reading. The initial section of Brunel's route from London opened from Paddington as far as Reading, the remaining part of the route from Bristol opening in June 1841.²⁶³ The GWR's expansion further west began with the Berks and Hants Line which opened to Newbury in December 1847, with an extension to Devizes opening in November 1862.²⁶⁴ A branch from the Berks and Hants line to join the London and Southampton (later the London and South Western) Railway at Basingstoke, opened in November 1848.²⁶⁵ The Great Western linked Reading to Oxford in June 1844 with the opening of the Oxford and Great Western Union Railway from a junction at Didcot, and to Birmingham with the purchase of the Oxford and

²⁶² Adam Sowan, *All Change at Reading: The Railway and the Station, 1840 – 2013* (Reading, 2013), 9.

²⁶³ Colin Maggs, *A History of the Great Western Railway* (Stroud, 2nd Edn. 2015), 19.

²⁶⁴ Rex Christiansen, *A Regional History of the Railways of Great Britain, Volume 13: Thames & Severn* (Newton Abbot, 1981), 21, 160.

²⁶⁵ Christiansen, 160.

Birmingham Railway in 1848.²⁶⁶ With the completion of these routes Reading became linked to the west, and to the Midlands and onwards to the north of England.

The RG&RR was proposed in 1845, by Guildford banker Frederick Mangles, to access what was believed to be lucrative potential traffic within the area.²⁶⁷ The RG&RR received its Act of Parliament in July 1846, the first section of the line from Reading to Farnborough opening on 4th July 1849, and through to Guildford in August, meeting the SER's extant line to Reigate and London Bridge, creating a second but convoluted route from Reading to London.²⁶⁸ The SER was interested in expanding its empire towards the west and agreed to operate the RG&RR from March 1850, finally absorbing the Guildford company in June 1852.²⁶⁹ The expansionist SER, attracted by the potential freight traffic carried by the Kennet and Avon Canal, engaged in talks with the latter aimed to put in place agreements to exchange freight traffic at Reading where the canal passed close to the railway's station. The SER's plans were however thwarted by the GWR's competing offer to the canal company which would eventually lead to the acquisition of the canal company by the Great Western.²⁷⁰

The business leaders of Staines and Woking formed a new company, the Staines, Wokingham and Woking Junction Railway Company (SW&WJR) in 1852, gaining the Act of Parliament to construct the line in July 1853. The line was to leave the LSWR's Windsor branch (opened 1849) at Staines and join the RG&RR through a junction at Wokingham, with onward running powers to Reading over the former's route. Woking would be served by a five-mile branch from the main route to Reading, diverging six miles from Staines. The route to Wokingham opened in July 1856.²⁷¹ Reading now had

²⁶⁶ Reading, Berkshire Records Office, Q/RUM8, Plan and Section of the Proposed Railway from Oxford to Join the intended Great Western Railway and to be Called The Oxford and Great Western Union Railway with the Proposed Branch Railway thereout to Abingdon, 1836; Christiansen, p.87.

²⁶⁷ Adrian Gray, *South Eastern Railway* (Midhurst, 1990), 177.

²⁶⁸ Gray, 181.

²⁶⁹ Gray, 183.

²⁷⁰ Gray, 182.

²⁷¹ R.A. Williams, *The London and South Western Railway, Volume I: The Formative Years* (Newton Abbot, 1968), 181-182.

three routes to London; The GWR to Paddington, the SER to London Bridge via Reigate, and the LSWR's shorter route to Waterloo.

Like the RG&RR the SW&WJR was operated by a larger concern, in this case the growing LSWR, which was attracted by the opportunity to acquire a share of the large London traffic to and from Reading. The LSWR operated the company from the outset, initially under a forty-five-year lease, but later acquiring the company.²⁷²

By 1856 Reading was served by three large railway companies, although at two separate stations, the Great Western having sole occupation of their own facility, whilst the SER and LSWR shared facilities to the south of the Western Company's station.

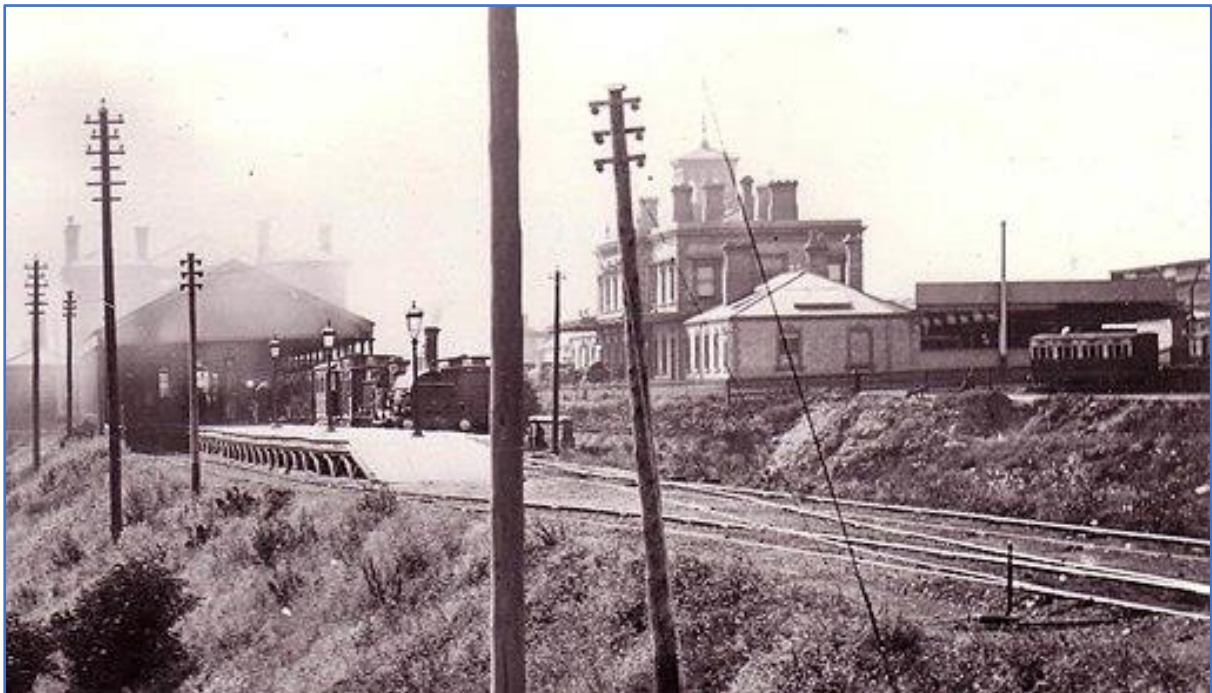


*Figure 22: The Two Reading Railway Stations in 1856. The GWR station is to the right on the higher embankment the shared SER and LSWR station to the left on the lower.*²⁷³

Both routes into the town passed over water meadows to the north of the town and south of the river Thames. The route involved little disruption to property or businesses, unlike that experienced

²⁷² Williams, 182

²⁷³ Unknown Author, Public Domain, via Wikimedia Commons, *The Two Reading Stations, 1865* [Online Photograph], https://commons.wikimedia.org/wiki/File:Reading_station_1865.jpg (accessed 5th July 2021).

in the larger cities such as Birmingham or Manchester where the railways could be the source of huge upheaval.

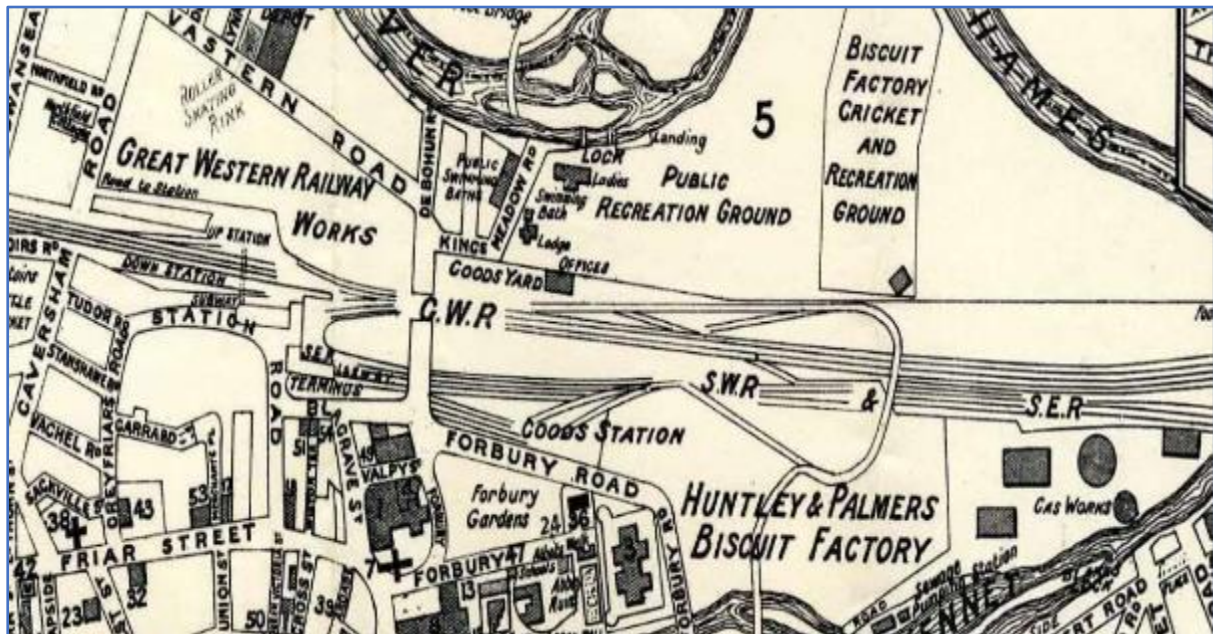


Figure 23: The Two Reading Railway Stations in 1884.²⁷⁴

The historiography would suggest that, with Reading being well served by railways, the economy of the town should see growth, based on the common supposition discussed in the Literature Review that the railways were either the cause of economic growth, or one of the main drivers to growth. The recovery of Reading's economy in 1884 from the decline that seems to be indicated by the data during the 1870s occurs twenty-eight years after the last of the railway companies reached to town so it is unlikely that the recovery is due to the railways.

²⁷⁴ Reading, Reading Central Library, Reading Borough Street Plan, G.R.Smith, 1884.

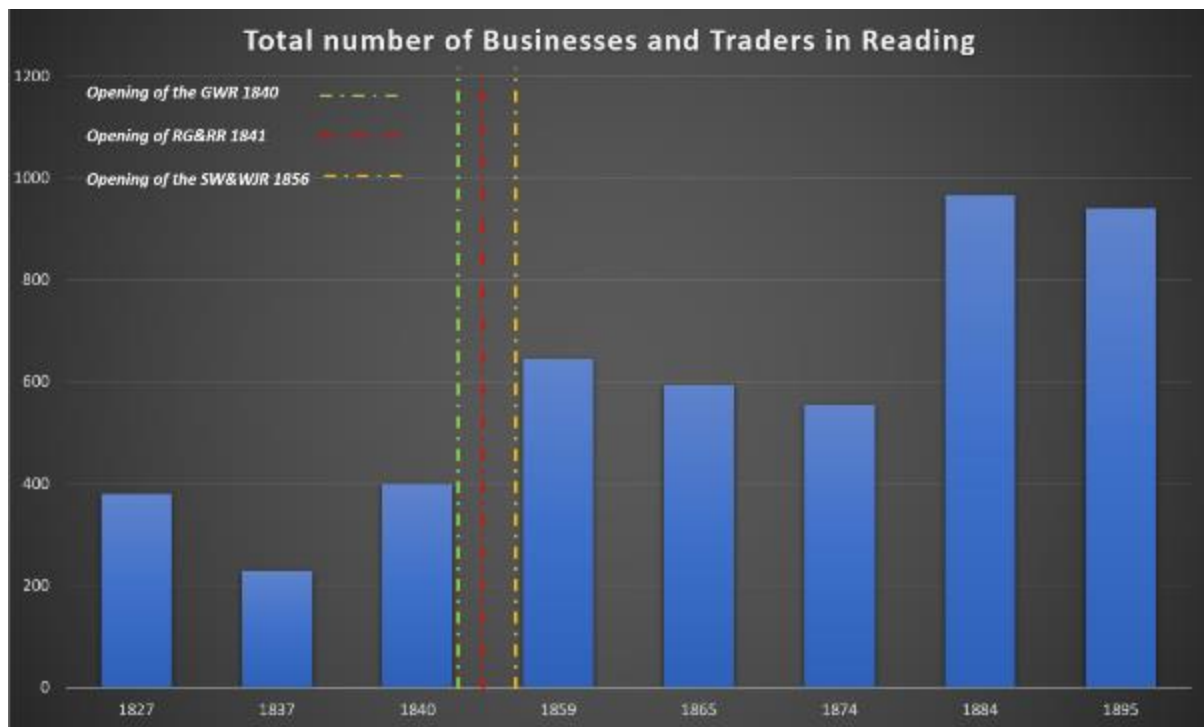


Figure 24: Businesses in Reading enumerated in Commercial Directories²⁷⁵

An examination of the directories for Reading immediately presents a problem with the general conclusion drawn by much of the historiography. Whilst an initial growth in the number of commercial concerns can clearly be seen in the statistics between 1837 and 1859, the period up until 1874 suggests a decline rather than growth, even allowing for the growth of individual businesses such as Huntley and Palmer or G.W. Dunlop and Son, the trend suggests decline as the larger businesses should have been creating demand for local supporting services to serve the plant and machinery in their factories and so forth. This suggests that supporting services were being sourced from elsewhere with the required spare parts and new machinery most likely to have been imported into the county via the railways, with accompanying engineers to instal or repair them.

²⁷⁵ Reading, Reading Central Library, Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading: 1884; Smith's Reading Directory 1895.

It seems that the statistics are indicating that the railways had a negative impact upon the growth of Reading's economy in this sector. The availability of machinery, parts, and supporting services being available from elsewhere, cheaply due to localised specialisation in the manufacture of these items, or the provision of supporting services related to them, and the economies of scale that this specialisation supported.

The Goad Insurance Maps for 1895 show that by that year Reading contained several very large manufacturing concerns. Among these Simmonds Brewery occupied three distinct large sites in the town, Blandy, Hawkins and Company's Castle Brewery occupied one large site, Huntley and Palmer occupied one extremely large site between the GWR and SER lines, and Messers Limited occupied a vast site including a large store area marked as a wood store, most likely for seasoning wood before its use, provided with a large travelling crane.²⁷⁶ All of the larger concerns covered by the Goad Maps were also marked as a 'steam engine' being present in one building on-site, the impact of which will be discussed later in this chapter.

The footwear sector appears to have been impacted upon by the coming of the railways in two different ways, the manufacturing element of the sector being impacted very differently to the artisan cobbler who provided repair services to the local population which were likely to have remained in great demand.

In the case of the manufacturing of shoes and boots the railways appear to have had a highly negative impact upon the manufacture of footwear in Reading. After a period of growth between 1827 and 1840, the sector experienced terminal decline, ceasing to exist in the town by 1859,

²⁷⁶ Reading, Berkshire Records Office, D/EZ75/1/2, Fire Insurance Plans of Central Reading by Charles E Goad of London. Fire Insurance Plan (Sheet 2), February 1895, Blocks 1, 4 and 5; Reading, Berkshire Records Office, D/EZ75/1/3, Fire Insurance Plans of Central Reading by Charles E Goad of London. Fire Insurance Plan (Sheet 3), February 1895, Block 10; Reading, Berkshire Records Office, D/EZ75/1/5, Fire Insurance Plans of Central Reading by Charles E Goad of London. Fire Insurance Plan (Sheet 5), February 1895, Block 20.

whereas the number of artisan cobblers providing repair services continued to rise until plateauing during the early 1860s and entering a decline post 1874.

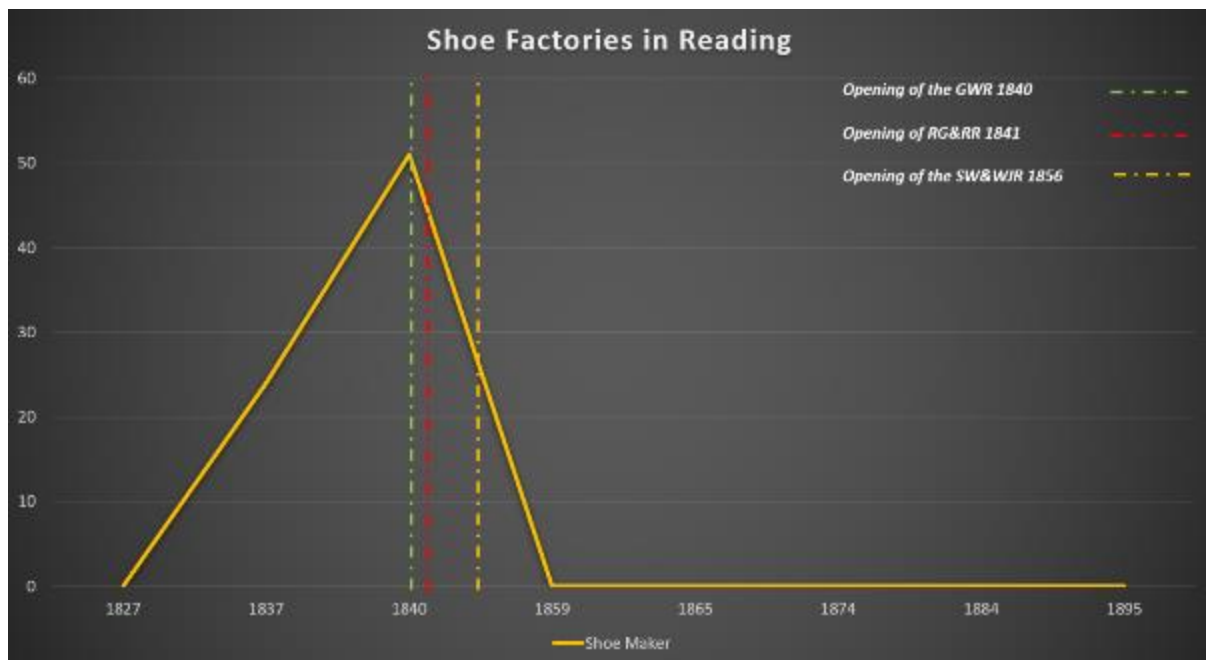


Figure 25: Reading Shoe Factories between 1827 and 1895.²⁷⁷

It is likely that other factors also played an important part in the decline of Reading's footwear manufacturing sector. The development of centralised, large shoe factories in the East Midlands allowed the manufacturers to take advantage of the economies of scale available to the mass-manufacturer, which could be passed on to the consumer through lower prices for the finished footwear. The railways offered cheap and fast transportation of these goods throughout more of the country as the railway network approached completion, undercutting local small manufacturers who were unable to compete.

²⁷⁷ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, Almanac and Official Register for 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading: 1884; Smith's Reading Directory, 1895.

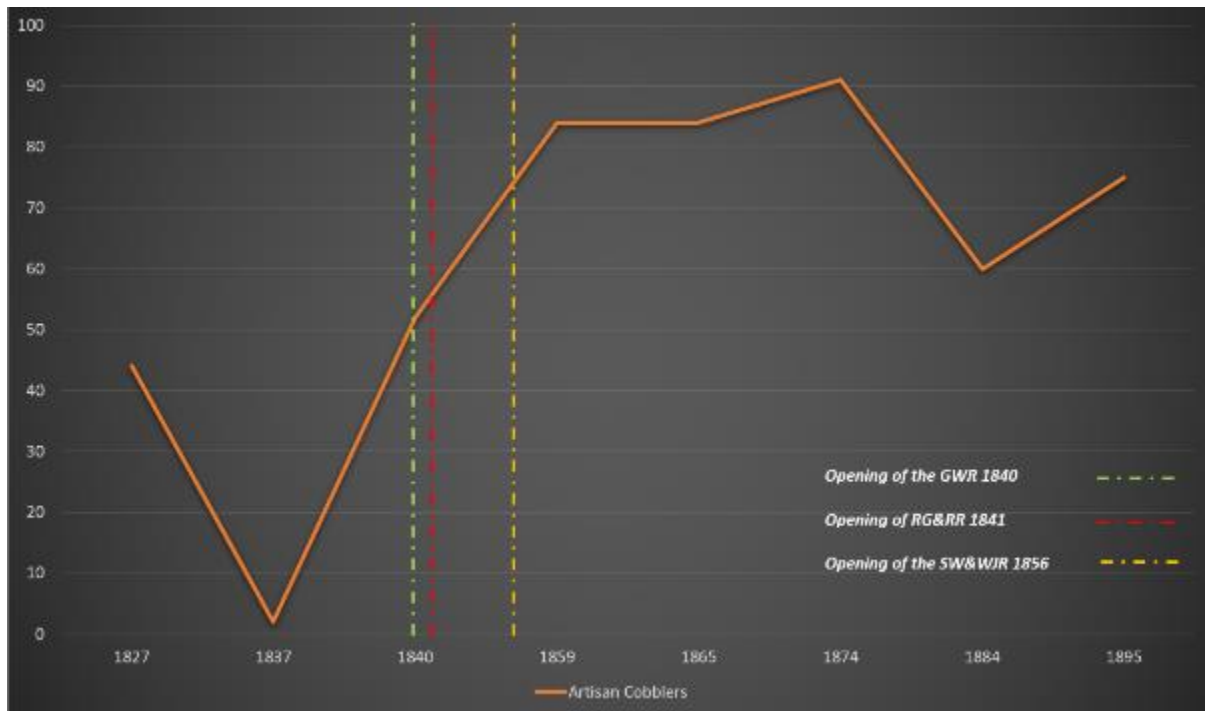


Figure 26: Reading Artisan Cobblers between 1827 and 1895.²⁷⁸

An analysis of the census returns for occupations made between 1851 and 1901 shows that the number of people working as shoe makers and repairers is relatively small. When compared to the number of businesses listed in directories related to this trade, it is clear that each business is quite small, for example, in 1861 there were four-hundred and twenty-nine persons listed as working in that trade, whilst in 1859 and 1865 the directories list eighty- four businesses trading as cobblers which indicates an average of around five persons working in each, declining to just over three persons per business at the end of the century. The shoe making factories listed in Reading have ceased trading and all that remains of Reading's footwear industry is a decreasing number of small artisan shoe and boot makers and repairers.

The question of the role that the railways played in the disruption of the shoe manufacturing industry in Reading can be answered by comparing the impact of the railways upon a town whose shoe making industry became a key part of the economy; Northampton.

²⁷⁸ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading:1884; Smith's Reading Directory, 1895.

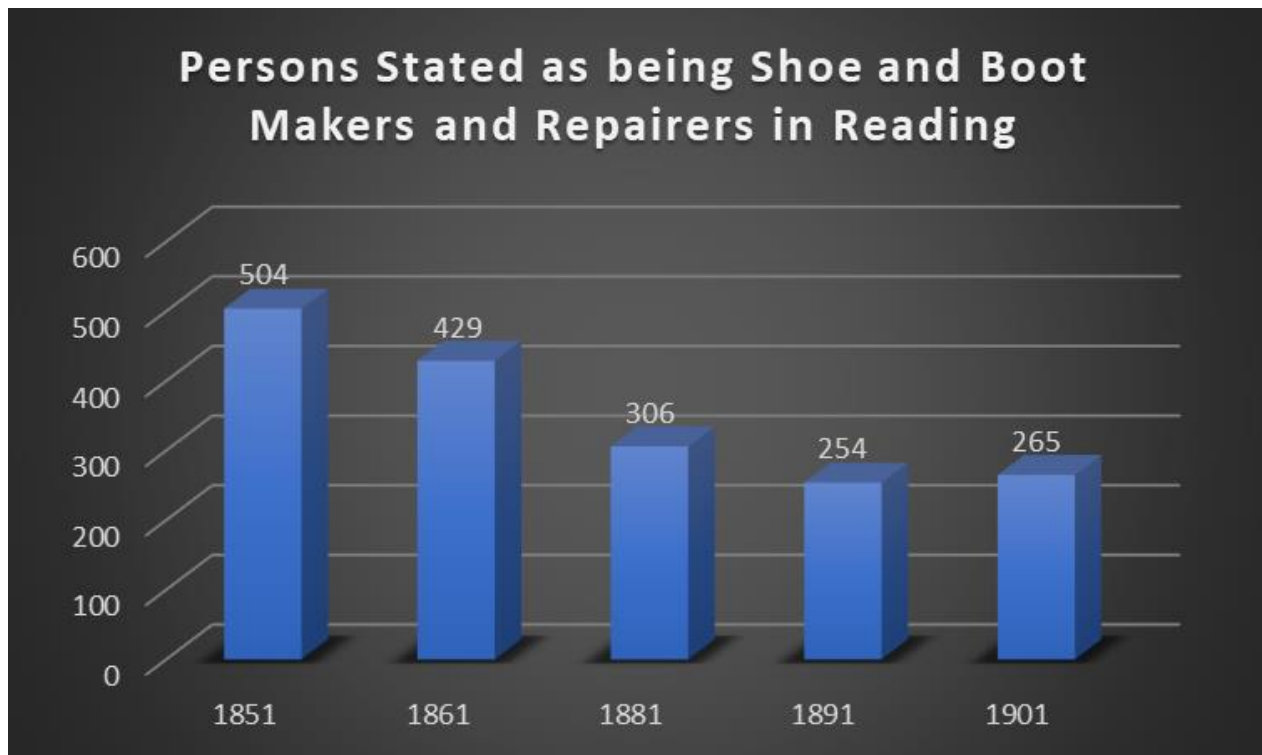


Figure 27: The Number of Persons Working as Shoe and Boot Repairers in Reading, 1851-1901.²⁷⁹

The cobbling businesses in Reading appear to have been relatively small throughout the second half of the nineteenth century. In 1859 there were eighty four cobbler's shops in Reading, employing an average of five persons. These businesses remained small; the sixty businesses present in the commercial directories for Reading in 1884 employing the same number of people. These cobbler's businesses were clearly small and not manufacturing large numbers of shoes and boots, although it is possible that they were making a small number of expensive hand-made shoes for those who could afford them. The size of the businesses were much smaller than the manufacturers in Northamptonshire where localised specialisation had occurred.

²⁷⁹ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

Pigot's commercial directory for 1841 stated in its introduction to Northampton that the town's '...commercial and trading resources...' were focused '...on the making of boots and shoes'.²⁸⁰

Harrod's Directory for 1876 also contains an introduction to the town in which it stated that Northampton was famous for its '...celebrated manufacture of boots and shoes, which is carried on to a great extent...' and that its products were '...unrivalled throughout England'.²⁸¹

The county of Northamptonshire was well served by railway routes from the outset, although some important towns, such as Northampton itself, were initially bypassed as the London and Birmingham sought more cost-effective routes for their line from London Euston to Birmingham, and the Midland sought to exploit the areas around Nottingham, Derby, and Leicester.

The railways reached Northampton when, after being bypassed by the London and Birmingham Railway's route to the midlands, the company opened a branch from Blisworth to serve the town and link it to Peterborough in May 1845.²⁸² The Midland Railway route from Wellingborough opened in 1866, with a second line, the Midland's Bedford branch opening to Northampton in June 1872.²⁸³ Northampton appears to have been well served by the railways, albeit through secondary routes.

A study of the commercial directories for Northampton's shoemakers provides a very different set of data to Reading.

Unlike Reading, Northampton experienced a period of continual and accelerating growth. The conclusions drawn in the historiography appear to match the experience of Northampton shoemaking, which suggests that whilst the historiography matches the situation as it transpired in

²⁸⁰ University of Leicester Special Collections Online, Historical Directories of England & Wales, *Pigot's Directory of Northamptonshire, 1841* [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/141361/rec/6>, 13 (Accessed 29th June 2021)

²⁸¹ University of Leicester Special Collections Online, Historical Directories of England & Wales, J.G. Harrod & Co.'s *Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876]*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, (Accessed 2nd June 2021).

²⁸² Robin Leleux, *A Regional History of the Railways of Great Britain, Volume 9: The East Midlands* (Newton Abbot, 1976), 43.

²⁸³ Leleux, 56.

some places, in other places the situation was very different. The extreme differences which can be seen in the case of the shoemaking industry in Reading and Northampton suggest that the impact of the railways upon one location could be very different to the impact in another. The case of shoemaking shows that there are issues with the general conclusions made in the historiography, the railways were clearly not underpinning the growth of that element of Reading's economy, in fact they were partly responsible for its collapse.

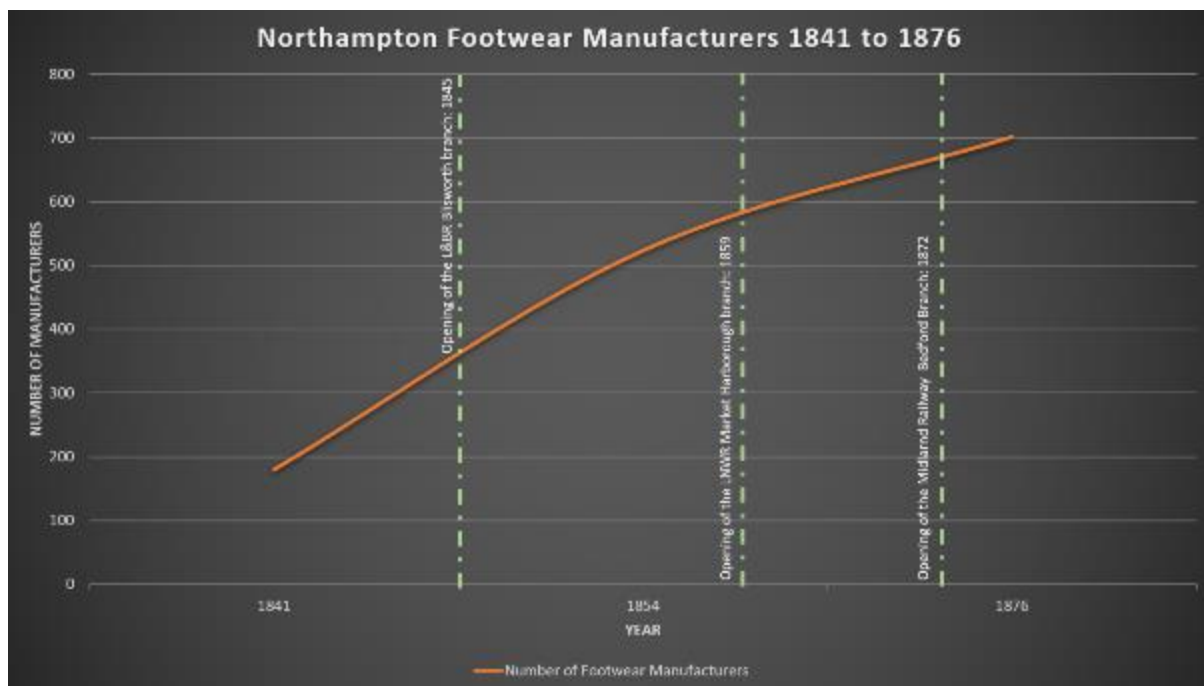


Figure 28: Northampton Footwear Manufacturing between 1841 and 1876.²⁸⁴

Another indicator that the experiences of Reading and Northampton were very different can also be seen in the statistics extracted from the commercial directories. Steven's Directory of Reading for 1884 contains a classification of businesses which had not been used in prior year's directories; Boot

²⁸⁴ University of Leicester Special Collections Online, Historical Directories of England & Wales, *Pigot's Directory of Northamptonshire, 1841* [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/141361/rec/6>, (Accessed 29th June 2021); University of Leicester Special Collections Online, Historical Directories of England & Wales, *Kelly's Post Office Directory of Berkshire, Northamptonshire, and Oxfordshire with Bedfordshire, Buckinghamshire, and Huntingdonshire, 1854*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/179460/rec/8>, (Accessed 2 June 2021); University of Leicester Special Collections Online, Historical Directories of England & Wales, *J.G. Harrod & Co.'s Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876]*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, (Accessed 2nd June 2021).

and Shoe Warehouse. The new classification suggests a move away from local manufacturing of footwear and the advent of specialist shoe retailers, there being 33 such establishments present in the town.²⁸⁵

The GWR route through Oxford to Birmingham had opened in 1852, and the Midland's route from Northampton to Bedford had opened in 1872. With the LNWR's route to Oxford and interchange facilities for freight, it would seem that the availability of mass produced, more affordable footwear from Northampton, coupled with affordable and fast freight through the railway companies, which the retailers could absorb into their sales price, made the retailing of Northampton footwear viable.²⁸⁶

Dressmaking appears to be another sector affected by the arrival of the railways in Reading. Throughout the nineteenth century the trade directories list no businesses directly involved in dressmaking, until 1895 when fifty-five businesses were listed as dressmakers. The census statistics list this occupation as being undertaken by a large number of people, the occupation steadily increasing in number until 1901.

²⁸⁵ Reading, Reading Central Library, Stevens' Directory of Reading:1884 (London, 1884).

²⁸⁶ Alan Jowett and David Sheppard, *Jowett's Railway Atlas of Great Britain and Ireland: From Pre-Grouping to the present day* (London, 1989), 85, 116.

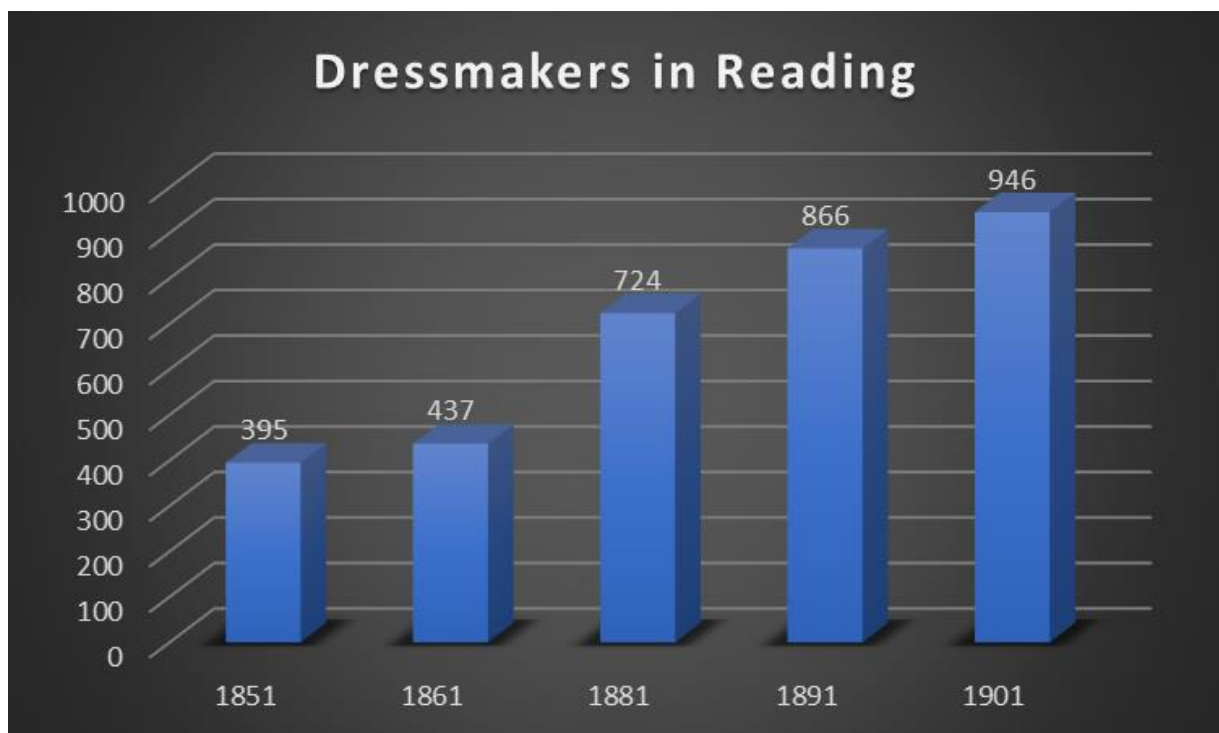


Figure 29: Persons listed in Census returns as Dressmakers: 1851-1901.²⁸⁷

This suggests that the situation is complex and that those listed as working as dressmakers in the census were either employed by companies not listed as purely dressmaking organisations or that there were ladies working either from home or in domestic service undertaking that process and not listed as dressmaking businesses in the directories. It seems that until 1895 few factory-based dressmaking businesses existed in Reading.

Advertisements placed in the commercial directories produced during the period suggest that this is the case as the advertisements placed by companies such as T. Morris and Sons list dressmaking among their other services available within their showrooms.²⁸⁸ It is possible, however, that the dressmaking capacity of these companies may have been supplemented at times of high demand (such as Ascot races or the Henley Regatta for example) by independent seamstresses working from home taking in piece work to supplement the production capacity who would not necessarily be

²⁸⁷ Integrated Census Microdata

²⁸⁸ The disconnect between listed businesses and employment occupations can be mitigated through the use of a combination of both commercial directory business listings and census occupation returns from which a more complete picture may be established.

visible within the commercial directories. This is probably the most likely explanation between the contradicting trends in the statistics and shows how important it is that a study of this kind is based upon a variety of contemporary sources from which logical deductions may be made.

**FRENCH AND ENGLISH
MILLINERY ROOMS,**
4, MARKET PLACE, READING.

T. MORRIS & SONS.

Linendrapery	Silks
Hosiery	Dresses
Haberdashery	Shawls
Gloves	Furs
Flannels	Laces
Blankets, &c. &c.	

*Large separate SHOW ROOMS on the Ground Floor for
MILLINERY, MANTLES, FLOWERS, COSTUMES,
LADIES' OUTFITS, AND DRESSMAKING.*

FAMILY MOURNING
IN GREAT VARIETY.
The largest orders made up in the best style on the shortest notice.

FUNERALS completely furnished
And conducted with economy.

T. MORRIS & SONS.
4, Market Place, Reading.

Figure 30: Advertisement for T.Morris & Sons, 1874.²⁸⁹

It seems that the combined tailoring and dressmaking sector was adversely affected by the coming of the railways and the competition this brought from the London fashion houses, cheaper clothing produced through mass manufacturing elsewhere in Britain and from imported clothing. The impact of the new transport links can be evidenced through the wording of advertisements placed by those

²⁸⁹ Webster's Reading Directory, 1874, 12.

companies involved in the clothing trade, particularly revealing is the wording in many adverts relating to the local businesses and the London fashion trade.

LITTLECHILD'S

Shirt & General Outfitting Warehouse.

LONG-CLOTH, 45s., 35s., 25s.
PER HALF DOZEN.



Flannel, 6s. 6d. to 10s. 6d.
Oxford Cloth, 5s. 6d. to 8s. 6d. each.

These Shirts combine every modern improvement, are elegant in appearance, and of the best quality and finish. A perfect fit is guaranteed.

LIST OF DEPARTMENTS.

Mens' Youths' and Boys' Shirts

Linen and Long Cloth Shirts. Coloured Flannel Shirts.
Coloured Printed Shirts. The New Oxford Shirt.
Hosiery of every description.
Scarfs and Ties. Silk and Cambric Handkerchiefs.
Gloves in Kid, Calf, Wool, Silk, Thread, &c.
Umbrellas in Silk and Alpaca.
Braces, Belts and Garters. Dressing Gowns and Wrappers.
Portmanteaus and Carpet Bags.
Carriage and Railway Wrappers. Waterproof
Wrappers, Coats & Gaiters. Woolen Cloths & Doeskins.

THE TAILORING DEPARTMENT.

Now under the management of a Cutter of great experience, is conducted upon the premises, and the Goods selected this season will compare for style and price with any advertising house in the trade.
 Buying with and selling for, Ready-money, enables me to compete with the best London Houses in the Trade.

19, MINSTER STREET, READING.

Figure 31: Advertisement for Littlechild's, 1874.²⁹⁰

The careful plea to local customers in adverts such as that placed by Littlechild's for payment in cash rather than on account in order to allow the business to compete with imports from London fashion houses suggests that the rail links to London were a cause for concern to these business owners.

²⁹⁰ Websters Reading Directory, 1874, 3.

The railways may have opened new opportunity later in the century however which may explain the creation of specialist dressmaking companies which appear in the 1895 directory. The London fashion houses were very likely to have sourced their products from factories outside London, either from their own manufacturing facility or through a third party's facility. The cost of property in central London would have made it uneconomic to establish manufacturing in the city, the cheaper outer areas of the city or further afield places such as Reading may have been more viable. The increase in Reading's (and as outlined below, Maidenhead's) dressmaking factories may be partially explained by this.

Fashion may have been a driver for economic growth, facilitated by the railways through access to affordable imported garments, and through the creation of the national media through the dissemination of newspapers and magazines. These may have had a positive impact on the economy of Reading causing temporary growth locally as trends changed and demand for product increased over the short term. The statistics for Reading indicate that this may have occurred.

In 1859, MacAulay's Reading Directory lists fourteen Corset Makers in the town, whereas MacAulay's directory for 1865 lists none.²⁹¹ A similar trend may be seen in Hat Manufacturing, although this sector saw fluctuations in the number of Hat Maker's throughout the period studied by this thesis but without the devastation seen in shoe making, or the sudden boom and bust micro-economy seen in Corset Making.

The statistics for this sector show a decline prior to the arrival of the railways, reaching a low point in 1837 before showing constant growth until 1859, decline until 1874 and sharp growth to 1884. This suggests that fashion may have been the driver for growth and decline in this sector, but it is likely that the railways acted as a vector of change through the provision of distribution services for newspapers and magazines, thus indirectly influencing the sector.

²⁹¹ MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865.

An interesting development in the fashion industry within Reading is the appearance in the directory for 1884 of two 'clothing manufacturers' which grows to three in 1895²⁹². This development cannot be a result of the railways as development of Britain's railway network was, other than the Great Central Railway main line from the midlands to London, mostly complete before then. This economic change is highly unlikely to have been caused by the railways but may have been facilitated by the provision of fast and reliable transport services which allowed the businesses to form and succeed in the town.

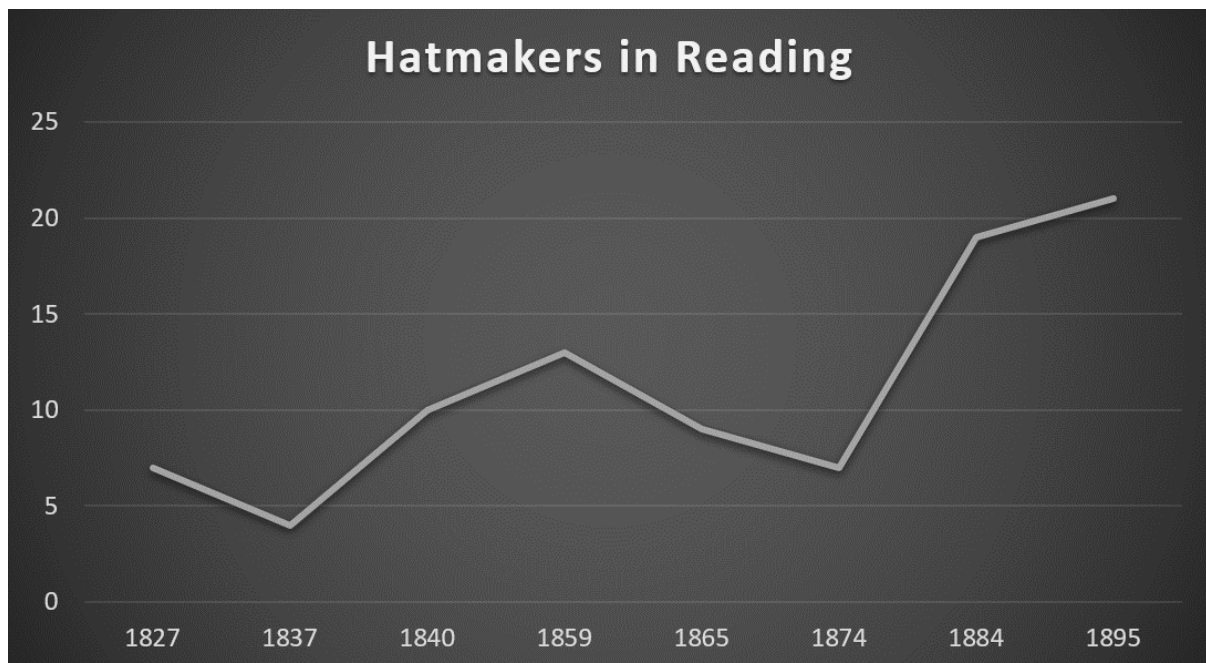


Figure 32: Hat Manufacturers in Reading between 1827 and 1895.²⁹³

A service which saw almost continual growth in Reading during the nineteenth century, which was, by the nature of its trade reliant on mass transport, either by canal or railway, the provision of coal.

²⁹² Stevens' Directory of Reading:1884, 364; Kelly's Directory of Berkshire: 1895, 317-318.

²⁹³ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading:1884; Smith's Reading Directory, 1895.

The coal merchants in Reading increased in number for every year surveyed after 1837, other than a slight decrease in the number of merchants in 1865. The decrease in number between 1827 and 1837, suggests a decrease in demand, since the canal network was complete by 1810, thus other factors must have influenced the market, resulting in a decrease in trade.

The advent of the railways seems to have been a great driver towards growth, allowing the merchants to source far greater quantities of coal from a much wider geographical area than was possible through the canals.

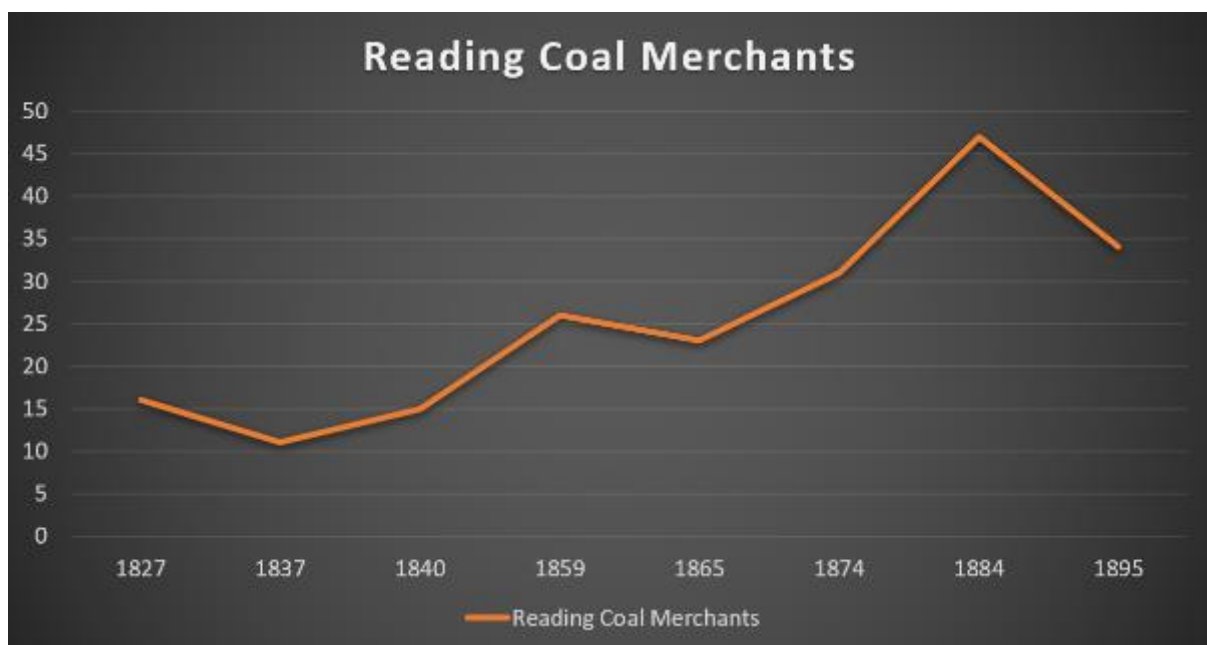


Figure 33: Reading Coal Merchants between 1827 and 1895.²⁹⁴

There is clear evidence in the directories for Reading that the railway had a major influence on how this sector developed in the town during the nineteenth century. Pigot's directory of Reading for 1830 lists several coal merchants, most of whom were based in the area around the canal basin in the town centre. Giles Ayres was listed at Bridge Street and Gas Wharf (located just south of the 'Old

²⁹⁴ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading, 1884, Smith's Reading Directory, 1895.

Gas Works' marked on the 1840 map in appendix 5.1.5.), Edward Hodges yard and Musgrave Lamb's listed only on Bridge Street , whilst Blandy & Palmer were listed at 9 Duke Street (located at the eastern end of the canal basin on the 1840 map).²⁹⁵ It seems clear from the evidence that these merchants and their colleagues in the trade were using the canal to deliver coal into their yards in Reading.

Pigot's 1844 directory for the town listed a greater number of coal merchants including some of those who were listed in the 1830 directory. Ayres was still listed (now as Giles Ayres & Son) at the same Bridge Street address, whilst a number of the new merchants who had started to trade since the 1830 directory were located at a new location.²⁹⁶ Four merchants were listed at Kings Road South, which the 1840 map shows was located just to the north of the canal wharves at the eastern perimeter of the town.²⁹⁷ The merchants were clearly still reliant on the canal to support their businesses, but many of the newer merchants had selected a less congested location on the canal, at the wharves outside the town centre.

The coal merchants became less reliant on the canals once the Great Western had become established in Reading and the main Bristol and Birmingham trunk lines had been completed and opened. There is clear evidence of a move toward a new transport partner for some of them by 1853. MacAulay's 1853 directory lists many of the same merchants, most of whom were resident at the same locations, however C & G Ayres were now listed at 'Oxford Wharf, Seven Bridges Wharf and at G.W. Railway Station'.²⁹⁸ Ayres were taking advantage of the railway company's services to grow their business, and establish a unique selling point for themselves by 1853, the railway

²⁹⁵ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830); Reading, Reading Central Library, A New Plan of the Borough of Reading, 1840 (Reading, 1840).

²⁹⁶ Reading, Reading Central Library, Pigot's Directory of Berkshire & Buckinghamshire, 1840.

²⁹⁷ Reading Map, 1840.

²⁹⁸ Reading, Reading Central Library, MacAulay's Berkshire Directory for 1853 (Reading, 1853).

company making it possible not only for Ayres to source coal from across the country, but in turn to offer their own delivery service to any station on the GWR.²⁹⁹

CHARLES & GILES AYRES,
COAL & SALT MERCHANTS,
Oxford Wharf and Seven Bridges Wharf,
Bridge Street, and Great Western Railway Station,
READING.

A large Stock of best **NEWCASTLE WALLSEND,**
DERBYSHIRE, MOIRA, BATH, FOREST OF DEAN,
WELSH, ANTHRACITE, GRIFF, SMITHS' COAL, &c.
always on hand.

TRUCK LOADS OF THE ABOVE FORWARDED TO ANY OF THE STATIONS
ON THE GREAT WESTERN LINE, OR ITS BRANCHES.

ROCK, FINE, AND AGRICULTURAL SALT.
Coal and Salt delivered at any distance.

 **By Appointment, Agents to the Great Western Railway Company,**
for the Collection and Delivery of Goods.

Figure 34: C&G Ayres Coal Services Advertisement, 1888.³⁰⁰

It seems that Ayres were moving toward a closer trading relationship with the railway company, a relationship which had become even closer by 1888, and which had allowed the company to diversify their business. An advertisement placed in Stevens' Directory of 1888 detailed the services being offered by the company.

²⁹⁹ MacAulay's Directory, 1853, 24.

³⁰⁰ Steven's Directory, 1888, 24.

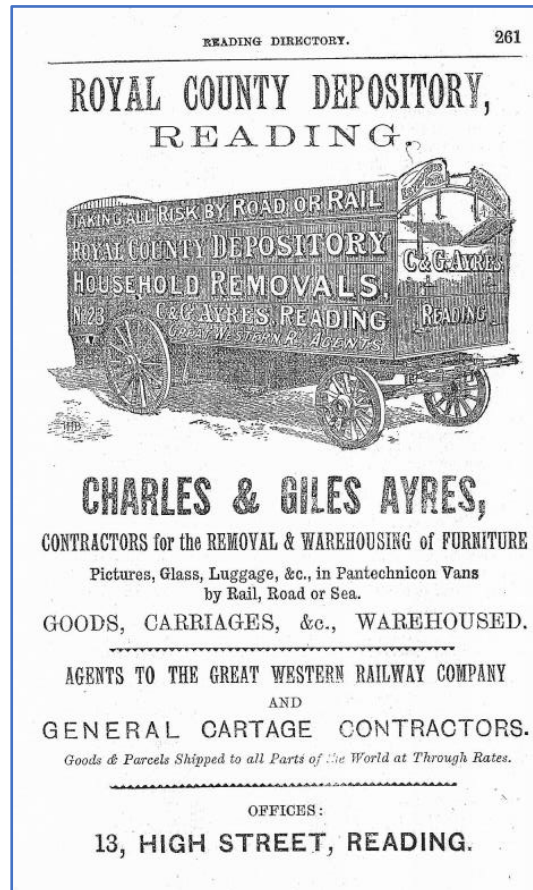


Figure 35: C&G Ayres Advertisement, 1888.³⁰¹

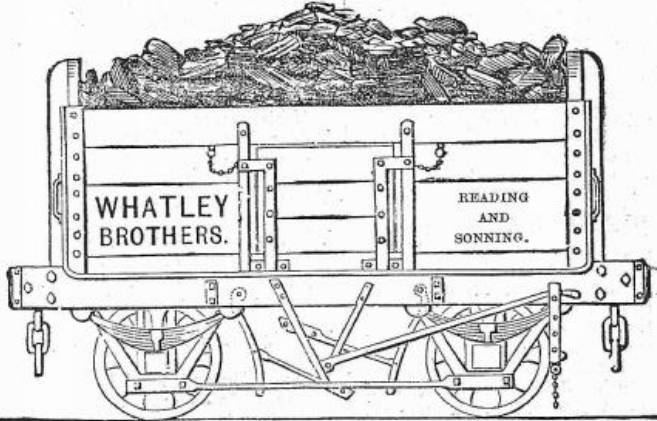
Other companies were using the railway, and the interest that had become common among the public to advertise themselves more blatantly. Whatley Brothers use of railway imagery in their advertisements linked their company closely to the modern railway, and allowed them to take advantage of the marketing possibilities that created. The advertisement in Steven's 1888 directly shows how the company used railway imagery but also shows from where they were sourcing their coal and the grades of coal, that they were stocking.³⁰²

³⁰¹ Stevens' Directory 1888, 261.

³⁰² Steven's Directory, 1888, 345.

READING DIRECTORY. 345.

WHATLEY BROTHERS.
Coal, Coke, & Salt Merchants,
ST. BARTHOLOMEW'S WHARF,
Near the Cemetery,
LONDON ROAD, READING,
AND AT
SONNING.



SPECIAL QUOTATIONS FOR LARGE QUANTITIES
Wallsend, Silkstone, Steam, and other Coals
always in Stock.

Orders solicited and punctually attended to
PRICES ON APPLICATION.

Figure 36: Whatley Brothers Advertisement in Steven's Directory of Reading, 1888.

The advertisement gives a clear picture of at least some of the collieries that the company was purchasing coal from. Wallsend Colliery was close to the town after which it was named, near Newcastle, and Silkstone refers to Newmarket Silkstone at Stanley near Wakefield, West Yorkshire.³⁰³ The promotion of steam coals (both directly in the advert, and in the mention of Silkstone which was a high-quality steam coal) suggests that there was sufficient demand in Reading for steam coal to fuel boilers in factories.

³⁰³ Interview with William Marks, Pit Overman at Prince of Wales Colliery, Wakefield, 14 June 1989.

The evidence that the advertisements provide for the sale of steam coal into Reading suggests that there was sufficient demand for the fuel to make stocking it profitable. Coal is a highly variable product, a factor which has not been taken account of in much of the historiography, occurring in different forms, its chemical composition making it suitable for different purposes, such as domestic heating, or for use in steam boiler furnaces and locomotive fireboxes. The chemical composition of coal is dependent upon the location from which it is mined, some collieries providing coals more suited to one particular use, for example New Market Silkstone and Prince of Wales collieries in Wakefield produced quality steam-coal.³⁰⁴ Steam coal has a large amount of latent heat energy but has little sulphur and volatiles which cause damage to boiler tubes, and low iron content which causes clinker preventing even burning of the fuel.³⁰⁵ Indirectly this provides evidence for the adoption of steam power by many of the factories, breweries and laundries in the town. Steam coal has different properties to domestic heating coal and is listed as two separate products by coal merchants. The chemical and heat properties of steam coal make it ideal for use in the enclosed fire boxes of industrial boilers and steam locomotives, whereas the properties of domestic coal make it only suitable for the open fires and ranges in domestic situations where the issues with clinker (iron impurities which form sheets of clinker and block the grates impeding air flow to the fires in enclosed fireboxes) and sulphur compounds which damage the inner walls of fireboxes are not such an issue as in the industrial setting. The two types of coal were used specifically in the environments for which they had been graded at the colliery and therefore the amount of steam coal used corresponds directly to the number of steam engines being used in mills and factories.

In order to be able to afford these power sources, those companies must have been sufficiently profitable to have earned reserves which could be invested in capital plant in order to grow the company further. Indirectly the railway can be seen to be underpinning some elements of the

³⁰⁴ Interview with William Marks.

³⁰⁵ Thomas Bright, 'Coal: Keeping the Fires Burning', *Steam Railway*, 521 (2021), 63.

mechanisation and modernisation of Reading's manufacturers, and in turn supporting an environment where economic growth was potentially possible for those sectors.

Further evidence of how coal merchants took advantage of the railways can be found in the case of G.W.Dunlop and Sons of Oxford Road, Reading. The company had agreed rates in advance with the GWR for the carriage of wagon loads of coal and coke by the ton, these being kept in a rates book.³⁰⁶

The rates book contains rates for the transport of coal and coke from collieries across England and Wales to various towns and cities. All eight of the case study towns in Berkshire were covered by agreed rates. The agreement of rates with the railway company suggests that the company was involved in the provision of regular traffic to these places, and thus the reliance the company placed on the railways for the success of their business seems clear. Reading seems to have been an important hub for Dunlop. The rates book contains entries for rates for many more collieries than any other place, often being the only entry for that colliery. Reading also appears as a point of origin for many places, confirming the role of the yard in Reading as the company's hub.³⁰⁷ The company appears to have taken advantage of the competition between the railway companies operating out of Reading in the 1890s, as the company rate book shows the agreed rates for Windsor to be for traffic to the London and South Western Station (now Windsor and Eton Riverside station). The shorter direct route from Reading to Windsor via Slough and the GWR Windsor branch had been rejected in favour of the longer LSWR route via Wokingham and Staines. This suggests that the competition which existed at times between the companies could be taken advantage of by a company in order to reduce their costs.

The Railway could also be a threat to economic growth, providing competition to local business through its own diversified operations. The GWR operated a coal supply company of its own, and

³⁰⁶ Reading, Berkshire Records Office, R/D132/1/7/2, G.W.Dunlop and Son, Carriage of Goods, Railway Carriage Rates for Goods, 1895-1906. See Appendix 5.1.2. for selected rates relating to the case study towns used in this thesis.

³⁰⁷ The rates book gives prices for wagon loads from Reading to Maidenhead (1s 3½d), Newbury (2s 6d), Windsor (2s 0¾d) and Wokingham (1s 9d).

this can be seen operating in Reading in 1853 through an advertisement placed in Steven's directory of Reading for that year. The operations of this company with direct access to coal purchased by the railway company in bulk for its own operations would have represented a threat to the economic prospects of those coal merchants who competed with them. The GWR company would potentially be able to undercut local businesses(in this case coal merchants) both in terms of the price of the product and in the rates that it was able to charge for delivery with a resulting negative impact upon local traders and thus causing an economic depression in that sector.

THE COAL TRADE
ON THE
GREAT WESTERN LINE OF RAILWAY
AND ITS BRANCHES.

THE GREAT WESTERN COAL COMPANY

Are always prepared to supply *all kinds of Coals* on the most favorable terms, at their several Depôts on the Great Western Lines of Railway; and generally by Truck Loads, at *any* Station to which they may be ordered.

They beg to point the attention of the public, in an especial manner, to a MOST SUPERIOR ECONOMIC COAL, supplied exclusively by them.

Victoria Northern Wallsend.

This beautiful Coal is in very extensive use over a great part of the Great Western Lines, and has in no instance failed to give entire satisfaction; *it is brought from the North entirely by Railway*, thus preventing the repeated removals and smashing unavoidable when conveyed by sea; it is screened, is large in size, and, as nearly as Coal can be, free from small; makes a splendid fire, burns remarkably clean, and a trial will demonstrate that it is *equal in quality to any Coal whatever*, and far superior to much which is absurdly called "Newcastle," and for which considerably higher prices are charged.

**Anthracite, Welsh, Steam, House, Gas,
and Smiths' Coals and Coke,**

TO ORDER AT SHORT NOTICE.

*The Prices of each kind at any Station, will be promptly furnished
on Application.*

The above will be delivered, when required, within a mile of any Station, at 1s. per ton, and at 9d. per ton per mile for any distance beyond a mile in any part of the Country in the neighbourhood of the Stations, Turnpikes payable by the buyers. The delivery will take place in bags, each containing 14 cwt. or 16 bags to the ton; the integrity of the weights can thus be tested by purchasers whenever they please.

PAYMENT IN ALL CASES—CASH ON DELIVERY.

Applications made to the Company's Agents, at their several Depôts will receive prompt attention; and orders for truck loads, or any considerable quantity of either kind, are requested to be addressed to "THE GREAT WESTERN COAL COMPANY," at their central Offices, the ground floor of the Athenæum, facing the Railway, Reading.

Figure 37: GWR Coal Company Advertisement, MacAulay's Reading Directory 1853.³⁰⁸

Coal was important to all manufacturing companies during the nineteenth century and particularly dependent upon the fuel was brewing.

³⁰⁸ MacAulay's Reading Directory, 1853, preface advertisement.

The brewing industry was a sector which had a mixed experience of the railways with reference to economic impact. The town had a small number of breweries in the early nineteenth century, the number of which steadily increased during the first third of the century reaching a peak of 29 in 1840, however the trade saw a steady decrease in numbers throughout the remainder of the century, which could, if a generalised conclusion were used, seem to indicate that the arrival of the GWR in the town in 1840, just as the trade reached its numeric peak, caused the downturn. Detailed examination of the trade directories of the period, the statistics produced from them and a study of the Goad Insurance Maps for 1895 indicates that this type of generalisation is flawed.

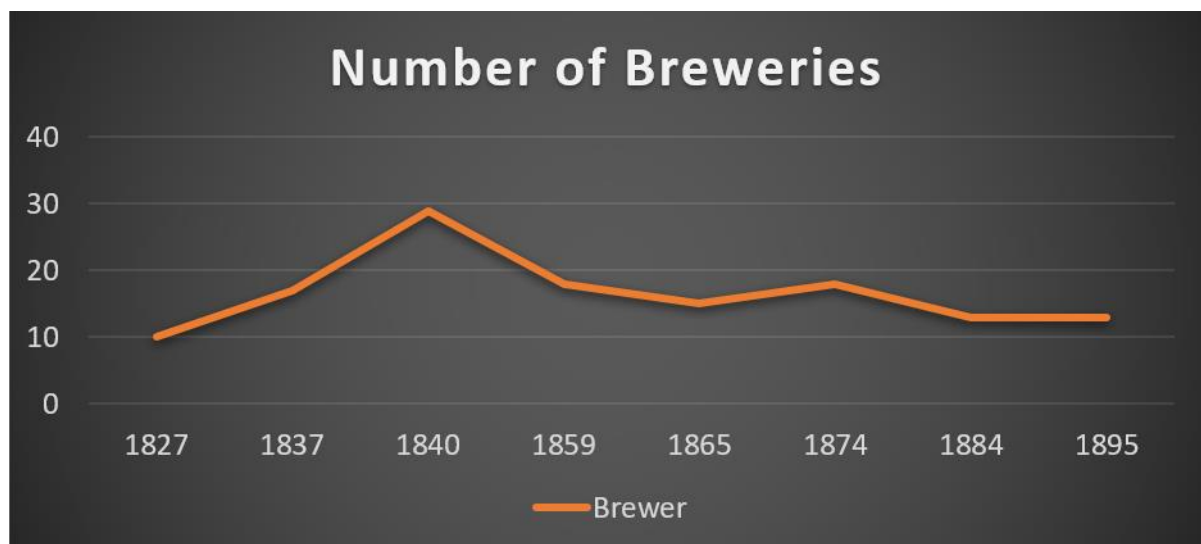


Figure 38: Reading Breweries 1827-1895³⁰⁹

The brewing trade was, and remains, quite distinct in its distribution systems. Many of the breweries were formed to serve a local area, such as Simmonds' in Reading, Morland's in Abingdon, or Nicholson's in Maidenhead, through a chain of tied public houses which served only that brewery's products. The breweries extended their outlets through the sale of bottled beers to grocers, although none of these were tied to a single producer, which could cause issues as will be examined below.

³⁰⁹ Reading, Reading Central Library, Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading: 1884; Smith's Reading Directory, 1895.

The beers were typically produced using locally sourced ingredients, other than Kentish Hops or similar specialised ingredients used for flavouring the beers, making each beer distinctive in its colour and taste.

As a brewery became successful, the most typical approach used to achieve growth in a saturated market was to acquire a competitor in order to obtain their public houses, often resulting in the closure of the smaller concern in time, production being centralised in one location requiring expansion of the breweries premises in order to support the additional demand.

The Goad Insurance Maps of 1895 show that a small number of breweries had become major concerns with comprehensive facilities by the end of the nineteenth century.

H&G Simmonds Ltd were shown as having three separate sites, the first, in Block 5 of sheet 2, located between the Kennet Navigations and Mill Water off the Kennet contained the companies coal wharf, suggesting an initial reliance on coal transported via the canal as the brewery's fuel source.³¹⁰ The second site was located north of the Kennet, west of bridge street, in Block 4 of the map, in which were located the brewery's cooperage, maltings, and malt and barley kilns. The third site drawn on the Goad maps was located on the original site listed in the 1792 directory, east of Bridge Street on the northern bank of the Kennet Navigation.³¹¹ This site was listed on the maps as 'Seven Bridges Brewery' and the map indicates that this was the main location at which brewing was undertaken, and at which location a 'steam engine' was noted as being present. All three sites covered large areas and contained many buildings of different sizes and types.

A smaller, but nonetheless still large brewery was listed on the Goad Maps, Sheet 2, Block 1, immediately south of Castle Street and west of Bridge Street in a single contained site.³¹² This site, the Castle Brewery of Blandy, Hawkins & Company was similar in size to Simmonds cooperage, and was located just to the north of the latter.

³¹⁰ Goad, Sheet 2, Block 5.

³¹¹ Goad, Sheet 3, Block 10; Hylton, 129.

³¹² Goad, Sheet 2, Block 1.

A third major brewery was noted on the Goad Maps. The Royal Albert Brewery of J. Dymore Brown & Son was located in a single, very large site between East Street, Queens Road, and South Street, in Block 22 of sheet 5.³¹³ This site much larger than the Castle Street Brewery, and whilst contained in a single site, covered an area approximately half that of the three Simmonds sites combined. A steam engine was also noted as being present at this site.

It is likely that the decrease in the number of breweries in Reading after 1840 is due to the acquisition of smaller concerns by more successful and larger breweries which increased in size as a result. The statistics must therefore be viewed in accordance with other sources in order to establish how the sector was evolving throughout the period, in this case, whilst the number of breweries was decreasing, the sector was effectively growing through the larger breweries who were now able to take advantage of the economies of scale possible within their large production facilities. It is unlikely that the railways played a direct role in the growth of these breweries, their growth is more likely to have been achieved through acquisition and mergers, and an increase in population over time providing a larger market for their wares. The expansion of the breweries in Reading can be seen through an examination of the occupation statistics from the contemporary censuses. As the number of breweries listed in the commercial directories decreased between 1851 and 1901, the number of people listed as 'brewers' increased steadily.

³¹³ Goad, Sheet 2, Block 22.

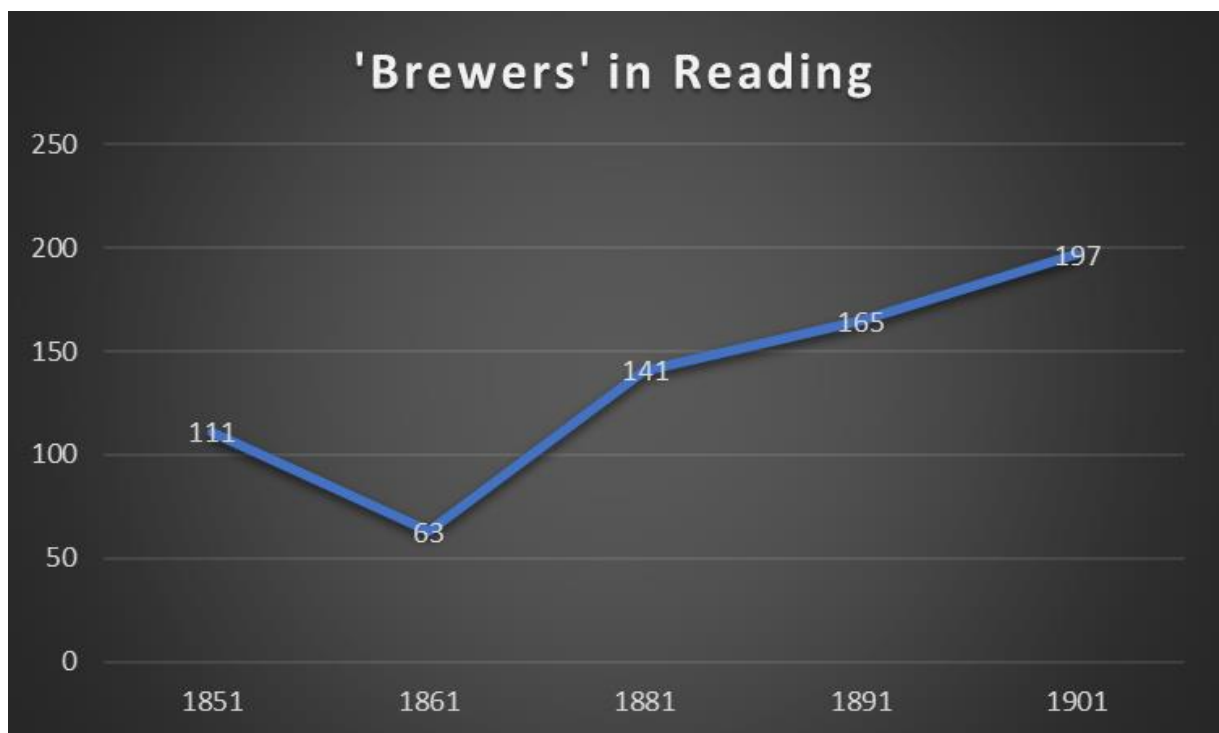


Figure 39: Number of Persons employed as Brewers: 1851 to 1901³¹⁴

The correlation between the reduction in the number of businesses listed and the increase in the number of brewers clearly indicates growth of those businesses.

There is one aspect of the sector where the railways would have performed an important role. The railways were an important partner for breweries in the distribution of beers to a wider area than previously possible, allowing the larger breweries to export from Reading to the rest of the county and further afield, competing with smaller breweries elsewhere who were unable to compete on price.

An example of how brewers expanded their market space using the railways, and how railways created potential direct opportunities for economic growth can be found in Simmonds business relationship with the SER. In 1882, the Illustrated London News produced a supplement covering Reading and its environs, in which the manufacturing base of Reading was discussed. The supplement discussed the ‘...several breweries at Reading...’ and particularly Simmonds, who the

³¹⁴ Integrated Census Microdata.

supplement revealed had a ‘...contract for the whole of the refreshments on the South Eastern Railway’.³¹⁵ The contract with the South Eastern gave Simmonds access to the entire South East where it was served by the railway company. The company’s network stretched from Reading to Dover, and London Bridge to Hastings, covering many stations, including a large number of suburban stations in South London.³¹⁶ This contract is a prime example of how, whilst the railway company did not directly create the opportunity for economic growth, the decision by the management of Simmonds to bid for and win the contract to supply the railway’s refreshment rooms across the whole network serves to show how a company could take advantage of the indirect opportunity for growth that were provided by the railway as a customer in its own right.

The indirect impact of the railways was not always a positive one however. Within the brewing industry the railways could serve not only as a means by which a brewer could expand their market by taking advantage of the railway freight services to cheaply and quickly supply new retailers further afield, but also as a means by which other large breweries located in places such as Burton on Trent could intrude upon a brewer’s local market, creating greater competition.

The commercial directories for the period contain many advertisements from grocers promoting the wares of breweries located outside of Berkshire who were importing their product into the county via the various rail links which were available to them.

³¹⁵ Reading, Berkshire Records Office, D/EX2211/1, Supplement to the Illustrated London News, July 8, 1882: Reading and its Neighbourhood, 45.

³¹⁶ Gray, Diagram of the South Eastern Railway in 1898; Gray, Diagram of the South Eastern Suburban Lines in 1898.

access to that potentially lucrative market. The evidence suggests that in relation to the brewing industry in Reading, the railways were economically neutral, offsetting the benefits that their services provided with the competitive threats they also brought. The evidence suggests that the railways had different impacts in different manufacturing sectors, some economically destructive, some neutral, others positive.

The Goad Maps of Reading indicate that many of the larger manufacturing sites in the town had at least one steam engine.³¹⁸ The presence of these engines would create a demand for steam coal, which would support the services of coal merchants who were able to supply the fuel, and a demand for the services of boiler smiths and iron works and engineers to service them. The railways served little to impact these sectors, as the machinery which would have had to have been imported into the town from manufacturers elsewhere using the services of the railway would already have been installed in the manufacturing facility. The service functions did not need any interaction with the railways other than, potentially the transport of spare parts, although in the nineteenth century it was more likely that new parts would have been manufactured by a local iron or brass foundry. The only role the railways played in this would have been in the transport of raw materials such as steel bar from the mills in Wales, Yorkshire and so forth.

³¹⁸ The maps do not give a number of engines in use, just indicating the presence of an engine house which may have contained more than one engine in the largest sites.

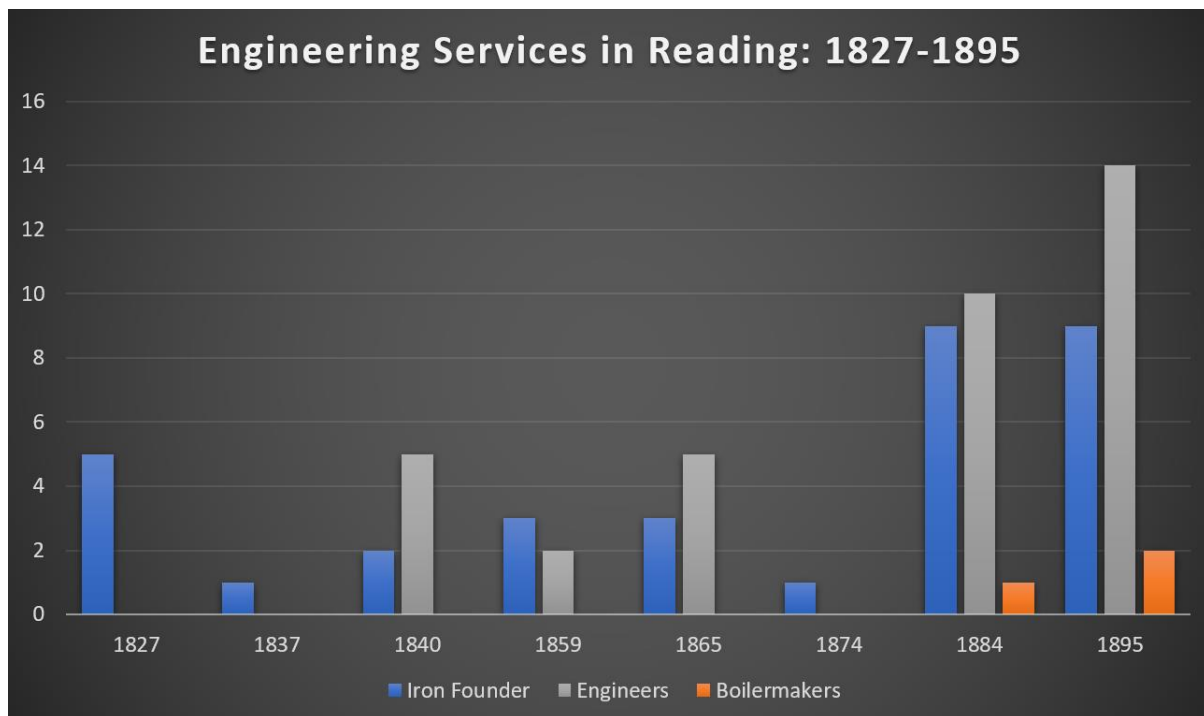


Figure 41: Engineering Services in Reading.³¹⁹

The consistent presence of Iron Foundries in the directories suggests that these companies were providing services to the factories in Reading. Goad showed T.Wilder's Yield Hall Foundry as a large site at the end of Yield Hall Lane, containing brick and wood buildings, with the presence of a steam engine noted.³²⁰ The business was classified in the 1895 Smith's directory as Engineers, Iron and Brass Founders.³²¹

Service industries were an important part of the economy of Reading. Among those which were of growing importance were the professional services offered by accountants, bankers, and solicitors. Reading had jointly been the county town alongside Abingdon, and was still viewed as being such in 1809.³²² The town shared the assizes with Abingdon and Newbury, the Lent and Epiphany assizes being held in Reading, Summer assizes at Abingdon, with the Michaelmas assizes held in either town

³¹⁹ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading:1884, Smiths Reading Directory, 1895.

³²⁰ Goad, Sheet 3, Block 9.

³²¹ Reading, Reading Central Library, Smith's Reading Directory, 1895, 315.

³²² Mavor, 15.

as determined by the magistrates.³²³ As a location where the legal functions of the county were established, Reading was a location attractive to the legal profession.

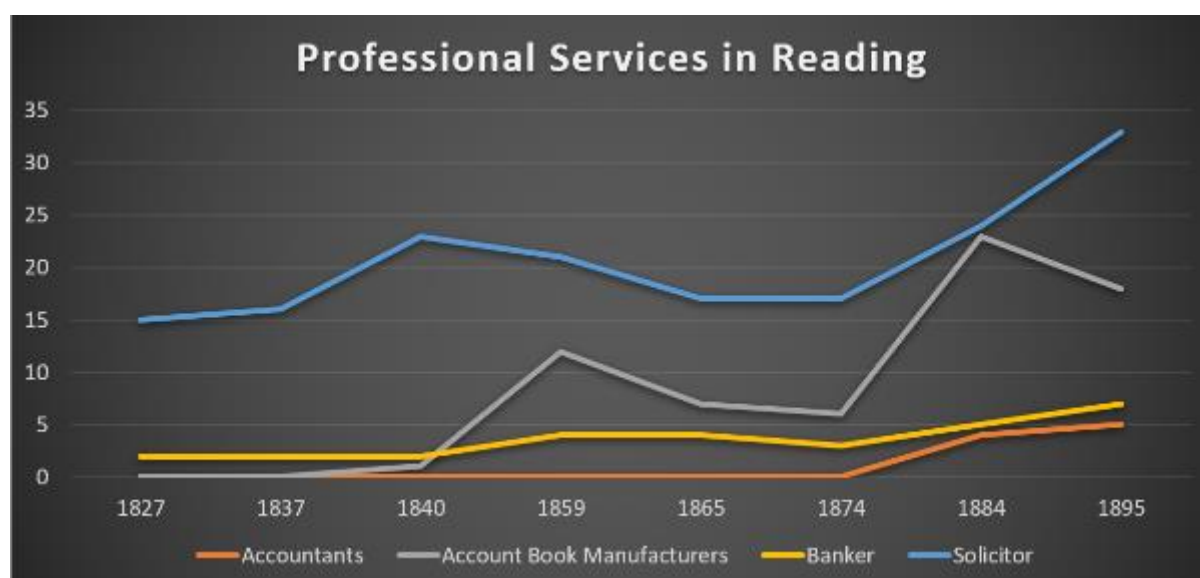


Figure 42: Professional Services Practices 1827-1895.

The number of solicitors practices throughout the nineteenth century reflect the importance of the town as a legal centre, the number of practicing solicitors increasing steadily until 1840.³²⁴ The number of solicitors decreased slightly until 1865. The sharp increase in the number of practicing solicitors after 1874 most likely reflects the town's pre-eminence in Berkshire being confirmed in 1868 when the town was granted sole county town status, Abingdon losing its shared role.³²⁵ As the sole legal centre in the county with all legal courts now being based in the town, the increase in the number of solicitors practices in Reading can be expected. Reading's position on the Railway network, served by three railway companies by 1868, and developing as a major railway junction, no doubt served to partly confirm its status as the sole county town as opposed to Abingdon which was served by a later branch line.

³²³ Mavor, 15.

³²⁴ Horniman's Reading Directory: 1827; Ingall's Reading Directory: 1837; Robson's Commercial Directory of Berkshire: 1840; MacAulay's Reading Directory, 1859; MacAulay's Reading Directory, 1865; Webster's Reading Directory 1874; Stevens' Directory of Reading:1884; Smith's Reading Directory, 1895.

³²⁵ Dils, 219.

The town had become more populous during the nineteenth century, and had been joint county town before the railways arrived in Berkshire. The growth in the number of solicitors practices and their impact upon the economy of the town was unlikely to have been impacted by the railways. The solicitor has little need to use rail freight services, their work being transmitted to their clients by post, or by telegram (although the telegraph services offered by the railway and later the General Post Office were no doubt of huge importance to the legal profession, but this service was an ancillary to the railway's main business of moving passengers and freight) where a face-to-face consultation in the practice or clients premises were not possible or necessary. Similarly, court appearances did not require the services of the railway as the county assize courts (built 1861) and gaol (1844) were both located in the town.³²⁶ It was doubtless useful to the legal profession to be able to travel quickly to visit wealthy clients in commercial or personal litigation cases but probably not the prime reason to locate a legal practice in the town since most towns had several locally based solicitors and barristers.

The number of account book manufacturers present in the town can be seen to be steadily increasing during the first half of the nineteenth century with a decrease between 1869 and 1874 followed by a steep growth to 1884. The increase in the number of practices after 1840 is most likely to have been driven by the passing of the Company Clauses Consolidation Act of 1845.³²⁷ Section CXV of the Act stated that the directors of a company were to '...cause full and true accounts to be kept...'.³²⁸ The Act also introduced the requirement for these accounts to be audited and for the auditors to '...employ such accountants and other persons as they may think proper'.³²⁹ The increase in the number of accountants after 1874 can be attributed to the requirements for companies to

³²⁶ Dils, 219.

³²⁷ UK Government Legislation, *Company Clauses Consolidation Act 1845*, [Website], <https://www.legislation.gov.uk/ukpga/Vict/8-9/16/contents/enacted>, (Accessed 10 August 2021).

³²⁸ Company Clauses Consolidation Act 1845, <https://www.legislation.gov.uk/ukpga/Vict/8-9/16/section/CXV/enacted>.

³²⁹ Company Clauses Consolidation Act 1845, <https://www.legislation.gov.uk/ukpga/Vict/8-9/16/section/CVIII/enacted>.

produce corporate accounts, and not to the advent of the railways, who were forced, by law, to become consumers of the services of accountants rather than vice-versa.

The accountant became more important as the century progressed and had become such a valuable and necessary part of business that the role was recognised with the granting of a Royal Charter to the profession in 1880.³³⁰ The Charter amalgamated five separate bodies into a single institute and as stated in the charter reflected that the profession had become respected, and its services used to great extent. The profession was by then '...a numerous one...' whose '...functions are of great and increasing importance...'.³³¹ The chartering of the institute formalised the requirement for the maintenance of standards and professional excellence in the profession.³³² The granting of the charter and the formalisation of the profession tallies with the increase in the number of practitioners in Reading, and suggests that the legal requirements for professional accountancy standards was the reason for the increase observed in the statistics rather than any direct economic impact of the railways.

One company who took advantage of the railways to expand the business through the exploitation of wider markets was Huntley and Palmer. Joseph and Thomas Huntley opened their first bakery and shop in London Street, Reading in 1822.³³³ The partnership with George Huntley in 1841 saw the company begin to grow under the more commercially aware direction of Huntley. A period of steady financial growth followed as the company developed its retail agents across the country.³³⁴ The demand for the company's products resulted in a move to a new purpose-built factory in Reading, the machinery for which was purpose designed by Barrett, Exall and Andrews's Iron Works in the

³³⁰ The Institute of Chartered Accountants in England and Wales (ICAEW), Royal Charter 1880, [Website], <https://www.icaew.com/-/media/corporate/files/about-icaew/who-we-are/charters-by-laws/royal-charter-of-the-11th-may-1880.ashx?la=en>, (Accessed 10 August 2021).

³³¹ ICAEW Charter.

³³² The Institute of Chartered Accountants in England and Wales (ICAEW), [Website], <https://www.icaew.com/about-icaew/who-we-are/charter-and-by-laws>, (Accessed 10 August 2021).

³³³ T.A.B. Corley, *Huntley & Palmers of Reading 1822-1972: Quaker Enterprise in Biscuits* (London, 1972), 17.

³³⁴ Corley, 306-307.

town.³³⁵ The arrival of the GWR and later the SER and LSWR was a key moment in the history of Huntley and Palmers, the company taking advantage of the services provided to transform the distribution of its biscuits, a warehouse day book of 1852 indicated all but local deliveries were sent by rail.³³⁶ The company invested in its own internal rail network with direct links to both the Great Western and SER's lines, which indicates its reliance upon and exploitation of the railway companies.

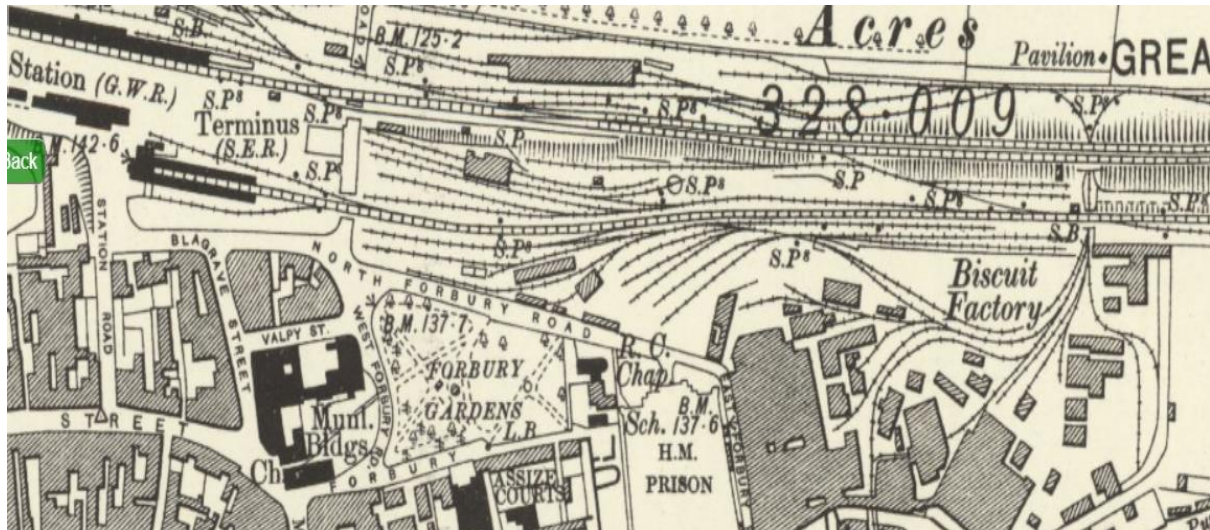


Figure 43: Huntley and Palmers Factory Railway System. 1898.³³⁷

The company became the sole industrial baker in Reading until the end of the nineteenth century when Meaby & Co (Later O.H. Serpell and Co.) opened their small factory.³³⁸ The census occupation statistics support the picture of growth suggested by Corley, the number of companies decreasing to a single factory in the commercial directories whilst the number of 'biscuit cake bread makers' increased dramatically.

³³⁵ Reading, Berkshire Records Office, D/EX1739/9/5/9, Some Notes on the Reading Iron Works Ltd. (Barrett, Exall & Andrews) 1818-87. (Unpublished Manuscript). T.A.B. Corley, 1973.

³³⁶ Corley, 63.

³³⁷ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVII.NE, 1900 [Website], <https://maps.nls.uk/view/97791994> (accessed 29th June 2022).

³³⁸ University of Leicester Special Collections Online, Historical Directories of England & Wales, Kelly's Directory of Northamptonshire (1899), [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/304690/rec/1>, (accessed 29th June 2022), 322; Reading, Berkshire Records Office, D/EZ75/1/5, Fire Insurance Plans of Central Reading by Charles E Goad of London. Fire Insurance Plan (Sheet 5), February 1895.

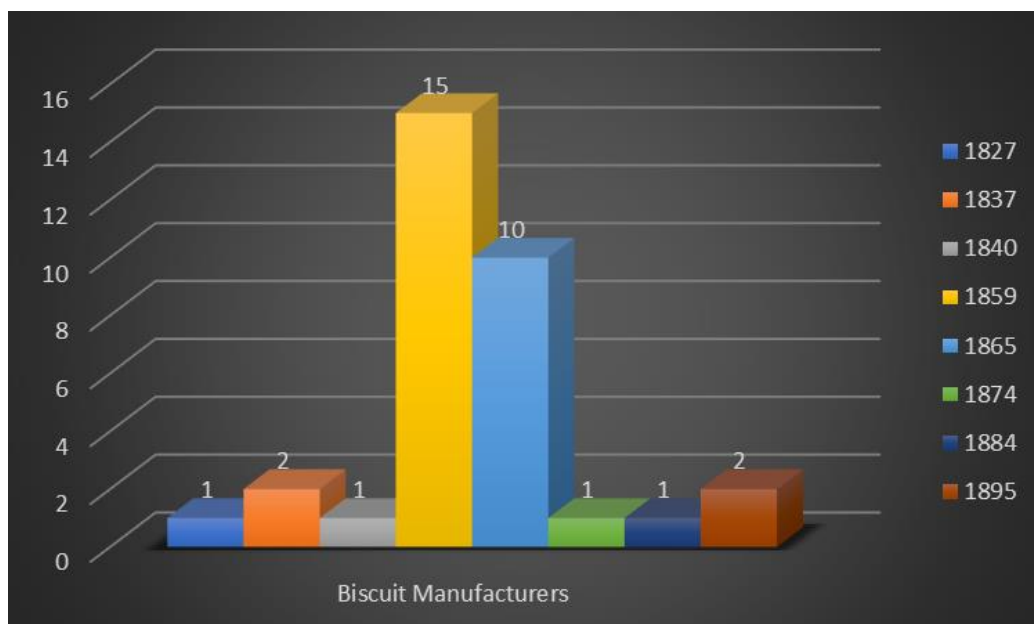


Figure 44: Biscuit Manufacturers in Reading: 1827-1895.³³⁹

³³⁹ Reading, Reading Central Library, Horniman's Reading Directory: 1827 (Reading, 1827); Reading, Reading Central Library, Ingall's Reading Directory: 1837 (Reading, 1837); Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840); Reading, Reading Central Library, MacAulay's Reading Directory, Almanac and Official Register for 1859 (Reading, 1859); Reading, Reading Central Library, MacAulay's Reading Directory, Almanac and Official Register for 1865 (Reading, 1865); Reading, Reading Central Library, Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873); Reading, Reading Central Library, Stevens' Directory of Reading: 1884 (London, 1884), Reading, Reading Central Library, Smith's Reading Directory 1895 (Reading, 1895).

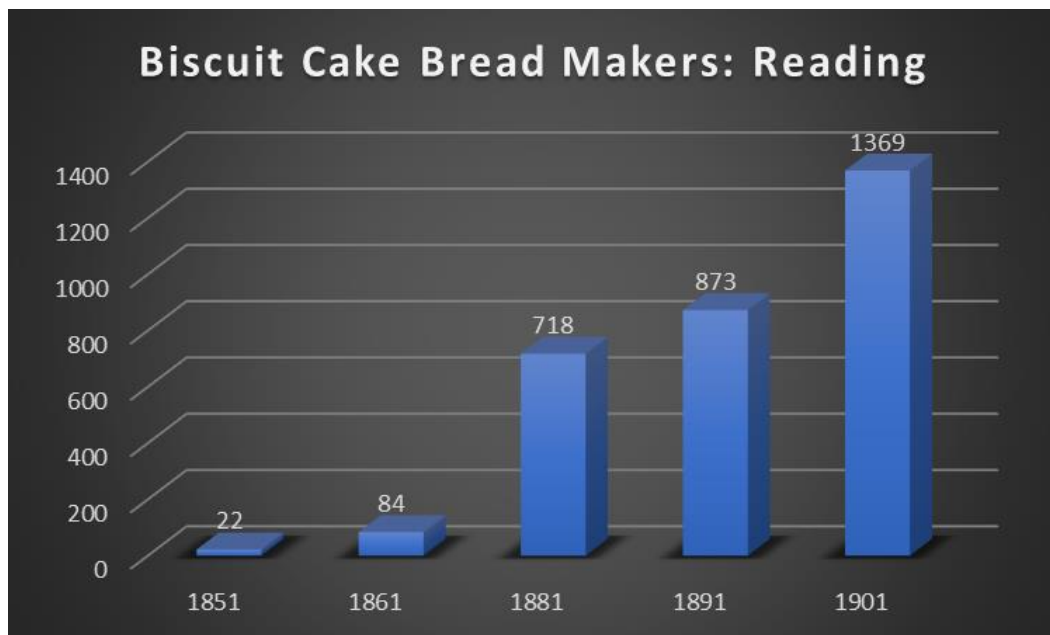


Figure 45: Number of Persons stating Occupation as Biscuit Cake Baker: 1851-1901³⁴⁰

The railways were a useful partner to Salmon and Sons Tea Company. The railway cannot have created a demand for tea across Britain, but the rising demand for tea caused a period of growth among tea merchants, of which one, Salmon and Sons were based in Reading. G.R. Smith's Handbook of Reading states that the company's tea could be '...obtained in most of the counties of Southern England' in 1892.³⁴¹ The company grew to such an extent that it needed to take additional warehouse space, the building stated to have an external lift through which '...the chests [of tea] are delivered direct from the railway vans...'. The building was not rail connected and in this case the company is likely to have been receiving railway delivery carts to the warehouse from the railway goods depots.

³⁴⁰ Integrated Census Microdata

³⁴¹ Reading, Reading Central Library Local History Collection, Descriptive, Modern, Industrial Reading (Illustrated) (Reading 1892), 111.

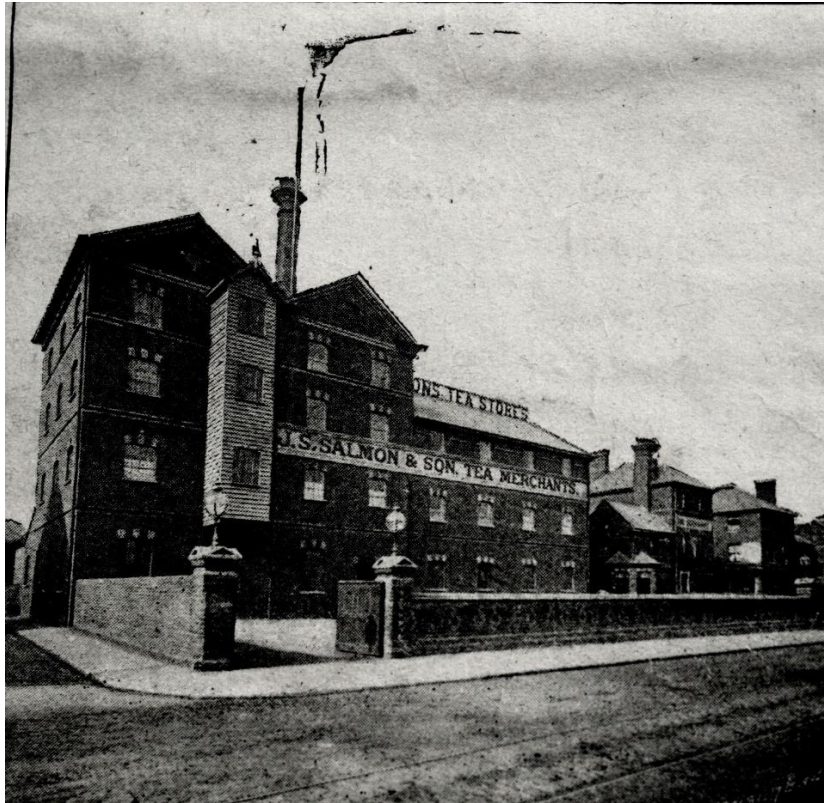


Figure 46: Messrs J.S. Salmon and Son, King's Road, Reading, c.1905.³⁴²

Conclusions

The case study for Reading illustrates many of the weaknesses observed in the historiography of the economic impact of the Victorian railways.

It can be seen from the statistics that the impact was very different across the town. Some sectors, such as footwear manufacturing were impacted terminally by the arrival of the railways, others such as coal merchants, grew by taking advantage of rail freight services to supply the demand created by the adoption of new technologies in factories.

Some sectors such as grocery were impacted by other factors such as changes in eating habits, and demand for new foodstuffs such as sea food, whilst services were impacted by changes in legal

³⁴² Reading, Reading Central Library Local History Collection, The tea warehouse of J. S. Salmon and Son, in King's Road, Reading, c. 1905.

professional requirements or the centralisation of the British legal system into county courts and so forth.

In other sectors the railways can be seen to have been economically neutral, the benefits they brought through provision of services which created access to new areas to export out of the county to, were offset by the same services being used by competitors elsewhere to import their products into the town.

The benefits of a more detailed approach relying on more data than can be found in the censuses can be seen in a comparison of the butchery trade, which trends differently within subsectors. A combination of census returns, commercial directories and business archives from the period provide a more detailed picture than the use of one source alone could.

Reading appears to have been impacted by the railways not as the sole or main driver of economic growth as the historiography would lead one to expect, but in different ways across the commercial landscape of the town. The railways were no doubt important to Reading in many ways, but as one part of the facilitation of economic change as a logistics partner for many manufacturers, although only indirectly to many of the professional services practices in the town.

The experience of Reading leads one to conclude that the railways were certainly a facilitator of change, but unlike as stated in the historiography, were not the single source of economic growth, nor were they always one of the main drivers for growth.

In the case of Reading, the generalised conclusions seen in the historiography may not be drawn. The situation was far more complex.

Chapter 7: Maidenhead Case Study

Maidenhead is located on the west bank of the River Thames on the eastern boundary of the county of Berkshire. The town is one of a small number of river crossings and as such had been an important town for travellers and freight between London and the West, the main road from London to Oxford, and Bath passing through the town and using the toll bridge over the Thames. Situated twenty-six miles west of London, Maidenhead was well placed as a point at which to change horses on coaches heading towards the west. In 1809 William Mavor described Maidenhead as having two extensive plant nurseries and being surrounded by agricultural land.¹ The town was also a key wharfage point for freight transiting to London from the Midlands via the Thames and Isis, and Kennet Navigations, for onward transmission along the Thames Navigation, and for returning goods from London. Mavor writes, however that there were issues with transiting the Thames Navigation due to the heavy fishing being undertaken on the river, the fishing weirs constructed for this purpose being ‘...inglorious to the navigation of the river’.² Despite the issues presented to the Thames Navigation it remained an important artery, traffic remaining strong. In September 1825 the traffic was surveyed for the Thames Navigation Commission which found that 2,524 tons of freight passed through Boulter’s Lock, Maidenhead during the month, and that the number of barges on the river was increasing daily.³ Boulter’s Lock had been chosen by the commission in preference to locks at Teddington, or Windsor due to its location prior to the junctions with other waterways upstream from Maidenhead, and so most likely served to give a picture of the long distance traffic using the navigation. Despite the increasing traffic there were issues with the Navigation caused by weather conditions, reports noting that barges were regularly running aground between Maidenhead and

¹ William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of the Board of Agriculture and Internal Improvement*, (London, 1809), 302.

² Mavor, 38.

³ Reading, Berkshire Records Office, D/EX2179/3/5, Survey for the Committee of the Thames Navigation on Barge Traffic on the River Thames between Staines and Boulter’s Lock. September 1825; Reading, Berkshire Records Office, D/EX2179/3/4, Report to the Committee of the Thames Navigation on Barge Traffic on the River Thames between Staines and Boulter’s Lock. 4th October 1825.

Windsor which could result in delays of at least two days whilst the barge owners waited for ‘..Thursday’s flash’.⁴ Further reports stated that the frequent delays on the Thames had caused the barge owners to attempt to increase their tariffs to cover the delay time, the same report indicating that the situation was far worse on the Kennet and Avon Canal where delays of between two and three weeks were not uncommon.⁵

Into this environment of unreliable and delay ridden transport came the GWR. The railway reached Maidenhead opening the first station located near the river on 4th June 1838.⁶



Figure 47: Location of Maidenhead Riverside Station.⁷

This temporary terminus was replaced in 1871 by a new permanent station on the current site at the junction with the Wycombe Railway, which had been leased to the GWR from its opening in 1st

⁴ Survey for the Committee of the Thames Navigation, September 1825.

⁵ Reading, Berkshire Records Office, D/EX2179/3/2, Report to the Committee of the Thames Navigation on Barge Traffic and Water Levels on the River Thames between Staines and Boulter’s Lock. 7th September 1825.

⁶ MacDermot, E.T., ‘Making a Railway: Brunel’s Abiding Monument, A Century of Public Service’, in: *Great Western Progress: 1835-1935 (The Times Great Western Railway Centenary Number)*, (London, 1935, repr. 1972); Reading, Reading Central Library Local History Collection, *Great Western Railway: London to Maidenhead and Twyford Timetable: 1839* (London, 1839).

⁷ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXIV, 1882 [Website], <https://maps.nls.uk/view/102339956>, (accessed 28th June 2022).

August 1854.⁸ The railway had opened despite objections from the Cookham Bridge Company.⁹ A third station, 'Maidenhead (Wycombe Branch)', was opened on the branch adjacent to the railway bridge under Castle Hill road.¹⁰

On the eve of the arrival of the railway Maidenhead listed two hundred businesses in the 1830 commercial directory, which remained constant in the 1840 directory.¹¹ From the start it seems that the economic growth that the railways are often associated with may not have happened in the case of Maidenhead. Unfortunately, occupation statistics are not available to compare as the census did not collect these detailed statistics until 1851.

⁸ E.T. Macdermot and C.R. Clinker, *History of the Great Western Railway: Volume I 1833-1963* (Shepperton, 1964, repr. 1984), 173.

⁹ The Cookham Bridge Company had petitioned the House of Commons to stop the Wycombe Railway Act on the grounds that it would '...seriously injure the property rights and interests...' of the company. It also demanded compensation from the railway should the Act be granted. Reading, Berkshire Record Office, BR/C/11/2/7, Cookham Bridge Company Petition against the Wycombe Railway Bill, May 3rd 1847.

¹⁰ Macdermot, 137.

¹¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 13-14; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 74-75.

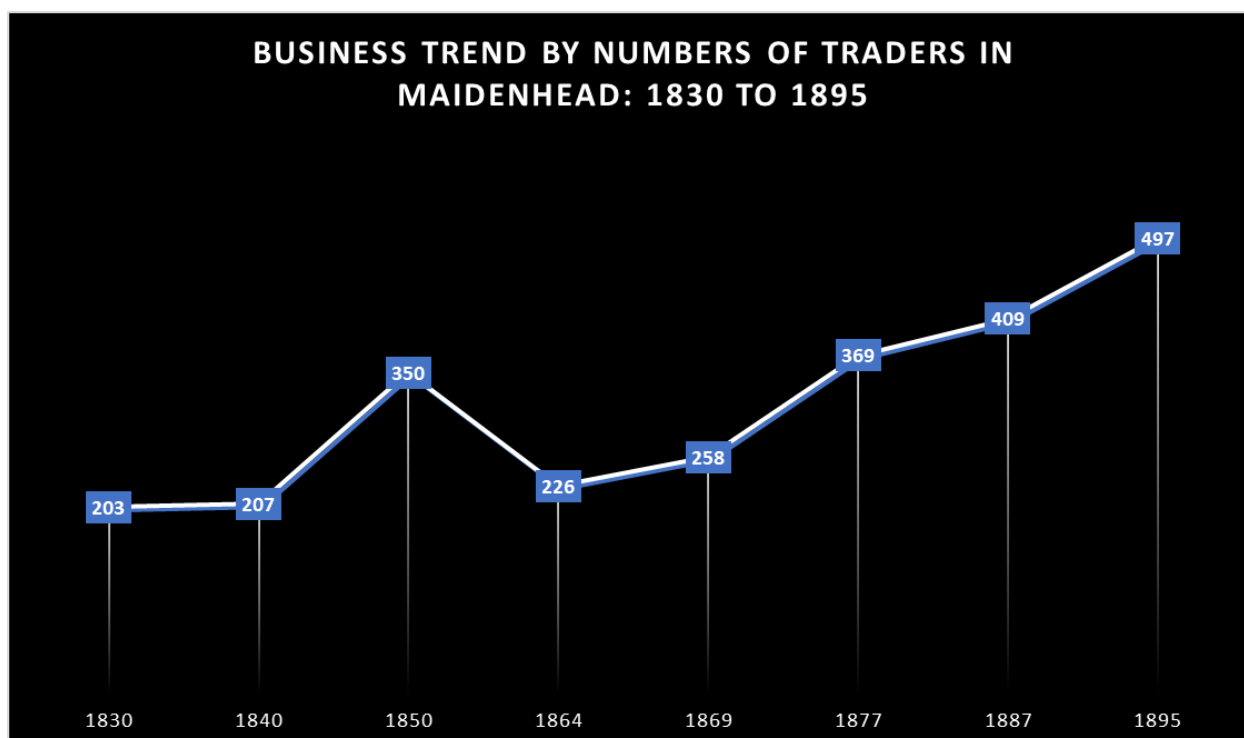


Figure 48: Business Trend in Maidenhead, 1830 to 1895.¹²

The number of businesses in Maidenhead grew between 1840 and 1850 but then underwent a recession until 1864 when a steady growth began once more. The timing of the changes in the number of businesses trading in Maidenhead suggests that other factors were probably more responsible for the changes in the economy of the town rather than the railway being purely underpinning 'growth'.

The same trend can be observed in selected manufacturing sectors within Maidenhead. Once again, a period of growth in the town's economy precedes a sharp recession around the time of the

¹²Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 13-14; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 74-75; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 18-22; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 623-626; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 672-676; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 585-590; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 94-102; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 104-114.

opening and extension of the railway through Maidenhead, followed by a long period of steady growth in the number of businesses until the end of the century.

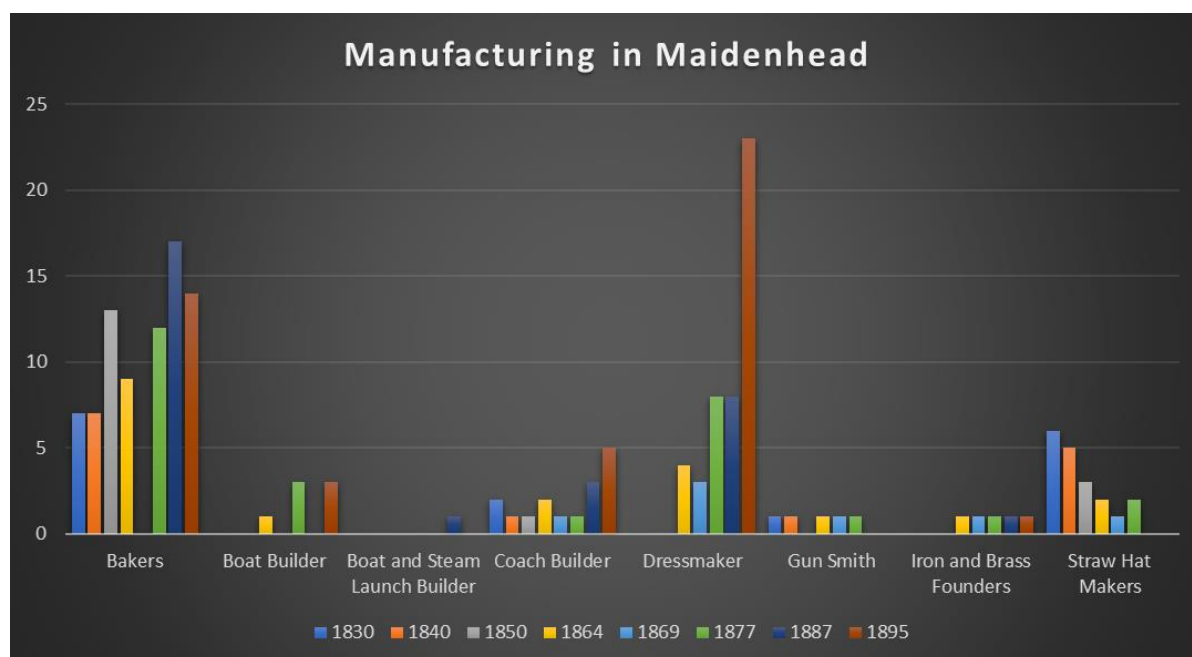


Figure 49: Selected Manufacturing Sectors in Maidenhead, 1830 to 1895.¹³

There were some exceptions to the trend, the number of Gun Smiths (just one), and Iron Founders (after the formation of Maidenhead's first foundry, and only in 1864) remaining relatively constant throughout.

Maidenhead Ironworks was formed in 1862 by Edwin Rogers who had moved to the town from Nettlebed producing agricultural implements.¹⁴ Whilst not directly influenced by the railway, the company took advantage of the ability to order small quantities of iron from elsewhere. Edwin Rogers was often to be found at the station goods yard at Maidenhead collecting raw materials from the goods office.¹⁵ The company remained a small concern compared to Barrett, Exall & Andrews

¹³ Pigot; 1830, 13-14; Robson's; 1840, 74-75; Slater's; 1850, 18-22; Kelly's; 1864, 623-626; Kelly's; 1869, 672-676; Kelly's; 1877, 585-590; Kelly's; 1887, 94-102; Kelly's; 1895, 104-114.

¹⁴ Melvyn F.H. Rogers, *Suds in the Blood: The Rogers, Associated Families & the Laundry Industry: c.1800 – July 2014* (Maidenhead, 2016), 8.

¹⁵ Rogers, 9.

(Reading Iron Works) until Rogers decided to sell the company on to Messrs Battings of Marlow in 1884.¹⁶

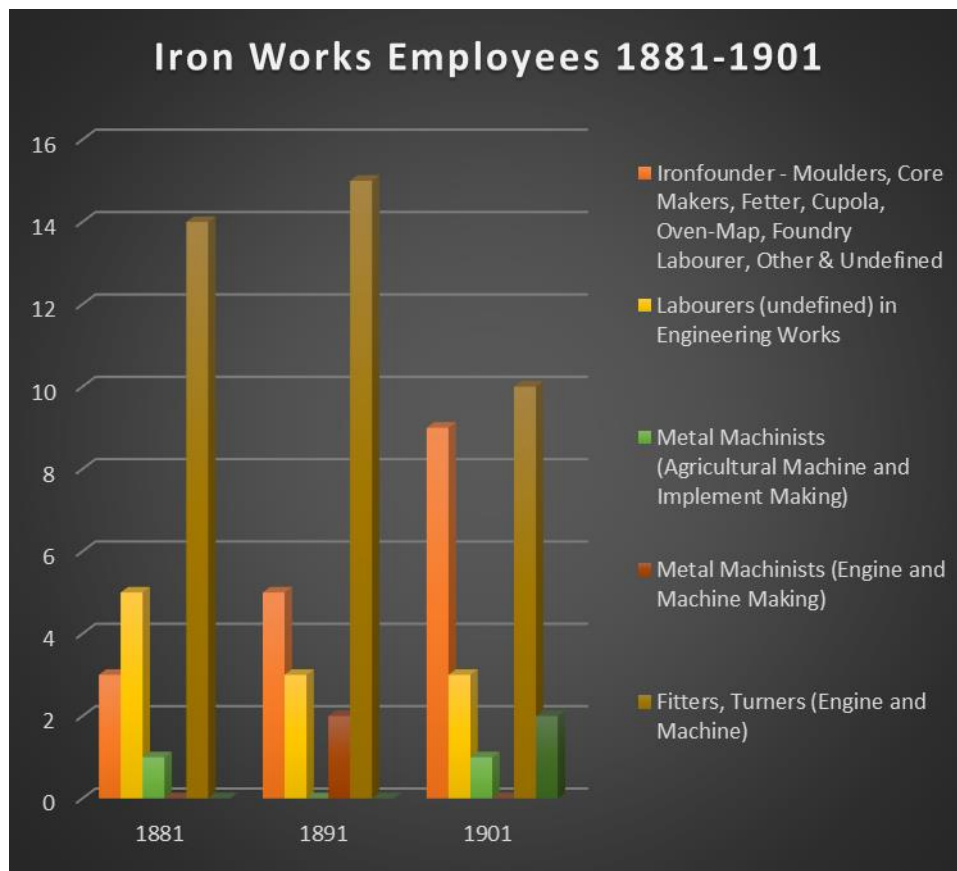


*Figure 50: Employees of Maidenhead Iron Works 1881-1901.*¹⁷

The ironworks went on to have a period of success, being directly impacted by the GWR during the Great Western's improvement programmes (this will be discussed in more detail in chapter 14).

Rogers had decided to sell the ironworks after thirty-four years in the metal trade due to the hard nature of the work. During the sale of the ironworks, he searched for a site to build a new steam power laundry which was eventually found in the Furze Platt area of Maidenhead. The boiler for the laundry was sourced from Reading Iron Works.¹⁸ The 13' by 4' 4" Cornish Boiler was delivered by rail, an example of how the railways supported the purchase of machinery and products from wider

¹⁶ Rogers, 9.

¹⁷ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

¹⁸ Rogers, 11.

afield than would typically have occurred prior to the advent of the railways. Instead of purchasing from the local ironworks, the new laundry was able to source equipment from companies with a reputation for quality and potentially at a better price than a local monopoly would have provided.

Service industries in Maidenhead fared very similarly to those in Reading. The rise of the professions saw the number of Solicitors increase steadily, after 1877 following a period of apparent stagnation between 1840 and 1877. The stagnation in the number of Solicitors directly following the opening of the railway to Maidenhead suggests a neutral impact on this sector.

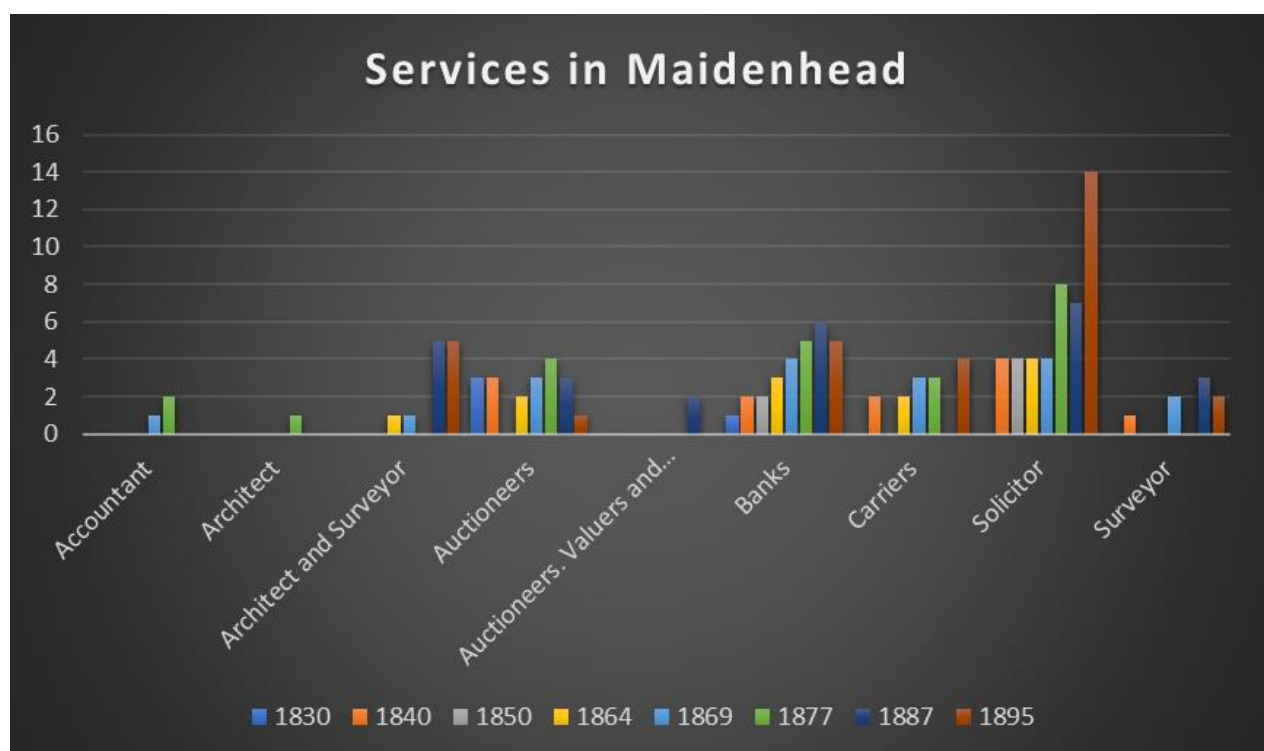


Figure 51: Service Industries in Maidenhead, 1830-1895.¹⁹

The number of people employed in law makes a useful comparison which confirms that the legal profession in the town in fact evolved during the years between 1851 and 1881. An examination of the occupational census returns shows that each of the four practices was small, with one solicitor or barrister assisted by a small number of clerical staff. The profession grew quite rapidly from 1861, with both the number of practices and professional qualified practitioners of law increasing until

¹⁹ Pigot; 1830, 13-14; Robson's; 1840, 74-75; Slater's; 1850, 18-22; Kelly's; 1864, 623-626; Kelly's; 1869, 672-676; Kelly's; 1877, 585-590; Kelly's; 1887, 94-102; Kelly's; 1895, 104-114.

1891 when the profession contracted. The opening of railway lines in the county does not correlate with either the exponential growth after 1881, nor with the decrease in 1901. This suggests that other factors were affecting the profession, and even the increasing number of businesses in the town does not appear to have provided sufficient demand for their services.

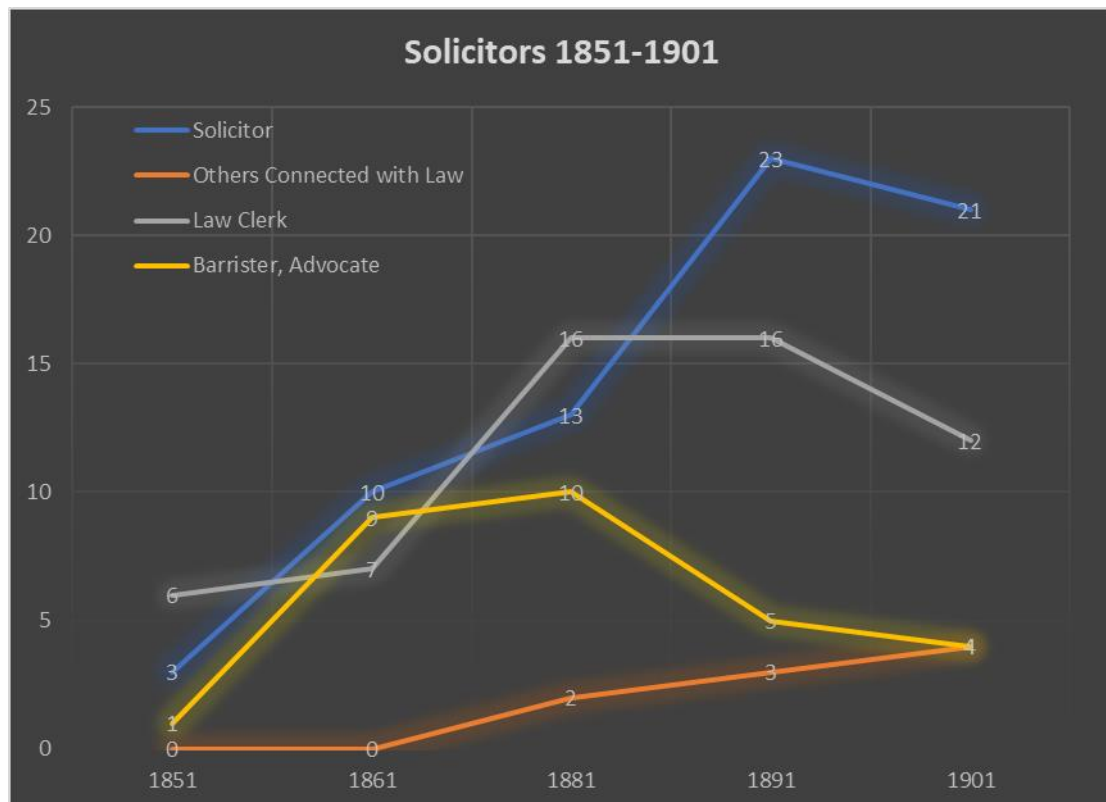


Figure 52: The Legal Profession in Maidenhead: 1851-1901.²⁰

A sector which appears to have been affected differently to that in Reading is Dressmaking. In Reading no businesses were listed as purely dressmakers, however in Maidenhead the picture is quite different. The commercial directories list a slowly growing number of dressmaking businesses from 1864, which contrasts sharply with the situation in Reading.

²⁰ Integrated Census Microdata.



Figure 53: Dressmaking Businesses in Maidenhead, 1830 to 1895.²¹

The statistics, being sourced from the same directories for both towns, reduces the likelihood of a misclassification and suggests that the two neighbouring towns were impacted by the railways differently in this occupation. The occupation statistics from the census also show that these businesses were medium sized growing businesses employing over twenty people on average.

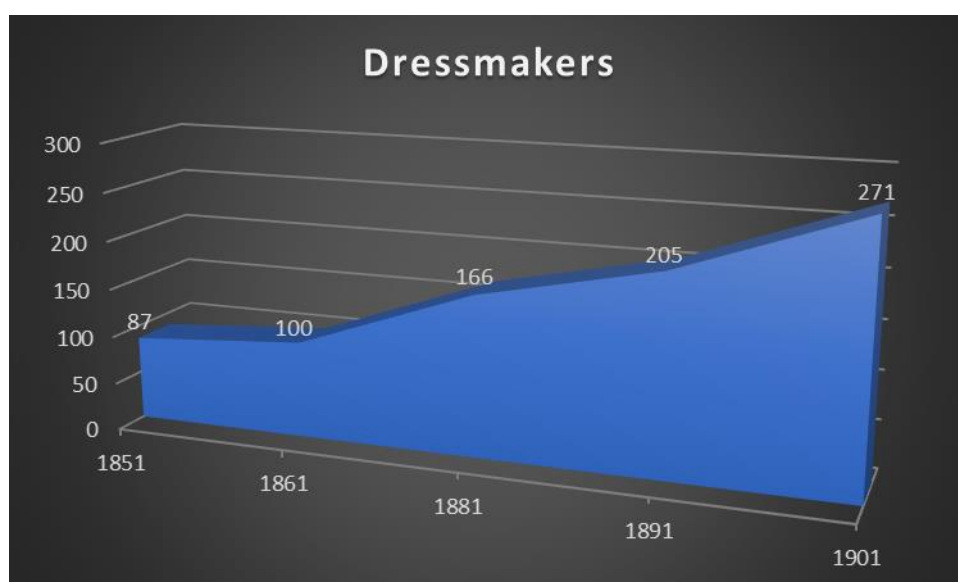


Figure 54: Number of persons engaged in Dressmaking in Maidenhead, 1851-1901.²²

²¹ Pigot; 1830, 13-14; Robson's; 1840, 74-75; Slater's; 1850, 18-22; Kelly's; 1864, 623-626; Kelly's; 1869, 672-676; Kelly's; 1877, 585-590; Kelly's; 1887, 94-102; Kelly's; 1895, 104-114.

²² Integrated Census Microdata.

The evidence shows how one trade in two towns fifteen miles apart was affected very differently by economic change. The lack of consistency between the data for the two towns both joined by the GWR's main trunk route between London and Bristol supports the supposition that economic change was much more nuanced than has perhaps been asserted in the more general studies of the impact of railways upon the British economy. In this case the same trade is impacted in a very different manner in two neighbouring towns.

An industry which seems to have changed in a consistent manner during the period of this study is that of the artisan cobbler. The trends evident in the data are very similar to those in Reading and suggests that the damage done to the shoe maker's craft by the availability of cheap mass-produced products from Northamptonshire. Whilst some work remained for the craftsman in repairing footwear, it seems that general demand for these services was in decline due to the customer's ability to replace worn out shoes with new at a cost more economic than repairs.

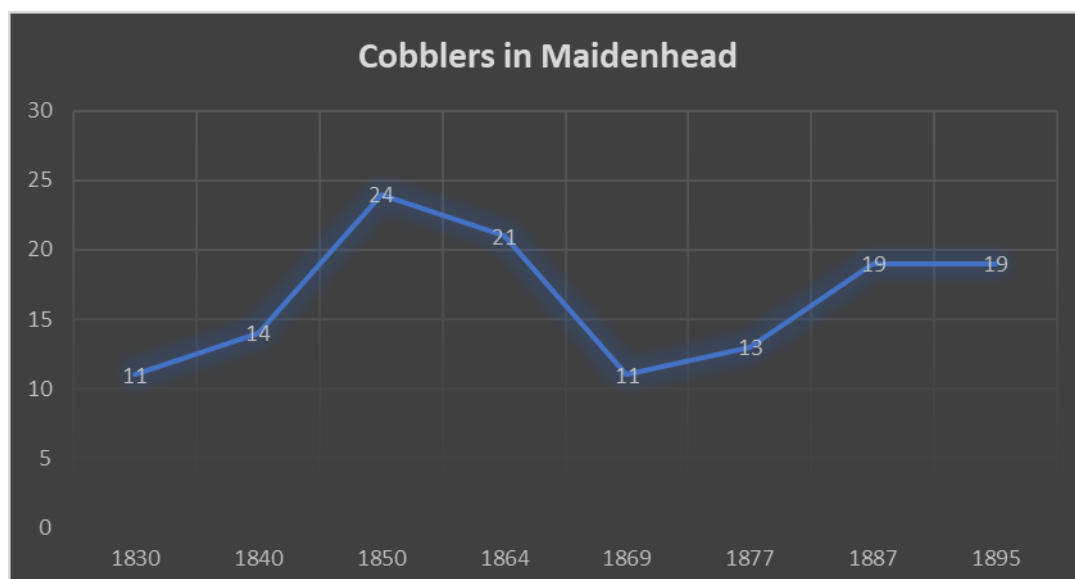


Figure 55: Artisan Cobblers in Maidenhead, 1830 to 1895.²³

There is evidence that the trade was suffering from reducing demand for its services within the occupation census statistics where the numbers of persons engaged in that craft is decreasing

²³ Pigot; 1830, 13-14; Robson's; 1840, 74-75; Slater's; 1850, 18-22; Kelly's: 1864, 623-626; Kelly's: 1869, 672-676; Kelly's: 1877, 585-590; Kelly's: 1887, 94-102; Kelly's: 1895, 104-114.

consistently from 1861. When compared to the numbers of businesses listed in the directories for Maidenhead it becomes clear that the size of each business is decreasing as fewer people were being employed by them, and in term this reinforces a view that demand was steadily decreasing. In Maidenhead, as for Reading, this trade was in decline and this can be most likely linked to the arrival of the railways, especially after the opening of the Oxford and Great Western Union Railway between Didcot and Oxford on onwards to Birmingham and the Midlands.

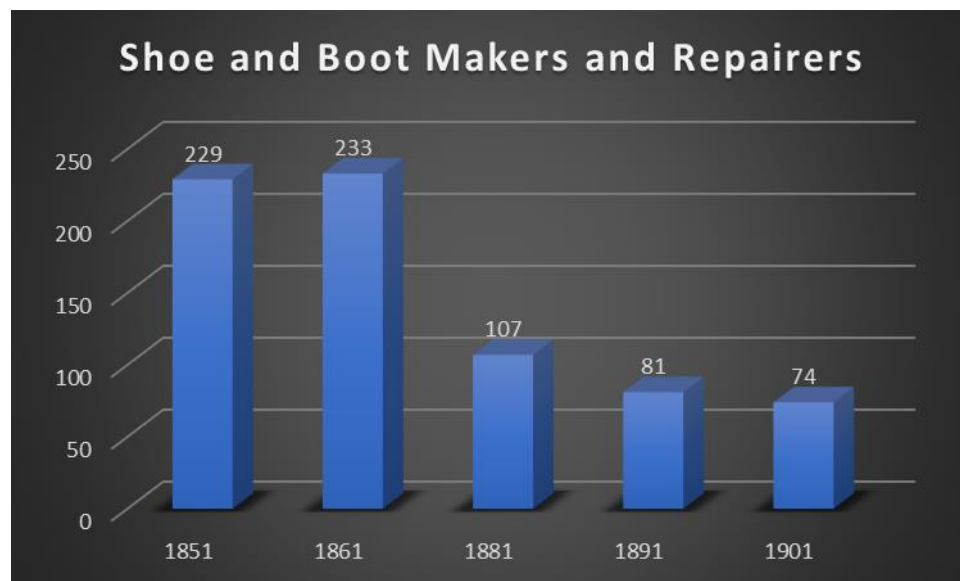


Figure 56: Persons Occupied as Artisan Cobblers in Maidenhead, 1851 to 1901.²⁴

The beer brewers of Maidenhead also seem to have had a different experience to that experienced by their colleagues in Reading. The trend over the century is one of constant fluctuation among the small number of breweries in the town, as opposed to the declining trend seen in Reading. It is difficult to attribute this difference to the size of the breweries and the acquisitiveness of the larger concern. Both towns contained a major brewery in Simonds of Reading and Nicholson's of Maidenhead. There is no doubt that the railways had an important impact on brewing in Maidenhead as well as in Reading, both as an important logistics partner to allow the company to

²⁴ Integrated Census Microdata.

export its products but also as the channel through which competitors were able to intrude upon the markets once dominated by these brewers.



Figure 57: Breweries in Maidenhead, 1830 to 1895.²⁵

The commercial directories tell an interesting story. At the end of the century the three surviving breweries were choosing to be listed as Brewers, Wine, and Spirit merchants, showing that they were diversifying their businesses to broaden their markets. It is also common to see them advertising themselves as agents for the products of other breweries elsewhere in Britain alongside their own beers. Growth achieved through this method cannot be credited to the railways but rather to commercially aware management who chose to work with their competitors to share in the revenues earned by them, rather than to try to out-compete them.

²⁵ Pigot: 1830, 13-14; Robson's: 1840, 74-75; Slater's: 1850, 18-22; Kelly's: 1864, 623-626; Kelly's: 1869, 672-676; Kelly's: 1877, 585-590; Kelly's: 1887, 94-102; Kelly's: 1895, 104-114.



Figure 58: Advertisement by Nicholson's Brewery.²⁶

There can be no doubt that by the last decades of the nineteenth century the railways were the key transporter of beers throughout the country, and so would have been key to supporting these companies efforts but probably should not be credited with causing the growth that resulted. Once again there is clear evidence of many factors influencing change, and that railways were a key vector to support change, but not the only driver of it.

Conclusions

The variable experience of different sectors in Maidenhead's economy suggests that despite a general growth in the number of businesses and the number of those employed by them after the arrival of the railway in the town, the experience of different sectors can be seen to have been very different. Some sectors experienced growth, whilst others declined, and in some cases, stagnation appears to have been the result. Growth and declines occurred at differing times in different trades and this suggests that whilst for some businesses, such as Maidenhead Iron Works, the railways had a direct and positive impact on them in line with the general consensus seen in the historiography, in the main the cause of change was liable to have been a combination of a number of factors such as consumer demand, fashion, competition from other parts of Britain, or indeed imports from overseas as well as the impact of the railway. It is no doubt true that whilst the railway was not the instigator of 'growth' it was certainly a major vector of change supporting the influences from other

²⁶ Reading Mercury, 27th May 1848

sources. The situation in Maidenhead, whilst different to that in Reading, is most certainly as complex and nuanced as that in its larger neighbour.

Chapter 8: Newbury Case Study

Newbury lies to the west of Reading on the Kennet and Avon canal and the main Bath Road which link the two towns. Situated in the Kennet valley the town is in one of the few level routes through the Berkshire downs and as such has always been an important stop on many transport routes to the West of England.

The town was served by three railway companies.



Figure 59: The Railways of Newbury 1898.¹

The GWR's Berks and Hants line opened initially to Hungerford, from Reading reaching Newbury in December 1847.² The Didcot, Newbury and Southampton Railway opened their line from Didcot on the 13th April 1882, and their line onwards to Winchester, and on to Southampton via the LSWR on 1st May 1885.³ The final railway from Newbury arrived in the form of the independent Lambourn Valley Railway who opened their branch line on the 2nd April 1898 linking Newbury to the eponymous town.⁴ The town of Newbury had been, like Reading, an important centre for woollen

¹ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XLIII.NW, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97792963>, (accessed 11th May 2022).

² Christiansen, 160.

³ Christiansen, 161.

⁴ Kevin Robertson and Roger Simmonds, *The Lambourn Branch* (Upper Bucklebury, 1984), 13.

cloth manufacturing but like its neighbour its cloth manufacturing industry was in decline by the nineteenth century despite which the making of the 'Newbury Coat' in one day from sheep to coat was a demonstration of Newbury's remaining industry.⁵

On the eve of the arrival of the GWR the town had many businesses although the economy of the town appeared to have stagnated, with very few new businesses being created. Newbury, like Reading and Maidenhead experienced a growth in the number of businesses operating in the town after the arrival of the railway, but unlike the other two towns it did not experience a decline in the 1860s, but continued growth until a sudden decline in the 1870s followed by a sustained period of regrowth. The economy of Newbury was more robust than that of Maidenhead and Reading. The railways arriving in the town seems also to have contributed, at least as one of the supporting vectors of change, to the growth of the town's business landscape following the period of stagnation in the early part of this study. The experience of the railways in Newbury appears to have been very different to the previous two case studies, and indicates a third different impact of the new transport technology.

⁵ David Peacock, *The Story of Newbury* (Newbury, 2011), 78.

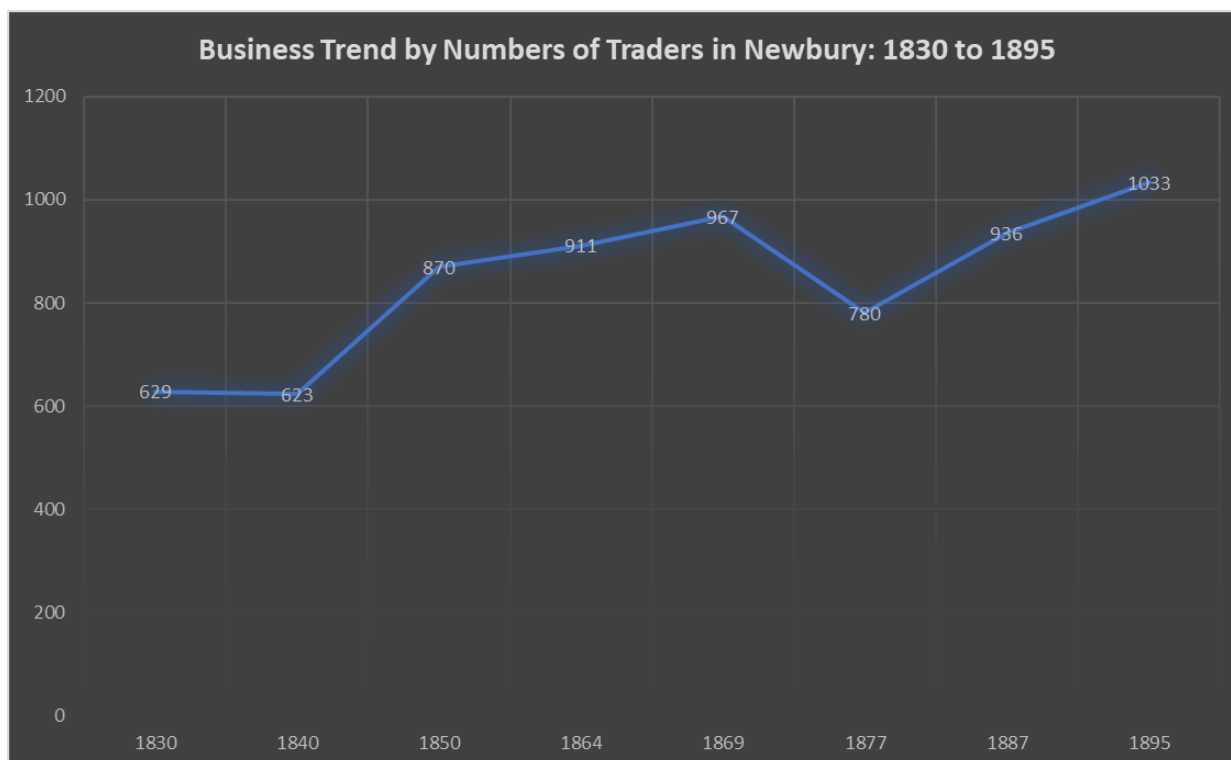


Figure 60: Trend in overall business numbers in Newbury between 1830 and 1895.⁶

Manufacturing in Newbury shows a more variable trend than other businesses. Different sectors perform differently over time which indicates that there was a variable impact of the drivers that were influencing the economy of Newbury.

⁶ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 15-20; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 40-54; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 22-31; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 628-634; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 678-685; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 502-599; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 104-115; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 117-131.

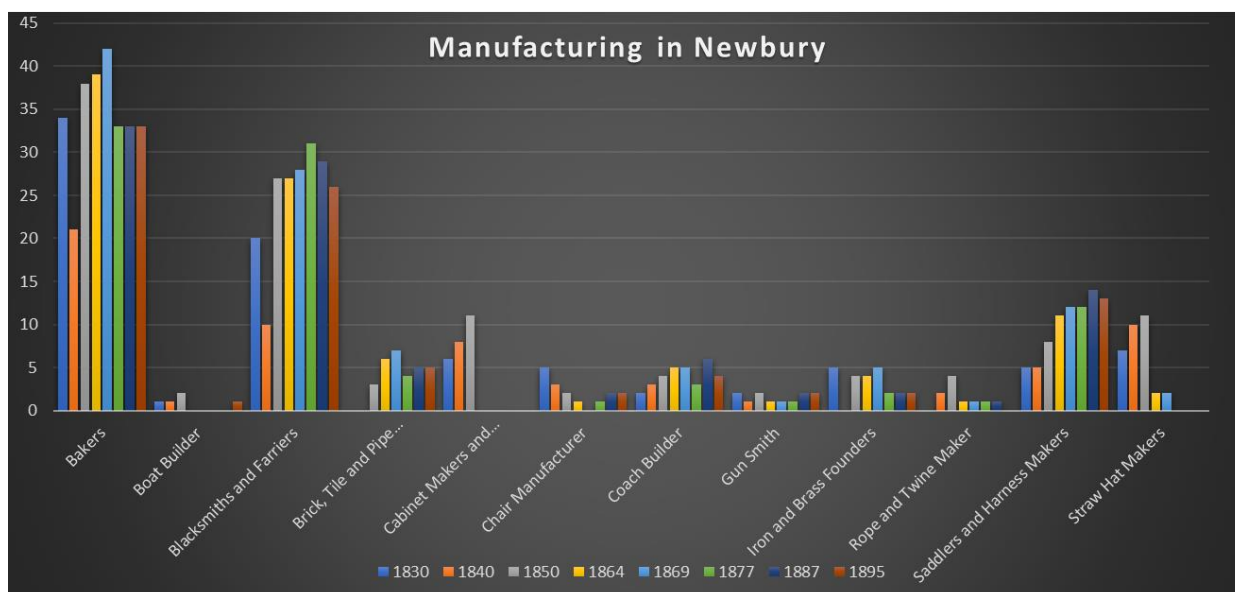


Figure 61: Selected manufacturing trades in Newbury, 1830-1895.⁷

The trends exhibited by brick manufacturing mirrored the general trend for the town, whereas the trend in Saddlers and Harness makers is quite different. In the latter case this is most likely to have been caused by demand for tack for racehorses given the number of racehorse breeders in the surrounding area although Newbury Racecourse was not created until 1905.⁸ Horses for racing were frequently transported into Newbury for onward transmission by rail but Newbury's position on the edge of rural West Berkshire is probably more responsible for the steady increase in saddlery companies through the century, although the railway was probably a useful method of delivery for harness to the customer. In the latter case the combination of demand, mail order, and railway parcels delivery service most probably supported the Newbury's saddle makers.

Newbury, like Reading had a few iron works throughout the nineteenth century. One, Plenty and Sons, became a major industrial concern. The trend that can be seen in the progress of the iron

⁷ Pigot; 1830, 15-20; Robson's; 1840, 40-54; Slater's; 1850, 22-31; Kelly's; 1864, 628-634; Kelly's; 1869, 678-685; Kelly's; 1877, 592-599; Kelly's; 1887, 104-115; Kelly's; 1895, 117-131.

⁸ Newbury Racecourse, The Early Years [Website] <https://newburyracecourse.co.uk/about-us/about-the-racecourse/> (accessed 1st July 2022).

industry in Newbury at first appears to be one of decline, which does not match the overall trend for the town.

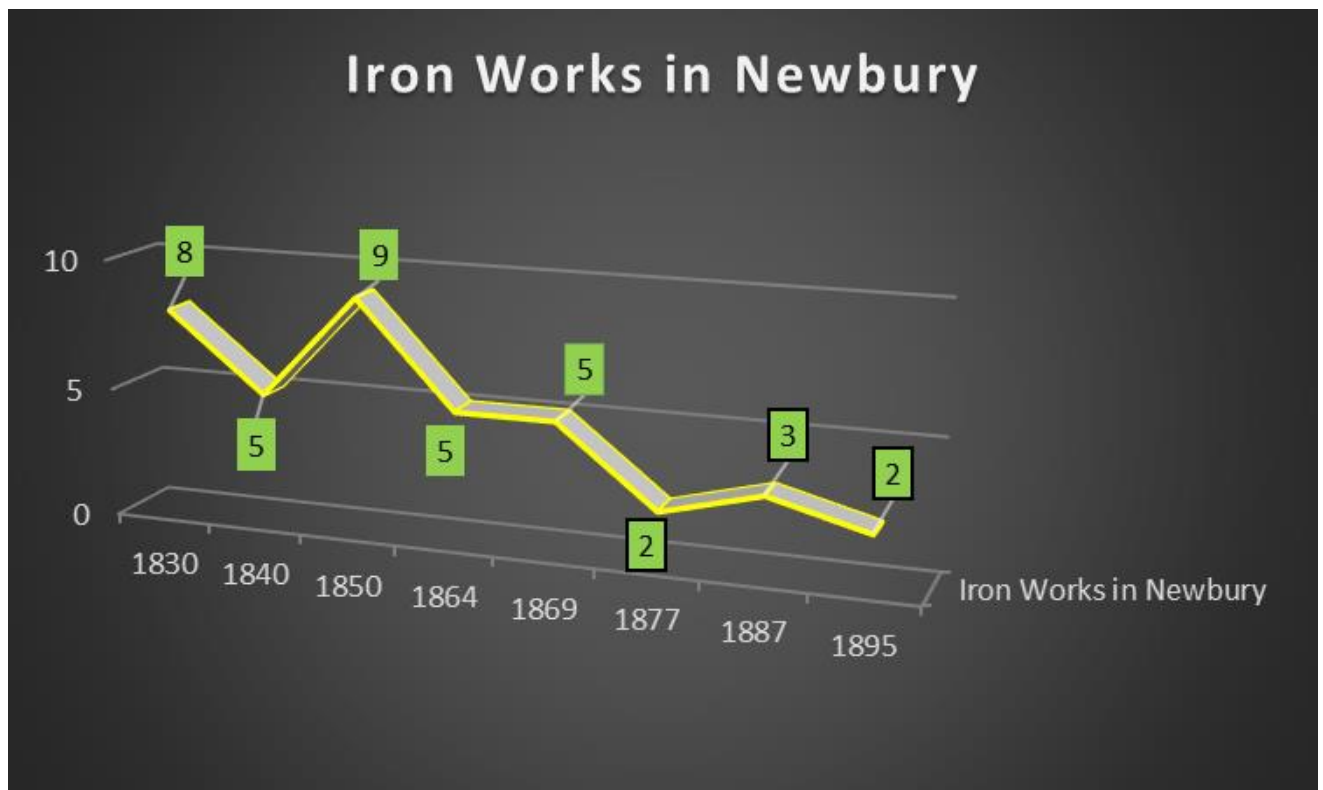


Figure 62: Trend of Iron works development 1830 to 1895.⁹

An examination of the occupation statistics for those engaged in the trades associated with iron works shows a very different picture. As the number of businesses declines the number of persons occupied in trades associated with engineering work increases. The types of occupations also change as the iron works evolve their product lines and as processes change. It is clear from this evidence that whilst the number of businesses listed as ironworks had reduced considerably by 1877, those which survived were growing and successful businesses. The case of Plenty and Son is a key example of this.

⁹ Pigot; 1830, 15-20; Robson's; 1840, 40-54; Slater's; 1850, 22-31; Kelly's; 1864, 628-634; Kelly's; 1869, 678-685; Kelly's; 1877, 592-599; Kelly's; 1887, 104-115; Kelly's; 1895, 117-131.

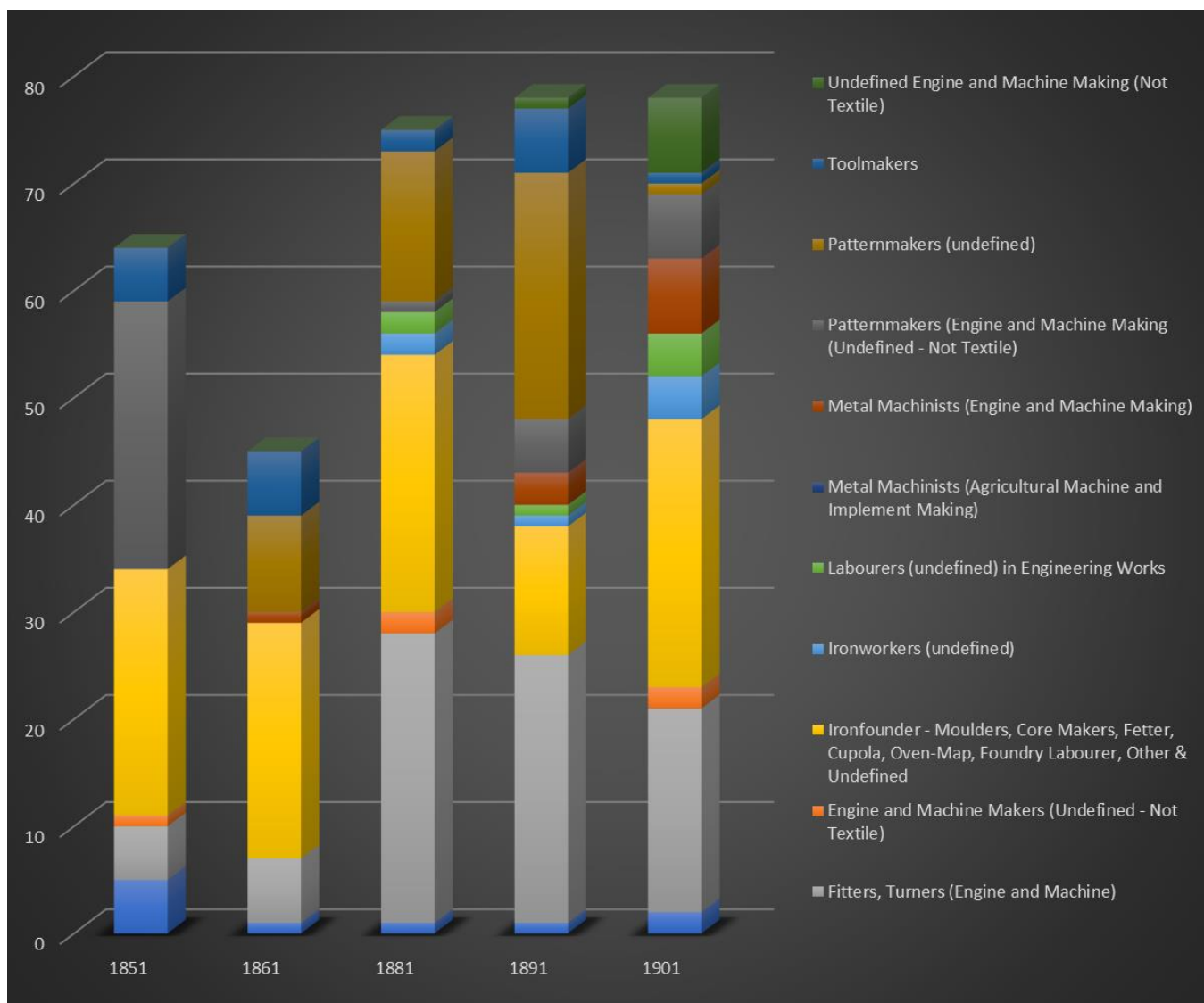


Figure 63: Occupations Associated with iron works. 1851-1901¹⁰

Plenty and Sons began as a small agricultural implement manufacturer founded by William Plenty in 1790, after his arrival in the town from Southampton, producing the Plenty Patent Plough (patented in 1815), portable iron huts for shepherds and other agricultural equipment.¹¹ The company evolved and diversified the product lines they produced over time, taking out a patent for a lifeboat

¹⁰ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

¹¹ Reading, Berkshire Records Office, D/EX1739/9/2/1, The History of Plenty Booklet, Brian Randall (On behalf of the Company), 1970; Reading, Berkshire Records Office, D/EX1739/5/1/1, Records of Plenty & Son, Engineers of Newbury, Patent Issued to William Plenty for 'Improvements to a Plough', 22nd December 1815.

in 1815 which was used for eleven out of the fourteen lifeboats in use around the coast of Britain for example. The company records which survive show that the company, initially known as The Eagle Iron works had become well established and successful long before the railway arrived in the town with the opening of the GWR's Berks and Hants line in 1847 (initially terminating at Hungerford).¹² William died in 1832 and the company passed on to his sons James and Edward Pellew Plenty.

In 1864 the company was granted its first patent for a marine engine the 'Plenty Patent Engine and Boiler' and a second for 'improvements' to engine construction¹³, after which point the company began to specialise in the production of marine engines.

In 1885 the firm was averaging forty-five complete conventional engines per year and became one of the first builders of steam machinery designed specifically for submarines, providing the engines for the Nordenfeldt Submarines.¹⁴

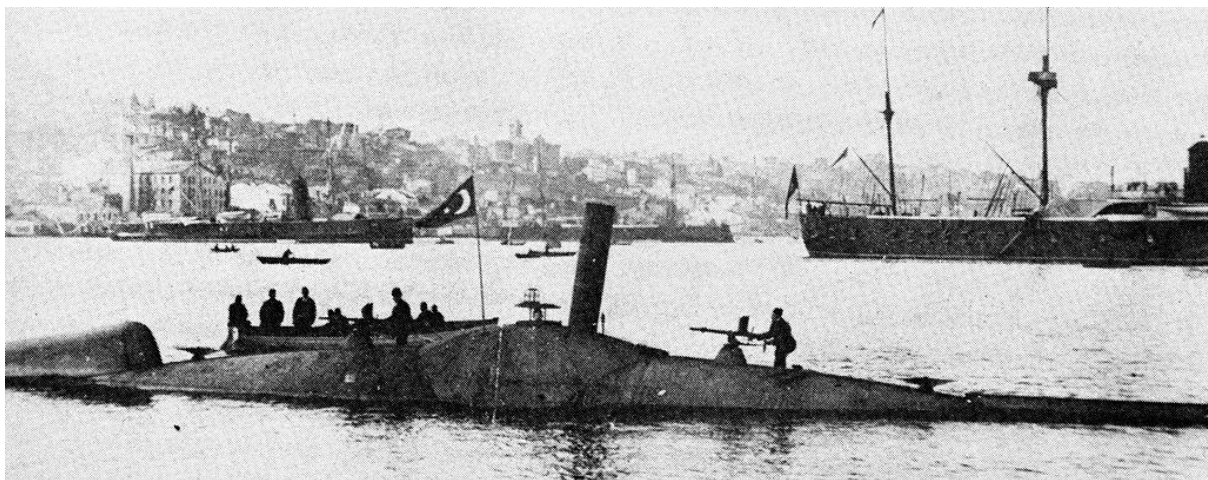


Figure 64: Nordenfeldt Submarine serving with the Turkish Navy¹⁵

¹² Christiansen, 160.

¹³ Reading, Berkshire Records Office, D/EX1739/5/3/3, Records of Plenty & Son, Engineers of Newbury, Patent issued to Edward Pellew Plenty for 'improvements in the construction and arrangement of steam engines for the propulsion of boats and other vessels', 15 March 1867.

¹⁴ Berkshire Records Office, D/EX1739/9/2/2, The History of Plenty Booklet, Brian Randall (On behalf of the Company), 1970.

¹⁵ Nordenfelt Submarine Abdülhamid, [online photograph], Unknown Author, Public Domain via Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Nordenfelt_submarine_Abd%C3%BClhamid.jpg, (accessed 3rd September 2021).

There is clear evidence that Plenty and Sons were sourcing some of their parts from Reading at this time. In 1883 there a number of entries in the company account books relating to invoices payable in the favour of Reading Iron Works for not inconsiderable sums for the time, such as an invoice dated 30th June 1883 for £45 and another dated 4th August for £43 18s 6d.¹⁶ This suggests that the parts being manufactured on behalf of Plenty and Son were probably sent by rail between the two towns, the purchase ledger supports this assertion, showing invoices dated at similar times from Sarah Draper, who is listed in Harrod & Co.'s 1876 directory as goods agent to the GWR in Newbury.¹⁷

The example of the business relationship between Plenty and Sons and Reading Iron Works shows to illustrate how companies in one town traded with companies in a neighbouring town where there was a natural synergy between the capabilities of the companies concerned or where one company could provide expertise or manufacturing capacity that the purchasing company required and was unable to source in-house. This shows how important it is to consider neighbouring towns in relation to others in their locale rather than in isolation. In this case the success of Plenty and Sons in Newbury is providing business to Reading Iron Works and impacting upon the economy of Reading. It is clearly important, even in a study such as this which is limited to the county of Berkshire to consider the wider picture, and to bear in mind the wider national and international picture as will be explored below.

The company appears to have been extremely busy throughout the nineteenth century, the managing director, W. Plenty, reporting to the board of directors at the company's board meeting in January 1891 that 'the factory is in full work and orders pressing', a statement which, in some form appears in most of the surviving board minutes.¹⁸ The surviving order book for Plenty and Sons from

¹⁶ Berkshire Records Office, D/EX1739/4/1, Records of Plenty & Son, Private Ledger, Sales Etc. February 1883 onwards.

¹⁷ University of Leicester Special Collections Online, Historical Directories of England & Wales, J.G. Harrod & Co.'s Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, 446, (Accessed 17th August 2023).

¹⁸ Berkshire Records Office, D/EX1739/2/1. Plenty and Son Ltd, Directors Minute Book, 1st December 1890 – 25th October 1938.

1882 onwards provides useful evidence of to whom the company was selling their machinery to. Marine engines had been sold to customers in London, Dartmouth, Glasgow and Birkenhead, Australia, Egypt, and India, but one of the company's main customers which placed numerous orders was the British Admiralty.¹⁹ The orders received by the company from the Admiralty coincide with a period in which the British Royal Navy was undergoing a complete modernisation of the British fleet, replacing aging sail powered warships with modern iron-hulled steam powered warships.²⁰

The modernisation of the Royal Navy in the late nineteenth century was not the only cause of demand for Plenty and Sons products. Increased overseas trade with export customers saw an increased demand for merchant shipping and of course these new ships required engines to power them, creating a demand to which Plenty, among other marine engine manufacturers, were able to respond. British exports were not only destined for territories in the British Empire, global trade growing as British companies expanded their export drives into the United States and Japan.

In order to trade with and protect its interests in Japan and elsewhere Britain required a modern fleet of fast merchant ships and modern warships which would create demand for the products of companies such as Plenty and Sons, and Huntley and Palmer in Reading, who were manufacturing naval stores in addition to confectionery biscuits. Events in Japan and elsewhere served to increase the need for British manufactures and services which would no doubt have impacted positively upon those companies established in Berkshire who were engaged in the production of those products. The railways may not have directly created the demand and the resultant growth but were certainly an important part of the supply chain, allowing companies to transport their products cheaply and safely to British ports for export to these new markets.

¹⁹ Reading, Berkshire Records Office, D/EX1739/7/1/1, Records of Plenty & Son, Engineers of Newbury, Production Records, Engine and Boiler Order Book for Order Numbers 601-788 and 1189-1755 [Numbers 789-1188 were not used], 1882-1901.

²⁰ Angus Konstam, *British Ironclads 1860-75* (Oxford 2018), 28; Angus Konstam, *British Battleships 1890-1905: Victoria's Steel Battlefleet and the road to Dreadnought* (Oxford, 2020), 42-43.

During the 1860s another major event would impact global trade and the trade opportunities which Berkshire companies could potentially take advantage off. The outbreak of the American Civil War in 1861 changed Britain's trading relationship with the United States.²¹ The Confederate States were desperate to gain recognition from European governments and believed that economic means were the way to force the issue. In order to achieve legitimacy, the southern states embargoed the export of raw cotton to France and Britain in order to cause economic distress in those country's textile industries, hoping that the resulting outcry from mill owners and workers would convince the governments to extend recognition.²² This aim failed in Britain, the stock of raw cotton on hand kept the mills working until greater supplies could be sourced from existing trade with India and Egypt. John Keegan also states that the mill workers and owners in Britain were '...abolitionist to a man and woman and...had principled objections...to the slave power'.²³ Little impact seems to have occurred in the cotton weaving industries of Britain during the civil war as alternate sources of supply were sought, shipping being diverted to Egyptian and Indian ports in preference to the United States. The civil war did however create demand for more exports and thus further demand for shipping which would have helped to fill Plenty and Sons order books. The Federal states needed to equip the Union armies and needed to import armaments, medicines, and uniforms to support the north's efforts in the field. In order to support their troops in the field, the Federal and State governments purchased large quantities of materiel from Europe, and particularly Britain, for example the Federal government purchased 428,292 British Enfield rifled muskets.²⁴

The question of how the machinery reached the ships it was to be installed in, for which the company sent its own engineers to fit the engines into the hulls of the ships, can be solved by referring to the account books. The company account books mainly survive in the Berkshire Records Office, the ledgers for 1882 onwards being particularly revealing. The purchase ledger for 1882

²¹ John Keegan, *The American Civil War* (London, 2010), 33.

²² Keegan, 61.

²³ Keegan, 62.

²⁴ Philip Katcher and Ron Volstad, *American Civil War Armies 2: Union Troops* (Oxford, 1986, repr.1998), 39.

provides evidence of who Plenty and Sons were engaging to transport their engines. These were the GWR, Pickford and Co., and Sarah Draper.²⁵

<i>Service Purchased From:</i>	<i>Date</i>	<i>Value</i>
G.W. Railway	29 th October 1882	£9 18s 7d
G.W. Railway	25 th November 1882	£4 12s 2d
G.W. Railway	6 th December 1882	£13 9s 8d
Pickfords and Co.	8 th December 1882	£19 16s 9d
G.W. Railway	30 th December 1882	£4 9s 5d
Pickfords and Co.	2 nd January 1883	£3 12s 0d
Pickfords and Co.	9 th January 1883	£19 4s 9d
G.W. Railway	20 th January 1883	£8 17s 4d
G.W. Railway	31 st January 1883	£6 16s 2d
Sarah Draper	22 nd June 1883	£7 16s 4d
Sarah Draper	30 th June 1883	£9 4s 5d

Table 6: Excerpts from Plenty and Sons Accounts, Carriage and Cartage Accounts Ledger, 1882-1883.

An inspection of the purchase ledger for carriage charge invoices received suggests that Plenty had adopted a hybrid model to meet their transport requirements, Pickford and Co. most likely being used to transport larger marine boilers and so forth by road (which will be discussed below) as well as using the services of the GWR, either directly (most likely for the dispatch of finished products to the customer) or via the offices of Sarah Draper (most likely for purchase consignments passed to her by the GWR as their delivery agent in Newbury).

There were frequent references in the sales order books which survive that indicate the methods to be used to transport the finished machinery to the customer's premises or yards (Plenty also provided pumping engines to canal companies in the 1880s). Order 718 of 11th March 1886 states that the machinery was to be 'Delivered free on Rail, Newbury' from which the customer had clearly arranged to pay rail carriage to their own works, and order 1200 of 4th June 1899 states that the machinery was 'To be delivered at Newbury Station in 7 Weeks'. The company was using the services of the railway companies for at least some of its products. This was not the whole story however.

²⁵ Reading, Berkshire Records Office, D/EX1739/4/1, Records of Plenty & Son, Engineers of Newbury, Private Ledger, 1882-1890, 84-85.

Some of the company's products were very large and would not have fitted within the loading gauge of Britain's railways where infrastructure, bridges and so forth would have obstructed the passage of the load.²⁶ Evidence of how Plenty and son worked around this issue can be found in an account of a journey undertaken by one of the company's deliveries printed in the newspapers on 14th November 1878.²⁷

The machinery in question was said to be '...the largest boiler that they have manufactured' which weighed thirty-six tons and was intended for a new freight ship being constructed in Bristol. The journey, which took three days, required the use of a 'powerful traction engine' and road was the only option available due to the restrictions of the railway gauge, and the low height of the canal bridges through Bath.

The case of Plenty and Son serves to illustrate that railways were simply one part of Britain's transport infrastructure during the nineteenth century and that once roads had been metalled and improved options were available to the manufacturer or the retailer for delivery of goods and raw materials. The choices made by Plenty and Sons appear to have been dictated by the size of the machinery they were making and to where it was being delivered, road, rail, and canal all being used when relevant. This serves to support the main argument of this thesis, that railways, whilst important and a major vector of change in transport, were not solely responsible for causing 'growth' in Britain's economy, and that the situation was quite complex, with many factors influencing not only growth but also decline, or even stagnation, in different individual elements of the British economy. In the case of Plenty, the business did grow quickly, but the source of its success was a combination of many factors unique to that type of business. The modernisation of the Royal Navy and its transition to steam powered warships, and the increase in the size of Britain's

²⁶ The loading gauge of a railway refers to the maximum height and width dimensions of a railway vehicle and its load. The purpose of this restriction is to ensure that the train and its load can pass safely through tunnels and under bridges, and can also pass station platforms, trackside buildings and other structures.

²⁷ Reading, Berkshire Records Office, D/EX1739/9/6/22, Newspaper Cutting, 'MARINE ENGINEERING IN NEWBURY', 14th November 1878.

merchant fleet to support growing international trade created demand for marine engines, for which the company had developed a reputation for quality. The diversification of the company also supported its growth, a decision made by commercially aware management which saw the company produce a wide range of products. The railway was no doubt of great importance, alongside road and waterborne freight carriers, in allowing the company to fulfil its orders, and removed the need for the manufacturers of marine engines to be in towns where shipbuilding was a major industry such as Newcastle Upon Tyne, Glasgow or Liverpool, by taking advantage of the railway network a company in Newbury could serve shipbuilding across not only Britain, but also across the globe. Plenty shows that one company was reliant on being able to take advantage of many factors in order to grow and succeed, a picture which can be reasonably expected to apply to many other individual manufacturing businesses.

Dressmaking in Newbury shows the same pattern as is evident in Reading. No independent companies stated as being purely dressmakers existed in the town until thirty-nine companies were listed in Kelly's 1895 directory. Unlike Reading, however, the entries for Newbury list businesses categorised as 'Milliner and Dressmaker' through the century suggesting that the situation in Newbury differed greatly from that in Reading and Maidenhead. In Newbury dressmaking appears to have been as important to millinery to the Newbury companies, whereas in Maidenhead Dressmakers were listed as specific businesses throughout clearly being the main, if not the only, product being created, whilst in Reading dressmaking seems to have been a minor subsidiary service offered by Milliners until 1895. In each of three towns, one trade was presented very differently. Thus, it is likely that the advent of the railways had a very different impact on each of the three town's dressmaking trade, although without a doubt the competition introduced into each town through the availability of clothing from the London fashion houses may have caused issues which needed to be addressed. Conversely the availability of fast and cheap delivery services may have allowed a number of these local companies, where capacity existed to service not only a local trade but potentially a national mail order trade or to sell into national retailers. It is likely that the greater

capacity available to companies who specialised in clothing, such as those in Newbury and Maidenhead, allowed them to compete in wider markets. The survival of such a large number of companies who specialised in women's clothing, or who were diverse in their production of clothing and millinery throughout the century suggests that this was the case and that railways were most likely to have had a mixed impact upon them. The numbers of people occupied in Newbury as dressmakers and hatters suggests that those companies listed in the commercial directories were undertaking manufacturing and were not simply retailing garments.



Figure 65: Dressmaking and Millinery Businesses in Newbury, 1830 to 1895.²⁸

²⁸ Pigot; 1830, 15-20; Robson's; 1840, 40-54; Slater's; 1850, 22-31; Kelly's; 1864, 628-634; Kelly's; 1869, 678-685; Kelly's; 1877, 592-599; Kelly's; 1887, 104-115; Kelly's; 1895, 117-131.

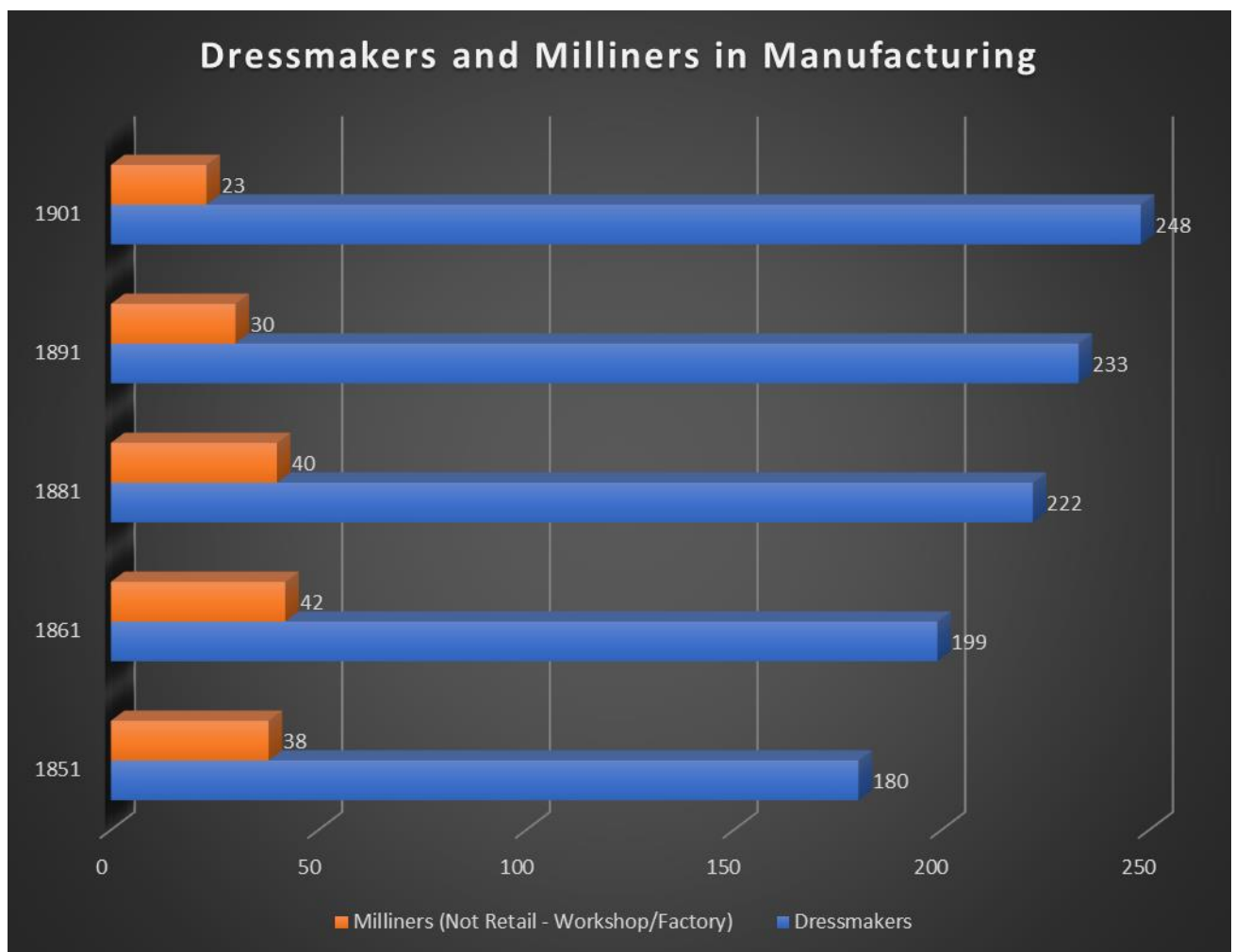


Figure 66: Persons Occupied in Manufacturing Dressmaking and Millinery in Newbury, 1851 to 1895.²⁹

The data provides striking evidence of continued growth after 1851, the number of people employed as dressmaker growing in each census return, and that the businesses, whilst listed as Milliners and Dressmakers were, on average, employing more dressmakers than milliners. The constant fluctuation in the number of businesses is not matched by the occupation statistics which exhibit no decline during the second half of the nineteenth century. This suggests that women's clothing manufacturing remained healthy throughout, even when companies closed, the remaining companies employing the workers with the skills in that industry. This contrasts with the situation in

²⁹ Integrated Census Microdata.

Reading and suggests once again that the impact of the railways can be very different in neighbouring towns, and that other factors were also in play which influence economic change.

Brewing in Newbury had a very different experience to the towns already examined. With more breweries than Maidenhead the industry seemed to be more diverse, but suffered a continuous decline after 1864, whilst Maidenhead's breweries appear little affected. Newbury differs from Reading in experiencing steady change over time, whereas brewing in Reading fluctuated constantly throughout the period with breweries being established and then disappearing.

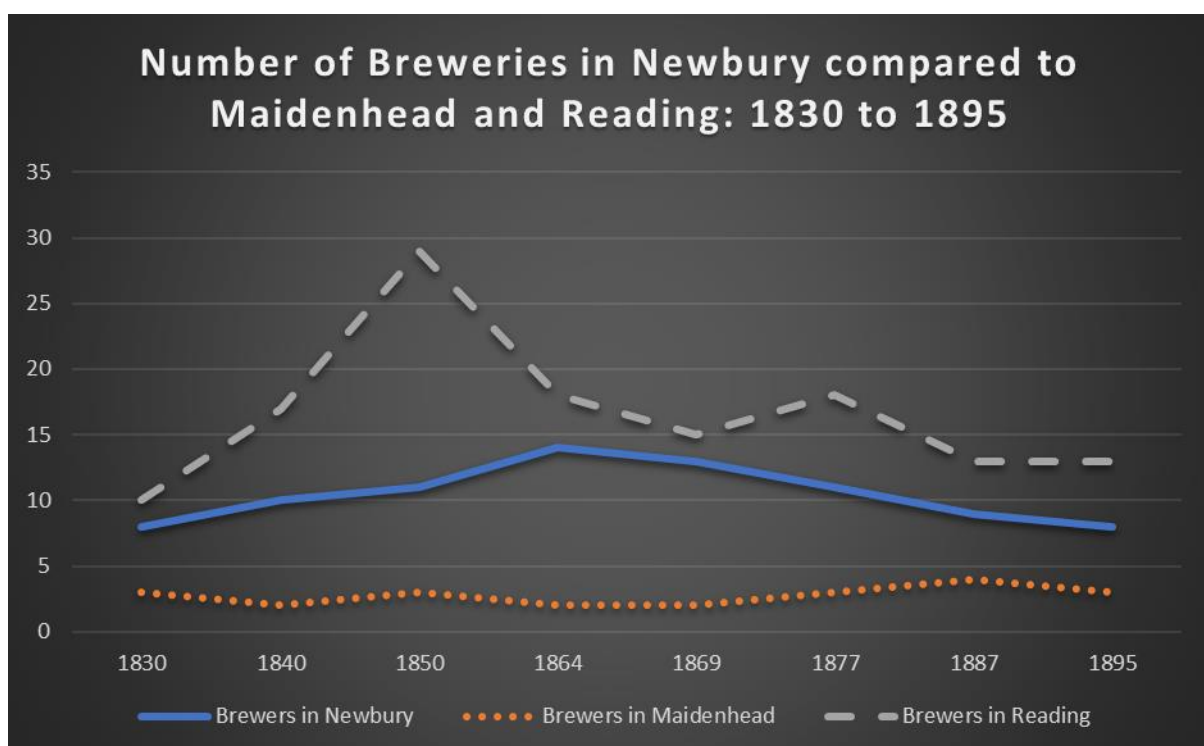


Figure 67: Brewing in Maidenhead, Newbury and Reading between 1830 and 1895.³⁰

The size of the breweries indicated by the number of people employed as 'brewers' in the census gives a useful measure of the size of the breweries in each town. The breweries in Reading were much larger concerns than those in Maidenhead which in turn were larger concerns than those in Newbury. The number of brewers remains relatively static between 1851 and 1901 in Newbury compared to a constant large increase within a declining number of breweries in Reading and a

³⁰ Pigot; 1830, 15-20; Robson's; 1840, 40-54; Slater's; 1850, 22-31; Kelly's; 1864, 628-634; Kelly's; 1869, 678-685; Kelly's; 1877, 592-599; Kelly's; 1887, 104-115; Kelly's; 1895, 117-131.

steady by small increase in a smaller number of breweries in Maidenhead. This suggests that the breweries in Newbury were small, local serving businesses with a small number of local outlets as opposed to their larger neighbours. In view of this it is much more likely that the arrival of the railways and the introduction of competition from the acquisitive larger breweries in Reading and later from the major breweries in Burton on Trent caused a reduction in the number of brewing companies in the town through competition that they were not large enough to survive.

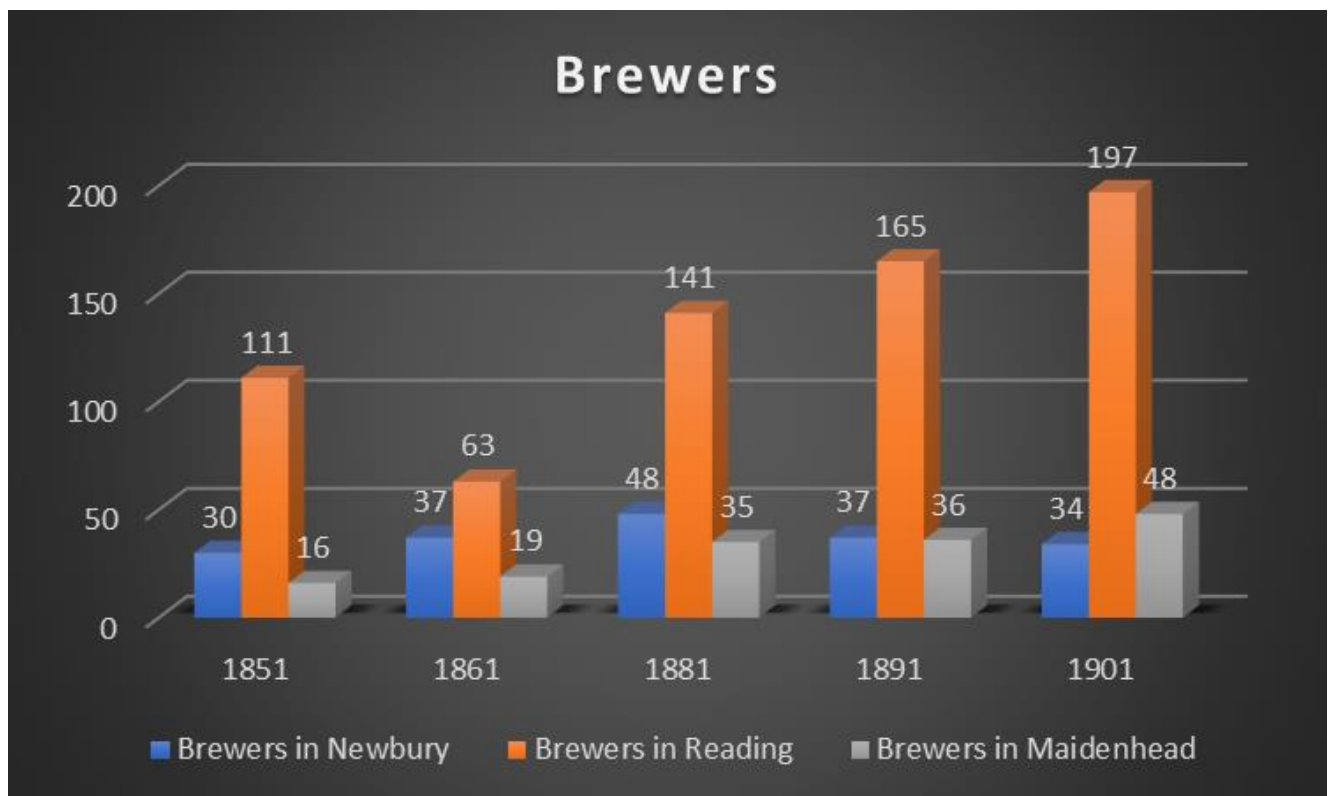


Figure 68: Number of Persons occupied as 'Brewers' in Census returns for Maidenhead, Reading and Newbury between 1851 and 1901.³¹

An occupation that seemed to have consistently suffered decline after the arrival of the railways in Berkshire was that of boot and shoe making and repairing. As in Reading and Maidenhead, the sector in Newbury experienced continual decline after the opening of the railway into the town with cheaper mass-produced imports arriving on the railways to be sold by retailers which undercut the local artisans. The number of people stating their occupation as 'Shoe and Boot Makers and

³¹ Integrated Census Microdata.

Repairers' declined constantly despite the number of businesses listed in the directories showing an increase in numbers before declining. This suggests that each company employed fewer people or were a smaller partnership as the second half of the nineteenth century progressed.

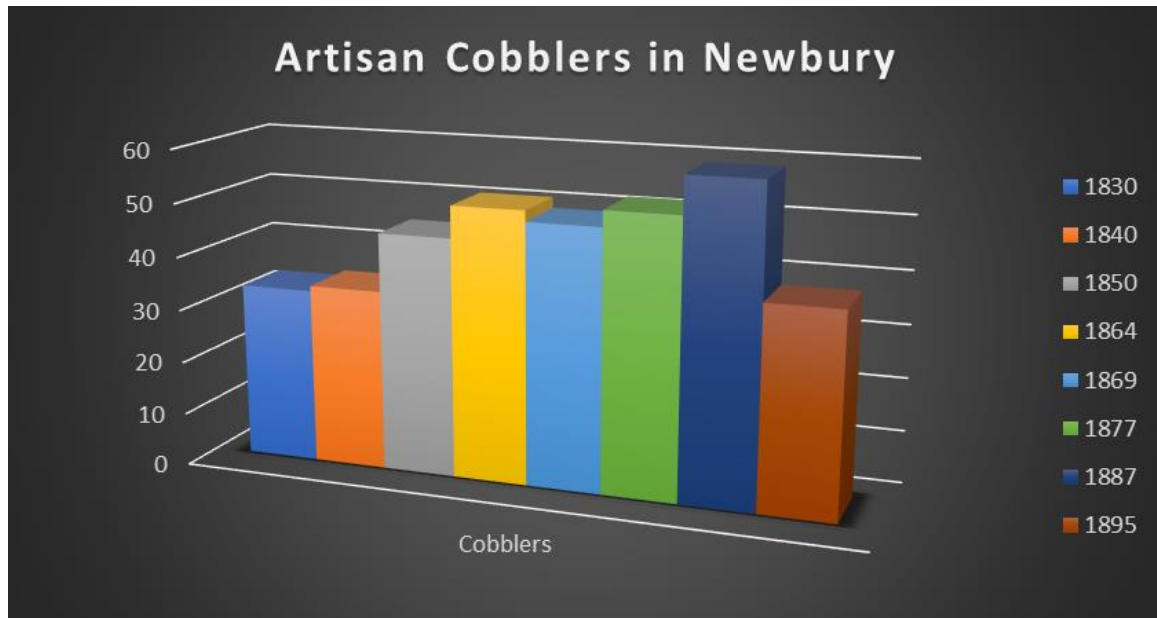


Figure 69: Number of Artisan Cobbling Businesses in Newbury.³²

³² Pigot; 1830, 15-20; Robson's; 1840, 40-54; Slater's; 1850, 22-31; Kelly's; 1864, 628-634; Kelly's; 1869, 678-685; Kelly's; 1877, 592-599; Kelly's; 1887, 104-115; Kelly's; 1895, 117-131.

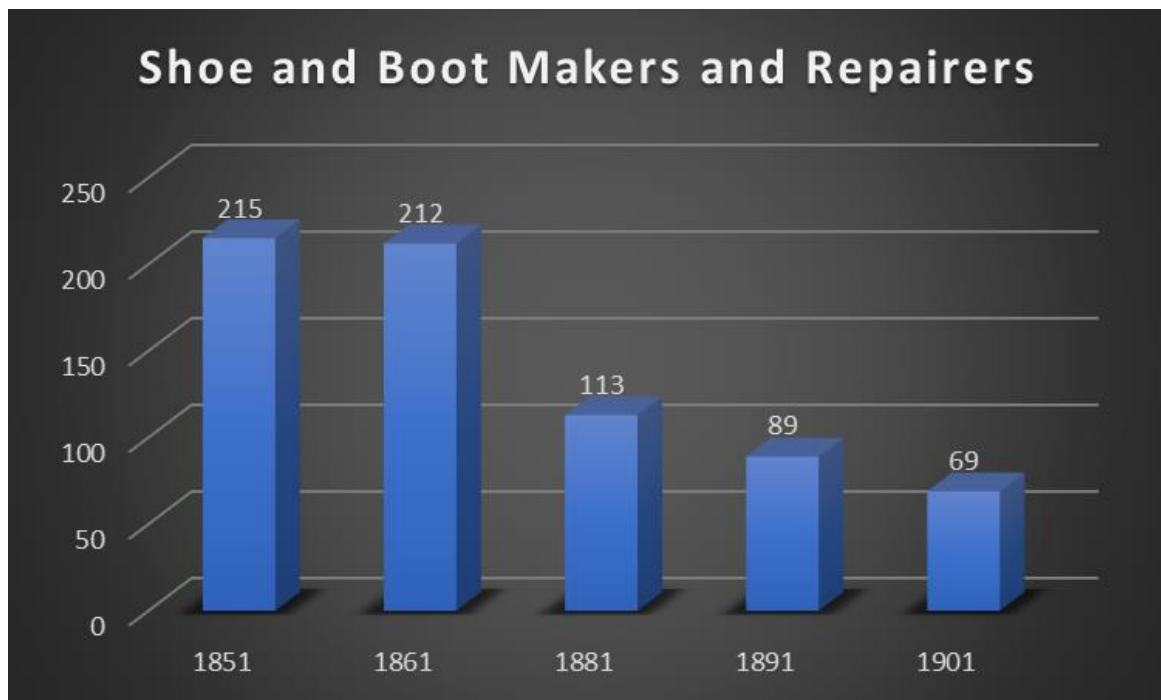


Figure 70: Census returns for persons stating their occupation as Shoe and Boot Maker and Repairer in Newbury.³³

The growth indicated in the number of businesses resident in Newbury working in the production and repair of footwear can be tempered by quantifying it against the numbers of people stating their occupation in the same sector. In 1887 there were fifty-two businesses open in the town, but the next census in 1891 returned only 89 people stating the occupation as their trade. This is suggestive of a craft in decline, where each company that existed was either a sole trader, partnership of two tradesmen or employed a very small number of craftsmen.

Conclusions

The arrival of the railways in the town of Newbury had a very different impact across different sectors of its economy and varied greatly in some trades than in the two towns examined in the case studies earlier in this chapter. There were also some similarities with Newbury's neighbours which are replicated across the entire county as can be seen in the case studies which follow.

³³ Integrated Census Microdata.

As the second of Berkshire's most industrialised towns, after Reading it could be expected that the impact of the railways seen in its neighbour would be replicated in Newbury. This does not seem to necessarily be the case, the same sectors in Newbury changing differently to their colleagues in Reading.

Brewing seems to have suffered negatively from the rail revolution compared to Reading, the larger breweries in the latter outcompeting the local small breweries through ability to serve a larger area and probably due to their agencies with breweries in other parts of Britain. The ability to bring large quantities of various beers into the county via the rail networks gave the large breweries, such as Simonds and Nicholson's, a competitive edge through a wider product offering. The smoothness and speed of the railways allowed agents to import beers from locations such as Burton on Trent both quickly and probably of more importance to the consumer, in good condition. The experience of Newbury's brewers thus contrasts greatly with that of Simonds of Reading and Nicholson's of Maidenhead.

The story of one iron works, Plenty and Son, shows how companies may have adopted a hybrid approach to meet their transport requirements, and thus the generalisation that the railways caused economic growth can be a limited response to the changes that occurred during the period of railway building and expansion in the nineteenth century. Clearly there is much more to unravel to understand the railways' place in the changes which occurred in Britain's economy.

The evidence suggests that there can also be very different changes in the same business sector across different towns in the same county. The way in which dressmaking businesses were established, and how they specialised, or not, over the century is indicative of how railways, and other factors, may have a more localised impact, despite the businesses producing the same type of products, or providing the same services.

The town of Newbury is a good example of how the generalisations that have appeared in the historiography relating to Victorian railway companies and their impact upon the British economy

are unrepresentative of the situation away from the major industrial centres such as Leeds or Glasgow, or towns in which one trade became dominant allowed mass production to compete with local producers, such as has been seen in shoe making and the dominance of Northampton.

Chapter 9: Wokingham Case Study

The town of Wokingham is located ten miles south-east of Reading. During the nineteenth century the town was situated in a rural area of Berkshire with no river or canal connections, but with road connection to Reading and towards the east and south.

The town was first served by a railway in July 1849 when the RG&RR opened the Reading to Farnborough section of their line to Reigate. The town was linked by rail to Guildford when the RG&RR opened the Farnborough to Ash Junction section in August of the same year, from where the RG&RR had running rights over the LSWR's line to Guildford until such time as their own line was completed in October.¹ The train service provided by the SER (who operated the line on behalf of the RG&RR as outlined above) was sparse with few trains serving Wokingham, the 12.30 up (London bound) train was scheduled to call additionally at Wokingham from 1st May 1850.² The opening of the line gave Wokingham a connection to London, albeit a circuitous one via Guildford and Reigate to the SER's London Bridge station, although no link existed to the GWR until 1858 due to objections and stalling on behalf of the Great Western.³

¹ Adrian Gray, *South Eastern Railway* (Midhurst, 1990), 181.

² Gray, 181.

³ Gray 185.

delays whilst the gates were closed against the road to allow trains to pass or for shunting of the goods facilities to be undertaken, an issue which has not been resolved in the twenty-first century.



Figure 72: Wokingham Station Level Crossing, 2012.⁶

The railway companies paid little attention to Wokingham; no improvements being made to the facilities provided at the station. Matters came to a head following an accident on Wokingham's level crossing in which a young child was seriously injured. The situation and discontent felt by the town's inhabitants was summarised by Thomas Cooke who wrote to *The Times* and whose letter was printed on 27th May 1886. Cooke wrote about the '...miserable and inadequate accommodation...' provided at Wokingham and the lack of any improvement made by the railway companies since the '...station was built forty years ago.', despite complaints being made regularly. Cooke states that the lack of improvement was unacceptable considering '...the trade and population of the town...have

⁶ Wikimedia Commons, Station crossing by Richard Croft, (20 June 2012), CC BY-SA 2.0 <<https://creativecommons.org/licenses/by-sa/2.0>>, via Wikimedia Commons, [Online Photograph], https://commons.wikimedia.org/wiki/File:Station_crossing_-_geograph.org.uk_-_3015387.jpg, (accessed 17th August 2022).

developed to an extent...'. Cooke also claimed that the traffic passing over the level crossing was very heavy.⁷

Prior to Cooke's letter to The Times, a petition dated July 1877 had been sent to the board of directors of the SER by influential local people, including the local member of parliament John Walter. In the petition the signatories demanded improvements be made to Wokingham station as it did not provide the facilities that the '...importance...' of the traffic demanded. They also demanded that the level crossing was removed and replaced by a bridge without suggesting how this ought to be achieved. The petitioners' arguments were based upon the same premise as Cooke's, that the '...trade and population of Wokingham and its neighbourhood has very largely increased.'⁸

Cooke's letter and the petition are useful examples of where historical evidence requires cross checking against contemporary sources to establish whether the claims about the great growth of Wokingham's trade and the resulting heavy traffic reflected exceptional growth in the town's economy as claimed in both the letter and the petition, or whether his claims were made to attempt to gain support and influence the two railway companies to invest in the facilities at Wokingham station.

⁷ Berkshire Records Office, D/EWL/F8/6, The Times, Thursday 27th May 1886, A letter to the Editor from Thomas Cooke of Wokingham regarding the condition and facilities at Wokingham South Eastern Railway Station, 5.

⁸ Berkshire Records Office, D/EWL/F8/4, Copy Petition to the South Eastern Railway regarding the condition of Wokingham Station, 5th July 1877.

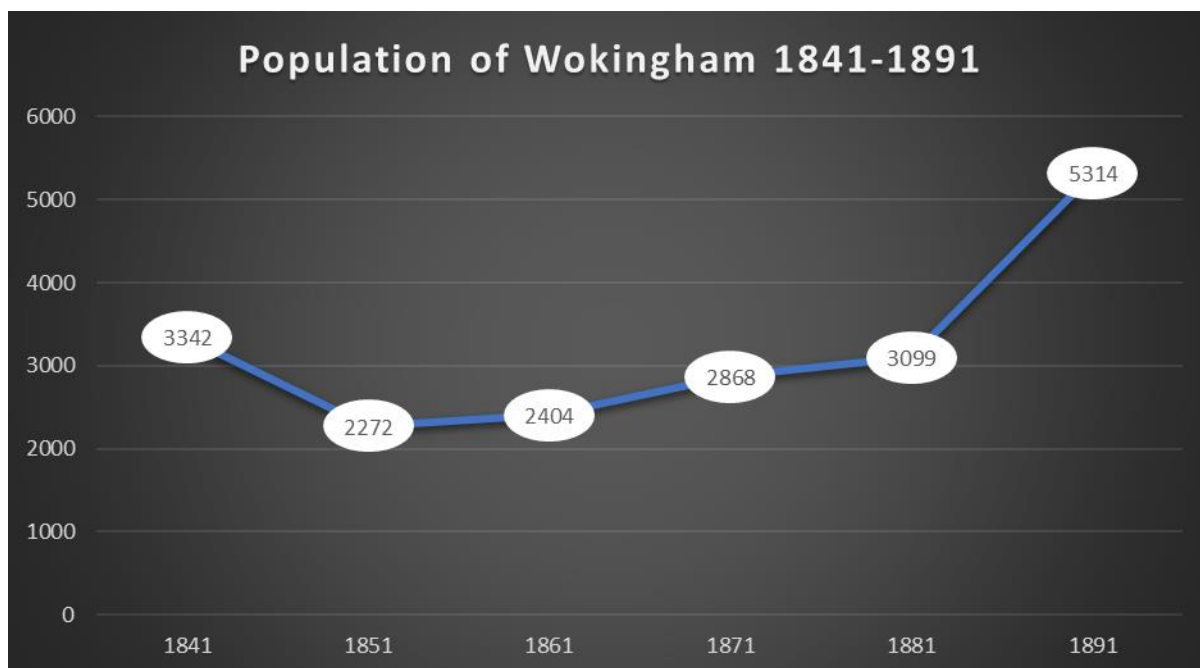


Figure 73: Population Trend for Wokingham 1841-1891.⁹

The population trend within Wokingham indicated by the census returns does not appear to match the statements made in the petition or Cooke's letter. The 'very large' increase described in the petition and growth 'exceeding what could have been contemplated when the line was first opened' described by Cooke clearly had not happened. The trend from the census returns in figure 54 shows

⁹ Histpop.org., Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. c.99 and 4 Vic. c.7 intituled respectively "An act for taking an account of the population of Great Britain," and "An act to amend the acts of the last session for taking an account of the population." Enumeration Abstract. BPP 1843 XXII (496) 336 [Website]
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Wokingham&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=17&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=378&zoom=4>, (accessed 17th August 2022);
 Histpop.org., Census of England and Wales, 1861, Population tables. Numbers and distribution of people of [and index to names of places in] England and Wales. Volume 1 BPP 1862 L (3056) xxv [Website],
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=enumeration&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=37&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=25&zoom=4>, (accessed 17th August 2022);
 Histpop.Org., Census of England and Wales, 1881, Vol. II. Area, houses, and population. Registration counties BPP 1883 LXXIX [C.3563] 87 [Website]
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=enumeration&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=56&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=109&zoom=4> (accessed 17th August 2022);
 Histpop.org., Census of England and Wales, 1891, Area, Houses and Population. Vol. I. Administrative and ancient counties BPP 1893-4 CIV [C.6948] 10 [Website]
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=enumeration&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=64&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=46> (accessed 17th August 2022).

that the population of the town decreased after the railway opened, and then grew slowly until the 1891 census when the kind of growth in population described in both the petition and Cooke's letter can be observed.

The business trend extracted from the commercial directories for Wokingham between 1830 and 1895 shows that the high growth alluded to in the letter and petition simply had not occurred in the manner described. The number of businesses remaining relatively static throughout.

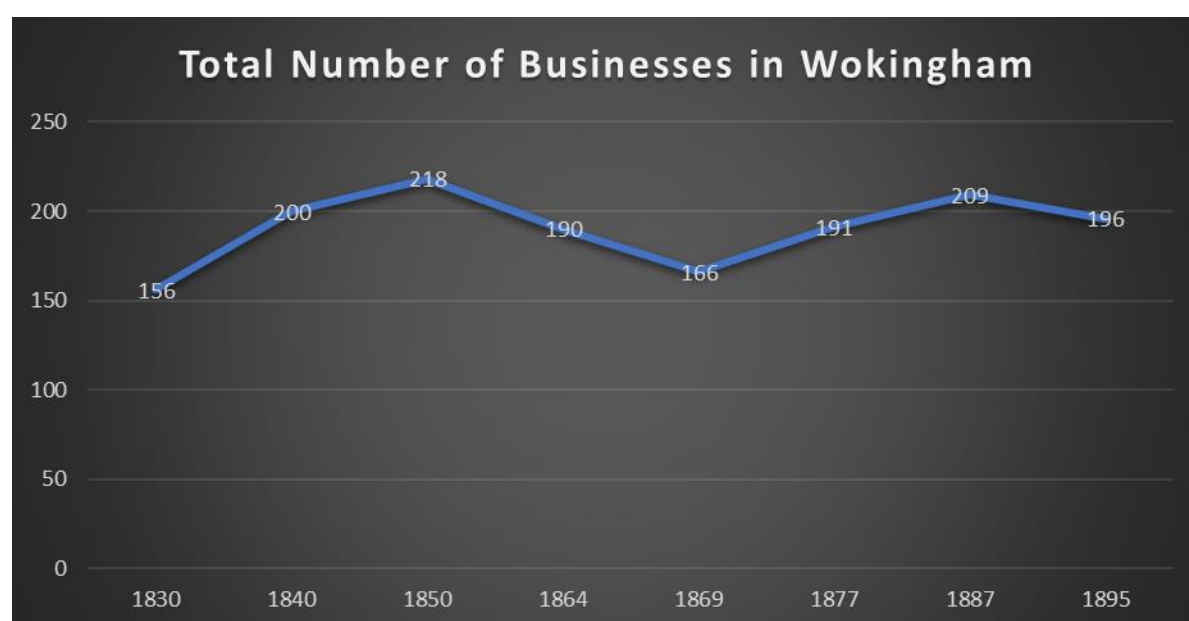


Figure 74: Business Trend in Wokingham between 1830 and 1895.¹⁰

The trend related to occupations from within the census occupation returns for Wokingham shows a similar pattern, although the number of people employed between 1861 and 1881 increased from 1681 persons employed in all occupations to 2112 persons in 1881 followed by a slow increase after

¹⁰ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 21-22; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 55-59; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 66-68; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 686-688; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 744-746; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 665-668; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 205-209; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 534-538.

1881, which parallels the rate of increase in population. However, if the number of people employed in service is removed from the statistics the trend exhibits a steady increase which is much more likely to be related to the slow population increase in the second half of the century than to the exceptional growth in trade claimed by the petitioners and by Cooke.¹¹

Did individual business sectors exhibit any distinct change that diverges from the general trends for the town that would indicate sectoral growth ?

The number of artisan cobblers in the town showed a steep decline after the arrival of the railway with a short period of recovery between 1869 and 1877 followed by decline.

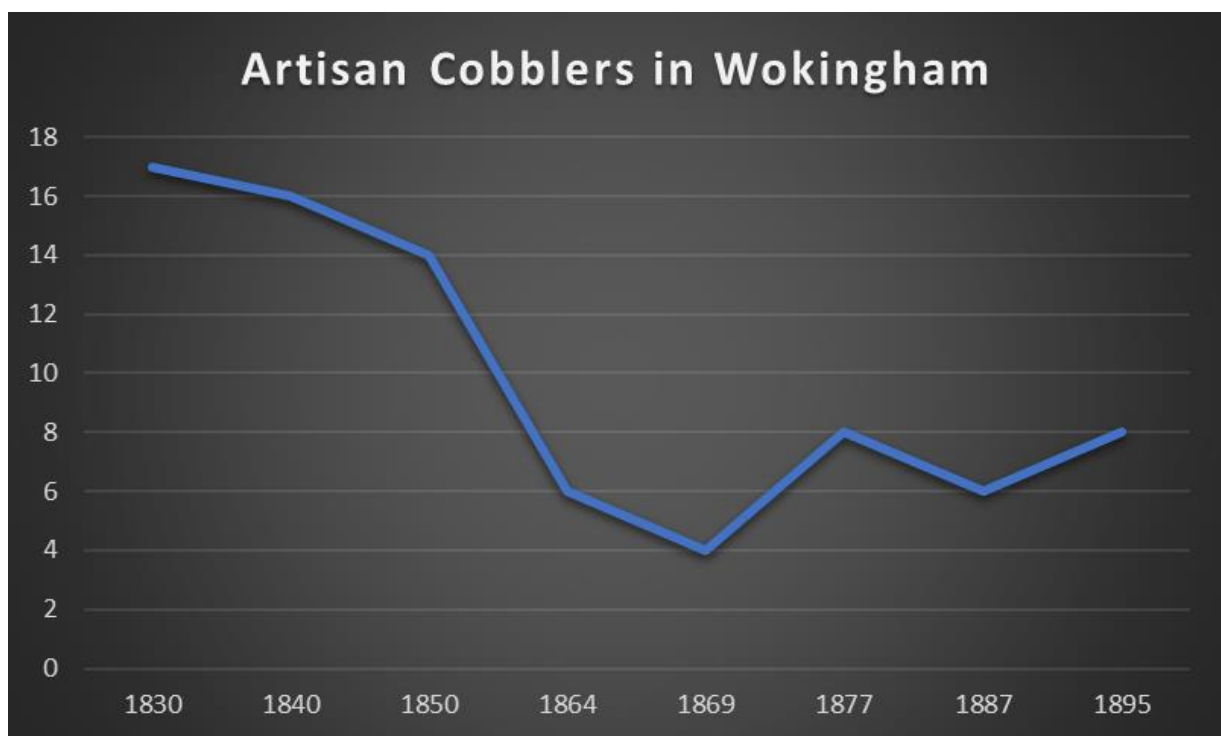


Figure 75: Number of Artisan Cobblers in Wokingham: 1830-1896.¹²

The number of people occupied in the trade showed a steady decline through the period of this study. Sixty-four people were engaged in the trade in 1851, an average of 4.5 people employed by each of the fourteen businesses listed in the commercial directories for the town. Over the second

¹¹ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

¹² Pigot: 1830, 21-22; Robson's: 1840, 55-59; Slater's: 1850, 66-68; Kelly's: 1864, 686-688; Kelly's: 1869, 744-746; Kelly's: 1877, 665-668; Kelly's: 1887, 205-209; Kelly's: 1895, 534-538.

half of the century the occupation statistics show a very steep decline, ending in 1895 with only sixteen people being employed in the 1901 census.¹³

The town's light manufacturing sectors showed an increase in the number of blacksmiths listed in the directories in the immediate aftermath of the arrival of the railway but a steep decline by 1864 and a flat trend thereafter. The other light manufacturing sectors remained relatively static in number throughout the entire period of this study.

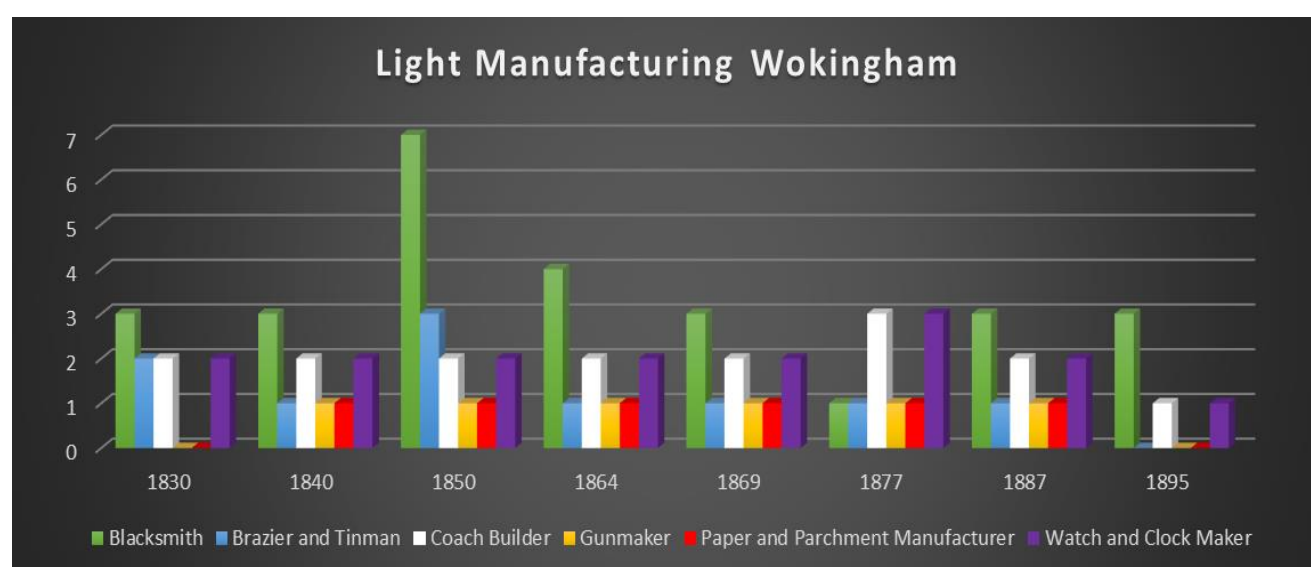


Figure 76: Indicative Light Manufacturing Sectors in Wokingham: 1830 - 1895.¹⁴

The occupation statistics for these industries show the same static trend, other than a brief increase in the number of people engaged in the manufacture of paper in the town in 1881, although the trade had declined once more in 1891. It appears from the occupation and directory data that there was little or no growth being experienced by Wokingham, although there was also no decline. The same trends can be seen in the numbers of people engaged in the professions. The number of Solicitors and Civil Engineers remaining static, although there was an increase in the number of Law Clerks employed in legal practices in 1881, although this had declined to the 1851 level by 1891.

¹³ Integrated Census Microdata; Pigot: 1830, 21-22; Robson's: 1840, 55-59; Slater's: 1850, 66-68; Kelly's: 1864, 686-688; Kelly's: 1869, 744-746; Kelly's: 1877, 665-668; Kelly's: 1887, 205-209; Kelly's: 1895, 534-538.

¹⁴ Pigot: 1830, 21-22; Robson's: 1840, 55-59; Slater's: 1850, 66-68; Kelly's: 1864, 686-688; Kelly's: 1869, 744-746; Kelly's: 1877, 665-668; Kelly's: 1887, 205-209; Kelly's: 1895, 534-538.

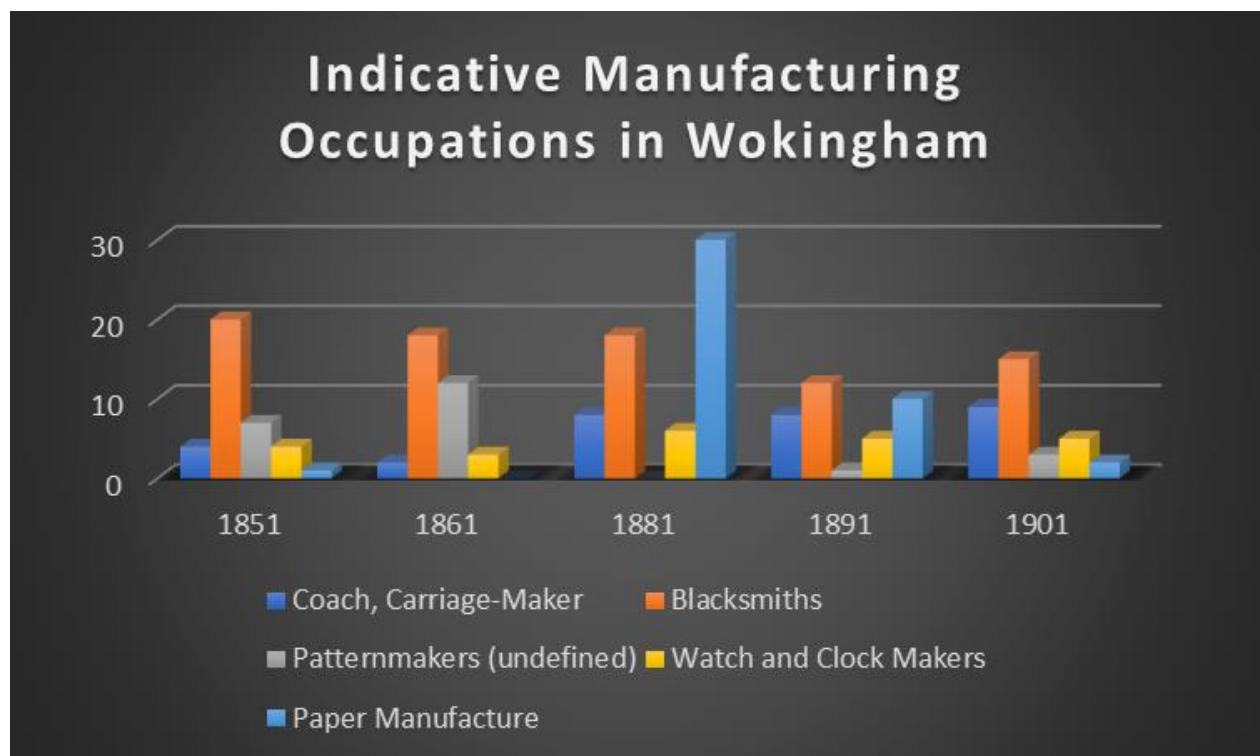


Figure 77: Manufacturing Occupations in Wokingham: 1851-1901¹⁵

The stagnation that the directory data indicates should not be seen within the production of foodstuffs, given the increase in the population of Wokingham, albeit a slow increase. The number of Bakeries and the number of people working in them could be expected to increase in order to provide baked goods for the greater number of people living in and around the town. Baking in the town appears not to follow the stagnation evident in other manufacturing sectors, the number of businesses fluctuating in a pattern which does not seem to be driven by population change in the town, nor does the sector appear to be impacted by the arrival of rail services in the town. The growth between 1840 and 1850 is minimal and the number of businesses returned to the 1840 figure by 1864 followed by a short period of growth and then decline. An examination of the occupation statistics for the town reveals an interesting comparison to other towns in the area. It seems that the number of people occupied in the bakeries throughout most of the towns selected for this study varies in each town over time in the census statistics after 1851. Unfortunately,

¹⁵ Integrated Census Microdata.

occupation statistics are not readily available before the 1851 census so no conclusions may be drawn for the early part of the century other than through the number of businesses presented in the commercial directories, however it seems reasonable to conclude that, in general the baking trade in Wokingham, as in other towns in this study, evolves from a larger number of smaller businesses to a smaller number of larger mechanised businesses. Allowance must be made, however, for the growth of Huntley and Palmer into a major industrial concern in Reading which had skewed the employment figures for that town accordingly. In Wokingham the decreasing number of bakeries is counter to the number of people employed in that occupation, suggesting that the surviving bakeries were investing, on a modest scale perhaps, in machinery and steam power to mass produce baked goods.



Figure 78: Number of Bakers in Wokingham: 1830-1895¹⁶

¹⁶ Pigot: 1830, 21-22; Robson's: 1840, 55-59; Slater's: 1850, 66-68; Kelly's: 1864, 686-688; Kelly's: 1869, 744-746; Kelly's: 1877, 665-668; Kelly's: 1887, 205-209; Kelly's: 1895, 534-538.

The occupation statistics in the censuses for the nineteenth century for Wokingham, much like the other towns in this study (apart from Reading) classifies the number of people employed in the industry as Bakers (Dealers). This suggests that the bakeries were small local businesses with a hybrid of production and retail on the same premises.



Figure 79: People Employed in Baking in Wokingham: 1851-1901¹⁷

The occupation statistics for Wokingham, when compared to the declining number of businesses shows an average increase in the size of these businesses, although it also indicates that the bakeries in Wokingham remained modest sized companies employing a small number of people. An examination of the evolution of the baking trade in Wokingham suggests that the sector may well have been experiencing the same stagnation seen in other industries during the period, although change in manufacturing processes and mechanisation on a limited scale seems to underpin the capability of the smaller number of businesses to support the needs of the slowly growing population of the town. There may have been some degree of competition from elsewhere in the county once the railways had arrived in Wokingham, which is difficult to prove with evidence, but it

¹⁷ Integrated Census Microdata

seems likely that Huntley and Palmer products would have been stocked by the Grocers of Wokingham, perhaps impacting upon some of the product lines traditionally produced by local bakeries, however it seems unlikely that the requirement for freshly made bread and confectionary was overly impacted until the twentieth century when preservation techniques had improved.

The only occupation that seems to have experienced steady growth during the period was domestic service. The number of persons employed in service increased exponentially during the second half of the nineteenth century, the only sector that appears to have done so in Wokingham. It is possible that the number of families and individuals who could afford domestic staff might have increased due to the possibility of commuting to work in London, or in Reading for example, and is thus an indirect impact of the railways. The number of domestic servants listed in the occupation returns does not seem to be matched entirely by the existence of a number of large country houses. A small number of large houses can be found on the 1871 Ordnance Survey Maps of Wokingham Without, the rural area around southern Wokingham. Houses such as Tangle, Ravenswood and Heatherside appear on the maps, but seem to be relatively few in number.¹⁸ The Ordnance Survey for Wokingham town after 1871 show an increasing number of larger houses on the residential roads near the centre of the town.¹⁹ It seems that households were becoming more able to afford to employ a small number of domestic staff, although the majority were likely to have been employed in the larger country houses.

A possible indicator of the stagnation that seems to be evident in Wokingham is the number of coal merchants present in the town. Given that there was no water borne transport link to the town, it is highly likely that any coal used in the town was transhipped by road from the wharves at Reading until the arrival of the railways, at which point it seems more likely that rail transport would have

¹⁸ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, 1871, Berkshire Sheet XLVI, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102340016>, (accessed 31 March 2024).

¹⁹ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXVIII.SE, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339995>, (accessed 31 March 2024); National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXVIII.SE, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/91791501>, (accessed 31 March 2024).

been preferred in order to remove the need for transshipment elsewhere. If the town had stagnated and was not growing then the use of coal in the town for industrial use and heating should appear relatively static, the small growth in population ought to be mirrored in the data for coal merchants in the town. The Number of merchants remained relatively static through the period, although there is an issue with the data retrieved from the 1850 directory, where no listings were made for coal merchants; reference to the 1852 Slater's directory also returns no listings. Kelly's directory for 1848 lists only two businesses as 'Coal Dealer'.²⁰ The number of coal merchants changes little over the time of the study. At the time of the opening of the RG&RR there were two coal merchants in the town, the same two merchants still being listed in 1848, a third being listed in the 1864 directory, a number which remained constant until 1887 when a fourth was listed, but in 1895, when Wokingham's population growth was at its most rapid the number of coal merchants declined to a single company. Given that there is no other fuel supply available at the time it suggests that one merchant was able to accommodate the needs of the whole town, and no doubt took advantage of this new found monopoly. The number of people employed in the sector remained very small however. In 1851 there were only three people working for the coal merchants, suggesting that they were only very small concerns although it is highly likely that some of the people listed as 'General Labourers' may have been employed by the coal merchants to work their yards and to deliver coal to their customers. This shows how difficult it can be to base historical conclusions upon a single source such as the census returns or the trade directories; combining both the census and trade data gives a clearer picture of the situation in Wokingham in this sector. In 1861, four people were listed as 'Coal Merchants and Dealers' in the Census returns, which suggests that the three merchants listed in 1864 might well have been similarly sized organisations, although the number of people listed in

²⁰ Slater's 1850; University of Leicester Special Collections Online, Historical Directories of England & Wales, *Slater's Directory of Berkshire, 1852*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/256697/rec/2>, (Accessed 18th August 2022); University of Leicester Special Collections Online, Historical Directories of England & Wales, *Kelly's Berkshire Directory, 1848*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/261523/rec/4>, (Accessed 18th August 2021), 2043.

this category grew to eleven in 1871 despite the number of merchants listed in the trade directories remaining constant. The growth in occupation returns withing the same number of traders suggests growth, although the occupation returns decline dramatically for the remainder of the century. In 1901 the Census returns listed six persons working as coal merchants but the trade directory for 1895 lists only a single merchant in the town, as does Kelly's 1899 directory, suggesting that the surviving merchant was employing more people than had typically been the case.²¹ The single merchant surviving in Wokingham at the end of the century, Isiah Gadd & Co. Limited was listed as being based at Station Road in Wokingham. The Ordnance Survey map for Wokingham dated 1883 (surveyed between 1871 and 1872), shows 'coal wharves' in the station yard to the north-west of the station, the sidings still being shown on the 1900 (surveyed 1889) Ordnance Survey map, although not labelled specifically as coal wharves.²² This evidence provides confirmation that the coal merchants were relying on rail transport for the delivery of their supplies of fuel for the town and its industries, although as has been outlined above the railways had not 'caused economic growth'.

²¹ Pigot: 1830, 21-22; Robson's: 1840, 55-59; Slater's: 1850, 66-68; Kelly's: 1864, 686-688; Kelly's: 1869, 744-746; Kelly's: 1877, 665-668; Kelly's: 1887, 205-209; Kelly's: 1895, 534-538; University of Leicester Special Collections Online, Historical Directories of England & Wales, *Kelly's Directory of Berkshire. [1899]*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/304690/rec/1>, (Accessed 18th August 2022).

²² National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVIII, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339995>, (accessed 18th August 2022); National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVIII.SE, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/91791501> (accessed 18th August 2022).



Figure 80: The Area around Wokingham Railways Station in 1872.

Clearly, neither the growth in population of the town, nor the arrival of the railways caused growth, and even though the single remaining merchant seems to be a larger concern than previously seen in the town, the number of people employed in total was smaller than had been seen in the data in earlier years.

The Ordnance Survey maps for both 1883 and 1900 show that the brickworks located on the Oxford Road in Wokingham was directly rail connected, with a short spur being provided from one siding in the SER's goods yard. Given the expense of providing such a link it is likely that the traffic from the brickworks was not inconsiderable, and thus that the works was using the railway for its freight requirements (coal and clay inbound and finished bricks, tiles and so forth outbound). Despite the

opportunities that rail transport offered, the industry was in terminal decline by the end of the century.



Figure 81: Central Wokingham in 1872.²³

From a highpoint of four brickworks in the town in 1850, the sector steadily declined, two works being listed in the directories in 1864 with both being shown on the 1883 Ordnance Survey map. The advent of the railways does not seem to have caused growth for the surviving brickworks as only one, located at the railway station was still showing on the 1900 Ordnance Survey map, and only one listed in the trade directories, the other brickworks to the east of the town no longer being captioned on the map. The only brickworks surviving in Wokingham in 1900 was the works with a railway connection. Given the decline of the sector in the town, it would appear that the railway was a lifeline to the one works which direct access to it, and that rather than causing growth, the railway may well have caused decline in the town through the ability of merchants to import bricks, tiles and so forth into the town, but at the same time the one company with a rail link was able to survive

²³ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVIII, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339995>, (accessed 18th August 2022).

seeming to indicate that where a company took advantage of the opportunity offered by the railways for the provision of fast, cheap transport across Britain, the company may have been able to compete. In this case, rather than the railways causing growth by default it was more the decisions made by business owners and management that shaped the future of the company, and its success or otherwise. This factor should not be ignored in studies of economic development or change, there is more to the situation than just population growth, and the availability of transport links, the decision to exploit those links and to produce products and develop new offerings that were required by customers over time is probably as important as any other factor in the development of Berkshire's economy in the nineteenth century, and ultimately the development of Britain's economy.

A sector that may have had a profound effect upon the economy of Wokingham, and which may have been partially responsible for its survival as a market town, where others declined, is domestic service. The increased number of domestic servants, and the related increase in the number of larger households, may also have served to preserve the status quo in the town within grocery traders who would possibly have been supported by the increased spend of these large households on domestic goods. The account books kept by Heelas, who were at this time located in Wokingham as well as later opening their department store in Reading, show that the company's retail income from its Wokingham store remained healthy throughout. Regular deposits at the Wokingham Savings Bank as well as the company's poor relief fund payments remained good throughout the 1850s and 1860s.²⁴

²⁴ Berkshire Records Office, D/EHS/B1/6, Ledger for Heelas and Company, 1830-1855; Berkshire Records Office, D/EHS/B1/7, Ledger for Heelas and Company, 1850-1867; Berkshire Records Office, D/EHS/B1/8, Ledger for Heelas and Company, 1890-1911.

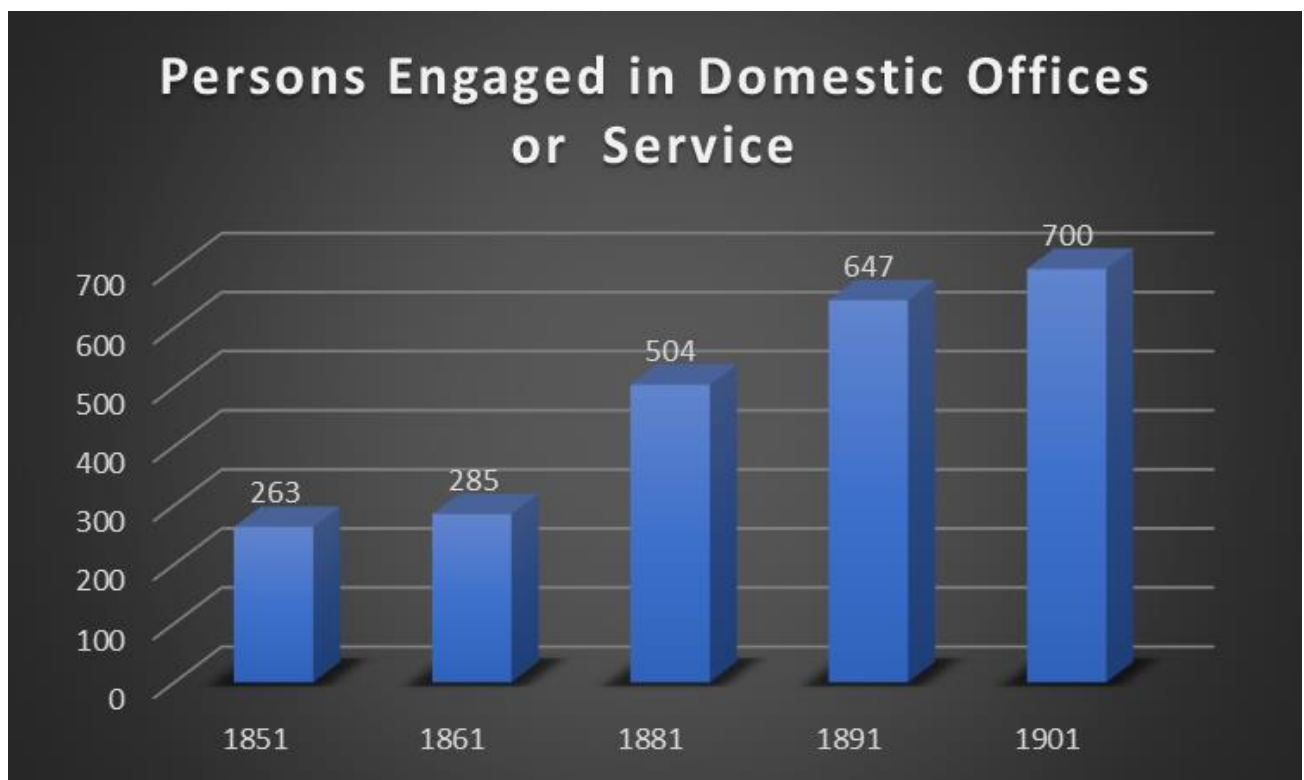


Figure 82: Combined Service Occupations Listed in Wokingham Census Returns: 1851-1901.²⁵

The statistics for Wokingham reveal an interesting historical picture. The town appears to have stagnated by the nineteenth century, but it seems that the arrival of the railway in the town possibly prevented its decline, enabling the town to preserve the status quo as far as business was concerned. So rather than fitting the model of growth suggested by the generalisations often seen in histories of railways and industry or the potential for decline as seen in some sectors in Maidenhead, Newbury and Reading outlined in the previous case studies, it seems that Wokingham exhibits a potential third impact of the arrival of railways in a location, the preservation of a stagnant local economy which potentially survived due to the transport links offered by the railway companies. Finally, returning to Thomas Cooke's letter and the town's petition to the railway companies, it seems that the railway companies may not have invested in the facilities and services they offered to the town, simply because it was not commercially viable to do so.

²⁵ Integrated Census Microdata.

Conclusions

The town of Wokingham provides a useful contrast to the other towns in this study. It would seem from the statistics that the arrival of the SER and later the LSWR had very little impact at all. Most of the commercial sectors in the dataset extracted from the business directories show very little deviation from a consistently flat trend with neither growth or contraction outside of a small change which could be expected through retirement of business owners or businesses encountering financial trouble for a variety of reasons that might be expected to occur over a period such as that covered by this thesis.

The population appears to grow steadily until 1881 but with a large upturn in the 1891 census statistics even though the number of businesses and people working in them remains relatively static in the main.

An analysis of the census employment returns shows a very large increase in people enumerated as working in domestic service which suggests that the wealthier members of society were moving to houses in the countryside around Wokingham, and probably using the train to attend to their business responsibilities elsewhere or to travel to London to visit the financial institutions or other London based institutions. A number of large houses existed in the countryside around the town, within a short carriage journey to the railway station, and it seems that some of the domestic servants were employed there, although others were likely to be working in the larger residences that were appearing in the town itself.

Where there is large change within the trends, such as can be seen in the number of bakeries present in the town, a comparison with the statistics retrieved from the census for the number of persons listed as working in baking shows that the reduction in number of businesses is related not to contraction of the market but to the growth of the remaining businesses effectively maintaining the same sectoral size but through fewer, larger businesses.

The case of Wokingham shows that there is a third effect that the railways might have on a place.

Whilst the generalisation that the railways cause economic growth can most certainly not be applied to Victorian Wokingham, neither can it be proposed that the town experienced contraction due to competition from other places made possible by the rail network. Wokingham seems to suggest that there is a third possibility that must be considered; that the railway potentially has a role in preventing the contraction of a town, where the economy evolves into something new but overall remains relatively stagnant throughout the nineteenth century.

Chapter 10: Windsor Case Study

The town of Windsor is located at the eastern edge of the county of Berkshire, six miles to the south west of Maidenhead on the southern bank of the River Thames, and three miles south of Slough¹.

The town's position on the Thames ensured that it was well served by water transport provided by the barges operating on the Thames Navigation. The town was well served by roads to London and Oxford, possibly influenced by its royal connections which gave the town a lot of political influence.

The town had been one of the official residences of the British Monarch since the twelfth century, the town's castle being, and remaining into the twenty-first century, associated with the British Royal Family. The castle was one of the homes frequently used by Queen Victoria in the nineteenth century, the queen not only frequently being in residence there, but holding many state receptions for overseas government representatives, presidents and monarchs as well audiences with the British Prime Minister. The presence of the monarch not only gave Windsor great prestige but also meant that a permanent military garrison was present in the town both to guard the monarch and for ceremonial occasions. The presence of a not inconsiderable army barracks in the town has been taken into account to prevent any artificial skewing of the statistics used for the study of the town.

The important and highly influential public school of Eton is located on the edge of Windsor, on the opposite bank of the river Thames, with easy access between the two being provided by a substantial bridge. The school had considerable influence and power through its connections with the British political elite, many of whom had been educated at the school. The school was also a major landowner, with property along the riverside, including a large area of playing fields for the school's physical education and sports department. As such the school had much influence over local

¹ Google, Google Maps, Slough and Windsor [Website], <https://www.google.co.uk/maps/dir/Slough+railway+station,+Slough/Windsor+%26+Eton+Central,+Windsor+SL4+1PJ/@51.4975098,-0.6210083,14z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1s0x48767aca94aa0567:0xf77a8ad3e10a99a1!2m2!1d-0.59149!2d51.51188!1m5!1m1!1s0x48767ae2e08a055f:0x5f5e5072149dd9a1!2m2!1d-0.6098309!2d51.483208!3e2?hl=en> (accessed 24th October 2022).

developments, which the railway companies would find difficult to overcome when planning their lines into the town of Windsor.

Economically, the town has been prosperous throughout most of its history since the Norman conquest due in a great part to its association with the monarchy from the twelfth century although heavy industry has never been a major part of the town's economy. Despite the lack of traditional heavy industry such as the iron works of Reading, or the brickworks of Maidenhead, the town was highly active commercially.

The application made to the Houses of Parliament by the Windsor, Slough, and Staines Atmospheric Railway in 1845, for an Act to construct their railway line contains a useful statement of the annual traffic on the roads between Windsor and the towns of Slough and Staines based on a daily average observed between the 1st and 14th October of 1845 in an appendix to the application.²

The appendix lays out the estimated number of passengers travelling between Slough and Windsor through a variety of methods as well as the number of post horses transiting between the towns.

The GWR, despite initial objection from the Provost and Fellows of Eton College which resulted in the Great Western being prevented from constructing any station within three miles of the college (which will be discussed further later in this chapter), opened their station at Slough in June 1840.³

The amount of traffic passing between the two towns seems to suggest that the traders and people of Windsor were relying on Slough as a rail hub for goods, travel, and the mail.

In the 14 days surveyed by the promoters of the railway, the extrapolated average results in a calculation of 140,785 passengers travelling by omnibus, whilst 90,806 persons were estimated to have travelled by private horse or carriage. At the same time 353,999 persons were believed to have travelled between the towns on foot and 63,822 riders on post horses (A total of 649,411 journeys

² Reading, Berkshire Records Office, D/EX1705/2/10, Windsor, Slough & Staines Atmospheric Railway. Appendix D: Statement of Traffic between Windsor and Slough and adjacent places based upon an average of 14 days from the 1st to the 14th October 1845

³ MacDermot, E.T. and C.R.Clinker, History of the Great Western Railway: Volume I 1833-1863 (Shepperton 1964, repr. 1982), 30-32.

being calculated to have been undertaken). The survey undertaken by the railway scheme promoters also states a firm figure of 35,000 persons having travelled from Slough to ‘Ascot Race Week’ via Windsor in 1845.

The objections raised by Eton college seem somewhat undermined by the 3,600 ‘Eton Collegiates’ enumerated in the estimated annual statistics presented in the appendix.

The survey provides a revealing picture of the goods traffic carried between Slough and Windsor per year in the supporting evidence presented by the railway company. The company promoters presented a detailed set of freight statistics which also included carrier journeys and tonnage carried to London as outlined in table 4.

Type of Traffic	Volume Carried
Parcels carried from station at Slough to Windsor per annum	27,375
Goods carried from station at Slough to Windsor per annum	1212 tons
Miscellaneous articles (viz) stone, lime, brick &c carried	14026 tons
Three Windsor carriers undertaking journeys to & from London averaging three tons per journey	4,680 tons
Three other carriers undertaking journeys to & from London averaging one ton per journey	520 tons

Table 7: Goods Traffic Between Slough and Windsor: 1845⁴

The statistics presented by the promoters of the Atmospheric Railway, whilst built upon a calculation of the average traffic per day based upon their two-week study extrapolated to the year, represent a useful measure upon which to analyse the commercial base active within the town of Windsor. The town was generating considerable traffic in 1845 and was reliant upon all three available modes of transport; rail, road, and canal. The clear use of rail transport shown in the railway company’s study, as one of the links relied upon by town despite not being directly served by the railway shows how the situation in the nineteenth century is very complex when attempting to assess the impact of the railways upon the economy of a town. In the case of Windsor, it appears that the town had already developed a healthy economy prior to the railways, based upon water and road transport. The speed and possibly the cost of using the railways seems to have presented a compelling option

⁴ Windsor, Slough & Staines Atmospheric Railway. Appendix D.

despite the inconvenience of having no connection within the town itself and the need to undertake a one hour, three mile walk to Slough.⁵ There is also evidence in the archives of a switch from water borne to rail transport later in the century which will be explored

further later in this chapter. The same appendix provided in support of the Atmospheric Railway's application for an Act also includes an analysis of the traffic on the roads to Staines which amounted to a total of 24,534 tons of traffic over the year for 'merchandise, agricultural produce, building materials &c...'.⁶

A further appendix for the proposal outlines the exact tonnages passing through Shepperton Lock on the Thames Navigation for traffic between Windsor and London for the period of May 1845 to April 1846 which is presented in table 8. The returns from the lock census provide further evidence that Windsor was commercially active long before either the GWR or LSWR reached the town. High tonnages of freight carried on the Thames by the three main carriers identified by the promoters of the Atmospheric Railway seem to support an argument that, in the case of Windsor, it is possible that the river had already had an influence to some degree upon Windsor's ability to trade, although as in the case of the railways, assertions that the canals alone caused economic growth can be as much an unhelpful generalisation as applying the same rubric to the advent of the rail network. It is undoubtable that there were other factors which together caused the economy of a town to change, of which a transport artery was merely one.

Traffic in Tons	Mr. G. Mason	Messrs Jennings	Mr. D. Thorington
May 1845	970	654	646
June 1845	979	509	581
July 1845	710	484	660
August 1845	683	377	452
September 1845	857	482	260

⁵ Google, Google Maps [Website], <https://www.google.co.uk/maps/dir/Slough+railway+station,+Slough/Windsor+%26+Eton+Central,+Windsor+SL4+1PJ/@51.4975098,-0.6210083,14z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1s0x48767aca94aa0567:0xf77a8ad3e10a99a1!2m2!1d-0.59149!2d51.51188!1m5!1m1!1s0x48767ae2e08a055f:0x5f5e5072149dd9a1!2m2!1d-0.6098309!2d51.483208!3e2?hl=en> (accessed 24th October 2022).

⁶ Windsor, Slough & Staines Atmospheric Railway. Appendix D.

October 1845	807	624	312
November 1845	1053	483	515
December 1845	861	518	378
January 1846	819	394	206
February 1846	1070	257	209
March 1846	1274	264	122
April 1846	574	514	265

Table 8: Traffic at Shepperton Lock; May 1845 to April 1846.⁷

It appears, from the proposals and supporting evidence put forward by the Windsor, Slough, and Staines Atmospheric Railway that Windsor was a commercially thriving town in the early to mid-nineteenth century, although some degree of scepticism should be given to the evidence put forward as it may have been constructed and presented in such a way as to justify the scheme being proposed by the promoters of the railway. The survey of tonnage passing the Shepperton Locks could potentially be more reliable than the Slough to Windsor road traffic statistics based upon averages which are not verifiable two-hundred years later.

A comparison with the number of businesses operating in the town at the time of the proposals serves to provide a useful cross-check on whether the road traffic statistics are representative of the town's economy in 1845. The number of businesses listed as operating in the town in 1840 was five hundred and thirty across a broad range of types from large breweries to small grocers and shopkeepers, unfortunately the detailed occupation statistics enumerated in the census are not available at town level prior to the 1851 census and so it is not possible to assess the sizes of businesses trading in the town.⁸ The number of businesses operating in the town appears to be

⁷ Reading, Berkshire Records Office, D/EX1705/2/12, Windsor, Slough and Staines Atmospheric Railway. Return of Actual Tonnage through Shepperton Lock from May 1845 to April 1846.

⁸ Histpop.org., Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. C.99 and 4 Vic. C.7 intituled respectively "An act for taking an account of the population of Great Britain", and "An act to amend the acts of the last session for taking an Account of the Population". Occupation abstract, 1841. Part I. England and Wales and Islands in the British Seas BPP 1844 XXVII (587) 3 [Website], [http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20\(by%20date\)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=82&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20(by%20date)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=82&zoom=4) (accessed 24th October 2022); Histpop.org., Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. C.99 and 4 Vic. C.7 intituled respectively "An act for taking an account of the population of Great Britain", and "An act to amend the acts of the last session for taking an Account of the Population". Occupation abstract, 1841. Part I. England and Wales and Islands in the British Seas BPP 1844 XXVII (587) 4 [Website],

generally increasing from 1830 and into 1850. Given the steady rate of increase in business numbers and the increase in population between 1831 and 1841 the railway's statistics do indicate that the town was commercially successful with a vibrant and growing economy well before the railways arrived.⁹

The town was first served by the railways in 1849 when the GWR opened its branch from Slough to what would become Windsor Central station directly opposite Windsor Castle in the centre of the town. The town gained a second link with London when the Windsor, Staines and South Western Railway (initially operated and then purchased by the LSWR) opened its secondary line from London Waterloo via Staines to a temporary terminus at Windsor in December 1849, followed by the permanent Windsor and Eton Riverside station located close to the castle and the town centre which opened in May 1851 which was designed with twelve large doors in the wall adjoining the down

[http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20\(by%20date\)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=83&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20(by%20date)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=83&zoom=4) (accessed 24th October 2022).

⁹ Histpop.Org., Census of Great Britain, 1831, Abstract of the answers and returns made pursuant to an Act, passed in the eleventh year of the reign of His Majesty King George IV. intituled, "An Act for taking an account of the population of Great Britain, and of the increase or diminution thereof." Enumeration Abstract. Vol. I. 1831 BPP 1833 XXXVI (149) 16 [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=13&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=71&zoom=4>, (Accessed 15th June 2022); Histpop.Org., Census of Great Britain, 1831, Abstract of the answers and returns made pursuant to an Act, passed in the eleventh year of the reign of His Majesty King George IV. intituled, "An Act for taking an account of the population of Great Britain, and of the increase or diminution thereof." Enumeration Abstract. Vol. I. 1831 BPP 1833 XXXVI (149) 20 [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Berkshire&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=13&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=75&zoom=4>, (Accessed 15th June 2022).

platform closest to the castle to allow access to mounted cavalry.¹⁰



Figure 83: The Great Western Railway Terminus and Windsor Castle: 1868-1875.¹¹

The arrival of the railways into the town was not without great resistance which both companies initially struggled to overcome. The GWR's original 1833 plans for their main line to Bristol included a branch to Windsor.¹² The branch was initially dropped from the proposed railway by the company due to strong opposition from Eton College and also from many of the townsfolk who were unhappy that the route of the mainline did not pass as close to their town as they wished.¹³ The opposition to the Great Western held sway despite the evidence of support provided by some of the merchants located in the town, such as that provided by the grocer Charles Snowdon who said that the salt he sold had to be brought from Droitwich to Slough and the transport onwards to Windsor involved two tolls and was inconvenient, and John Aldridge who complained that the current transport of his corn from Reading by barge was inconvenient.¹⁴

¹⁰ Christiansen, 28; Williams, 172-175.

¹¹ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXII, 1881, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339977>, (accessed 28th September 2022).

¹² MacDermott and Clinker, 6.

¹³ MacDermott and Clinker, 6-7.

¹⁴ Raymond South, *Crown College and Railways: How the Railway came to Windsor* (Buckingham, 1978) 102.

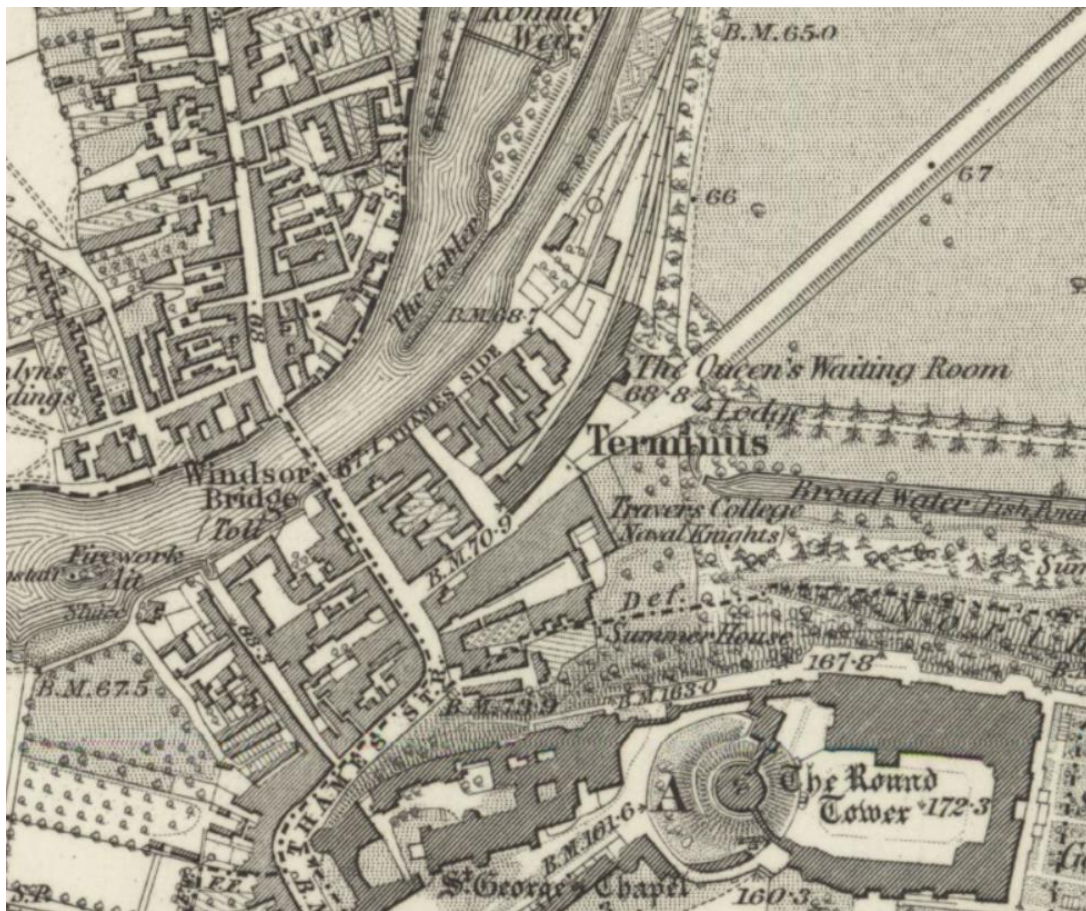


Figure 84: London and South Western Railway Station¹⁵

The second attempt to link the town to the railway network was made by the Windsor, Slough, and Staines Atmospheric Railway (WS&SAR) who intended to build a railway linking the three towns via a triangular route diverging south of Slough and using Brunel's atmospheric system as used on the South Devon Railway. The WS&SAR encountered objection from Eton College to the intended new railways, on the grounds that the intended bridge over the Thames to the east of Eton would 'destroy such rights of navigation' that the college was entitled to and also that the new railway would intrude on lands bought by the college to protect the 'privacy and security' of its playing fields as well as blocking the floodwaters of the Thames from emptying into the playing fields and thus, claimed the college, cause the college buildings to flood. The college also invoked a clause which had

¹⁵ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXII, 1881, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339977>, (accessed 28th September 2022).

been added to the GWR Act giving authority to construct their main line from Paddington to Bristol which prohibited the 'introduction of any railway...within three miles of the College...'.¹⁶ The college also objected on the somewhat tenuous grounds that the railway passing close to the school would distract the students and interfere with the preparation of tuition by the masters.¹⁷ It would seem likely that the same objections were used to oppose the Great Western's proposal, however tenuous they may have been, which shows how influential a body such as Eton College could be upon commerce and industry when they saw fit to intervene.

The GWR also objected to the WS&SAR on the grounds that they already had a branch serving Staines from West Drayton on their main line and that the Committee on Railway Bills had already had their application for powers to build their own branch to Windsor from Slough '...by reason of the opposition of Eton College and the well-founded objections...'. The Great Western also objected on the grounds that their Act of Parliament contained the clause mentioned by the school in its petition to the committee and that the '...sanctioning of the WS&SR would be unjust to the GWR...'.¹⁸ The influence that Eton College had over the implementation of railway building schemes serves to show how exterior factors influenced commerce during the nineteenth century, and no doubt Eton probably had objections to other forms of industry being established in Windsor if they believed them detrimental to their own interests.

The GWR used the school's discontent with the new scheme to further their own ends however. The railway and the College agreed to work together in their objection to the WS&SAR with the college agreeing not to support a new scheme to be submitted by the Great Western along a new route

¹⁶ Berkshire Records Office, D/EX1705/2/6, The Windsor, Slough and Staines Atmospheric Railway. Petition of the Provost and College of Eton. 1846.

¹⁷ Reading, Berkshire Records Office, D/EX1705/2/8, The Windsor, Slough and Staines Atmospheric Railway. Statement of the Chief Points on which the Provost and Fellows of the College Royal of Eton rest their opposition to the proposed Railway. 1846.

¹⁸ Reading, Berkshire Records Office, D/EX1705/2/9, Windsor, Slough and Staines Atmospheric Railway. Brief on Behalf of the Great Western Railway Company against the Bill. In Parliament Session 1846. Committee on Railway Bills. Group 20. 1846.

further from the college which resulted in the construction of the line from Slough which is still extant today.

The second line into the town seems also to have had some issues with objections but in this case also from the Royal Household due to the initial plan submitted. The plan of the intended railway drew the line continuing further into the town from where the eventual terminus was constructed. It would have been built along the Windsor side of the Thames, requiring part of the east end of Eton College's grounds, after which it cross the river and then required the demolition of all of the buildings facing the Thames along Thames Side and further along the bank, and part of the castle to make way for it.¹⁹ The railway company revised their plans and terminated the line at the site of the existing Riverside station following objections from the townsfolk and most influentially Eton College and the Royal Household.

The town was eventually served by the branch line from Slough, built to secondary line standards with double track throughout, with an east and west facing junction at Slough allowing the Great Western to run direct trains to Windsor Central not only to accommodate the royal train but also for excursion traffic such as that for Ascot Races, and the London and South Western's secondary line to Waterloo. Both stations were served by relatively substantial goods facilities.

¹⁹ Reading, Berkshire Records Office, Q/RUM7b, London and Windsor Railway, Map or Plan of an Intended Railway from London to New Windsor Commencing at Paddington in the County of Middlesex and Terminating in the Parish of Clewer on the Western Side of New Windsor in the County of Berks: 1835.

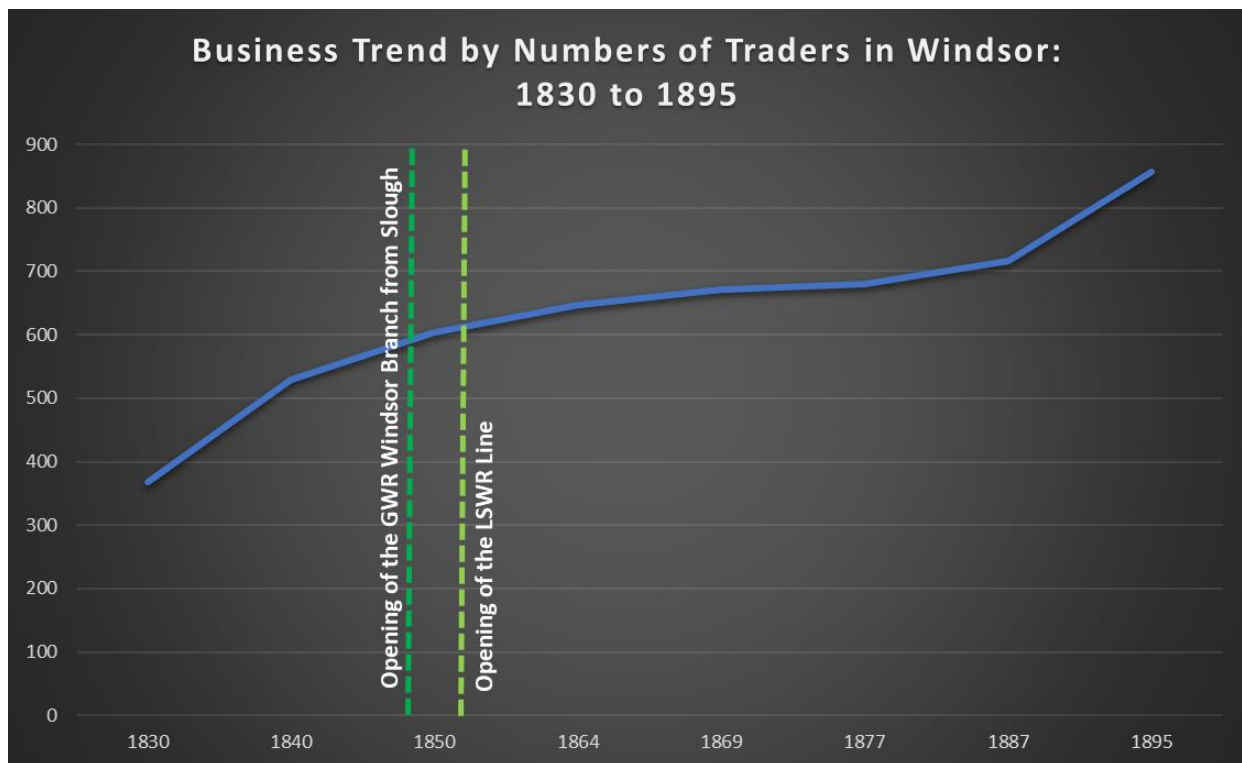


Figure 85: Trend of the Total Number of Businesses in Windsor between 1830 and 1895²⁰

Whilst, as discussed above, the town did not have the large engineering concerns that could be found in Reading and Newbury, the business directories listing no engineers or foundries, the town did have large breweries and other commercial companies located within the town. The trend for the town appears to show a steady growth in the number of commercial concerns operating in the town throughout the period of this study. The town does not seem to have experienced any change in the trend around the time the two railway companies reached the town other than a slight slowing in the rate of growth, but nevertheless the trend remained on an upward trajectory

²⁰ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 36-40; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 6-16; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 55-62; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 677-685; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 734-742; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 652-662; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 186-203; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 240-257.

throughout. Windsor does not appear to have suffered the peaks and troughs in the business trend that can be seen in the towns already examined in this study, although the population trend gives a different picture.

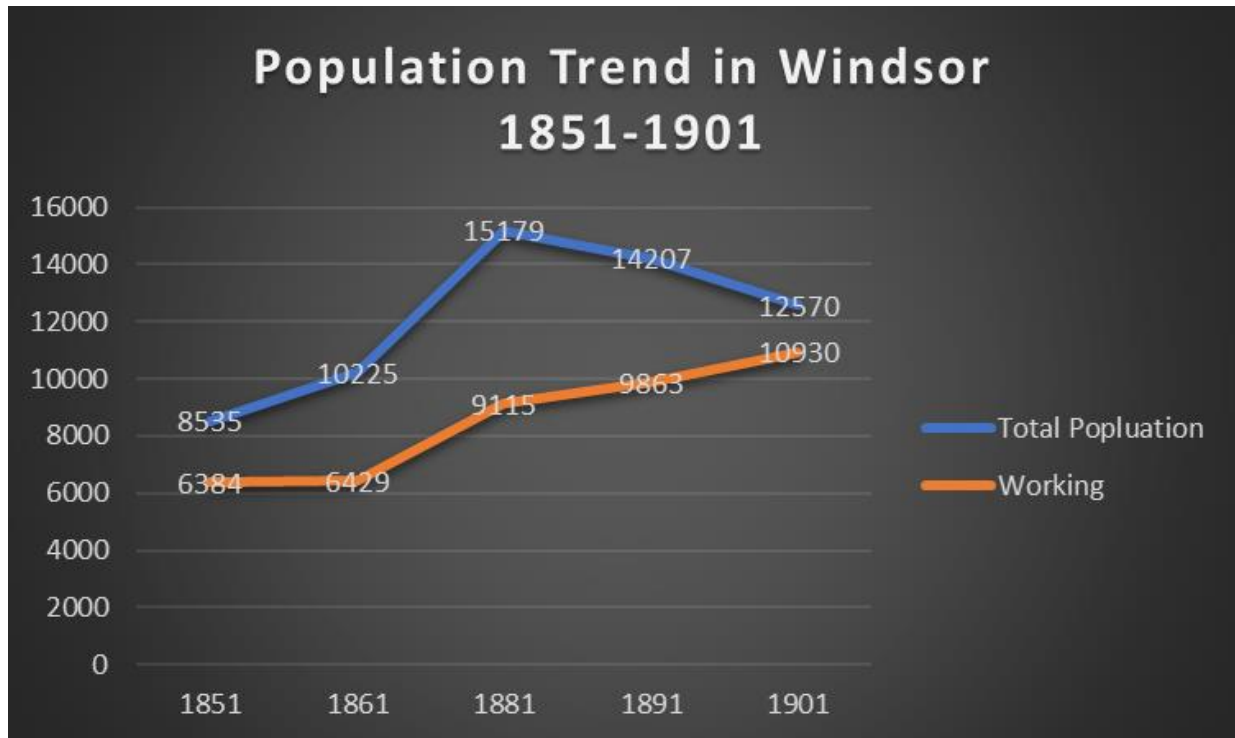


Figure 86: Total Population of Windsor between 1851-1901.²¹

Whilst the town's population grew steadily up until 1881 it experienced a decline thereafter, however if the number of persons enumerated in the census employment statistics is removed from the statistics the trend (indicated by the orange line in figure 67) mirrors that of the number of commercial ventures present in the town. One additional factor that should be taken into account is that created by the boundary changes enacted in the Local Government Acts of 1888 and 1894.²² In the case of Windsor for example, the new parish of Sunningdale was created within Egham from part of the previous Old Windsor parish in 1894 reducing the population within the parish of

²¹ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

²² Legislation.gov.uk, Local Government Act 1888 [Website] <https://www.legislation.gov.uk/ukpga/Vict/51-52/41/contents/enacted> (accessed 24th October 2022); Legislation.gov.uk, Local Government Act 1894 [Website] <https://www.legislation.gov.uk/ukpga/Vict/56-57/73/contents/enacted> (accessed 24th October 2022).

Windsor by 1409 persons, the majority of the reduction between the 1891 and 1901 employment returns.²³ It seems that the reducing population of Windsor was mostly down to the rearrangement of parish boundaries under the 1888 and 1894 Local Government Acts. Considering the change in the parish boundaries the trend towards a reducing population can partially be explained by that change and natural emigration away from an area in order to seek work elsewhere, marriage and so on, and so a comparison of the trend for the population of Windsor with the trend for the working population shows a town with a reducing gap between the working and unemployed residents of the town suggests a town with a successful and growing economy.

It appears that in general Windsor was not impacted by the arrival of the railways in any measurable way. The continued growth both before and after the railways seems to suggest the Windsor's importance as a trading centre was possibly due, initially to its location (like Reading) directly on the banks of the main waterway through the county, which may have been superseded by the railways which performed the same function and that the lack of heavy engineering and so forth which may have been adversely affected by imports from Yorkshire, Birmingham and other heavily industrialised regions of Britain, served to protect the town from the upheaval seen in Reading. The railway seems to have become the transport partner of choice in preference to the river but appears not to have been solely responsible for the constant growth in the town's economy.

The initial general view presented by the summary statistics seems to present a favourable situation for the town, but there are some issues when considering only the full statistics. An analysis of the detail underpinning the census reveals some anomalies which may cause issues within a study such as this unless they are explored further.

²³Histpop.org., Census of England and Wales, 1901, County of Berks. Area, houses and population; also population classified by ages, condition as to marriage, occupations, birthplaces, and infirmities BPP 1902 CXVIII [Cd.1362] 24 [Website]; [http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20\(by%20date\)/1901/England&active=yes&mno=75&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=36&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20(by%20date)/1901/England&active=yes&mno=75&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=36&zoom=4) (accessed 24th October 2022).

The town's population statistics were skewed by a large military presence in the town which must be taken account of before conclusions may be drawn.



Figure 87: Victoria Barracks, Windsor.²⁴

The army had a large garrison in the town due to the presence of the monarch, and in 1853 Victoria Barracks was opened in Victoria Street to house the growing infantry and cavalry contingents. The high numbers of men posted to the town artificially increased the population totals and is another example of why it is important to undertake a more detailed approach to an historical statistical analysis of the business landscape of any given place, in order that these statistical anomalies may be removed from the study or at the very least accounted for.

²⁴ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXII, 1881, CC-BY-NC- SA [Website], <https://maps.nls.uk/view/102339977>, (accessed 28th September 2022). Extract.

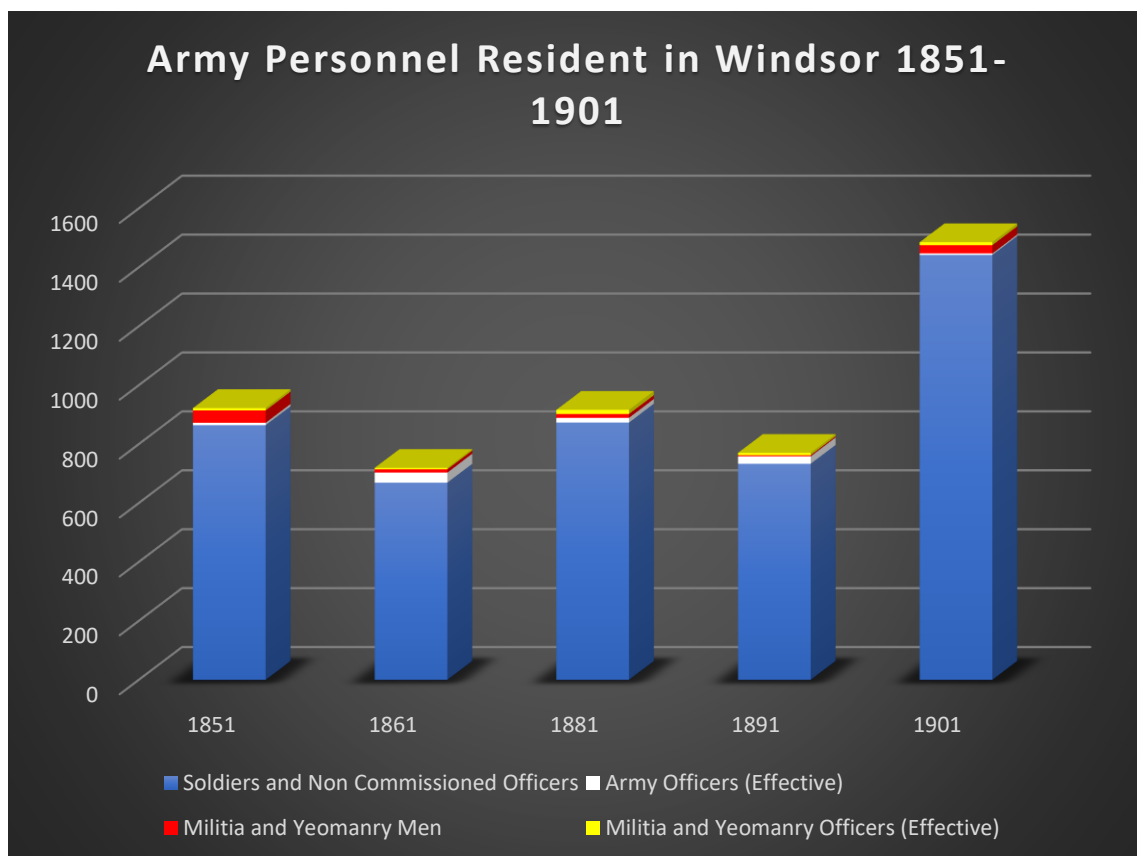


Figure 88: Army Personnel enumerated in the Census Occupation Statistics: 1851-1901²⁵

The presence of the military in the town in large numbers is likely to have created demand for local services which the Victorian British army did not undertake in house. Provision of foodstuffs for both men and horses was most likely to have been undertaken locally at least with respect to fresh goods such as bread, and provisions for the mess such as beer were likely to have been purchased locally. Thus, the presence of the army may possibly be a more important factor in some local business sectors than any impact the railways may have had in certain sectors; the railways may have been of more importance to the army in deploying troops to and from the town than to some sectors of Windsor's economy.

The example provided by Windsor's historical army presence shows that multiple factors should be considered when assessing economic change in the nineteenth century in order to gain a clearer picture of the changes taking place and their possible causes. This level of granularity should help

²⁵ Integrated Census Microdata

avoid unhelpful generalisations and allow logical and ‘most likely’ explanations to be proposed, even when some historic generalisation is necessary due to lack of detailed sources for all businesses and so forth.

The economy of the town seems to have been mainly dominated by businesses delivering products and services which were likely to have been more locally focused, such as those provided by carpenters and saddlers.

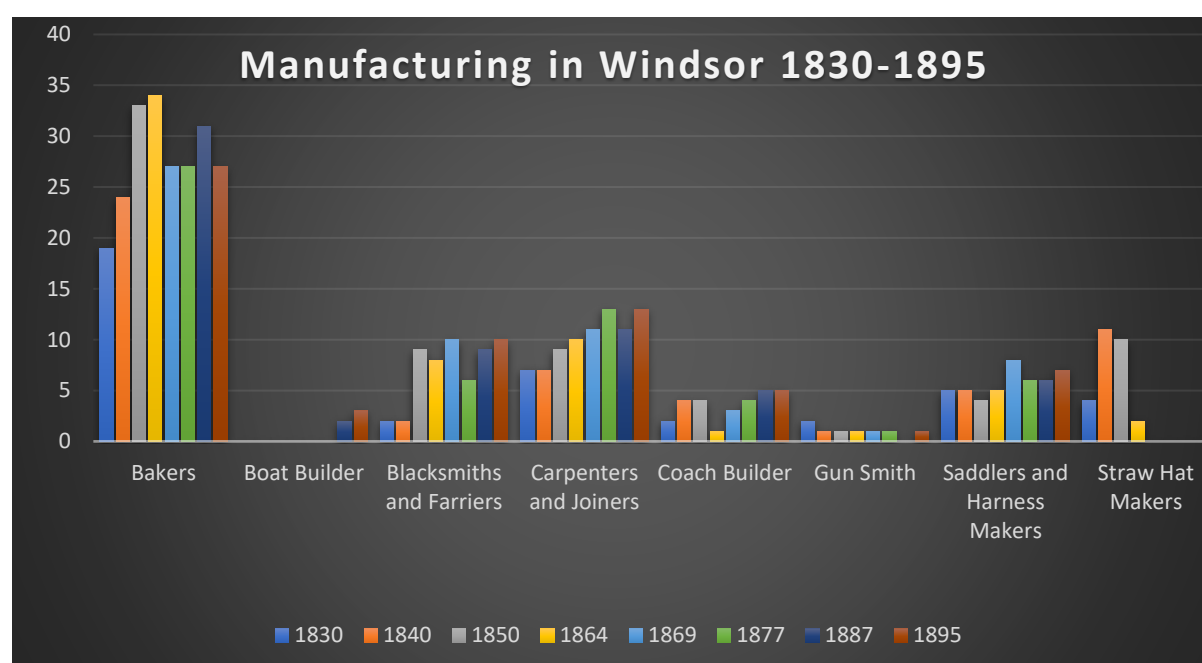


Figure 89: Manufacturing Businesses in Windsor.²⁶

The statistics for these businesses do show some of the fluctuation seen elsewhere, however the overall trend in number of businesses in these sectors does reflect the generally upward trend seen for the town. This suggests that there was an evolution of business types as trends and fashions changed and potential customers sought different products rather than a terminal decline seen in some sectors in other towns such as Reading. It also suggests that the businesses present in the town were less effected by competition from mass produced products produced in the large mills and factories of the midlands and north. It may be that the nature of Windsor’s economy driven by

²⁶ Pigot: 1830, 36-40; Robson’s: 1840, 6-16; Slater’s: 1850, 55-62; Kelly’s: 1864, 677-685; Kelly’s: 1869, 734-742; Kelly’s: 1877, 652-662; Kelly’s: 1887, 186-203; Kelly’s: 1895, 240-257.

the types of businesses trading in the town made it more robust and less likely to experience negative changes.

The Dressmaking sector which had been impacted negatively in other places when the railway initially arrived shows an interestingly different trend in Windsor.



Figure 90: Dressmaking Businesses in Windsor: 1830-1895.²⁷

There was a degree of diversification after 1830 as the number of businesses classified as purely involved in dressmaking reduced to zero. It seems that from 1840 a degree of diversification had taken place with businesses being classified as both milliners and dressmakers. It seems that these businesses had diversified to sell and make not only dresses by also hats, and doubtless other accessories.

After the opening of the GWR branch the number of Milliners and Dressmakers more than trebles but then enters a period of steady decline which suggests that the sector is changing but not necessarily as negatively as the directory data suggests.

²⁷ Pigot: 1830, 36-40; Robson's: 1840, 6-16; Slater's: 1850, 55-62; Kelly's: 1864, 677-685; Kelly's: 1869, 734-742; Kelly's: 1877, 652-662; Kelly's: 1887, 186-203; Kelly's: 1895, 240-257.

An examination of the occupation statistics shows that a large number of people were stating their occupations as 'dressmaker' between 1851 and 1901 which seems to support a conclusion that these businesses were growing, and were of a reasonable size given the average employment per company, for example there were 6 millinery and dressmaking companies listed in the 1887 sample and the nearest census of 1891 returned three hundred and sixty three people listed with that occupation, giving an average staffing level of sixty people.

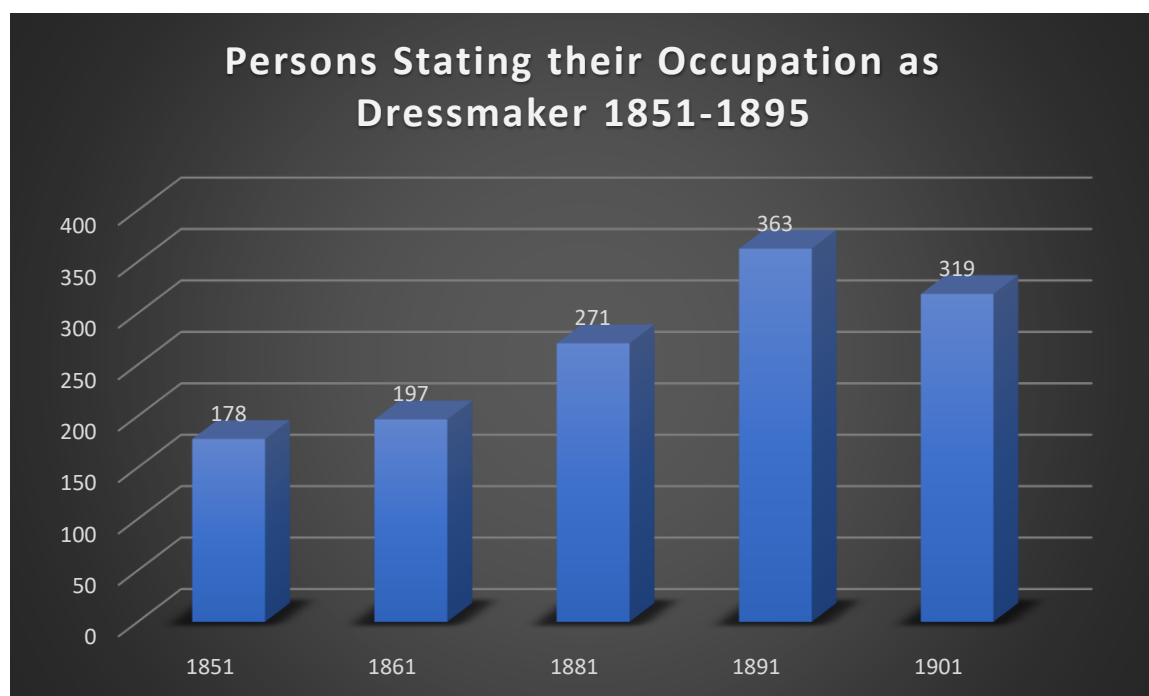


Figure 91: Persons Classified as 'Dressmaker' in the Census Occupation Statistics²⁸

The sudden increase in local businesses classifying themselves specifically as dressmakers in 1895 might initially lead to the conclusion that the sector had specialised back to purely dressmaking on an industrial scale possibly due to a combination of increased demand for locally made dresses, or perhaps more likely, the rise may be due to the outsourcing of manufacturing by the London fashion houses as suggested may have been the case elsewhere in the county supported but not caused by, the railways. There is an issue with a conclusion based upon only the commercial directory statistics for this sector. If the number of people enumerated as 'dressmaker' in the 1901 censuses (the

²⁸ Integrated Census Microdata

nearest to the available business statistics) is considered a very different picture emerges. The twenty-nine businesses classified as specialist dressmakers in 1895 (twenty-nine) compares to three hundred and nineteen persons employed in that trade shortly afterwards in 1901 suggesting a staffing level of somewhere around eleven. It seems safe to propose decline to these levels given the decrease in occupation levels between 1891 and 1901 and the change in business type towards the end of the century.

The trends visible in the dressmaking industry could be compared to those seen in the boot-making industry. There do not appear to be any footwear manufactories listed in the commercial directories, however as for every town there were listings for cobblers.

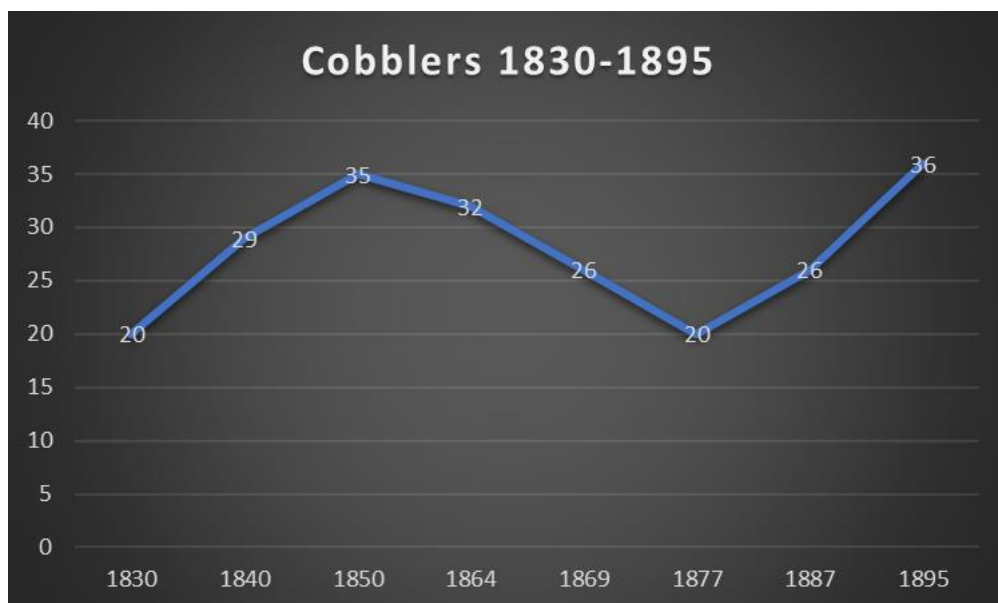


Figure 92: Number of Artisan Cobblers listed in Commercial Directories for Windsor: 1830-1895²⁹

The steady decline in the number of companies listed in the commercial directories is, at first sight, suggestive of a declining economy. There is an issue with using just the statistics from the directories as the trend suggested within that data set is contradicted by the occupation statistics for persons listed as working in the shoe and boot repair trade after the 1851 census.

²⁹ Pigot: 1830, 36-40; Robson's: 1840, 6-16; Slater's: 1850, 55-62; Kelly's: 1864, 677-685; Kelly's: 1869, 734-742; Kelly's: 1877, 652-662; Kelly's: 1887, 186-203; Kelly's: 1895, 240-257.

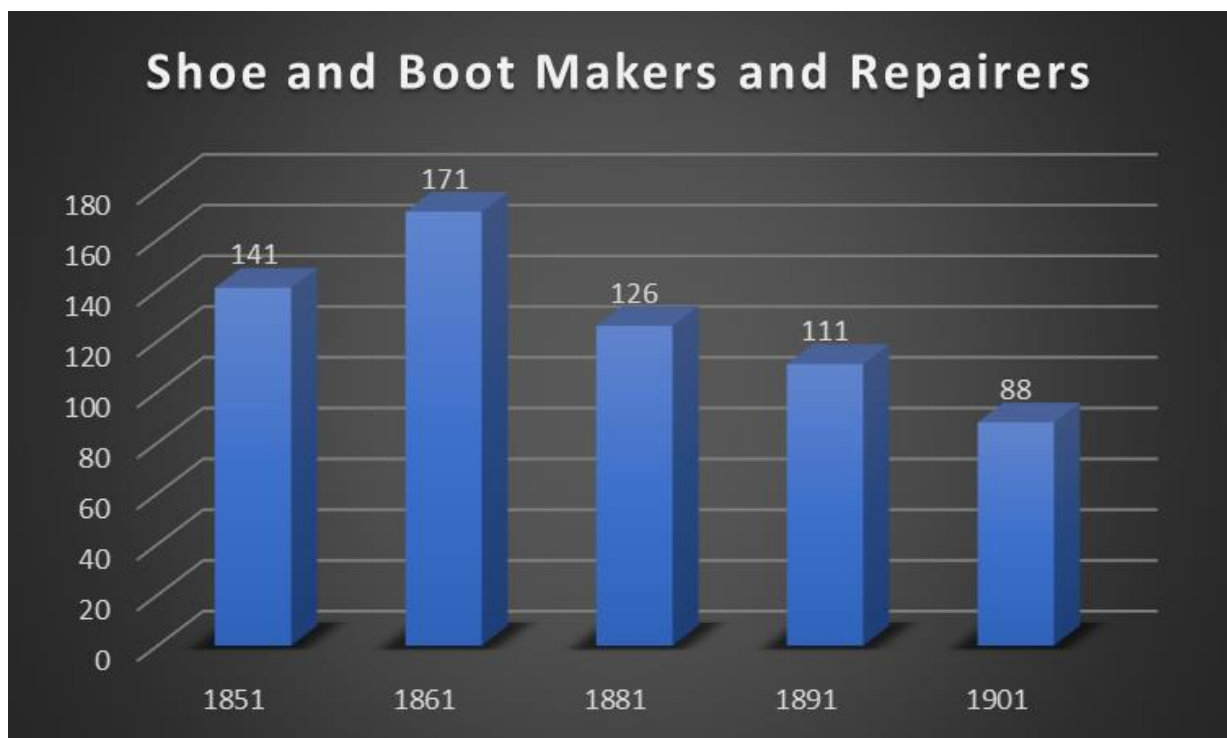


Figure 93: Number of Persons identified as 'Cobblers' in the census returns: 1851-1901³⁰

The situation becomes clearer once the two sets of statistics are compared. The thirty-five companies listed in the 1850 directory relates to one-hundred and forty-one people listed as working in that occupation in the next census, equating to an average of four people per business, suggesting small artisan, probably family run concerns. In 1861 the number of businesses declined but the number of people working in the sector increased resulting in an average employment figure of just over five persons per business. After 1870 the sector seems to be contracting despite the increasing number of businesses, as the number of people working in them was decreasing. This suggests that demand for artisan footwear and repairs to shoes and boots was declining. It is likely that two factors were prevalent toward the end of the century. The availability of cheap footwear through retail outlets delivered by rail from the mass manufacturing centres in Northamptonshire had outcompeted the local small cobbler and that fashion had begun to change and fewer people were having shoes repaired regularly, instead replacing worn out footwear with new cheaper replacements. It is likely that the slow contraction of this area of Windsor's economy was related

³⁰ Integrated Census Microdata

indirectly to the railway through its use of by the manufacturers of the midlands to transport products cheaply and quickly from their large factories where economies of scale and wider product choice were able to give the manufacturers a competitive edge with which the small local artisan was unable to respond.

It seems clear that the two clothing sectors examined had very different relationships with the railways suggesting once again, that the situation was quite complex with different factors and outcomes effecting each sector, even though they are in many ways related.

A very different sector and one which enjoyed much success in Windsor was brewing. Several breweries were established in the town, making use of the easy access to water from the Thames and the Thames as an important transport artery via which coal was brought into the town in the quantities required by the brewers and the associated companies involved in producing malted barley to produce ales.

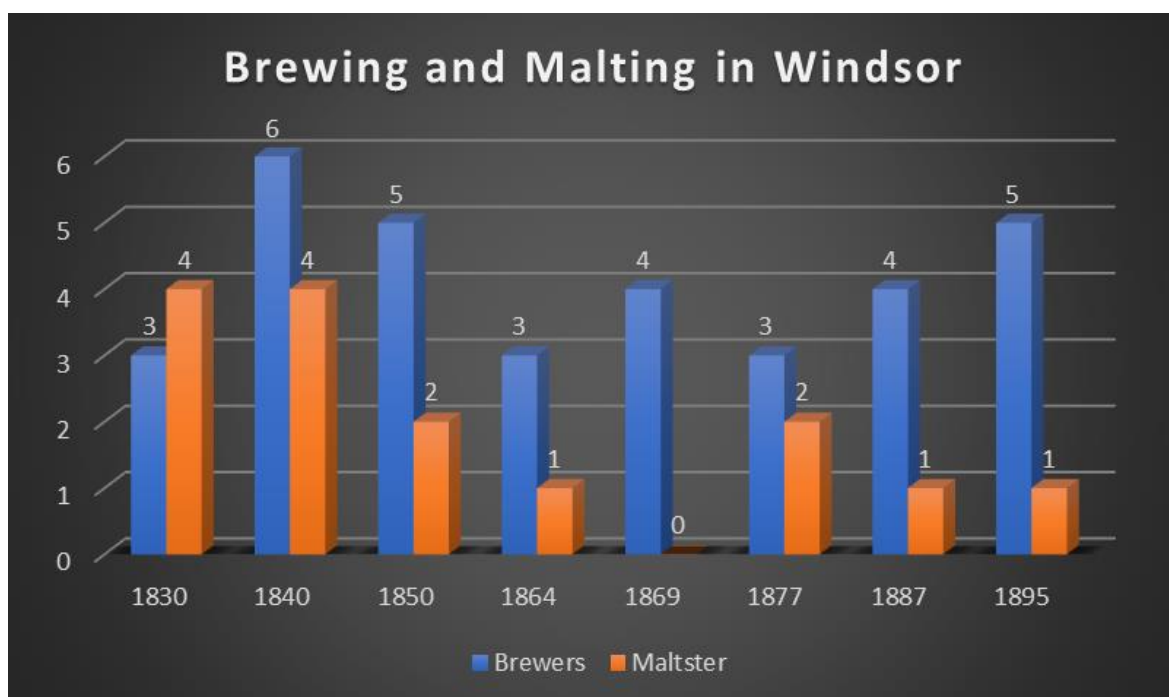


Figure 94: Brewing and Malting Companies in Windsor: 1830-1895.³¹

³¹ Pigot: 1830, 36-40; Robson's: 1840, 6-16; Slater's: 1850, 55-62; Kelly's: 1864, 677-685; Kelly's: 1869, 734-742; Kelly's: 1877, 652-662; Kelly's: 1887, 186-203; Kelly's: 1895, 240-257.

The statistics show an interesting trend which indicates two different patterns of business numbers for the two associated types of company. The statistics from the commercial directories show that whilst the number of breweries remains relatively static, other than the contraction seen in the 1864 directory, the number of businesses listed as maltsters declines in comparison. The trend can be explained, not by the arrival of the railways but by a change in the brewing industry. The breweries, having amalgamated into larger concerns during the nineteenth century also began to produce their own malt for brewing in house. The reduction seen in the numbers of maltsters can be explained by the evolution within the processes used and the more internal manufacturing processes used by many late nineteenth century breweries.

An example of the amalgamations and bringing 'in-house' of the provision of malt can be seen in the case of one of Windsor's largest breweries in the nineteenth century, Neville Reid, and Co. The brewery was in Thames Street opposite the castle and with easy access to the river, but also owned a malt producing facility in Shepperton after 1837.³² It is likely that the malt was transported to Windsor by river given the easy access to waterborne transport available at both places before the LSWR's line to Windsor opened.

The Brewery financial day journals for Neville Reid and Co. survive and give a fascinating insight into the operations of the brewery. The journals contain an entry for 10th October 1848 regarding payment of £54 for rent on Maltings in Bray (Maidenhead) and Bourne End.³³

The company's ownership or use of these malting facilities would have had an impact upon independent maltsters in Windsor and is likely to have contributed to the contraction of this sector within the town's economy. In this instance the contraction observed within the commercial statistics can be explained through reference to surviving business records. It seems safe to

³² Reading, Berkshire Records Office, D/ECG/B2, Neville Reid and Co. Limited. Internal Memorandums, N.R. 1837 to 1844.

³³ Reading, Berkshire Records Office, D/ECG/B2/3, Neville Reid and Co. Limited. Brewery Journal, 10th October 1848 to 10th April 1850.

extrapolate, at least in part, Neville Reid brewery's decision to own or rent its own maltings to other breweries in the town for which records do not survive. It is highly likely that some, if not all, of the larger breweries in Windsor had their own maltings either on-site or, as can be seen in the case of Neville Reid, in another location outside Windsor. This would appear to explain the change seen in the data, and is clearly not related to the railways.

The breweries needed another commodity in bulk which was transported by river before the railways arrived in the town. Coal was a vital fuel for the production beer, being used to heat water that was then combined with malt in the mash tun as well as for other processes requiring heat around the brewery. In order to produce the quantities of beer made by these large breweries, large quantities of coal would have been required.

The records of Neville Reid provide a detailed source for the use of coal in Berkshire's breweries, as it would seem fair to assume that similar quantities were being used by Morland in Abingdon, Nicholson in Maidenhead and Simonds in Reading.

The surviving brewery day journals itemise the amount of coal received at the brewery for each delivery, the cost and who was paid for the coal. The journals for 9th November to 10th May 1846, 10th March 1847 to 10th September 1848 and 10th October 1848 to 10th April 1850 survive, in which frequent reference is made to having purchased coal from one Mr. Mason. The commercial directories for Windsor list no coal merchant under this name until 1852 when Edward Mason is listed as a coal merchant, the only trader being listed under this name being Mr. G. Mason, the carrier listed in the returns for Shepperton Lock explored above.³⁴

The journals are extremely detailed and show the amount of coal purchased by type through Mr. Mason. On the 10th December 1844, for example, the brewery pays £119 16s for one hundred and

³⁴ University of Leicester Special Collections Online, Historical Directories of England & Wales, Slater's Directory of Berkshire, 1852, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/256697/rec/2>, (Accessed 2nd November 2022), 58.

twelve tons of 'Brewery Coal' and £72 10s 6d for 72 tons of 'Malting Coal', and after a number of regular large deliveries of similar tonnages of coal throughout the next three years, on 10th March 1848 the brewery paid £90 5s 3d for eighty-nine tons of 'Brewery Coal' and £55 17s for fifty-five and a half tons of 'Malting Coal'.³⁵ The journals show regular payments for similar large quantities for which the fluctuating quantities can be explained by differing levels of production at different times of year to match seasonal demands for beers.

This evidence clearly shows that the breweries in Windsor were able to obtain large quantities of coal and no doubt other raw materials, using waterborne transport long before the railways arrived. The breweries were able to grow to a considerable size during the pre-rail era in Windsor which suggests that there are flaws in the generalisation that the railways caused economic growth. In Windsor brewing this process was already well advanced before the Great Western and LSWR opened their stations in the town.

There is a lot of evidence in the archives that, despite the success of the river borne services, after their arrival, the railways were an important part of the brewing industry both as a transport partner for the raw materials and fuels used in the brewery but also, as will be discussed in chapter 13, directly as a source of trade.

The Neville Reid and Co. brewery day journals continue to show regular payments to Mr. Mason for large quantities of both 'Brewery Coal' and 'Malting Coal' until a single payment for £6 4s 6d for 'coal' is made to the GWR on 10th December 1849. The low value compared the moneys still being paid to Mr. Mason on the same day (£114 12s 5d) suggest that this may have been a trial undertaken by the company to compare the two services very soon after the Great Western's Windsor branch had opened. The trial must have been viewed as successful as the following day

³⁵ Reading, Berkshire Records Office, , D/ECG/B4/1, Neville Reid and Co. Limited. Brewery Journal, 9th November 1844 to 10th May 1846; Reading, Berkshire Records Office, D/ECG/B4/2, Neville Reid and Co. Limited. Brewery Journal, 10th March 1847 to 10th September 1848. May 1846; Reading, Berkshire Records Office, D/ECG/B4/3, Neville Reid and Co. Limited. Brewery Journal, 10th October 1848 to 10th April 1850.

journal shows no entries for Mr. Mason, all payments for coal being made directly to the GWR.³⁶ The GWR not only appears to have been the carrier of choice from 1850 but also seems to have allowed the brewery to order smaller quantities of coal more frequently. The journal shows regular monthly payments for £18 16s 6d to the 'GW Ry' for coal on or about the same day each month.

The regular smaller deliveries suggest that the brewery management were taking advantage of the faster and more regular services offered by the GWR to reduce the amount of their operating capital that was tied up in their coal bunkers which allowed the company to probably invest that capital elsewhere in the business such as into modern plant and machinery or in better pay for their workforce perhaps. The invoice values being paid reveal an interesting possibility which is supported by the regular nature of the deliveries. The same value being paid every month suggests that the company had a contract at agreed rates with the railway covering their coal needs, and this is likely to have undercut the charges levied by Mr. Mason. Mr. G. Mason appears to have handed over control of the business to his son Edward who is listed in Slater's 1852 directory as offering water borne carriage services as well as coal through his merchant business.

³⁶ Reading, Berkshire Records Office, D/ECG/B4/4, Neville Reid and Co. Limited. Brewery Journal, 10th May 1850 to 10th September 1852.

CARRIERS.

To LONDON and all parts of England, &c., by the Great Western Railway Company, from their Station High st., Windsor, daily, Henry & Joseph Thurnwood, carriers' agents, 28, and Robert Cheal, 90 Peascod st

To LONDON, SOUTHAMTON, and the SOUTH COAST, and other parts of England, in connexion with other Lines, by the South-Western Railway Company, from their Station, Datchett lane, daily, Chas Veal, carriers' agent, Three Tuns, Market place

To LONDON (by road), Thos. North, from the New Inn; Park street, Windsor, daily

CONVEYANCE BY WATER.

To LONDON, Samuel Thorrington, from Newcastle Wharf, three times a week; William & James Jennings and Edward Mason's *barges*., from Windsor Bridge, and George Thorrington & Co., from Old Windsor, weekly

Figure 95: Slater's Directory of Berkshire, 1852.³⁷

The advent of the railways in Windsor seems to have been an economic disaster for the water carriers. It seems that Neville Reid was not the only company to dispense with the services of the barge owners in favour of the more convenient, cheaper, and often faster services offered by the railway companies. Mr. Mason and son, once the carriers of coals to Neville Read and Co. and doubtless others, disappear from the directories during the 1860s. Harrod and Co's 1876 Directory shows no entries whatsoever for any carrier offering water borne carriage services, only those local carriage services offered by road were listed. Rail had clearly out competed water as a means of transport.

The impact of the railways upon the water transport companies can only be seen to have been negative from the evidence available in the archives. It cannot be said that the railways were responsible for 'economic growth' in this sector or Windsor's economy, quite the opposite.

³⁷ Slater's 1852 Directory, 62.

CARRIERS TO <i>London</i>—Cheal and Co., daily, from 90, Peascod street, to 21, Old Change, Cheapside ; Old Bell Inn, Warwick lane, calling at the Spotted Dog, Strand ; Spread Eagle, Regent street ; Old White Horse Cellar, Piccadilly ; and Cannon Office, Knightsbridge. Sutton and Co., Office, Victoria street ; Agent, M. H. French. <i>Maidenhead, Holyport, and Bray</i>—Emmett, from the Bull Inn, Peascod street, Mon. and Fri. <i>Egham</i>—Nash, Tues., Thurs., and Sat. <i>Sunninghill</i>—Kentish, from the Bull Inn, Tues. and Sat. ; Cubitt, Wed. and Sat. <i>Beaconsfield and Amersham</i>—Holt, from the Bull Inn, Peascod street, Mon. and Thurs. <i>Winkfield</i>—Clayton, daily, from Bull Inn. <i>Burnham and High Wycombe</i>—Bass, from the Crown and Cushion Inn, Eton, Wed. <i>Burnham, High Wycombe, and Princes Risborough</i>—Benning, from Crown and Cushion Inn, Eton, Wed. <i>Burnham, Farnham Royal, Horton, Iver, and Colnbrook</i>—Morgan, from 18, Victoria street, Mon., Wed., and Fri.

Figure 96: Harrod & Co's Directory listing for Windsor Carriers: 1876.³⁸

Conclusions

The town of Windsor provides a prime example of why adopting a generalised approach to the relationship between railways and economic change is dangerous.

It can clearly be seen from the evidence that the situation within the town is incredibly complex. Some sectors, such as brewing, experiencing the start of company growth before the railways arrived in the town, which in turn supported other traders providing ancillary services such as malting and river transport whereas others stagnated or contracted.

The change of company policy toward their processes evident within brewing in Windsor and the negative impact upon companies offering that service shows that there were a multitude of factors which must be considered in a study of this kind and that it was not necessarily always the railways which had an economic impact locally.

The change evident in the preferences of companies regarding their transport partners shows how the railways may have a negative impact upon one sector alone, such as Windsor's barge owners,

³⁸ University of Leicester Special Collections Online, Historical Directories of England & Wales, J.G. Harrod & Co.'s Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, (Accessed 17th August 2022), 557.

but that the impact is not always driven directly by the railway companies but in the choices made by the management of companies who opt to take advantage of the more viable services offered by them.

The impacts of the various factors within Windsor also show the importance of adopting a multi-source approach. If only the commercial directory statistics had been used, it would not have been possible to mitigate the impact of the army garrison upon the town nor, without reference to the census reports would it have been possible to make allowance for the change in parish boundaries which occurred toward the end of the period of this study.

Chapter 11: Abingdon Case Study

The town lies 25 miles north-west of Reading and whilst now situated in the county of Oxfordshire, the town was located within the county boundary of Berkshire prior to the county boundary changes made under the Local Government Act of 1972.¹ As a town within the county of Berkshire, Abingdon is thus relevant to this study and provides a useful source of evidence for a town located at one extremity of the county which also has a rather different relationship with the railways.

The town was once an important part of Berkshire, being the county town and the seat of much of the county's legal processes. Over time the town became less important and began to share its county town status with Reading, to where it would eventually lose its status entirely. In 1833 the town was still a relatively important centre of the county's legal process, hosting two of the four sittings of the Berkshire Sessions at Midsummer (2nd July) and Michaelmas (15th October), with the other two sessions at Epiphany (1st January) and Easter (2nd April) being held at Reading and Newbury respectively. The County Court also sat at Abingdon on the first day of each month. The County Court sessions of recovery of debt also sat at Abingdon on the first day of each month²

Pigot's 1844 directory described Abingdon as a market town of '...considerable antiquity' situated in a fertile agricultural area. The directory introduction to the town also stated that its traditional industries of hemp and sack making, biscuit-bagging and carpet weaving were still carried on but to a lesser extent than previously. The town's malting trade was also stated to have fallen away despite once being prosperous. The directory also states that the location of the railway at nearby Steventon

¹ Legislation.gov.uk, Local Government Act 1972 [Website]
https://www.legislation.gov.uk/ukpga/1972/70/pdfs/ukpga_19720070_en.pdf (Accessed 16th January 2023), 238.

² University of Leicester Special Collections Online, Historical Directories of England & Wales, *Berkshire Commercial Directory for 1833*, [Website],
<http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/260813/rec/5>, (Accessed, 17th November 2022), 18.

has impacted the prosperity of the town as a ‘...great thoroughfare’.³ The case study to follow will examine if this was true and whether something else had replaced the ‘traditional’ businesses of Abingdon.

The town was not served by the original route of the GWR which passed to the south of the town along Brunel’s original route west to Bristol, the station at Steventon being located four miles south-west of Abingdon.



Figure 97: The Railways around Didcot in 1883. The original line to Bristol via Steventon runs across the map, the later line to Oxford runs vertically from the junction at Didcot.⁴

The GWR planned a new route to reach Oxford from a junction with its trunk line to the west from the earliest days of the company under the auspices of The Oxford and Great Western Union Railway. The route had been surveyed and the plans completed for submission to the House of Commons by 1836, in which the railway was to have taken a route from Didcot passing through St.

³ Reading, Reading Central Library, Pigot and Co.’s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 2.

⁴ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XVI, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339935>, (accessed 5 December 2021).

Helen's parish in Abingdon before continuing to Oxford, entering the City through Cowley and on to the city centre and then northwards to Birmingham.⁵ The initial plans of the Great Western would have provided Abingdon with a direct link to Oxford and thence to the Midlands, and to Didcot and the main line between London and Bristol, and later to South Wales. The planned route would have potentially provided the town with a railway service similar to that at Newbury but it was not to be.

In 1836 public meetings to gain support for the Oxford line were held in Abingdon at which Brunel and Saunders attended as representatives of the GWR. Several leading local people signed the list of prospective shareholders of the new Oxford and Great Western Union Railway Company (which in line with Great Western Company practice would immediately be absorbed into the company once the line had been opened and all construction expenses paid). There was an issue however. Three of the main local landowners, who were in possession of a large proportion of the land required by the railway were against the plan. Two of these, Messrs. Duffield and Pechell were MPs, and gathered support for opposing the Oxford line as it was planned. Other influential elements joined the opposition including most of the Abingdon Corporation Council.⁶

The opposition from the town council and MPs coupled with the plans being proposed by other railway companies endeavouring to find the shortest route from the midlands through Oxford convinced Brunel and the directors of the Great Western to survey a new and less convoluted route between Didcot and Oxford. The resulting plan submitted for an Act of Parliament to allow construction ran on a more direct route between the two towns, bypassing Abingdon completely. In order to serve the town a short branch was included in the plans, diverting from the main line to Oxford south of Radley.⁷ The townspeople of Abingdon were disappointed by the lack of a direct

⁵ Reading, Berkshire Records Office, Q/RUM12, Plan and Section of the Proposed Railway from Oxford by Way of Abingdon to Join the Intended Great Western Railway and to be called the Oxford and Great Western Railway, 1836.

⁶ Nigel Trippett and Nicholas de Courtois, *The Abingdon Branch* (Upper Bucklebury, 1985), 1-2.

⁷ Reading, Berkshire Records Office, Q/RUM8, Plan and Section of the Proposed Railway from Oxford to Join the intended Great Western Railway and to be Called The Oxford and Great Western Union Railway with the Proposed Branch Railway thereout to Abingdon, 1836.

service and became hostile toward the scheme, the town Corporation also showing their displeasure toward the proposal ‘...with its miserable little Abingdon branch.’⁸

The objections of the major landowners and the local MPs seem to not have reflected the opinions of many of the people who live in Abingdon. Objections from landowners can often be seen in the archives of the railway companies. Correspondence relating to the purchase of land by the railways often reveals some interesting evidence as to what was really occurring. Landowners would object to the railway in order to force the railway to increase the amount of money offered for the parcels of land which were to be taken, which the railway company would often refuse to do. The resulting arbitration that resulted would be based upon the valuation of the land by a surveyor appointed by the landowner, and surveyors employed by the railway.⁹ The surveyors would be likely to represent the interests of their employer, resulting in differing valuations of the land. Arbitration would set the purchase cost between the values on most occasions resulting in a better return for the owner. On other occasions objection could be for political reasons, or through self-interest as in the case of the objections raised by Eton College to the building of both the GWR and LSWR lines into Windsor.

On other occasions a railway company might object to another railway company proposal, as the GWR did to prevent the construction of the Maidenhead and Guildford Railway in 1879.¹⁰ On other occasions landowners, seeing an opportunity to profitably realise an asset, or to conveniently dispose of an area of slum housing, would sell their property to the railway company proposing to build a line on their land. The directors, or people who had invested in a local scheme would also be more willing to sell their land and buildings to a railway company in order to realise not only a return

⁸ Trippett, 2.

⁹ A large amount of evidence exists in the archives for protests against railway building. The Berkshire Records Office possesses a large file of correspondence related to the opposition to the GWR by the Cookham Bridge Company (Reading, Berkshire Records Office, BR/C/11/2/1-7, Papers Relating to the Opposition to the Extension of the Great Western Railway, 1846-1847). The National Archives also possess a large number of files which relate to opposition to railway schemes from landowners, business owners and canal companies (RAIL 558 and RAIL 734 and RAIL 767 contain correspondence relating to opposition to a number of railway schemes).

¹⁰ London, The National Archives, RAIL 1057/2995, Papers Relating to the Proposed Maidenhead and Guildford Railway, 1878-1879.

on the land but returns on their capital investment. The shareholders and directors of the Wantage Tramway Company sold some of their land to the tramway when it was formed. Edward Ormond, lawyer and the tramway's company secretary sold some of his land to the company, as did George Stevenson a local engineer, who when appointed as the line's managing engineer promptly sold a parcel of his property to the company.¹¹

New plans were proposed in 1837 which did not appease the town council and landowners.¹² The Corporation of Abingdon petitioned Parliament alongside the University of Oxford and the landowners in and around Abingdon to defeat the proposal the same year. The Great Western continued to fight for its proposed line to Oxford submitting new plans in 1839 which still included the Abingdon branch which the town council continued to oppose.¹³

The GWR reached Steventon in 1840 and the change in fortunes that the railway brought to that town and Abingdon's need to transport inbound and outbound freight the four miles to the station there convinced the council that they had been too hasty and they began to lobby the GWR to reinstate the original route via their town instead of the more direct route to Oxford. The GWR ignored them, and continued to prosecute its new shorter route submitting revised plans for that line in 1842 which still included the Abingdon branch.¹⁴ Despite the plans being voted against in a meeting of Abingdon Council, the House of Commons passed the proposal and granted an Act of Parliament in April 1843 for the Oxford and Great Western Union Railway under the name of 'The Oxford Railway Company'.¹⁵ The Act specifically stated that the railway was to be constructed to link Oxford with the GWR at Didcot. Section CCXXVII nominated the places through which the railway

¹¹ Reading, Berkshire Records Office, D/WT1/3, Minutes of Wantage Tramway Directors Meetings, 1873-1879.

¹² Reading, Berkshire Records Office, Q/RUM14, Oxford and Great Western Union Railway, with a branch to Abingdon, 1837.

¹³ Reading, Berkshire Records Office, Q/RUM17, Oxford and Great Western Union Railway, with a branch to Abingdon, 1839.

¹⁴ Reading, Berkshire Records Office, Q/RUM21, Oxford and Great Western Union Railway, 1842; Reading, Berkshire Records Office, Q/RUM22, Oxford and Great Western Union Railway, with Branch Railway to Abingdon, 1842).

¹⁵ Legislation.gov.uk, Oxford Railway Act 1843 [Website] <https://www.legislation.gov.uk/ukla/Vict/6-7/10/contents/enacted> (Accessed 17th November 2022).

was to pass, making no mention whatsoever of Abingdon and the originally proposed branch to the town.¹⁶ Abingdon found itself bypassed by the railways despite its more recent efforts to avoid being set aside by the GWR.

The town was beginning to regret its decision to object to Brunel's original route and the 1854 Town Council elections brought Major Haythorne Read, who had campaigned partly on the need for a local railway.¹⁷ The sentiment that any railway, even the '...miserable little Abingdon branch' was better than not having any rail link at all. Approaches to the GWR to build the originally proposed branch under an extension Act came to nothing and a group of the wealthier citizens of Abingdon formed a new company in order to build their own railway in 1854. The company received its Act of Parliament enabling construction in 1855 which authorised construction of '...a Railway from the Oxford Branch of the GWR to Abingdon...' as it would have been '...of public and local advantage'.¹⁸

The latter part of the introduction clause to the Act reveals much about the reasons the promoters of the Abingdon Railway had for its construction. The clause is relatively unique among railway Acts in stating that the proposed railway would be '..of public and local Advantage', whilst also stating that the railway was to be funded entirely by the proposers at their own expense.¹⁹ Other railway Acts do not contain such a clause.

The GWR Act of 1835, which authorised the Great Western's first route between London and Bristol, provides only a brief description that the line was to link to two towns and to construct a branch to Bradford (sic) and Trowbridge in Wiltshire in the introductory clause.²⁰ Other railway Acts such as the Act authorising the Bodmin and Wadebridge (1832), the Eastern Counties (1836), the London and Birmingham (1833), and the Vale of Neath Railways were matter of fact in the opening clauses,

¹⁶ Oxford Railway Act, CCXXVII, 188.

¹⁷ Trippett, 3.

¹⁸ Legislation.gov.uk, Abingdon Railway Act 1855 [Website] <https://www.legislation.gov.uk/ukla/Vict/18-19/69/contents/enacted>, (accessed 20th November 2022).

¹⁹ Abingdon Railway Act 1855, Introduction clause.

²⁰ Legislation.gov.uk, Great Western Railway Act 1835 [Website] <https://www.legislation.gov.uk/ukla/Will4/5-6/107/contents/enacted>, (accessed 17th November 2022).

merely stating the remit of the railway company and making no mention of any social or economic benefits that the new railway may provide.²¹ The only clause that could be found within a broad selection of railway acts that was similar was found in the body of the Oxford Railway Act of 1843 which stated that the new railway might be ‘...great public advantage’, although the introductory clause is as to the point as other railway Acts.²² The inclusion of the more detailed description of the railway suggests that the promoters had been influenced by how the local towns which had been served by the railways appeared to have benefitted economically.

This may be partially responsible for the generalisations which can be found within the historiography of nineteenth century railway building and the British economy. If the contemporary people promoting new railway companies were seen to have made statements which seem to suggest that the railways were linked to economic growth, it would be logical to assume that they had access to data which is no longer available to the historian, and that the statements being made were a true reflection of the economic reality at the time. There is however an issue. In order to propose a new railway company and to gain support from potential shareholders and the various railway committees through which the application for powers to construct the line, the promoters would have needed to accentuate the potential of the line, possibly over accentuating its potential. Clauses such as that made in the application and the Act to construct the Abingdon Railway should be approached with caution by the historian investigating the nineteenth century railways.

The Abingdon Railway was completed and opened in 1856 and was operated by the GWR on behalf of the Abingdon Railway Company for a percentage of the takings for passenger and freight traffic

²¹ Legislation.gov.uk, Bodmin and Wadebridge Railway Act 1832 [Website] <https://www.legislation.gov.uk/ukla/Will4/2-3/47/contents/enacted> (Accessed 20th November 2022); Legislation.gov.uk, Eastern Counties Railway Act 1836 [Website] <https://www.legislation.gov.uk/ukla/Will4/6-7/106/contents/enacted> (accessed 20th November 2022); Legislation.gov.uk, London and Birmingham Railway Act 1833 [Website] <https://www.legislation.gov.uk/ukla/Will4/3-4/36/contents/enacted> (Accessed 20th November 2022); Legislation.gov.uk, Vale of Neath Railway Act 1846 [Website] <https://www.legislation.gov.uk/ukla/Vict/9-10/341/contents/enacted> (accessed 20th November 2022).

²² Legislation.gov.uk, Oxford Railway Act 1843 [Website] <https://www.legislation.gov.uk/ukla/Vict/6-7/10/contents/enacted>, (accessed 17th November 2022).

on the line. In cases such as this it might be necessary to examine the impact not of the railways upon a town, but of the town upon a railway. In the case of the Abingdon Railway Company where the line was being operated by another company, if the town were to experience economic growth and thus need to transport more raw materials in to the town and finished product out of the town, then the operating company would experience a growth in the fees levied versus the traffic carried, and perhaps the town would have more impact upon the railway than vice versa at certain times.



Figure 98: Abingdon Railway Station in 1875.²³

The town of Abingdon therefore provides a useful and unusual example of a town that was initially bypassed by the railways through its own choice not through the route choice of the engineer or company building it. It can be used as a counterpoint to places like Reading or Maidenhead which, whilst not the main places intended to be served by a new railway were served as intermediate stops on a railway and which benefitted by being located on a main trunk route. Abingdon can show how a town, once important and a main stopping place for road or canal traffic heading into or out of the county, was impacted by initially being left off the railway network.

²³ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Oxfordshire Sheet XLV.NE, CC-BY-NC-SA [Website] <https://maps.nls.uk/view/101458080> (accessed 20th November 2022).

The later addition of the independent Abingdon Railway to the national network, its operation by its much larger neighbour to which it linked, and the connection it provided to the rest of the country through the junction at Radley provides an example of how a place which was later served by the railways might have been impacted by being linked through a branch line much later in the century than other places which had been served by the main routes of the railway companies during the earlier phases of railway building. It also provides a useful comparison to the case studies which follow relating to the town of Wallingford, which did not object to the railway coming to the town but was bypassed as a convenience for the railway company concerned and the town of Wantage which was never served by a main railway company but by a tramway built under the powers granted by the Tramways Act of 1870.²⁴



Figure 99: Rocque Map of Abingdon, 1761.²⁵

²⁴ Legislation.gov.uk, Tramways Act 1870 [Website] <https://www.legislation.gov.uk/ukpga/Vict/33-34/78/contents/enacted> (accessed 20th November 2022).

²⁵ Reading, Reading Central Library Local History Collection, Extract from the Survey of Berkshire, 1761 (John Rocque, 1761).



Figure 100: Abingdon in 1807.²⁶

In the case of Abingdon, did its lack of railway connection have an impact upon its economy and its 'growth'? The Roque Map of 1761 and the Andrews and Dury map of 1807 show Abingdon as a small settlement which seems to have grown little in land area between the two years.

Around 1840 the town was a successful centre of trade, as can be seen from the statistics, however, it had begun to decline in importance both politically and economically. The town has lost its status as county town which it had shared with Reading, which had now become the sole holder of the title. The courts no longer sat in Abingdon, once again Reading having succeeded Abingdon as the sole centre of criminal justice in the county. Little further growth in area seems to have occurred between 1840 and the time of the Ordnance Survey of 1883. The Ordnance Survey maps of Abingdon for 1883 and 1900 show very little increase in the size of the town, its boundaries remaining relatively consistent. This suggests that the town had perhaps not experienced a great deal of growth generally.

²⁶ Reading, Reading Central Library Local History Collection, A Map of the Country Sixty Five Miles Round London, from Actual Surveys by John Andrews and Andrew Dury (London, 1807).



Figure 101: Abingdon: 1883.²⁷



Figure 102: Abingdon: 1900.²⁸

²⁷ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Oxfordshire Sheet XLV.NE, CC-BY-NC-SA [Website] <https://maps.nls.uk/view/101458080> (accessed 20th November 2022).

²⁸ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Oxfordshire Sheet XLV.NW, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/101458077>, (accessed 6th November 2021).

An analysis of the population of the town between 1801 and 1901 shows a town whose population was growing slowly up until the 1841 census when the returns indicated an unusual growth in population which then slowed again in 1851 before experiencing a dip between 1861 and 1881 after which time the town appears to have entered a period of decline. The increase between 1871 and 1881 in the census returns was however not caused by an economic factor or organic population growth but by the expansion of the boundary of Abingdon due to the provisions of the 1869 Representation of the People Act.²⁹ It is likely that the town would show a steady decline in population after 1861 without the increased boundary. The census figures are not likely to have an impact upon the occupation statistics outside of agricultural work as much of the expansion in the municipal borough related (as can be seen in figures 80 and 81) through the inclusion of a wider rural area.

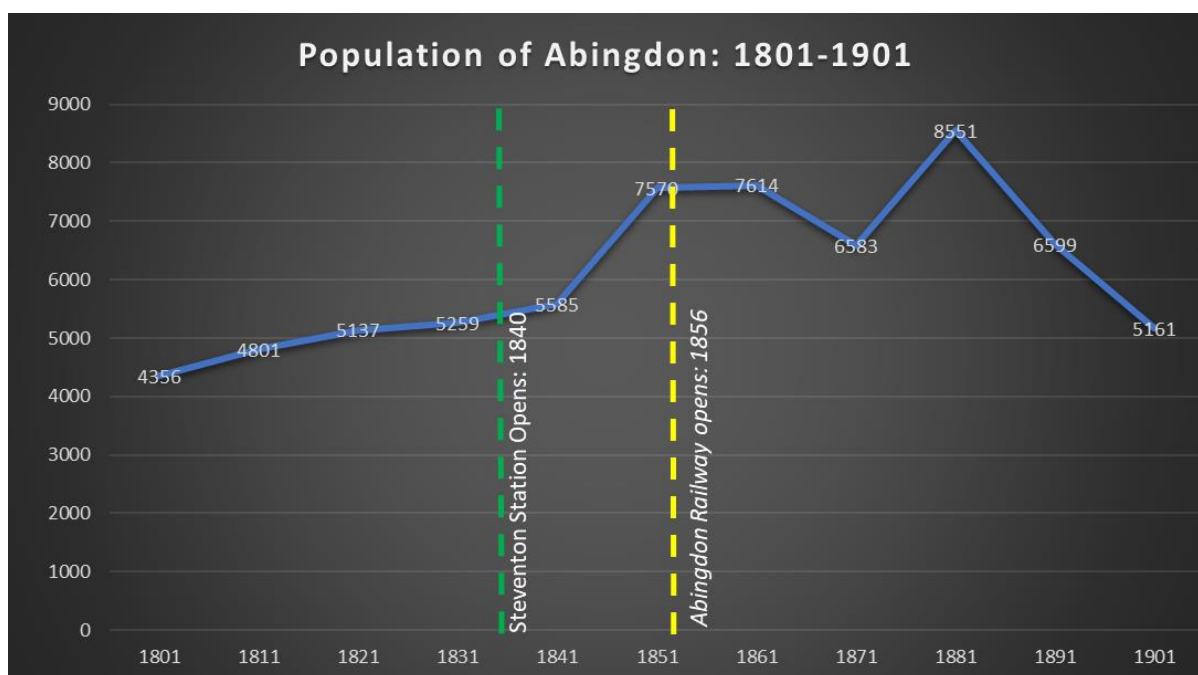


Figure 103: The Population of Abingdon.³⁰

²⁹ Legislation.gov.uk, Representation of the People Act 1867 [Website]
<https://www.legislation.gov.uk/ukpga/Vict/30-31/102/contents/enacted> (accessed 20th November 2022).

³⁰ Histpop.Org, *Census of Great Britain, 1801, Abstract of the answers and returns made pursuant to an Act, passed in the forty-first year of His Majesty King George III. intituled "An act for taking an account of the population of Great Britain, and the increase or diminution thereof". Enumeration. Part I. England and Wales.*

It seems that initially the railways had little impact upon, either the geographical size of the town or its population, other than possibly an indirect influence upon the town due to the proximity of the GWR at Steventon. The opening of the Abingdon branch seems to have been unable to prevent the population decline evident in the census returns. It could be argued therefore that the generalisation related to the railways causing population growth which appear in the historiography may perhaps not be relevant to Abingdon.

Part II. Scotland BPP 1801-02 VI (9) 13 [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&titlepos=2&mno=2&pageseq=23> (Accessed 20th November 2022);

Histpop.Org, *Census of Great Britain, 1811, Abstract of the answers and returns made pursuant to an Act, passed in the fifty-first year of His Majesty King George III. intituled "An act for taking an account of the population of Great Britain, and of the increase or diminution thereof". Preliminary observations. Enumeration abstract BPP 1812 XI (316) 11* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=5&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=44&zoom=5> (Accessed 20th November 2022);

Histpop.Org, *Census of Great Britain, 1821, Abstract of the answers and returns made pursuant to an Act, passed in the first year of the reign of His Majesty King George IV, intituled, "An Act for taking an account of the population of Great Britain, and of the increase or diminution thereof". Preliminary observations. Enumeration abstract. Parish register abstract, 1821 BPP 1822 XV (502) 10* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=7&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=47&zoom=5> (Accessed 20th November 2022); Histpop.org, *Census of Great Britain, 1831, Comparative account of the population of Great Britain in the years 1801, 1811, 1821 and 1831; with the annual value of real property in the year 1815: also, a statement of progress in the inquiry regarding the occupations of families and persons, and the duration of life, as required by the Population Act of 1830. BPP 1831 XVIII (348) 410* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=11&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=412&zoom=4> (Accessed 20th November 2022);

Histpop.org, *Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. c.99 and 4 Vic. c.7 intituled respectively "An act for taking an account of the population of Great Britain," and "An act to amend the acts of the last session for taking an account of the population."* Enumeration Abstract. BPP 1843 XXII (496) 11 [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=17&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=53&zoom=4> (access 20th November 2022); University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022);

Histpop.org, *Census of England and Wales, 1871, Preliminary report, and tables of the population and the houses enumerated in England and Wales, and in the Islands in the British Seas on 3rd April 1871 BPP 1871 LIX [C.381] 9* [Website]

<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Abingdon&simple=yes&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=43&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=43&zoom=4> (accessed 20th November 2022).

The railways may however have had an indirect effect upon the economy of the town, perhaps through the availability of machinery to mechanise work and thus mitigating the decrease seen in the population by removing the manual labour required in brewing and so forth. An inspection of the general economic landscape of the town, as undertaken for the other town case studies in this thesis is needed to indicate if this was the case.

The general economy of the town appears to have been growing until 1850 when the town experienced a decrease in the number of businesses being listed in the commercial directories, followed by a relatively flat stagnant economy. The growth seen in the number of businesses does indicate the optimism and demand for new services and products within the town, which must have been there to support the new businesses that were opening within the town; however, the decrease may not necessarily indicate that the economy of the town was in decline. An analysis of individual sectors is required to establish if the decrease in the data is caused not by a recession in the town but by growth in businesses who were outcompeting and possibly absorbing other businesses as can be seen in the case studies elsewhere the prime exemplars being Huntley and Palmer in Reading, and Plenty and Sons in Newbury. The apparent stagnation after 1864 may also be more nuanced.

The striking trend in the data seems to be that Abingdon had a thriving local economy between 1830 and 1850 despite the town being bypassed by the GWR which suggests that perhaps the railways were not necessarily the only cause of economic growth as may be suggested in some of the historiography.

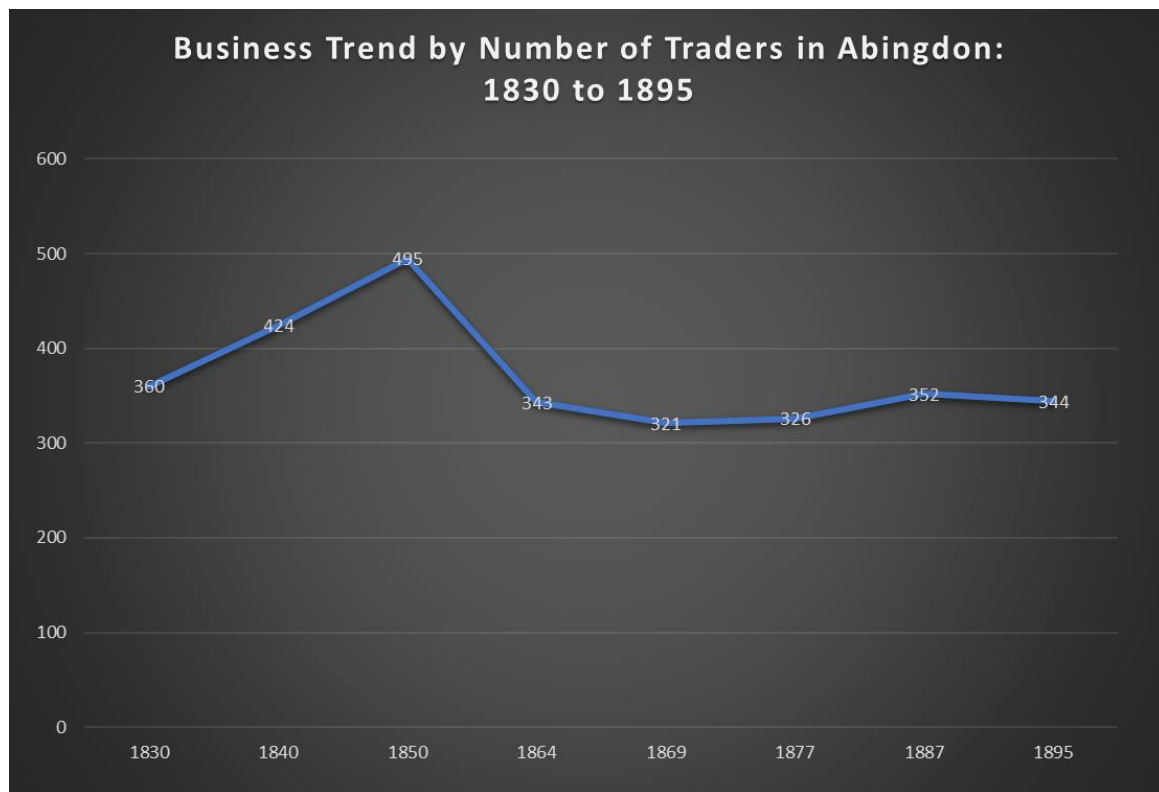


Figure 104: Overall number of businesses in Abingdon between 1830 and 1895.³¹

Services offered locally, such as through the station at Steventon on the Great Western's Bristol line may have been sufficient in the short term. The intriguing trend in the data is the decline which seems to occur around the time of the opening of the Abingdon Railway. The trend needs to be viewed with some caution. The decline in numbers of businesses may have been a genuine decline in some, or all, sectors of Abingdon's commercial landscape. It may, however, have been caused not by decline but by growth, where companies had grown to a large size and had purchased other companies, or through the economy of scale available from mass manufacturing products, have

³¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 2-5; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 23-26; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 4-7; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 582-585; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 625-630; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 525-531; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 10-21; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 13-24.

outcompeted other companies in the town. A detailed review of individual sectors should provide more clarity.

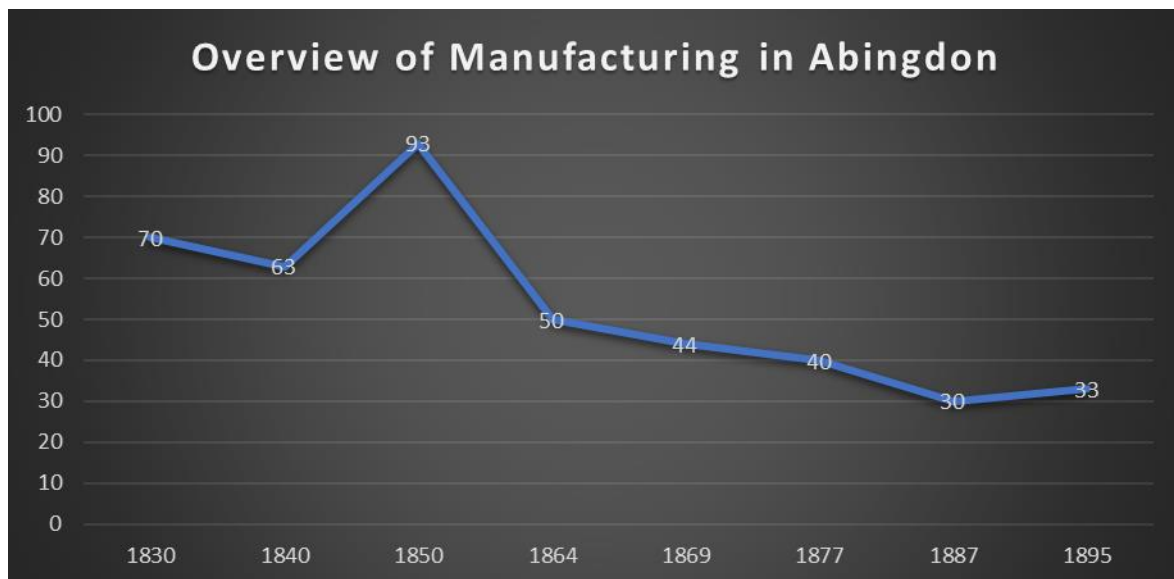


Figure 105: Overview of Manufacturing in Abingdon:1830-1895.³²

An overview of the manufacturing base in Abingdon shows the issues with using generalisations in histories of the economy of towns. The trend that the overview shows for Abingdon, appears to show a town whose manufacturing base was in decline from around the time of the opening of the Abingdon branch until 1887, after which a slow growth seems to be occurring. There are issues with this approach which become clear if a more detailed study is undertaken.

³² Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

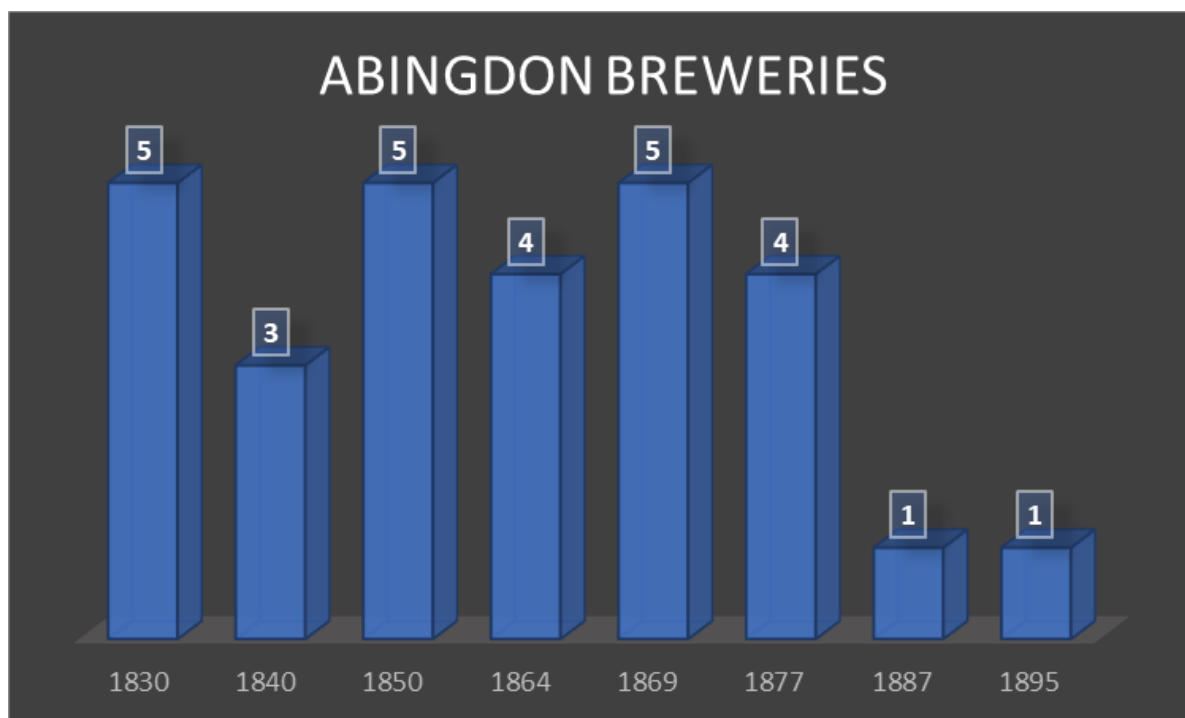


Figure 106: Brewing in Abingdon: 1830-1895.³³

The town of Abingdon had several independent breweries listed in the 1830 edition of Pigot's commercial directory, which remained relatively constant until the latter part of the century when, from 1887 only a single brewery which was listed in the 1887 Kelly's directory as 'Morland & Co., The United Breweries' in Ock Street.³⁴ The name of the company provides a clue for the historian.

The Morland company, originally located at West Ilsley was taken over by Edward Morland in 1854 from his cousin William.³⁵ Edward, like many other brewery owners at the time, saw that the simplest method by which to grow his business was, when affordable, to purchase other local breweries, and often to close them down, in order to gain control of their tied public houses, thus increasing the retail outlets for their beers and thus growing the business. Morland purchased

³³ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

³⁴ Kelly's: 1887, 248-249.

³⁵ University of Leicester Special Collections Online, Historical Directories of England & Wales, *Slater's Directory of Berkshire, 1852*, [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/256697/rec/2>, (Accessed 25th November 2022), 16.

Belcher and Son's Eagle Brewery in Abingdon in February 1861.³⁶ Morland followed up his purchase of the Eagle Brewery by acquiring Spenlove & Carter's Abbey Brewery in Abingdon during 1866.³⁷ The operations of the company were transferred to the Eagle Brewery site under the Morland name by 1876, and the other two sites were closed.³⁸

Whilst the declining trend can be explained by the common practices used within the brewing industry it does not make it clear as to whether the remaining brewery was merely a combination of companies or whether the company was growing. In order to establish the size of the companies over the period of this study, an examination of the census returns for occupations linked to brewing may prove useful.

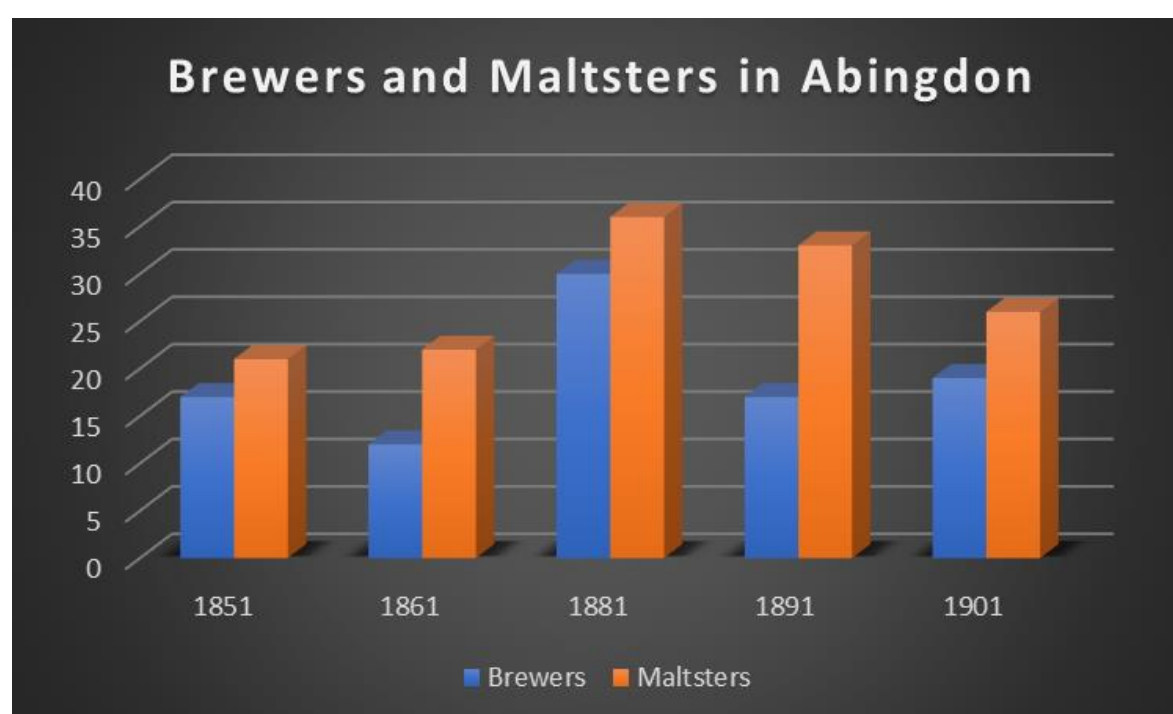


Figure 107: Brewing Occupations in Abingdon: 1851-1901.³⁹

³⁶ Reading, Berkshire Records Office, D/EX2468/7, Unpublished Manuscript and notes. A History of the Morland Brewery, Abingdon, Berkshire. 1711-1999. S.J.Skurray, 1.

³⁷ History of Morland, 1.

³⁸ University of Leicester Special Collections Online, Historical Directories of England & Wales, J.G. Harrod & Co.'s Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, (Accessed 17th August 2022), 356; History of Morland, 2; Morland Brewery, The Story of Old Speckled Hen [Website] <https://www.oldspeckledhen.co.uk/our-history/> (accessed 25th November 2022).

³⁹ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

The number of persons enumerated as Maltsters in the censuses from 1851 onwards could be misleading without comparison with the commercial directories and the maps of the town. The 1883 Ordnance Survey map for Abingdon shows many Malthouses located in and around the town. The 1877 Kelly's Directory, which gives the most relevant set of statistics related to the 1883 Ordnance Survey map which was surveyed in 1875 for Abingdon, lists one as belonging to Morland and the other four to other companies classified as Maltsters. The listing of the Morland brewery under the classification of Maltster as well as Brewers shows that, as in other places, the brewery was producing its own malt for beer production. The continued existence of the other companies suggests that the brewery was unable to produce enough malt in its own facilities and was reliant on these third parties for provision of supplies of this essential ingredient.

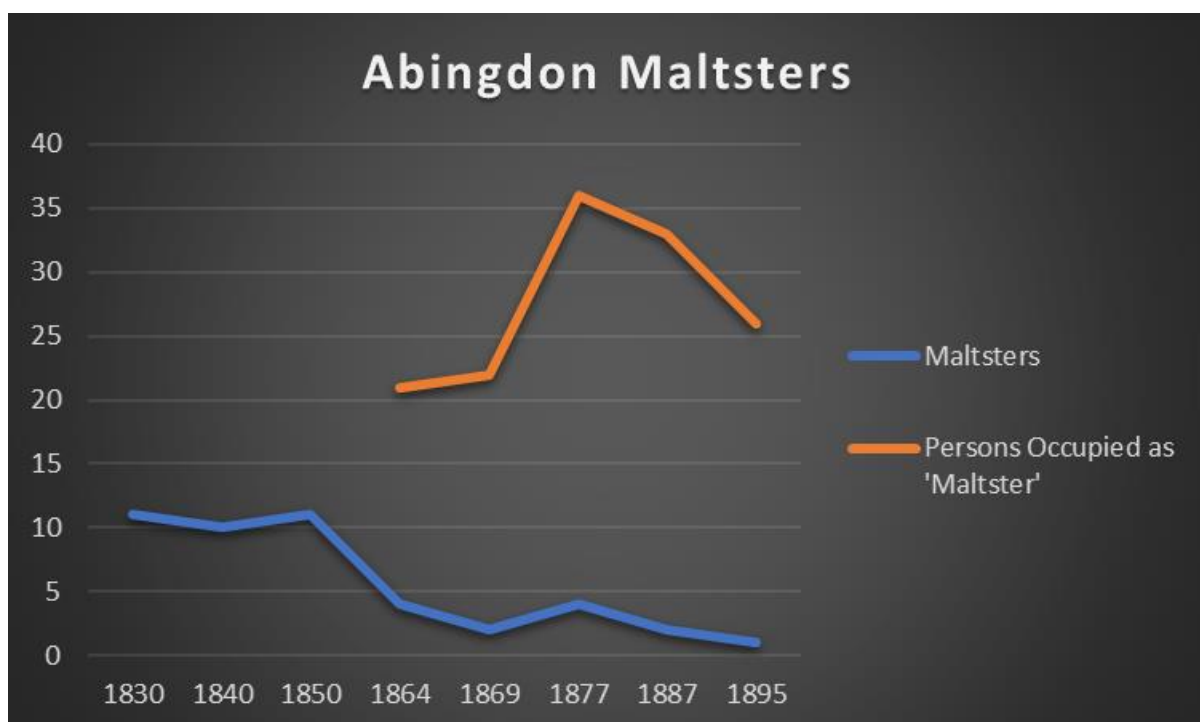


Figure 109: Comparison of the number of Malt Producing companies and Persons Occupied.⁴²

The number of persons listed as working as maltsters in the censuses between 1851 and 1901 is clearly spread across these companies listed in the directories. The number of businesses can be

⁴² Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24; Integrated Census Microdata.

seen to be slowly declining other than a peak in 1877 which matches a peak in the employment statistics. The companies were employing a steadily increasing average number of people per business over the last half of the century. In 1851 an average of just over four persons were employed in the sector, five and a half in 1869 rising to twenty-six working in the sole remaining business in 1895.⁴³

The 1899 Kelly's directory lists a higher number of businesses involved in the production of malt.⁴⁴ One of these particularly shows how these companies, and companies involved in brewing generally, were making use of the freight services offered by the railway companies, and in the case of Abingdon how important the 'miserable little Abingdon branch' had become to those companies using it.

⁴³ Slater's: 1850, 4-7; Kelly's: 1864; 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24; Integrated Census Microdata.

⁴⁴ Kelly's, 1895, 259.

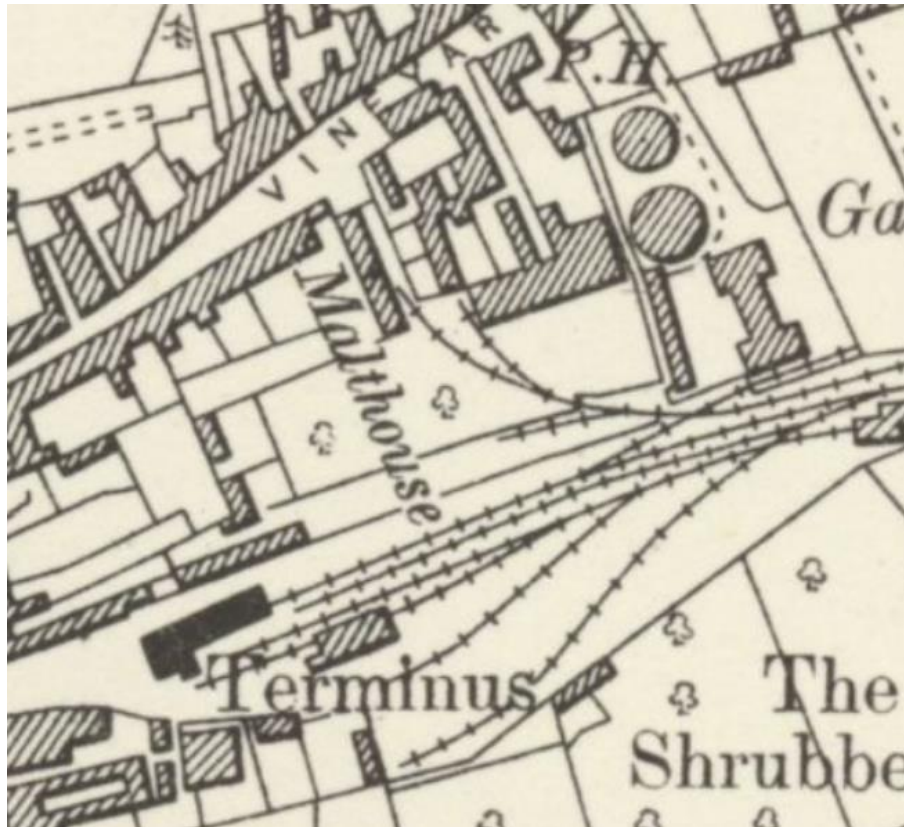


Figure 110: Abingdon Station Area: 1900.⁴⁵

The 1883 Ordnance Survey map of Abingdon shows the railway terminus and a malthouse immediately adjacent to the north of the railway facilities at number forty-seven Vineyard (see figure 79). The next edition of the Ordnance Survey in 1900 (surveyed in 1898) shows that the malthouses had become directly rail linked with their own sidings. The rail facilities in the malthouses indicate that the company was using the railway to transport large quantities of coal and barley needed for its business processes. The company occupying those premises is particularly indicative of a change in business practice. The company occupying number forty-seven Vineyard according to the 1899 directory was Thomas William & Co. whose listing states that their head office was in Wolverhampton.⁴⁶ The railways were clearly being used by this company to serve its facilities away from its Wolverhampton headquarters. This example shows how a company was using the

⁴⁵ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Oxfordshire Sheet XLV.NW, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/101458077>, (accessed 6th November 2021).

⁴⁶ Kelly's, 1899, 259.

railway to its advantage and in turn was having an economic impact on the place in which it was operating. The railway was unlikely to directly be causing economic change in this case, but was facilitating change being caused by a locally operating company.

The decline in the number of breweries in Abingdon can be clearly explained by the way in which the industry functioned in the nineteenth century. It is common to see the amalgamation of breweries through mergers and acquisitions, particularly in the latter case by larger breweries with the financial ability to do so. The acquisition and closure of breweries was most often undertaken in order to acquire the public houses and inns which were tied to the brewery acquired in order to increase the retail outlets for the larger breweries products. The changes observed in the data for the brewing industry in Abingdon can be purely explained by this and not directly by the railways. In the longer-term railways were both useful to the breweries in supplying a wider area with their products, and an indirect threat due to offering the same services to competitors further afield in brewing centres such as Burton in Derbyshire and Tadcaster in Yorkshire.

The case of brewing in Abingdon illustrates both the dangers of a generalisation in conclusions that might be used in economic history and the unreliability of using a single set of statistical data in research. Comparison of more than one source, such as the combination of censuses, maps and commercial directories used here provide a much more balanced set of data upon which to base historical conclusions.

The coal used by the breweries must have been brought into Abingdon as there is no coal present in the geology of Berkshire. The large amounts of coal required by the brewing and malting process would have required long distance transport from the coal fields elsewhere in Britain. Whilst the breweries would most likely have been relying on locally sourced wood as a fuel prior to the nineteenth century, the main source of fuel for brewing and malting would have been coal by the timescale covered by this study.

The only viable and cost-effective method of transporting large quantities of coal from 1830 onwards would have been the canal network, from which Abingdon had benefitted from its location as a canal and river junction prior to the advent of the railways. As has already been discussed in chapter four the county of Berkshire was well served by canals and the services offered by the barge companies working on them. Coals from the Forest of Dean, and Somerset would have been readily available via the Thames and Severn Canal, Berks and Wilts Canal and the Thames Navigation prior to the creation of the railway network. It was not possible to use coals from Newcastle as the transport of coal from the North East had been prohibited by the Acts creating the canals.

The number of coal merchants operating within Abingdon is indicative of the volume of coal required by local businesses as well as for domestic use, although the small size of Abingdon suggests that most of the coal brought into the town was most likely to have been purchased for commercial use.

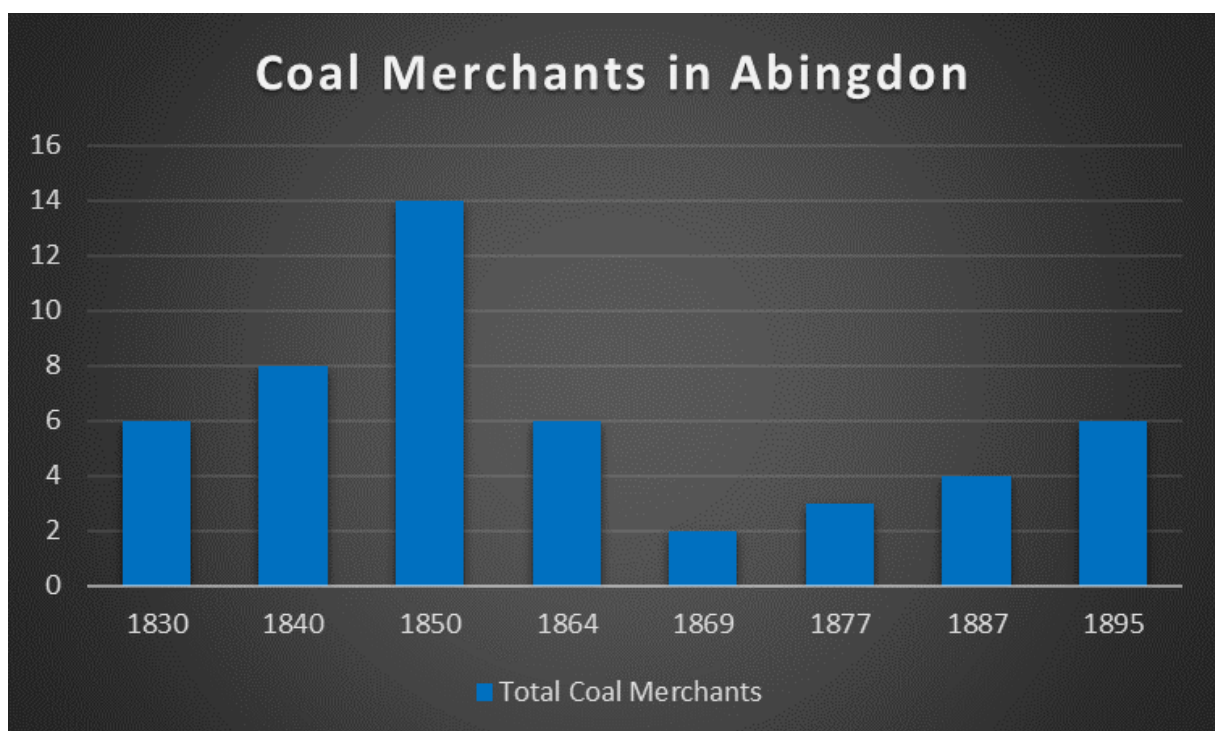


Figure 111: Coal Merchants trading in Abingdon: 1830-1895.⁴⁷

⁴⁷ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

The number of merchants appears to indicate a greater requirement for coal with an increased demand supporting the businesses of more merchants.

The majority of the eight coal merchants present in the town in 1840 and the fourteen trading in 1850 were based in East St. Helen's Street and West St. Helen's Street which led to the quays on the river. One merchant, Davis Gabriel, had their own wharf on the river.⁴⁸ This suggests that the coal was being transported to the town through the services offered by the carriers and bargemasters operating on those waterways.

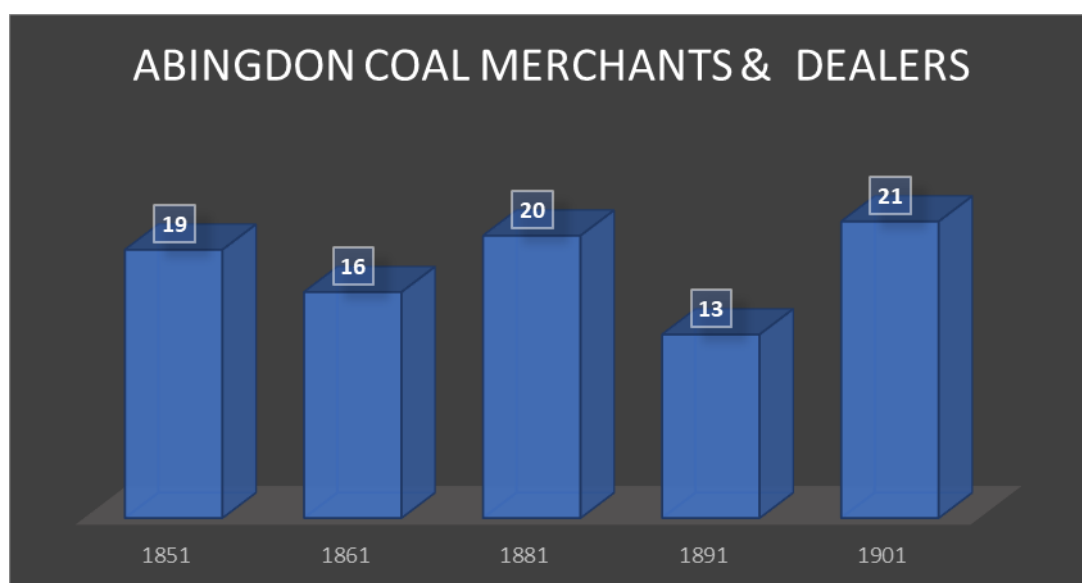


Figure 112: Persons enumerated in the Census as 'Coal Merchants' in the Census Returns.⁴⁹

The evidence for the use of the canals to supply the fuel needed by industrial concerns, many of whom may also have been introducing steam power into their facilities, provides a compelling argument that, in Abingdon, some degree of mechanisation and modernisation of their plants was being undertaken to support company growth before the arrival of the railway in the town. Growth may already have begun long before the GWR planned its route across Berkshire to Bristol and later north to Oxford from Didcot. It is unlikely, however, that the canals were purely responsible for the

⁴⁸ Reading, Reading Central Library Local History Collection, Pigot's Directory of Berkshire & Buckinghamshire, 1844, 4; National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Oxfordshire Sheet XLV.NW, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/101458077>, (accessed 6th November 2021).

⁴⁹ Integrated Census Microdata.

expansion of business in the town. much as the railways were later, the canals were an important vector supporting change early in the period, but not directly causing it. The position of Abingdon on the canal network and the growth which seems to have been occurring in the commercial element of the town's economy, may to some extent explain the negative attitude exhibited by the leading figures in the town towards the railways during the early part of the century.

The decline in the number of coal merchants listed in the directories after 1850 can be explained by reference to the employment statistics in the census returns between 1851 and 1901. Whilst the number of companies reduced dramatically in 1864 and 1869, the average number of people employed as coal merchants steadily growing as the second half of the nineteenth century progressed. The employment of coal merchants steadily increased from one and one third per company on average to three and one half by the end of the century. This suggests that the merchant's companies were growing and able to supply the fuel needs of the town despite being fewer in number, although employing more people.⁵⁰

The commercial directories provide a useful piece of evidence as to how the evolution of the coal merchant's businesses may have been occurring. The merchant E.S. & J Copeland was listed in the 1876 directory as having coal depots at Abingdon, Didcot, and Steventon, all which were located at the railway station.⁵¹ Ebenezer Copeland, coal, and iron merchant, was listed as one of the merchants located in East St. Helen's Street in Kelly's 1844 directory, but only located in Abingdon.⁵² The evidence points firmly in the direction of a change in transport partner for Copeland and others. The move away from the canal wharves to the railway station clearly shows that the company was using the services of the GWR to bring its coal into Abingdon. The case of Copeland's company's advertisement of the depots at the stations in Didcot and Steventon, and the maltsters already mentioned above, provides good examples of how companies were becoming multi-site businesses

⁵⁰ Integrated Census Microdata; Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

⁵¹ Harrods Directory, 1876, 854.

⁵² Kelly's, 1844, 1967.

located over a wider area. The geographical diversification of businesses was no doubt made possible by the services offered by the railway companies, but the actual diversification and resulting growth was caused by enlightened management of the businesses concerned not directly by the railways.

Abingdon's other main manufacturing sector was based upon the creation of rope, sacking and associated products. In the early part of the nineteenth century the sector was flourishing. As can be seen in many sectors the manufacturing of rope and sack cloth in Abingdon saw a degree of amalgamation in the town. The sector appeared to have otherwise been relatively stable, employing many people in the various factories.

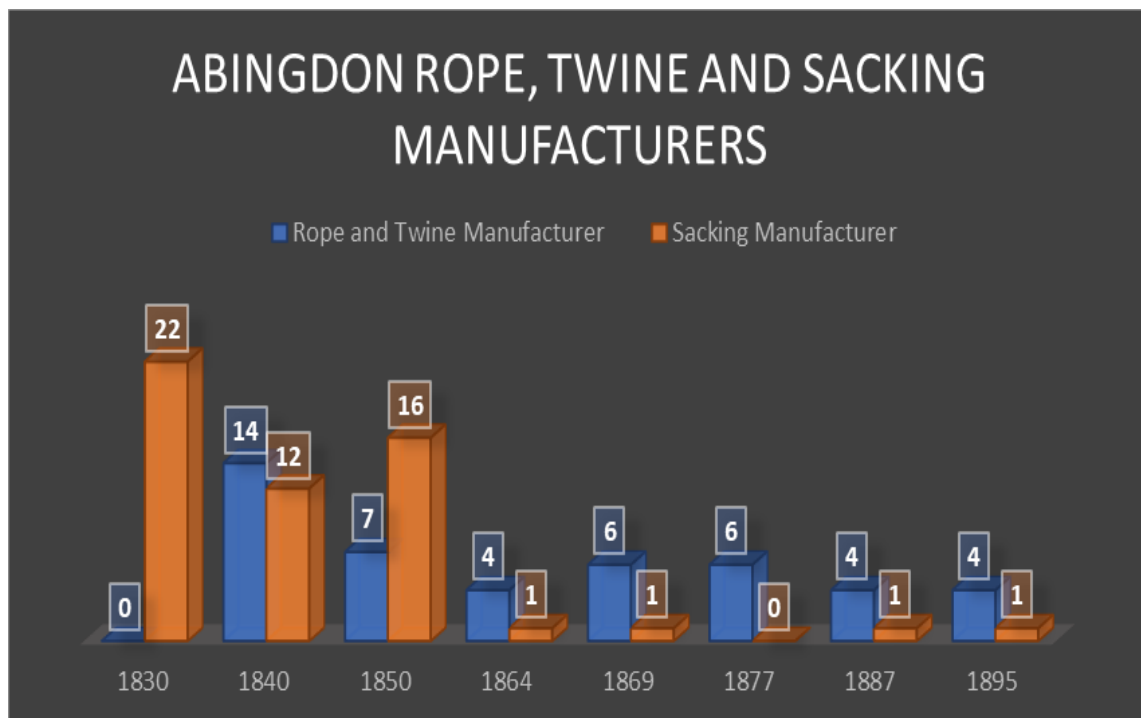


Figure 113: Abingdon Rope, Twine and Sacking Manufacture: 1831-1895.⁵³

⁵³ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

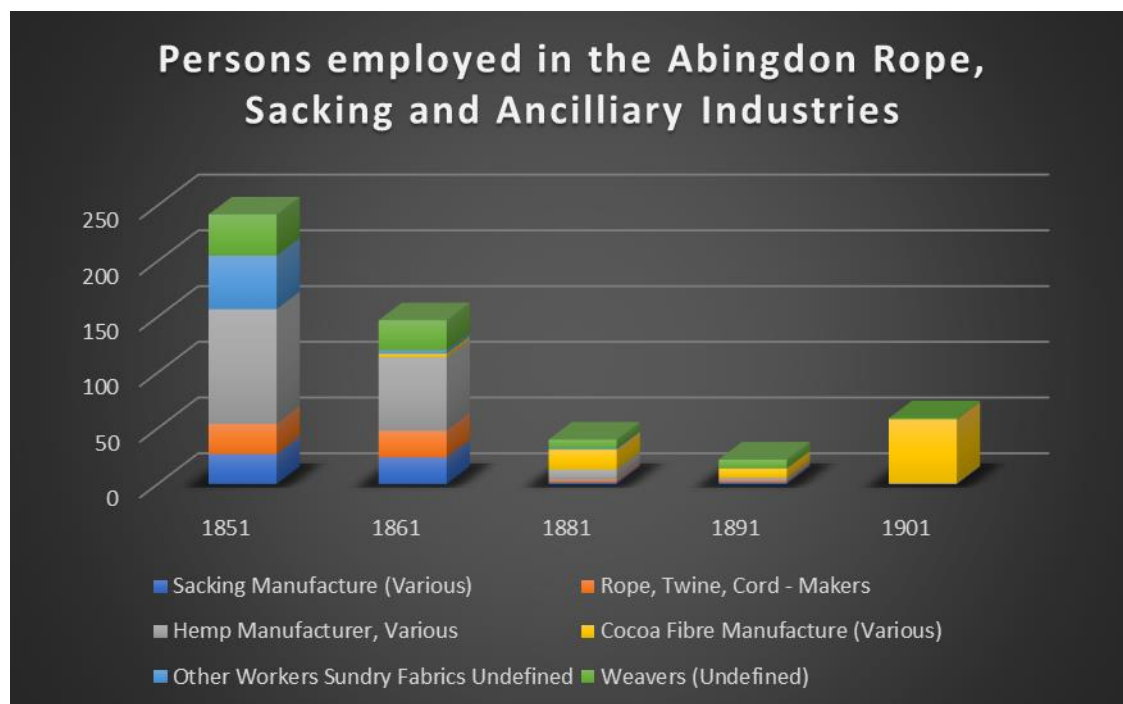


Figure 114: Abingdon Rope and Sack Cloth Makers.⁵⁴

The production of rope and finished sacking reduced to a very small amount after 1861, the only remnants of the industry being the production of cocoa fibre from coconut husks. The number of companies reduced to a very small number, employing a decreasing number of people. It seems that the opening of the railway to Abingdon had a detrimental impact upon this element of Abingdon's economy. It is likely that the services offered by the railway and the methods of transport in covered railway vans may have removed the need for sacking or allowed for the import of sacking from elsewhere where larger factories were able to produce the product more cheaply.

The products brought into the town by rail that did arrive in sacks were possibly delivered in a better condition than previously possible by road or canal and left a stock of good quality sacking that could be reused. A trend toward hiring sacking from a rental company that began to be seen in the mid-nineteenth century is highly likely to have had an adverse affect upon the Abingdon manufacturers as less new sacks were required due to the more common reuse of those already in

⁵⁴ Integrated Census Microdata.

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Figure 115: Advertisement For A.G.Emmerson of High Wycombe.⁵⁵

A sector which appears to have been impacted negatively by the opening of the Abingdon Railway was shoemaking. Abingdon had a small number of artisan cobblers throughout the period of this study but did not have the shoe making factories seen in Reading in the earlier part of the century. The number of companies remained relatively consistent throughout with only small fluctuations which may be expected through the retirement of owners of cobblers shops or through people moving away to other parts of the county or further afield.

⁵⁵ Kelly's, 1887, County Advertisements Section, 33.

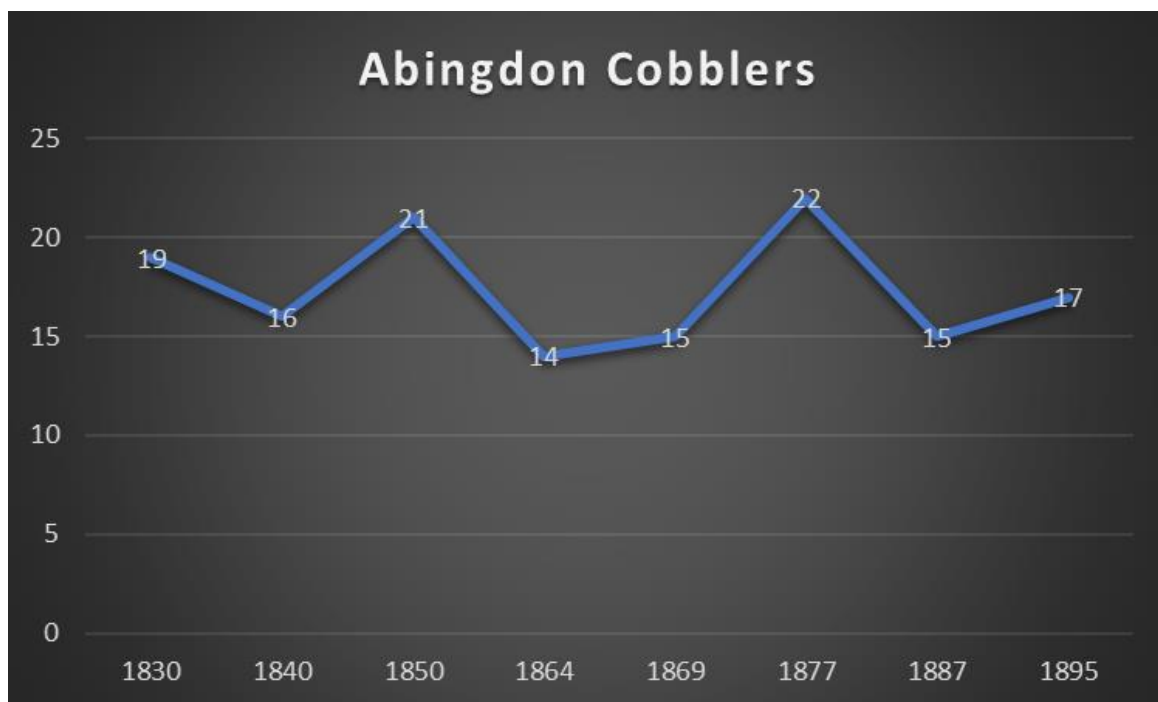


Figure 116: Artisan Shoemakers and Repairers: 1830-1895.⁵⁶

The number of people employed in these businesses seems to reflect that the services of a cobbler were becoming less used by the population of the town after 1850. The twenty-one businesses listed in the Abingdon sections of the commercial directories for 1850 employed one hundred and eighty-three people according to the census returns for the following year, an average of nearly nine persons per business. In 1895, seventeen businesses were listed, with employment figures of only sixty-six and forty-seven in the 1891 and 1901 censuses. The dramatic reduction in employment offered by the cobblers shops indicates that their services were not as much in demand and that the work available from their customers was much less, resulting in the need to employ less staff on average.

⁵⁶ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

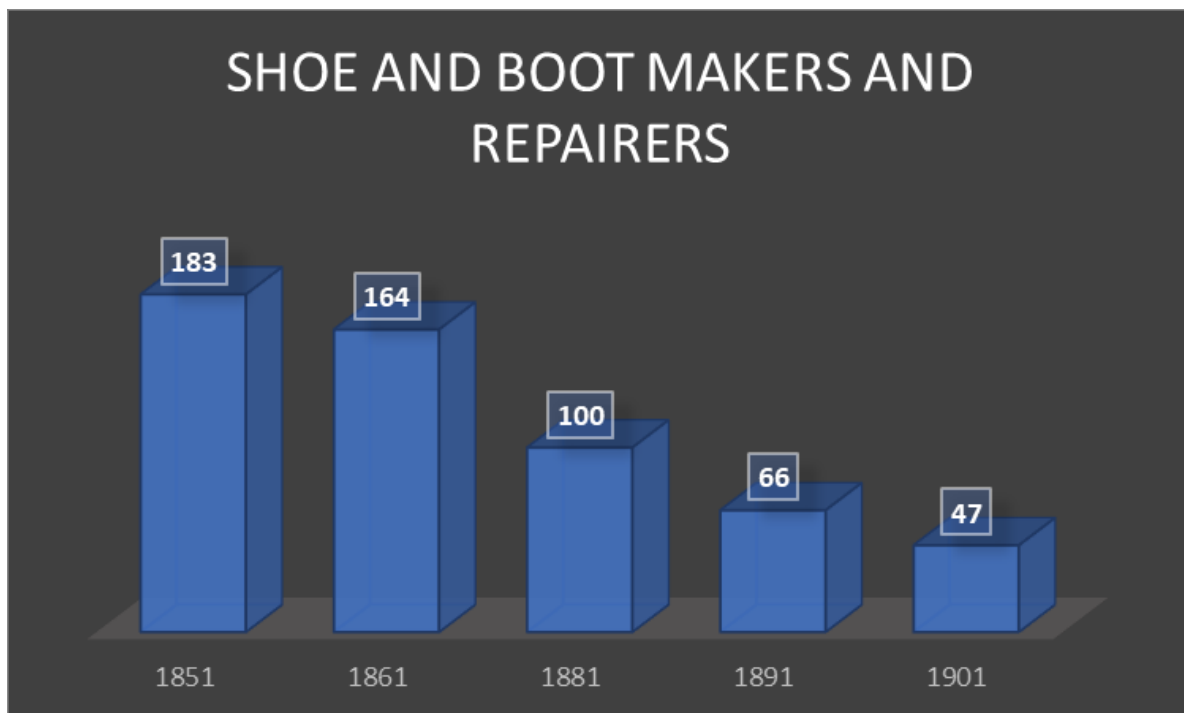


Figure 117: Persons employed in artisan shoe making and repairs.⁵⁷

It is likely that the issue for the businesses was caused by the availability of cheap mass-produced footwear from the large factories in Northamptonshire brought into the town on the railway after the branch had opened. The same pattern can be seen throughout this study, manifesting after the opening of the GWR's line to Oxford and on to Birmingham and its links to the Northamptonshire manufacturing areas. In this sector it seems that the railways were not responsible for economic growth in Abingdon, instead having a part to play in the decline of the sector even if indirectly.

Abingdon had another manufacturing sector, which unlike their colleagues in Reading, saw a decline after the opening of the local railway. Millinery and Dressmaking seemed to have been buoyant up until the 1860s in Abingdon. Many businesses appeared to be a combination of hat and dressmaking being listed as such in the commercial directories, no business being listed as specialising purely in hat making.

The first instance of businesses specialising purely in dressmaking can be found in the 1860s directories although they had disappeared in 1869, only to reappear again in 1877. The number of

⁵⁷ Integrated Census Microdata.

businesses focused solely upon dressmaking increased dramatically in 1887, experiencing a very small dip in 1895, which may have been caused by consolidation of businesses rather than any external factors caused by the railway. The number of millinery and dressmaking businesses declines hugely after 1864.

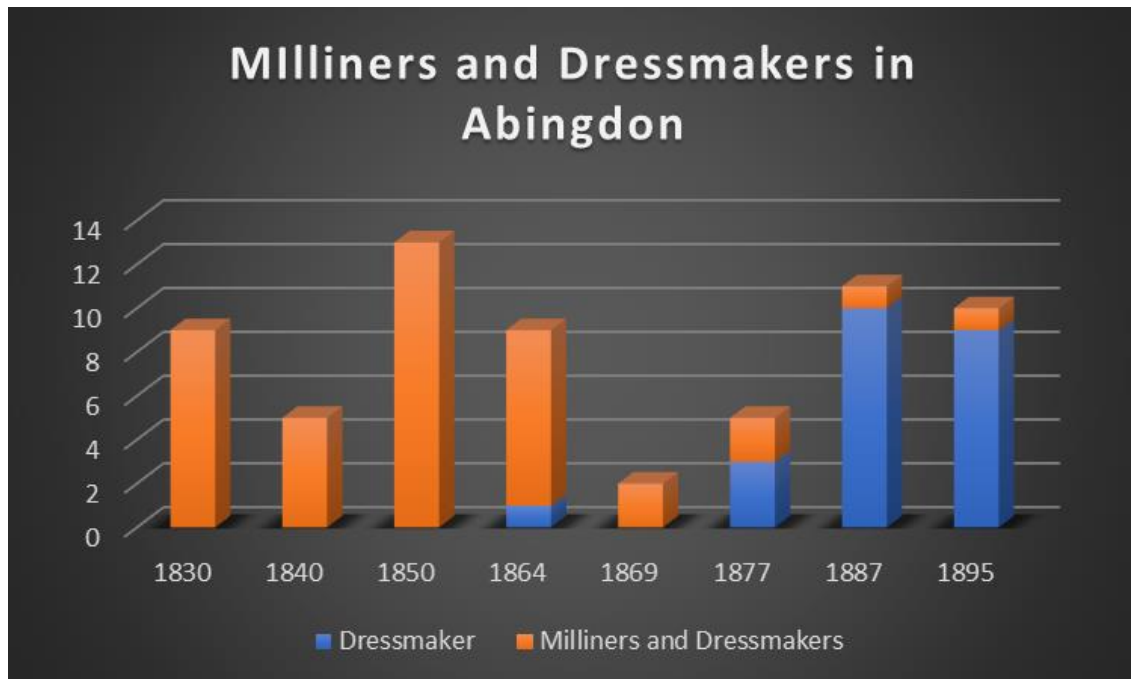


Figure 118: Abingdon Milliners and Dressmaking Businesses: 1830-1895.⁵⁸

It appears from the directories that some businesses stopped dealing in headwear and focused only on dressmaking. The number of milliners enumerated in the census returns remained small throughout the second half of the century when the detailed analysis of the trades making up the census grouping of 'Persons Working and Dealing in Dress' became available. The number of persons listed as being employed as 'dressmakers' was far in excess of those listed as 'milliners (not retail) – Workshop/Factory' which suggests that the manufacture of hats was a much smaller part of the product range provided by those companies. The statistics for the number of businesses in the first part of the century was clearly skewed by the classifications used both in the directories and by the way the business owners wished to be classified. This shows, once again, how generalisations can

⁵⁸ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

give an inaccurate perception of the state of a local economy during the Victorian period, which can be mitigated by the more detailed statistics available from the censuses later in the century.



Figure 119: Comparison of Census returns for Dressmakers and Milliners in Abingdon: 1851-1901.⁵⁹

A comparison of the two trades shows how the businesses changed in the middle of the nineteenth century as more dressmakers became employed until 1861, but thereafter even with specialisation purely upon dressmaking, the number of people employed in dressmaking reduced steadily. The statistics suggest that the businesses split, the small number of milliners specialising upon hat making with a small offering in dressmaking (possibly repairs and adjustments rather than new manufacture), with most people listed working in dress factories in Abingdon. The statistics show that these latter companies whilst increasing in number, were on average becoming smaller concerns; the ninety-three people listed in the 1891 census being compared to nine businesses listed in the directories in 1895.

The decline in size suggests that some other service had replaced the products provided by the millinery and dressmaking businesses trading early in the period of this study. A degree of

⁵⁹ Integrated Census Microdata.

correlation can be seen with the beginning of the decline in the sector with the opening of the Abingdon branch line. It thus seems likely that, as can be seen in the case of shoemaking in Abingdon, that the manufacture of women's clothing was replaced by the availability of off-the-peg clothing manufactured in large factories elsewhere and imported into the town by rail, to be sold in a retail environment.

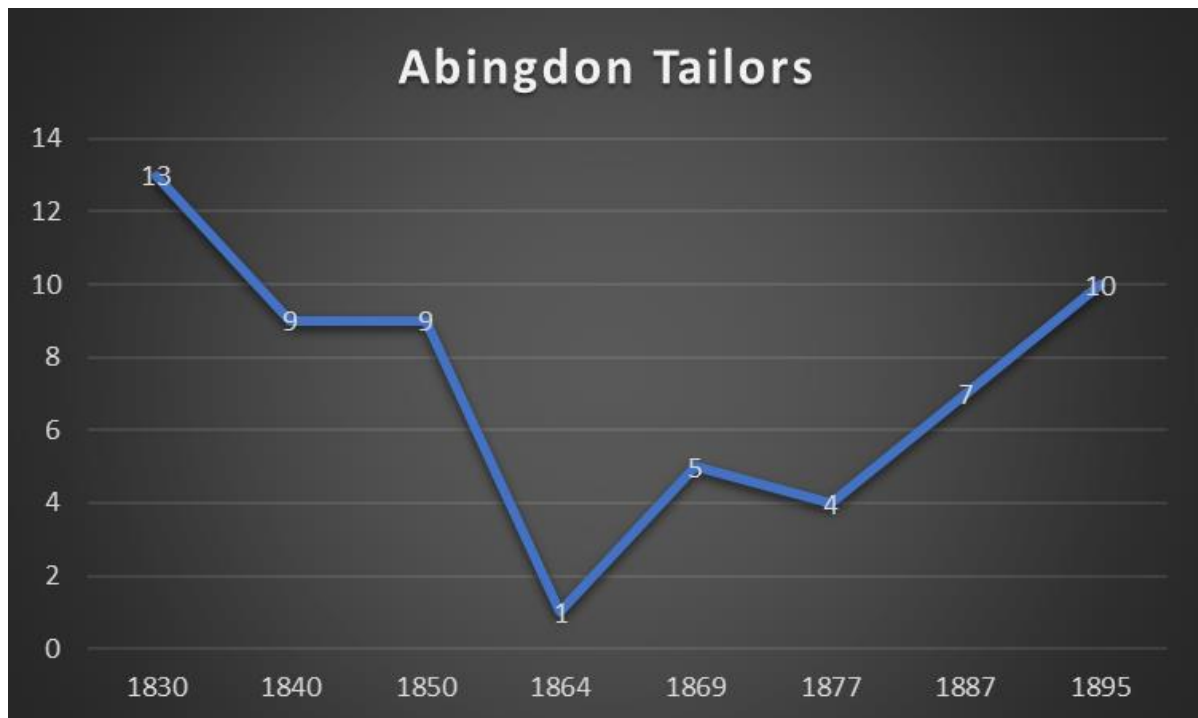


Figure 120: Number of Men's Tailors in Abingdon: 1830-1895.⁶⁰

The number of tailors and people working in shirt making and as tailors makes a useful comparison to that of the situation within the womenswear trade during the nineteenth century. The trend was very similar to that seen in millinery and dressmaking. Men's tailoring appears to be in decline until 1864, although unlike millinery and dressmaking there was a period of stability between 1840 and 1850, but this was followed by a dramatic collapse to just a single business. The trend after 1850 mirrors that for dressmaking alone, with a period of increasing numbers of businesses being created over the last two decades of the period.

⁶⁰ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

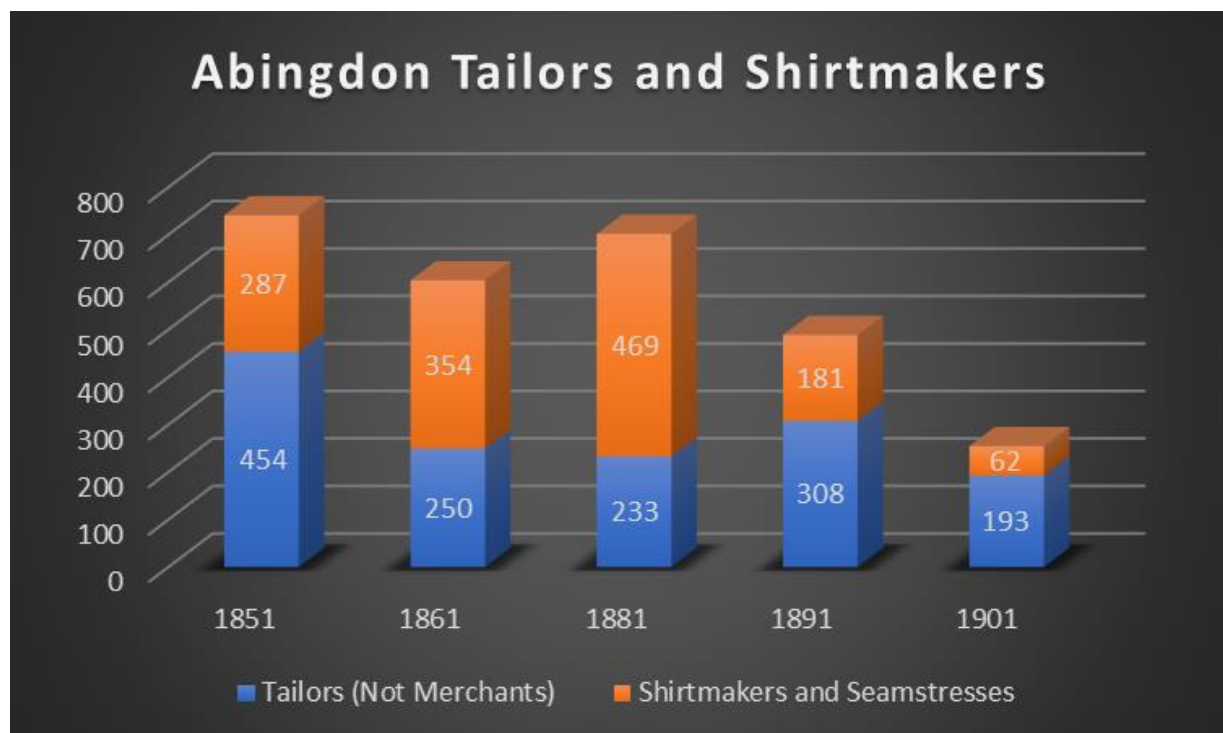


Figure 121: Persons Enumerated in the Census Returns as Tailors or Shirtmakers.⁶¹

In the case of gentlemen's tailoring, it seems that a similar trend had occurred. The number of both tailors and shirtmakers had, like the number of dressmakers, declined during the last three decades of the nineteenth century. The decline suggests that the companies involved in men's clothing were decreasing in size and that less manufacturing of clothing was needed to support them.

The arrival of the railway in Abingdon impacted companies involved in both men's and women's clothing through the availability of cheaper mass-produced ready-made clothes. The increasing number of companies with a reciprocal decrease in the number of people employed therein also supports this supposition. The clothing sector in Abingdon was evolving from one based upon local manufacture, possibly made to measure, to a more retail focused group of businesses providing ready-made clothing imported into the town from the major manufacturers in the east midlands and the fashion houses of London and Paris.

⁶¹ Pigot: 1830, 2-5; Robson's: 1840, 23-26; Slater's: 1850, 4-7; Kelly's: 1864, 582-585; Kelly's: 1869, 625-630; Kelly's: 1877, 525-531; Kelly's: 1887, 10-21; Kelly's: 1895, 13-24.

The railways, whilst clearly not directly impacting upon the trade, were certainly an important vector of change amongst other vectors such as the importance of mass manufacturing and the creation of ‘fashion’ by the new magazines and so forth. The GWR alone cannot have been purely responsible for this change given that the company was not involved in the manufacture of clothing, but as a transport partner for the major manufacturers, the railway was one part of the equation which influenced change.

The service sector in Abingdon focused mainly upon the legal professions and banking. The number of solicitors practices being relatively high (fig.103) although on average each practice consisted on average of a single solicitor and a law clerk with the occasional addition of a barrister to the firm’s legal staff.

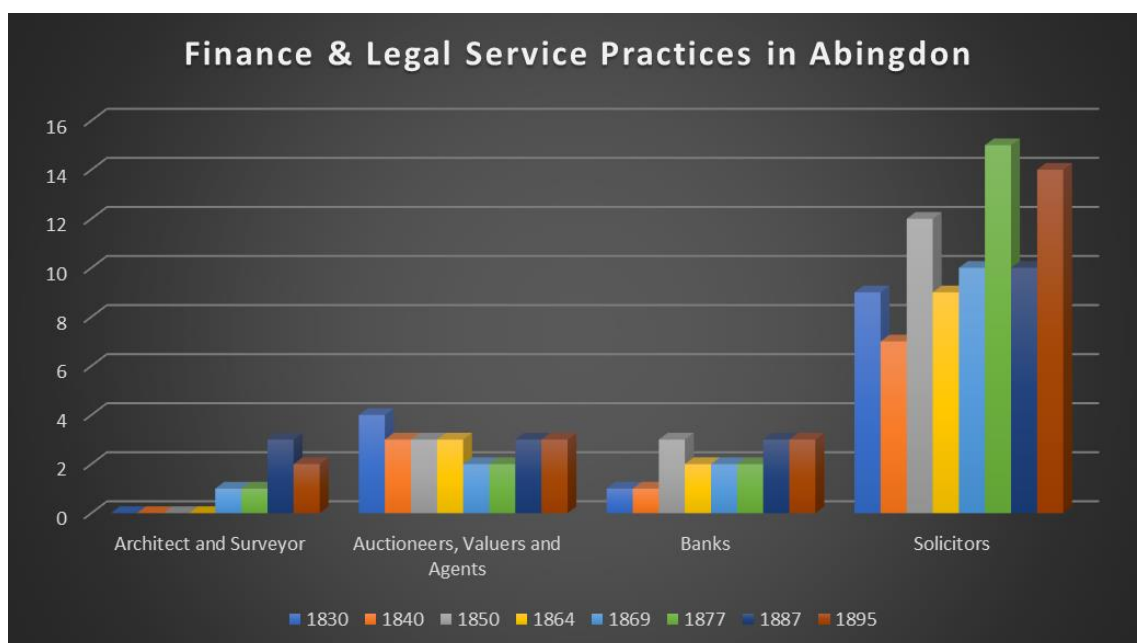


Figure 122: Businesses engaged in Finance or Legal Services in Abingdon: 1830-1895.⁶²

Despite the small nature of each practice, there was plenty of legal work to support a relatively large number of practices. The number of legal practices and the practitioners working within them fluctuated considerably over the course of the century, although the trend for the century was one

⁶² Pigot: 1830, 2-5; Robson’s: 1840, 23-26; Slater’s: 1850, 4-7; Kelly’s: 1864, 582-585; Kelly’s: 1869, 625-630; Kelly’s: 1877, 525-531; Kelly’s: 1887, 10-21; Kelly’s: 1895, 13-24.

of growth overall. The number of legal professionals working in Abingdon exhibited, as might be expected, a trend broadly similar to that of the business numbers, although the number of clerks grew more rapidly and consistently than the number of fully qualified solicitors and barristers. The railway was unlikely to have had any direct impact upon the number of persons enumerated in the census returns as working in law, and especially the number of law clerks.

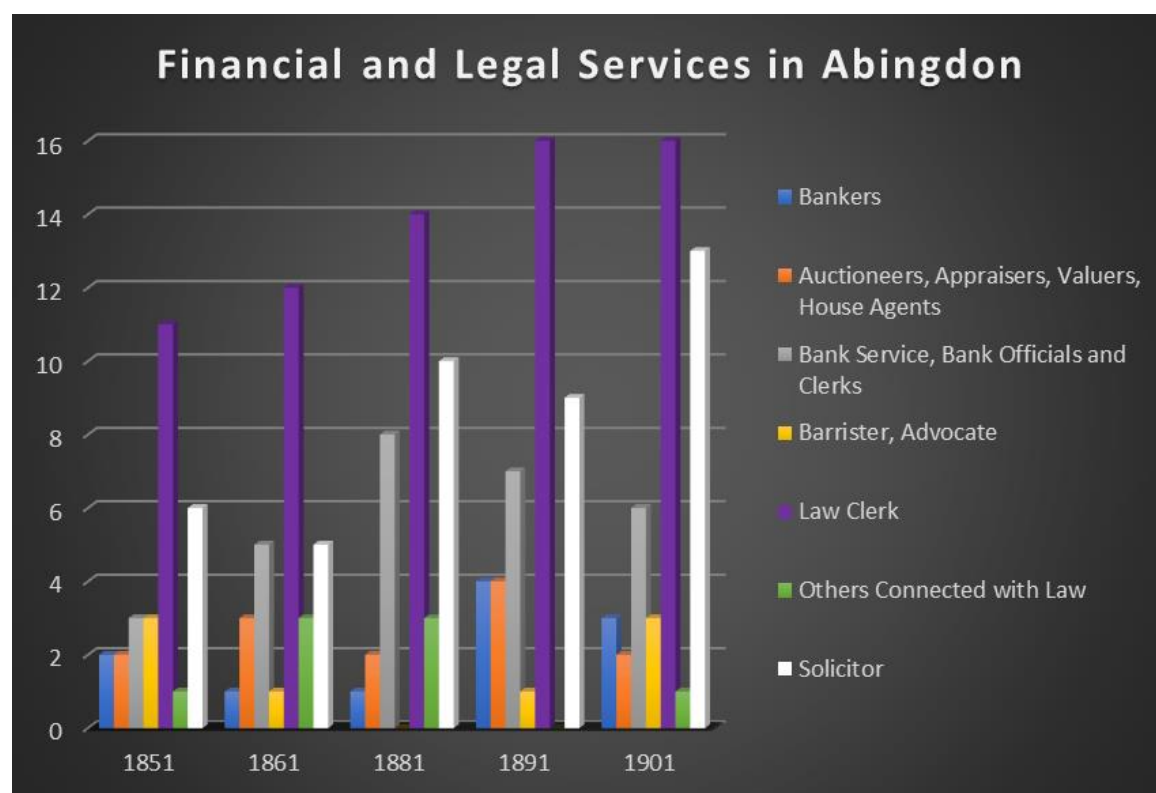


Figure 123: Financial and Legal Professions in Abingdon: 1830-1895.⁶³

It appears that it is more likely that the increase in law clerks was due to changes in the qualification requirements of the profession. The Law Society was formed to regulate and certify the legal profession, receiving its Royal Charter in 1845.⁶⁴ The formation of an institution which licenced and regulated the practitioners of the profession to which it related was becoming increasingly common during the nineteenth century as 'professionals' sought to be recognised for excellence in their chosen undertaking. The institute of mechanical engineers (1847), and The Royal College of

⁶³ Integrated Census Microdata

⁶⁴ The Law Society, About Us, Governance [Website] <https://www.lawsociety.org.uk/about-us/our-governance/>, (Accessed 27th November 2022).

Surgeons of England (receiving its Royal Charter in 1843) were among the many institutions formed at that time for the purpose of professionalising, licencing, and regulating the practitioners of the craft. The movement towards the licencing of these practitioners is most likely to be the cause of the increase in the number of legal clerks observed in the statistics.

The case of the legal professions in Abingdon shows that external factors were very important in the changes to the local economy of a place, and that these need to be included in studies of economic change and the impact of railways upon them. In this case the changes within the legal profession that were occurring from the late 1840s were responsible for the growth in one element of the employment provided by legal practices, and that the railways were not involved in that change at all.

Despite the variability of business trends across the economy of Abingdon which has been illustrated clearly by the evidence, there is also evidence that there was growth within Abingdon's economy. The traffic requirements of those companies which were growing can be seen indirectly within the accounts of the Abingdon Railway Company. In the company's accounts for the half year ending on the 30th June 1880, the railway stated in its capital account that six hundred and forty pounds had been spent 'on additional sidings and works...' at Abingdon station.⁶⁵ The expenditure on new sidings shows that the demand for freight services through Abingdon station and onwards to the GWR along the Abingdon Railway's branch had increased. The railway appears to have been responding to expansion in at least some of the companies in Abingdon, suggesting that the local economy was causing railway growth. The evidence for the impact upon the railway of growth in the local economy shows how nuanced the relationship between train and factory can be. This suggests that perhaps the historiography should be added to through new studies which examine how a local economy may have caused railway growth at times rather than vice-versa. The relationship between

⁶⁵ Reading, Berkshire Records Office, D/EX7/2/1, Abingdon Railway Company: Statement of Accounts to 30th June 1882; 11th September 1880.

railway and local economy appears to be as complex in smaller towns such as Abingdon as it can be in larger places like Reading or the major cities such as Leeds.

Conclusions

The town of Abingdon provides a useful example of the type of town which is not often considered in studies of the impact of railways upon the British economy during the nineteenth century. It provides the case of a town which chose to be bypassed by the railways due to its own scepticism about railways and what they brought. One which was bypassed and which then attempted to pressure a railway company into providing the services to which it would have originally been provided ultimately only achieving connection to the national network by a short branch line with a less frequent service than perhaps it may have had otherwise.

Abingdon shows how some sectors were not impacted at all by the advent of the railways, but by business practices within that industry such as may be observed in the history of Abingdon's brewing industry and its ancillary services. Other sectors were impacted, and to a great degree, by the advent of the railway. The switch of coal traffic from river and canal to rail would have been disastrous to the water borne carriers whose business would be eroded away by the faster and more convenient railway services.

The shoe and clothing manufacturers of Abingdon seem to have experienced the impact of the railways in much the same way as their colleagues in the other case study towns examined. The availability of cheap, mass-produced goods from elsewhere in Britain, and overseas had a negative impact upon employment in those sectors, but not necessarily in the numbers of businesses.

Abingdon shows that, as for the other towns examined in this study, the situation was very complex and highly nuanced. Different sectors were impacted in different ways, and often individual businesses were impacted differently depending upon the vision of their owners and management regarding opportunity offered by the services provided by the railway companies.

The companies that took advantage of the railways seem to have thrived whereas others appear to have suffered contraction.

The railways in Abingdon, as for other places, cannot be said to have caused economic growth in the town. The situation was more complex with different impacts being felt in different sectors of Abingdon's economy, but nevertheless, the railways cannot be said to have 'caused' any of these impacts directly, but as one element of the prevailing winds of change which blew throughout the nineteenth century. The advent of the railways, professionalisation of medicine, science, banking, legal practice and so on, and the development in business practices (such as the acquisitive expansionism of the larger, cash rich, breweries) all came together to cause a much more nuanced change in the economy of the town. Whilst the railway did not cause 'economic growth', there is evidence which suggests that the local economy caused railway growth.

Chapter 12: Wallingford Case Study

Wallingford is located fifteen miles north-west of Reading in the north-western end of the county of Berkshire. The town was located within the county of Berkshire until the rearrangement of county boundaries under the provisions of the Local Government Act of 1972, when the town was absorbed into the county of Oxfordshire.¹ As a town located in Berkshire in the period being reviewed in this study, the town is relevant to the thesis.

Wallingford is a useful addition to the study due to its location on the railway network, which provides evidence of the potential impact of different types of services and complements the case study relating to Abingdon. Unlike Abingdon the town did not object to the railway coming to the town, instead actively supporting their own railway.

Wallingford had once been an important town, as outlined in chapter four. It had experienced a period of decline caused in some part by the main turnpike roads from London to Oxford bypassing the town. A diversion from the main routes would have been required to visit Wallingford, unlike Abingdon where the main roads passed directly through the town. Wallingford was deemed to be unimportant by the directors of the GWR and Isambard Kingdom Brunel. The route surveyed by Brunel passed a distance to the south of the town, and unlike Abingdon, no provision was included in Brunel's initial plans to include the town either directly, or with a branch line from the main route. Wallingford remained isolated from the railway network.

Wallingford was, however, served remotely by a station on the GWR's main line to Bristol which was placed to serve several rural communities, most likely as a railhead for agricultural produce. The Wallingford Road station was well named, being in countryside closer to Moulsoford and Cholsey than to Wallingford which lay three miles from the station which purported to serve the town. The

¹ Legislation.gov.uk, Local Government Act 1972 [Website]
https://www.legislation.gov.uk/ukpga/1972/70/pdfs/ukpga_19720070_en.pdf (Accessed 16th January 2023), 238.

Wallingford Road station was renamed Moulstord when the Wallingford branch opened to avoid confusion.



Figure 124: Moulstord Station and immediate area, 1877.²

A few railway schemes were proposed, none of which came to fruition, until a scheme to build a railway to link the Great Western with Wallingford and on to Watlington in Oxfordshire was mooted. The proposal gathered a large amount of local support and the line was authorised by an Act of Parliament in 1864 which created the Wallingford and Watlington Railway Company.

² National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXII, 1883, CC-BY-NC-SA [Website] <https://maps.nls.uk/view/102339950>, (accessed 17th November 2022).

The Company was authorised to create a new railway line joining the GWR through a 'siding or side line' alongside the GWR diverting from the Great Western's route at milepost forty-eight and half, in the parish of Cholsey, terminating in Wallingford at the turnpike road between the town and Wantage. A junction with the Great Western was to be provided between the side line and the main line.³

A second junction at the Wallingford terminus would then proceed to Watlington terminating in Upper Moor Meadow in the latter town.⁴ The triangular junction might seem to have been likely to have caused operating difficulties but seems to have worked perfectly well for the GWR at its Bodmin General terminus in Cornwall.⁵

It is not possible to know for certain whether the planned arrangements would have worked well or not as only the first part of the planned railway was constructed. Financial difficulty and the company's inability to raise capital in the financial climate following the collapse of the Overend, Gurney and Company Bank prevented the company from completing the link between Wallingford and Watlington. The Watlington section was finally abandoned in 1871, although the people of the town, unhappy at their own isolation from the railway network proposed their own line following the cancellation of plans to link the Wallingford railway to the town.

The new branch line was authorised by an Act of Parliament in 1869 which created the Watlington and Princess Risborough Railway Company. The company did not choose to continue with the uncompleted proposed line surveyed by the Wallingford company, instead opting to build an eight mile railway to link with the GWR at Princes Risborough.⁶ An interesting counterfactual study could

³ Legislation.gov.uk, Wallingford and Watlington Railway Act 1864 [Website] <https://www.legislation.gov.uk/ukla/Vict/27-28/266/contents/enacted> (accessed 16th January 2023) 23.1, 25.

⁴ Wallingford and Watlington Railway Act 1864 [Website] 23.2; Reading, Berkshire Records Office, Q/RUM113/3, Plans and Sections of the Wallingford and Watlington Railway, 2nd November 1862.

⁵ Bodmin and Wenford Steam Railway, History of the Line [Website] <https://bodminrailway.co.uk/the-railway/history-of-the-line/> (Accessed 16th January 2023).

⁶ Legislation.gov.uk, Watlington and Princess Risborough Railway Act 1869 [Website] <https://www.legislation.gov.uk/ukla/Vict/32-33/143/contents/enacted> (Accessed 16th January 2023) 5; Chinnor and Princess Risborough Railway [Website] <https://www.chinnorrailway.co.uk/article.php/4/brief-history-of-the-line/d717346cfedeb3f6b70284a08618cdc> (Accessed 16th January 2023).

potentially be undertaken to attempt to suggest the impact of a through route between the Great Western's two lines via Watlington and Wallingford had the intermediate section been built by the Wallingford and Watlington Railway, however it is not within the remit of this study to do so. It is however important to bear in mind when looking at the potential impact of the Wallingford branch, that it was merely a secondary branch line and no more, in the form in which it was eventually completed.

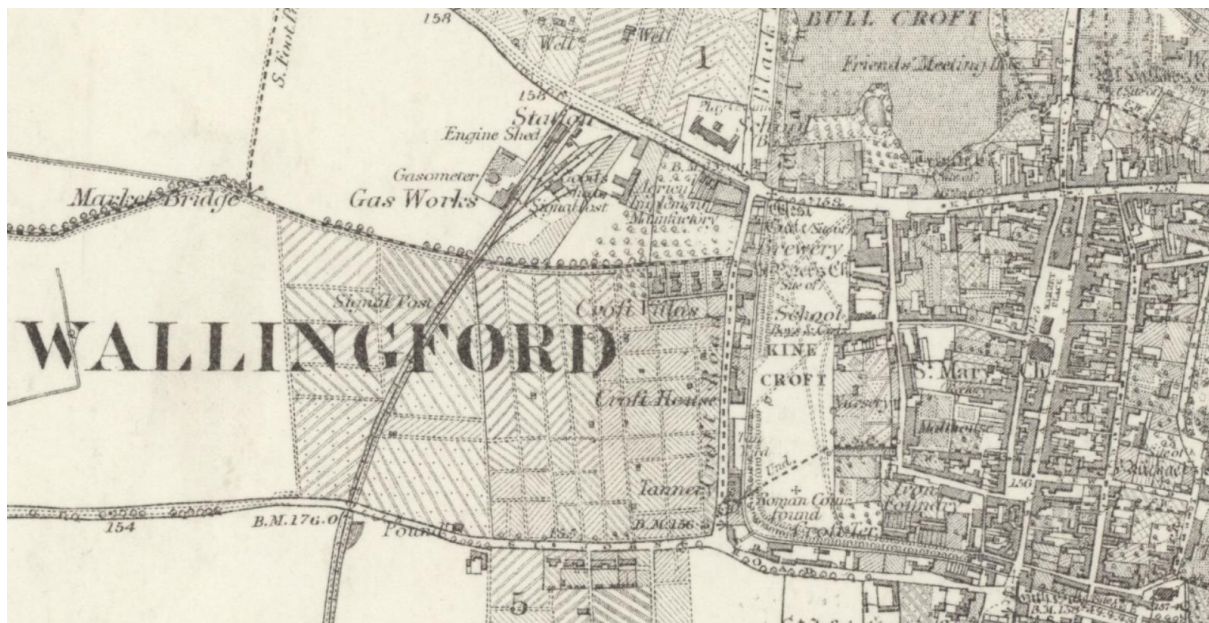


Figure 125: Wallingford in 1877, with the railway station to the west of the town.⁷

The two and a half mile branch line from the Great Western to Wallingford opened on the 7th July 1866 and was worked from the outset by the GWR on behalf of the Wallingford company.⁸ The arrival of the railway in Wallingford itself occurred later than most places in Berkshire in the nineteenth century that were served by the railways. As was seen in the case study for Abingdon having a remote connection that was still within a reasonable cart, horse or coach journey was often sufficient for at least the early days of the railway network. The opening of the Wallingford branch gave the town a more local connection, which like many railway stations was located on the

⁷ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XVI, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339935>, (accessed 11th May 2022).

⁸ Karau, Paul, and Chris Turner, *The Wallingford Branch* (Upper Bucklebury, 1982), 7; E.T. MacDermot, and C.R.Clinker, *History of the Great Western Railway: Volume II 1863-1921* (Shepperton 1964, repr. 1982), 23.

outskirts of the town, only becoming more central if towns had grown later in the nineteenth century. In the case of Wallingford, the station and rail yards remained on the periphery of the town into the twentieth century which suggests at first glance that perhaps there was little growth in general in the town after the railway had opened.



Figure 126: Wallingford Railway Station in 1897. The town is to the east of the station.⁹

The situation had not changed by 1910, the town having grown little in size between the Ordnance Survey maps of 1883 and 1910.

⁹ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XVI.SW, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97790529>, (accessed 1st December 2021).



Figure 127: Wallingford Station in 1910.¹⁰

There would be an issue with only using the ordnance survey to construct a conclusion about how the railways may, or may not, have impacted the town. A general hypothesis is all that could be suggested. A more detailed approach as used for the other towns in this study would be required in order to assess how the Wallingford and Watlington Railway related to economic change in the town.

An overview of the general business statistics of the town between 1830 and 1895 appears to show that the economy of the town was relatively stagnant, showing only a miniscule increase in size which might be explained by growth in population before the railways came to Berkshire. The station at Wallingford Road opened in 1840 when the GWR was extended to Steventon. The economy of Wallingford appears to have experienced a brief period of growth, although that was

¹⁰ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales, 1842-1952, Berkshire Sheet XVI.SW, 1913, CC-BY-NC-SA [Website, <https://maps.nls.uk/view/97773287>, (accessed 16th January 2023)].

followed by a dramatic contraction between 1850 and 1864. The general economy seems to have then become stagnant, although with a very slow contraction being seen until 1877. The small growth up to 1887 seems to have only been temporary, the business statistics appearing to show a return to a very slow decline thereafter.

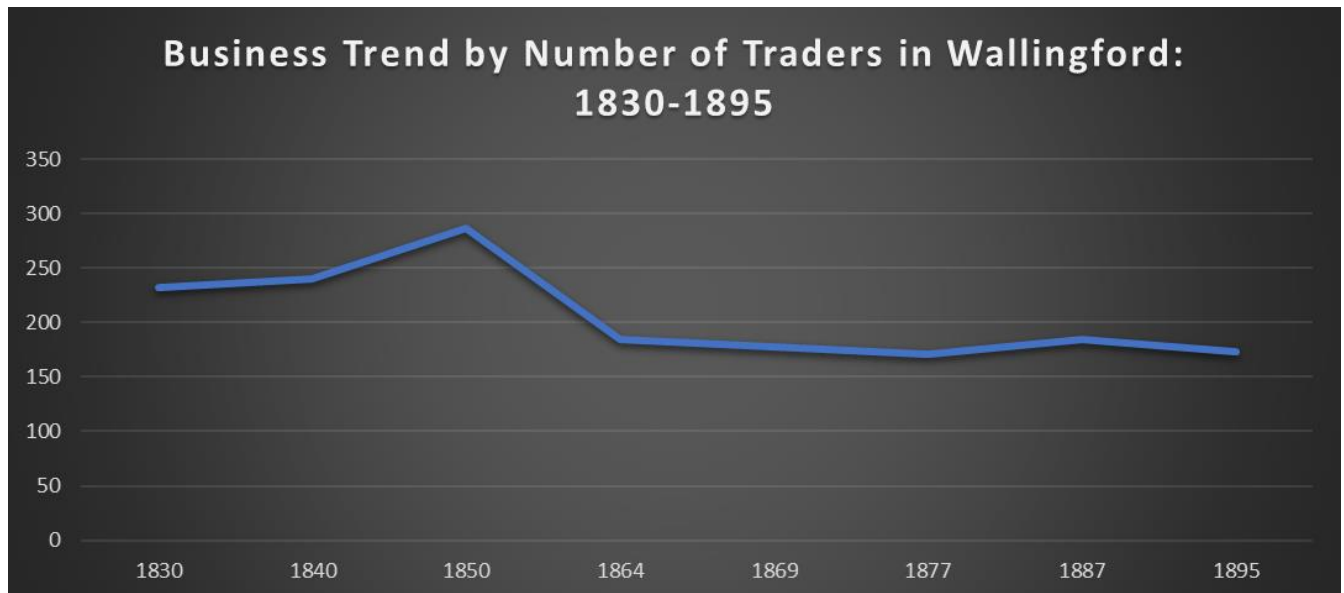


Figure 128: Overall number of businesses in Wallingford between 1830 and 1895.¹¹

If the business trend is compared to the population trend for the town between 1851 and 1900 a different pattern may be seen. The sudden decline in the number of businesses in the town immediately after 1850 is diametrically opposite to the trend seen in the population of Wallingford from the census. The number of residents of the town, indicated by the dotted line in Figure 110, increased steadily until 1881, entering a period of continual contraction thereafter. It seems that

¹¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 32-34; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 60-65; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 49-52; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 668-670; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 724-727; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 641-645; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 170-176; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 222-229.

something is happening in the town which may not be seen elsewhere as similar patterns have not been observed for other places.

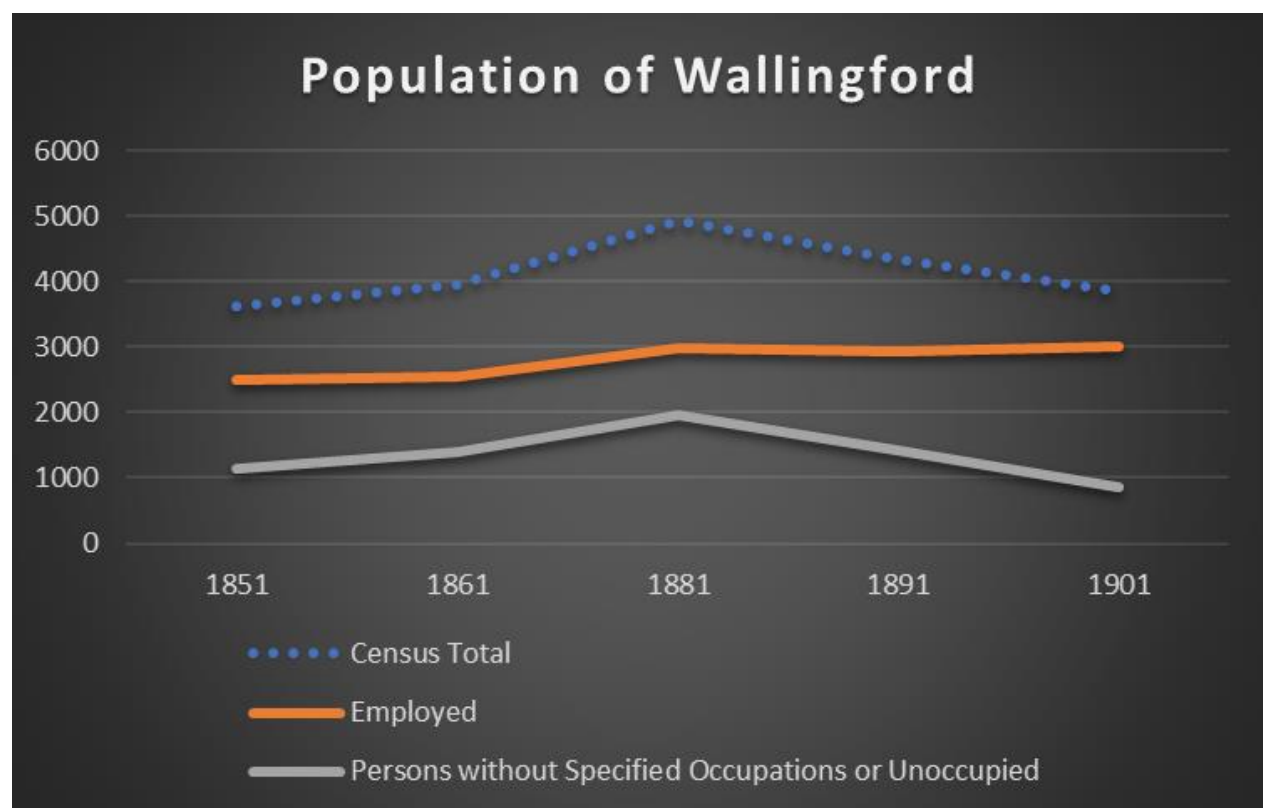


Figure 129: Population trend in Wallingford between 1851 and 1901.¹²

The detailed census statistics indicate that unemployment was increasing between 1851 and 1881, then reducing dramatically in line with the overall reduction in population of the town. The relationship between the decline in unemployment and decline in population, coupled to a slight increase in the number of persons with gainful employment suggests that whilst a little growth may have been occurring in some sectors, people were moving away to seek work. The changes suggest that the overall economy of the town was not particularly healthy during the last two decades of the nineteenth century, although small parts of it may have been more robust.

The population statistics by age show that the relative percentages of each age group remained roughly similar as a percentage of the whole. The statistics show that the decline was unlikely to

¹² University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

have been caused by a major outbreak of disease since no similar issue has been seen in other places which were as likely to have been impacted by an outbreak of a disease such as Cholera. Towns such as Newbury and Reading with larger, more concentrated populations were likely to have been worse hit than a location such as Wallingford. It seems that the decline in population is indeed most likely to have been caused by economic migration.

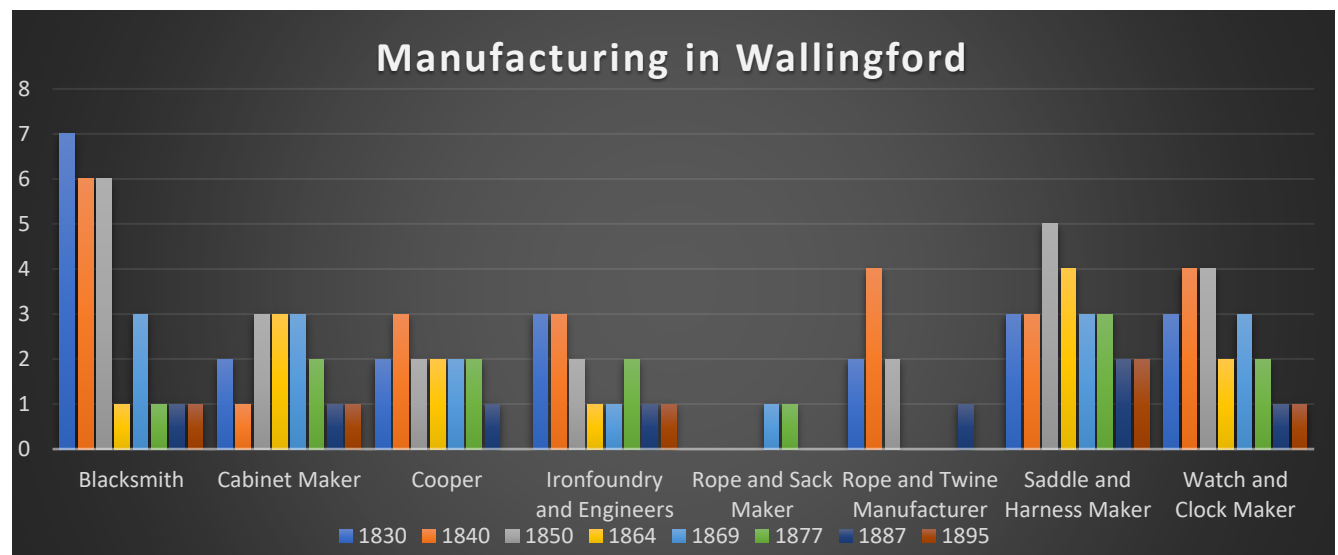


Figure 130: Wallingford Manufacturing 1830-1895.¹³

The business statistics for selected business types seem to show a variety of trends. Manufacturing of a selection of products seems to have experienced a general decline, with occasional growth followed by dramatic contraction in the numbers of businesses. On occasion some types of business disappear from the data completely, sometimes making a brief comeback in other years. The statistics exhibit general stagnation in the main.

The number of people working in the industries surveyed in figure 131 show some interesting evidence of the changes being experienced in the economy of Wallingford. The number of persons working as blacksmiths indicates that even whilst the number of businesses remained static between 1877 and 1895, the number of people working in the trade increased and then declined.

¹³ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

The data provides evidence that the town's economy was evolving and that the business statistics cannot be used in isolation. The data shows that in 1881 there were thirty blacksmiths working but that there was only a single company listed as a smithy in Wallingford between 1877 and 1895. Whilst it seems unlikely that all thirty were employed in other businesses, there were no iron foundries or similar companies listed in the town, so it seems likely that the town had one large smithy and that a small number of blacksmiths may have worked in the town's breweries.

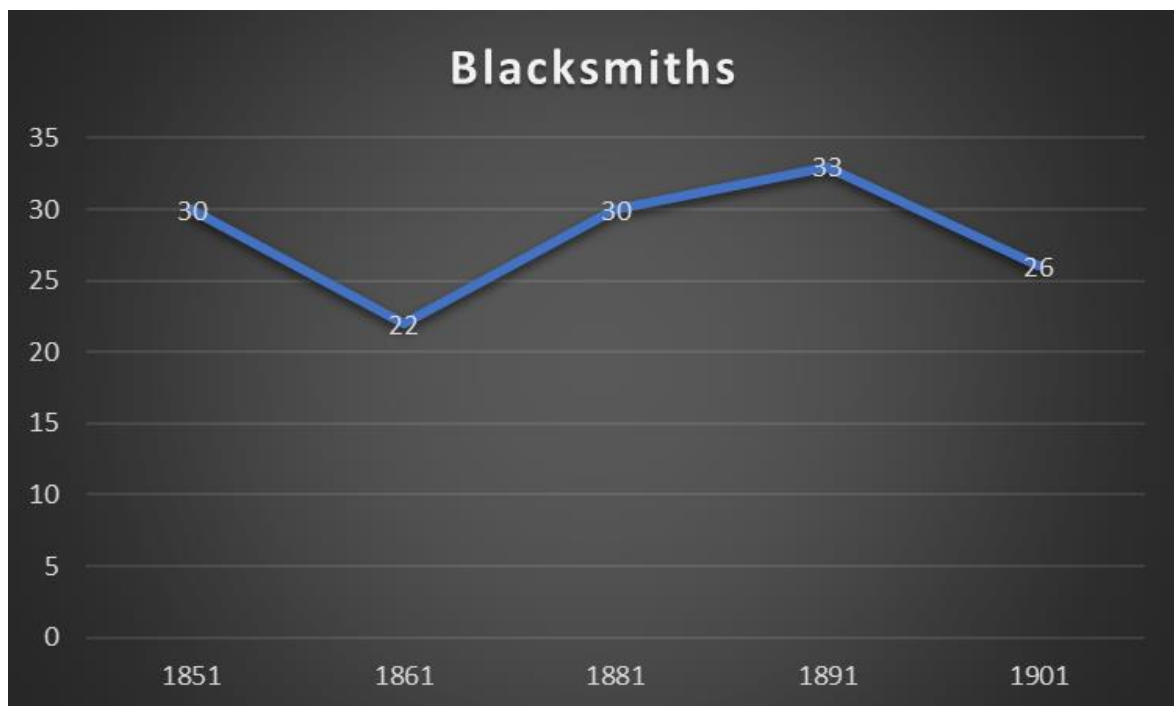


Figure 131: Number of Blacksmiths working in Wallingford.¹⁴

The earlier decline and rise in the number of blacksmiths mirrors the trend seen in the number of businesses which suggests a period of economic volatility. It also seems that the sector might have benefitted a little from the arrival of the local railway, since the number of businesses and people working in the industry grew after 1866. It is difficult to be certain that the railway was the direct cause of growth. It is more likely that the services offered by the railway as a rail head for local agricultural produce may have created more opportunity for local farmers to sell their produce

¹⁴ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

elsewhere, opening new markets and increasing potential sales. The need for more tools, repairs to machinery used to further mechanise the farms, and for simple consumables such as nails and other fixings may have created a local demand which was most likely to have been met by the local blacksmiths. It is therefore suggested that the railway did not have a direct impact on blacksmiths, but the opportunity taken by farmers to increase the productive output of their farms may have had short term benefit. It can be seen that a combination of factors was affecting the sector in Wallingford throughout the period of the study.

Dressmaking in Wallingford shows that the sector was created around the time of the railway.

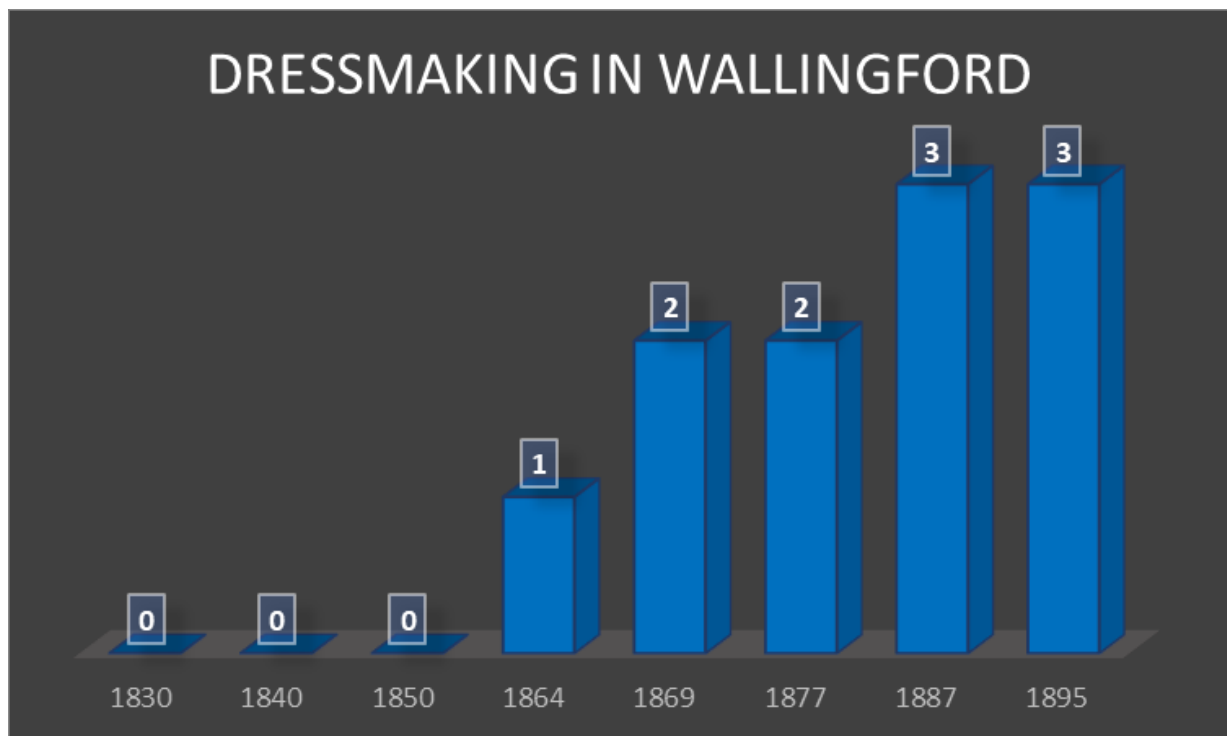


Figure 132: Dressmaking businesses in Wallingford.¹⁵

Unlike other places where the arrival of the railway brought cheap imports from other areas of the country where mass manufacturing allowed reduction in prices which smaller local businesses were unable to compete and suffered accordingly, Wallingford seems to have created a new sector from nothing. The number of businesses, although small grew and remained constantly successful

¹⁵ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

throughout the second half of the century. The number of people employed in these companies also grew steadily for the first four decades of the existence of the sector in the town, declining in 1891 and then stabilising around the turn of the century. The average number of workers employed as dressmakers provides the historian with a glimpse of the success of those businesses. In 1851 it seems that all the dressmakers were working in other sorts of businesses, possibly milliners, providing alteration and bespoke services. In the 1860s, the single company listed in 1864 compares to sixty dressmakers listed in the 1861 census, with two companies in 1877 and ninety persons enumerated as dressmakers. The collection of statistics by the enumerators in years prior to the publication of the censuses and the static trend in the business data, serves to make the time lag between the two sets of statistics less concerning than otherwise might have been the case.

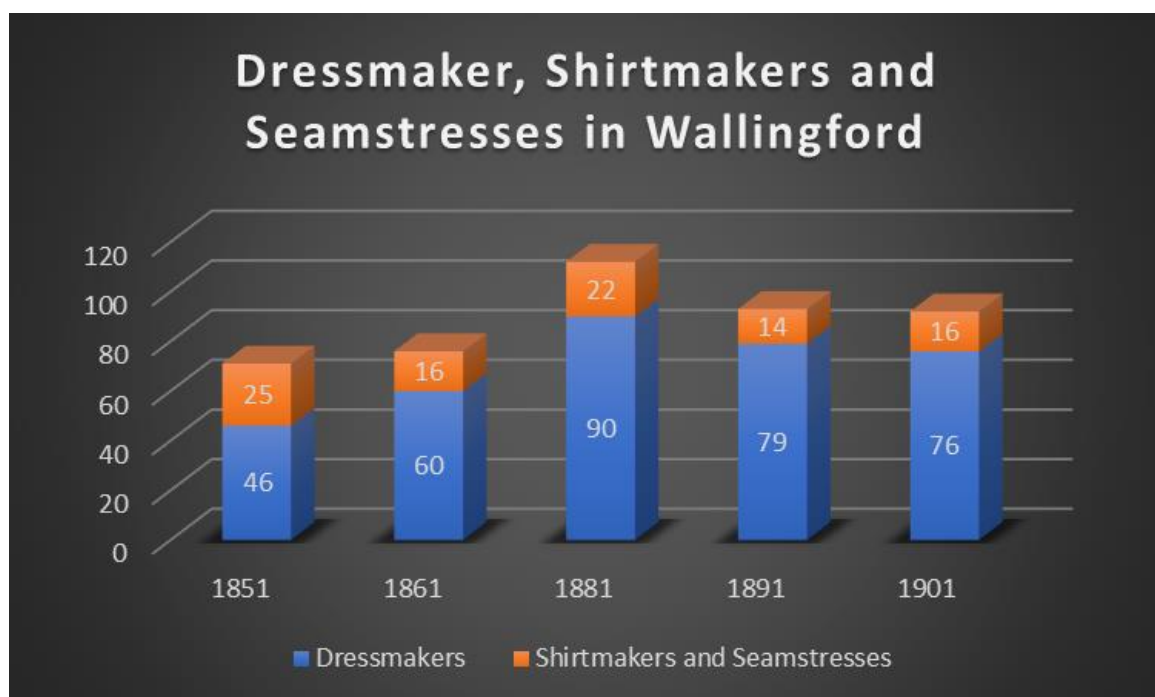


Figure 133: Number of Persons employed within clothing manufacture.¹⁶

The reduction in the average numbers of workers across the three businesses present in the 1890s and into the new century suggests that there was most likely to have been a consolidation of workshops and trade. It is highly unlikely that the railways had a great impact on this sector directly,

¹⁶ Integrated Census Microdata

although the ability of the factories to send their manufactures out of Wallingford to markets further afield is clearly important. The local area would not have been likely to have supported three dressmaking businesses of the sizes suggested by the statistical data and therefore the cheap and relatively frequent services offered by the railway to Moulsoford, and then later the closer new station at Cholsey, would certainly have been important.

The GWR absorbed the Wallingford and Watlington Railway Company in 1872.¹⁷ In 1892 the Great Western offered only seven services in each direction between Wallingford and Cholsey and Moulsoford station.¹⁸ Manufacturers would have been able to send small shipments as parcel traffic on passenger trains, with larger shipments being transported through the limited branch line freight services operated by the railway.

The demand that was being met by the factories was however, not created by the railways, but by fashion retailers and consumers elsewhere. The services offered by the railway would have been an important means to an end for these businesses but were not responsible for creating economic growth.

A sector which did not seem to benefit at all from either the railway link at Wallingford Road nor from the Wallingford and Watlington Railway's line into Wallingford was shoe manufacturing. The sector experienced short recoveries between 1840 and 1850, and again between 1877 and 1887, but otherwise the number of businesses continually declined during the nineteenth century. The trend suggests that in Wallingford two factors were influencing the shoe making sector in Wallingford. The declining population of the town and the surrounding area outlined above would have reduced demand for footwear, local sales declining accordingly. The second factor was the negative impact the opening of the railways had upon this commercial sector. The railways gave access to cheaper mass produced footwear from locations such as Northampton where mass manufacturing was being

¹⁷ MacDermot and Clinker, 23.

¹⁸ The Great Western Railway Company, Great Western Railway & Other Railways in Connection, Timetables and maps, July, August and September 1892, 57.

undertaken. The economy of scale achieved by the manufacturers allowed for cheaper retail pricing against which local artisans would have been unable to respond. The experience of the shoe makers in Wallingford closely mirrors that of their colleagues in Reading and elsewhere.

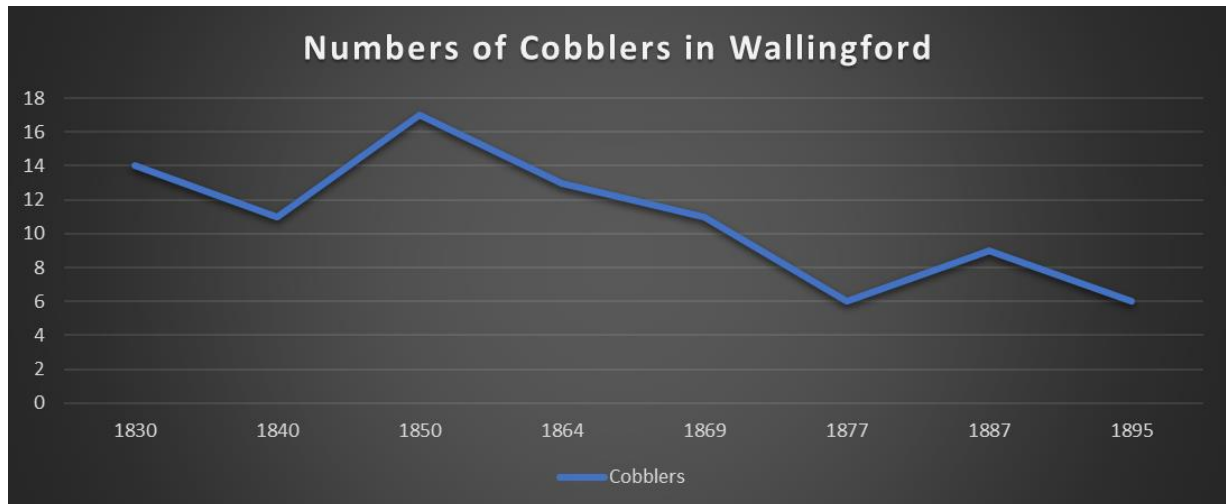


Figure 134: Shoe Making in Wallingford between 1830 and 1895.¹⁹

The number of persons enumerated in the census returns for the second half of the century as cobblers mirrors almost exactly the data extracted from the contemporary commercial directories. The number of shoe makers constantly declined throughout the period of this study with a small recovery at the end of the period, in the 1901 census.

The recovery in the numbers of businesses seen in the commercial directories in 1850 and 1887, was not paralleled by the census returns. The declining number of people listed as working in shoe making and repairs, even during times when the number of businesses increased, suggests that the businesses were generally declining in size and employing fewer people.

There is also evidence for a change in the purchasing habits of the consumer in Wallingford. The

1854 Kelly's directory lists a Mrs. Mary Sherwood as the proprietor of a 'boot & shoe warehouse'.²⁰

¹⁹ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

²⁰ University of Leicester Special Collections Online, Historical Directories of England & Wales, Post Office Directory of Berkshire, Northamptonshire and Oxfordshire; with Bedfordshire, Buckinghamshire and Huntingdonshire. [1854], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/167099>, (Accessed 2nd June 2021), 373.

At the time the term ‘warehouse’ was often used to describe a retail store, and thus, in Wallingford the shoe trade appears to have been moving toward a retail environment, most likely with footwear from the larger manufacturers in places such as Northampton and C & J Clark of Somerset who had started manufacturing in 1825 and could now reach Berkshire retailers economically by rail.²¹

The railways cannot therefore be seen as bringing economic growth to the shoemaking sector in Wallingford, the opposite conclusion being supported by the evidence.

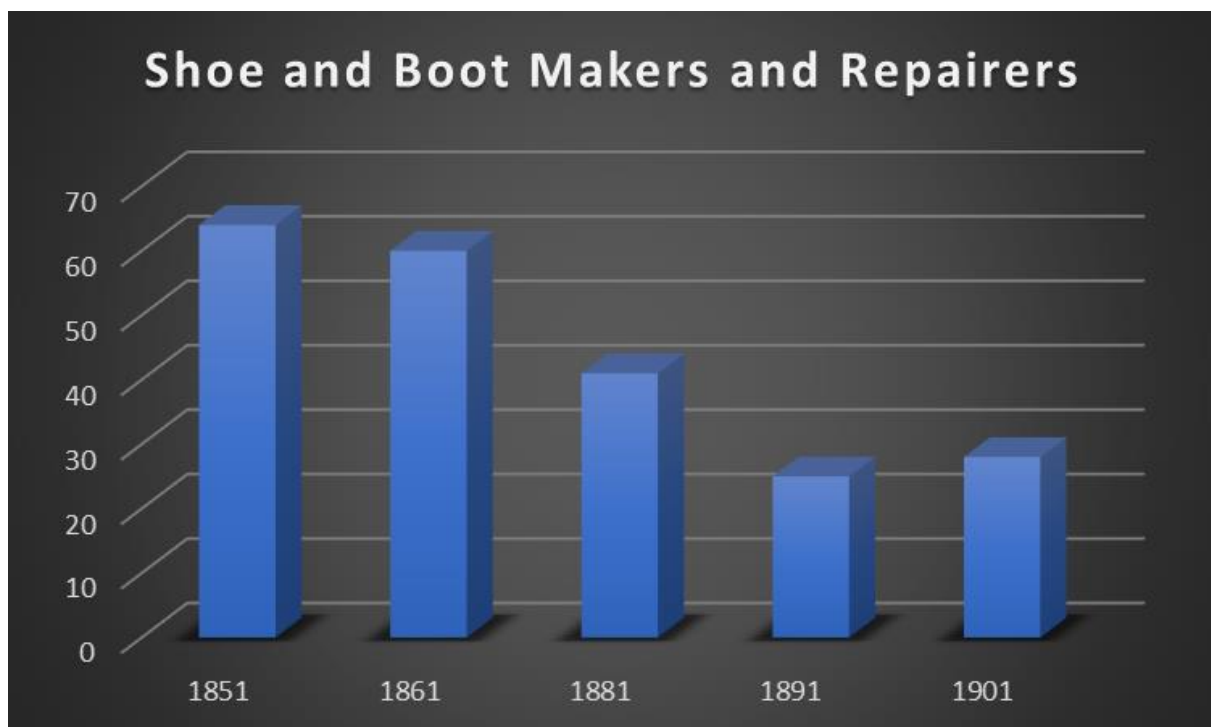


Figure 135: Persons enumerated as Shoe and Boot Makers in the census returns for Wallingford.²²

A second sector which seems to have experienced a similar decline to shoemaking was baking. The number of bakeries in Wallingford remained static until 1850 when a small increase in business numbers was followed by a dramatic decrease. Less than half of the businesses survived to be listed in the 1864 directories, a huge decrease to a mere two being seen in 1877. The dramatic decline in

²¹ C & J Clark, Our Story [Website] <https://www.clarks.co.uk/about-us> (accessed 17th January 2023); C & J Clarks, Our History [Website] <https://www.clarksjobs.com/about-us> (accessed 17th January 2023).

²² Integrated Census Microdata.

the number of bakeries, when linked to the census data, suggests that the remaining bakeries were larger concerns after 1851.

The five bakeries extant in the town in 1864 compares to twenty three bakers and six confectioners listed in the census in 1861, an average of 5.8 people per business. The commercial directory data for 1877 presents only two bakeries which were liable to still have been trading in 1881, given the increase to only three in 1887.

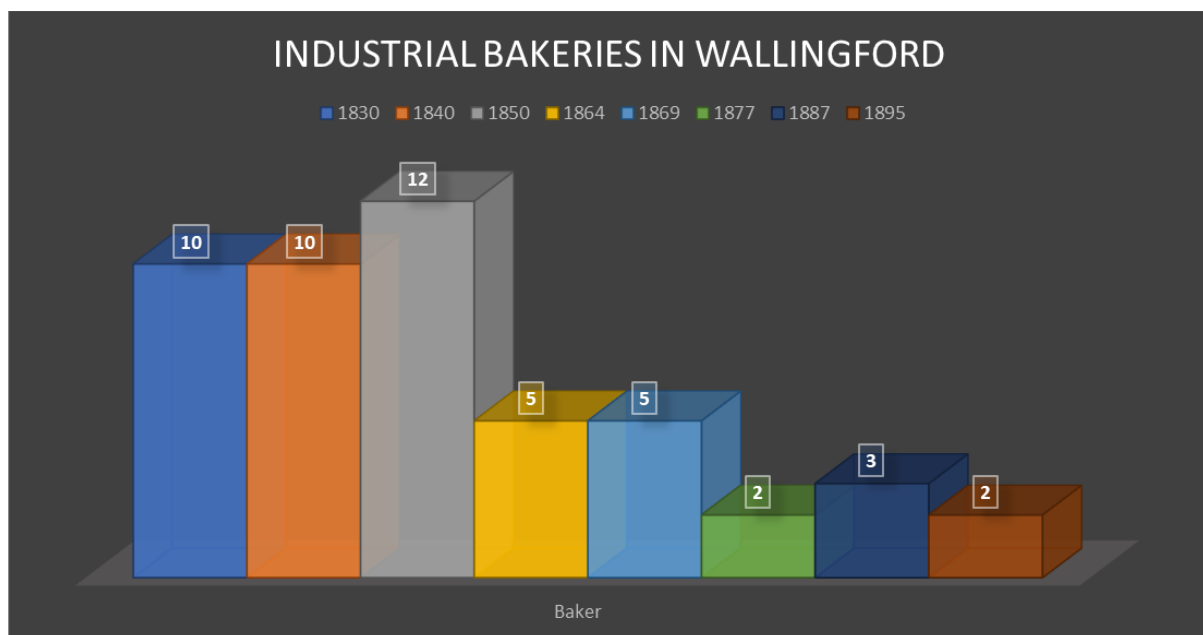


Figure 136: Bakeries in Wallingford:1830 to 1895.²³

The census returns for four years later listed thirty-four bakers and eleven confectioners. The decline in the number of businesses, seems to have been opposite to the trend for people working in those businesses.

²³ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

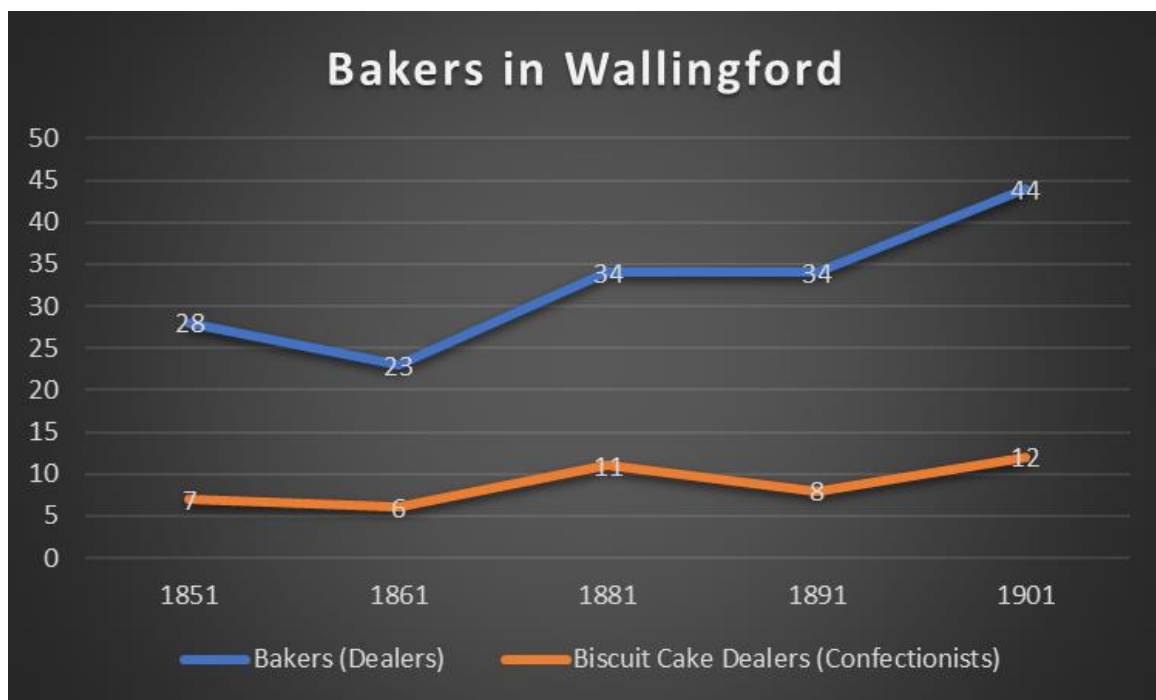


Figure 137: Number of Bakers in Wallingford: 1851 to 1901.²⁴

The average number of bakers and confectioners working in businesses listed as bakeries in the commercial directories suggests that the businesses which survived into the last three decades of the nineteenth century were likely to have been larger concerns than those earlier in the century. There does, however, seem to be decline in the sizes of businesses in the late 1880s. The same number of bakers were working in three bakeries around 1890 that were working in the two listed in around 1880. The decline in confectioners also suggests a short decline. It seems therefore that, whilst bakeries were declining in number, the remaining businesses were growing to fill the void in baking capacity, but were serving a declining population locally as people moved away from the area.

It seems highly unlikely that the railways had much direct bearing upon the bakeries of Wallingford economically. The transport of freshly baked goods over long distances had not yet been reliably achieved, although companies such as Huntley and Palmer were transporting biscuits over long distances in tins, some of which were likely to have appeared in local grocery stores in Wallingford. It

²⁴ Integrated Census Microdata.

is logical, that a study of the impact upon individual product lines of imports from elsewhere might reveal that, in fact, the railways had differing impacts on local production, not on an industry, but upon individual product lines.

It is likely that shipments of products such as mass produced biscuits, which could be sealed in presentation tins, thus preserving the freshness of the product could have out competed locally made products from small bakeries. The production of bread and cakes which were more difficult to keep fresh until later developments in preservatives, was likely to have been less impacted by major manufacturers, the local bakery being able to provide freshly baked goods, literally hot out of the oven.

Unfortunately, the data is not available to the historian at individual product line level, but it seems reasonable to extrapolate the reduction on confectioners against no decrease in bakers to indicate that the situation was complex and that the railways had a very nuanced relationship with business in a local area. It seems that in the case of Wallingford the combination of reducing population and the arrival of cheap mass produced products of certain types but not all that were being produced locally, had a negative impact of parts of each concerns business but perhaps not all. Companies with a diverse product line were more likely to have survived the erosion of the market for some of their products than businesses that were reliant upon a non-diverse product range. It cannot be stated that the railways caused economic growth in the baking sector of Wallingford, something more complex being seen in the evidence.

An industry which seems to have been little affected by the opening of the railways near and to Wallingford was brewing.

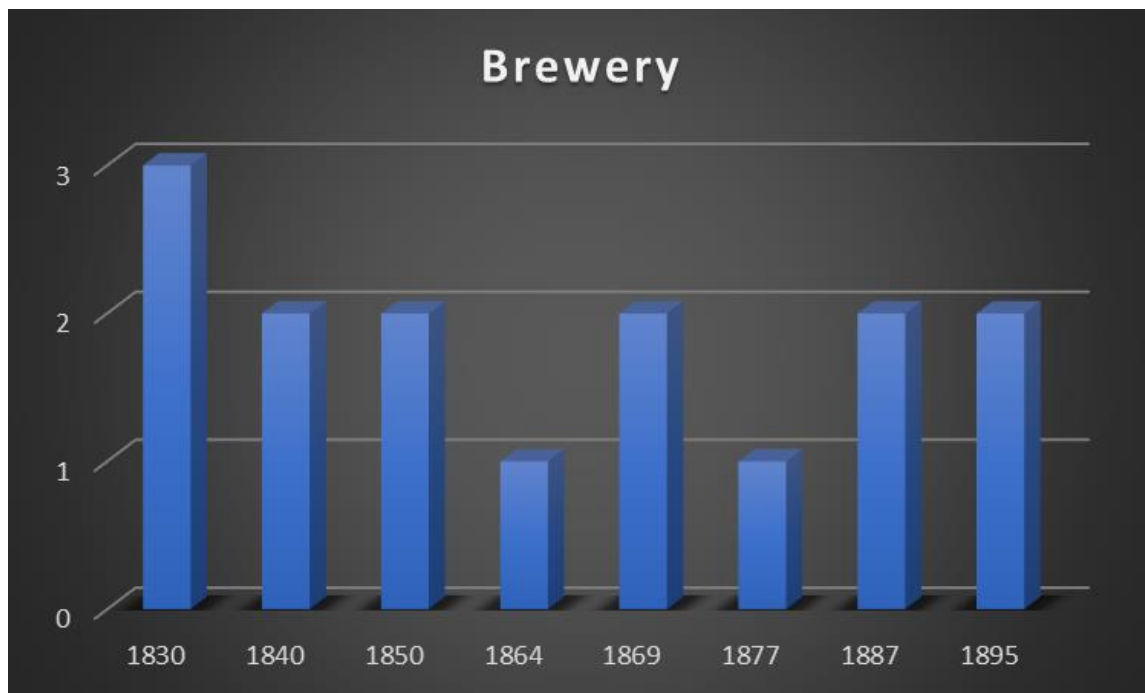


Figure 138: Breweries in Wallingford - 1830 to 1895.²⁵

The number of breweries in Wallingford remained relatively consistent throughout the period of this study. The town had two breweries for most of the nineteenth century, with only one in 1864 and 1877. It seems that, in terms of the number of businesses involved in brewing ales in the town, the railway had no impact upon them whatsoever. If one looks at the occupational statistics, however it seems that something very different may have been occurring.

²⁵ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

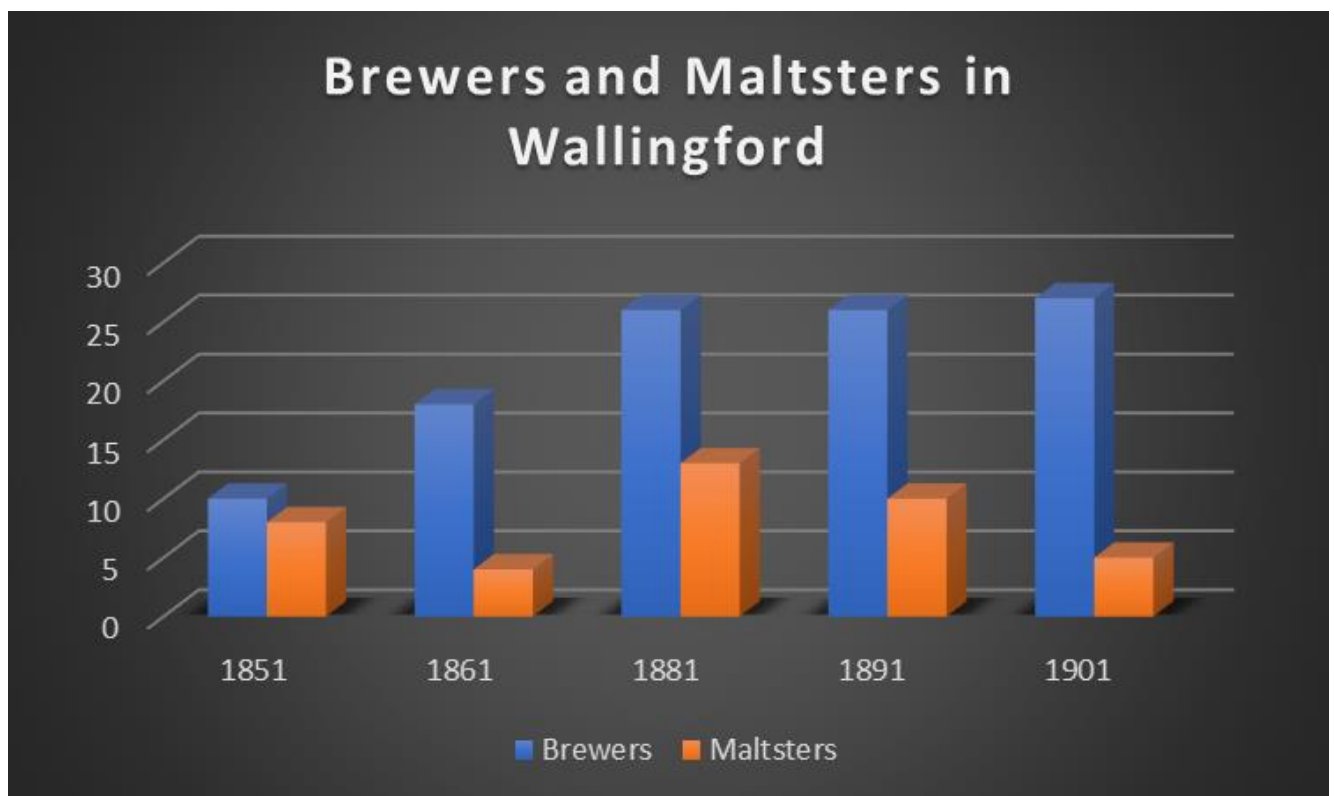


Figure 139: Persons Employed as Brewers and Maltsters in Wallingford - 1851 to 1901.²⁶

The number of people employed as brewers listed in the census returns increased from a relatively small number in 1851, steadily increasing until reaching a plateau after 1881, with only a minute growth in number in 1901. The employment growth in the early 1860s suggests that one of the breweries, Edward Wells' Wallingford Brewery, was growing and may have been using the railways as an outlet for its beers.²⁷ The railways were not the cause of growth in breweries such as Wells' business nor can the decline in the number of breweries necessarily be described as purely down to economic decline.

Breweries were acquisitive. As has already been described in the case of Morland in Abingdon, Nicholson in Maidenhead and Simonds in Reading, it is likely that Wells bought out the second brewery in Wallingford in order to acquire the tied public houses linked to the brewery, thus increasing the outlets for their own beers. The slight fluctuation in the number of breweries in the

²⁶ Integrated Census Microdata.

²⁷ Kelly's 1864, 670.

town during the nineteenth century is most likely to have been caused by business practices, accelerated by the slowly diminishing local population which created a need to eliminate as much competition as possible.

The railway is likely to have been used to transport kegs of ale to locations further afield as the brewery obtained more public houses outside of Wallingford, but would have been purely a transport partner, the economic growth of the companies being created by typical business practices in the industry.

The fluctuations in size and number of businesses as well as the changes in population seen in Wallingford would have impacted upon the coal merchants trading in the town. The merchants would have originally been reliant on waterborne transport for the delivery of their coals. The location of the town directly on the western bank of the River Thames was part of the reason for the town's importance, as outlined in chapter four. Coals would have been delivered to the town using the barges which regularly plied their trade along the Thames Navigation to Reading and on to London, and from the Isis Canal which joined the Thames near Abingdon.

The barge services were slow and infrequent, but in the case of bulk loads of coal this was not a particular issue. Weather which delayed the barges during the winter and extremely hot summers would however have caused business owners in the town some inconvenience at least. The railway was a more economic means to transport bulk items such as coal, and would likely have been cheaper with smaller loads, not below one mineral wagon load, being more economic.

It is highly unlikely that the railway caused economic growth in the coal merchant sector. The use of coal by householders for heating, and by business for power and heat would have driven business for the merchants. Weather would have a particularly strong business benefit to the merchants if the winter was especially cold and domestic coal was being burnt in greater quantities. The expansion of breweries in Wallingford may have increased demand for coal as part of the malting

and brewing processes, but as has already been discussed the amalgamation of breweries may have had the converse effect.

The advent of the railways probably had an impact of convenience rather than one of growth in Wallingford during the nineteenth century. The Canal and River Navigation network could, so long as the weather did not intervene, have provided more than sufficient coals for the merchants to grow their businesses in response to commercial expansion in the town.

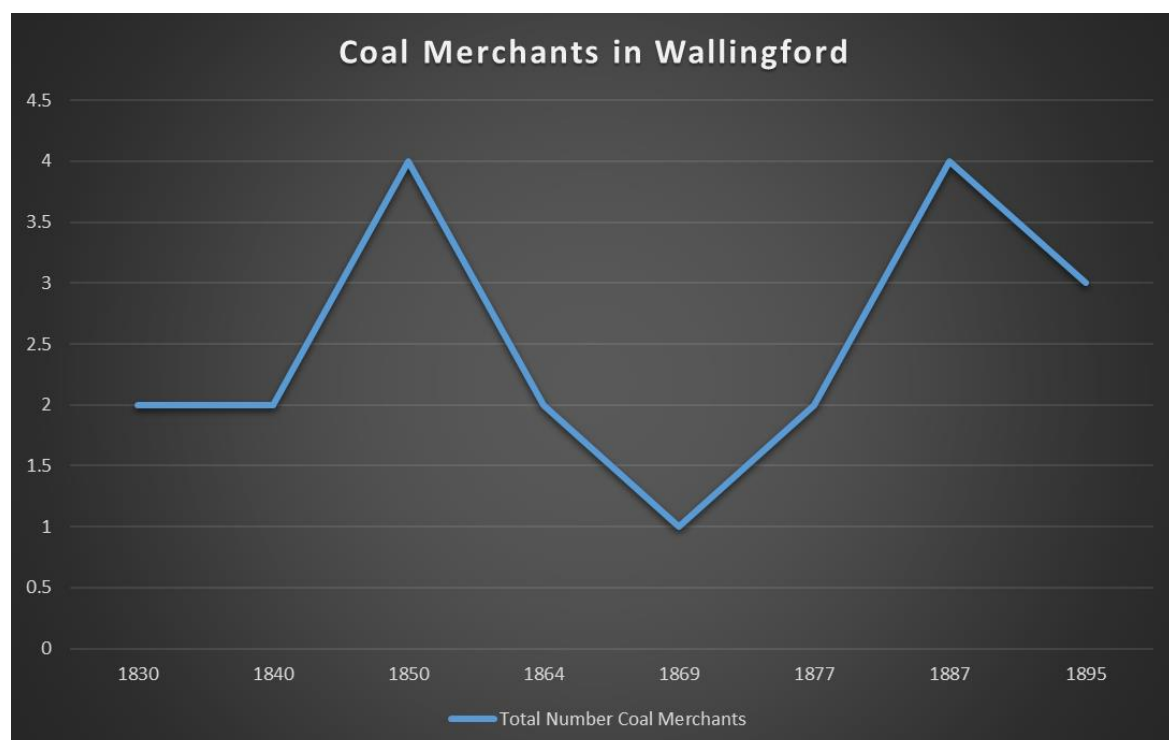


Figure 140: Coal Merchants in Wallingford.²⁸

The sector experienced a trend totally different to any seen in other business areas in Wallingford. Stagnation seems to be indicated by the early commercial directories with the sector doubling in size by 1850, collapsing to 1830 levels and then lower by 1869 before beginning a steady and constant growth until 1887 when decline once again set in.

²⁸ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

The employment statistics for those working as coal merchants shows a similar trend to the number of businesses. It is also revealing that the numbers of people declaring their occupation as coal merchant remained quite small.

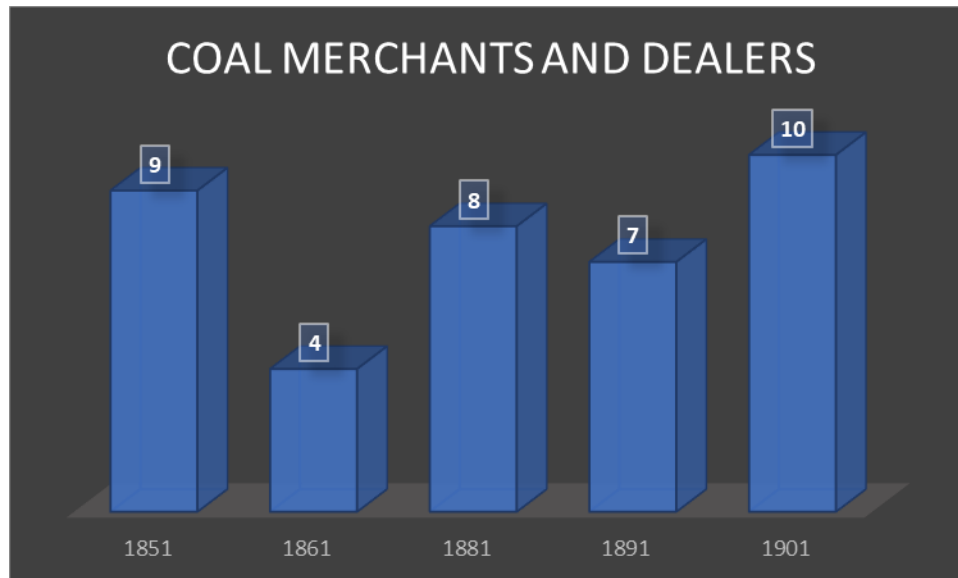


Figure 141: Number of Persons enumerated as working in the Coal Trade in Wallingford.²⁹

The decline in business numbers between 1850 and 1869 seems to be consistent with the decline in the numbers of people working with coal and it seems fair to conclude that there was a contraction occurring in that area of Wallingford's economy at the time. The decline in the number of businesses between 1887 and 1895 is not as dramatic within the occupation statistics, with only one less person returned in the 1891 census compared to the returns for 1881. This suggests perhaps less contraction, but more amalgamation of companies or closure of one company through other factors, with their business being taken on by another merchant.

The railway was no doubt of importance to the transport of coal from the collieries around Britain. One of the coal merchants, W.B. & J Hilliard, seems to have recognised the possibilities offered by the railway. The company was listed as being located at both Lower Wharf in Wallingford and Wallingford Road Station in Slater's 1852 county directory.³⁰ The company was listed in the 1876

²⁹ Integrated Census Microdata.

³⁰ Slater's 1850, 50.

Harrod and Co. commercial directory as being located at both the Lower Canal Wharf and at the Wallingford railway station, with no mention being made of Moulsoford or Wallingford Road stations.³¹

The company had been using the canal to obtain their coal supplies, the company listings in Pigot's 1844 Commercial Directory showing Hilliard's as being located only at Lower Wharf in Wallingford, which can only be because they were using the barges to transport their coals.³² The later listings which show the company, firstly having a facility at Wallingford Road station and then after the opening of the Wallingford branch at Wallingford station itself, whilst others had not moved to the railway, shows how the impact of the railways is to some degree dependent upon the decisions made by the companies in the areas they served. The case of Hilliard's provides evidence that the railways cannot entirely be stated to have caused economic growth alone, the company could conceivably have continued to use the canal and river navigation network for its transport needs but chose to take advantage of the railways services by opening new premises in the railway's station yards to receive coals by rail.

The coal merchants would have been reliant upon demand for fuel from not only the breweries but also other large consumers of coal such as iron foundries. There were a small number of iron foundries in Wallingford during the nineteenth century, although by the nature of their business they would have consumed large quantities of coal. The number of businesses listed in the commercial directories for the period suggests that iron working was already well established in Wallingford before the railways were built through Berkshire. The requirements for both iron ore, or

³¹ University of Leicester Special Collections Online, Historical Directories of England & Wales, J.G. Harrod & Co.'s Directory of Buckinghamshire, Berkshire, Oxfordshire, Huntingdonshire, and Northamptonshire. [1876], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/278606>, (Accessed 17th August 2022), 536.

³² University of Leicester Special Collections Online, Historical Directories of England & Wales, Pigot and Co.'s Royal National and Commercial Directory and Topography of the Counties of Berkshire, Buckinghamshire, Cornwall, Devonshire, Dorsetshire, Gloucestershire, Hampshire, Herefordshire, Monmouthshire, Oxfordshire, Somersetshire, Wiltshire, and North and South Wales 1844. [Part 1: Berkshire to Gloucestershire], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/167170>, (Accessed 17th November 2022), 39.

iron bar produced elsewhere, and coal can only have been met through supplies sourced from outside the county. Berkshire has no naturally occurring coal or iron ore reserves and so, like in every other town surveyed in this study, the materials needed by iron foundries, and indeed blacksmiths, must have been transported into the county. The most likely method of transport would have been through the waterways of Britain, since the road network of the early nineteenth century was somewhat variable in quality.

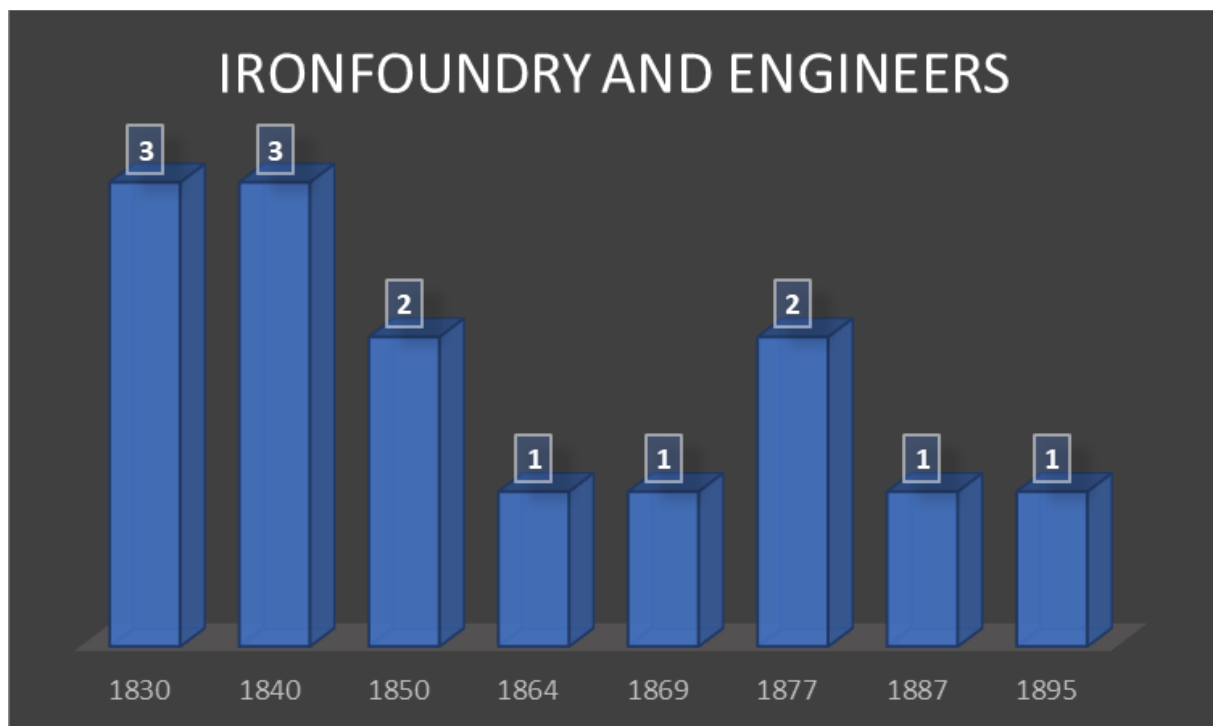


Figure 142: Iron foundries operating in Wallingford, 1830-1895.³³

The three foundries listed in the 1830 Pigot's directory must have been working in this way as there was no other locally occurring source of supply. It's more than possible that the foundries in Wallingford may have been acquiring some of their iron and steel from the large foundries in Reading, but even if this was the case, the businesses would have been able to reliably get their supplies delivered by canal, or even by road given the short distances between Reading and Wallingford, where the state of the roads was suitable for short distance cart journeys. The

³³ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

directories all list numerous cartage routes from Reading to Wallingford, which suggests that this kind of supply chain was already in place, long before Brunel's GWR was proposed, let alone opened. After the opening of the railway to Steventon, carts were still travelling between Reading and Wallingford. Pigot's 1844 directory lists all the cartage services offered from Wallingford and Reading. Thomas Preston offered a service between Wallingford and Reading from the High Street every Wednesday and Saturday morning with return trips from Broad Street in Reading the same days.³⁴ River services were also available in 1844, with Thomas Hopkins barges from Oxford calling at Wallingford 'and all intermediate places' to London, which would have included Reading three times a week, Gibbon's barges from Abingdon calling once or twice a fortnight on the way to London, and Hiliard's barges also once a fortnight with return journeys from London.³⁵ The existence of these services in 1844 provides evidence of the connections available to Wallingford before the railways, as these barge masters, or others who preceded them, would have been operating along the Berkshire waterways for some time by the 1840s.

The number of foundries decreased in the 1850s and 1860s with only a single foundry being listed in the commercial directories for 1864. The one company which appears in all the directories is R.J. and H Wilder, although listed only as Richard Wilder in earlier directories. The company is listed as an iron founder in Pigot's 1844 and Harrod's 1852 directories, but in 1876 the company seems to have diversified, its entry stating that they were 'Engineers, iron and brass founders, millwrights and manufacturers of agricultural implements and machines'.³⁶ In the case of Wilder's it would seem that the reason for the company's survival and potentially growth was due to diversification of the business with a broader portfolio of products and services to offer a potential customer. The railway may have been useful in delivering supplies of iron, steel, and through local merchants, coal, but would not have caused growth directly.

³⁴ Pigot's 1844, 38, 40.

³⁵ Pigot's 1844, 38, 40.

³⁶ Harrod's 1876, 538.

The second iron foundry listed in Wallingford in the 1870s was Thomas Baker.³⁷ The company was listed purely as an iron foundry, and was also a new company, William Guttridge's company disappearing from the directories before the 1860s. What is interesting about Thomas Baker's foundry is its location. The new company was located at the railway station in Wallingford. It seems that the new company was looking towards the railway to help meet its business needs for transporting raw materials in, and finished products out. It is unlikely that a great deal of business was being generated directly from the railway as by 1843 Swindon Works had opened under the control of Daniel Gooch and by the 1870s, Joseph Armstrong.³⁸

The reason for Swindon's existence within the Great Western was to produce everything, almost, that the company needed, although there were occasions when the railway company subcontracted work to local suppliers which will be described in greater detail in chapter thirteen. It is possible that some work may have come to Baker's company but the more likely benefit to the company would have been the freight and parcels services offered by the Great Western.

The 1899 Kelly's Directory gives a little more evidence regarding Thomas Baker's foundry. The company is listed, not as an iron foundry in 1899 but as a millwright and cycle manufacturer, who were located on the High Street according to the listing.³⁹ The High Street in Wallingford crossed through the entire centre of the town from Wallingford Bridge out to the railway station.⁴⁰ It is not impossible that the company had simply been listed differently from the same location in the later directory. It would be logical for that to be the case as moving a foundry would not have been a task to have been undertaken unless necessary, and being on the edge of the town would be a better

³⁷ Harrods, 1876, 535.

³⁸ Denis Griffiths, *Locomotive Engineers of the GWR* (Yeovil, 1987), 51.

³⁹ University of Leicester Special Collections Online, Historical Directories of England & Wales, Kelly's Directory of Berkshire. [1899], [Website], <http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/304690/rec/1>, (Accessed 18th January 2023), 234.

⁴⁰ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XVI, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/102339935>, (accessed 11th May 2022).

location given the heat, noise and noxious fumes emitted by foundries. The revealing element of the entry in the 1899 directory is the reference to the company also being located ' & at Reading'.

In the case of Thomas Baker's foundry, the company had concentrated partly upon the manufacture of bicycles in Wallingford, the rail link from the town through the Wallingford Branch would have provided an affordable means to transport their products to a retail shop in Reading. The 1899 directory places Thomas Baker and Sons at both 37 Friar Street and 159 London Road in Reading. The Ordnance Survey Map for 1900 shows what appear to be retail premises on the north side of Friar Street around the location of number 37, and residential property around the location of number 159 London Street.⁴¹ The maps make no mention of a foundry or factory on those sites, so it would seem likely that Baker's Bicycles were manufactured in Wallingford and transported to their two shops in Reading on the railway.

The work being undertaken by the foundries in Wallingford can to some extent be ascertained by examining the census occupation returns for people listed as being involved in foundry work. Whilst the exact products being made cannot be found through this method, the occupations provide useful evidence of the types of products being made. Patternmakers should be included in this analysis, since patternmakers were, and are, an integral part of a foundry's workforce, making wooden mock-ups of items to be made, from which moulds can be made to produce castings in iron or steel.

The occupation statistics presented in figure 124 show how varied the work was that was being undertaken by Wallingford's foundries after 1851. It can be assumed that the variety and complexity of the foundry business in the town was similar before occupations were being collected in detail by the census enumerators.

⁴¹ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVII.NE, 1900, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97791994> (accessed 29th June 2022).

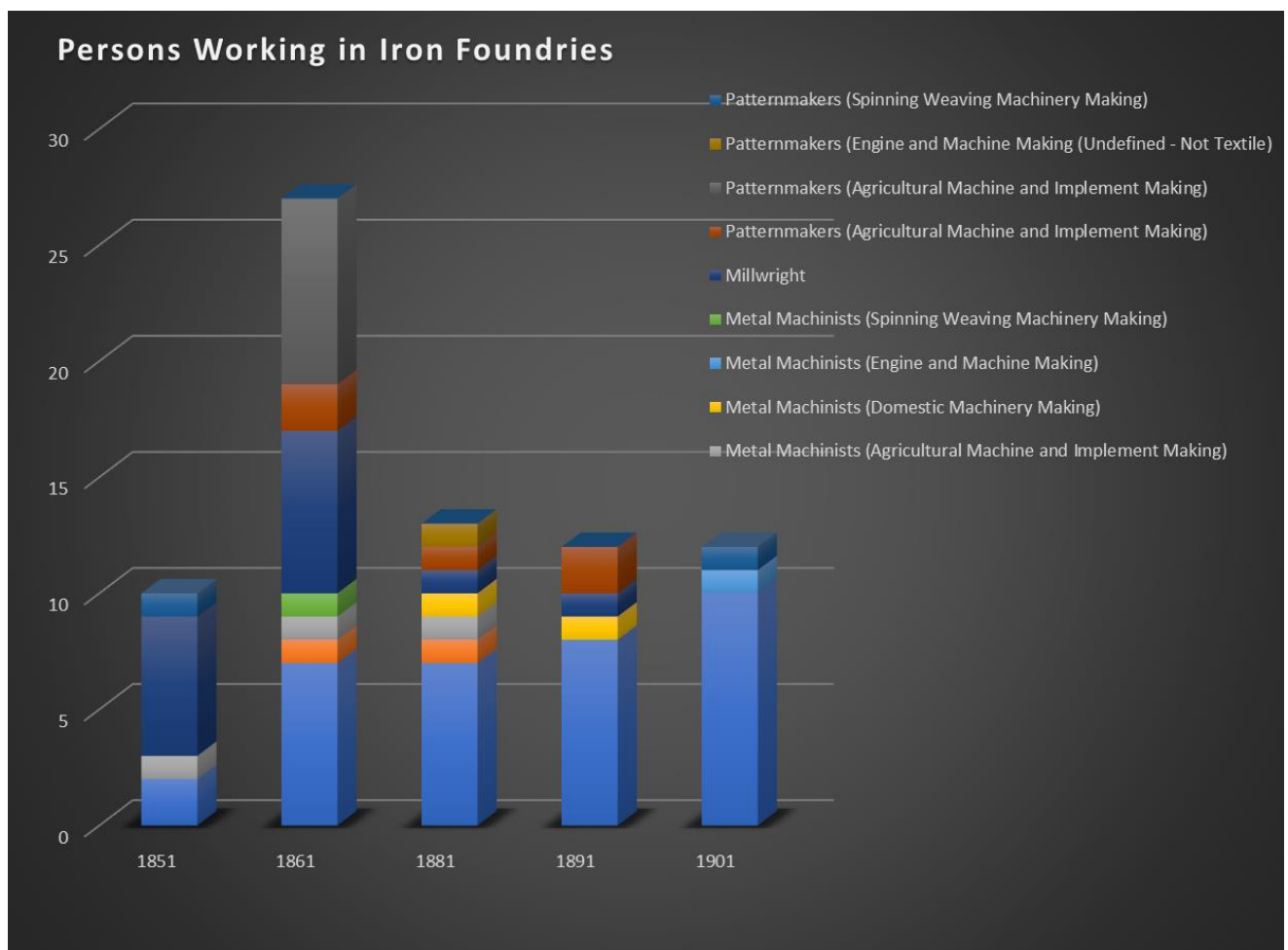


Figure 143: Occupations of Persons working in Iron Foundries in Wallingford, 1851-1901.⁴²

It seems clear, once again, that a combination of sources such as census data and commercial directories when used to complement each other provide a much richer historical perspective from which the historian may derive meaningful and more reliable conclusions than one source alone may have provided.

The changes in the types of metal machinists and patternmakers over the last half of the nineteenth century shows not only how volatile the market could be, but also how responsive the foundries were capable of being to meet customer's requirements and thus ensure the longevity of businesses such as Wilder's Wallingford Foundry. The railways would have had little impact on this element of Wilder's business, growth being achieved through business pragmatism and the creative use of skills

⁴² Integrated Census Microdata

possessed within the workforce. The engineering services offered by the foundries were likely to have more impact in creating sales of machinery and other products than the railways would have been able to.

Service industries of other types were as important in Wallingford as they were in the other towns examined in this study.

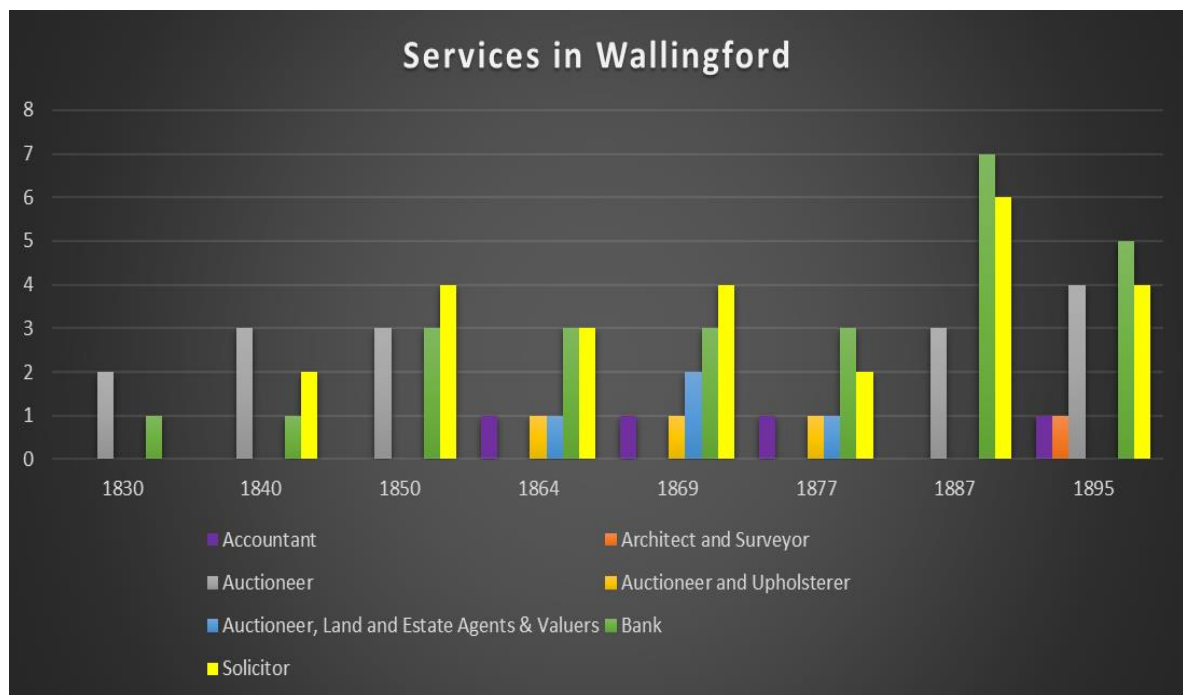


Figure 144: Service Sector Companies in Wallingford, 1830 - 1895.⁴³

Service companies can be seen to have had a mixed experience of the nineteenth century in Wallingford. The number of accounting practices remained static with just a single business existing in the town after 1850, its disappearance in the 1887 data can be explained by an anomaly in the directories for that year caused by any of several factors. The need for an accountant's services seems to have been able to be provided by the single practice.

An inspection of the census data for the period shows that the number of accountants practicing in the town varied between 1851 and 1901, with the highest number of five practicing accountants

⁴³ Pigot 1830, 32-34; Robson's 1840, 60-65; Slater's 1850, 49-52; Kelly's 1864, 668-670; Kelly's 1869, 724-727; Kelly's 1877, 641-645; Kelly's 1887, 170-176; Kelly's 1895, 222-229.

being enumerated in 1861. The fluctuations were minimal, ranging from two in 1851 to the five of 1861. It could be assumed that one or more of those declaring their profession as accountant might have been working for one of the larger businesses in the town, perhaps Wells' Wallingford Brewery or Wallingford Iron Works. The remaining number of accountants listed in the town would suggest a small local practice which was sufficient to meet the needs of the businesses located in the town with auditing and other services.

The number of Solicitors' practices appears to have been generally static, although a decline may be observed in 1877, followed by a trebling in the number of practices ten years later in 1887. The business numbers do not give the whole picture, with the census occupation returns making the picture clearer.

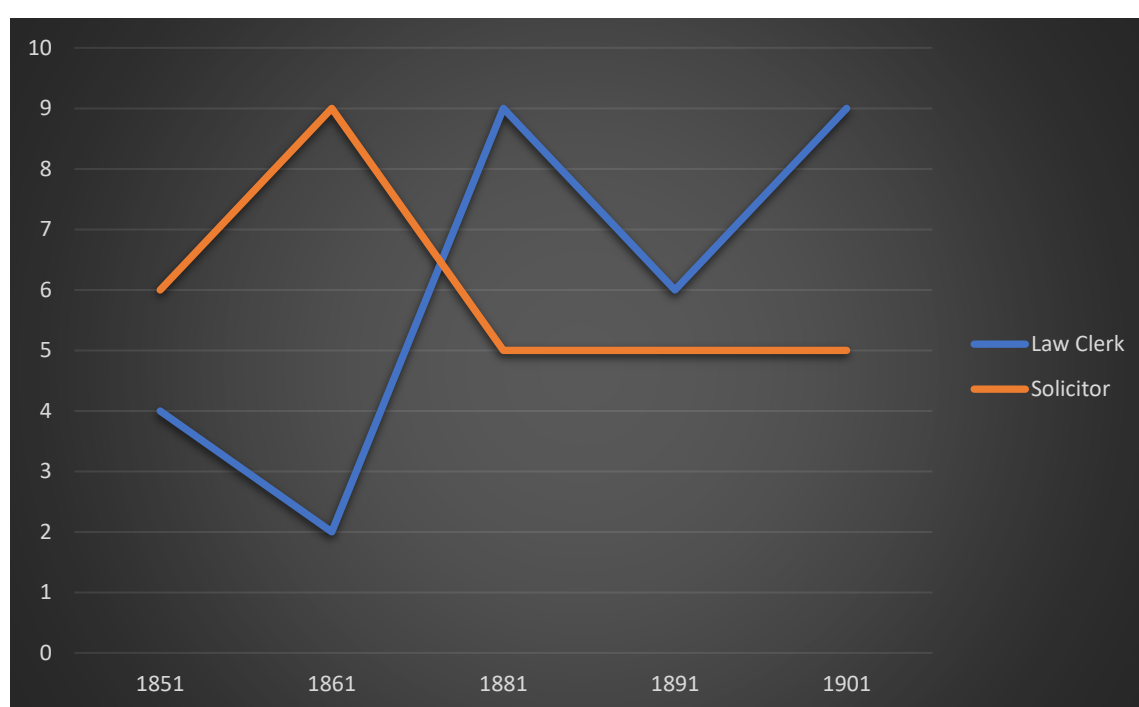


Figure 145: Legal Clerks and Solicitors working in Wallingford's Legal Practices, 1851-1901⁴⁴

The increase in the number of practices is inversely proportional to the number solicitors practicing in the town. The number of legal businesses increased to six in 1887, but the census returns for 1891 list five solicitors. There is no doubt that a solicitors practice cannot function without a qualified

⁴⁴ Integrated Census Microdata

lawyer, and therefore it seems likely that the practice owner was resident elsewhere and commuted into Wallingford from further afield, possibly by train. If the person was living within walking distance of the town, it is most likely that they would appear in the census, so it seems safe to conclude that at least one solicitor was commuting to Wallingford from another place. The railway may thus have had not so much an impact upon the economy of the town, as upon the lifestyle of this solicitor.

Conclusions

The town of Wallingford provides a useful comparison to Abingdon. Its experience of railway building was similar, but unlike Abingdon, not through choice. The railway bypassed the town for two reasons. Firstly, it was not on the route towards Bristol preferred by Brunel which avoided as much as possible major earthworks, following the river valleys, whilst serving the major towns in Berkshire. Secondly, Wallingford had ceased to be as relevant as it had once been. Its place on the river network which gave the town such importance as a trading and local government centre under the Anglo-Saxons and on into the Medieval period had long ceased to be relevant at the time the GWR was built, and it was thus not an attractive centre for potential rail traffic and was bypassed.

Wallingford proves, however, that being directly served by the railway through a station or rail facility in the town itself was not perhaps as important as has been suggested in elements of the historiography. It seems, and this is also supported by Abingdon, that a town could be adequately served in the short term at least, by a rail head near-by. In the cases of both Abingdon and Wallingford, railway stations at Steventon and Wallingford Road acted as railheads which were no more than three miles distant from the town and so accessible by waggon or coach. The economy of both towns seems to have been little impacted by not having a direct rail service, in fact some sectors may be seen to have grown after the opening of the nearby railway, whilst others declined.

The changes in the towns business landscape, of course, cannot be entirely said to have been caused by the railway. The factors influencing economic change were extremely complex and far more

nuanced than that. The term 'growth' also ought to be avoided since the evidence suggests that decline and stagnation also occurred in different sectors of Wallingford's economy.

The evidence of how Wallingford's economy may have been impacted by the arrival of the GWR nearby and in turn the arrival of the first section of the not to be completed Wallingford and Watlington Railway shows how complex the situation was. The railway was no doubt very important in supporting some of the town's businesses, particularly Baker's cycle works, but in many cases the businesses had become established in the period during which the canals were the prime movers of bulk freight.

The economy of the town was, it appears, affected by several different factors, including management decisions made by companies such as the Wallingford Iron Works, company acquisitiveness in the brewing industry, amalgamations, and the impact of imports from locations elsewhere in Britain, as well as the ability to export out of Wallingford using the railways.

The situation in Wallingford seems to have been as complex there as in the other case studies used in this thesis, and the question as to whether the railways caused economic growth must be answered in the negative; the question as to whether different parts of the town's economy experienced the nineteenth century and railway building differently with many other factors influencing the success or otherwise of individual businesses seems to result in the conclusion that the economic changes occurring in Wallingford were as complex and nuanced as elsewhere and that no generalised assertion would suffice.

The situation was as complex and nuanced as elsewhere and it is necessary to approach a study of this type in a detailed and granular manner from which detailed conclusions may be made about each sector, and occasionally, where the surviving evidence permits, about individual companies.

Chapter 13: Wantage Case Study

Wantage is located nine miles directly west of Didcot and twenty-seven miles north west of Reading. The town was located within the county of Berkshire until the county boundary changes implemented following the Local Government Act of 1972.¹ Like Abingdon and Wallingford, Wantage was absorbed by Oxfordshire at this time, but as a Berkshire town in the nineteenth century the town is as much a valid case study of the impact of railways upon the local economies of Berkshire.



Figure 146: The Town of Wantage with the Routes of the Berks and Hants Canal marked in blue.²

The town of Wantage had been provided with reasonable road connections to other places although not on main road such as the Bath Road from London to Bath and Bristol. The town was however

¹ Local Government Act 1972, 238.

² National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XIV, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97773230>, (accessed 3rd April 2023).

located on a junction of east to west and north to south secondary roads which would have served to support the town's business community to a certain extent, although without the through traffic which supported coaching inns and associated supporting businesses seen in towns such as Reading and Newbury. Wantage, whilst not located directly upon a river was served by a waterway which would have been able to provide services for the carriage of bulk freight into and out of the town. The Berks and Hants Canal had provided the town with a branch from the main route of the canal which passed to the north. The canal branch terminated at wharves located close to the town centre, thus presenting the businesses of the town with a convenient option for the export and import of materials and products from and to the town.

It appears from the evidence that, as has been the case for all the previous case studies in this study, the town was relatively well provided with road and waterway transport infrastructure. Whilst Wantage may not have been as well provided with main trunk road links as perhaps other towns had been, it was still well provided with road links to Reading where its traffic could then join the main routes, as well as with a link to a major canal artery. It seems then that the town was well provided with transport links well before the railway arrived near the town, and it can clearly be seen that, at least in the early days of the railway, the canal was a much more convenient option for the businesses in the town.

The town was not directly served by the main railway companies neither provided with a station in the town located on a trunk or secondary route nor with a local branch line such as those that linked Abingdon and Wallingford to the main railway network and provided rail facilities within the town itself. Wantage was only served by a rail hub at Wantage Road on the GWR's line to Bristol, which opened in 1846. The station was located a considerable distance from the town in a place convenient more for Brunel's surveyed route than for the people of Wantage. An inspection of the Ordnance Survey maps for the late nineteenth century reveals that the station which purported to serve Wantage was nearer to the neighbouring village of Grove than to the town.



Figure 147: Location of Wantage Road Station.³

The Great Western's decision to locate a station in a rural location outside of any form of settlement, at first glance, appears to be illogical, and presented the population of Wantage with a situation Rex Christiansen described as the '...handicap of being left isolated from the London-Bristol main line...'.⁴ Christiansen's statement seems to suggest that a town had to be linked to a main railway and that the railways were vitally important to a town's success. The remote station would seem, in turn, to have been without any hope of attracting the appreciable volume of traffic which would have made it commercially viable. In the longer term, its remote location would see the station falling victim to the rail closures which resulted from the recommendations made by Richard Beeching in his infamous report, but the 1960s presented more road competition and other factors which made Wantage Road unviable, and this must not be confused with the situation in the nineteenth century.⁵

³ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XIV, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97773230>, (accessed 3rd April 2023).

⁴ Christiansen, Rex, *A Regional History of the Railways of Great Britain, Volume 13: Thames & Severn* (Newton Abbot, 1981), 30.

⁵ British Railways Board, *The Reshaping of British Railways, Part 1: Report* (London, 1963), 120.

The inclusion of Wantage Road in the Beeching report recommendations and the closure which followed in 1964 serve to illustrate how vulnerable the station would be to changes in industry and agriculture as well as the adoption of other forms of transport within the local community during the mid-twentieth century. Conversely the decision made by the Great Western to site a station with freight facilities at Wantage Road shows both how optimistic the company directors were that the local area would generate a profitable level of traffic and how few other viable options for fast and cheap transport there were in the area.

The initial impression given by a cursory inspection of the 1887 Ordnance Survey map is misleading. The station was surrounded by a few large farms who's traffic in agricultural produce out of the area and machinery, feed, seeds, and other consumables into the area were likely to have provided the railway company with regular and profitable traffic. The area around Wantage Road station serves as a prime example for the discussion of rail heads. A station located conveniently for local industrial or agricultural producers would be likely to attract freight from the surrounding area to a hub. In the case of Wantage Road station the local hub facilities provided by the railway company would in turn bring traffic into larger hubs such as Reading from where wider distribution could be undertaken, or from which local shipments could be dispatched back to the local area hub. The advantages of a hub and spoke system such as this has been discussed in detail by Mark Casson and will not be expanded upon here as it is outside the remit of this study.⁶

The location of the station as an area hub appears to make sense commercially for the railway company however its location is inconvenient for the businesses and population of Wantage itself. As can be seen in other places unfortunate enough to have been served by one of the GWR's 'Road' stations, the town was a considerable distance from the station which claims to serve it. The town lies around three miles from the location of Wantage Road station, which appears to mirror the

⁶ Casson, Mark, *The World's First Railway System: Enterprise, Competition, and Regulation on the Railway Network in Victorian Britain* (Oxford, 2015).

location of many other 'Road' stations.⁷ Wallingford Road was located at around the same distance as from the town as can be seen at Wantage, whilst the station at Bodmin Road in Cornwall (now Bodmin Parkway station) was linked to the town itself, like Wallingford, by a short branch line of just over three miles.

The siting of stations in an area where they could serve local agricultural concerns and local small towns no more than three miles from the rail head seems more than coincidence. When consideration is given to the transport available to the local manufacturer or farmer around the time the railways opened a clearer picture emerges. Transport would have been limited to horse drawn vehicles for the movement of goods and people to the railway. It has already been seen in Windsor that many people accepted the need to walk to the station, a walk of three miles being quite usual for many.⁸

There appears to be no reason why the people of Wantage would also not find a similar walk to Wantage Road station to be unacceptable. Bulk or heavy goods that needed to be exported from the area by rail were most likely to have been despatched to the railway yards by carts of varying sizes and capacity. The journey from Wantage to the Great Western's station would likely have taken no more than one hour in each direction. A comparison may be drawn to the distances between Slough and Windsor and between Wantage and Wantage Road stations, which suggests that the traffic patterns between Windsor and Slough studied by the proposers of the Windsor, Slough and Staines railway scheme were likely that have been comparable to those seen at Wantage had a similar study been undertaken. The volume of traffic may have been smaller than observed on the Windsor to Slough roads due to the difference in size of the two places but would have been likely to show that

⁷ Google, Google Maps, Site of Wantage Road Station to Wantage [Website]
<https://www.google.com/maps/dir/51.6197408,-1.4077686/Wantage/@51.6040006,-1.4380213,14z/data=!3m1!4b1!4m9!4m8!1m0!1m5!1m1!1s0x48714b554e1fb081:0xdeed8eca523f496a!2m2!1d-1.426453!2d51.588868!3e0> (accessed 3rd April 2023).

⁸ Berkshire Records Office, D/EX1705/2/10, Appendix D.

in the early part of the nineteenth century, distances of around three miles were less of an issue than perhaps might be assumed today.

The difference in the short term was that Windsor was eventually served by a branch line from Slough provided by the GWR and the terminus of the LSWR's secondary line from Waterloo via Staines. The towns of Abingdon and Wallingford were served by a direct branch line terminating near to the town centre, both served by GWR services from the nearby junction station on the main trunk route.

Wantage did not have the benefit of a direct branch connection provided by one of the large railway companies and so, the railway near Wantage seems, at first, to have been far less convenient than the canal or roads. The railway, despite its remoteness from Wantage may perhaps have been viewed as more reliable in times of extreme weather, and no doubt provided a faster service than the canal was able to offer. The GWR was never to provide a branch line from Wantage Road to Grove and Wantage and so the town provides a useful example of how a less convenient railway may perhaps have been more attractive than other means of transport in the earlier part of the period examined by this study. The railway may have been more attractive because of the frequency and speed of its services and lower costs which may have offset the need to travel a longer distance to reach the railway station and yards. The case study will show however, that despite the promise offered by the railway, some of Wantage's business owners were not as accepting of the railways as their preferred option for the transport of their goods.

There was a development in the second half of the nineteenth century which created the opportunity for Wantage to finally be linked to the main railway network. The passing of the Tramways Act in 1870 created an opportunity for a light railway link from the Great Western's station into the town, the route of which would also pass through the village of Grove. The Act made provision for a more affordable railway which could be built upon less heavily engineered infrastructure often alongside an existing roadway, thus reducing the high civil engineering expenses

often associated with even the shortest of branch lines.⁹ The Tramway Act limited the speed at which a light railway of this type could travel but provided another advantage through the smaller distances required between railway and existing buildings, thus reducing the amount of land that had to be purchased thus reducing another area of cost associated with creating a railway.

The case of Wantage serves as a control study when compared to the other towns in this thesis since it did not have the benefit of a main railway company facility within it. If the general supposition, seen in some parts of the historiography, that the railways created economic growth is true, then indications of decline or stagnation should be generally supported in the evidence regarding Wantage. The effective bypassing of Wantage by Brunel's railway, with no railway facilities being provided within the town should have had a negative impact if the supposition is correct. If, however, the situation was more complex, and having a railway within a place was not as important as being within reach of a remote rail head, or even within reach of a canal, then the evidence should show that the economy of the town was as complex and variable as has been seen elsewhere. It thus could be expected that the complexity in the other case studies presented early in this study may be reflected in the data related to Wantage with similar patterns being seen to those observed in other places despite not having direct access to the railway early in the period. The statistical evidence should also provide an indication of whether the opening of the Wantage Tramway in 1875 had a positive impact, or otherwise, upon the economy of the town.

⁹ Legislation.gov.uk, Tramways Act 1870 [Website] <https://www.legislation.gov.uk/ukpga/Vict/33-34/78/contents/enacted> (accessed 20th November 2022).

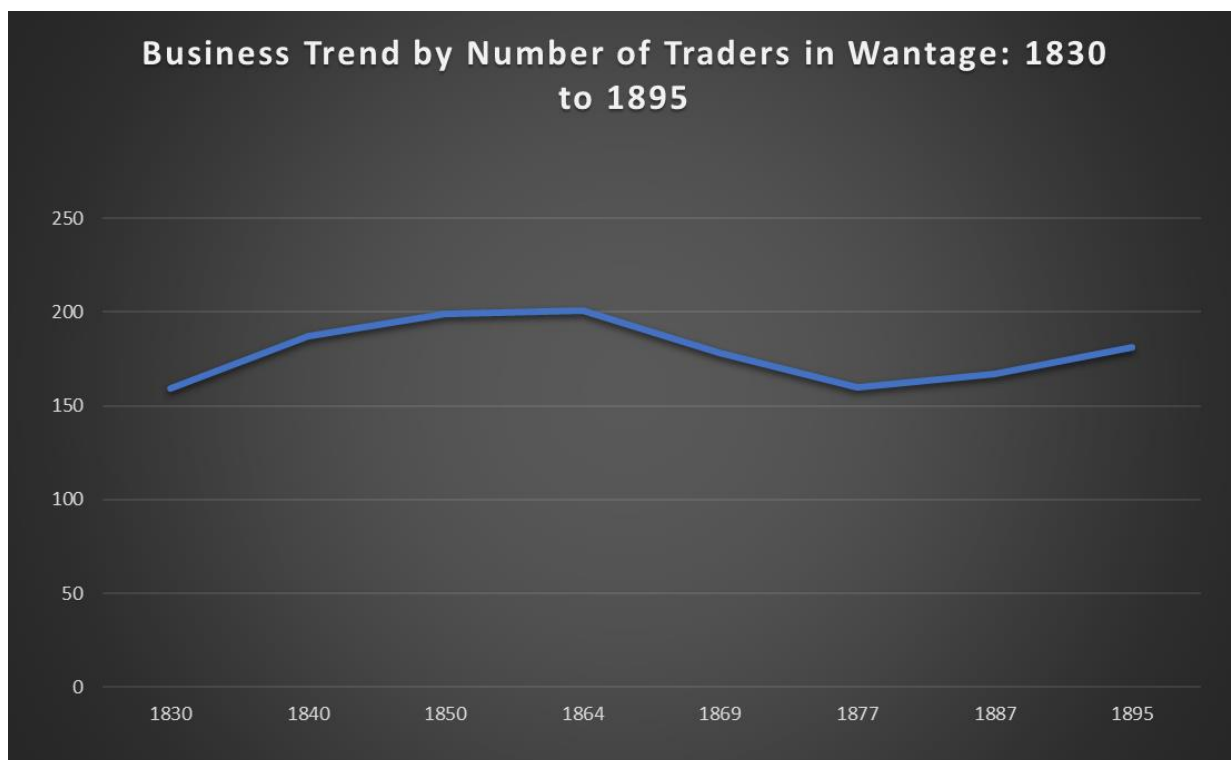


Figure 148: Number of Businesses in Wantage: 1831-1895¹⁰

The overall economy of Wantage seems to differ from the generalisation that the railways caused economic growth when the railway arrived in a town. The trend in the number of businesses seems to steadily increase until 1864, although the increase in number begins to slow after 1850. The town seems to be in decline until 1877 but then recovers steadily until the end of the period examined by this study. The initial evidence seems to suggest that the economy of a place was not so reliant upon a direct rail service, and that simply having a railway and canal within the immediate area may have been sufficient in the early part of the nineteenth century. As businesses grew and demands for high levels of bulk transport were required, perhaps a more centrally located facility may have been

¹⁰ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 34-35; Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 68-72; Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 52-54; Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 671-675; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 728-731; Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 646-650; Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 178-183; Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 233-236.

required. The need to support already growing industries who required greater transport capacity from the town to the rail head on the Great Western's line can be seen in the evidence from Wantage.

The decision by some of the town's business leaders to form a tramway company suggests that, as proposed by C.E.R. Sherrington in relation to railways and industrial need across Britain, the one ton capacity cart was no longer able to fulfil the manufacturer's needs. Instead the four and seven ton capacity railway wagons which were more capable of meeting industrial needs for bulk transport became desirable, possibly creating the demand for a more central and convenient rail head within the town.¹¹

The Wantage Tramway Company was formed in 1873 following a meeting at the Town Hall in Wantage on the 22nd October 1873.¹² The Company was formed at the meeting, with Lieutenant Colonel Lloyd-Lindsay V.C., M.P. elected as the company's first chairman and nine other leading citizens of Wantage taking seats on the committee. The meeting also raised one third of the anticipated cost of nine thousand pounds it was estimated the tramway would cost to build. The Wantage Tramway Company Limited was formed on 10th November 1873. Soon after the formation of the company, posters were displayed across the towns of Wantage and Grove announcing the intention to build the tramway in accordance with the requirements of the Tramways Act.¹³ The company also placed notices in the London Gazette (25th November 1873), and Reading Mercury Newspapers (22nd and 29th November 1873).¹⁴

The company received its authorising Act of Parliament on 7th August 1874 as part of a confirmation Act authorising the construction of the Birmingham Corporation; London Junction Road Extension;

¹¹ C.E.R. Sherrington, *Economics of Rail Transport in Great Britain: Volume II Rates and Services* (1928), 4.

¹² Reg Wilkinson, *Wantage Tramway: A Concise History* (Carlisle, 1974), 6-7.

¹³ Legislation.gov.uk, Tramways Act 1870 [Website] <https://www.legislation.gov.uk/ukpga/Vict/33-34/78/contents/enacted> (accessed 20th November 2022), Section 6,1.

¹⁴ Reading, Berkshire Records Office, D/WT11/24, Board of Trade, Railway Department. Tramways Act, 1870. Provisional Order for The Wantage Tramway Company Proofs of Compliance with Provisions of Acts and with Board of Trade Regulations.

Newbury and Lambourne; Portsmouth; Wantage; and Wirral Tramways.¹⁵ The company still had to reach agreement with the GWR for the transport of traffic from its Wantage Road station to a new tramway terminus in Wantage. The two companies reached an agreement which was signed on the 1st October 1875. The GWR imposed conditions on the Wantage Tramway Company which would restrict the activities of the tramway.

The agreement shows how dictatorial the large railway companies could be when dealing with smaller companies which joined their network. The Great Western agreed to the construction of the tramway with the restriction that all the construction works at Wantage Road were to be in accordance with a plan which was attached to the agreement. In addition, the Great Western reserved the right to inspect and approve all works undertaken by the tramway company. Clauses two and three of the agreement stated that the ‘...tramway junctions, shed and platform..’ and the ‘..tramway siding..’ were all to be constructed to a standard which met with the satisfaction of the Great Western’s civil engineer. The tramway company was also to pay a rent of five shillings per year for the use of the land at Wantage Road station on which the tramway’s northern terminus was to be built.¹⁶ The Wantage company accepted the Great Western’s conditions and was then able to construct the tramway.

The agreement between the tramway company and the Great Western related only to the construction of the tramway, a separate agreement was needed for the transport of traffic to and from the Great Western’s Wantage Road station. Additionally there was one final difficulty which needed to be resolved. The issue concerned two agreements already in place between the GWR and a Mr. Sims and a Mr. Nunney who both had the agency to transport freight from Wantage Road station by road. The two carriers would see their livelihoods taken away by the Wantage Tramway

¹⁵ Legislation.gov.uk, Tramways Orders Confirmation Act 1874 [Website]
<https://www.legislation.gov.uk/ukla/Vict/37-38/183/contents/enacted> (Accessed 20th November 2022).

¹⁶ Reading, Reading Berkshire Records Office, D/WT27/1, Great Western Railway Company and Wantage Tramway Company (Limited). Agreement as to Rails, Works and Accommodation at Wantage Road. 1st October 1875.

Company. The Great Western wrote to the company secretary of the tramway company, E. Ormerod, on the 20th September 1875 to confirm that the railway had served the required three months' notice upon the carriers and that their agreements had now been terminated. The railway advised that they had instructed their staff at Wantage Road to pass all freight traffic to the tramway from the first day of October.¹⁷ The advent of the 'railway' between Wantage Road station and Wantage town was clearly to have a negative impact upon the businesses of Messrs. Sims and Nunney, whilst creating the conditions under which the new tramway could begin to trade. The relationship between the GWR, Wantage Tramway and Messrs Sims and Nunney shows how complex the relationships were between railway and commerce during the nineteenth century.

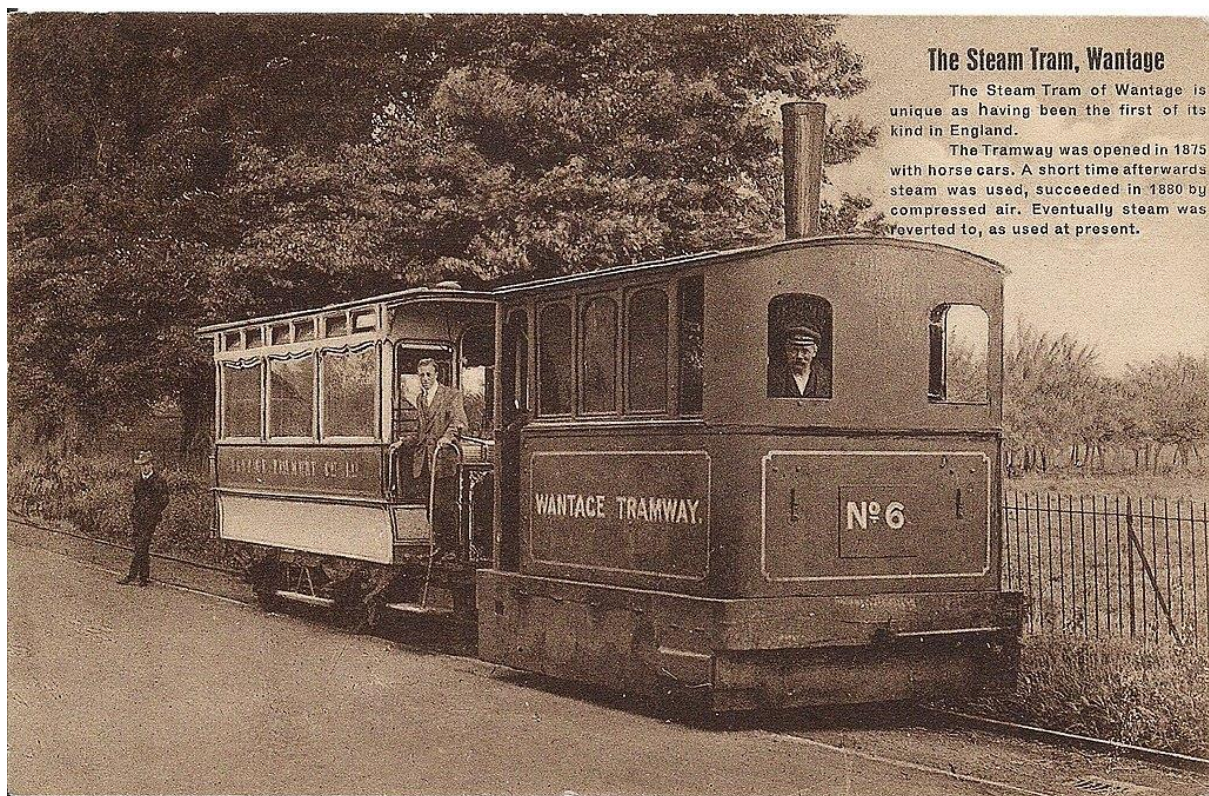


Figure 149: Wantage Tramway tram running alongside the road between Wantage and Grove c.1928.¹⁸

¹⁷ Reading Berkshire Records Office, D/WT27/6/7, Letter from The Great Western Railway, Goods Manager's Office, Paddington Station, London, 30th September 1875 (GWR Ref: 2/78043).

¹⁸ Wikimedia Commons, Anonymous Unknown author, Public domain, via Wikimedia Commons, Wantage Tramway No.6, 1928. [Online Photograph], https://commons.wikimedia.org/wiki/File:Wantage_Tramway_No._6.jpg (accessed 7th April 2023).

An agreement was signed by the Great Western and the Wantage Tramway Company to cover the freight traffic between Wantage Road and Wantage town. The contract made the tramway company sole agents for the GWR in relation to the collection and delivery of parcels for the Wantage district but in order to keep the agency the tramway was expected to meet the requirements laid down by the Great Western. The Railway company reserved the right to approve the employment of all the tramway company's staff, and if necessary to require the tramway to '...remove such men...as they may consider objectionable or not sufficiently suitable.'¹⁹ The tramway was restricted to using only vehicles marked with the term '*Great Western Railway: The Wantage Tramway Company Agents*' on all vehicles which were to be used for the transport of freight, including any road vehicle used for onward deliveries.

The Great Western restricted the tramway from making any charges above those already levied by the railway for all deliveries and collections made within one mile of Wantage Market Place. The railway would in turn pay a commission rate per parcel or ton to the tramway for their services. The tramway was permitted to levy collection and delivery charges for transport outside of the one mile radius, and to keep those charges for their own use. The contract stated that the tramway was to use GWR stationery for all delivery and collection receipts which would be supplied by the railway company. All charges collected on behalf of the Great Western were also to be enumerated on pre-printed account books supplied by the railway which were to be submitted for inspection by the station master at Wantage Road. In return the railway would pay a commission fee to the tramway for the traffic carried by the tramway on its behalf. Passenger traffic fares were to be at the discretion of the tramway, with the revenue to be kept by the company. Through ticketing did not seem to be available, passengers having to purchase a second ticket at Wantage Road in order to use the Great Western's services.

¹⁹ Reading Berkshire Records Office, D/WT27/2, Memorandum of Agreement between the Great Western Railway Company and the Wantage Tramway Company (Limited). 21st March 1876.

The relationship between the Wantage Tramway and the GWR would vary over time, with the Great Western occasionally being supportive of the tramway and at other times demanding. The uneasy relationship between the two companies will be discussed in more detail in Chapter 6 alongside an exploration of other direct impacts of the railways.

The general upturn in the number of businesses in the town before 1864 and again after 1877 and the opening of the tramway in 1875 seems to suggest that perhaps the type of rail link was indeed not as important as might have been thought. The decline in the town's economy may be explained as most likely being as a result of the Great Depression of 1873. After 1877, a simple tramway link seems to have been sufficient for Wantage, although what the differing levels of service over the course of the century meant to individual business sectors remains to be explored, and so one must be careful to not make unsafe generalisations at this point.

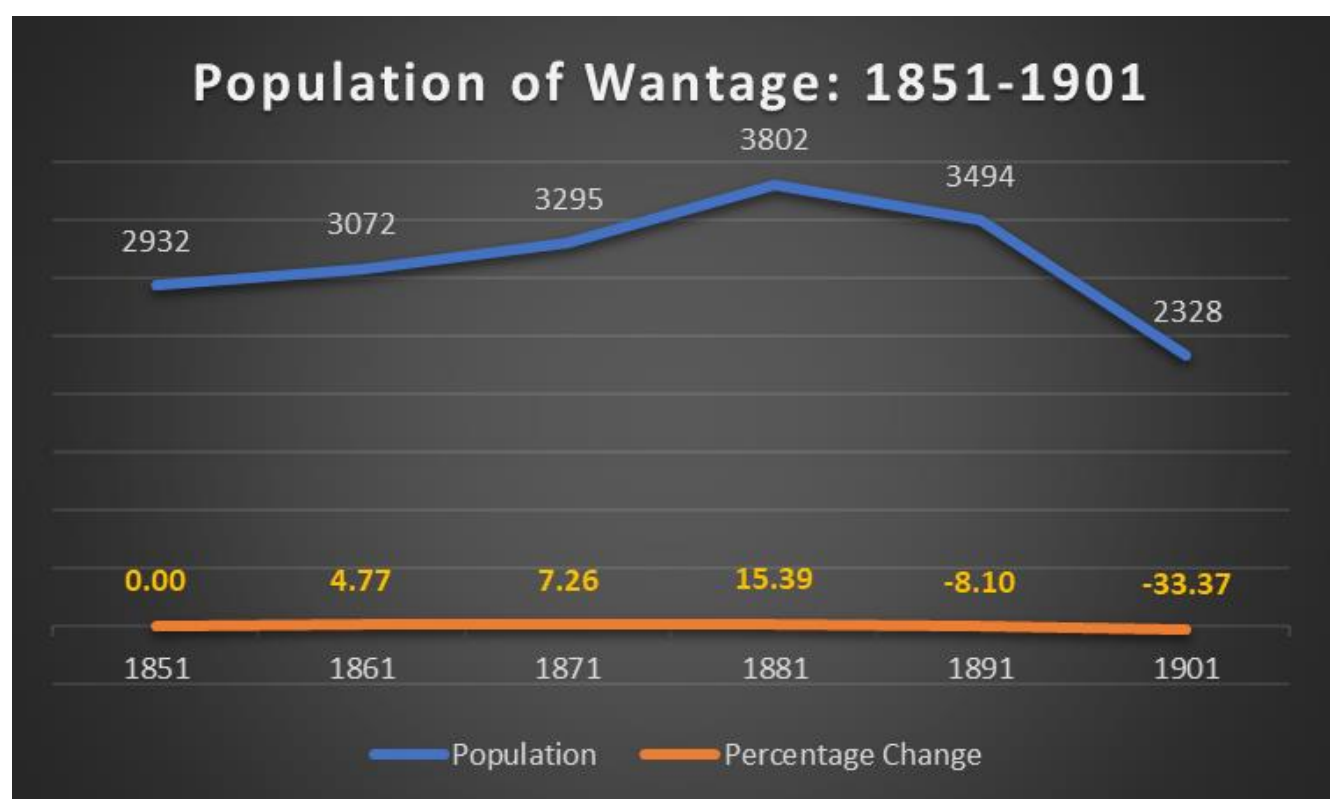


Figure 150: The Population of Wantage between 1851 and 1901.²⁰

²⁰ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022); Histpop.org., Census of England and Wales, 1871, Population tables. Area, houses,

The population of Wantage appears to have been little affected by the arrival of the railway nearby. The results of the 1851 and 1861 census show a small population increase of less than five per cent, with only just over seven percent increase returned in 1871, The large growth in population enumerated in the 1881 census was followed in both the succeeding censuses by dramatic contraction in the population of Wantage, with the population being counted as one third less in the 1901 census than in 1891. The increase in population does follow the opening of the Wantage Tramway but it is debatable whether a tramway with slow and limited passenger services would have had a great impact upon the town's population alone. It is more likely that a combination of other factors, alongside the advent of the tramway, were responsible for the increased growth rate in the town's population.

The economy of Wantage appears to exhibit different trends when individual sectors are examined, which indicates that, as with the population statistics, other factors were influencing the evolution of Wantage's economy. A selected survey of different types of businesses reveals that the high level summary data used in the introductory graph in this section do not necessarily reflect the situation being experienced by different types of business. This shows how summary data can present false statistics due to the aggregation of returns which serves to hide variances from the observer.

and inhabitants. Vol. II. Registration or Union Counties BPP 1872 LXVI Pt [C.676-I] 90 [Website]
<http://www.histpop.org/ohpr/servlet/PageBrowser2?ResourceType=Census&SearchTerms=Wantage&SearchContent=All&ExpressionKind=All&Date=1871&Geography=E&Sorting=resource-type%20date%20geography&simple=no&path=Results&active=yes&treestate=expandnew&titlepos=0&mno=46&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=102&zoom=4>
(accessed 5th April 2023).

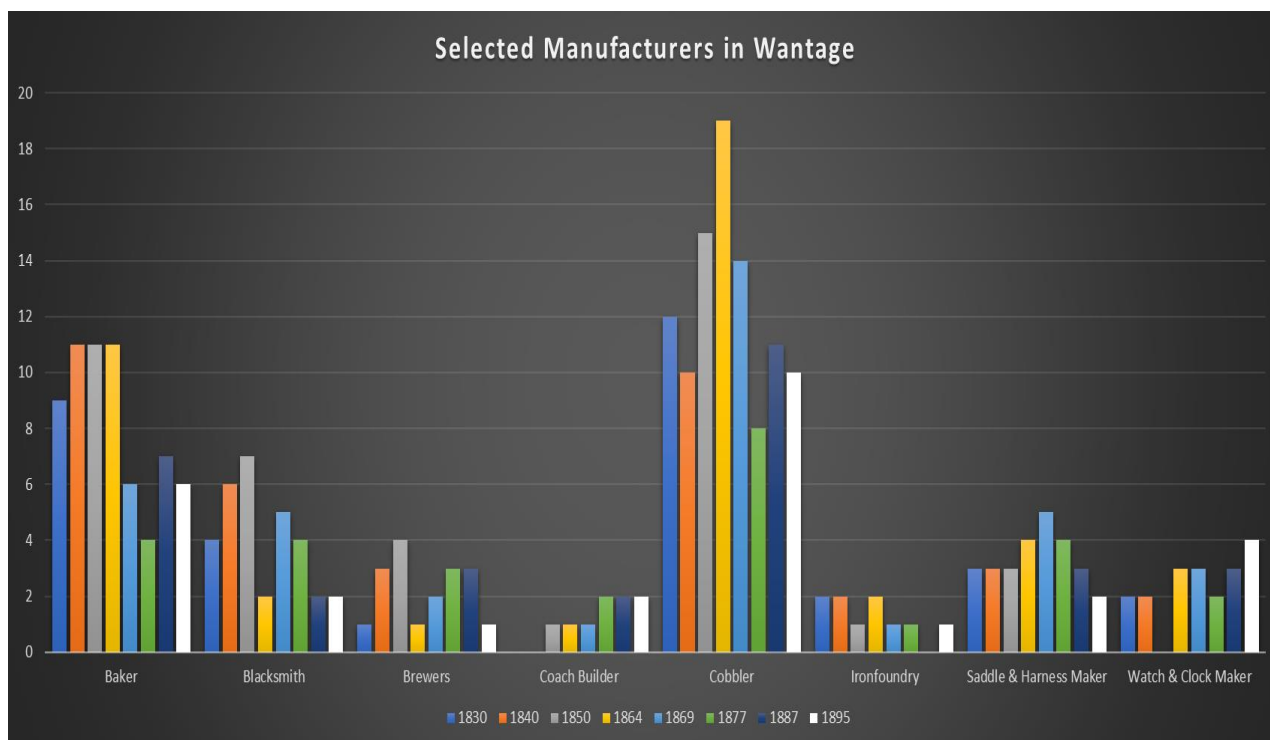


Figure 151: Selected Manufacturing Trends in Wantage 1830 to 1895.²¹

The trends illustrated in figure 132 are different in each sector. The number of artisan shoemakers in the town during the period studied changes differently from the statistics shown in relation to the number of bakers. The difference between two sectors who may be reliant upon the local population for most of their trade suggests that the change in population seen in the town is highly unlikely to be the cause of the changes seen in these two sectors. Much as with the attribution of 'growth' to the railways, population change does not seem to be solely responsible for business change in Wantage. It is likely that there was more than one factor influencing the evolution of Wantage's economy during the nineteenth century. The evidence suggests that neither railway nor population change can be said to have been causing change alone, and was certainly not always causing growth.

²¹Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

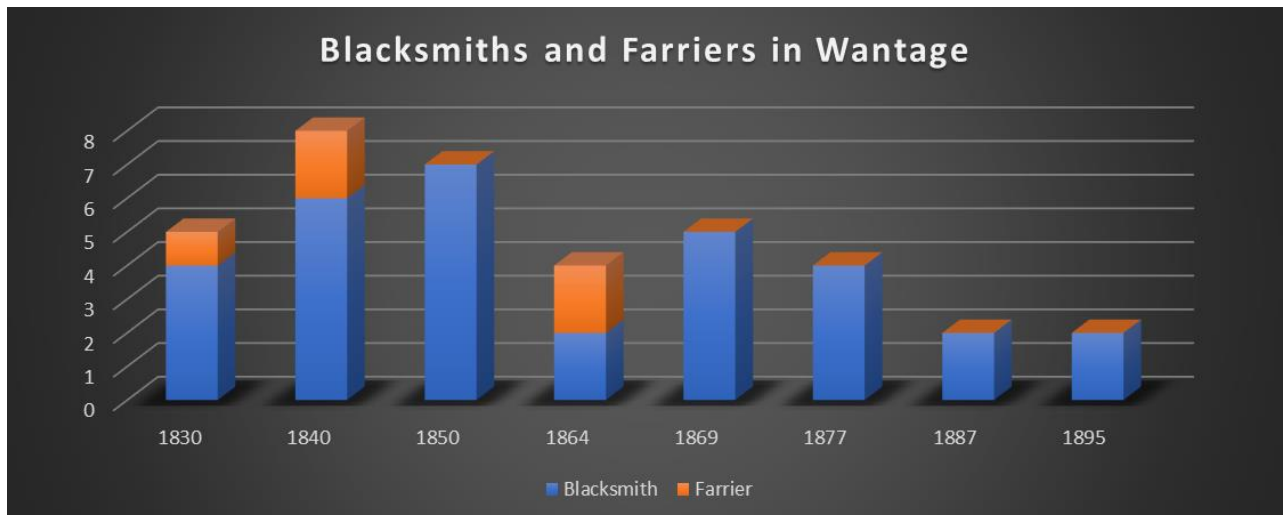


Figure 152: Blacksmiths and Farriers located in Wantage, 1830-1895.²²

The number of blacksmiths and farriers forges located in Wantage fluctuated over time, which may indicate that several factors were influencing the businesses based in the town. The number of forges grew before the railway opens at Wantage Road but then declined before recovering briefly in the 1869 directories, although none of the businesses were listed as purely trading as farriers from that time. It is likely that this does not indicate a negative impact of the railway upon the sector, but rather a diversification of those remaining businesses to produce a wider variety of products. The diversification of businesses would have made them more viable concerns during difficult trading conditions such as those seen during economic depression.

The decline in the number of businesses is probably more a result of the British agricultural depression after 1875.²³ The railways certainly had a role to play on Britain's agricultural depression, providing a cheap and fast means to transport cheaper American, Australian, and South American produce to the point of consumption, but were not the single cause. E.J.T. Collins argued that the railway freight tariffs favoured the regular bulk transport of the imported produce, whilst the British farmer, sending smaller quantities by rail less frequently, faced higher freight charges from the

²² Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

²³ E.J.T. Collins, 'Rural and Agricultural Change: The Great Depression, 1875-1896' in Joan Thirsk and E.J.T. Collins (Eds), *The Agrarian History of England and Wales, Vol VII (part I) 1850-1914* (Cambridge, 2000), 138-207.

railway, making their produce more expensive at the end point. The higher freight rates were not the only issue for the British farmer, the rising cost of labour also impacted on the prices a farmer was able to charge. The railways, however, provided a means for the farmer to access fertilisers and animal feed which were steadily decreasing in price from the 1870s until the end of the century.²⁴ The farmer also benefitted, Collins argued, from the reducing costs of agricultural machinery during the last third of the nineteenth century. The railway would allow the cheap transport and delivery of these machines to rural areas such as that around Wantage. In this respect the placement of Wantage Road station appears to be justified as a rail head from which the surrounding area could easily be reached. The advent of the Wantage Tramway would complement the services offered by the GWR and support a 'door to door' service from manufacturer to consumer in Wantage itself. The decline in the number of businesses solely trading as farriers is most likely to have been caused by the availability of cheaper imported produce from overseas which in turn led farmers to look for methods by which to reduce costs. The mechanisation of the farm would achieve some degree of cost saving after the initial capital outlay, and would in turn reduce the farm's need to rely on horses once steam power superseded the horse. The reduction of horses on the farm would have impacted upon the number of farriers, since their services would have no longer been required. The railway was not directly responsible for the loss of farrier's businesses in Wantage, only providing the means for agricultural machinery manufacturers to reach rural Berkshire from places such as Lincoln and Ipswich or more locally, Reading.

²⁴ Collins, 148.

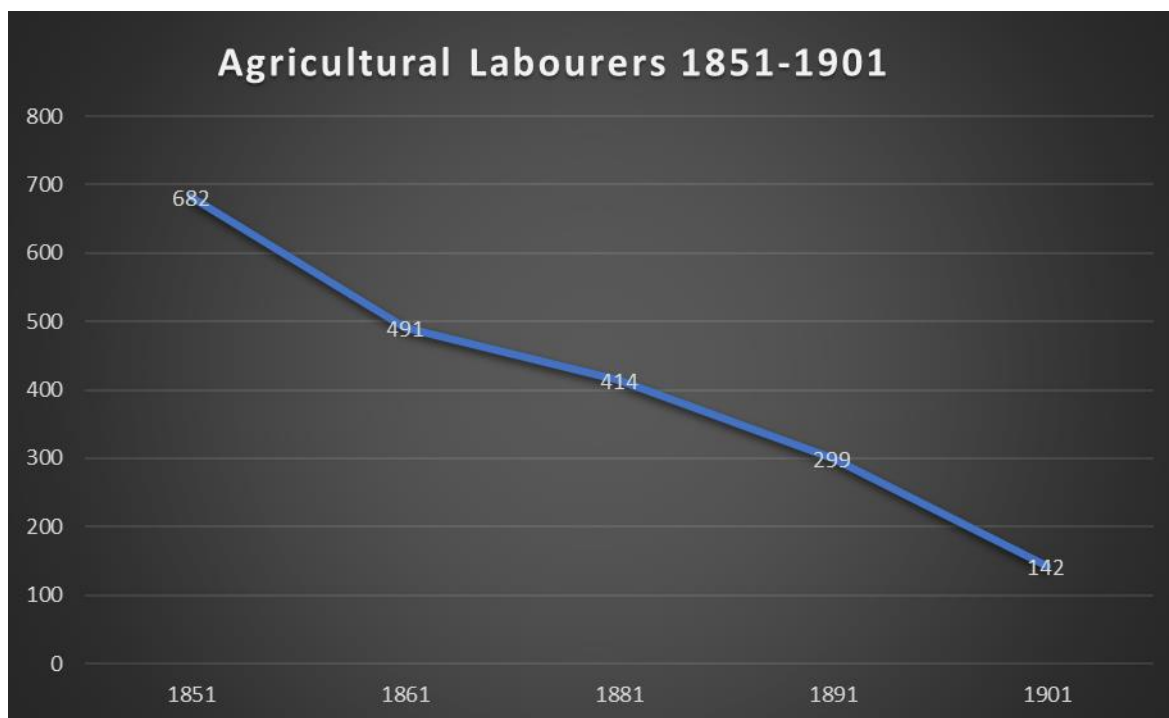


Figure 153: General Agricultural Labourers in Wantage, 1851-1901.²⁵

The change in farming methods were reflected in the number of persons enumerated as general agricultural labourers in the census returns for the nineteenth century. The decline in employment did not begin with the agricultural depression but from the start of the census employment returns in 1851. The work available for agricultural labourers declined throughout the second half of the century, suggesting that farms were mechanising before the challenges of the depression.²⁶ In his report on the agriculture of Berkshire, William Mavor dedicated a section to the implements being

²⁵ Integrated Census Microdata.

²⁶ Jane Seaton McCutchan argued that the increasing role of capital intensive agriculture through mechanisation has been under-explored, Jane Seaton McCutchan, 'The Steam Mechanisation of Agriculture, 1840-1930', PhD Thesis, University of Reading, 2013, Abstract; McCutchan also argued that the enduring view of British agricultural production has remained one of manual labour and 'hoe agriculture' but that farmers had, in reality, begun to replace horses and labourers with steam engines, Jane McCutchan, 'The Diffusion of Steam Technology in England: Ploughing engines, 1859-1930' in: Mark Casson and Nigar Hashimzade (eds), *Large Databases in Economic History: Research Methods and Case Studies*: 67 (London, 2013), 222; Robert Allen argues that British agricultural production was the highest in Europe by 1840 due to the growth in farm size which other historians, such as McCutchan and Collins, have argued supported the capital investment needed to mechanise, Robert C. Allen, 'The Growth of Modern Productivity in Early Modern English Agriculture' in *Explorations in Economic History*, 25 (1988), 118, 120; Collins argues that mechanisation in English farming was slower than in manufacturing, before 1850, with barn work, such as threshing, hay and corn harvesting mainly mechanised by 1880, E.J.T. Collins, 'The Rationality of 'Surplus' Agricultural Labour: Mechanisation in English Agriculture in the Nineteenth Century' in: *The Agricultural History Review*, 1 (1987), 36.

used in the county. The report stated that the farms in the county had begun to use machinery to a great extent. Mavor examined the use of chaff cutting machines by three farms. Mr. Loveden had invested sixty guineas in a machine, whilst Sir John Throckmorton had spent twelve guineas on a 'Burrel's Chaff Cutting Machine'.²⁷ Mavor additionally stated that a patent chaff cutting machine manufactured by Lister's had been '...introduced about Reading...'. Winnowing and threshing machines were being introduced into the county; many being manufactured outside of Berkshire. Mavor highlighted one farm which was in the process of mechanising the threshing of grain. Mr. Harbottle of Remenham Farm was in the process of installing a machine at the time of Mavor's survey in 1809. The machine was described by Mavor as being horse powered and having been made in Hexham, Northumberland.²⁸ The machine cost around two hundred pounds, with another one hundred required to erect new buildings to accommodate it. The installation of the machine shows how the county of Berkshire was already well connected to the rest of the country through the canal and road network long before the railway provided new options for the transport of goods and machinery. Mavor's report calculated that the machines were saving the farmers a considerable part of the labour costs previously associated with agricultural produce.

The report calculated that the previous manual method of threshing grain with flails cost three pounds and ten shillings. Mavor's calculations showed that the mechanisation of the process resulted in costs of two pounds, three shillings and sixpence for the same quantity of grain, a saving of one pound, six shillings and sixpence.²⁹ These returns were clearly a motivation for farms to mechanise as many of the farming processes as machinery was available for.

Harbottle was not the only farmer who was mentioned in the report as in the process of mechanising threshing. Mr. Rogers of Chieveley, and Mr. Palmer of East Garston had installed large

²⁷ William Mavor, *General View of the Agriculture of Berkshire 1809: Drawn up for the Consideration of The Board of Agriculture and Internal Improvement*, (London, 1809), 128.

²⁸ Mavor, 129.

²⁹ Mavor, 129.

machines powered by six horses. Mavor listed a large number of farms which had invested in new threshing machines in the early part of the nineteenth century. The farms listed were located across all parts of Berkshire and the machinery made by companies as far afield as Newcastle, Norwich, and Exeter.³⁰ Berkshire's transport infrastructure was clearly able to support the needs of the farms and other industries across the county before Isambard Kingdom Brunel had considered the initial survey for his railway.

The canals would have been used to transport machines over longer distances, with local iron foundries such as Barrett, Exall and Andrews in Reading and the Wantage Iron Works providing other machinery. The railways were likely to have been used to bring later steam powered machines and traction engines into the county from manufacturers such as John Fowler and Company of Leeds. The considerable savings to be made in relation to labour cost by mechanising the farm would have created a demand for machinery and engines with which to achieve it. The railways would no doubt have been a huge part of the transport network needed to supply the devices, but they would not have created the demand.

The average number of people employed within blacksmith's forges increased during the period for which statistics are available. The forges employed around five people per business in 1851, but by the end of the century this had increased to nearly fifteen in each of the two forges. This suggests that the sector was not in decline, but had evolved and diversified. The two remaining blacksmith's forges were clearly the companies which had diversified into a broader range of products, which made the business more viable. The increased number of staff employed in each business suggests that this was indeed the case.

³⁰ Mavor, 133-135.

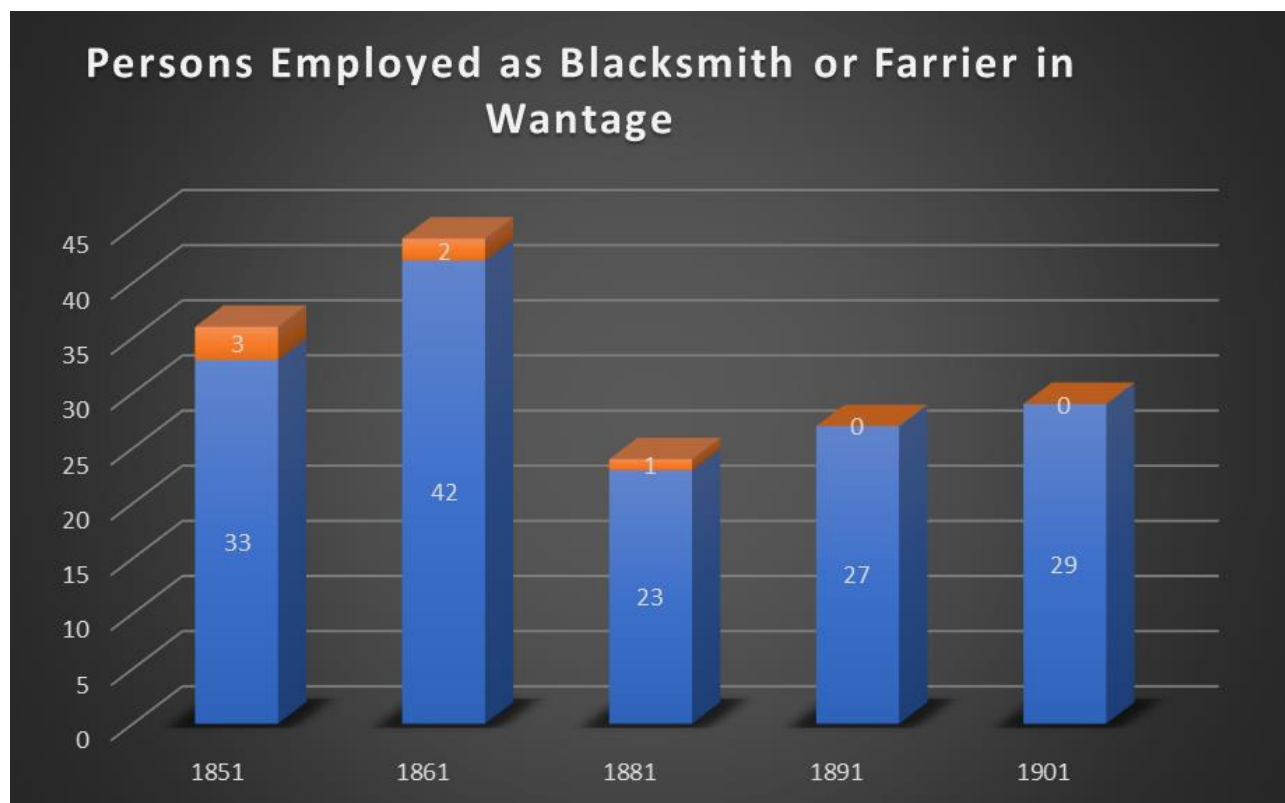


Figure 154: Number of Persons employed as Blacksmith or Farrier in Wantage, 1851-1901.³¹

The railway seems to have had little impact upon the smithing trade, although indirectly it may have brought in new machinery which created opportunity within the forges. The new machinery being used in the farming community would have created new work for the forges since the machines would have required maintenance and repair of parts, some of which may have been undertaken in local blacksmith's businesses.

The ironworks located in Wantage would also have been able to have taken advantage of the demand for agricultural machinery. Although their markets may have been eroded by the cheaper mass produced machinery manufactured by companies such as Ransome's (Ipswich) and Reading Iron Works. If this was the case the railway would have had an important role in the evolution of the market by providing cheap and fast transport at least to Wantage Road station from where the farmer would have been able to collect their new equipment.

³¹ Integrated Census Microdata.

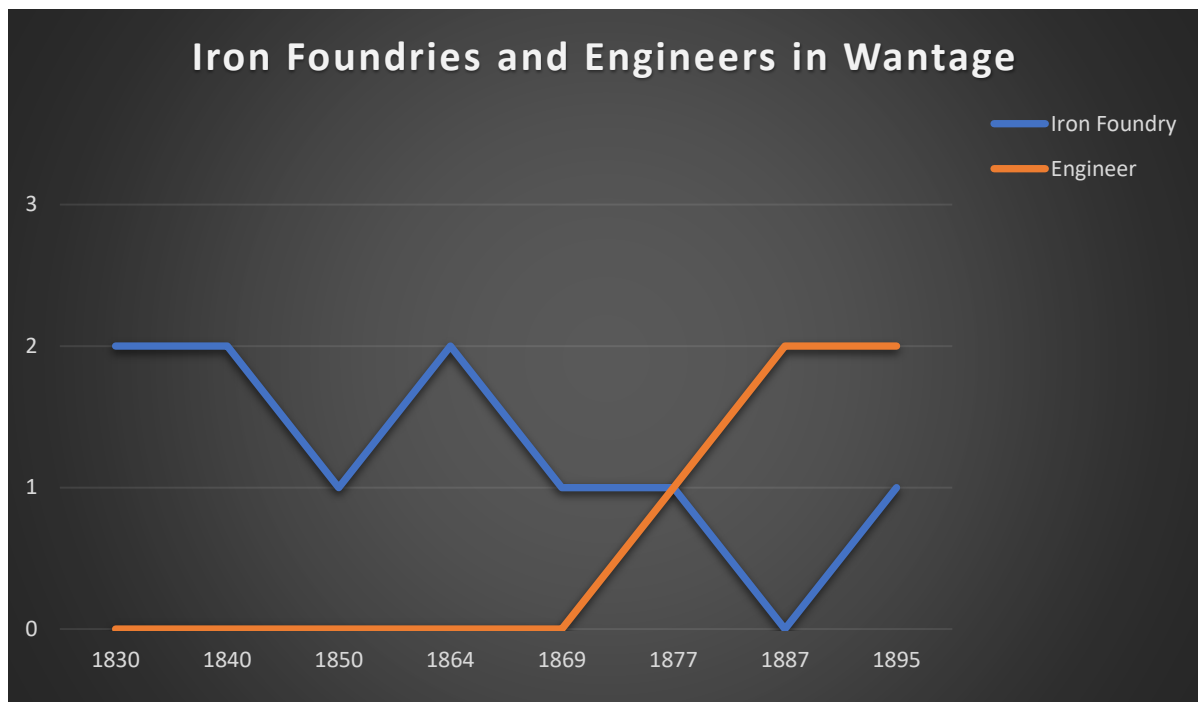


Figure 155: Iron Foundries and Engineers in Wantage, 1830-1895.³²

There were only two foundries in Wantage in the first half of the nineteenth century, although one appears to have ceased trading at the time the entries were being collected to create the 1850 Slater's directory, although Kelly's 1864 directory lists two. The second half of the century saw only one survive other than in the 1887 directory when none were listed. There is a complication within the statistics which may cause a false conclusion to be drawn. The 1887 Kelly's directory has no entries for iron foundries, which could lead to the conclusion that the industry was in decline at that time. The directory lists a new classification which may explain the strange lack of companies, given that the occupation statistics show many people employed within iron foundries which the directory seems to suggest did not exist.

³² Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

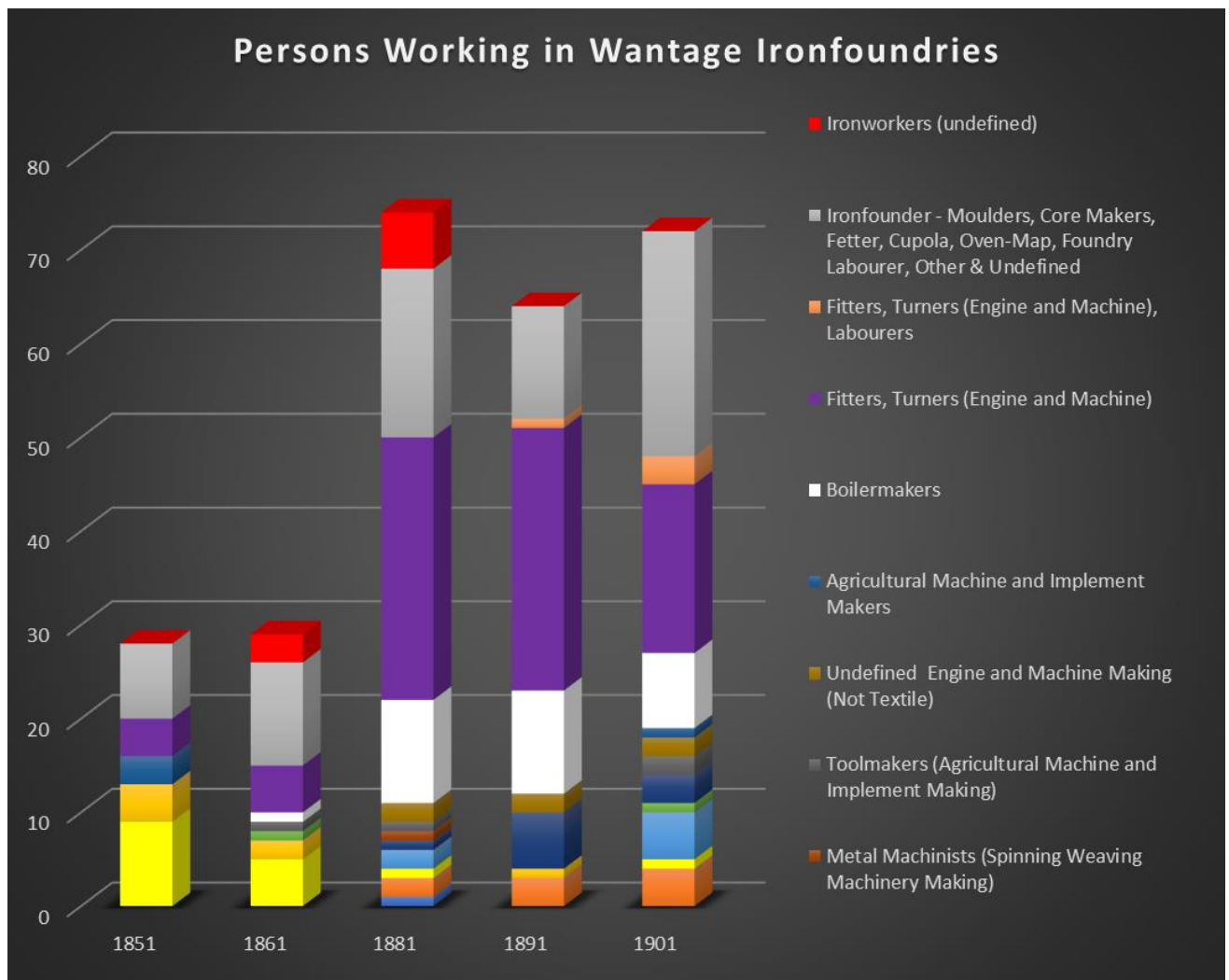


Figure 156: Numbers of Persons listed in Census returns as working in roles linked to Iron Foundries 1851-1901.³³

The new classification of 'Engineers' resolves the problem, as it seems that the companies who had previously been listed as 'Iron Founders' were now choosing to be listed as the more professional and modern title of 'Engineers'. The new classification may also suggest that the iron foundries were active in a broader range of work than before, part of which may have been offering the services of a consulting engineer for design of bespoke machinery or iron and steel products. An example can be found in Kelly's 1887 directory which supports the inclusion of the new grouping in the case study with iron founders.

³³ Integrated Census Microdata

The company 'Gibbons and Robinson' were listed as 'Engineers' with their place of business being 'Foundry Lane'.³⁴ If the companies listed as engineers are included in the statistics the situation becomes clearer and shows how relying on the use of only a single data source for a study of Victorian industry could be problematic. One source alone could result in an artificially skewed conclusion based upon incomplete data. Using a combination of sources, such as used here, results not only in a broader perspective, but serves to highlight to the researcher any issues in the data which may otherwise not have been observed.

The data for the combination of iron foundries and engineers from the directories when combined with the occupation data from the census shows that the sector was thriving rather than in decline. It also shows how the businesses were probably diversifying their offerings. The exponential growth in the number of 'boilermakers' in the statistics in the 1881 census returns shows that the companies were becoming specialised engineering and machine making concerns rather than the iron foundries of the early part of the century. It also indicates that businesses in the local area were adopting steam power in the factory and on the farm, in turn creating demand for the construction and maintenance of boilers. This shows the interconnectivity of businesses and why one sector alone cannot have been solely responsible for economic change.

One iron working company remained in existence throughout the whole of the period examined in this study, although it changed its name over the century as the owners changed. John Austin started an iron foundry in 1826, changing the name to the White Horse Foundry in 1846. The company then came under new ownership and the name was changed to Hart, Gibbons, and Gibbons, then P & H.P. Gibbons until 1881. A Mr. Robinson joined the company in 1881 as a director and the name was again changed, this time to Gibbons and Robinson. The name changed once again in 1891, reflecting the new directors of the company, Robinson and Auden. The company changed its name one final time in 1900 when it came under the ownership of Lady Wantage as The Wantage

³⁴ Kelly's 1887, 182.

Engineering Company.³⁵ The company was involved in the manufacture of agricultural machinery, railway and mining equipment into the twentieth century.

John Austin's company serves as an example of why reliance on a single source can cause an incomplete picture to emerge. Using multiple sources cross referenced to work such as Corley's article in the *Berkshire Archaeological Journal* can serve to support a broader and more complete view of the history of industry in a place, and a better understanding of how industrial change may have occurred in one place. In turn the wider ranging research can support a more complete conclusion that more closely reflects the situation as it was at the time.

The sector appears to be showing growth, despite the difficulties being experienced in agriculture although as has previously been suggested, it is likely that the companies were supporting steam machinery in use on farms. The downturn in employment statistics relating to farm labourers was perhaps an indication that more work was being provided to local iron foundries and agricultural engineers as farming continued to become more mechanised as the century progressed. It is also highly likely that the adoption of steam power in brewing and other industries seen in previous case studies in this thesis was providing work for the Wantage Engineers.

The railway seems to have had neither an overly positive nor a detrimental impact upon the iron foundries and manufacturing engineers in Wantage. There is evidence that at least one of the foundries saw no use in the local tramway and chose not to use it. In 1897 Robinson and Auden Limited engaged in a legal dispute with the Berks and Wilts Canal. Correspondence that remains in the Berkshire Records Office between the company and Mr. W.J. Ainsworth, the company secretary of the Berks and Wilts Canal Company in Swindon outlines the issue in detail.³⁶ It appears that the

³⁵ T.A.B. Corley, 'A Small Berkshire Enterprise: J. Dymore Brown and Son: 1831-1944', *Berkshire Archaeological Journal*, 69, 73-80.

³⁶ Reading, Berkshire Records Office, D/ECO/B6/3/3/2/1, Copy Correspondence from Robinson & Auden Limited to W.J. Ainsworth, Secretary to the Berks and Wilts Canal Company, 11 November 1897 to 14 December 1897

between their works and Wantage Road station. They also explained that they had inspected the bridge in question and had found that maintenance had been '...scandalously neglected'. The company went on to communicate to the canal company in a further letter dated 3rd December, that they would hold the increased costs of transport as a charge they would raise against the canal company until such time as the bridge had been repaired and declared to be safe for the passage of their traction engine.

It appears clear that the foundry was not using the services of the Wantage Tramway, preferring to use their own transport to move their goods and materials between the works and the railway station yard at Wantage Road. The evidence provided by the correspondence file relating to the disagreement between Robinson and Auden Limited and the Berks and Wilts Canal Company shows that the railway did not need to reach a place directly to be able to support businesses in that place. A rail head within reasonable distance was all that was required in more rural areas. The costs of transporting freight and people short distances to a main rail head on a trunk or secondary route seems to have been an important consideration for businesses and it is likely that other companies in Wantage viewed the costs associated with using the Wantage Tramway in the same manner as Robinson and Auden did, if they already had their own transport available in house. Where companies had been only using the cart carriers and had no transport of their own, the Tramway would probably have been viewed more favourably than by those who had previously made their own arrangements.

The preference of the company to use its own traction engine to meet its transport needs instead of, what they stated to be, the more expensive services offered by the Wantage Tramway shows that a local branch railway was not always of use to every company. If the preference of Robinson and Auden is viewed in conjunction with the needs of Plenty and Sons in Newbury to use road transport due to restrictions upon the size of freight that could safely be carried by the railways it could safely be suggested that a combined transport infrastructure which offered flexibility to meet the needs of business was important. A combination of rail, waterway and road seems to have been necessary

but this was also dependent upon investment which may have already been made by a company in their own transport vehicles prior to the opening of the tramway. The situation appears to be complex with different biases and preferences impacting upon how companies engaged with the railways, and in return how the railway impacted upon those businesses.

An industry which would have provided work for the foundries in Wantage was brewing. The number of brewery businesses located in the town had begun to increase before the railway opened to Wantage Road station, suggesting that the fuel and materials needed for brewing were being brought into the town by canal and road. It would also appear that the local public houses were sufficient to consume the beers being produced in the breweries until 1850. As the pubs and inns were often tied to a particular brewery a local monopoly would have existed which prevented any external brewer from gaining a foothold in the market in and around the town. The lack of cheap long distance transport would also serve to force a reliance upon local breweries for the products being sold at the bar in the local taverns.

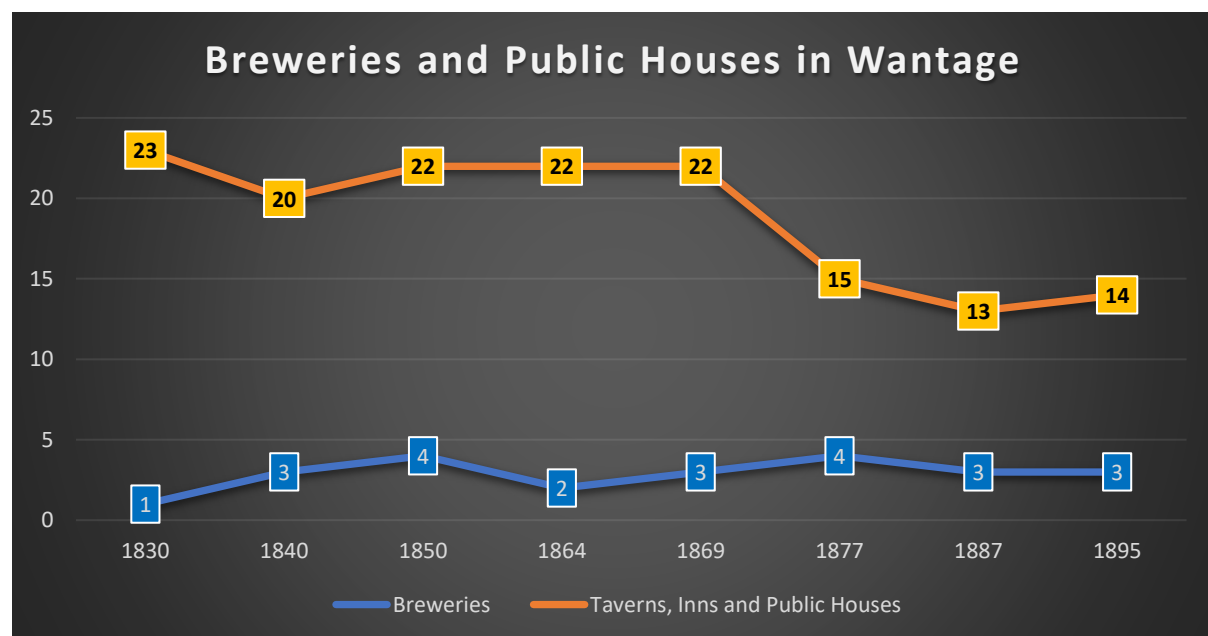


Figure 158: Number of Breweries and Public Houses in Wantage and the Immediate area.³⁸

³⁸ Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

The small increase in the number of breweries in the town in the 1840 directory occurred at a time when the number of public houses had reduced slightly which suggests that the breweries may have been selling their products further afield than previously, possibly through a wider ranging chain of tied taverns through which to sell their products. It may also be possible that the services of the railway were being used to assist in supplying a larger area with their beers. The stagnation in the number of public houses between 1850 and 1869 was accompanied by fluctuation in the number of breweries.

The volatility of the brewing sector of Wantage's economy suggests that the breweries were amalgamating as was common at the time, with new breweries being created locally to compete. The railways would not have been responsible for this but would have been a key partner in extending the reach of breweries which would allow them to take advantage of mergers and acquisitions both in Wantage and further afield.

The dramatic decline in the number of public houses after 1869 seems not to have had a negative impact upon the number of breweries in the town. The evidence appears to suggest growth in production whilst the outlets through which that production could be sold was declining rapidly. The only possible explanations for the discrepancy would be either that the breweries were declining in size but continuing to trade, or that the railway was being used to despatch the beers produced in Wantage further afield, thus keeping the companies commercially viable.



Figure 159: Persons Employed in Identifiable Brewing Occupations.³⁹

³⁹ Integrated Census Microdata.

The employment statistics provide an indication of the sizes of the breweries in Wantage. It can be seen from the data that the breweries appear to have been relatively small when compared to the large companies in the sector in Reading, Abingdon, and Maidenhead.

The number of brewers working in Wantage's breweries grew after 1851 but then entered a prolonged period of decline until a slight recovery was seen in the employment statistics in the 1901 census. It seems that the breweries were most likely contracting in size as the second half of the century progressed which appears to be supported by the decline in the number of public houses in the area as well as the declining population seen in the census statistics for the town's overall population. The railway does not appear to have resulted in growth for the breweries in Wantage, quite the opposite being seen but not likely to have been caused by them. The decline in the population of Wantage is more likely to have been the main driver, among other factors, in the decline in the number of public houses and the contraction in size of the town's breweries.

The reducing population of Wantage may have had an impact upon another part of its economy. The reducing population would potentially have had a negative impact upon the baking trade in the town insofar as local sales of baked goods were concerned.

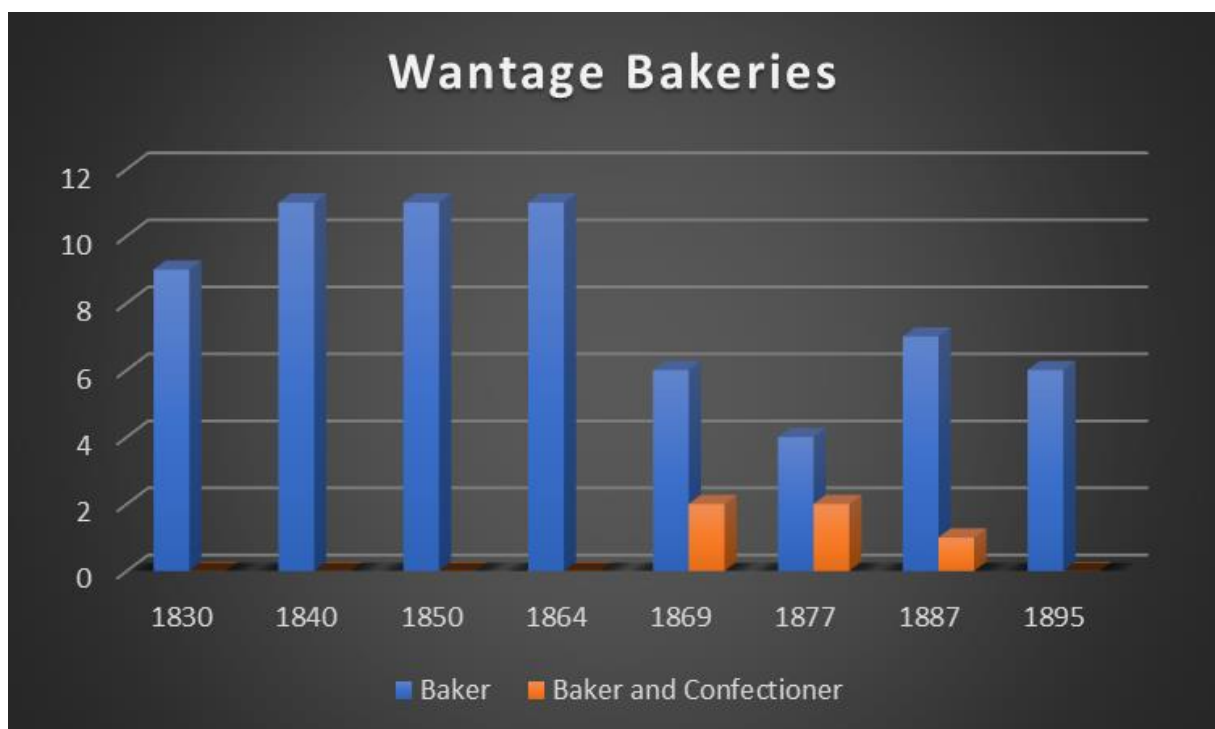


Figure 160: Numbers of Bakeries in Wantage, 1830-1895.⁴⁰

⁴⁰ Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

It seems that the number of businesses dedicated to baking does not correlate directly with the population of the town. The minor increase in the population is not mirrored in the number of bakeries after 1851 which remained static, with the number declining in the period between 1864 and 1877 despite the gradually increasing population of the town until the 1881 census. The decline in population seen in the census returns after 1881 until after the first census of the new century relates to an increase in the number of businesses between 1877 and 1881 followed by a minimal reduction which does not seem to relate to the rapid decline seen in the population noted in the census returns for the latter period. It seems that there is a different factor influencing the number of bakeries in the town.

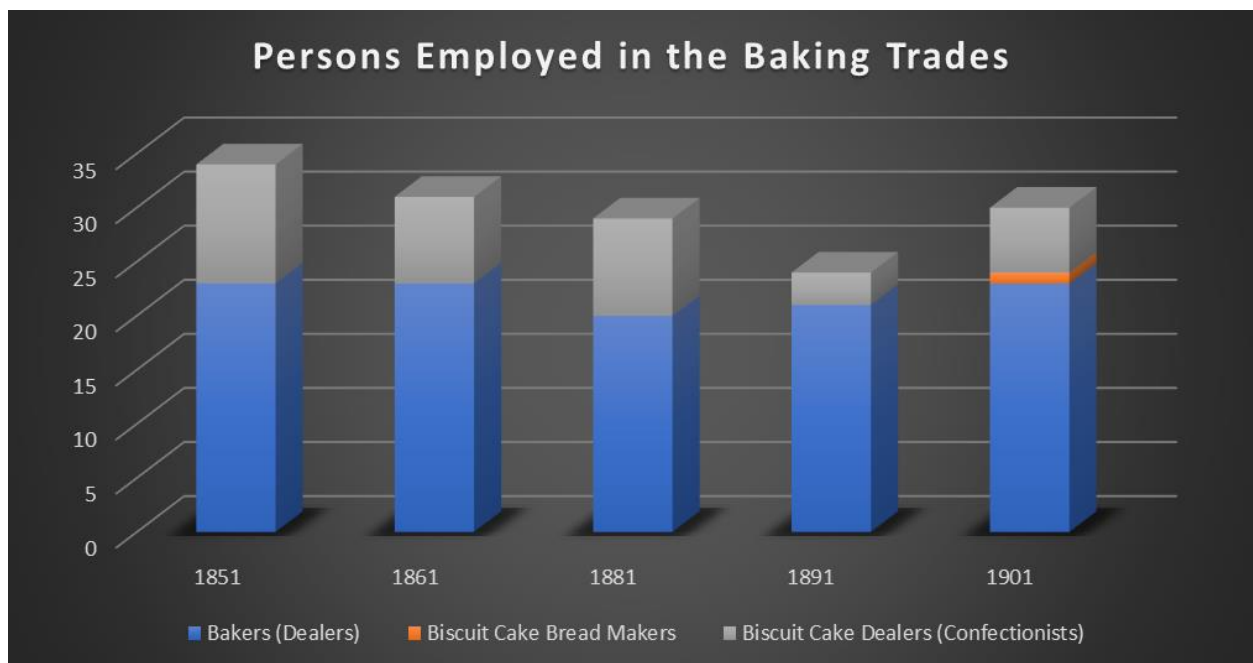


Figure 161: Number of Persons enumerated as working in the Baking Trades in Wantage, 1851-1901.⁴¹

The number of people enumerated in the census returns seems to indicate that the bakeries may have been contracting in size in the early part of the period the average number of employees reducing across the 1850s and 1860s. The smaller number of businesses listed in the 1880s relates to a higher census return in relation to the number of persons employed within them, which suggests

⁴¹ Integrated Census Microdata.

that despite the declining population, the businesses were growing. It seems that the bakeries were able to achieve higher sales of their produce even though the local population seems not to have been likely to have been supporting an increase in demand. It is likely that the bakers were despatching their products further afield than Wantage alone. In order to do so the companies would have required a means to transport the bread and confectionery they produced quickly to the markets which they were now expanding into.

The railway and tramway would have provided that service, although it must not be assumed that the railway caused this to occur. It is more likely that the business owners, seeking a means by which to ensure the survival of their businesses, began to look to other towns where they may be able to sell their wares. In the same way that Huntley and Palmer, on a much larger scale, engaged a sales force to support business growth through the nurture of wider markets across both the United Kingdom and overseas, it seems likely that the local bakeries in Wantage engaged in a similar but perhaps more modest effort to protect their own livelihoods. The trends seen in baking in Wantage are probably indicative of an expansion in the outlets being supported by the bakeries across a wider area through management efforts. The success of those efforts was no doubt dependent upon services provided by the railway and tramway but those services were probably already on offer and were merely taken advantage of by the company owners.

The iron foundries, bakers, and breweries in Wantage needed fuel in large quantities, and with no local naturally occurring coal the town would need to import supplies. The canal would have been the first method by which the bulk quantities of the fuel would have been imported, and this seems to have been sufficient for the town for some time before the railway was opened nearby. The number of coal merchants steadily increased in the early part of the period examined by this study but then declined dramatically during the 1860s. The sector recovered once more in the 1870s and thereafter remaining static in number until the end of the nineteenth century.

The town appears to have had no coal merchants present in 1830, which has been double checked in the statistics and Pigot's 1830 directory has no entries for Wantage related to the sector. This seems unlikely given the presence of an iron foundry and several small breweries as outlined above. The directory lists no businesses in this or any other categories which might be undertaking the supply of coal into the town. It is possible that the canal barge owners were performing the role, but choosing not to be listed as such within the directory.

The number of coal merchants in the town from the 1840s seems to be related to a combination of population change, impacting the use of domestic coal, and industrial change which impacted the demand for foundry and steam coals. In the latter part of the century the rise may have been solely due to industrial demand since the population of the town was in decline at that time.

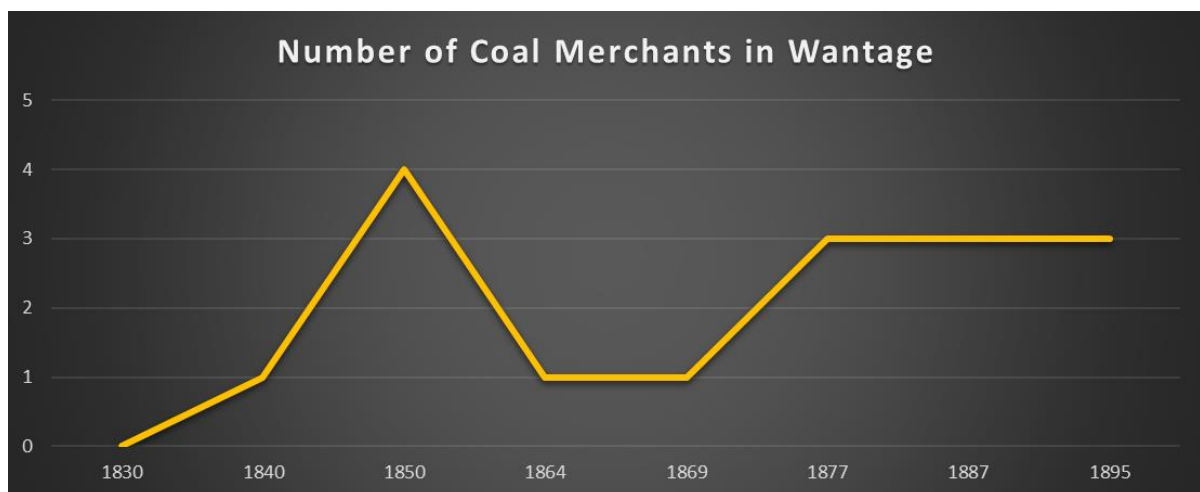


Figure 162: Coal Merchant Businesses in Wantage, 1830-1895.⁴²

The size of the coal merchants, as has been the case with other sectors throughout the case studies, cannot be defined through use of the Victorian Trade directories alone. An examination of the census returns for occupations which were provided from the 1851 census shows that the coal merchants were all relatively small, each employing an average of only two persons throughout most of the century. Demand for coal was able to be supported by small, family owned, merchants.

⁴² Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.



Figure 163: Persons Enumerated as 'Coal Merchants' in Census Returns.⁴³

The 1840 directory lists John Plumbe as a coal, salt and slate merchant located on the canal wharf at the terminus of the branch from the Berks and Wilts Canal in Mill Street. This strongly suggests that the company was using canal transport to bring its materials into Wantage. The railway station opening at Wantage Road does not seem to have changed the transport being used as the company is still listed as being in the same place in Slater's 1850 directory. The situation seems to have evolved more slowly than perhaps elsewhere, with little change being observed in the location of the coal merchants in the town until the 1880s.

Kelly's 1887 directory lists no entry for John Plumbe, but has an entry for William Hiskins, who's business was in the same location on Mill Street.⁴⁴ The location of the company does not necessarily indicate that the company was using the canals for the transport of its coal. The investment required in relocating to the rail yards at Wantage Road may have been impossible or viewed as unnecessary for the company. The business was also located only a short distance from the terminus of the Wantage Tramway, suggesting that it may have been using the services of the tramway to deliver its coals from Wantage Road without any commercial need to relocate elsewhere. In the case of

⁴³ Integrated Census Microdata.

⁴⁴ Kelly's 1887, 182.

Hiskins's business it seems that the railway made little difference, merely being a change in transport partner since the coal would have had to be transported into Wantage through either rail or canal regardless. The railway and tramway seems to have served to allow the company to survive, causing neither growth nor decline.



Figure 164: Location of Wantage Tramway Terminus and Canal Wharf on Mill Street, Wantage.⁴⁵

There were companies who were able to take advantage of the services offered by both the GWR and the Wantage Tramway, although it is also as likely that they chose to make their own arrangements for deliveries into the town itself in a similar manner to that chosen by Robinson and Auden. Another company, Clark and Clement, chose to base their coal merchant business both in the yards at Wantage Road station and in Mill Street in Wantage itself.⁴⁶ It seems that the railways were not directly causing growth in the sector. A combination of choice made by the business owners with regards to transport services, changes in other local business sectors and population

⁴⁵ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XIV, 1883, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97773230>, (accessed 3rd April 2023).

⁴⁶ Kelly's 1887, 182.

change caused in turn by several external factors combined to influence coal merchant's businesses. It would seem difficult to suggest that the railways alone were responsible for the success or otherwise of these companies.

Population change, and particularly the decline seen in the overall population of Wantage in the latter years of the century would have been likely to have an impact upon the clothing manufacturers in the town, with the railway services to a lesser extent having an indirect influence, supporting the import of cheaper mass produced footwear and clothes from further afield.

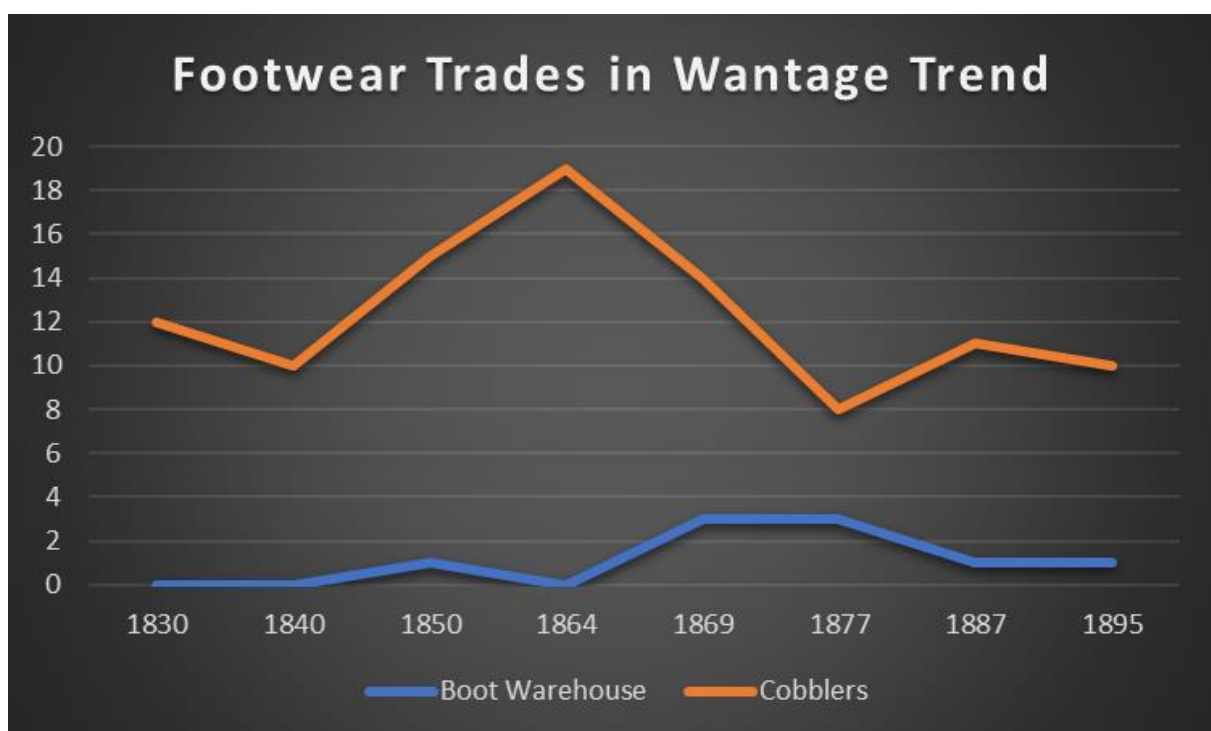


Figure 165: Artisan Cobblers and Footwear Retailers in Wantage, 1830 - 1895.⁴⁷

The number of artisan cobblers working in the town was declining prior to the opening of the railways, growth appearing to occur after the railway opened, although after the mid-1860s the sector enters a period of constant decline with a short recovery in the 1880s followed by continued decline. The town does not have any shoe factories listed in the directories; its needs seemingly satisfied by cobblers shops in the early part of the century. The purchase of footwear in the town

⁴⁷ Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

seems to change during the second half of the century with the appearance of retail outlets. The outlets, whilst small, seem to have eroded the business of the cobblers to a degree but had not replaced them as the usual choice for the local community.

The railways around Wantage were clearly important in supporting the retailers, no doubt bringing the orders the retailers placed upon manufacturers in places such as Northampton and Leicester to the town. They did not cause the change in buying patterns however, this was caused more by the choices made by the local consumers. The combination of several cobblers and retailers who seem to have existed side by side in the town suggests that the import of cheaper footwear into the town was less of a threat to the artisans than has been observed in other case study towns.

The Occupation statistics captured by the census detailed census returns after 1851 show a different picture. The number of people declaring their occupation to be related to shoe making and repairing is relatively static in the 1851 and 1861 censuses. The business statistics show a slight increase in the number of businesses, which when compared to the occupation data suggests the businesses were becoming smaller, reflecting that the demand for shoes was also relatively stagnant as it seemed to be supporting a similarly sized workforce even though it was spread across a larger number of businesses each employing fewer people. The stagnation in the market for artisan shoes occurs at the same time as the advent of footwear retailers, which suggests that any growth that may have been seen in the artisan space was taken by the retail outlets.

The market seems not to have been able to support a hybrid of retail and artisan manufacture, but interestingly it was the retailer that ceased trading. This is revealing as it shows the preference for footwear among the population of Wantage during the 1850s and early 1860s. It seems that the people of Wantage valued the handmade shoe in preference to the mass produced. Here can be seen further evidence that the railways were not responsible for economic growth, or at times for economic change. The actions of the consumer partly drove the success or failure of businesses

providing clothing during the period, a factor which should be considered when exploring the impact of railways upon the British economy, let alone the impact upon a rural county.

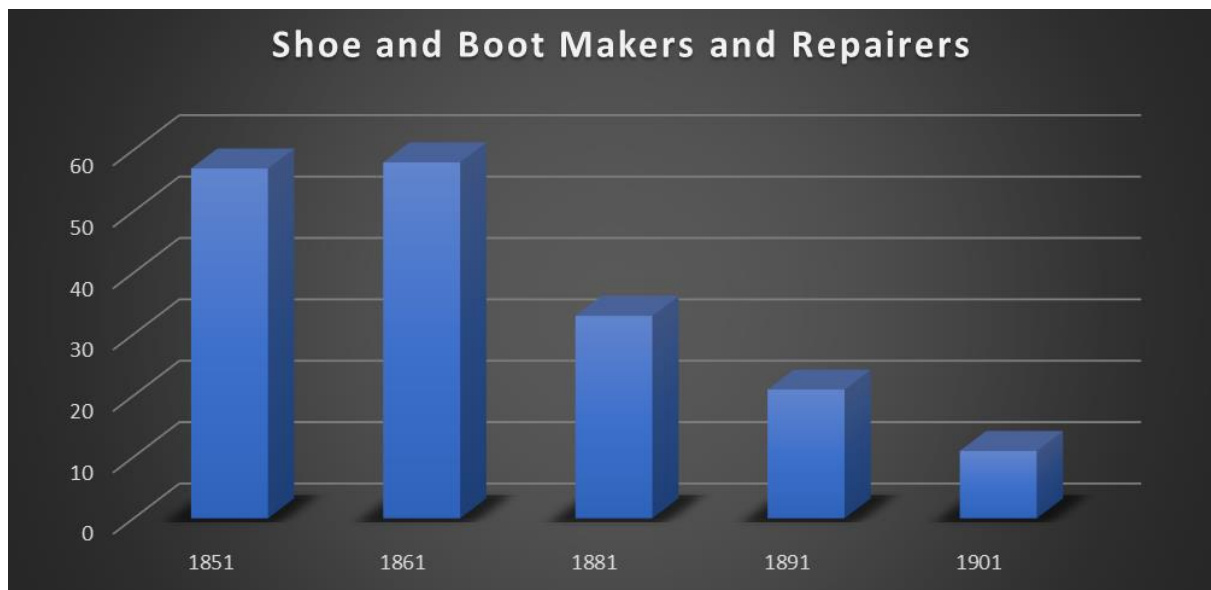


Figure 166: Numbers of Persons enumerated in the Census returns as Artisan Cobblers.⁴⁸

The preferences of the people of Wantage appear to change as the century progressed. The number of retailers increased, but fluctuated in relation to the declining population of Wantage. The artisans experienced a period of major decline despite the indication otherwise seen in the business directory derived statistics. The number of persons working in the cobblers shops declined greatly as the century ended, each business employing only one or at most two people compared to the four people on average which were employed in a larger number of businesses in the 1860s.

The impact of population decline thus appears to have had an unexpected impact upon both artisan cobbler and retailer. The different paths seen in the trends for the two types of businesses, with employment figures considered, illustrates how complex the economic changes that Berkshire's, and by extension Britain's, economy was undergoing during the nineteenth century. It also shows the importance of a hybrid approach when undertaking a statistical survey of industrial change in order to avoid misleading indications shown in less complete data sets.

⁴⁸ Integrated Census Microdata.

The dressmaking sector in Wantage exhibits an unexpected trend when compared to other towns used as case studies in this thesis. It seems that the town varied in the patterns that occurred during the change experienced during the nineteenth century from those seen elsewhere.

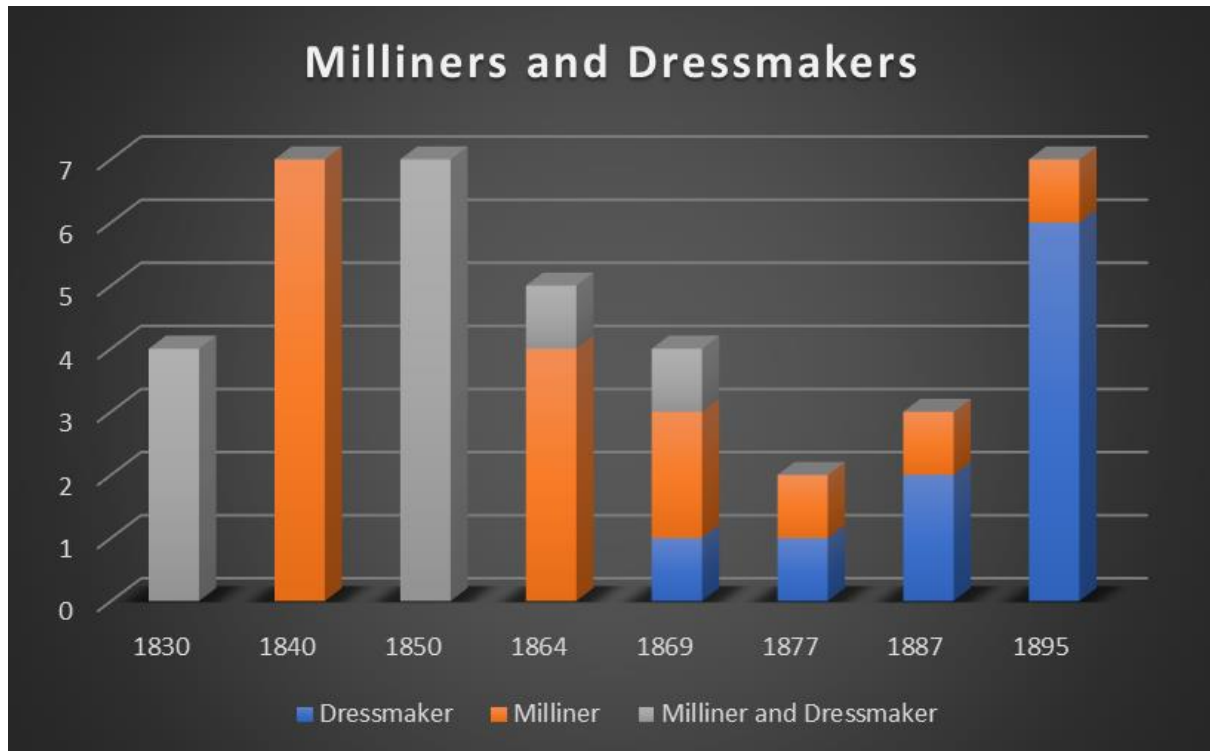


Figure 167: Milliners and Dressmakers Businesses in Wantage, 1830-1895.⁴⁹

The trend in business numbers shows an increase in the total number of companies in the sector in the early part of the century followed by decline and then a recovery after 1877. The data shows that the sector evolved to be very different at the end of the century compared to the 1830s. In the 1830s the sector consisted of a small number of businesses which provided both millinery and dressmaking. A single shop appears to have provided an entire ladies outfit, both dress and hat. The data changes dramatically in 1840 and 1850, with no combined businesses being listed. In 1840 only milliners were listed with no mention of them providing dressmaking services, whilst in 1850 the directories list the same number of businesses as jointly providing millinery and dresses.

⁴⁹ Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

It seems difficult to imagine that the listings in the directories were reflecting reality given that the numbers of businesses in 1840 and 1850 were identical. The listings in Robson's 1840 directory appear to have been constructed using either an arbitrary classification decided upon by the editor, or an attempt by all seven business owners to classify their businesses in a manner which reflected fashion at the time. It is more likely to have been a decision taken by the directory editor than by seven different business owners. Unfortunately, the occupation statistics are not available from the censuses prior to 1851 which makes the construction of an occupational comparison impossible.

The census returns for 1841 do not contain the granular detail that was provided by the census returns from 1851. In 1841 the census contains occupational returns only at the county level, with the Borough of Reading enumerated separately.⁵⁰ The returns are not provided at town level, the only subdivision provided segregation occupations by men or women, and over or under twenty years of age. The lack of detail provided is unfortunate as it restricts the use to which the census can be put in the first half of the nineteenth century, and restricts the granularity that can be achieved in the analysis of the millinery and dressmaking trades in the early part of the study. It seems safe to make a logical assumption based upon the number of businesses listed in the directories in 1840 and 1851. Logically it would be likely that the seven businesses listed in 1840 and 1850, being named the same and listed at the same addresses in the main would be likely to be milliners and dressmakers in 1840 despite not being listed as both.

⁵⁰ Histpop.org., Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. C.99 and 4 Vic. C.7 intituled respectively "An act for taking an account of the population of Great Britain", and "An act to amend the acts of the last session for taking an Account of the Population". Occupation abstract, 1841. Part I. England and Wales and Islands in the British Seas BPP 1844 XXVII (587) 3 [Website], [http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20\(by%20date\)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=82&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20(by%20date)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=82&zoom=4) (accessed 13th April 2023); Histpop.org., Census of Great Britain, 1841, Abstract of the answers and returns made pursuant to acts 3 & 4 Vic. C.99 and 4 Vic. C.7 intituled respectively "An act for taking an account of the population of Great Britain", and "An act to amend the acts of the last session for taking an Account of the Population". Occupation abstract, 1841. Part I. England and Wales and Islands in the British Seas BPP 1844 XXVII (587) 4 [Website], [http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20\(by%20date\)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=83&zoom=4](http://www.histpop.org/ohpr/servlet/PageBrowser?path=Browse/Census%20(by%20date)/1841&active=yes&mno=22&tocstate=expandnew&display=sections&display=tables&display=pagetitles&pageseq=83&zoom=4) (accessed 13th April 2023).

The data extracted from the directories from 1864 seems to show a more reliable segregation of business types than Robson's 1840 provided. The mix of listings which defines companies as Milliners, Dressmakers or both suggests that the businesses listed have specialised their services based upon local need.

In 1851 the occupation statistics are available in detail for each town and parish, and thus an analysis of business size may be made against the milliners and dressmakers listed in the trade directories. The breakdown of occupations indicates that the business were likely to have been specialising, with an increase in persons working as dressmakers becoming the majority. It seems that, in Wantage, the companies were specialising in either the manufacture and sale of hats or in dressmaking with no outlets providing both items. The occupational statistics that were collected for the census after 1851 subdivide the millinery trade into factory or retail based work.

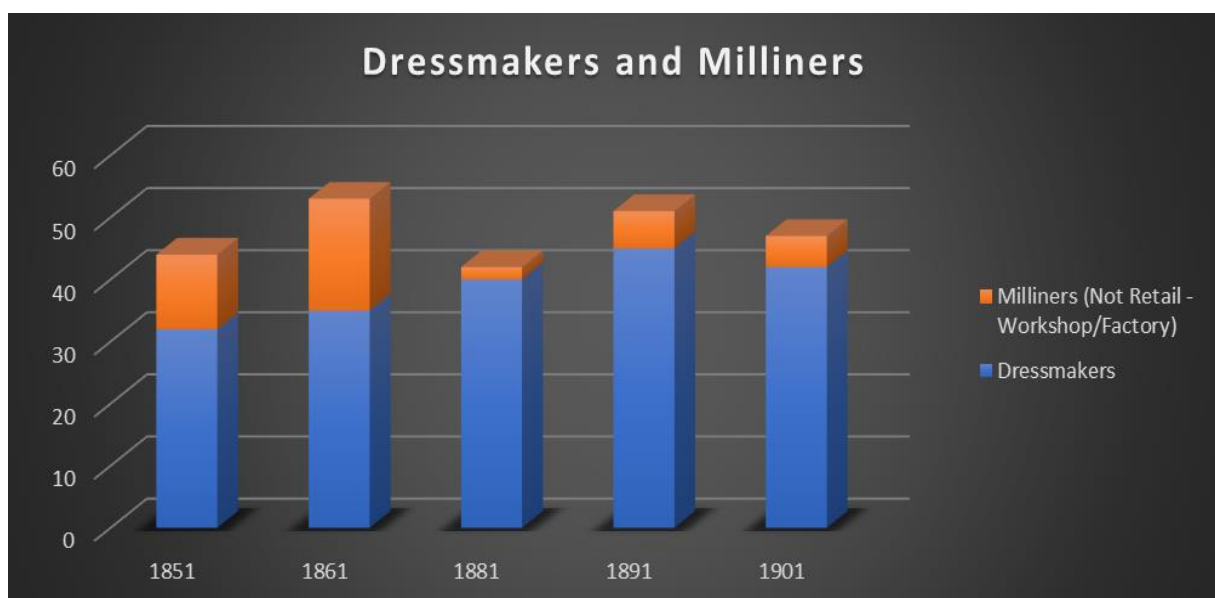


Figure 168: Persons working as Dressmakers and Milliners in Wantage 1851-1901.⁵¹

The milliners working the Wantage were enumerated as factory workers in each of the five years where detailed statistics at town level were presented. Once again the 1871 census is problematic as the enumerators did not provide the occupational data at town level and so Wantage was not

⁵¹ Integrated Census Microdata.

represented other than as part of the aggregate figures for the county. Nevertheless, the trend seen in the data extracted for this study for the other years between 1851 and 1901 consistently shows that the trade was factory based and not retail, so it seems likely that this same trend could reasonably be extrapolated across 1871. Wantage returned only a single person who was working as a retail milliner in 1891 who, for the sake of clarity, has been excluded from the graphical representation of the data. The evidence provided by the census returns shows that the millinery trade in Wantage was manufacturing based with little direct retail, although no doubt the shops present in Wantage would most likely have had some outlets for the locally made hats.

The occupation figures when combined with the number of businesses indicates that the manufacturers were relatively small, employing just a single person each at the end of the century compared to a peak of around twelve in the 1850s. Dressmaking is likewise made up of several small businesses in Wantage, employing a very small number of people. It seems then that the expected downturn in the number of businesses in the sector related to the reducing population of the town did not occur only because the businesses were very small and likely to be able to survive the reducing demand for their products due to their small size and resulting low overheads. The railways in and around Wantage were likely to have very little impact upon the sector.

Wantage's service industry may have been impacted by the railways but most likely by a combination of factors as has been seen elsewhere. The number of practices located in Wantage appears not to mirror the trends seen in the other sectors explored in this case study. The only service companies located in the town were banks and solicitors. Architects, Accountants and Engineers appear later but the rise of these professions was unlikely to be directly caused by the railways, although the connections they offered surely offered these professionals the ability to easily travel to visit clients and to communicate with them using the telegraph system provided by the railway initially. The professionalisation of skilled professions in engineering and architecture is more likely to have been influenced by the creation of university degrees and professional institutes

which created a respect and demand for these practitioner's services rather than directly by railways.

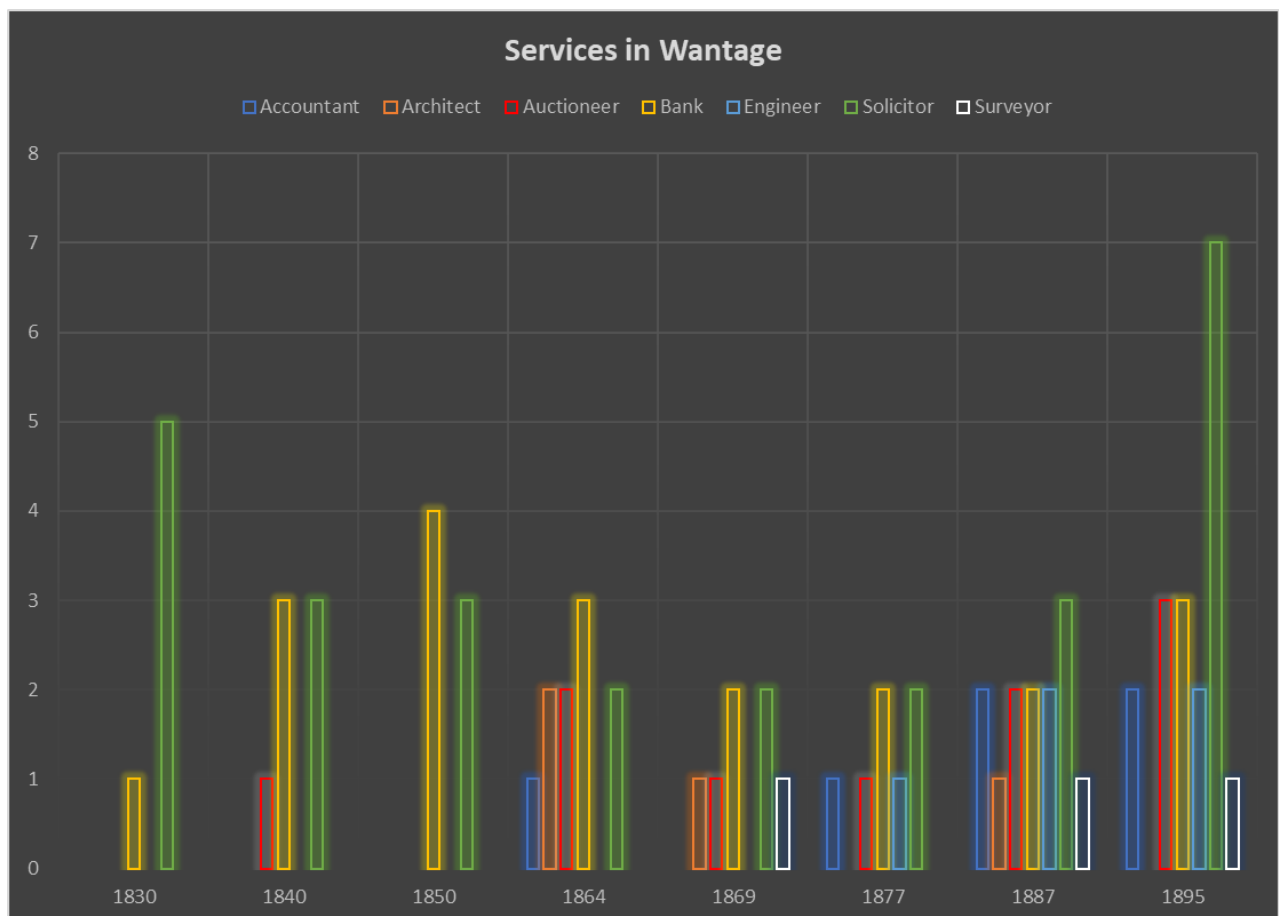


Figure 169: Service Companies Based in Wantage, 1830-1895.⁵²

The institutions which set the framework for qualification and licencing of practitioners were formed early in the century, but began to become recognised around the middle of the period. The Royal Institution of British Architects was formed in 1834, receiving its royal charter in 1837, but the earliest days of the institution were spent creating the rules for conduct and practice.⁵³ The listing of architects practices in the 1864 directory but not in the earlier directories used for this study

⁵² Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

⁵³ The Royal Institution of British Architects, History, Charter and Byelaws [Website] <https://www.architecture.com/about/history-charter-and-byelaws> (Accessed 14th April 2023).

suggests that the need for the services of a professionally qualified architect was creating the demand for growth in this profession in Wantage.

It has already been noted that iron foundries were changing how they were listed to reflect their professional engineering and consulting services. The idea of the 'consulting engineer' may have been driven not by the railways but by the men who built them. Brunel, Locke, and George Stephenson were probably the most famous and desirable engineers to have been involved in a railway engineering project. Engineering institutions began to be formed early in the century, with the Institute of Civil Engineers forming in a London Coffee shop in 1818, but only after Thomas Telford's appointment of president in 1820 and the award of a royal charter in 1828 did the institution gain respect and the ability to licence its practitioners.⁵⁴

The Institute of Mechanical Engineers was formed in Birmingham in 1847 to promote, licence and regulate engineers with George Stephenson elected as the first president.⁵⁵ Engineering institutions relating to other skill sets followed during the course of the nineteenth century, with institutions dedicated to areas such as telegraph engineering (Society of Telegraph Engineers: 1871), ship design and construction (Royal Institution of Naval Architects: 1860) following.⁵⁶ The town saw its first engineering practice in the 1870s which correlates with the changes being driven in the professions during the second half of the nineteenth century. The rise in the number of professional practices across Britain and in Berkshire, not only in engineering but also in medicine, accounting and law can be seen to have been due to legal requirement and licencing rather than to the railways since the practices begin to be seen in the data around the time that the institutions professionalise the practice of their members.

⁵⁴ The Institution of Civil Engineers, Who We Are – Our History [Website] <https://www.ice.org.uk/about-us/who-we-are/our-history> (Accessed 14th April 2023).

⁵⁵ The Institution of Mechanical Engineers, Foundation 1846-1875 [Website] <https://www.imeche.org/about-us/imeche-engineering-history/institution-and-engineering-history/foundation-1846-1875> (Accessed 14th April 2023).

⁵⁶ The Institution of Engineering and Technology, A History of the Institution of Engineering and Technology [Website] <https://www.theiet.org/membership/library-archives/the-iet-archives/iet-history/a-history-of-the-institution-of-engineering-and-technology/> (Accessed 14th April 2023);

The numbers of professional practices in Wantage remained relatively static and seemingly impacted little by outside factors, suggesting that there was ample work to support a small number of practices employing a small number of practitioners. The legal profession seems to have been more volatile than the other professions.

The number of solicitors practices in Wantage was relatively high in 1830, but declined until the 1850s, remaining static until the 1880s when the number of practices located in the town increased exponentially. The case of Robinson and Auden and its legal disagreement with the Berks and Wilts canal shows how much more litigious business was becoming and in turn providing work for solicitors. In the case of the Robinson and Auden dispute their solicitor was based on Newbury Street in Wantage and there is evidence that the practice undertook frequent legal work on behalf of the foundry.⁵⁷

There is evidence that businesses were becoming more litigious than perhaps had been the case before. The Wantage Tramway Company, for example often resorted to legal means, or at least the threat of them, to gain payment of outstanding debts. They were also in receipt of summonses from customers and persons involved in accidents on the tramway, even when the company was not at fault. Similarly the legal department of the Great Western Railway at times queried missing freight traffic with the tramway company when the GWR was involved in legal proceedings.⁵⁸

The railway would not have been directly responsible for most of the work that was undertaken by solicitors practices based in rural areas, and it is unlikely that the railways would have had reason to use local firms of solicitors that often. The larger railway companies had their own solicitors offices, in the case of the GWR based in Westminster and at Paddington.⁵⁹ The Wantage Tramway, being a

⁵⁷ Kellys, 1895, 235; Reading, Berkshire Records Office, D/ECO/B6/3/3; Berkshire Records Office, D/ECO/B6/5/; Berkshire Records Office, D/ECO/B6/7/.

⁵⁸ Richard Marks, *The Wantage Tramway Company: The Story of a Bucolic Road Side Steam Tramway* (Barnsley, 2024), 75, 78, 95, 135, 139.

⁵⁹ Reading, Berkshire Records Office, D/WT11/26, Correspondence between R.R.Nelson, Great Western Railway Solicitors Office, Westminster and E.Ormond, Wantage Tramway Company Limited. Agreement between the Companies. 28th October 1875; Reading, Berkshire Records Office, C/CL/G1/44/13,

smaller local concern would have been more likely to use the services of a local solicitor thus creating work for that practice. The use of legal practitioners by the two railway companies operating 'in' Wantage provides an example of how, when looking at the evidence at the macro level of detail, complex the relationship between railway and local community business was in the nineteenth century.

There were cases where the railway did cause local work, but not through their own intent. An example can be found in the archives, providing evidence of a traveller taking legal action against a railway company. Thomas Cash, a commercial traveller from Birmingham, representing G.J. Easton, Coal, Coke and Lime Factory and Merchants based in Stowbridge (Norfolk), attempted to take legal action against the tramway company in 1877. The plaintiff was claiming for loss of income, delay and expenses incurred due to the 'breakdown of steam tram car...' which took place on the 8th June 1877. The breakdown, according to the correspondence, caused Thomas Cash to miss his connecting train at Wantage Road which caused him to miss appointments elsewhere and resulted in him not returning home to Birmingham until late in the evening.⁶⁰ The Tramway was clearly not aiming to create this work for their solicitors but the case shows how a railway might inadvertently create work for local engineers, solicitors or other professionals offering their services in a local area.

Correspondence between Mr. H.J. Tollit Esq., Berkshire County Council, Main Road Surveyor, Oxford and Mr. R.R. Nelson Esq. Great Western Railway Company Solicitor, Paddington, regarding the Windsor and Ascot Railway. 26th February 1900.

⁶⁰ Reading, Berkshire Records Office, D/WT11/23, Summons to Attend the County Court. Thomas Cash, Traveller for G.J. Easton, Coal, Coake and Lime Factory, Iron and Iron Ore Merchant, Stowbridge vs The Wantage Tramway Company. 23rd October 1877.



Figure 170: The Legal Profession in Wantage, 1851-1901.⁶¹

The number of legal practices operating in Wantage was relatively static through most of the period of this study. The five practices listed in Pigot's 1830 directory, reduced to three in the 1840 and 1850 directories, with a further reduction to two only increasing once more in 1887 (three) and again in 1895 (seven). The occupation statistics provide intriguing evidence for how the legal profession was functioning in Wantage during the latter half of the nineteenth century. The two practices seem to have had enough work to employ five law clerks between them, even so they appear to have been relatively modest practices.

Two of the three practices in the 1850s appear to have one qualified lawyer working in each, one a solicitor and one a barrister, although there appears to have been no qualified lawyer working in the third practice. Clearly the practices were those of the three gentlemen concerned, William Ormond, and William Davies and William Wanborough.⁶² The work generated later by the legal requirements of the Wantage Tramway Company would no doubt have been undertaken by the firm run by

⁶¹ Integrated Census Microdata.

⁶² Slaters: 1850, 53.

William Ormond and later Edward Ormond, given that the latter was director and company secretary of the tramway Company.⁶³

The Wantage legal practices present an intriguing case. In order to practice law, the company must have been run by a qualified lawyer, under the rules of the Law Society.⁶⁴ This suggests that one of the lawyers whose practice was listed in the directory lived outside of the area covered by the boundaries set for the census. In turn this person must therefore have been travelling to work in Wantage or the office was part of larger practice headquartered elsewhere but to which the lawyer must have been travelling to consult with clients.

The evidence for some degree of travel to work provided by the third lawyer and the case of Thomas Cash shows that at least a small number of people were travelling to work. Thomas Cash was clearly using the railways but the Wantage lawyer may have been walking or travelling by coach not necessarily by rail.

In the 1860s the number of practices reduced to two, but the number of legal professionals increased to five; four solicitors and one barrister. The number of clerks reduced to four which suggests that the practices were still of modest size but that some degree of amalgamation had taken place. The situation appears to remain the same throughout the rest of the century. The number of practices increased in the 1890s but the census returns show an increase in legal professionals which matches the number of practices. The amount of legal work may have increased but was probably only sufficient to support some very modest practices consisting of one solicitor

⁶³ Kellys:1877, 648; Reading, Berkshire Records Office, D/WT11/26, Correspondence between R.R.Nelson, Great Western Railway Solicitors Office, Westminster and E.Ormond, Wantage Tramway Company Limited. Agreement between the Companies. 28th October 1875; Reading, Berkshire Records Office, D/WT11/31, Guarantee of General Balance of Account of a Firm to the Wantage Branch of the London and County Banking Company from Edward Ormond acting as Guarantor to the Wantage Tramway Company Limited. 22nd March 1877.

⁶⁴ The Law Society, About Us, Our Governance [Website] <https://www.lawsociety.org.uk/about-us/our-governance/>, (Accessed 16th April 2023).

and a single clerk. The railway seems to have had very little impact upon the legal profession in Wantage.

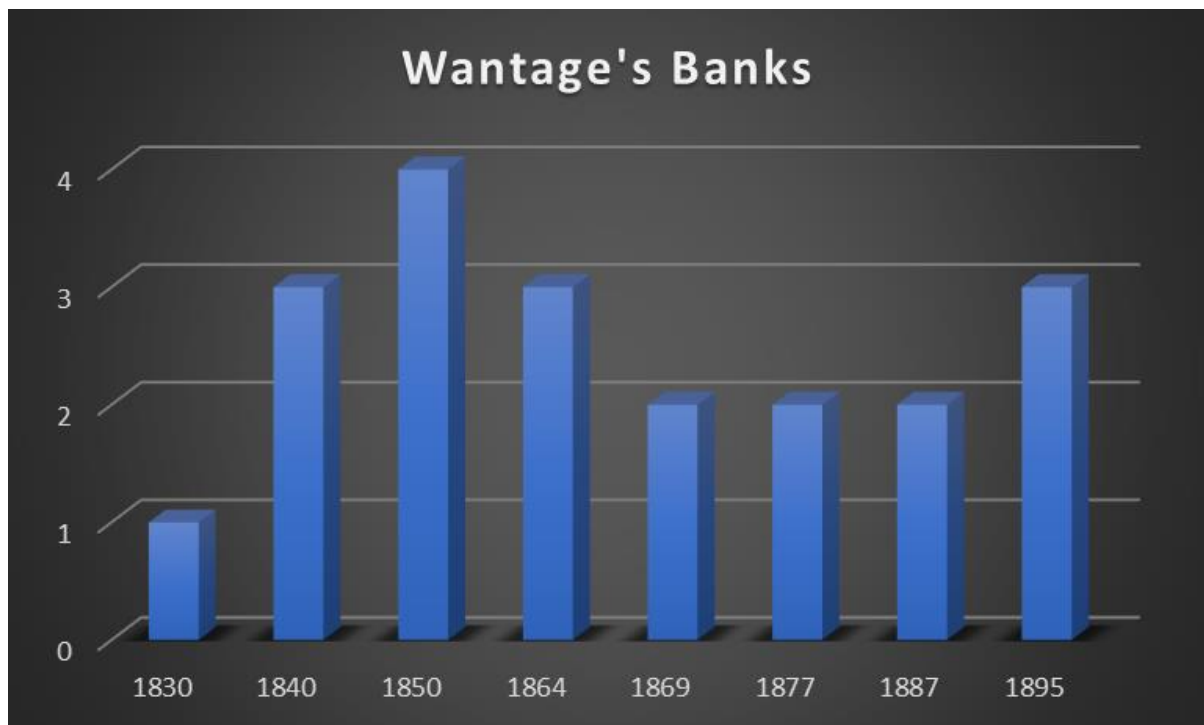


Figure 171: The Banking Sector in Wantage, 1830-1895.⁶⁵

Finally, the banking sector of Wantage's economy seems to have similar trends to some other sectors in the town's economy. It would seem fair to have expected that the evidence would have provided a view which showed how the town's banks reflected the peaks and troughs in its overall economy. Banking would have been influenced by the overall condition of Wantage's economy since the banks dealt with all the private and business banking needs of the entire town. The picture that emerges from the data shows that changes in the economy at the macro level were offset by other sectoral changes across the economy resulting in an 'averaging out' of the needs being met by the banks. Banking does not show the same variances seen in individual business sectors, but appears to follow the general trend for the economy of the town. This shows why it is important to analyse a

⁶⁵ Pigot: 1830, 34-35; Robson's: 1840, 68-72; Slater's: 1850, 52-54; Kelly's: 1864, 671-675; Kelly's: 1869, 728-731; Kelly's: 1877, 646-650; Kelly's: 1887, 178-183; Kelly's: 1895, 233-236.

broad cross section of the economy of a place in order to understand the nuances and unique conditions which may have impacted upon the businesses within that location.

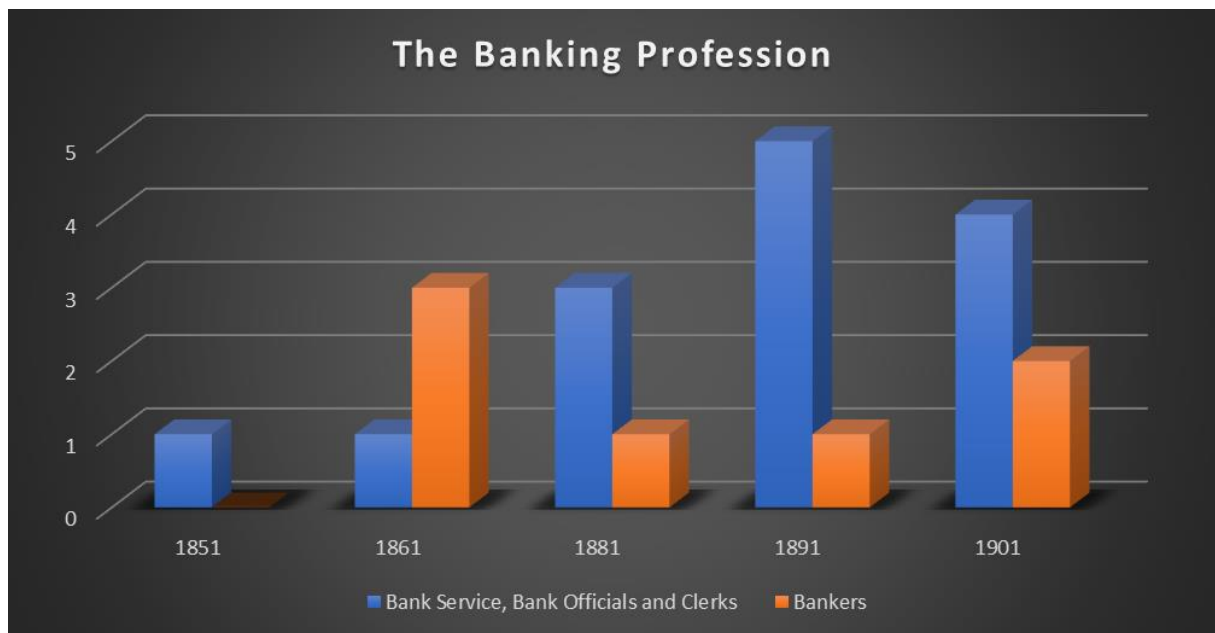


Figure 172: Persons Employed in Banking in Wantage, 1851-1901.⁶⁶

The census employment statistics show that the banks in Wantage were very small concerns, consisting of a few bankers, officials, and clerks. If the census statistics are cross referenced to the commercial directories it becomes clear that the operations in Wantage were mainly branches of a larger but local bank which drew upon one of the London banks for its funds. In Wantage, three of the four banks listed drew on London banks. One bank, Barnes and Medley, located on Newbury Street, seems to have been a smaller bank which drew upon the Union Bank in London. Two others were listed as being branches of a larger bank.⁶⁷ The Berks Union Banking Company was listed in the 1850 Slater's directory as located in Market Place, but as the 'Abingdon Branch' of the bank suggesting it was a subsidiary local office of the bank which was only open on Wednesdays.⁶⁸ The bank was listed as drawing upon the London and Westminster Bank. The London & County Joint

⁶⁶ Integrated Census Microdata.

⁶⁷ Michael Collins discussed the branch systems which were adopted by smaller banks to expand their reach during the nineteenth century. Michael Collins, *Banks and Industrial Finance in Britain 1800-1939*, (Basingstoke, 1991), 27-29.

⁶⁸ Slaters: 1850, 53.

Stock Bank was listed on Market Place but only open on Wednesdays. The bank seems to have been a much larger concern, drawing directly upon its own head office in London.

The final bank was a different concern. The 'Savings Bank' also only open on Wednesdays was located at the town hall and operated by William Ormond, the solicitor. It seems this concern was not a commercial bank but a precursor to the modern building societies, offering a place for people to save money in.

If the types of banks are compared to the statistics returned in the censuses it may be inferred that the use of an 'average employees' metric is probably not relevant. The banks did not open each day, except for the Barnes and Medley bank, so it is likely that most of the persons enumerated in the census returns were employed by that company. The small numbers returned also supports an argument that the majority were employees of Barnes and Medley. The savings bank run by William Ormond would not have returned any entries in the census returns as Ormond would have been listed as a solicitor, his main profession.

The directory entries for the Berks Union and London & County banks both state '...attendance on Wednesdays'. The entry suggests that employees of the banks travelled to the town on Wednesdays to provide banking services and were unlikely to be resident in the town, and thus not enumerated in the census returns. The fluctuation in the number of persons enumerated in the censuses as working in banking

The banking sector in Wantage changed over the century, with some banks ceasing to trade and being replaced by another. Barnes and Medley were not listed in Kelly's 1887 directory whilst the London and County bank was, but with no mention of being open only on Wednesdays. It seems that the London and County bank had taken over the supply of banking services to the town, and as the only bank listed, all the persons enumerated in the censuses around that time were likely to have been employed by London and County. Edward Ormond's Savings Bank was also still listed in the directory but he would have been listed in the census as a solicitor rather than as a banker.

Banking provides further evidence of the importance of a detailed but broad approach to a study of this kind. The directory data or census data if used alone would be likely to present a false image of how the sector evolved over time and whether it was impacted in any way by the arrival of the railways locally.

Conclusions

The evidence provided by the clear relationship between Edward Ormond and the Wantage Tramway Company, as a solicitor practicing law in the town, and the company secretary of the tramway company shows how nuanced the history of the relationship between railways and industry was in the nineteenth century. The tramway would have not provided any work for the other lawyer's practices in the town, the work most likely being undertaken by Edward Ormond's practice when required.

The choice of transport method made by Robinson and Auden shows how the use of a railway company's services was not a *fait accompli*, the business owners had a choice. Road, canal, or rail transport were all competing and available in and around Wantage throughout most of the century and so it is difficult to make a generalised statement about the railway and Wantage's economy or its business sectors. The situation was far too complex and nuanced for a single conclusion about its relationship with the railways to be applied to the town.

It might be more relevant, in the case of Wantage, to suggest that there were occasions where the town caused an element of growth to the railways. The mechanisation of farming, delivery of raw materials to Wantage's iron works (evidenced by the case of Robinson and Auden), and the influx of commercial travellers representing businesses from elsewhere in the country show how the railway benefitted from the development of Britain's, and Berkshire's economy. As the local and national economy evolved, the demand for new machines, materials and products provided freight business for the railways locally and further afield. The relationship between the GWR, the Wantage Tramway

and the town of Wantage appears to have been, at times mutually beneficial whilst at other times difficult.

It seems that the situation in Wantage may be more complex than can be explained by being attributed to the arrival of the railways. The data indicates that even at a general overview it is not possible to propose an argument that the railways caused population and economic growth in Wantage.

Chapter 14: The Railway and its Direct Impact upon Industry

The direct impact that the railway companies had on the economies of the areas through which they passed through has often been overlooked in the historiography. The railways were companies just like any other and had the need to procure materials and products for their own use. The difference between a railway company and many other Victorian companies was that most of the major items, such as locomotives and signalling equipment, were produced within their own workshops. Despite the centralised production which was undertaken by them, the railways still needed other items to support the business. The refreshment rooms required supplies of foodstuffs and beers, teas, and coffees for example. These items may often have been purchased locally, or perhaps from further afield, but from producers who were located near to a station on that company's network.

The companies also needed people to staff their facilities, which created additional local employment, as has been argued by Peter Dewey.¹ Dewey argues that as the railway penetrated rural areas they provided alternative employment for several persons whose jobs had been replaced through mechanisation. This is no doubt true, but the extent to which the railway offered employment may have varied from place to place as their facilities varied in size. The railway station could differ dramatically in size, for example in Berkshire the GWR's facilities in Reading consisted of a large station, freight yards, workshops, and a large locomotive depot, which required many operational, clerical, and technical staff. The facilities at Lambourn were relatively modest and required far fewer staff, although it must be born in mind that the numbers were of course always relative to the population of the place being examined. In order to present a clearer picture of the impact of railway employment, rather than using absolute numbers alone statistics based on railway employment as a percentage of the local population will also be used.

¹ Peter Dewey, 'Farm Labour', in Joan Thirsk and E.J.T. Collins (Eds), *The Agrarian History of England and Wales, Vol VII (part I) 1850-1914* (Cambridge, 2000), 856.

The census occupation statistical returns fortunately segregated railway employment from all other types of work. The detail provided from the 1851 census onwards allows for an accurate analysis of the employment offered by the railways in different places throughout the second half of the century.

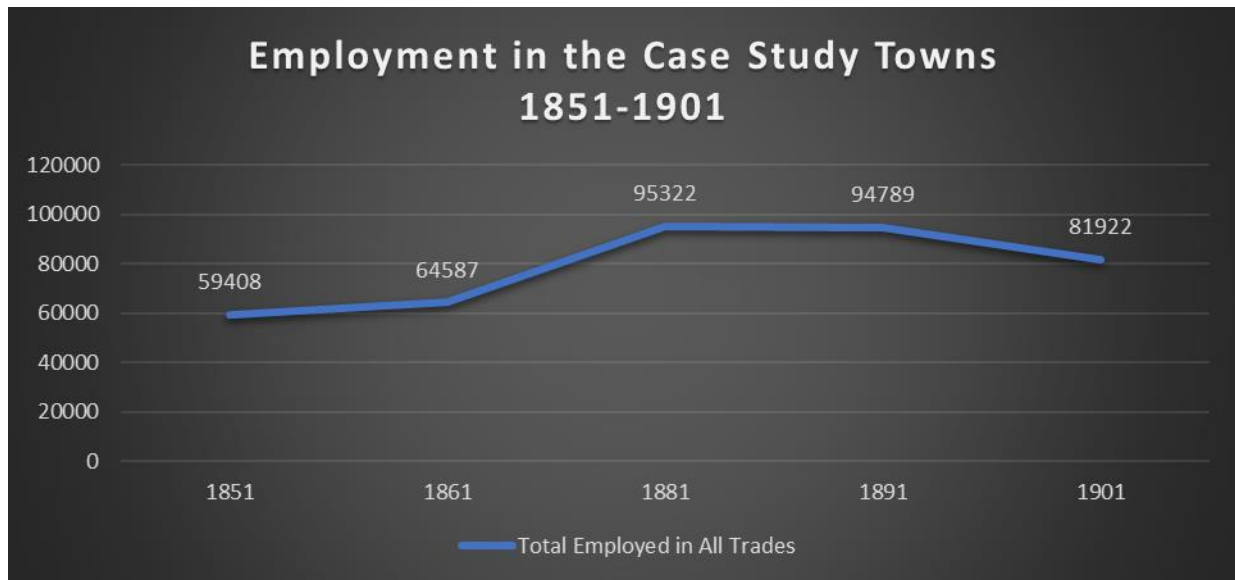


Figure 173: Persons in Employment in the Case Study Towns, 1851-1901.²

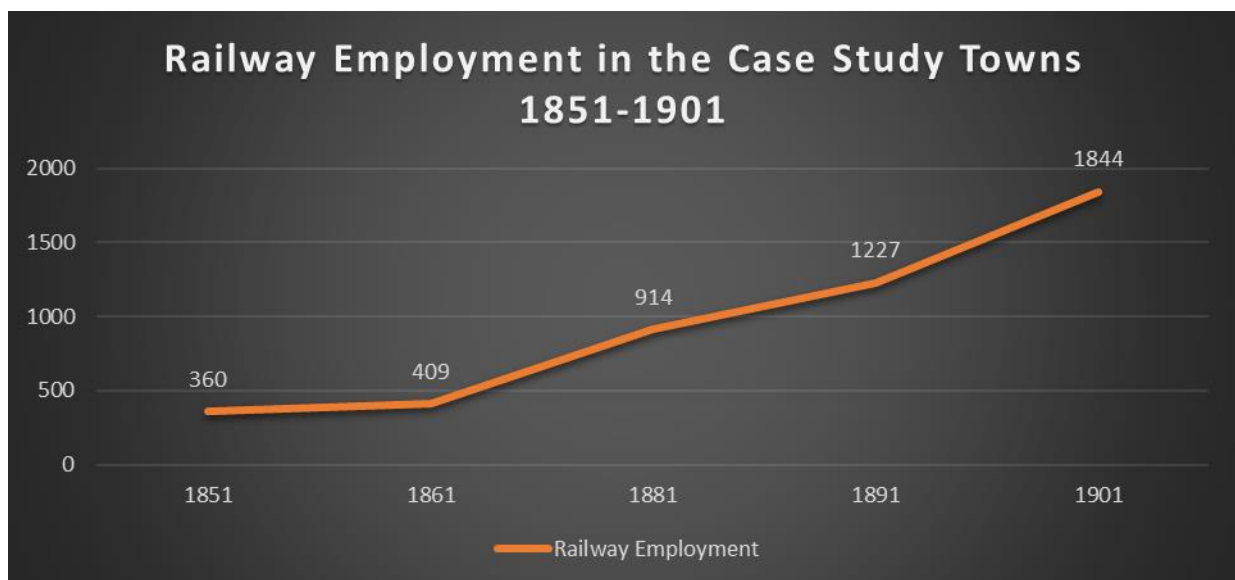


Figure 174: Total Railway Employment across the case study towns, 1851-1901.³

² University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

³ Integrated Census Microdata.

A comparison of the total number of people employed in the eight case study towns against the total numbers employed by the railways enumerated in the census returns shows that the railways employed a very small number of persons relative to the entire working population of those places. The general trends show an unexpected difference. The general employment trend across the eight towns shows a period of growth in the employed working population until 1881, followed by a decline in employment numbers. To a degree this is likely to have been caused by the declining population that was observed in Wantage for example, the mechanisation of agriculture and the effects of the agricultural recession in the latter part of the century that has been outlined in the previous chapters.

The railway seems to have exhibited a different trend, experiencing continual growth in overall employment across the case study towns. The numbers involved were relatively small. In 1881 a mere nine hundred and fourteen persons were employed by the railways, from a combined working population of ninety five thousand, three hundred and twenty two.

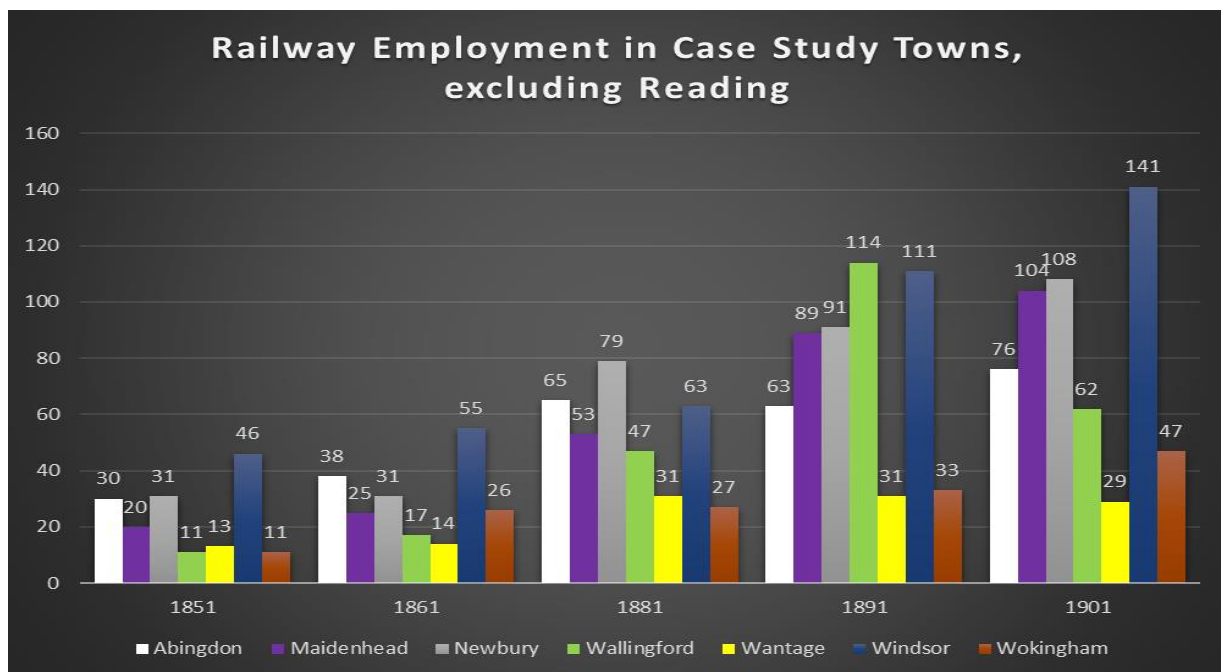


Figure 175: Number of Persons Employed by the Railway Companies, 1851-1901.⁴

⁴ Integrated Census Microdata.

An inspection of the eight case study towns individually shows that the situation, as has been seen in other commercial sectors examined in the case study chapters, was more complex and varied by location to a great deal. The majority of railway employees were in Newbury, Reading and Windsor. The size of the facilities in Reading and Newbury explains the high numbers employed in those two places, but at first glance Windsor appears to have an unexpectedly high number of railway employees.

The town was served by two companies, the GWR and LSWR, who had their termini in the town. The GWR terminus was located at the end of a branch line, but with larger facilities than would usually be seen at the end of a branch due to Windsor's place as a royal town, and due to the race traffic for Ascot which arrived at Windsor until the opening of the RG&RR's station at Ascot, with trains operated by the LSWR, close to the race course. The LSWR's station in Windsor was located at the end of its original secondary main line route from London Waterloo via Staines. The facilities at their station, now Windsor and Eton Riverside, were also not inconsiderable. The high numbers of employment offered by the two railway companies in Windsor can thus be explained.

A surprising level of employment can be seen in Wallingford in 1891. Outside of the outlying peak in that year, the statistics show employment of several staff which seems to correspond to the facilities in Wallingford. The cause of the 1891 spike seen in the trend for Wallingford becomes clearer once the data is consulted. The census returns for that year show a large increase in the numbers of persons employed in two railway occupations.

The GWR was employing forty three people as 'platelayer, ganger and packer', with a further forty five persons employed as 'railway labourer'. The two groups were involved in work on the railway track itself, with labourers generally being used on general civil engineering work such as earthworks and buildings. The data for the years 1881 and 1901 show the number of people working in these trades at much lower levels, more reflective of the increasing trend seen in the previous years. The increase in numbers seen in the 1881 census returns can be explained by later improvements made

by the GWR to the Wallingford branch and the facilities at the terminus in the town following their takeover of the Wallingford and Watlington Railway Company on 2nd December 1872.⁵ The temporary increase in the number of railway workers shows how the railway may have a direct impact upon the local economy of a place.

Despite the numbers of people employed by the railways being, at first glance, quite large, when looked at as a percentage of employment in the local economy, they were negligible. The railway employed only 0.32 percent of the working population of Newbury in 1851, rising to 1.39 percent by 1901. The employment provided by the railways across the other towns examine followed a similar trend, only small numbers of the working population being employed by the railways.



Figure 176: Railway Employment in selected Berkshire towns as a percentage of the Working population.⁶

⁵ Paul Karau and Chris Turner, *The Wallingford Branch* (Upper Bucklebury, 1982), 13.

⁶ Integrated Census Microdata.

In Reading, where railway employment was at its highest, the three railway companies employed one hundred and ninety eight persons which, as can be seen elsewhere, steadily increased as the railways needed more staff to serve there increasingly complex networks and services, reaching one thousand, two hundred and seventy seven employees in the town by 1901.

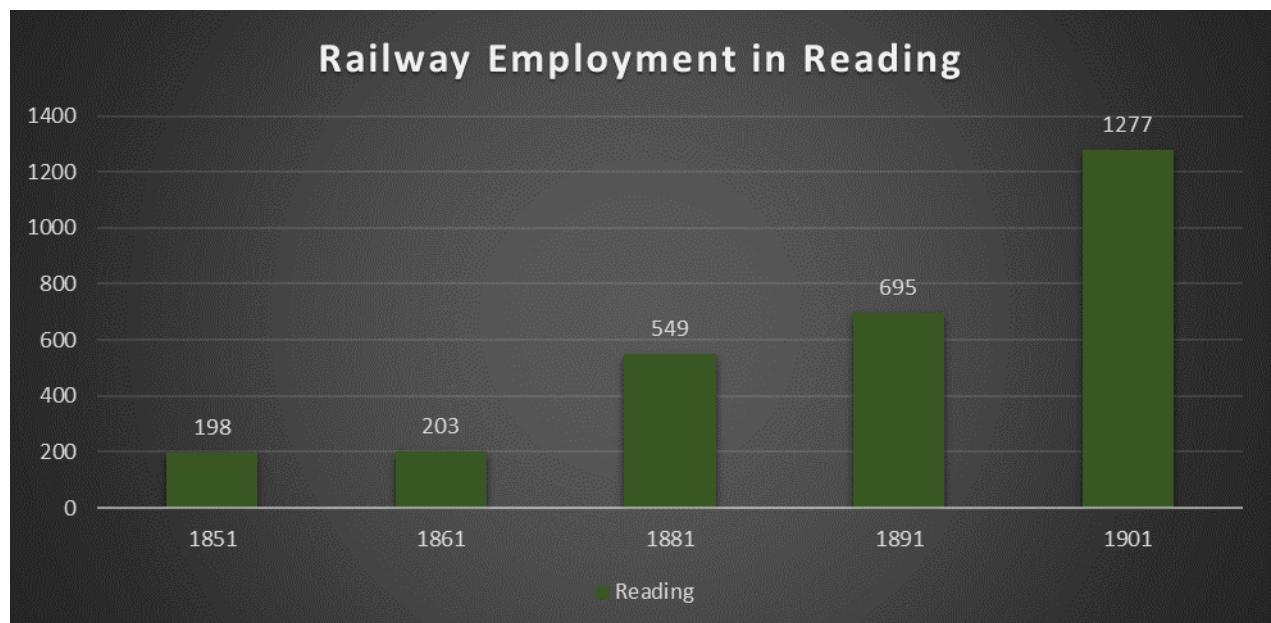


Figure 177: Number of people employed by the railway companies in Reading, 1851-1901.⁷

As has been seen elsewhere though, the number of people working for the railway companies in Reading comprised only a very small part of the population. The GWR only employed 1 percent of the population in 1851, which only rose by one hundredth of a percent to 1.01 in 1861. The three railway companies, GWR, SER and LSWR, who were serving the town after the acquisition of the RG&RR and SW&WJR by the SER and LSWR respectively only supported the employment of 1.43 percent of the population by 1881, rising to just 3.43 percent in 1901.

The general trend of railway employment provides useful evidence of how the railways were responding to the traffic they were being offered by businesses, as well as the numbers of passengers being carried. The trends for employment provided by the railway companies appears quite different to that seen in all the business sectors outlined in the case studies. In the town

⁷ Integrated Census Microdata.

studies, employment fluctuated throughout the period of this study where detailed occupational statistics are available from the census returns. The fluctuations observed in the employment provided by business differed between towns and even between different sectors in the same town. The trends showed both growth in the number of persons employed as well as decline over time, with a variety of patterns observed in different places and sectors.

The railways appear to have been different. The number of railway employees in all the towns studied continually increased, never showing any decline. The peak and decline observed in Wallingford should be discounted as it coincides with a period of improvements being made to the branch, the resulting deployment of additional staff to the area skewing the statistics accordingly. It seems likely that the direct employment of staff by the GWR steadily increased as has been observed in every other town.

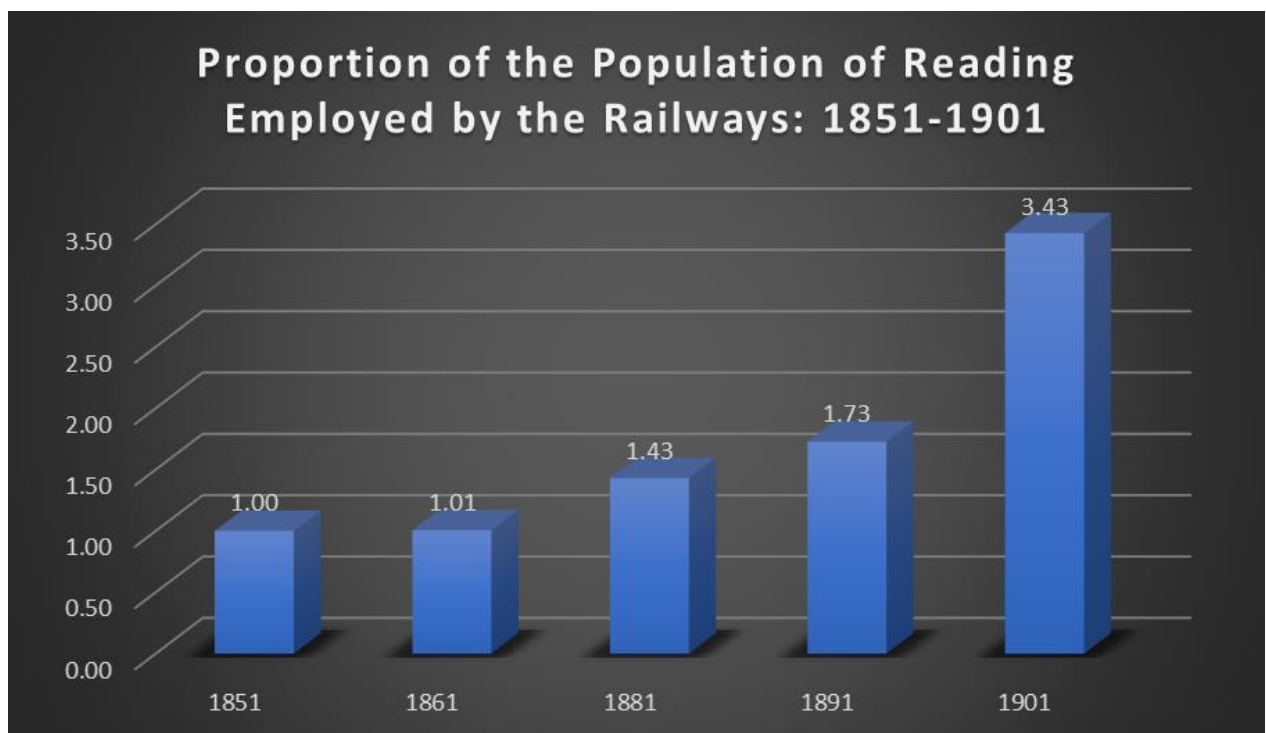


Figure 178: The Percentage of the Population of Reading working on the Railways, 1851-1901.⁸

⁸ Integrated Census Microdata.

The question arises as to why the railways should have been continually increasing the numbers of staff that they were employing across all their network in Berkshire. The railways probably benefitted from the provision of traffic from every business in the county, peaks and troughs experienced in individual sectors being less impactful upon them due to peaks in one sector covering any decline in another. The continual growth in railway employment suggests more than this though. The expansion in the number of railway workers across the whole county suggests that increasing amounts of traffic, both freight and passenger, was being offered to the GWR, SER and LSWR as the century progressed, necessitating more staff to support it. Similar trends may be seen in other places, such as Leeds where railway employment increased from 567 persons in 1851 (0.78 per cent of the working population) to 962 person in 1891 (0.64 per cent of the working population).⁹ It seems that in some parts of rural areas, the railway employed a slightly higher percentage of the working population in towns where there were major railway facilities such as can be found in Reading, but nevertheless the railway was still a minor employer. If the occupation statistics for a town with a major railway works are examined the percentages would be much higher, although the exact numbers employed would require the employment figures from the railway company as many roles would be enumerated as other roles such as those found in foundries which would be virtually impossible to segregate in the census data.

It seems likely that the relationship between railways and the wider economy, certainly in Berkshire, was more complex than may have been stated in the past. The railways appear to have consistently grown due to the demand for their services, so perhaps it may be safe to suggest that railway growth was perhaps caused by the economy rather than vice versa.

Another opportunity that the railways provided was for local businesses to take advantage of the way in which the companies operated part of their provision to the traveller. Railway companies often franchised out the operation of their refreshment rooms, providing local brewers or similar

⁹ Integrated Census Microdata.

companies with the chance to expand their outlets to what were effectively a captive audience on the railway. The early trains had no provision for refreshment aboard the train, the passenger who needed such having to acquire meals or liquid refreshment on stations.



Figure 179: Replica 1840s Great Western Railway broad gauge coach at Didcot Railway Centre.¹⁰

The situation did not improve for many passengers, much of the passenger rolling stock provided by the railways not having corridor connections throughout the nineteenth century (as can be seen in Figures 175 and 176). The passenger was therefore required to either bring their own refreshments with them, or to take advantage of the facilities offered by the railway companies. Trains often did not stop for long at places designated as ‘refreshment stops’ and so there would have been little time for the thirsty passenger to leave the station to seek refreshment elsewhere, limiting them to using the railway refreshment rooms, benefitting those who had taken on the franchised operation of them. A company who had taken on the operation of the refreshment rooms was thus presented with a ready supply of customers who needed their services.

¹⁰ Wikimedia Commons, Hugh Llewelyn, CC BY-SA 2.0 <<https://creativecommons.org/licenses/by-sa/2.0/>>, via Wikimedia Commons, [Online Photograph] [https://commons.wikimedia.org/wiki/File:GWR_Gooch_Second_Class_broad_gauge_coach_\(6824560573\).jpg](https://commons.wikimedia.org/wiki/File:GWR_Gooch_Second_Class_broad_gauge_coach_(6824560573).jpg) (Accessed 27th April 2023).



Figure 180: Great Western Railway Coach. 1891. Preserved at Didcot Railway Centre.¹¹

One company who was able to take advantage of the opportunity offered by the railway refreshment rooms, and to directly benefit from the revenue potential of subcontracting to operate those facilities was Simond's Brewery in Reading.

The Company engaged in a franchising agreement with both the GWR and SER to operate the refreshment rooms on both company's networks. A supplement to the Illustrated London News, dated 8th July 1882, was dedicated to Reading, its environs and industries. The supplement discussed the brewing industry in the town, describing H and G. Simond's brewery as not only being the largest in Reading but also the contractor '...for the whole of the refreshments on the South Eastern Railway'.¹² The contract to run all the refreshment rooms for the SER would have involved all the one hundred and twenty eight stations that the SER possessed on its network across the whole of

¹¹ Wikimedia Commons, Hugh Llewelyn, CC BY-SA 2.0 <<https://creativecommons.org/licenses/by-sa/2.0/>>, via Wikimedia Commons, [Online Photograph] File:GWR Dean 31 Brake Third No.416 (6822561497).jpg - Wikimedia Commons, (Online Photograph).

¹² Reading, Berkshire Records Office, D/EX2211/1, Supplement to the Illustrated London News: Reading and its Neighbourhood, 8 July 1882, 45.

the south east of England. The revenue directly being provided through the franchising of these facilities by the railway could potentially have been incredibly profitable for Simonds.¹³

Simonds clearly benefitted from their relationship with the railways, taking on the management of refreshment rooms for both the GWR and LSWR. In 1863, the company entered into a franchising agreement with the GWR to operate the refreshment rooms at Newbury station on behalf of the railway company.¹⁴ The company also took over the lease on the refreshment rooms on Reading station in 1869, the franchise that was agreed laying down what menu the refreshment rooms should serve during the day and which beverages were to be sold, although Simonds were given the choice of which of their beers to serve. The agreement set down the prices that could be charged, and as was seen within the freight agency contract the GWR insisted upon the Wantage Tramway agreeing, the franchise for Reading refreshment rooms reserved the right for the GWR to insist upon Simonds dismissing any member of staff working there that the railway found to be unacceptable.¹⁵

The railways required delivery agents to expand upon the services they offered through their own cartage services. The extension of the railway's freight services offered opportunity to those who were already providing carriage locally, with companies now needing to deliver their own products to the freight offices and yards on the railway. To a degree the short ranged collection and delivery services subcontracted to local carriers would perhaps have replaced the work that was undertaken before the railways arrived. In some cases, as has been seen in the Wantage case study, these services might be operated by a local light railway, their services impacting negatively upon the carriers who had been working with the main railway company prior to that point. The local light railway or new branch line would have taken away the need for the services offered by local carriers

¹³ Gray, Adrian, *South Eastern Railway* (Midhurst, 1990), Network Map.

¹⁴ London, The National Archives, RAIL 1181/9, Agreement between GWR and Simonds & Co for letting of refreshment rooms at Newbury Station with plans. 1863.

¹⁵ London, The National Archives, RAIL 1181/2, Agreement between Great Western Railway Company and William Flanagan (hotel keeper, Great Western Hotel, Reading) for tenancy of refreshment rooms on Reading Up Station, Aug 1869; London, The National Archives, RAIL 1181/5, Surrender for William Flanagan to Great Western Railway Company of refreshment rooms and upper and lower stations at Reading, 31st March 1869.

from rail hubs further away from the town. It seems that the direct impact of the railways through local cartage arrangements varied from place to place as has been seen throughout this thesis.

The delivery of goods from the railway hub to the consignee was undertaken jointly by the railway companies, who often possessed a fleet of delivery carts, and local carriers who had been awarded a contract to represent the railway in this function, or had been engaged by the manufacturer to or from the railway on their behalf. The transport of freight from goods shed to customer provided revenue for the local carriers engaged to perform such tasks, and serves as an example of how the railways could directly impact the local economy.

The commercial directories for the nineteenth century list several carriage companies who show as representing the railway companies, often under the name of the railway rather than their own. In Reading, Webster's 1874 directory lists Charles and Giles Ayres, as representing the GWR as agents in addition to their business as coal and salt merchants, but noticeably they did not mention having an agency for the SER or LSWR.¹⁶ It may have been another company who represented the latter two companies. Sutton & Co were listed in Webster's 1874 directory as 'railway carriers and shipping agents' without any reference to the companies they represented.¹⁷ No other railway carriers were listed in the directory for Reading in that year.

The specificity of the entry in the directory was probably caused by the way the GWR engaged with its subcontractors and agents. An example of the contracts agreed between the railway company and a third party agent can be seen in the agreements made between the railway and the Wantage Tramway. The railway company agency contract contained several clauses relating to how the agent should represent both themselves and the GWR, including how the agent's staff should conduct themselves. The initial contract between the Wantage Tramway Company and the GWR contained a clause which stated that the tramway should '...employ proper, civil, energetic, and trustworthy

¹⁶ Reading, Reading Central Library Local History Collection, Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873), 99.

¹⁷ Webster's, 148.

men' with a further sub-clause stating that the railway company had reserved the right to instruct the tramway to '...remove any men...[the railway] deem objectionable or questionable'.¹⁸ The railway had presented a further clause which instructed the tramway company to paint upon all of the vehicles used for the transport of freight the terms 'GWR' and 'The Wantage Tramway Company Agent'.¹⁹

The railways could be quite dictatorial in all their relationship with agents or franchisees. These companies were often operating under the branding of the railway company and were thus representing the railway and the image that it wished to portray to both the general public and business. It was in the railway's interest to ensure that the services provided by their partners were of a standard that reflected well on the railway, and since they were offering not inconsiderable revenue opportunity to their subcontractors they were able to take an active and sometimes controlling interest in those operations.

The dictatorial contracts provided by the GWR were no doubt intended to protect their reputation, through control of how the agent should represent them, and their brand, through the insistence that the company should be presented as the main provider of services, despite them being run on and by the tramway. The relationship between Ayres and the GWR no doubt rested upon a contract which contained similar limiting clauses, explaining the entry in Webster's directory. A survey of other directories shows that the GWR appear to have had a similar arrangement with its agents throughout the county. In Wallingford the delivery and collection of goods was undertaken by Henry Snow, who was based at the railway station. The entry for the company was under both the 'Great Western Railway Co.' with Henry Snow referenced as the agent afterwards, and under Snow's entry

¹⁸ Reading Berkshire Records Office, D/WT27/6/2, Great Western Railway Company and Wantage Tramway Company (Limited); Memorandum of Agreement for the Collection and Delivery of Parcels. 21st March 1876, Clause 2.

¹⁹ Reading Berkshire Records Office, D/WT27/6/2, Great Western Railway Company and Wantage Tramway Company (Limited); Memorandum of Agreement for the Collection and Delivery of Parcels. 21st March 1876, Clause 3.

as a coal, coke and lime merchant based at the railway station, in which it also stated their agency as cartage provider for the GWR.²⁰

The agency agreements being undertaken by a variety of companies across the county provides an example of where the railway company was providing revenue as a customer for these local companies and thus directly impacting upon the economy of those places. The agent carriers were not the only transport companies outside the rail industry who were operating locally and benefitting from revenues connected with the railway's freight services.

The account books for Plenty and Son of Newbury itemise sales and purchases of services connected with those sales of marine engines. The arrangements to be made for the delivery of the machinery were itemised against each order in the sales ledger, which can in turn be cross referenced to the purchase ledgers for transport services. Plenty were directly engaging with the GWR at Newbury station for some of its deliveries, but were also engaging the services of two companies for transport.

The ledgers show numerous entries for Pickfords, both for delivery to Newbury station and for road delivery of their larger marine boilers which were outside of the size that could be transported by rail. The second company, which appears more frequently than entries for Pickfords, was the cartage company operated by Sarah Draper in Newbury. Draper's appear to have been transporting a large proportion of Plenty and Sons products to the railway for onwards transportation, with the fees being paid to Sarah Draper directly by Plenty. Sarah Draper also appears as the carrier responsible for the delivery from the railway station yards of all the raw materials, parts and tools being purchased by the iron works. Kelly's directory lists Sarah Draper as 'carrier for G.W.R. goods station' suggesting that her company was in possession of the agency from the railway company²¹.

²⁰ Reading, Reading Central Library Local History Collection, Kelly's Directory of Berkshire: 1895 (London, 1895), 234 and 235.

²¹ Kelly's, 1895, 128.

The evidence shows how, in Newbury, some of the local businesses were benefitting from the revenues associated with the first and last legs of long distance transport through the railway's freight services, which the railway company was unable to provide themselves. Carriers would have been an important part of Berkshire's local transport infrastructure since not all manufacturers had their own carts or traction engines, and few were in possession of a private railway siding in their own premises, Huntley and Palmer's internal rail network being unique in Berkshire. The gap between factory and freight yard was filled by these local carriers, who would have enjoyed a share of the carriage charges involved. The railway was clearly directly impacting the local economy in that respect.

The railways also impacted directly upon local economies through the running of special excursion services designed, primarily, to provide additional revenue for the railway company. The local economy of the places to which these additional trains were being run benefitted coincidentally with the travellers spending in the local inns and restaurants, hiring boats on the rivers and so on. The influx of a train of day trippers would provide an additional bonus to the turnovers of certain businesses on that day.

The GWR, for example, offered excursion tickets from Paddington between May and October to what it described as 'Riverside Stations' located upon the river Thames around Reading. The list of destinations offered included Henley, Maidenhead, Marlow, Pangbourne, Tilehurst, Wallingford and Windsor.²² The services which the tickets were valid upon were limited to certain timed departures from London on the outbound leg, with the return being restricted to trains after 4pm. The visitors were thus unable to leave their day trip destination until late in the afternoon and would thus have been likely to have purchased lunches and perhaps early evening teas in those places in addition to

²² The Great Western Railway Company, *Great Western Railway & Other Railways in Connection, Timetables and maps*, July, August and September 1892, 1.

their other spending. The GWR, through its efforts to increase its revenues, was directly impacting upon the local economy.

The final way in which the railways directly impacted the local economies of the places they served or through which they passed was through the purchase of civil engineering or manufactures purchased during the construction or expansion of the network. The GWR provided a considerable boost to the fortunes of Reading, one company particularly benefitting from the construction of Brunel's railway.

The company account books show that the GWR provided a loan of one thousand, five hundred pounds in 1838 to Barrett, Exall and Andrews' iron foundry.²³ The loan was to be used for the modernisation of the foundry to enable it to produce iron products that the railway needed. The GWR had no works of its own at the time, the legendary workshops at Swindon not yet being envisaged by Brunel or the railway's board of directors. The GWR purchased most of what it needed from Barrett, Exall and Andrews insofar as infrastructure such as pumps, turntables, and many other items were concerned. Locomotives were not built in Reading; all being purchased by Brunel from specialist locomotive manufacturers such as Vulcan Foundry (Newton Le Willows); Mather Dixon and Co.(Liverpool); Haigh Foundry (Wigan), and R & W Hawthorn (Newcastle upon Tyne).²⁴

The purchase of railway equipment from the foundry in Reading would have provided work and directly impacted upon the economy of the town, as the GWR's purchases from the locomotive manufacturers in the north of England would have directly contributed to the economies of those places. The Reading iron works received several contracts from the GWR, one of which was for the materials to be used to construct the railway line through the cuttings at Ruscombe and Sonning. The contract was worth over one thousand, four hundred pounds to the iron foundry in 1839.

²³ Reading, Berkshire Records Office, D/EX1739/9/5/6-23, Some Notes on the Reading Iron Works Ltd. (Barrett, Exall & Andrews) 1818-87. (Unpublished Manuscript).T.A.B. Corley, 1973, 9.

²⁴ Arman, The Reverend Canon Brian, The Broad Gauge Engines of the Great Western Railway. Part I: 1837-1840 (Lydney, 2018), 15.

The local economy benefitted from the construction of the civil engineering required for the railway. The creation of cuttings, embankments, bridges, and railway buildings was often undertaken by local civil engineers who were contracted by the railways to build a section of the route, a viaduct, tunnel, or the buildings required at a station. In Berkshire the GWR contracted many local companies, as well as a number from further afield, to undertake works on their behalf throughout the nineteenth century. The railway engaged Alfred Simmonds, a civil engineering contractor based in Reading, to undertake construction of Shiplake station on the Henley branch from Twyford in 1893.²⁵ The following year the railway company engaged another civil engineering contractor from Reading, George Tucker, to construct the new station at Bramley on the line from Reading to Basingstoke.²⁶ In 1895, the GWR had need of a local civil engineer once more, when they required improvements to the station at Maidenhead, commissioning William Goodchild, civil engineering contractor also based in Reading, to undertake ‘...alterations and additions..’ to the station.²⁷

The use of local civil engineers and construction companies as subcontractors for the works required by the GWR provides evidence of another way in which railways could directly impact the local economy of a place through the revenue generated for those companies engaged. It also shows how, indirectly, the railway companies might have been generating small amounts of local employment whilst these projects were being undertaken.

The railways were clearly able to influence small parts of a local economy due to the purchase of products and services needed to run the company’s operation, and through the franchising of other parts of the operation such as their refreshment rooms. The direct impact should not be

²⁵ London, The National Archives, RAIL 252/1009, Contract between Alfred Simonds (contractor, Reading, Berkshire) and Great Western Railway Company for construction of Shiplake Station, Oxfordshire; with specification and tender. 8th February 1893.

²⁶ London, The National Archives, RAIL 252/1077, Contract between George Henry Tucker (builder and contractor, Reading, Berkshire) and Great Western Railway Company for Bramley Station, Hampshire; with specification and tender. 20th September 1894.

²⁷ London, The National Archives, RAIL 252/1087, Contract between William Goodchild (contractor, Reading, Berkshire) and Great Western Railway Company for alterations and additions at Maidenhead Station, Berkshire; with specification and tender. 18th March 1895.

overestimated as it would have contributed to only one small, but nevertheless important to the companies involved, part of the local economies of Berkshire.

Chapter 15: Conclusions

The intention of this thesis was to explore more deeply the impact of the Victorian railways upon the economy of rural counties, using Berkshire as an example of such a place. The research sought to clarify two main questions. Firstly, what impact did the railways have upon the development of manufacturing and associated services within Berkshire in the nineteenth century ? Secondly, was the impact of the railways upon manufacturing and associated services within Berkshire a definitively positive one underpinning growth, or was the situation more nuanced ? An additional two subsidiary questions were also considered. Was the impact of railway development on different business sectors across the county broadly similar ? Lastly, was the impact of railway development similar across the same business sectors in different locations across the county ?

The research revealed important evidence that challenges some common assumptions regarding the relationship between railway and the economies of the places which they served. As Rosemary Stewart-Beardsley stated in her thesis, the railways have been described as the driver which influenced socio-economic changes in rural areas.¹ The generalisation that occurs in the historiography has been seen to have been problematic, but Stewart-Beardsley's observations indicate how the argument has partially moved on from the foundations upon which the history of railway, society and economy were based, although more work is required to establish the effect of railways upon business, which this thesis addresses. The evidence found in the research suggests that the business changes occurring during the nineteenth century were complex and influenced by many factors, not only the railways.

The study builds upon the foundations laid by railway historians such as Terry Gourvish, Jack Simmonds, John Kellett, Roy Church, T.A.B. Corley and others to bring a more detailed picture of a rural county's economy into view. The thesis endorses the conclusions of Gourvish and Simmonds

¹ Rosemary Stewart-Beardsley, 'After the Railway: A Study of Social Change in Five Rural Thameside parishes 1831-1901', PhD Thesis, The University of Reading, 2009, 250.

that the railways were an important part of the development of Britain's economy, but differs in its interpretation of the role that the railways played in that change. Whereas Gourvish and Kellett claim that the railways supported, but were not singly responsible for economic growth, this study shows that while the railways certainly changed the economy of Berkshire, what ensued was by no means simply pervasive growth.² Assertions linking railways to economic growth pervade the historiography and whilst these no doubt apply to some sectors of the British economy they do not apply across the board, as can be seen in the case studies. Whilst the railways were undoubtedly an important asset to many Victorian businesses, with economic evolution seen within Victorian Berkshire, they were only one of the vectors of change influencing businesses in the nineteenth century.

This thesis expands upon the historiography by looking closely, not at the social aspect of the railway in the rural context which Stewart-Beardsley examined, but at the business aspect of the relationship between train and town. The two studies complement each other and provide a clearer picture of how Berkshire was impacted by the arrival of the railways.

The research undertaken for this thesis supports Stewart-Beardsley's argument that rural parishes differed considerably from each other in the effect of railway development on them. The evidence shows that the population trends in the various towns varied. In some places there was stagnation (Wokingham) whilst in other places the population grew steadily (Reading and Newbury), but in Wantage the population began to decline late in the century as people began to move away. The situation in business, which Stewart-Beardsley did not assess, appears to have also exhibited different trends across the county, not only in different places but in separate sectors within the same place.

² Gourvish, T.R., 'Railway Enterprise' in Church, Roy (Ed.), *The Dynamics of Victorian Business: Problems and Perspectives to the 1870s* (London, 1980), 131; Kellett, 2-3.

In respect to the business landscape of a town the difference between places became even clearer when analysing how the economy of neighbouring towns evolved during the nineteenth century. The research showed how different sectors within the same settlement behaved differently during the period of railway building in Berkshire and afterwards. The impact of structural change, for example, varied from place to place. The influx of Victorian tourists to riverside towns, promoted through cheap excursion tickets provided by the GWR, saw the hospitality sector in places such as Maidenhead and Wantage grow, with places like Wokingham with little to attract the tourist, being unaffected. The town of Reading benefitted from both the attraction of the Thames river to tourists and through its place as a major railway hub attracting business travellers breaking their journeys overnight.

The Impact of the Railways on the Economy of Berkshire.

The research undertaken for the case studies was used to explore how the railways influenced the economy of a rural county remote from the traditionally studied 'industrial' areas of Britain. The work undertaken showed that the relationship between railway, factory, and business in areas such as Birmingham, Leeds, Manchester, Glasgow, Sheffield could be very different from the interaction between the rail companies and companies in less specialised locations and within different sectors therein. The result of regional concentration was to create an industrial base that was fundamentally the same in one place with the majority of businesses being related to that speciality.

In Victorian Manchester for example, most of the major industrial concerns were cotton mills, or companies supporting them with the ancillary services that the manufacturing process required (for example, bleaching), whilst in Sheffield the majority were large steel mills or foundries and the supporting engineering facilities that supported them. It is therefore likely that the experience of these businesses with respect to railways was extremely similar. This can present an artificially

skewed set of evidence unless the minor sectors in those places were to be examined alone to avoid the bias in the evidence towards the specialised mills.

It is likely that the lack of variety among the larger businesses in the heavily industrialised towns may support a generalised conclusion which may not fit more rural areas or towns where the industrial base was made up of many smaller but much more diverse businesses. It is possible that this has been the cause of the conclusions drawn for the heavily industrialised areas, which in turn have been understandably extrapolated to the remainder of the country.

The industrial base in Berkshire was widely diverse, without the expanse of major workshops and factories seen in the northern towns. Other than perhaps Huntley and Palmer or Barratt, Exall and Andrews in Reading, and Plenty and Son in Newbury, or the larger breweries, the county's businesses were relatively small when compared to the likes of Sheffield Forgemasters in Sheffield.³ Each town contained a range of different types of industry without the concentration towards one or two types of manufactured output. Whilst the large northern and midlands cities became progressively specialised the towns in Berkshire remained diverse and hence more likely reflect a different set of responses to the arrival of the railway. The towns in Berkshire also presented a broad range of differing occupations in census returns, which may not have been seen in the more specialised regions and could cause issues within the data if the censuses were approached at the highest summary level of data classification only.

One of the striking results of the research was that sampling census data at the summary level, as Newman for example did in his PhD thesis on Hertfordshire, Bedfordshire and Buckinghamshire, can be misleading.⁴ The use of summary data can give the unwarranted impression that the railway

³ Sheffield Forgemasters, About Us [Website], <https://www.sheffieldforgemasters.com/about-us/>, (Accessed 18th August 2023); Geoffrey Tweedale, *Steel City: Entrepreneurship, Strategy and Technology in Sheffield, 1743-1993*, (Oxford, 1993); David Hey, *The Fiery Blades of Hallamshire: Sheffield and its Neighbourhood, 1660-1740*, (Leicester, 1991).

⁴ Newman, Friedrich Rudolf Johannes, 'The Socio-Economic Impacts of the Coming of the Railways to Hertfordshire, Bedfordshire and Buckinghamshire, 1838-1900', PhD Thesis, The University of Hertfordshire, 2014.

alone caused economic growth in all sectors. However, the summary occupational statistics from the census enumerations conceals variation between different sectors summarised in that grouping. Data can be skewed by larger changes in one sector disguising a decline in another within the summarised census data. For example the census includes a top level grouping for persons enumerated as 'working and dealing in metals, machine implements and conveyances'.⁵ The data gathered within the group includes a widely diverse set of occupations from watchmakers through to iron foundry workers. These trades could be affected very differently by changes in society, demand for luxury items, or engineering supplies which could give a false impression of how the economy of a county was evolving over time.

The summary census data additionally conceals changes that were occurring in separate towns, and it was found necessary to use a more detailed level of statistics segregated by location and occupation type in order to collect a more reliable and indicative set of data. Using the more granular approach revealed some conflicting trends across the different places researched, indicating that the economic change occurring in Berkshire was quite variable. The data suggested that the study required segregation within the research questions to establish how railways and businesses were interacting in the nineteenth century.

In order to more clearly establish the impact that the railways had upon the local economies of Berkshire towns, it was found necessary to split the research questions into two separate sections, the first concerned with the direct impact of the railway companies upon the towns in which they had a presence and the second with the indirect impact. The railways had a direct impact upon places they served through purchases of materials and consumables required by the railway to meet its own operational requirements. The railways did not make everything they needed within their own workshops, for example waybills and flyers relating to regional offers and operational issues

⁵ University of Essex, Integrated Census Microdata, [Website], <https://icem.data-archive.ac.uk/#step2>, (Accessed 22nd June 2022).

were often subcontracted to local printers. The spend placed with local businesses directly impacted the local economy, something which has not been considered in much depth before.

The indirect impact of railways can be seen in how their operations presented local businesses with opportunities to engage with customers in more distant parts of Britain, and indeed overseas, through the use of the railway's freight services. The passenger services provided had another indirect impact since it became more viable for staff to travel to work from further afield, attracting skilled labour which may not have been readily available locally. The rail services allowed travelling salesmen to visit many more customers, across a wider geographical area, in a shorter period expanding a company's reach. There is evidence for an increasing number of travelling salesmen working within Berkshire and elsewhere, all of whom were travelling by train.⁶

This allowed companies to increase their sales and grow, although the competition entering an area previously the sole domain of a company based there could have a negative consequence as a result. These were not vectors of change directly caused by the railway, but rather through the operations of businesses who sought to use the rail network to their own advantage. Thus it can be seen that the railways did not necessarily cause 'growth' but rather were part of the foundations upon which economic change was built.

A direct factor, often referred to in the historiography, whereby the railways influenced local economies was through employment. There are some issues in the evidence which needed to be overcome and may have presented a skewed picture of nineteenth century Berkshire.

The groupings used by the census enumerator included persons working in occupations related directly to the railways. An increasingly large number of people were employed in these categories

⁶ Thomas Cash, a travelling salesman representing a company in Stowbridge complained that he has missed a train due to the tram failing on the Wantage tramway which meant he missed a train at Wantage Road station and was unable to complete his appointments for the rest of the day as a result.

Reading, Berkshire Records Office, Reading, Berkshire Records Office, D/WT11/41/1, Correspondence between Thomas Cash, Aston, Birmingham and 'The Wantage Steam Tram Car Comp.^y, Wantage. 16th June 1877.

but, the numbers of people working for the railway companies was found to be extremely small, as explored in chapter 14.

Each town had a small number of railway employees, most likely engaged at the stations in those towns. Wantage had an interesting combination of workers who were employed by both the GWR and the Wantage Tramway Company from the late 1870s when the tramway opened, although these are impossible to segregate from the census data. The combined 'railway staff' of the two companies nevertheless comprised a very small proportion of the whole workforce of the town.

In Reading where the GWR had a large station, locomotive depot, freight yards and a works, and the SER and LSWR provided their own joint station, locomotive depot and freight yards, the number of people working for the railway, at its peak, only comprised 3.43% of the entire working population of the town. It seems that, as an employer the railways had a minimal influence of the economy of Berkshire's towns.

The statistics are, however, a useful indicator of the trends prevalent in the overall local economy of a place. In Reading, for example, there were many persons whose occupations were enumerated as 'Railway Engine-Driver, Stoker, Cleaner' who would have mostly been working in the large locomotive depots serving both Reading stations.⁷ The census returns show that from an initial return of only 14 and then 16 persons in 1851 and 1861, the number of staff employed on locomotives increased to 95 in 1881, 106 in 1891 and 238 in 1901. The majority of these would have been employed by the GWR, SER and LSWR at their locomotive depots, although a small number were employed as locomotive drivers by Huntley and Palmer in the operation of their not inconsiderable internal railway network.

The steadily increasing number of locomotive crews, both within Huntley and Palmer and the main line railway companies, suggests that the railway was meeting demand for increased services through provision of more trains, requiring a greater number of locomotives. The census statistics

⁷ Integrated Census Microdata

related to these occupations provide a useful insight into how the local economy was providing increased traffic for the railways. The position of Reading as a major rail junction and hub also shows how the county was providing work for the railways, and no doubt the economies of other parts of the British Isles were also creating increased traffic through demand for the export of Berkshire manufactures and produce, and the import of goods into Berkshire from other parts of the country.

It can thus be seen that there is another element of the relationship between railway and business that must be explored, and which has not often been considered in the historiography. The impact of business upon railways and how local economies caused railway growth is suggested in the railway census occupation returns.

The expansion of residential development was another factor which influenced the expansion of the railways through the demand for commuter and leisure travel, although the local commuter is more liable to have walked to work or later used the urban tram services available in Reading. The existence of the railway was liable to have facilitated the expansion of towns such as Reading, but certainly did not cause it alone.

Another example of where the census returns need to be used carefully in the examination of the impact that railways had upon the local economies of Berkshire, was found under the classification of 'Persons Working and Dealing in Metals, Machine Implements and Conveyances'. If Reading is once again used as an example this grouping includes the persons working in Reading's iron foundries but also includes three sub classifications related to railway work, one of which returned high numbers in the census data. The classification 'Railway - Signal Switch Turntable Fitters' could have skewed the statistics and thus the conclusions drawn. These people would have been working in the GWR workshops located to the north of Reading station, which produced signalling equipment for the railway, and was never relocated to the company's workshops at Swindon. The workshops remained open into the 1970s, finally closing under the rationalisation programmes undertaken

under British Rail. The direct employment offered by the railway was reviewed in the chapter relating to the direct impact of railway company upon local economy.

The railway related occupations needed to be excluded from the town based case studies since they could artificially impact the picture of businesses such as the engineering works located in most of Berkshire towns. Even though the number of people working in railway related occupations as a proportion of the whole working population was small, the number could cause an erroneous picture to emerge when examining a single sector, such as engineering, where the numbers of people employed by the railways were a larger proportion of a smaller sample and could potentially result in incorrect conclusions being drawn.

The exclusion of these served to present a clearer picture where population figures were being used in comparison to the number of businesses, in order to establish the average size of each of those types of company. This shows the importance of understanding the type of employment found in a variety of businesses. The manufacturing process varies between types of product being made, and thus the skills required differed. The route through which a product passes in its manufacture demands varying numbers of these skilled persons which will be seen in the census returns if the processes are understood. An example can be found within the classification 'Persons Working and Dealing in Metals, Machine Implements and Conveyances. The census grouping includes a broad range of occupations such as agricultural machine makers, brass founders, and iron founders, but also ironmongers, and bicycle dealers, the latter two occupations being retail have very different skills and don't involve manufacturing. The detailed statistics in the censuses were thus found to be extremely revealing and has allowed for a most likely relationship between numbers of workers and businesses to be established, in turn providing a closer average business size to be established.

The summary census groupings were found to be problematic in another manner too. The census groupings also summarised occupations together which involved quite different types of businesses. The organisations employing these people would have been affected differently by events around

the time of the arrival of the railway companies in a location. The grouping mentioned above not only includes railway personnel but also several occupations which only have in common that metals were used in the work that was being undertaken. The most detailed occupation returns were, therefore, selected for analysis. Adopting a more granular method has allowed, with cross reference to other sources, a clearer picture of how business and railway related to each other and how the economy of Berkshire was influenced by the arrival of the railways.

The approach outlined in the methodology where numerous sources, including the census occupation returns, commercial directories, maps, and business records from the period under review, provided a clearer picture of the economy of Berkshire when combined and compared. The conclusions presented by Friedrich Newman's thesis, for example, were based primarily upon summary census returns, despite his recognition of the limitations that this methodology had. Newman justified his use of a limited set of sources through the adoption of the 'Goose Code of occupational classification'.⁸ The Goose Code classification of occupations by the raw materials used in the work undertaken is, as has been outlined in the literature review, problematic and gives a false impression of the industrial base of the areas used in the study.

The table presented in Newman's study provides the breakdown of classification used in Goose and in turn by Newman.⁹ Goose classified occupations by, for example, the use of metals. The classification thus covers every occupational area from watch making to the construction of ocean liners and warships, electrical cables to ploughshares. The limitations of this approach are that fluctuations in different business types are artificially smoothed to give a misleading aggregate impression. As can be seen from this study a more detailed approach coupled with an understanding

⁸ Friedrich Rudolf Johannes Newman, 'The Socio-Economic Impacts of the Coming of the Railways to Hertfordshire, Bedfordshire and Buckinghamshire, 1838-1900', PhD Thesis, The University of Hertfordshire, 2014, 58.

⁹ Newman, 89.

of manufacturing processes allowed different and more likely conclusions to be drawn about the impact of the railways upon the economy of Berkshire.

The study of Berkshire and its economic relationships has considered, and expanded upon, the suggestion made by G.R.Hawke, who argued that direct use of censuses ‘...would be seriously misleading.’¹⁰ Hawke’s suggestion was related purely to the census data and railway occupations, which is perhaps problematic as it does not go far enough. He argues only that the census returns underestimated the amount of labour being used upon the railways through the way occupations were classified. The research undertaken for this study has showed that the same issue can be found in all elements of the census returns, and that cross reference to other sources was vitally important in order to establish how the census occupation data most likely related to employment, business numbers and railway building over time.

The question as to whether the railways had an impact upon the development of manufacturing within Berkshire in the nineteenth century will now be reviewed.

The impact of the railways upon Berkshire’s manufacturing companies was more complex than has been acknowledged in much of the historiography. It has also been found to have varied considerably from place to place and even between businesses in the same town. The influence of the railways was just one factor among many which created economic change in the nineteenth century. Other factors such as customer demand, the location of a works, and the entrepreneurial spirit of management were as important in achieving growth. The ability of a company to devote capital to mechanisation, and the willingness to adopt relevant transport services as part of the company’s overall business strategy was equally vital in the determining the long term success, or otherwise, of an individual company.

¹⁰ G.R.Hawke, ‘The Effect of the Railways on the Growth of the Economy of England and Wales, 1840-1870’, PhD Thesis, The University of Oxford, 1968, 392.

The Impact of railways upon business development at the very local granular level and on aggregate economic change within one place or county thus needs to be carefully distinguished. The research shows that the railways cannot be said to have been the sole cause of business development in the nineteenth century nor that 'growth' was a constant trend in the county. This thesis thus disagrees with claims that the railway was the sole vector of growth. Examples of this issue can be seen in Michael Robbins' *The Railway Age*. Early in the book Robbins states that the railway '...would stimulate production...' and in S.G.Checkland's *The Rise of Industrial Society in England*, in which he states that '...the railway and iron-hulled steamship were the keys...' to expansion in the British economy in the nineteenth century. Checkland also claims that the rise of urban industry was '...aided by the railways...' without consideration of any other factor. These are prime examples of the problematic generalisations, which are not supported by the archival evidence.¹¹ The research indicates that the situation was more complex in the nineteenth century than Robbins and Checkland suggested. Indeed, the research for this thesis indicates that the railway had no direct role in stimulating production outside of industries which served the railway companies' own direct needs, nor did it create demand for manufactures from prospective customers and consumers. The evidence points firmly away from the rail network as sole vector of change, but rather that it was part of a matrix of factors, such as consumer demand, legislation, and many others, which combined to cause the evolution of Victorian Britain's economy.

The demand for products from the end consumer or manufacturers who, in turn, required more raw materials or components to meet these demands, created markets into which manufacturers could expand. The railway was of importance as a logistics partner able to deliver products quickly and cheaply to retailers and other manufacturers. The railway has been found not to have been the prime creator of demand but rather, at times, indirectly facilitating the deindustrialisation of some

¹¹ Michael Robbins, *The Railway Age* (London, 1965), 22; Checkland, S.G., *The Rise of Industrial Society in England 1815-1885* (London, 1964), 24, 33.

sectors of Berkshire's economy through support for imports of cheap mass-produced manufactures from elsewhere in Britain.

Demand for products and services was no different in Berkshire. The development of manufacturing in the county, at first sight, seems to be related to the railways due to the increase in business size and complexity of premises seen in both the Ordnance Survey and town maps around the time of the arrival of the railways in many places. The addition thereafter of single sidings as seen at Wokingham's brick works, or the development of a private railway system at Huntley and Palmer's manufacturing site in Reading, would seem to suggest that the growth of the companies was due to the availability of the railway's goods services nearby, or indeed, within the premises of the company itself. There was, however, nothing automatic about the contribution of the railways to the development of manufacturing in the county: many other drivers needed to combine to produce sustainable change.

The actions of the owners and senior management of these businesses and their recognition of the opportunity offered by the services provided by the new and expanding railway network was extremely important. Those who saw the value of the railways as a potential partner to support the expansion of the reach of the company into new markets in other parts of Britain and abroad, through access to ports for exporting to overseas customers, drove the development of these businesses towards an advantage over their competition. The greater demand driven through a broader outlet for their products, in turn led to larger batch sizes in manufacturing, which resulted in economies of scale which may be taken advantage of by the company in its pricing models, allowing them to undercut their competition.¹² The impact of this can be seen in the relationship between Reading footwear manufacturers and the large factories in Northamptonshire that was examined in

¹² One of the key drivers in manufacturing is the reduction of component or ingredient costs, which can be achieved through economic buying of larger quantities. It can also be achieved through the reduction of process costs such as machine setup labour costs. Larger batches absorb the costs better across a greater number of finished products. This was as true for nineteenth century manufacturers as it is in the twenty first century.

the Reading case study where Reading's smaller manufacturers could not compete with the large Northampton companies.

The same advantage was used by Huntley and Palmer to expand their business. The use of railway services by the company allowed them to exploit the broader market for groceries both in Britain and then eventually across the world. The railway was not the only reason that the company was able to grow. The creation of air tight biscuit tins by Huntley Bourne and Stevens, also in Reading, enabled Huntley and Palmer to keep its products fresh and intact during transport. The company also used their tins as a marketing tool, creating a variety of attractive designs which would attract the consumer and increase sales of their products against competitors offerings.

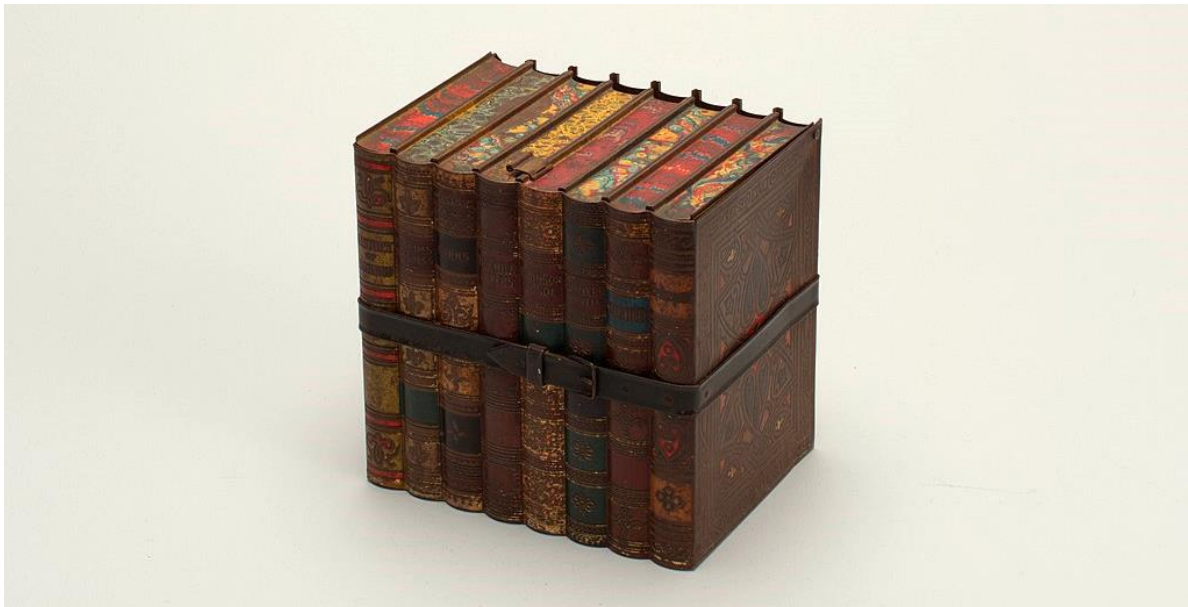


Figure 181: Huntley and Palmer 'Literature' Biscuit Tin, c.1906.¹³

A combination of the availability of fast transport, protective and attractive packaging, and an enlightened and entrepreneurial management team combined to produce an opportunity which the

¹³ Wikimedia Commons, Huntley & Palmers 'Literature' Biscuit tin in the form of eight bound books, with hinged lid as marbled pages and edges of book covers; pull tab as bookmark. The sides finished to appear as polychromed tooled leather, the front as book spines with the following titles: "History of England," "Pilgrims Progress," "Burns," "Pickwick Papers," "Robinson Crusoe," "Gulliver's Travels," "Self Help," and "Shakespeare;" all bound with simulated leather strap and buckle , 1906, (CH 18635299), Cooper Hewitt, Smithsonian Design Museum, Public domain, via Wikimedia Commons, [Online Photograph], [https://commons.wikimedia.org/wiki/File:Literature_Biscuit_Tin,_1906_\(CH_18635299\).jpg](https://commons.wikimedia.org/wiki/File:Literature_Biscuit_Tin,_1906_(CH_18635299).jpg) (accessed 27th May 2023).

company seized. The growth and final extent of Huntley and Palmer's own internal railway with direct links to both the Great Western and SER's routes can be seen on contemporary ordnance survey maps. The maps provide evidence of the extent to which the company had become able to use the mainline railways to support the planned growth of the business. The evidence shows that the company was not growing simply because the railways had arrived in Reading, rather that corporate growth was being achieved through a combination of forward looking management, and creation of a wider customer base through marketing and sales activity, which was being facilitated by the availability of fast and cheap bulk railway freight services throughout the United Kingdom.

The large amount of traffic on offer from the factory was no doubt important to all three railway companies in Reading, the complexity of the junctions from the railway lines into the factory internal railway system shows the symbiotic relationship, at a local level, that existed between the Victorian factory and railway, both parties benefitting from the existence of the other.

Another company which took advantage of the services offered by the rail network in Berkshire was Plenty and Son. The extent to which the company was able to take advantage of the services offered through the nearby rail hub depended upon the size of the product that was to be despatched to the customers in the shipyards of Britain. The Plenty account books show the amount of freight being transported out of the works by rail.¹⁴ The evidence shows that the company did not only use the railway for the transport of its marine engines. The extreme variation in the size of the company's products dictated the transport options that had to be used. A combination of rail, road and canal carriers can be found in the account books, alongside notes on the sales ledgers which explain why these methods had to be used. The railway was only one part of the logistics solution used by the company which was no doubt important, but was not solely the reason for the company's successes.

A broad range of products, diversification of the business into other related areas such as steam road vehicles, and demand for marine engines caused by the move away from sail seen in the

¹⁴ Reading, Berkshire Records Office, D/EX1739/4/1, Records of Plenty & Son, Engineers of Newbury, Private Ledger, 1882-1890, Carriage and Cartage Account.

merchant and royal navies during the nineteenth century were more the drivers to growth than the railway was. The railway allowed the company to take advantage of sales opportunities across the world as an important partner, but were only one small part of the infrastructure and opportunity rich environment that drove the company's success.

The differentiator seems then, to be a combination of the availability of sales opportunity, a range of products which met those market needs and the willingness of the company managers and owners to take advantage of the rail network to reach those prospective customers who had need or desire for their manufactures. The decline, suggested by the trade directories, that appears to have been experienced by other companies in the same sectors and towns was evidently not caused directly by the railway since these companies all had the same access to rail services as their more successful competitors. The other confectionery makers in Reading could all reach both the GWR and SER stations in Reading with relative ease, in fact some were closer to the stations than Huntley and Palmer when they were located at their original premises in London Street.¹⁵ Similarly all the iron works in Newbury were close to the GWR station and yards. Plenty and Sons never had their own siding but this seemed to matter little as cartage to the railway was available from a variety of sources, including the GWR themselves.

There was undoubtably an advantage to being located close to the railway, and even more so if a directly connected siding was available within the company works. The extreme example of the Huntley and Palmer internal railway was an unusual addition to a company's works in Berkshire, being more commonly seen in the steel works, collieries and large manufacturing facilities elsewhere in Britain. Volumes of traffic, both raw materials and finished products in bulk, were the prime driver toward establishing a private railway, only Huntley and Palmer achieving the tonnages which justified investment in such a facility.

¹⁵ T.A.B. Corley, *Huntley & Palmers of Reading 1822-1972: Quaker Enterprise in Biscuits* (London, 1972), 36.

Huntley and Palmer provide a valuable example of how being in the close vicinity of a railway was not always a matter of luck. The company had outgrown its premises by 1844 and were looking to build a new factory, but were also planning for future potential growth.¹⁶ The entrepreneurial directors of the company deliberately chose a site located between the GWR and SER stations, which was also bisected by the Kennet and Avon canal as it passed through the centre of the town. The company was able to relocate to this more conveniently located site only due to having to move from their old works, but not all companies had the opportunity to do so.

The expense of relocating a large, or even relatively modest operation could be prohibitive and only when a business need arose, such as in the case of Huntley and Palmer, would a manufacturing company undertake the upheaval, business interruption and expense of moving into new premises. Counter examples of where a company remained in the same works, but expanded through the purchase of local properties which were cleared or repurposed for their own use can easily be found. The example of Plenty has already been mentioned.

The regional concentration of footwear manufacturing in Northampton was a disaster for the footwear factories in Berkshire once the rail links between the two had been established and cheaper mass produced boots and shoes became available. The trend did not apply to all manufacturing sectors in Berkshire. Regional concentration of brewing in locations such as Burton upon Trent seems to have had little impact upon the breweries in Berkshire. Nicholson's in Maidenhead took advantage of the rail services to add the products of Bass to complement their own offering, acting as agent rather than competitor, whilst Simond's in Reading appear to have continued to grow and were successful as an independent brewery until the company merged with Courage Barclay in 1960.¹⁷ It seems that the railway had little impact upon some of the larger

¹⁶ Corley, 42.

¹⁷ Raymond Simonds, H&G Simonds Ltd Brewery, 1960 Merger [Website] <https://simondsfamily.me.uk/history/timeline/1960-merger/> (Accessed 11th August 2023).

brewers in the county, although as was seen in the case studies, Simonds were able to take advantage of the railways to expand the number of outlets they were operating.

Simonds Brewery in Reading remained on the same site throughout its entire existence. Initially located in south Reading the company would still have been able to deliver its beers to the railway for onward transmission using its own drays. That the company was able to take on the management and supply of the refreshment rooms across the entire SER network shows that the company must have been doing this. Simonds was not rail connected until the advent of the GWR's Coley Central Goods yard in 1908. The company was provided with a spur from the GWR yard into the brewery from that point, but only into the part of the site located west of Bridge Street. The main brewery was located on the eastern side of the road and not directly rail served. That the site was not directly rail connected in the nineteenth century and the lack of a complete connection in the twentieth century does not seem to have hampered the growth of the company.



Figure 182: Simmonds Brewery Site, 1913.¹⁸

There is evidence that other companies were not impacted by the railway not reaching their town at all, such as the case of Wantage Iron Works who were not disadvantaged by the railway being located three miles away at Wantage Road initially. The rail head at Wantage Road seems to have been sufficient to meet the company's needs, and even after the opening of the Wantage Tramway

¹⁸ National Libraries of Scotland, Ordnance Survey, OS Six Inch England and Wales 1842-1952, Berkshire Sheet XXXVII.NE, 1913, CC-BY-NC-SA [Website], <https://maps.nls.uk/view/97792009>, (accessed 27th May 2023).

into the town centre from the GWR hub, the company continued to transport their raw materials and finished products between their works and the GWR at Wantage Road using their own transport.

Some companies, particularly coal merchants, that were able to open a new facility in the goods yards of the railway stations did so, but also continued to use their original site on the canal wharf. Rather than moving, these companies opened an additional facility at the railway, most likely using that site to handle incoming freight bulk coal. The bulk deliveries to breweries and iron works, who would have been purchasing a whole wagon load of coal, were probably despatched directly from the station yard site to these customers, whilst the smaller quantities used by retailers and for domestic heating were more conveniently fulfilled from the coal merchant's yards in the town centre at the canal wharf. Evidence can be found for this arrangement being adopted by coal merchants in Wantage, Wokingham and Abingdon as outlined in the related case studies.

The evidence of the strategies adopted by these companies shows how a suite of factors, of which rail transport was but one, needed to combine for businesses to evolve and grow. Some companies failed to adapt to the changes in the economy occurring during the nineteenth century and can be seen to have ceased trading in the directories.¹⁹

The actions of the owners and management in finding and exploiting new markets, growing their customer base through the creation of a network of agents and representatives, providing high quality products, and creating a brand that customers recognised and trusted, at a price suited to the market was equally crucial to development. The ability of the business to supply its new customers with products quickly, reliably and cost effectively through the services offered by the

¹⁹ Les Hannah and Joe Lane have both written on the patterns of the lifecycles of businesses. Joe Lane's paper on the variance in business life times in the Potteries district of Staffordshire in the nineteenth century discusses the short existence of some of the smaller companies, whilst other developed into the larger concerns such as Josiah Wedgwood's company. The smaller 'saplings' referred to by Lane can be compared to the sometimes transitory companies to be found in Berkshire. Joe Lane, 'The Trees of the Forest: Uncovering Small-Scale Producers in the Industrial District, 1781-1851' in *Enterprise & Society*, 24 (2023), 703.

railways was an important part of the exploitation of new markets but its uptake depended upon the company's management, not the railways.

The recognition within a company that the increasing demand placed upon the company by a larger customer base and a larger range of products to sell to them required changes to the production processes, and the drive toward mechanisation of the factory where possible to support the business could also play a significant role in business development. The Goad Maps of Reading for 1895 show many factories and breweries in the town were equipped with a steam engine to power the factory, many of which may have been constructed by Reading Iron Works before its closure in the 1880s.

The changes which companies were undergoing in the nineteenth century, such as mechanisation which can be seen in the Goad Maps was not entirely caused by the availability of railway freight services. A prime example of the inter-relationship of business within a location such as Reading can be found in the revolutionary biscuit making machinery at Huntley and Palmer which were designed by George Palmer and were made, after improvement to the design by William Exall, at Reading Iron Works.²⁰ The mechanisation of Huntley and Palmer's new factory provides another example of how management decisions and revolutionary thinking was driving change.²¹ The company took advantage of the existence of an advanced engineering firm located within the same town which was able to meet George Palmer's requirements through the design and construction of advanced machinery. The railway was an important part of the process through its freight services which transported the coal, iron and steel into the town which was used by Reading Iron Works. The canal system would have been able to provide a similar, although slower service however.

The availability of cheap coal in the county was certainly continued by the railways, but the trend towards greater availability of coal began with the opening of the canal network. The railways

²⁰ Reading, Berkshire Records Office, D/EZ75/1/1, Fire Insurance Plans of Central Reading by Charles E Goad of London. Fire Insurance Plan (Sheet 1), February 1895; Corley, 53.

²¹ Corley, 37, 53.

provided cheaper and faster services which served to both reduce the logistical costs of the fuel, and allowed companies to purchase smaller quantities of coal on a more regular basis. This released working capital back into the business which could be used to fund expansion and acquisition of new machinery or other companies.

It may be claimed that the railways made the development of Berkshire's businesses possible through the transport of iron and coal to the town to make the machines and feed the furnaces, but as discussed in chapter four the county was already well served by canals long before the arrival of Brunel's railway and those that followed. Wray Vamplew wrote that the shortage of freight capacity on the railways in Scotland produced a shortfall in Scottish economic growth, but went on to discuss that to attribute economic growth purely to the railways was also equivalent to stating that without the railways, economic growth would not have occurred.²² It is equally possible that, to a certain extent, the canals may have been able to support, but as with the case of the railways, not cause Berkshire's manufacturing evolution. The unreliability of the canals during periods of extreme weather and the slow nature of water transport during its heyday prior to the railways may have limited or slowed change in some sectors if the new railways had not opened but no doubt solutions to these problems would have been found had the railways not arrived and removed the need to do so.²³ The Kennet and Avon canal adopted one such solution to the problem of unreliable water levels in the canal at the flight of locks at Crofton.²⁴ A beam engine was installed to pump water from springs which had been discovered by the engineer, John Rennie while the canal route was being surveyed. The reliable water supply ensured that the important flight of locks remained viable throughout the year regardless of the weather conditions. It is highly likely that the canal companies

²² Wray Vamplew, 'Railways and the Transformation of the Scottish Economy', *The Economic History Review*, 24 (1971), 54.

²³ Reading, Berkshire Records Office, D/EX2179/3/6, Report to the Committee of the Thames Navigation on Boats aground on the Kennet and Thames. September 1826.

²⁴ Canals: The Making of a Nation – Geology, UK, British Broadcasting Corporation, 2015 [BBC2].

would have adopted similar machinery elsewhere on the canal to mitigate low water levels in the canal.

The railways were nevertheless an important transport partner for Berkshire businesses. The fast, regular, and smooth services provided a means by which to import and export materials into and out of the county safely and cheaply. The more frequent and quicker services served to allow companies to reduce their need to buy large quantities of fuel and materials in advance, thus tying up working capital that might otherwise be used for other purposes. The economically priced and frequent rail services were used by companies such as Neville Reid in Windsor, to reduce their reliance on slow, infrequent water transport which resulted in the need to stockpile large quantities of fuel and materials to allow production to continue over time.²⁵ The advent of more frequent rail services made the purchase of smaller quantities of coal and materials both viable and financially beneficial. The new paradigm in freight transport thus released working capital which was no longer tied up in coal bunkers and warehouses and was then available to be used to mechanise and improve company manufacturing facilities and perhaps to devote increased expenditure into the development of new products and better staff pay.

The railways did not cause these developments but by taking advantage of their services businesses in Berkshire, which had seen the potential of the new transport partner, were able to make savings in logistics costs as well as being able to reduce their stock holding of raw materials. The working capital released could then be devoted to expansion, mechanisation, and the employment of a larger workforce as the company developed. A business, by taking advantage of the fast, regular, and cheaper services offered by the railway companies, would have been able to use the cash available more productively than may have been possible before. Where opportunities for growth, or consolidation of its domination of a market space, through expansion of premises, acquisition of competitors, purchase of patents, or recruitment were available, the company would be in a better

²⁵ Reading, Berkshire Records Office, D/ECg/B4/4, Neville Reid and Co. Limited. Brewery Journal, 10th May 1850 to 10th September 1852.

position to potentially take advantage. The railway was a key part in facilitating this evolution in business practice as one element of the economic infrastructure that was part of the environment in which economic change was occurring.

The change to purchasing practice was of great benefit to companies not just in Windsor but across the county. The case of Neville Reid's brewery shows how modernisation in purchasing was partly allowing them to grow through the investment of available capital. This additional investment supported an increase in productive capacity in the brewery supporting the production of more of its beers. Additional working capital may also have been used to acquire other breweries in order to gain control of their tied pubs. The ability to increase productivity was thus supported by a broader customer base which could be reached through the railway's outward freight services, justifying the spend and providing the company with greater profits, which could then be reinvested. Once again we can see that the railway was a facilitator of the growth of one individual company, but did not directly cause it.

The wider reach that companies gained through their exploitation of rail freight services created the need to manage the more frequent consignments that were despatched from the company's factory. These consignments of goods could vary from a bulk shipment consisting of several full wagon loads marshalled into goods trains, to a single carton sent by railway parcel services. In order to ensure that both the complex logistics requirements were met, and that orders received from customers by post, and by telegram, were despatched correctly and in a timely manner an increased administration staff was required by the company. The changes which occurred in the economic environment of Berkshire, and the rest of Britain, thus produced a need for more professional office based support to allow the company to manage the more complex requirements of trade as the nineteenth century progressed.

The increased employment of clerical staff would have been likely to have caused economic growth in the local community, with increasing disposable income contributing to tourism and other leisure

pursuits such as national association football competitions in the latter part of the nineteenth century. The needs of business to support increased sales of manufactures made possible through the exploitation of rail freight created the need for increased office staffing but the railway nevertheless had an important role to play as part of the process of change.

One of the major changes which occurred in British society during the nineteenth century was the recognition afforded to the 'professions' through the creation of institutions which licenced the practitioners of those occupations through the attainment of relevant university degrees and professional examinations.²⁶ An indication of evolution of the business environment throughout the nineteenth century, and the role that the railways played in changes in the professions, can be found in the relationship between businesses, law, accounting and banking. The rise of the professions with the systems of licencing and control created by the new institutions was of great importance to businesses in the service sector, creating a level of trust in the legal and financial practitioners that may have convinced more people to use their services. The growing complexity of business also led to the need to employ or use the out-sourced services of legal and financial professionals which may have contributed to the growth of the service industries in the country. As a result the number of businesses listed in the commercial directories increased over the second half of the nineteenth century, but this cannot be said to have been as a result of the advent of railways directly. The legislation requiring submission of audited company accounts and the need to safely store increasing amounts of money as businesses grew was more responsible for the rise in the legal, accounting and banking sectors than the railways, although the telegram services offered by the railways at the time would have proved beneficial to these sorts of companies, but here can be

²⁶ Harold Perkin wrote that industrial society replaced the aristocratic ideal based in property and patronage with the entrepreneurial ideal based upon active capital and competition. The professional ideal which followed was based upon the value of trained expertise and selection based upon merit which could be seen in the later Victorian period. Harold Perkin, *The Rise of Professional Society: England Since 1880* (London, 1999), 3-4; Chris Nottingham argued that whilst the role of professions in development of advanced industrial societies has been recognised, the focus has mainly been on the 'higher professions'. Nottingham argued that a study of the 'semi-professions' categorised as such by Etzioni completes the picture and shows how the professions generally contributed to the development of industrial society and social mobility within it. Chris Nottingham, 'The Rise of Insecure Professionals' in *International Review of Social History*, 52 (2007), 445.

seen, once again, how businesses provided growth and diversification opportunities to the railways.²⁷

The use of the services of the lawyers and accountants did not necessarily directly create local business however. The very largest companies were likely to employ their own accounts and legal personnel which may have been in a central 'head office' location outside the county. The GWR, for example, had its own dedicated legal offices in Westminster and at their Paddington headquarters. The legal correspondence generated by the railway relating to Berkshire survives and can be found in the archives, indicating the centralisation of business functions by the larger Victorian companies which removed the need to engage with local professional practices.²⁸ The archives do, however, contain a rich collection of correspondence from smaller Berkshire businesses through their third-party solicitors based locally to their premises in the county.²⁹ It can be seen from this that an understanding of the structure of different types and sizes of Victorian company is necessary to avoid misconstruing the evidence. The professional services organisations, such as Solicitor's practices, were doubtless an important part of the local economy, but would not have been representing the railway companies directly since they had their own legal departments within their headquarters or regional offices. The railways were thus having no identifiable impact at all upon the legal profession in Berkshire.

The need for local companies in rural areas to engage the services of a nearby legal practice when dealing with contracts relating to, or disputes with the railways would have created a degree of business for the local lawyer, but it is unlikely to have been a major part of their business.

²⁷ Companies Clauses Consolidation Act 1845, Section 106 [Website], <https://www.legislation.gov.uk/ukpga/Vict/8-9/16/contents> (accessed 2 April 2024).

²⁸ An example of the use of a centralised legal department can be found in the correspondence between the nascent Wantage Tramway Company and the GWR, Reading, Berkshire Records Office, D/WT11/26, Correspondence between R.R.Nelson, Great Western Railway Solicitors Office, Westminster and E.Ormond, Wantage Tramway Company Limited. Agreement between the Companies. 28th October 1875.

²⁹ For example: Reading, Berkshire Records Office, D/ECO/B6/3/3/1, Correspondence from Robinson & Auden Limited to Messrs Jotcham & Son, Solicitors, 12 December 1897.

A similar trend can be seen within banking, where little direct evidence can be found of local banks managing the finances of the railways directly. The services of the banks appear to have become more commonly used by local businesses as they grew to a size where the value of cash being handled, and the risk of robbery, coupled with the advent of credit accounts for wholesalers and retailers further afield than the small local customer base that a company may have started to attract in its early days, required the use of the services of a bank.³⁰ The advent of the railways served to allow those businesses who were able to take advantage of rail services to expand, creating the need for short term business loans to pay for additional mechanisation and expansion that the capital available within the business could not fund in the short term.³¹ The increased income from a broader potential market further afield, then nationally, and in some cases internationally also created more complex financial requirements, which drove the need to engage professional accountants, and the services of a bank.

Huntley and Palmer in Reading are a prime example of a company who were growing partly through the availability of more markets which could be reached easily through the rail network. The wider geographical spread of the company's customers meant that payments were likely to be made in cash by local customers but with an increasing number of remote clients paying by cheque delivered through the postal service. The increased trade and variable payments being processed by the company demanded the adoption of the services of the banking community, not only to process cheques but to provide secure storage of an increasingly large amount of money.

The company only opened a bank account for the business in 1841 at the insistence of George Palmer on his becoming a joint partner in the business of Joseph and Thomas Huntley.³² Other growing businesses such as the breweries, iron works and other major concerns are likely to have had to have undertaken the same exercise, as the professionalisation of accounting practice led to

³⁰ Michael Collins, *Banks and Industrial Finance in Britain 1800-1939* (Basingstoke, 1991), 135.

³¹ Collins, 24.

³² Corley, T.A.B., *Huntley & Palmers of Reading 1822-1972: Quaker Enterprise in Biscuits* (London, 1972), 36.

the need to keep accurate books and account for monies received and expended. In both cases the changes observed in these businesses cannot be explained by the advent of the railways but by another factor entirely.

Another trend which needs to be considered was the use of London banking houses by larger businesses. The GWR, headquartered at Paddington Station in London, was banking with Glyn, Mills, Currie and Company in London, rather than with a local Berkshire bank. The finances of the railways would have clearly had minimal direct impact upon Berkshire bankers although the wages and salaries paid to its staff in the county would most certainly have contributed to at least some additional deposits being received into personal accounts.

The image shows two documents from the Great Western Railway. The top document is a 'STATEMENT OF DIVIDEND FOR THE HALF-YEAR ENDING 31st DECEMBER, 1899'. It is issued by the Secretary's Office at Paddington Station, London, on 26th February 1900. The statement lists the following stock holdings:

CLASS OF STOCK	Rate per Share	Amount of Stock	Amount of Dividend
CONSOLIDATED GUARANTEED STOCK	5		
CONSOLIDATED PREFERENCE STOCK	5		
CONSOLIDATED ORDINARY STOCK	7	3	2 1

Less Income Tax at 8d. in the £..... 1

Total Dividend: £ 2

The bottom document is a 'DIVIDEND WARRANT, HALF-YEAR ENDING 31st DECEMBER, 1899', issued to Messrs. GLYN, MILLS, CURRIE & CO., 67, LOMBARD STREET, LONDON. It is dated 27th February 1900. The warrant is for the sum of £ 2/- and is signed by John Soper, Secretary. The bottom of the warrant features a large, stylized signature and the text 'Two shillings'.

Figure 183: Great Western Railway Dividend Certificate with Cheque on Glyn, Mills, Curry and Company Bank of London.³³

³³ Wikimedia Commons, Great Western Railway Dividend Share Certificate: 1899, [Online Image] https://commons.wikimedia.org/wiki/File:Great_Western_Railway_dividend_share_certificate_-_December_1899.jpg (accessed 5th January 2023).

The railway was therefore an important factor among all the influences that were impacting upon Victorian businesses in changes in business in nineteenth century Berkshire, but far from the only factor at play. The analysis has revealed that the situation in Berkshire was more complex than might at first have been expected. It is also necessary to discuss the experience of the railway companies as a business in their own right, as the research has revealed an interesting factor which has not often been considered.

The railway experienced growth due to the evolution of the local economies of Berkshire. This does not appear to have been suggested before. It seems likely that future studies examining rural locations comparable to Berkshire would reveal a similar relationship, where railway growth was caused by local businesses demanding greater provision of services to meet their needs, both for the transport of people to and from work, and the carriage of the products they manufactured or grew.

It seems highly likely that local economies, if they were in growth mode, were causing railway growth rather than vice versa at some times. The railways were companies like any other, although it must be borne in mind that they were very large concerns by the latter part of the nineteenth century. Nevertheless, their successes or failures were underpinned by the amount of traffic available for the railway to carry, so it seems fair to suggest that the railways were as dependent upon local economies as the businesses in those places were upon them. The relationship between railway, company and local society should not be underestimated, although as this study shows, this was not always a positive relationship, as the railway could prove partly instrumental in the decline of some businesses.

This chapter will now explore the direct impact of the railways upon the county of Berkshire through direct employment and the purchase of materials, goods, and services locally.

The Impact of Railway Employment

The employment created by the railways had an impact upon the spending power of a small section of the population in locations where a station, works or depot were situated. As a proportion of the

working age population those who worked on the railways would always be a small minority. The number of railway employees made up less than two percent of the working population of Reading between 1851 and 1891, rising to only around three and a half percent in the 1901 census. In the county's other towns, the figure was even lower.

The numbers of railway employees varied from location to location depending upon the size of facilities that the railway had placed there. In Reading the railway workforce comprised 1277 employees of all grades in 1895, whereas the railway employees in Wokingham numbered just 47.³⁴ The contribution made to the local economy through direct employment was variable over time and in different places but even in Reading where the GWR had established a works, the railway was always a minor employer.

Peter Dewey suggested that the railway, as well as the new county police forces, provided new employment opportunities in rural areas.³⁵ The chapter of this study related to the direct impact of the railways discusses how they provided employment in Berkshire supporting Dewey's assertion only so far as the railway had a small role in expanding employment opportunity. The chapter expands on Dewey's point however, outlining how the railway companies also indirectly provided employment through services purchased from external companies such as civil engineering contractors and breweries, although neither the direct nor indirect employment attributable to the railways made a major contribution to business development and growth in Berkshire in this period.³⁶ The picture would be very different in the major railway towns, such as Swindon, where the railway was the major employer and also in places with intensive suburban railway networks such as could be found around Birmingham or Leeds. Neither major workshops nor complex suburban railway networks can be found in nineteenth century Berkshire. It is anticipated that a

³⁴ Integrated Census Microdata.

³⁵ Peter Dewey, 'Farm Labour', in Joan Thirsk and E.J.T. Collins (Eds), *The Agrarian History of England and Wales, Vol VII (part I) 1850-1914* (Cambridge, 2000), 856.

³⁶ It would be useful for a similar study to be undertaken into the impact of employment created by the new county police forces and its role in creating employment in rural areas.

similar situation would be likely to be found in other rural counties, such as Dorset or Kent, should a similar study to this be undertaken.

The evidence uncovered during the research for this thesis only supports Dewey's assertion within Berkshire insofar as the railway did create a relatively small number of jobs but these had little impact on local economies.

The second question that was raised for examination in this thesis was whether the impact of the railways upon manufacturing and associated services within Berkshire was a definitively positive one underpinning growth, or was the situation more nuanced? This will now be examined.

Railways and Economic Expansion, Decline or Stagnation.

In *The Agrarian History of England and Wales*, volume VII, E.J.T. Collins suggested that the 'back-wash effects' which the railways had upon previously important trade centres which had been 'bypassed and which declined as a result' and upon local manufacturing 'many branches of which were destroyed by rail-borne competition' has often been understated.³⁷ These suggestions are supported by the evidence discovered during this project, which also indicates that the situation in Berkshire was much more nuanced than might appear at first sight. Collins's hypothesis that the railways caused difficulties for local branches of manufacturing due to competition from elsewhere seems to hold true within parts of the case studies, although not all.³⁸ The interesting caveat that 'many branches' were affected suggests that not all were, another point which this thesis agrees with. The evidence suggests that the interaction between railway and manufacturer was different across business sector and even between companies performing similar roles. Consider, for example, the negative impact of the railways upon footwear manufacture in Berkshire, whilst iron foundries such

³⁷ Collins, E.J.T., 'Introduction', in Joan Thirsk E.J.T. Collins, E.J.T. (Eds), *The Agrarian History of England and Wales, Vol VII (part I) 1850-1914* (Cambridge, 2000), 3.

³⁸ In this study, the term 'branches of local manufacturing' has been referred to as an 'economic sector' within the local economy in the case studies.

as Plenty, and Reading Iron Works, and manufacturers like Huntley and Palmer were able to use the railways to support the company's growth and viability.

The study adds significantly to the rich variety of investigations which have been produced before this thesis, expanding the study of railways away from the 'traditional' regions of heavy and intense manufacturing such as the areas in and around Manchester, Leeds, and Birmingham. John Kellett explored the impact of railways upon Birmingham, Manchester, Liverpool, Glasgow, and London in his *The Impact of Railways on Victorian Cities*, which was typical of studies of railway and city in the late 1960s.³⁹ Jack Simmons expanded upon the historiography in 1986 when the first edition of his *The Railways in Town and Country, 1830-1914* was published. Simmons's study explored a broader selection of places. London, Birmingham, Liverpool, and Manchester were covered in the newer study, but were joined by case studies dedicated to Bristol, Leeds, Hull, Plymouth, Harrogate, Portsmouth, and Preston.⁴⁰ This thesis provides a new perspective on a mainly rural county and how its experience of railway building relates to that of Britain's industrial heartlands, adding to the debate.

In *The Dynamics of Victorian Business*, Terry Gourvish proposed that the studies undertaken by B.R. Mitchell, A.G. Kenwood alongside that by G.R.Hawke and M.C.Reed provide an indication of how railway investment can be linked to the role railways played in economic growth. Gourvish suggested that the studies he referred to show a consensus that the railways had a supporting role in economic growth rather than a leading one.⁴¹ This thesis agrees with placing the railway in a supporting role, but expands upon Gourvish's work by establishing how that support manifested within different places and industries. As has been demonstrated the railways were indeed important partners for many businesses providing one of the many foundations upon which

³⁹ John R. Kellett, *The Impact of Railways on Victorian Cities* (Abingdon, 2007 Edn.).

⁴⁰ Simmons, Jack, *The Railway in Town and Country, 1830 – 1914*, 2nd Edn. (London, 1986).

⁴¹ Gourvish, T.R., 'Railway Enterprise' in Church, Roy (Ed.), *The Dynamics of Victorian Business: Problems and Perspectives to the 1870s* (London, 1980), 130.

company growth could be built. The data extracted from the sources used in constructing this study suggests that whilst there may at times be a pattern of economic growth in a place, or even across the county of Berkshire as a whole, there were also casualties within the business landscape.

The survey of the business directories provides evidence of where companies ceased trading in a relatively short period of time after the railway opened. The terminal decline of footwear manufacturing in Reading began after the opening of the Oxford and Great Western Union Railway from Didcot to Oxford allowed cheaper mass produced items which outcompeted the factories in Reading. The railway, whilst not directly responsible for these business failures was part of the economic development of Britain which supported mass manufacturing and the resulting economies of scale which resulted in these cheaper finished products.

The railway could also be directly responsible for a business ceasing to trade. The opening of the Wantage Tramway saw the GWR pass its agreement for carriage to the tramway which had previously been contracted to two local carters. They both lost the business provided by the railway and disappeared from the directories shortly afterwards, although one was employed by the tramway as their goods manager.⁴²

The railway cannot have been responsible for some situations which caused business failures, for example those due to poor management decisions, often influenced by the prevalence of family businesses in Victorian Britain.⁴³ Such businesses were typically passed down the generations as the older generation retired from commerce.⁴⁴ A company would rarely be sold, although directors

⁴² Both the local carriers who had been the GWR's agents at Wantage Road Station lost their agency to the Wantage Tramway Company. Both Mr. Nunney (parcels and passengers) and Mr. Sims (heavy goods) lost business when the GWR agreed to make the tramway their sole agents. Reading, Berkshire Records Office, D/WT1/3. Minutes of the Directors Meetings of the Wantage Tramway, 5th October 1875.

⁴³ It is difficult to identify the aims of a family run business since, as Andrea Colli argues, financial performance is not the sole objective of the family run firm. The result may be poor management decisions. Andrea Colli, 'Contextualizing Performances of Family Firms: The Perspective of Business History', *Family Business Review*, 25 (2012), 233-234.

⁴⁴ This can be clearly be seen in the cases of companies such as Huntley and Palmer, Suttons Seeds, Plenty and Son, many others which remained family owned until recently when they became part of larger shareholder owned corporations.

would often join a company and broaden the number of families who had an interest in the company. Where there was a lack of family members to pass the operation on to a business would often be wound up rather than sold on, as can be seen in the case of Reading Iron Works.⁴⁵ Apparent instances of company failure may be no more than a voluntary choice made by the last directors of a company to realise the assets through sale in order to support their retirement rather than a financial failure of a company. The railway clearly had no bearing on these businesses ceasing to trade.

The Sectoral and Local Impact of Railways

Two subsidiary research questions were examined by this thesis which will now be examined. The two questions asked whether different business sectors across Berkshire were impacted in broadly the same manner by the arrival of the railways and secondly was the impact of the evolution of transport infrastructure to have different impacts across the same business sectors across different locations in Berkshire.

The case studies have shown how the situation was complex and extremely nuanced. A town may have a very different economic experience from another located only a few miles along the same railway line. The economies of Wokingham and Reading appear to be very different, with the individual sectors within them behaving differently throughout the nineteenth century. The experience of the dressmakers in Maidenhead appears to have been very different to those in Reading for example, even though they were located on the same railway line with good facilities located in the town. The dressmaking factories in Maidenhead appear to have remained successful, employing more people throughout the period which may have been related to its closer location to London where the fashion houses may have been subcontracting manufacture due to the expense

⁴⁵ Reading, Berkshire Records Office, D/EX1739/9/5/6-23, Some Notes on the Reading Iron Works Ltd. (Barrett, Exall & Andrews) 1818-87. (Unpublished Manuscript).T.A.B. Corley, 1973.

associated with property in central London. A counter point can be seen in the case of the shoe trade, where the demise of the footwear factories of Reading show how the services offered by a railway can be disastrous for part of a local economy, but support the creation of a new sector such as shoe retail in this case.

The research for this thesis has revealed that the complexities of economic change created a very nuanced set of changes, where business evolution was influenced by many different factors. One factor of great importance, which cannot be entirely said to be due to railways was economic recession. The impact of recession, such as seen in the 1870s, could be partially assigned to the railway, but again only as the provider of the services that brought cheaper foodstuffs from abroad into a region which negatively impacted local agriculture. At the same time railway services were seen to have been supporting the evolution of agriculture into a progressively mechanised industry.

The research for this study has found some areas where some further differences have emerged from some suggestions that were made in the historiography. Roy Brigden suggested that the major manufacturers of farm machinery such as Ransome & Sons in Ipswich and Clayton and Shuttleworth of Lincoln were dominating the mechanisation of agriculture during the 1860s, using a combination of the rail network and local agents to do so.⁴⁶ The dominance of these companies is no doubt the case in many areas but Brigden underplays the importance of contemporary businesses such as Barratt, Exall and Andrewes in Reading, later rebranded as The Reading Iron Works, and Plenty and Sons in Newbury, both of whom were major suppliers of agricultural equipment. The 1860s saw both these companies active in the production of agricultural machinery, however as the century progressed the local foundries became less important in agriculture but for differing reasons. Plenty and Sons diversified into construction of marine engines, leaving the agricultural machinery trade,

⁴⁶ Roy Brigden, 'Farming Techniques Part C: Equipment and Motive Power', in Joan Thirsk and E.J.T. Collins (Eds.), *The Agrarian History of England and Wales, Vol VII (part I) 1850-1914* (Cambridge, 2000), 505.

whilst Reading Iron Works experienced decline later in the century because of the company's lack of investment in product development which left the company lagging behind its competitors.

The railway had little role to play in the fate of either company, management decisions being the driver to success or failure respectively. In this case the thesis supports Brigden's argument with respect to the 1860s but calls it into question when considering the period after the 1870s. This shows how variable and complex the situation was in the latter part of the nineteenth century, and how a granular survey such as that undertaken for this thesis can provide a new aspect to complement the studies which have come before.

Summary of Final Conclusions

The following conclusions have been drawn from the research undertaken for this study:

Conclusion One:

The question as to whether the railways had an impact upon the development of manufacturing and associated services within Berkshire in the nineteenth century can be answered with a qualified affirmative. The impact was complex, and varied from place to place and from business to business. The impact of the railways was dependent upon a variety of factors which related to business type, location, and the influence of its management policy on growth, mechanisation, and the willingness to adopt relevant transport services as part of the company's overall business strategy.

The railway was therefore an important factor in business in nineteenth century Berkshire, but not the only factor at play.

Conclusion Two:

The question as to whether the impact of the railways upon manufacturing and associated services within Berkshire was a positive one underpinning growth, or whether the situation was more nuanced can be answered strongly in favour of the latter point.

The situation was very nuanced. The railways did not have a purely positive impact upon growth.

The answer depends upon where and what type of business is under consideration. In some places the railways had very little impact, at best preventing contraction and ushering in a period of stagnation locally as can be seen in the case of Wokingham. In other places the economy did grow after the railways, but was dominated by some sectors which grew dramatically whilst other sectors saw contraction, or even ceased to exist in a town.

Brewing became increasingly important to the economies of Reading and Maidenhead, although the numbers of breweries declined. The Simond's and Nicholson's breweries in the two towns became major contributors to the British brewing industry through the acquisition of other, smaller, local breweries, and through partnerships with breweries in Burton upon Trent, as explored in the case studies. The railways served to provide the breweries with a means to service many outlets, and in the case of Simonds, directly provided opportunity.

Maidenhead's dressmaking industry became an important element of the local economy after the railways arrived. The companies in the town grew through their location close to the London fashion houses who needed to contract out the production of their clothing since property prices in central London reduced the feasibility of an inhouse production facility. The location of Maidenhead, close to London with good rail services allowed the dressmaking businesses to flourish as subcontractors to the fashion houses.

Newbury saw its brewing industry slowly decline due to the availability of beers from Reading and Maidenhead, as well as from further afield, but conversely its engineering companies were able to thrive, especially Plenty and Son who became a major supplier of marine engines without the need to be in, or close to, any of Britain's major shipyards. The railways were however, as has already been discussed, not the only means of transport used by the company.

The conclusion for the second research question must be that the situation was extremely complex and nuanced. The county did not experience growth everywhere after the railways, the evidence

suggesting that growth, contraction, and stagnation all occurred in various places or within different business sectors. The second conclusion is that the railways were not the single direct cause of any of the changes observed in the evidence relating to the overall growth of the economy of Berkshire during the nineteenth century, nor to the localised contractions, stagnations, or growth experienced locally. The railways can once again only be seen as one of many factors which influenced the economy of the county.

Conclusion Three:

With reference to the first subsidiary questions raised for exploration, it seems fair to suggest that the impact of railway development on different business sectors across the county was not at all similar. The evidence suggests that different business sectors experienced different benefits or drawbacks around the time of the opening of the railways. Engineering works appear to have been able, mostly, to expand following the arrival of the railways, many of them continuing to trade into the twentieth century. Plenty and Son, for example, were able to use the railway's services to elevate the business to become one of Britain's major marine engine manufacturers. Nalder and Nalder in East Challow, unlike most other engineering companies, benefitted directly from the opening of the Wantage Tramway Company through the provision of engineering services to the tramway including the rebuilding of the Grantham Patent Steam Tramcar to meet the safety requirements of the board of trade.⁴⁷

Breweries were affected differently around the time of the advent of the railways in Berkshire. Some, like Nicholsons, Morland and Reid's were able to expand, whilst others were absorbed by their larger neighbours, although this is more indicative of the manner in which the brewing trade functioned than of the arrival of the railways. Simonds brewery benefitted directly through

⁴⁷ Reading, Berkshire Record Office, D/WT29, Letter to the Directors of the Wantage Tramway Company from Thomas Nalder of Nalder and Nalder Limited, Challow Iron Works, on the inspection of the Grantham Steam Tramcar and improvements required to meet Board of Trade requirements for its use on the tramway, 1876.

opportunity provided by the railway, its owners and directors seeing the opportunity presented by the operation of railway refreshment rooms, and successfully bid to do so.

The impact of the combination of rail transport and mass manufacture through regional specialisation elsewhere upon some of Berkshire's industries has already been discussed in respect to footwear, however centralisation of manufacture in the brewing trade appears to have been less damaging. Nicholson's in Maidenhead became an agent for Bass in Burton upon Trent, and rather than attempting to compete with their larger rivals used Bass products to expand their own offering thus assisting in the long term success of the business.

The type of railway serving a place seems not to have been important, nor was it important that the railway entered the town itself. Places such as Abingdon seemed to have been served well enough by the line arriving nearby rather than directly into the town in the short term. Once again it must be stressed that the railway was only one of the factors at play in the nineteenth century that may have been jointly responsible for economic change.

Conclusion Four:

The final question raised as to whether the impact of railway development was similar across the same business sectors in different locations across the county can be answered with a simple no.

The iron works and engineering companies across Berkshire appear to have experienced different fates after the arrival of the railways. The Reading Iron Works was fortunate to be awarded a considerable proportion of the work associated with meeting the GWR's need for equipment and iron work, the GWR even providing a loan of £1,500 for the modernisation of parts of the works machinery in order to allow them to meet the standards demanded by Brunel.⁴⁸ At the same time the iron works in Maidenhead both appear to have declined in importance, the site of one of the works becoming the location of a new steam laundry, which purchased its boilers from Reading.

⁴⁸ Reading, Berkshire Records Office, D/EX1739/9/5/9, Some Notes on the Reading Iron Works Ltd. (Barrett, Exall & Andrews) 1818-87. (Unpublished Manuscript). T.A.B. Corley, 1973.

The evidence suggests that the economic changes Berkshire was undergoing during the nineteenth century were impacting the same types of business differently in various places. Several factors are likely to have caused this, including the timing of the arrival of a rail link, pre-existing transport infrastructure, the demand locally for their products and the quality of the managers operating the business. The railways, once again, cannot be said to have been solely responsible for these differences, a variety of factors combining to cause change.

Final Conclusions:

The research for this thesis has revealed an intriguing picture of economic change in a rural county during the nineteenth century and the role played by the railways in that change. The railways were not solely responsible for any of the changes outlined in this thesis, instead several different factors seem to have combined to facilitate or cause change.

The railways did not cause 'growth' and were certainly not the lone actor in the process. The economy of the county evolved rather than grew, with different sectors in distinct places changing differently.

Certainly some businesses flourished using the railways as can be seen in the cases of companies such as Huntley and Palmer whose factory was equipped with its own internal railway network to take advantage of the services offered by the railway companies. A similar situation can be seen in the evidence for the successes of Plenty and Sons in Newbury. The railway partially allowed the company to expand its reach and to serve customers across Britain and overseas without needing to open a vast chain of workshops near all of Britain's shipyards. The evidence relating to Plenty provides support for the conclusion that the railways were not the only cause, even of the growth of a single company. The transport of the large boiler to Bristol by road, because of its size, which was outlined in the Newbury case study shows how the railways were but one part of Britain's economy. The railway was undoubtedly an important facilitator in the commercial development of Berkshire,

which could be taken advantage of by more forward-looking companies and individuals, but it was no more than that.

To reference this study back to the national picture it seems that Berkshire may have been like other rural counties such as Norfolk, Dorset or Cornwall which also had areas which were industrialised, whilst other parts of the county remained rural. It is hoped that other local and regional studies may be undertaken which will add to our knowledge of Britain's commercial and railway history.

Additional research, similar to that undertaken for this thesis, would help to clarify whether, as in Berkshire, the relationship between railway and local economy was more complex and nuanced than it appears to have been in the industrial heartlands. The expansion of the historiography would build upon the already rich understanding of the impact of railways in the traditionally studied heavily industrial areas as well as more rural areas, and would be valuable additions to the understanding of Britain's economic past and the role the railways played in shaping it.

An improved understanding of local contexts would in turn provide a richer and more detailed historiography at the national level which may support a less generalised view of Britain's relationship to its railways to be constructed. It is also possible that more in depth studies might reveal a new picture with respect to the relationship between British manufacturing, transport and the wider economy, It is hoped that in turn this would result in further studies of manufacturing history.

There is surely a strong possibility that variations like those identified by the research undertaken for this study might be seen if more geographically comprehensive studies of counties such as Yorkshire and Staffordshire, which were both industrialised and rural in different parts of the county, were undertaken. This might reveal that the relationship between railways and 'economic growth' in these areas too was more nuanced and complex than it might at first seem.

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Appendices

Appendix 1: Summary Town Census of Berkshire Sorted by Population

Town or Village	Population in 1831
Reading	16042
Newbury	13051
Wantage	11761
Maidenhead	10517
Windsor	10114
Wallingford	6100
Abingdon	5632
Wokingham	5301
Speen	3044
Farringdon	3033
Hungerford	2283
Shrivenham	2113
Ascot	2009
Tilehurst	1878
Chieveley	1857
Kintbury	1781
Lambourn	1553
Sunninghill	1520
Wargrave	1423
Cumnor	1364
Bucklebury	1300
Warfield	1207
Hendred	1190
Marsham	1170
Ilsey	1163
Hurst	1119
Stratfield-Mortimer	1109
Binfield	1045
Longworth	1034
Uffington	1019
Stanford in the Vale	1016
Burghfield	965
Bradfield	956
Buckland with Carswell	946
Letcombe-Regis	869
Sutton-Courtney	834
Woodley	796
Basildon	780
Harwell	780
Town or Village	Population in 1831

Moreton	772
Inkpen	729
Garston, East	699
Ashbury	698
Pangbourn	692
Steventon	691
Sandhurst	672
Easthampstead	647
Aldermaston	636
Shefford	626
Streatley	582
Langford	547
Winnersh	531
Radley	515
Shalbourn (Part of) ¹	512
Drayton	506
Chaddleworth with Woolley	494
Sonning	464
Remenham	463
Brimpton	443
Appleton	441
Earley	441
Sulhamstead Abbots	423
Eastbury and Bockhampton	419
Buscot	416
Blagrove and Hadley	414
Milton	413
Englefield	411
Fyfield	403
Lockinge	373
Beenham	360
Coleshill	351
Hinton	348
Ashamstead	346
Hinksey	344
Sunningwell	339
Coxwell, Great	337
Hampstead-Marshall	313
Kingston-Bagpuze	306
Shilton	290
Sulhamstead Bannister	289
Letcombe-Bassett	288
Sutton Wick	271
Town or Village	Population in 1831

¹ Part of Shalbourn parish was located in the county of Wiltshire until the change of county boundary in 1974, and so only the figure enumerated in the census returns of 1831 for that part of the population located within the Berkshire county boundary have been included.

Stratfield Say	249
Shillingford	246
Yattendon	241
Padworth	234
Wytham	218
Frilsham	192
Didcot	181
Appleford	179
Purley	172
Eaton-Hastings	167
Tubney	167
Moulsford	162
Compton-Beauchamp	156
Tidmarsh	143
Stanford-Dingley	139
Woodhay, West	127
Pewsey	125
Besselsleigh	124
Hatford	123
Avington	94
Sulham	72
Seacourt	25
Bagley-Wood	21

Appendix 2: Businesses in Reading by Commercial Sector by Year

Type of Company	1827 ²	1837 ³	1840 ⁴	1859 ⁵	1865 ⁶	1874 ⁷	1884 ⁸	1895 ⁹
Academies, Gentlemen's	5	0	16	8	9	5	0	0
Academy, Undefined	7	11	0	0	0	0	0	0
Account Book Manufacturers	0	0	1	12	7	6	23	18
Accountants	0	0	0	0	0	0	4	5
Acid Merchant	0	0	0	0	0	0	1	0
Advertising Contractors	0	0	0	0	0	0	2	4
Agents, Parcel	0	0	0	0	0	0	4	0
Agents, Railway	0	0	0	0	0	0	3	0
Agents, Shipping	0	0	0	0	0	0	7	0
Agents, Undefined	0	0	5	0	0	0	18	0
Agricultural Implement Makers	0	0	2	0	0	1	0	0
Ale and Porter Merchants	0	0	0	4	4	4	11	8
Antique Dealers	0	0	0	0	0	0	4	6
Appraisers	0	0	0	12	9	0	0	0
Architect	0	3	5	6	10	12	21	15
Artists	0	0	0	0	0	0	0	6
Artists Material Dealers	6	0	4	4	3	2	11	9
Ashphalte Manufacturer	0	0	0	0	0	0	0	7
Athletic Outfitter	0	0	0	0	0	0	1	0
Auctioneer	9	2	11	19	9	15	31	34
Baby Linen and Ladies Underclothing Warehouse	0	1	1	0	3	2	0	0
Baby Linen Warehouse	0	0	0	0	0	0	14	9
Bacon and Pork Butcher	19	3	8	18	29	14	33	31
Bacon Curer	0	0	0	0	0	0	0	3
Bailiffs	3	0	0	0	0	0	0	1
Baker	32	36	54	54	57	58	68	68
Baker and Grocer	18	0	0	0	0	0	0	0
Banker	2	2	2	4	4	3	5	7
Barge and Boat Builders	0	0	1	3	4	5	7	0
Barge Master	10	1	2	4	0	0	0	0

² Reading, Reading Central Library, Horniman's Reading Directory: 1827 (Reading, 1827), 1-45.

³ Reading, Reading Central Library, Ingall's Reading Directory: 1837 (Reading, 1837), 3-22.

⁴ Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 8-104.

⁵ Reading, Reading Central Library, MacAuley's Reading Directory, Almanac and Official Register for 1859 (Reading, 1859), 73-100.

⁶ Reading, Reading Central Library, MacAuley's Reading Directory, Almanac and Official Register for 1865 (Reading, 1865), 85-114.

⁷ Reading, Reading Central Library, Webster's Reading Directory; Including Henley, Pangbourne and Goring for 1874 (Reading, 1873), 163-200.

⁸ Reading, Reading Central Library, Stevens' Directory of Reading: 1884 (London, 1884), 346-406.

⁹ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 178-196.

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Basket Maker	0	0	0	0	0	0	0	9
Basket, Brush, Broom, Mat Maker Warehouse	3	3	4	6	4	7	4	0
Bath Chairman	0	0	0	0	0	0	0	1
Bedding Purifier	0	7	0	0	0	0	0	0
Bee Keeping Appliance Manufacturer	0	1	0	0	0	0	0	0
Beer Shop	0	0	0	0	0	0	2	0
Bellman	0	0	0	0	0	0	0	1
Bent Timber Manufacturers	0	0	0	0	0	0	0	1
Berlin Warehouse	0	0	1	7	6	4	8	7
Bicycle and Tricycle Makers, Agents and Repairers	0	0	0	0	0	0	14	11
Bill Posters	0	0	0	0	0	1	0	6
Billiard Rooms	0	0	0	0	0	2	4	3
Bird and Beast Preserver	2	0	0	0	0	1	4	0
Bird Seed Dealer	0	0	0	0	0	0	0	3
Biscuit Baker	1	2	1	15	10	0	0	0
Biscuit Factory	0	0	0	0	0	1	1	2
Blacking Manufacturer	1	1	1	2	0	0	0	0
Blacksmith and Farrier	7	2	0	9	12	4	0	21
Blind Maker	0	0	0	0	0	1	2	5
Boat Builder	0	0	0	0	0	0	0	2
Boat Hirer	0	0	1	0	0	0	0	7
Boilermakers	0	0	0	0	0	0	1	2
Bookbinder	0	2	5	4	5	0	10	0
Bookseller, Stationer & Bookbinder	14	8	8	18	17	20	26	44
Boot and Shoe Makers (Cobblers)	44	2	52	84	84	91	60	75
Boot and Shoe Warehouses	0	0	0	0	0	0	33	22
Box and Trunk Warehouses	0	0	0	0	0	0	0	2
Box Maker (Medical)	0	0	0	0	0	0	0	1
Box Turner	3	0	0	0	0	2	0	0
Brass Founder	0	0	0	0	0	1	0	1
Brewer	10	17	29	18	15	18	13	13
Brewer's Agents	0	0	0	0	0	0	0	5
Brick and Tile Agents	4	0	1	3	5	4	13	9
Brick and Tile Makers	0	0	0	0	0	0	0	5
Bricklayer	15	2	6	18	17	13	13	12
Broker	0	5	6	14	10	12	14	0
Broom Dealer	0	0	1	0	0	0	0	0
Brush Maker	2	2	1	4	5	0	4	52
Builder	0	8	10	34	32	13	65	0
Builders Merchant	0	0	0	0	0	0	10	13
Butcher	27	21	29	32	31	32	29	44

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Butter and Egg Merchants	0	0	0	2	5	1	9	11
Cabinet Maker	11	5	4	18	12	18	25	18
Canal Office	0	1	0	0	0	0	0	0
Cap Makers	0	0	1	4	3	0	0	0
Carmen and Contractors	0	0	0	0	0	0	13	8
Carpenter	23	11	21	29	24	15	25	29
Carpenter and Builder	0	1	0	0	0	0	0	0
Carpet Beater and Cleaner	0	0	0	0	0	0	0	5
Carpet Warehouse	0	1	0	0	0	1	0	9
Carrier	0	1	0	0	0	4	0	8
Carver and Gilder	4	1	0	5	4	4	9	10
Cattle Salesman	3	2	1	5	2	2	4	3
Chair Makers	0	0	0	1	0	2	0	1
Cheese Factor	0	1	2	0	1	2	0	4
Cheese Monger	0	1	0	0	0	0	0	0
Chemist (Analytical)	0	0	0	0	0	0	0	4
Chemists and Druggists	10	10	12	20	19	19	22	22
Chimney Sweepers	5	0	5	5	5	7	11	9
China Dealers	8	7	4	5	6	10	10	10
Church Hassock Maker	0	0	0	1	1	0	0	0
Cigar Importers and Manufacturers	0	0	0	0	0	0	4	6
Circulating Library and Reading Room	5	1	1	4	5	2	0	2
Civil Engineers	0	0	1	5	3	0	0	0
Clothes Warehouse	0	1	0	0	0	0	0	0
Clothier	0	3	7	8	7	8	23	0
Clothing Manufacturer	0	0	0	0	0	0	2	3
Coach Maker	4	5	5	7	8	11	10	11
Coach Office	0	0	0	0	0	1	0	1
Coach Proprietor	0	2	1	0	0	0	0	0
Coach Smith	7	1	4	0	0	0	25	0
Coach Trimmer	0	0	1	0	0	0	0	0
Coal Merchant	16	11	15	26	23	31	47	34
Coffee House	0	1	0	0	0	0	34	0
Coffee Roasters	0	0	2	0	0	0	0	0
Colour Men	4	1	5	7	6	5	13	27
Concert and Entertainment Agents	0	0	0	0	0	0	0	3
Confectioner	0	3	4	18	20	28	36	40
Contractors	0	0	1	2	2	2	0	0
Cooper	7	6	7	10	6	4	4	4
Copper Smith	0	0	0	0	0	0	0	1
Cork Cutter	0	1	1	1	1	1	1	1
Cork Manufacturer	3	0	0	0	0	0	0	0
Corn Dealers and Salesmen	28	3	17	20	20	17	34	29

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Corset Maker	0	1	0	14	0	0	0	0
Curiosity Dealer	0	0	1	0	0	0	0	0
Currier	5	2	5	7	7	6	6	4
Cutler	0	3	4	4	4	3	6	14
Cutler and Silversmith	0	1	0	0	0	0	0	0
Cycle Manufacturers	0	0	0	0	0	0	0	1
Cyclists Sundries Depot	0	0	0	0	0	0	0	1
Dairymen	0	0	1	10	11	12	55	48
Darning Machine Manufacturer	0	0	0	0	0	0	0	1
Dealers in Game	0	0	0	5	5	0	0	3
Dealers in Second Hand Clothes	11	0	0	0	0	0	0	0
Dentist	0	1	3	3	6	7	12	12
Designers, Draftsmen and Illustrators	0	0	0	0	0	0	0	4
Diamond and Brilliant Merchants and Mounters	0	0	0	0	0	0	0	2
Disinfectors	0	0	0	0	0	0	1	0
Dispensary	0	1	0	0	0	0	0	0
Distillers of Herbs	0	0	0	1	1	1	3	0
Draper	0	11	0	0	0	46	51	61
Drawing Instrument Store	0	0	0	0	0	0	0	1
Drawing Master	0	1	0	0	0	1	0	0
Dress Retailer	0	0	1	0	0	0	0	0
Dressing Case Maker	0	13	0	0	0	0	0	37
Dressmaker	0	0	0	0	0	0	0	55
Drill and Fencing Master	0	0	0	1	1	0	0	2
Drysalters	0	0	0	0	0	0	1	0
Dyer	4	1	3	5	5	4	6	5
Eating House	7	4	7	11	8	13	0	0
Egg Merchants	0	0	0	3	0	0	0	1
Electric Apparatus & Fretwork Material Stores	0	0	0	0	0	0	0	2
Electroplaters and Gilders	0	0	0	0	0	0	3	0
Emigration and Shipping Agent	0	0	0	0	0	0	0	1
Engineer (Water)	0	1	0	0	0	0	0	0
Engineer and Iron founder	0	0	5	2	5	0	10	0
Engineers	0	0	0	0	0	0	0	14
Engineers (Civil)	0	0	0	0	0	0	0	5
Engineers (Electrical)	0	0	0	0	0	0	0	5
Engineers (Hydraulic)	0	0	0	0	0	0	0	1
Engineers (Sanitary)	0	0	0	0	0	0	0	5
Engineers and Brass Founders	0	0	0	0	0	0	0	3
Engineers' India Rubber Store	0	0	0	0	0	0	0	1

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Engravers	4	0	2	2	4	3	6	4
Entertainers	0	0	0	0	0	0	0	3
Fancy Repositories	0	0	0	13	13	13	0	23
Fancy Worsted Warehouse	0	0	1	0	0	0	0	0
Farm	0	3	0	0	0	0	6	10
Feather Dresser	0	0	0	0	0	0	1	0
Fellmonger	0	0	1	0	0	0	0	0
Firewood Merchant	0	0	0	0	0	0	2	4
Firework Dealer	0	0	0	0	0	0	0	2
Fish Curer	0	0	0	0	0	2	0	2
Fishing Tackle Maker	2	1	2	2	3	4	7	10
Fishmonger	4	3	3	7	7	13	20	16
Flag and Banner Makers	0	0	0	0	0	0	0	1
Florist	0	1	0	0	0	1	0	0
Fly and Chairmen	6	0	3	11	14	0	0	0
Football Outfitter	0	0	0	0	0	0	0	4
French Polisher	0	0	0	0	0	0	0	1
Furniture Manufacturer	0	1	1	5	4	2	7	3
Furniture Van Proprietors	0	0	0	2	4	3	13	10
Furniture Warehouses	0	0	0	0	0	0	12	20
Furrier	4	1	0	4	4	3	0	4
Galvanized Iron Merchants	0	0	0	0	0	0	0	1
Garden Hose Merchants	13	12	11	25	29	0	11	3
Garden Seat Manufacturer	0	0	0	0	0	0	0	1
Gardener	0	0	0	0	0	0	0	1
Gardener's Supply Stores	0	0	0	0	0	0	5	6
Gas Fitters	0	0	1	8	15	5	0	3
General Merchants	0	0	0	11	10	38	5	0
General Shopkeeper	0	0	1	0	0	0	0	0
Geologist (Government)	0	0	0	0	0	0	0	1
German Repository	0	0	0	0	0	0	0	16
Ginger Beer and Soda Water Manufacturers	0	0	1	4	5	4	8	0
Glass Manufacturer	0	0	0	0	0	0	0	1
Glass Merchant	0	0	1	0	0	0	0	0
Glazier	0	2	4	0	0	0	0	0
Glover	3	1	1	1	4	0	0	0
Gold Blocker	0	0	0	0	0	0	0	2
Gravel Merchant	0	0	0	0	0	0	0	2
Green-Grocer	14	6	26	49	55	56	80	81
Grist Miller	0	0	0	0	0	0	0	3
Grocers and Tea Dealers	72	62	59	93	102	90	135	112
Gunsmith	3	2	3	3	2	2	4	3
Gutta Percher Merchant	0	0	0	0	0	0	0	1
Gutta Percher Worker	0	0	0	1	0	0	0	0

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Haberdasher	7	1	3	10	12	0	0	0
Hairdresser	17	10	20	20	18	16	23	38
Hall-keeper	0	1	0	0	0	0	0	0
Hardwareman	0	1	2	1	2	1	7	7
Hatmaker	7	4	10	13	9	7	19	21
Hay and Straw Dealers	0	0	2	0	0	1	9	0
Homeopathic Chemist	0	0	0	0	0	1	0	4
Hoop Makers	2	0	0	0	0	0	0	0
Hop Merchant	2	1	2	0	0	0	0	0
Horse Dealer	4	1	1	4	3	6	14	11
Horticultural Builder	0	0	0	0	0	0	3	3
Hosier	0	1	7	0	0	9	0	2
Hosier Glove and Shirt Makers	0	0	0	0	0	0	36	27
Hotelier	0	2	0	0	0	0	12	18
House and Estate Agent	0	1	4	22	22	5	30	0
Ice Merchants	0	0	0	0	0	0	2	1
India Rubber Merchant	0	0	0	0	0	0	0	1
Ink Manufacturer	0	0	0	0	0	1	0	0
Inn Keeper/Publican	11	45	110	82	87	180	151	134
Iron Founder	5	1	2	3	3	1	9	9
Ironmonger	5	8	13	11	13	14	17	25
Isinglass Merchant	0	0	0	0	0	1	0	0
Job and Post Masters	0	0	0	6	8	0	0	24
Journalists	0	0	0	0	0	0	0	13
Lace Cleaner	0	0	0	0	0	1	0	0
Laceman	0	0	0	1	3	0	0	0
Lamp Warehouse	0	0	0	0	0	1	0	0
Last Makers	0	0	1	2	2	2	1	1
Lath Renders	0	0	0	0	0	0	4	2
Laundresses	0	0	0	21	36	18	15	11
Lawn Tennis Outfitter	0	0	0	0	0	0	0	5
Lead and Glass Merchant	0	0	0	2	2	0	2	0
Lead and Glass Works	0	0	0	0	0	1	0	0
Lead and Pipe Manufacturers	0	0	1	0	0	0	0	0
Lead Smelters	0	0	0	0	0	0	1	1
Lime, Slate and Cement Merchants	0	0	0	0	0	5	8	0
Lime, Slate and Cement Works	0	0	0	0	3	0	0	0
Linen Draper	20	8	15	22	22	0	0	0
Lithographers	0	0	0	0	0	0	3	7
Livery Stable	2	0	2	4	4	10	20	24
Locksmith	0	1	6	0	0	6	23	25
Lozenge Manufacturer	0	0	1	0	0	0	0	0
Machine Maker	0	0	1	0	0	1	0	0

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Machinery and Agricultural Implement Dealer	0	0	0	0	0	0	0	2
Maltster	3	1	5	2	6	1	6	6
Marine Store Dealer	0	0	1	0	0	4	7	5
Market Gardeners	0	0	0	0	0	0	20	17
Marque and Tent Proprietor	0	0	0	0	0	0	1	0
Measurer and Accountant	0	1	0	0	0	0	0	0
Medical Botanist	0	0	0	0	0	1	0	0
Meerscham Pipe Manufacturer	0	0	0	0	0	1	0	0
Metalman	0	2	0	0	0	0	0	0
Midwife	0	1	0	3	10	0	0	0
Milkman	0	1	0	13	12	0	0	0
Miller	0	1	3	2	2	2	4	5
Milliner	19	7	0	67	59	61	99	0
Millwright	2	1	1	1	1	0	4	2
Mineral Water Dealers	0	0	0	0	0	2	0	0
Mineral Water Manufacturers	0	0	0	0	0	0	8	12
Mop Maker	0	1	1	0	0	0	0	0
Muffin and Crumpet Maker	0	0	0	0	0	0	0	2
Music and Pianoforte Sellers	0	0	0	0	2	3	0	10
Musical Instrument Maker	0	1	1	0	0	0	0	1
Musical Instrument Tuners	0	0	0	0	2	2	0	0
Musician	15	2	0	0	1	0	0	0
Naturalist	0	1	0	3	3	0	0	7
Net Maker	0	0	0	1	1	0	0	0
New Boot Warehouse	0	1	0	0	0	0	0	0
Newsagents	0	0	2	8	10	7	23	33
Newspaper	0	2	2	2	3	3	3	4
Nurseryman	3	1	5	4	10	13	17	11
Oil and Lamp Manufacturers	0	0	0	0	0	0	1	1
Oil Refiners	0	0	0	0	0	0	17	0
Opticians	0	0	0	2	3	2	12	13
Orange Merchants	6	0	0	0	0	0	0	0
Outfitters	0	0	0	5	8	2	0	0
Oyster Merchant	0	0	0	0	0	1	0	1
Painter	0	7	0	26	0	0	0	61
Painter and Glazier	0	0	0	0	0	0	38	0
Painter, Plumber and Glazier	0	0	0	0	0	30	0	0
Painters and Decorators	7	1	0	0	31	0	0	0
Paper Bag Makers	0	0	0	0	0	1	0	0
Paper Hangers	0	0	1	14	17	1	13	3
Paper Hangings, Merchants and Warehouses	0	0	0	0	0	0	3	3
Pastry Cook	18	2	3	0	0	0	0	23

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Patent Medicine Manufacturer	0	0	0	0	0	0	0	1
Patent Medicine Vendor	0	0	0	0	0	0	0	3
Patten Maker	4	1	1	2	2	1	0	1
Pawnbroker	2	3	3	2	2	3	3	3
Perfumer	0	0	0	0	0	2	10	8
Perambulator Makers and Warehouses	0	3	1	0	0	0	0	3
Photographer	0	0	0	0	5	8	12	18
Photographic Chemist	0	0	0	0	1	0	0	0
Physician	4	4	7	5	5	22	28	52
Pianoforte and Musical Instrument Warehouses	0	0	0	0	0	0	8	0
Pianoforte Tuners	0	0	1	2	0	0	0	0
Pickle and Sauce Manufacturer	0	0	0	0	0	0	7	9
Picture Dealer	0	0	1	0	0	0	0	0
Picture Frame Manufacturer	0	0	1	0	0	0	0	0
Pianoforte Manufacturers	0	0	1	0	0	4	10	13
Pipe Maker	2	1	2	2	1	1	1	0
Plasterer	4	2	4	0	0	0	0	2
Plater	0	1	1	0	0	0	0	0
Plumber	10	7	21	0	0	0	43	0
Portmanteau, Trunk and Bag Manufacturer	0	0	0	0	0	0	4	3
Portrait Painter	0	2	0	0	0	0	0	0
Portrait Painter and Teacher of Drawing	0	1	0	0	0	0	0	0
Post Office	0	1	0	0	0	0	0	0
Potato Grower and Merchant	0	0	0	0	0	0	0	7
Potter	0	1	0	0	0	0	0	0
Pottery Pipe Manufacturer	0	0	0	0	0	0	1	0
Poulterer	4	3	3	9	7	8	15	8
Prep School	0	3	0	9	10	5	0	0
Printer	8	1	10	8	9	13	18	20
Printer and Bookbinder	0	1	0	0	0	0	0	0
Professor of Dancing	0	2	1	5	2	1	2	1
Professor of Drawing	0	0	1	4	1	0	0	0
Professor of Languages	0	1	1	5	2	1	4	5
Professor of Music	0	4	4	10	6	12	20	0
Professor of Singing	0	0	0	3	3	0	0	0
Professor of Stenography	0	0	0	1	0	0	0	0
Rag Dealer	0	0	0	0	0	1	0	0
Red Boot Warehouse	0	1	0	0	0	0	0	0
Relief Stampers and Die Sinkers	0	0	0	0	0	0	0	4

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Restaurant	0	0	0	0	0	0	6	40
Road Contractors	0	0	0	0	0	0	0	2
Rod Dealer	3	0	1	1	2	0	0	0
Rope Maker	0	1	1	2	4	0	2	0
Rope Merchant	0	0	0	0	0	1	0	3
Row Barge	0	1	0	0	0	0	0	0
Royal Mail and General Coach Office	0	1	0	0	0	0	0	0
Rubber Stamp Works	0	0	0	0	0	1	0	0
Rustic Bridge and Summer House Manufacturer	0	0	0	0	0	0	0	1
Sack Hiring Agency	0	0	0	0	0	0	0	1
Sack Manufacturers	0	0	0	0	0	0	0	1
Saddlers and Harness Makers	6	6	10	11	14	10	12	13
Sail and Cloth Manufacturer	6	1	2	0	0	0	0	0
Salt Merchants	0	0	5	0	0	0	6	0
Sand and Gravel Merchant	0	0	0	0	0	0	0	1
Sanitary Specialists	0	0	0	0	0	0	0	2
Sauce Manufacturers	0	0	0	0	4	2	1	1
Sausage Manufacturers	0	0	0	0	0	0	0	7
Saw and Tool Maker	0	0	0	0	0	0	0	4
Saw Mills	0	0	0	0	0	0	0	3
Scale Makers	0	0	0	0	0	1	2	0
School	0	1	0	0	18	19	46	18
School for Young Ladies	15	21	22	29	25	20	0	19
School of Industry	0	1	0	0	0	0	0	0
Seedsman	0	3	2	0	0	1	6	9
Servants' Registry Offices	0	0	0	0	0	0	0	14
Sewing Machine Agents	0	0	0	0	0	2	6	7
Share Broker	0	1	0	0	0	0	0	0
Shipping Agent and Passage Broker	0	0	0	2	3	1	0	0
Shirt Makers	0	0	0	0	0	0	0	1
Shoe Maker	0	24	51	0	0	0	0	0
Shopkeeper	0	6	0	0	0	0	91	0
Silk Manufacturer	4	0	0	0	0	0	0	0
Silk Merchant	0	3	9	1	12	0	0	0
Silversmith and Jewellers	10	3	5	0	0	0	13	33
Slate Merchants	0	0	2	4	11	0	0	0
Slater and Coal Merchant	0	1	0	0	0	0	0	0
Slop Seller	0	2	2	0	0	0	0	0
Smith	0	1	10	0	0	0	13	0
Solicitor	15	16	23	21	17	17	24	33
Spirit Merchant	0	2	1	0	0	0	0	0
Sporting Requisites Dealer	0	0	0	0	0	0	0	1
Spring and Axletree Maker	0	0	0	1	1	0	0	0

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Stained Glass Factor	0	0	0	0	0	0	0	1
Stationer	0	2	5	0	0	0	0	4
Stationer and Printer	0	1	0	0	0	0	0	0
Stay and Corset Maker	5	4	13	0	9	5	6	4
Steam Sawyer	0	0	0	1	3	1	4	0
Stonemason	5	7	9	5	3	2	10	12
Stove and Range Manufacturer	0	0	0	0	0	0	9	0
Straw Hat Maker	14	8	18	10	11	6	5	2
Sugar Baker	0	0	0	0	0	1	0	0
Surgeon	0	11	16	13	12	0	0	0
Surgical Appliances Depot	0	0	0	0	0	0	0	1
Surgical Instrument Maker	0	0	0	1	1	0	0	0
Surveyor	8	2	6	12	12	0	0	23
Surveyor and Auctioneer	0	2	0	0	0	0	0	0
Surveyor and Builder	0	1	0	0	0	0	0	0
Surveyor and Civil Engineer	0	1	0	0	0	0	0	0
Tailor	30	16	35	45	45	45	65	82
Tallow Chandler	9	2	4	5	5	3	2	2
Tanner	0	1	0	2	2	1	2	2
Tarpaulin Manufacturer	0	0	0	0	0	0	0	1
Tea Dealers	0	4	0	0	0	0	0	2
Teacher	0	1	0	0	0	0	0	0
Teacher of Languages	0	0	0	0	0	0	0	6
Temperance Hotels	0	0	0	0	0	0	6	0
Tent and Marquee Proprietors	0	0	0	0	0	0	0	3
Theatres	0	0	0	0	0	0	0	1
Ticket Writers	0	0	0	0	0	0	2	2
Timber Merchants	7	3	6	6	10	6	7	6
Tin, Iron and Galvanized Goods Warehouses	0	0	0	0	0	0	0	3
Tin, Zinc and Iron Plate Workers	7	3	6	9	8	0	0	5
Tinman and Braziers	0	0	0	0	6	3	13	0
Tobacconist	5	1	4	8	10	16	36	42
Toy Warehouse	8	2	1	10	7	2	23	2
Tripe Dresser	0	0	0	0	0	0	0	3
Turner	9	2	5	9	6	11	7	0
Type Writing Machine Agent	0	0	0	0	0	0	0	1
Typist	0	0	0	0	0	0	0	1
Umbrella Maker	3	3	5	4	3	4	6	2
Undertaker	10	1	7	40	34	12	36	19
Upholsterer	0	5	9	18	15	3	0	10
Varnish Manufacturer	0	0	1	0	0	0	0	0
Veterinary Surgeon	2	1	2	1	2	3	7	5
Victualler	59	0	0	0	0	0	111	113

Type of Company	1827	1837	1840	1859	1865	1874	1884	1895
Waggon Proprietors	4	2	1	0	0	0	0	0
Wardrobe Dealers	0	0	0	0	0	0	0	14
Watchmaker	11	5	11	15	17	24	31	0
Waterproof and India Rubber Dealers	0	0	0	0	0	0	0	2
Wellsinker and Excavator	0	0	0	0	0	0	0	1
Wharfinger	0	1	4	0	0	0	0	0
Wheelwright	4	1	7	4	8	15	10	14
Whitesmith	0	0	1	0	0	0	1	1
Whiting Manufacturer	12	2	0	13	14	0	0	3
Wine and Spirit Merchant	10	2	13	15	21	7	26	25
Wine Maker	0	0	2	4	3	0	0	0
Wine Merchant	0	8	0	0	0	0	0	0
Winnowing Machine Makers	2	0	0	0	0	0	0	0
Wire Workers	3	0	0	2	1	2	3	3
Wool Stapler	0	0	0	1	1	1	0	2
Woollen Drapers	9	3	11	18	21	0	30	0
Working Goldsmith	0	0	2	1	1	0	0	0
Writers and Grainers	0	0	0	0	0	0	0	4
Yeast Dealers	0	0	0	0	0	0	0	11
Zinc, Iron and Tin Workers	0	0	0	0	0	0	7	7
<i>Total Number of Businesses</i>	386	229	399	644	595	558	971	941

Appendix 3: Businesses in Maidenhead by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	0	0	0	1	2	0	0
Agent for Agricultural Machinery and Iron Works	0	0	0	0	1	1	0	0
Agent for Brewer	0	0	0	0	1	0	0	0
Agent for London Wine Company	0	0	0	0	1	0	0	0
Agent for the Great Western Railway Company	0	0	0	0	1	0	1	1
Agricultural Implement Dealer	0	0	0	0	1	3	0	0
Architect	0	0	0	0	0	1	0	0
Architect and Surveyor	0	0	0	1	1	0	5	5
Artificial Tooth Supplier	0	0	0	0	0	0	0	1
Artist	0	0	0	0	1	2	2	3
Artist's Depot	0	0	0	0	0	0	0	1
Art Metal Worker	0	0	0	0	0	0	1	1
Auctioneers	3	3	0	2	3	4	3	1
Auctioneers and Estate Agents	0	0	0	0	0	0	0	1
Auctioneer and Valuer	0	0	0	0	0	0	0	2
Auctioneers, Appraisers and Estate Agents	0	0	4	0	0	0	0	0
Auctioneers. Valuers and Surveyors	0	0	0	0	0	0	2	0
Bakers	7	7	13	9	19	12	17	14
Baker and Confectioner	0	0	0	2	0	3	0	3
Baker and Corn Dealer	0	0	0	0	0	0	0	1
Baker and Fruiterer	0	0	0	0	0	0	0	1
Baker, Grocer and Butcher	0	0	0	0	0	0	0	0
Banks	1	2	2	3	4	5	6	5
Barge Master	0	1	0	0	0	0	0	0
Basket Makers	0	2	0	1	0	0	0	0
Basket Maker and Brush Dealer	0	0	0	0	1	0	0	0

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 13-14

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 74-75.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 18-22.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 623-626.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 672-676.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 585-590.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 94-102.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 104-114.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Batter	1	0	0	0	0	0	0	0
Beer Retailers	0	15	25	10	16	20	22	19
Berlin Wool Repository	0	0	2	1	0	1	0	0
Bill Poster	0	0	0	0	0	1	0	0
Bill Poster and Town Cryer	0	0	0	0	0	0	1	1
Blacksmiths and Farriers	3	2	2	7	4	2	2	4
Blacksmith and Tinplate Worker	0	0	0	0	0	1	0	0
Blacksmith, Tinplate Worker and Whitesmith	0	0	0	0	0	0	1	1
Boat Builder	0	0	0	1	0	3	0	3
Boat and Steam Launch Builder	0	0	0	0	0	0	1	0
Boat Hirer	0	0	2	0	0	0	1	0
Bookbinders	2	2	0	0	0	0	0	0
Bookseller	0	0	0	1	0	0	0	0
Bookseller and Printer	0	0	0	0	0	1	0	0
Booksellers and Stationers	2	4	0	0	0	2	0	1
Booksellers, Stationers and Binders	0	0	3	0	0	0	0	0
Bookseller, Stationer, Binder and Printers	0	0	0	2	0	0	1	1
Boot and Shoe Warehouse	0	0	0	0	0	1	0	1
Brazier and Tinman	1	0	2	0	1	1	0	0
Brewers	3	2	3	2	1	2	4	0
Brewer, Maltster and Wine and Spirit Merchant	0	0	0	0	1	1	0	2
Brewers Agent	0	0	0	1	0	0	0	0
Brewer's Stores	0	0	0	0	0	0	0	1
Brewer, Wine and Spirit Merchant	0	0	0	0	0	0	0	1
Bricklayers	0	1	0	1	4	1	0	1
Bricklayers and Plasterers	4	0	4	0	0	0	0	0
Brick Makers	0	0	2	0	0	0	0	0
Brick Tile and Pipe Manufacturers	0	0	0	1	1	1	1	1
Builders	4	4	4	4	7	8	8	10
Builder and Confectioner	0	0	0	0	0	0	1	0
Builder and Contractor	0	0	0	0	0	2	0	0
Builder and Decorator	0	0	0	0	0	1	1	0
Builders Merchant	0	0	0	0	0	1	2	2
Butchers	10	6	13	7	9	11	10	11
Cabinet Maker	0	0	0	1	2	3	2	4
Cabinet Makers, Upholsterers and Paper Hangers	3	4	7	0	0	0	0	0
Cab Proprietor	0	0	0	0	0	1	0	2
Carman	0	0	0	0	3	3	2	5

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Carpenter and Builder	0	0	0	0	0	1	0	0
Carpenters and Joiners	5	2	16	3	3	3	4	1
Carriers	0	2	0	2	3	3	0	4
Cart Owner	0	0	0	1	0	0	0	0
Cattle Dealer	0	0	2	1	1	2	1	1
Chemical School	0	0	0	0	1	0	0	0
Chemists and Druggists	2	2	3	0	3	4	3	5
Chemist and Printer	0	0	0	1	1	0	0	0
Chimney Sweep	0	0	0	1	1	1	1	2
China, Glass and Earthenware Warehouses	2	1	3	1	2	3	3	2
Clothier	0	0	0	0	1	0	0	0
Coach Builder	2	1	1	2	1	1	3	5
Coach Painter	0	0	0	0	0	1	1	1
Coal Merchants	6	3	7	1	3	5	7	2
Coal Merchant and Goods Agent	0	0	0	0	0	0	0	1
Coal and Coke Merchant	0	0	0	0	0	0	0	1
Coal and Corn Merchant	0	0	0	0	0	0	0	1
Coal, Coke and Salt Merchants	0	0	0	0	0	0	1	2
Cobblers	11	14	24	21	11	13	19	19
Coffee Rooms	0	0	0	1	0	1	4	0
Commercial Traveller	0	0	0	0	2	3	1	0
Confectioner	0	2	4	2	1	0	3	7
Confectioner and Toy Dealer	0	0	0	0	0	0	0	1
Contractor	0	0	0	0	0	0	0	1
Conveyancer	1	0	0	0	0	0	0	0
Coopers and Basket Makers	3	0	3	0	0	1	0	0
Coopers	0	2	0	2	1	0	1	1
Cooper and Brewer	0	0	0	0	0	1	0	0
Corn Dealers	3	3	6	1	2	4	4	3
Corn and Flour Dealer	0	0	0	0	1	0	0	0
Cow Keeper	0	0	0	1	0	0	0	0
Currier	1	1	3	1	1	1	2	1
Cutler and Umbrella Repairer	0	0	0	0	0	0	0	1
Cycle Manufacturer	0	0	0	0	0	0	3	2
Dairy	0	0	0	0	0	1	3	2
Dairyman	0	0	0	0	3	3	3	8
Dental Surgeon	0	0	0	0	0	3	2	2
Dentist	0	0	1	0	0	0	0	0
Dining Rooms	0	0	0	0	0	0	0	1
Draper	0	0	0	2	9	2	14	8
Draper and House Furnisher	0	0	0	0	0	0	0	1
Dressmaker	0	0	0	4	3	8	8	23
Dyer	0	0	0	1	0	1	1	1
Engineer	0	0	0	0	1	2	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Engineer and Steam Laundry	0	0	0	0	0	0	1	0
Engraver	0	0	0	0	0	0	0	1
Estate Agent	0	1	0	1	0	1	1	0
Fancy Repository	0	0	0	0	1	0	3	3
Financer	0	0	0	0	0	0	0	1
Fisherman	0	0	0	0	0	0	1	1
Fishing Tackle Dealer	0	0	0	1	0	0	0	0
Fishing Tackle Maker	0	0	1	0	0	0	0	0
Fishmongers	2	1	1	1	1	2	6	0
Fishmonger and Fruiterer	0	0	0	0	1	0	0	2
Fishmonger and Greengrocer	0	0	0	0	0	1	0	1
Fishmongers and Poulterers	0	0	1	1	1	2	0	0
Fishmonger, Poulterer and Game Dealer	0	0	0	1	2	0	0	0
Florist	0	0	0	0	0	0	1	0
Flour Dealer	0	0	0	0	0	0	1	0
Fly Proprietor	0	0	0	0	0	0	3	6
Fly Proprietor and Pork Bucher	0	0	0	0	0	0	0	1
French Polisher	0	0	0	0	0	0	1	1
Fruiterer	0	0	11	0	0	3	2	2
Furniture Brokers	2	1	3	0	1	3	3	4
Gas and Coke Company	0	0	0	0	0	1	1	1
Gas Fitter	0	0	0	0	1	2	0	0
Ginger Beer Manufacturer	0	0	0	0	1	0	0	0
Grainer	0	0	0	1	0	0	0	2
Greengrocers	0	4	0	2	2	7	2	5
Grocers and Tea Dealers	9	6	9	8	10	16	18	18
Grocer and Wine and Spirit Merchant	0	0	0	0	0	0	0	1
Gun Smith	1	1	0	1	1	1	0	0
Haberdasher	0	0	0	0	0	2	0	0
Hairdressers and Perfumers	0	3	4	2	3	3	4	5
Hardware Dealer	0	0	0	0	0	1	0	0
Hat Manufacturer	0	1	0	1	0	0	0	0
Hatter	0	3	3	0	0	0	0	0
Hatter and Hosier	0	0	0	0	0	1	0	0
Hatter and Milliner	0	0	0	0	1	0	0	0
Hatter and Tailor	0	0	0	0	0	3	0	0
Horse Breaker	0	0	0	0	0	1	1	1
Horticultural Builder	0	0	0	0	0	0	1	0
Hosier	0	0	0	0	0	0	2	0
Hotel	0	0	0	0	3	0	5	10
Inns and Hotels	6	0	6	0	0	5	0	0
Iron and Brass Founders	0	0	0	1	1	1	1	1
Ironmongers	2	6	4	2	2	3	4	4

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Jobbing Gardener	0	0	0	0	0	0	0	6
Job Master	0	0	0	0	0	0	1	2
Lacemaker	0	0	0	0	0	0	1	1
Ladies and Childrens Outfitters	0	0	0	0	0	0	1	0
Ladies Outfitters	0	0	0	0	0	0	0	1
Ladies Underclothing Makers	0	0	0	0	0	1	0	0
Lamp and Oil Warehouse	0	0	0	0	0	0	1	0
Land Agent	0	0	0	0	0	0	0	1
Laundress	0	0	0	0	0	0	0	1
Leather Breaches Maker	1	0	0	0	0	0	0	0
Leather Seller	0	0	0	1	1	0	0	0
Lighterman	0	0	0	0	0	1	0	0
Linen Draper	0	0	0	0	1	9	5	4
Linen and Woollen Draper, Silk Mercer and Haberdasher	3	4	5	5	0	0	0	0
Livery Stables	0	1	0	0	0	0	0	2
Locksmith and Bellhanger	0	3	0	1	1	0	0	0
Lodging House	0	0	0	1	3	10	4	1
Mail Contractor	0	0	0	0	1	0	0	0
Maltster	1	1	3	0	0	0	0	0
Marine Store Dealer	0	1	1	4	0	0	0	1
Market Gardener	0	0	0	0	0	0	0	2
Mealman	0	0	1	0	0	0	0	0
Metalworker	0	0	0	0	1	1	0	2
Midwife	0	0	0	0	1	0	1	2
Millers	3	1	3	0	0	1	1	1
Millers and Brewers	0	0	0	1	1	0	0	0
Mill Smith	0	1	0	0	0	0	0	0
Milliner	0	0	0	2	5	1	3	3
Milliners and Dressmakers	4	5	12	2	2	1	0	0
Modeller in Wax	0	0	0	0	1	0	0	1
Music and Pianoforte Warehouse	0	0	0	0	1	1	0	0
Music Sellers	0	0	0	2	1	0	3	1
Naturalist	0	0	0	0	0	1	1	1
Newspaper	0	0	0	0	0	1	1	2
Nurseryman	0	0	0	0	0	0	0	3
Nursery and Seedsman	2	1	2	0	0	1	2	1
Nurseryman, Seedsman and Florist	0	0	0	0	1	0	0	0
Oil and Colormen	0	2	0	0	0	1	1	1
Oil and General Stores	0	0	0	0	0	0	0	1
Oilman	0	0	0	0	0	1	0	2
Oilman and Ironmonger	0	0	0	0	0	1	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Oil Warehouse and China Dealer	0	0	0	0	0	0	0	1
Omnibus Proprietor	0	0	0	0	1	0	0	0
Optician, Chemist and Photographer	0	0	0	0	0	0	0	1
Painter	0	0	0	1	0	0	6	3
Painter and Decorator	0	0	0	0	0	2	2	4
Paper Bag Manufacturer	0	0	0	0	1	1	0	0
Paper Hangers	3	0	5	0	1	1	1	1
Paper Hanger and Stationer	0	0	0	0	1	0	0	0
Paper Manufacturers	0	0	2	0	0	0	0	0
Pastry Cook and Confectioner	1	0	0	0	0	1	0	0
Pawnbrokers	0	1	0	0	1	1	1	1
Perfumer and Cutlers	4	0	0	0	0	0	0	0
Pharmaceutical Chemist	0	0	0	2	0	0	3	1
Photographer	0	0	0	2	1	2	5	4
Physician	0	0	1	3	1	0	5	0
Physician and Surgeon	0	0	0	0	0	0	0	4
Pianoforte Tuner	0	0	0	0	0	0	1	1
Pianoforte Warehouse	0	0	0	0	0	1	1	0
Pianoforte Warehouse and Tuners	0	0	0	0	0	0	0	1
Picture Frame Maker	0	0	0	0	1	1	0	1
Plasterer	0	0	0	0	1	2	2	0
Pleasure Boat Owner	1	0	0	0	0	0	0	0
Plumber	0	0	0	2	3	3	4	6
Plumber and Glazier	0	0	0	0	4	2	1	1
Plumber and Tobacconist	0	0	0	0	0	0	0	1
Plumber, Painter and Glazier	0	4	7	0	0	0	0	0
Plumber Painter and House Decorator	0	0	0	0	0	1	0	0
Pork Butcher	0	0	0	1	1	1	2	0
Potato Salesman	0	0	0	0	0	0	0	1
Poulterer and Game Dealer	0	2	0	0	0	0	0	0
Printers	2	2	2	0	0	0	1	0
Publisher	0	0	0	0	0	1	1	1
Quantity Surveyor	0	0	0	0	0	0	0	1
Refreshment Room	0	0	0	0	0	0	0	5
Register Office for Servants	0	0	3	1	1	2	2	1
Saddlers and Harness Makers	3	3	4	3	3	4	5	4
Salt Merchant	0	1	0	0	0	0	0	0
Seedsman	0	0	0	2	0	0	0	0
Sewing Machine and Bicycle Manufacturers	0	0	0	0	0	1	0	0
Sewing Machine Warehouse	0	0	0	0	0	0	1	3

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Shipping Agent for Canada and the United States	0	0	0	0	0	0	0	1
Shoe Dealers	3	0	7	0	0	0	0	0
Shopkeepers	11	5	22	7	9	10	12	12
Solicitor	0	4	4	4	4	8	7	14
Stationer	0	0	0	2	1	0	5	5
Stationer and Printer	0	0	0	0	1	2	0	1
Stay and Corset Makers	2	0	0	0	0	0	0	0
Steam Launch Proprietor	0	0	0	0	0	0	0	1
Steam Laundry	0	0	0	0	0	0	0	1
Steam Saw Mill	0	0	0	0	0	0	1	1
Stonemason	1	1	2	1	1	3	0	2
Straw Hat Makers	6	5	3	2	1	2	0	0
Surgeons	3	4	4	2	4	3	5	5
Surgeon and Certifying Factory Surgeon	0	0	0	0	0	0	0	1
Surveyor	0	1	0	0	2	0	3	2
Surveyor and Land Agent	0	0	0	2	0	1	0	0
Surveyor and Valuer	0	0	0	0	0	1	0	0
Tailors	8	8	12	7	7	8	11	13
Tailor, Hatter and Breeches Maker	0	0	0	0	0	0	1	2
Tailor and Confectioner	0	0	0	0	0	0	0	1
Tailor and Shoe Warehouse	0	0	0	1	0	0	0	0
Tallow Chandler	1	0	0	0	0	1	0	0
Taverns and Public Houses	24	22	30	20	24	30	27	28
Tea Dealer	0	0	0	1	1	0	0	3
Tea Dealer, Hosier and Glazier	1	0	0	0	0	0	0	0
Telephone Company	0	0	0	0	0	0	0	1
Threshing Machine Contractor	0	0	0	0	1	0	0	0
Timber Merchant	1	1	2	2	1	1	0	0
Tin and Zinc Plate Worker	0	0	0	0	0	1	0	0
Tobacconist	0	0	0	2	2	5	5	8
Toy and Fancy Repository	0	0	1	0	0	1	0	0
Toy Dealers	0	2	0	0	0	0	2	2
Umbrella Maker	0	0	0	1	1	1	2	1
Upholsterer	0	0	0	1	0	1	2	4
Upholsterer and Cabinet Maker	0	0	0	0	1	0	0	0
Veterinary Surgeons	3	1	1	2	2	1	2	2
Watch and Clock Makers	2	3	3	3	4	5	6	8
Wardrobe Dealer	0	0	0	0	0	1	1	5
Wheelwrights	3	1	2	2	4	4	3	2
Whip Maker	1	0	0	0	0	0	0	0
Whitesmith	0	0	0	0	1	1	2	0
Whitesmith and Tobacconists	0	0	0	0	0	0	0	1

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Wine and Spirit Merchants	3	1	2	0	0	0	0	0
<i>Total Number of Businesses</i>	203	207	350	226	258	369	409	497

Appendix 4: Businesses in Newbury by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	1	1	0	0	0	1	1
Agents	5	0	12	0	0	0	0	0
Agent for Brewer	0	0	0	0	0	0	0	1
Agents - Colliery	0	0	0	0	0	0	1	1
Agents - Commission	0	0	0	0	0	0	1	1
Agent for the Great Western Railway Company	0	0	0	1	0	0	2	0
Agricultural Implement Manufacturer	3	5	5	1	0	0	1	0
Agricultural Machine Owners	0	0	0	0	0	0	0	1
Ale and Porter Merchants	0	0	0	0	0	1	0	0
Antique Furniture Dealer	0	0	0	0	0	0	0	1
Architect	0	0	0	2	1	2	1	3
Artist	0	0	0	1	1	0	0	1
Auctioneers	0	0	0	3	4	4	4	3
Auctioneer and Valuer	5	8	6	0	4	4	4	2
Axle Tree Maker	1	0	0	1	1	1	0	0
Baby Linen Warehouse	0	0	0	1	0	1	0	0
Bacon Curers	0	0	0	0	0	0	1	1
Bakers	34	21	38	39	42	33	33	33
Baking Powder Manufacturer	0	0	0	0	0	0	1	1
Banks	2	1	3	3	2	1	4	3
Bank - Savings	0	1	0	0	0	0	0	0
Barge Master	0	0	0	1	1	0	0	0
Basket Makers	4	4	4	0	0	0	0	0
Basket and Sieve Maker	0	0	0	4	0	1	3	4
Bath Proprietor	0	0	0	0	0	0	1	1
Beer Retailers	0	38	42	49	61	51	49	54
Berlin Wool Repository	0	0	3	4	4	2	2	2
Bill Discounter	0	0	0	0	0	1	1	0
Bill Poster	0	0	0	0	0	0	0	2
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 15-20.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 40-54.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 22-31.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 628-634.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 678-685.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 592-599.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 104-115.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 117-131.

Birch Broom Maker	1	0	0	0	0	0	0	0
Bird and Animal Preserver	0	0	1	0	0	1	2	2
Blacking Manufacturer	0	0	1	0	0	0	0	0
Blacksmiths and Farriers	20	10	27	27	28	31	29	26
Boarding Houses	0	0	0	0	0	0	3	0
Boat and Barge Builders	1	1	2	0	0	0	0	1
Bone Merchant	0	0	0	1	1	0	0	0
Bookbinders	3	4	0	2	2	1	1	1
Bookseller	0	0	0	5	7	7	6	7
Booksellers and Stationers	6	5	9	0	0	0	0	0
Boot and Shoe Retailer	0	0	0	0	0	0	0	1
Brazier and Tinman	1	3	8	3	3	2	3	2
Breeches Makers	0	0	0	0	0	0	0	2
Brewers	8	10	11	14	13	11	9	8
Bricklayers	5	0	10	7	7	4	4	10
Bricklayers and Plasterers	0	5	0	0	0	0	0	0
Brick Makers	0	1	0	0	0	0	0	0
Brick, Tile and Pipe Manufacturers	0	0	3	6	7	4	5	5
British Wine Merchant	0	0	0	1	0	0	0	0
Broom Handle Manufacturer	0	0	0	1	0	2	0	0
Brush Makers	1	2	3	2	2	3	4	2
Builders	8	3	11	18	20	13	22	22
Butchers	20	13	22	18	15	12	21	22
Cabinet Maker	0	0	0	6	4	4	3	0
Cabinet Makers and Upholsterers	6	8	11	0	0	0	0	0
Canal Company	1	0	0	0	0	0	0	0
Carman	0	0	0	0	0	0	1	0
Carpenter and Builder	0	5	0	0	0	0	0	0
Carpenters and Joiners	19	5	21	21	23	25	22	22
Carriers	0	3	0	0	0	0	7	9
Carvers and Gilders	0	1	0	1	1	1	1	0
Carver, Gilder and Picture Frame Maker	1	0	0	0	0	0	0	0
Cattle Dealer	0	0	2	0	1	4	4	7
Cement Merchant	0	0	0	0	0	1	1	1
Chair Manufacturer	5	3	2	1	0	1	2	2
Chaise and Cart Maker	1	0	0	0	0	0	0	0
Cheese Factors	2	0	0	0	0	0	0	0
Cheese Mongers	2	7	0	0	0	0	0	0
Cheese Mongers and Bacon Dealers	0	2	6	0	0	0	0	0
Chemists and Druggists	7	9	9	13	12	13	9	6
Chimney Sweep	0	3	0	4	3	0	3	5
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

China, Glass and Earthenware Warehouses	3	3	5	5	5	3	5	5
Clothes Dealers	4	4	9	4	6	5	4	5
Coach Proprietor	1	0	1	0	0	0	0	0
Coach Builder	2	3	4	5	5	3	6	4
Coach Painter	0	0	1	0	0	0	1	1
Coach Smiths	0	0	0	1	2	0	2	2
Coach Trimmer	0	0	1	0	0	0	0	0
Coal Merchants	8	0	15	14	16	13	2	4
Coal and Coke Merchant	0	9	0	0	0	8	9	11
Cobblers	33	34	45	51	49	52	59	38
Coffee Rooms and Eating Houses	0	0	2	0	0	0	3	3
Coffee Taverns	0	0	0	0	0	0	4	2
Color Merchants	0	0	0	0	2	1	0	0
Commercial Traveller	0	0	0	0	0	0	0	4
Confectioners and Pastry Cooks	7	4	9	3	5	4	9	7
Contractor	0	0	0	1	1	2	8	8
Convalescent Homes	0	0	0	0	0	0	0	1
Cooperative Stores	0	0	0	0	0	0	2	2
Coopers	0	5	5	5	4	2	2	2
Cord and Twine Manufacturer	1	0	0	0	0	0	0	0
Corn Merchants and Dealers	14	11	19	3	6	5	6	7
Corn Porters	0	0	7	0	0	0	0	0
Corn and Flour Dealer	0	0	0	12	12	5	8	6
Corn Seller	0	0	0	0	3	0	0	0
Costumiers	0	0	0	0	0	0	0	1
Cow Keeper	1	0	0	0	0	0	0	3
Curiosity Dealer	1	0	0	0	0	0	0	0
Currier and Leather Seller	5	5	4	4	5	1	1	0
Cutler	0	1	0	0	0	0	1	2
Cycle Agents	0	0	0	0	0	0	0	1
Dairyman	0	1	0	4	3	1	1	12
Dealer in Blacking and Roasted Corn	1	0	0	0	0	0	0	0
Dealer in Periodical Publications	1	0	0	0	0	0	0	0
Dentist	0	0	0	1	1	1	2	3
Dining Rooms	0	0	0	2	1	0	0	0
Drain and Sewage Pipe Manufacturer	0	0	0	1	1	0	0	1
Draper	2	6	4	26	29	0	0	22
Draper - Travelling	0	0	0	0	0	0	0	2
Dressmaker	0	0	0	0	0	0	0	39
Dyer and Scourer	5	2	2	1	1	2	0	2
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Engineer - Mechanical	0	0	0	3	4	1	2	2
Engine Fitter	0	0	0	0	0	0	1	0
Engraver	0	0	0	1	2	0	0	0
Estate Agent	0	1	0	3	4	3	6	3
Factor - General	0	0	0	0	1	0	0	0
Fancy Repository	0	0	0	1	2	2	4	4
Fellmonger	2	1	3	3	3	2	0	0
Firewood Dealers	0	0	0	2	0	0	0	1
Fish Curer	0	0	0	0	0	0	1	1
Fishing Tackle Maker	1	0	0	2	0	0	1	1
Fishmongers	1	2	1	4	4	4	4	0
Fishmonger and Greengrocer	3	1	0	0	0	0	0	0
Florist	0	0	0	0	0	0	1	0
Funeral Furnisher	0	0	0	1	1	1	0	0
Furniture Brokers	3	4	7	5	6	5	4	3
Furniture Depositories	0	0	0	0	0	0	1	0
Furniture Removers	0	0	0	0	0	1	1	0
Furrier	0	0	1	0	0	0	0	0
Gamekeepers	0	0	0	0	0	0	0	3
Gardener	0	0	0	0	0	0	0	10
Gas and Coke Company	1	1	1	1	0	2	2	2
Gas Fitter	0	0	0	0	0	0	1	1
Gas Light Company	0	0	0	0	1	0	0	0
General Dealers	0	4	0	0	0	0	0	0
Glover	0	1	0	0	0	0	0	0
Greengrocers and Fruiterers	0	1	0	10	8	5	7	10
Grocers and Tea Dealers	24	22	28	59	58	47	58	40
Grocer - Wholesale	0	0	0	0	0	0	1	1
Gunsmith	2	1	2	1	1	1	2	2
Gunsmith and Cutler	0	3	0	0	0	0	0	0
Haberdasher	11	4	6	2	2	1	0	0
Hairdressers	0	0	0	10	8	5	8	11
Hairdressers and Perfumers	13	13	11	0	0	0	0	0
Hardware Dealer	0	0	5	1	1	2	2	2
Hat Manufacturer	3	4	6	2	0	0	1	0
Hatter	0	0	0	0	2	0	1	1
Hay and Straw Dealer	0	0	0	2	1	2	0	2
Heraldic Painter	1	0	0	0	0	0	0	0
Homes	0	0	0	0	0	0	0	1
Hoop Maker	0	0	0	0	1	0	0	0
Hop Merchants and Dealers	0	0	4	1	0	0	0	0
Horse Breaker	0	0	0	1	1	0	0	0
Horse Dealer	1	0	1	1	0	1	0	0
Horse Trainer	0	0	0	2	0	0	0	0
Horses, Gigs, Flies &c Hirers	0	0	11	0	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Hosier and Glover	0	0	0	2	2	4	3	4
Hurdle and Fence Makers	0	0	0	1	1	1	1	1
Inns and Hotels	7	7	7	0	0	0	0	0
Iron and Brass Founders	5	0 ⁹	4	4	5	2	2	2
Iron Merchants	0	0	0	0	0	0	1	1
Ironmongers	6	10	9	6	6	7	9	8
Ironmongers - Wholesale	0	0	0	0	0	0	0	1
Jobbing Gardener	0	0	0	0	0	0	0	7
Job Master	0	0	0	1	1	0	3	3
Joiners - Manufacturing	0	0	0	0	0	0	1	1
Kiln Plate Maker	0	0	0	1	0	0	0	0
Land and Building Societies	0	0	0	0	0	0	3	2
Land Steward	0	0	0	0	0	0	3	4
Laundries	0	0	0	0	0	0	2	4
Law Stationers	0	1	1	0	0	0	0	0
Leather Cutter	0	0	0	2	0	1	1	1
Leather Merchant	0	0	0	2	2	0	0	1
Linen Draper	12	0	0	0	0	12	0	1
Linen Draper and Silk Mercer	0	15	0	0	0	0	0	0
Linen and Woollen Draper	0	0	16	0	0	0	0	0
Livery Stables	0	2	0	1	0	1	0	1
Locksmith and Bellhanger	3	9	7	0	0	0	1	1
Machinists	0	0	0	1	2	0	0	1
Maltster	13	8	7	9	13	5	4	4
Manchester Warehouse	0	0	0	0	0	1	1	0
Mantle Makers	0	0	0	1	0	0	0	0
Manure Manufacturers and Merchants	0	0	0	1	1	2	1	1
Marine Store Dealer	0	0	0	0	0	0	0	1
Market Gardener	0	0	0	5	7	3	6	6
Mealman	9	6	17	0	0	0	0	0
Measure Maker	0	0	0	0	1	0	0	0
Medieval Writer	0	0	0	0	1	0	0	0
Merchant (Chinese)	0	0	0	1	0	0	0	0
Midwife	2	0	2	0	0	0	0	3
Millers	12	7	11	8	9	10	0	1
Millers - Steam	0	0	0	0	0	0	1	0
Millers - Steam and Water	0	0	0	0	0	0	0	1
Millers - Water	0	0	0	0	0	0	8	6
Millers - Wind	0	0	0	0	0	0	1	0
Milliner	0	0	0	0	0	0	0	3
Milliners and Dressmakers	19	14	29	7	11	5	16	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

⁹ Robson's 1840 directory has no listing for Iron and Brass Founders. It is likely that the data collectors allocated them to different classifications. For example, James and Edward Plenty appear under the category of Agricultural Implement Makers rather than the broader Iron and Brass Founder.

Millwrights	3	2	1	3	5	2	1	0
Mop, Broom, Rake and Prong Manufacturer	0	0	0	0	0	0	0	3
Mop Handle Makers	0	0	0	5	5	3	3	0
Moulding Manufacturer	0	0	0	0	0	0	0	1
Mourning Warehouse	0	0	0	0	0	1	0	0
Music and Musical Instrument Seller	2	2	3	2	4	2	1	1
Newsagent	0	0	0	2	1	1	1	4
Newspaper	0	0	0	0	0	1	3	3
Newspaper Reporters	0	0	0	0	2	1	1	3
Nursery and Seedsmen	12	6	17	6	3	2	5	4
Oil and Colormen	1	3	0	0	1	1	1	0
Oil and Color Merchants	0	0	0	2	2	0	0	3
Oil Cake Manufacturer	0	0	0	1	1	0	0	0
Oil Cake Merchant	0	0	0	0	0	1	1	0
Oil Merchant	0	0	0	0	0	1	0	1
Oil Refiner	0	0	0	0	0	1	0	0
Optician	0	2	0	1	1	1	1	0
Outfitters	0	0	0	0	1	6	6	5
Outfitters - Ladies	0	0	0	0	0	1	0	0
Paint Dealer	0	0	0	1	0	0	0	0
Painter	0	0	0	4	0	0	0	0
Painter and Decorator	0	0	0	8	8	9	7	12
Painter and Glazer	0	0	0	0	0	0	3	2
Painter and Plumber	0	0	0	0	0	0	0	1
Painter, House, Sign &c	0	1	0	0	0	0	0	0
Paper Hangers	0	3	0	1	2	1	1	1
Paper Hanging Warehouse	0	0	0	1	1	0	0	0
Paper Manufacturers	1	0	1	2	2	1	1	1
Patent Medicine Dealer	0	0	1	0	0	0	1	0
Pattern Maker	0	0	0	0	0	0	0	1
Pawnbrokers	1	2	2	2	1	1	1	1
Perfumer	0	0	0	3	0	0	0	0
Photographer	0	0	0	1	1	1	3	4
Physician	0	3	3	4	4	2	3	
Physician and Surgeon	0	0	0	0	0	0	0	3
Pianoforte Tuner	1	0	0	0	0	0	0	1
Pianoforte Warehouse	0	0	0	1	2	0	1	1
Picture Frame Maker	0	0	0	1	1	0	0	3
Plasterer	1	0	0	0	1	1	1	1
Plumber	0	0	0	0	0	0	1	0
Plumber and Dealer in Game	0	0	0	2	0	0	0	0
Plumber and Glazier	0	0	0	14	5	5	5	6
Plumber, Painter and Glazier	11	11	15	0	0	0	0	0
Pork Butcher	0	1	0	5	6	4	6	7
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Potato Growers	0	0	0	0	0	0	0	1
Potato Merchants	0	0	0	0	0	2	1	1
Poulterer	1	3	2	0	2	1	3	5
Printers - Letter Press	4	4	5	0	4	3	6	4
Print Setter	0	0	0	0	1	0	0	0
Provision Dealer	0	0	0	15	2	7	3	5
Provision Merchant	0	0	0	0	16	0	0	0
Race Horse Trainer	0	0	0	0	6	4	3	5
Rag Merchant	1	0	0	3	1	1	0	0
Rake, Mop & Broom Manufacturer	1	0	2	2	2	2	2	0
Refreshment Room	0	0	0	0	0	0	0	2
Register Office for Servants	1	0	0	0	0	0	0	0
Rent and Debt Collector	0	0	0	0	0	0	0	1
Rickcloth Manufacturer	0	0	0	0	0	0	0	1
Ribbon Manufacturer	1	0	0	0	0	0	0	0
Rod Growers	0	0	0	0	1	0	0	0
Rod Merchants	0	0	0	1	0	0	0	0
Rope and Twine Maker	0	2	4	1	1	1	1	0
Sack Contractor	0	0	0	0	0	1	0	1
Sack and Sacking Manufacturer	1	1	2	0	0	0	0	0
Saddlers and Harness Makers	5	5	8	11	12	12	14	13
Salt Merchant	2	0	3	1	2	1	2	2
Salt and Slate Merchant	0	1	0	0	0	0	0	0
Sash and Window Glass Warehouse	1	0	0	0	0	0	0	0
Savings Bank	0	0	0	1	1	1	1	2
Saw Mills	0	0	0	1	1	0	0	0
Sawing, Planing and Moulding Mills	0	0	0	0	0	1	2	1
Sculptor	0	0	0	1	1	1	0	0
Seed Crusher	0	0	0	0	1	0	0	0
Seed Grower	0	0	0	1	1	0	1	0
Seed Merchant	0	0	0	0	3	0	0	0
Seedsman	0	1	3	2	0	3	3	2
Seed Measure Maker	0	0	0	0	0	1	1	1
Servants Registry Office	0	0	0	0	0	2	1	4
Sewing Machine Agents	0	0	0	0	0	1	1	2
Sewing Machine Manufacturers	0	0	0	0	0	0	1	0
Shawl and Mantle Maker	0	0	0	0	0	2	0	0
Sheep Dealer	0	0	0	0	0	0	0	1
Sheep Dipper	0	0	0	0	0	0	0	1
Shopkeepers	31	28	31	35	37	35	33	52
Silk Manufacturer	1	0	1	0	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Silk Mercer	0	0	0	3	4	2	1	0
Silk Throwsters	2	1	0	0	0	0	0	0
Silversmiths	0	0	0	0	1	0	0	0
Silversmith and Jeweller	0	4	0	3	4	0	2	5
Slate Merchants	0	0	0	0	1	1	1	1
Slop Seller	1	0	3	0	0	0	0	0
Snuff Manufacturers	0	0	0	0	0	0	1	0
Soda Water, Ginger Beer, & Mineral Water Manufacturers	0	0	0	0	2	1	1	0
Solicitor	10	12	0	10	10	12	13	12
Spring Maker	0	0	0	1	1	0	0	0
Stationer	0	0	0	7	9	2	6	6
Stay and Corset Makers	2	3	3	0	1	0	0	0
Stonemason	3	1	1	3	2	3	4	3
Straw Hat Makers	7	10	11	2	2	0	0	0
Surgeons	9	7	9	12	12	10	12	13
Surveyor	0	1	8	4	1	2	5	5
Tailors	19	14	24	14	15	14	23	22
Tallow Chandler	0	1	3	0	1	1	1	0
Tallow and Wax Chandler	0	3	0	0	0	0	0	0
Tanners	3	1	1	2	2	1	0	0
Taverns and Public Houses	57	50	65	78	84	84	91	89
Tea Dealer	0	0	5	0	0	0	0	1
Teachers of Music	0	0	0	0	0	0	0	4
Thatchers	0	0	0	0	0	1	0	0
Theatre	1	0	0	0	0	0	0	0
Timber Dealer	0	0	0	0	2	0	0	0
Timber Merchant	3	2	5	3	5	7	7	8
Timber Surveyor	0	0	0	0		1	1	1
Tobacconist	0	0	1	3	2	0	4	6
Tobacco Manufacturers	0	0	0	1	1	0	1	0
Toy Dealers	1	2	10	1	0	0	0	0
Tripe Dressers	0	0	0	1	1	0	0	0
Trunk and Box Maker	0	0	1	0	1	0	0	0
Umbrella Maker	1	1	1	0	0	0	0	0
Upholsterer	0	0	0	5	5	3	2	1
Varnish Merchant	0	0	0	1	1	0	0	0
Van and Cart Builder	0	0	0	0	0	0	1	1
Veterinary Surgeons	1	2	0	3	3	2	2	2
Watch and Clock Makers	5	5	5	5	6	9	12	9
Waterworks	0	0	0	0	0	0	1	1
Wardrobe Dealer	0	0	0	1	1	2	2	3
Wharfingers and Barge Owners	0	4	0	0	0	0	0	0
Wharfinger to the Kennet & Avon Canal Company	0	0	1	0	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Wheelwrights	5	4	12	14	15	9	12	10
Whip Maker	0	0	0	0	1	0	0	0
Whitesmith	0	0	0	1	1	0	0	0
Whiting Dealer	0	0	0	0	0	0	1	0
Whiting Manufacturer	0	0	0	1	1	0	1	1
Window Blind Manufacturer	0	0	0	1	1	0	0	0
Wine and Spirit Merchants	6	8	9	9	11	4	9	5
Wood Dealers	0	0	0	0	1	0	0	0
Woodturners	0	0	0	2	3	1	3	2
Woolcomber	1	0	0	0	0	0	0	0
Woollen Warehouses	0	0	0	0	0	1	1	1
Woolstapler	1	0	3	2	0	2	1	1
Worsted and Cotton Manufacturer	1	0	0	0	0	0	0	0
Writers and Grainers	0	0	0	1	0	0	0	0
<i>Total Number of Businesses</i>	<i>629</i>	<i>623</i>	<i>870</i>	<i>911</i>	<i>967</i>	<i>780</i>	<i>936</i>	<i>1033</i>

Appendix 5: Businesses in Wokingham by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	0	0	0	1	1	1	0
Antiques Dealer	0	0	0	0	0	0	0	1
Architect	1	0	0	0	0	0	0	3
Auctioneer and Estate Agent	1	3	2	3	1	2	3	3
Bailiff	0	0	0	0	0	0	0	1
Baker	11	10	12	10	13	11	7	6
Baker and Corn Merchant	0	0	0	0	0	0	0	2
Baker and Grocer	0	0	0	0	0	1	1	2
Bankers	1	2	2	1	2	3	4	2
Basket Makers	0	3	2	0	0	0	0	0
Beer Retailers	0	9	9	13	0	3	4	0
Bill Poster	0	0	0	0	0	0	0	1
Blacksmith	3	3	7	4	3	1	3	3
Bookseller and Stationer	2	1	0	1	1	1	1	1
Brazier and Tinman	2	1	3	1	1	1	1	0
Brewery	2	2	3	2	2	1	2	3
Brick, Drain, Sanitary Pipe and Tile Maker	0	1	4	2	1	1	0	0
Bricklayer and Plasterer	4	4	7	4	2	1	2	2
British Wine Depot	0	1	0	0	0	0	0	0
Builder	0	2	0	5	3	1	4	5
Butcher	7	6	8	5	6	4	7	7
Butcher (Pork)	0	0	0	0	0	0	1	0
Cabinet Maker and Upholsterer	2	1	2	1	0	2	2	0
Carpenter	6	3	5	1	2	4	4	1
Carpenter and Undertaker	3	0	0	0	0	0	0	2
Carman	0	0	0	0	0	1	0	0
Carrier	2	2	2	1	1	1	1	1
Cattle Dealer	0	0	1	0	0	0	1	1
Chemist	0	0	0	0	0	1	0	2
Chemist and Druggist	2	3	2	2	2	1	2	1
Chimney Sweep	0	0	0	2	2	2	1	2

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 21-22.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 55-59.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 66-68.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 686-688.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 744-746.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 665-668.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 205-209.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 534-538.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Civil Engineer	0	0	1	0	0	0	0	0
Clothier	2	1	1	0	0	0	1	1
Coach Builder	0	0	0	1	2	1	1	1
Coal Merchant	0	2	0 ⁹	3	3	3	4	1
Coal, Corn, Hay and Straw Merchant	0	0	0	1	1	0	0	2
Cobbler	17	16	14	6	4	8	6	8
Coffee Tavern	0	0	0	0	1	0	1	1
Confectioner	1	0	0	0	0	0	0	0
Cooper	3	2	2	0	0	0	0	0
Cooper and Basket Maker	0	0	0	1	1	1	1	1
Corn Dealers	3	5	4	1	1	1	1	0
Corn, Hay and Straw Merchant	0	0	0	0	0	0	0	3
Cricketing Outfitter	0	0	0	0	0	0	0	1
Cutler	0	0	0	0	0	0	1	0
Cycle Manufacturer	0	0	0	0	0	0	0	1
Dairyman	0	0	0	0	0	0	0	1
Draper	0	2	0	1	2	1	0	1
Dressmaker	3	0	0	3	0	0	0	0
Drill Instructor	0	0	0	0	0	0	0	1
Dyer and Scourer	1	0	0	0	0	0	0	0
Fancy Repository	0	0	0	0	0	0	1	0
Farmer	0	0	0	22	18	16	14	3
Farmer's Brokers	0	3	0	0	0	0	0	0
Farrier and Smith	0	0	0	0	0	0	0	1
Fellmonger	0	1	0	1	1	1	1	0
Fish, Poultry and Fruit Dealer	0	0	0	0	0	0	0	1
Fishmonger	1	1	3	1	1	2	0	1
Fly Proprietor	0	0	0	0	0	0	1	0
Fruiterer	0	0	1	1	2	1	1	0
Furniture Dealers	0	0	0	1	1	4	2	3
Furniture Dealers (Antique)	0	0	0	0	0	0	1	1
Furniture Warehouse	0	0	0	0	0	0	0	1
Game Dealer	0	1	0	0	0	0	0	0
Gardener	0	0	0	0	0	2	2	1
Gasfitter	0	0	0	0	0	0	0	1
Ginger Beer and Soda Water Manufacturer	0	0	0	0	0	2	1	1
Glass and China Warehouse and Dealers	3	2	2	2	2	2	2	1
Glass and China Warehouse and General Stores	0	0	0	0	0	0	0	1
Glove and Gaiter Maker	1	0	0	0	0	0	0	0

⁹ Slaters directory for 1850 contains no listing for coal merchants. Slater's 1852 directory also contains no listings in this category.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Greengrocer	0	0	0	0	0	3	4	1
Grocer	6	11	22	12	11	13	18	13
Grocer and Bacon Curer	0	0	0	0	0	0	0	1
Grocer and Draper	0	0	0	0	1	1	1	1
Gunmaker	0	1	1	1	1	1	1	0
Hairdresser	1	2	2	2	2	2	2	2
Hatter	3	0	0	0	0	0	0	0
Hat Manufacturer	2	0	0	0	0	0	0	0
Hay and Straw Merchant	0	0	0	0	0	0	1	0
Hotel	3	0	0	2	2	2	3	3
House and Estate Agent	0	0	0	0	0	0	1	2
Household Removers	0	0	0	0	0	0	0	1
Ironmonger	1	1	2	1	0	1	2	4
Italian Warehouse	0	1	0	0	0	0	0	0
Job and Postmaster	0	0	0	0	0	0	0	1
Land Measurer	0	0	0	0	0	0	0	1
Laundress	0	0	0	2	1	1	3	1
Leather Cutters	3	4	2	1	1	0	0	0
Licensed Victualler	0	0	0	0	0	0	0	12
Linen, Silk and Woollen Drapers, Tailors and Outfitters, Millinery and Dress Makers	2	1	2	1	1	1	1	1
Mangle & Bassinette Merchant	0	0	0	0	0	0	0	1
Marine Store Dealer	0	1	0	1	0	1	0	0
Merchant	0	3	0	0	0	0	0	0
Millers	0	0	2	0	0	0	0	0
Milliner	0	4	8	0	0	0	0	0
Music Seller and Teacher	0	0	0	0	0	0	1	1
Oil Colourman and Ironmonger	0	0	0	0	0	1	1	1
Omnicycle Tricycle Manufacturer	0	0	0	0	0	0	1	0
Paper and Parchment Manufacturer	0	1	1	1	1	1	1	0
Photographer	0	0	0	0	0	0	1	1
Photographer and Hairdresser	0	0	0	0	0	0	0	1
Picture Frame Maker	0	0	0	0	0	0	0	1
Plumber	0	0	0	0	3	1	0	3
Plumber, Painters and Glaziers	4	4	4	4	0	2	2	0
Plumber, Painter and House Decorator	0	0	0	0	0	0	2	1
Poulterer	0	3	3	3	0	1	1	1
Poulterer and Greengrocer	0	0	0	0	0	0	0	1
Printer and Stationer	0	1	1	1	1	1	1	1
Professor of Music	0	0	0	0	0	0	0	1
Public House	12	18	23	19	27	37	35	14
Saddler	2	2	1	3	3	2	2	2

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Sauce Manufacturer	0	0	0	0	0	0	1	1
Sawyer	1	0	0	0	0	0	0	0
School	5	11	9	5	4	5	3	4
Schoolmaster	0	0	0	0	0	0	0	2
Schoolmistress	0	0	0	0	0	0	0	1
Seedsman	2	2	0	1	1	1	1	1
Servants Registry Office	0	0	0	0	0	0	0	1
Shopkeepers	7	10	0	6	5	2	5	0
Silk Throwster	1	0	0	0	0	0	0	0
Solicitor	0	5	5	3	4	6	6	4
Station Master	0	0	0	0	0	0	0	1
Stationer	0	1	0	1	1	2	2	1
Staymaker	1	1	1	0	0	0	0	0
Stone Mason	0	1	1	1	1	1	1	1
Straw Bonnet Maker	3	3	3	1	0	0	0	0
Surveyor	0	0	0	1	0	0	1	0
Tailor	3	3	6	3	3	5	3	4
Tanner	1	0	1	0	0	0	0	1
Tea Dealer	0	0	3	0	0	0	0	2
Timber Merchant, Steam Saw Mill, Brickmaker	0	0	0	0	0	0	1	1
Timber & English Fir Stave Merchant, Saw and Flour Mills, Brick Maker & Dealer in Building Materials	0	0	0	1	1	1	1	0
Tobacconist	0	0	0	1	2	1	0	1
Toy Warehouse	0	2	2	1	0	0	0	0
Umbrella and Parasol Maker	0	2	1	1	1	0	0	0
Upholsterer	0	0	0	0	2	0	0	1
Van Proprietor	0	0	0	0	1	0	0	0
Watch and Clock Maker	2	2	2	2	2	3	2	1
Wheelwright	2	4	5	1	0	0	2	1
Wine and Spirit Merchant	2	0	3	3	1	2	2	2
Wood Turner	1	0	0	0	0	0	0	0
Wool and General Merchant	0	0	0	1	0	0	0	0
Woolstaplers	2	2	3	0	0	1	0	0
Total number of Businesses	156	200	218	190	166	191	209	196

Appendix 6: Businesses in Windsor by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	1	0	1	1	2	3	2
Agent for Brewer	0	0	0	0	0	0	0	1
Agents - Canal	0	0	0	2	0	0	0	0
Agents - Colliery	0	0	0	0	0	1	1	0
Agents - Commission	0	0	0	1	3	1	1	0
Agent for the Great Western Railway Company	0	0	0	1	0	0	2	0
Ale and Porter Merchants	0	0	0	1	2	1	0	0
Antiquities Dealers	0	0	0	0	0	0	0	1
Architect	0	0	0	1	1	4	6	4
Army Contractor	0	0	0	0	1	0	0	0
Artist	2	1	2	2	0	4	2	1
Artist in Stained Glass	0	0	0	0	0	0	1	0
Auctioneers	0	0	0	0	4	4	9	6
Auctioneer and Valuer	0	4	8	1	1	0	2	1
Auctioneers, Appraisers and Estate Agents	4	0	0	0	0	0	0	0
Baby Linen Warehouse	0	0	0	0	0	1	0	0
Bakers	19	24	33	34	27	27	31	27
Banks	2	2	3	2	2	2	2	1
Barge Master	4	2	4	0	0	0	0	0
Basket and Sieve Maker	0	0	1	1	1	1	2	2
Bath Chair Makers	0	0	0	0	0	0	0	1
Bath Proprietors	0	0	0	0	1	0	0	1
Beer Retailers	0	29	44	49	60	50	46	54
Berlin Wool Repository	0	0	0	1	0	1	1	1
Bicycle and Tricycle Manufacturer	0	0	0	0	0	0	2	0
Bill Poster	0	0	0	1	0	0	0	0
Bird & Animal Preservers	0	0	0	1	1	0	0	0
Blacksmiths and Farriers	2	2	9	8	10	6	9	10
Boarding Houses	0	0	0	18	2	1	8	0

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 36-40.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 6-16.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 55-62.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 677-685.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 734-742.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 652-662.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 186-203.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 240-257.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Boat Builder	0	0	0	0	0	0	2	3
Boat Owner	0	0	0	0	0	1	0	0
Bookbinders	0	0	0	0	0	1	0	0
Bookseller	0	0	0	4	6	5	4	5
Booksellers and Stationers	4	5	3	0	0	0	0	0
Boot and Shoe Retailer	0	1	0	0	0	0	0	1
Brass Finisher	0	0	0	0	1	1	0	0
Brazier and Tinman	1	4	0	3	2	0	2	2
Brewers	3	6	5	3	4	3	4	5
Bricklayers	0	0	0	3	2	5	4	1
Bricklayers and Plasterers	8	4	5	0	0	0	0	0
Brick Makers	1	0	1	0	0	1	1	0
Brush Makers	0	0	0	1	1	2	0	0
Builders	5	11	8	9	7	14	15	22
Builders Merchant	0	0	0	0	0	3	0	0
Butchers	16	14	20	16	20	18	19	20
Butter Merchants	0	0	0	0	1	1	0	0
Button and Trimming Dealer	0	1	1	0	0	0	0	0
Cabinet Maker	0	0	0	0	6	5	3	3
Cabinet Makers and Upholsterers	6	3	12	2	0	0	0	0
Cab Proprietor	0	0	0	0	0	1	0	1
Carman	1	1	9	6	3	3	1	3
Carpenters and Joiners	7	7	9	10	11	13	11	13
Carpet Factor	0	0	0	1	0	0	0	0
Carriers	0	3	0	0	0	0	2	2
Carvers and Gilders	2	2	2	2	3	1	3	2
Cattle Dealer	0	0	0	0	1	1	0	1
Cement Merchant	0	0	0	1	0	0	0	0
Cheese, Butter and Bacon Factors	0	1	0	0	0	0	0	0
Cheese Mongers	0	3	0	2	0	2	0	0
Cheese Mongers and Bacon Dealers	2	0	2	0	0	0	0	0
Chemists and Druggists	3	4	4	5	5	5	3	6
Chimney Sweep	0	3	0	3	2	0	3	6
China and Glass Mender	1	0	0	0	0	0	0	0
China and Glass Rivetter	0	0	0	0	0	0	1	1
China, Glass and Earthenware Warehouses	3	3	3	3	4	6	4	5
Chiropodists	0	0	0	0	0	1	0	0
Cigar Importer	0	0	0	0	0	0	0	1
Clothier	0	1	5	0	0	3	7	3
Coach and Omnibus Proprietor	0	3	0	0	0	0	0	0
Coach Broker	0	0	0	1	0	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Coach Builder	2	4	4	1	3	4	5	5
Coach Smith	0	0	0	0	1	0	0	0
Coal Merchants	11	7	13	11	8	9	3	7
Coal and Coke Merchant	0	0	0	0	0	0	6	7
Coal and Timber Merchants	1	0	0	0	0	0	0	0
Cobblers	20	29	35	32	26	20	26	36
Coffee Rooms and Eating Houses	0	6	6	1	3	2	6	3
Coffee Taverns	0	0	0	0	0	0	1	3
Commercial Traveller	0	0	0	0	0	0	0	1
Confectioners and Pastry Cooks	3	3	6	9	7	10	11	15
Contractor	0	0	0	4	4	4	5	3
Conveyancer	1	1	0	0	0	0	0	0
Convalescent Homes	0	0	0	0	0	0	0	2
Cooperative Stores	0	0	0	0	1	0	0	2
Coopers	3	2	3	2	4	3	1	1
Copperplate Engraver	0	1	0	0	0	0	0	0
Coppersmith and Brazier	3	0	3	0	1	1	0	3
Cork Manufacturer	0	1	1	1	1	1	1	1
Corn Merchants and Dealers	6	9	8	1	4	6	2	5
Corn and Flour Dealer	0	0	0	3	6	1	5	5
Costume Makers	0	0	0	0	0	0	2	1
Cricket Bat Manufacturers	0	0	0	1	1	0	0	0
Currier	0	2	3	4	3	2	1	0
Cutler	0	1	1	3	2	3	3	3
Cycle Manufacturer	0	0	0	0	0	0	0	1
Dairyman	0	2	0	2	6	7	5	11
Dental Surgeon	0	0	0	0	0	0	2	0
Dentist	0	1	1	1	1	3	3	4
Desk Apparatus Manufacturer	0	0	0	2	0	0	0	0
Dining Rooms	0	0	0	3	5	5	4	2
Draper	0	3	0	14	15	7	6	10
Dressmaker	10	0	0	0	0	0	0	29
Dyer and Scourer	3	3	2	4	2	3	3	4
Edge Tool Maker	0	0	0	1	0	0	0	0
Edge Tool Dealer	0	0	0	0	1	0	0	0
Egg Merchant	0	0	0	0	0	1	0	0
Electric Bell Fitter	0	0	0	0	0	0	1	0
Electroplated Goods Manufacturer	0	0	0	0	1	0	0	0
Embroidress	0	0	0	0	0	1	0	0
Engineer - Electrical	0	0	0	0	0	0	0	1
Engineers - Hot Water	0	0	0	0	0	0	0	1
Engineer - Mechanical	0	0	0	0	0	0	0	1
Engraver	0	1	0	0	0	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Entomologist	0	0	0	0	0	0	0	1
Estate Agent	0	2	0	4	5	3	5	3
Fancy Repository	0	0	0	5	5	3	5	8
Firewood Dealers	0	0	0	3	0	0	0	1
Fishmongers	3	4	4	6	3	4	8	5
Florist	0	0	0	1	2	2	1	5
Fly Proprietor	0	0	0	0	0	8	0	0
French Polisher	0	0	1	0	1	2	2	1
Funeral Furnishers	0	0	0	0	0	0	1	0
Furniture Brokers	4	3	6	4	3	5	5	3
Furniture Removers and Depositories	0	0	0	0	0	0	0	1
Furrier	0	0	1	1	0	0	0	0
Gamekeepers	0	0	0	0	0	0	0	1
Gardener	1	0	0	0	0	0	2	3
Gas, Light and Coke Company	0	0	0	0	1	1	1	1
Gas Fitter	0	0	0	1	0	1	2	4
General Merchants	0	0	0	0	0	0	0	1
Glass Cutters	0	0	1	0	0	0	0	0
Glass Shade Warehouses	0	0	0	2	0	0	0	0
Greengrocers and Fruiterers	2	10	13	8	10	14	23	18
Grocers and Tea Dealers	16	23	20	28	30	36	33	26
Gun Smith	2	1	1	1	1	1	0	1
Haberdasher	4	1	4	2	4	2	1	0
Haberdasher and Silk Mercer	1	0	0	0	0	0	0	0
Habit Maker	0	0	0	1	0	0	0	0
Hairdressers	0	0	0	8	8	8	8	10
Hairdressers and Perfumers	7	7	11	0	0	0	0	0
Hardware Dealer	0	1	4	0	0	0	0	0
Hat Manufacturer	1	4	4	3	0	0	0	1
Hatter	0	0	0	0	5	1	1	0
Hatter and Clothes Dealer	1	0	0	0	0	0	0	0
Hatter, Hosier and Glover	2	0	0	0	0	0	0	0
Hauliers	0	0	0	0	0	0	0	1
Hay and Straw Dealers	0	0	0	0	1	0	0	0
Homes	0	0	0	0	0	0	0	2
Horse Breaker	0	0	0	0	0	1	0	0
Horse Dealer	0	0	1	0	0	0	0	2
Hosier and Glover	0	2	0	4	0	4	4	5
Hotel	0	6	0	0	0	0	0	0
Hot Water Fitter	0	0	0	0	0	0	0	1
Hot Water Fittings Manufacturer	0	0	0	0	0	0	1	0
Inns and Hotels	5	0	6	0	0	0	0	0
Italian Warehouse	0	0	0	0	1	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Iron Fence, Grate and Hurdle Makers	0	0	0	0	0	0	0	1
Iron Plate Workers	0	0	0	0	0	0	0	1
Ironmongers	4	4	6	6	7	5	7	4
Jobbing Gardener	0	0	0	3	0	0	0	1
Job Master	0	0	0	0	10	0	10	9
Joiners - Manufacturing	0	0	0	0	0	0	1	0
Lace Cleaner	0	0	0	0	0	0	0	1
Lacemaker	0	0	0	0	0	0	0	1
Land Agent	0	0	3	0	0	0	0	0
Land and Building Societies	0	0	0	0	0	0	3	3
Landscape Gardeners	0	0	0	0	0	0	0	1
Land Steward	0	0	0	0	0	0	1	2
Laundries	0	0	0	0	0	2	4	10
Law Stationers	0	1	1	0	0	0	0	0
Leather Cutter	2	0	0	0	0	0	0	0
Leather Seller	0	0	0	0	0	0	0	1
Linen Draper	0	0	0	0	0	11	5	6
Linen Draper and Haberdasher	8	0	8	0	0	0	0	0
Linen Draper and Silk Mercer	0	7	0	0	0	0	0	0
Livery Stables	0	3	0	0	0	2	3	2
Locksmith and Bellhanger	0	4	0	0	0	2	3	4
Looking Glass Manufacturer	0	0	0	1	0	0	0	0
Machinists	0	0	0	0	0	0	1	1
Maltster	4	4	2	1	0	2	1	1
Mantle Makers	0	0	0	0	0	0	0	1
Marine Store Dealer	0	6	4	2	5	1	2	1
Market Gardener	0	0	0	3	1	1	1	0
Metal Merchant	0	0	0	1	0	0	0	0
Midwife	0	2	0	0	0	0	0	3
Millers	1	0	1	1	1	1	1	
Millers - Water	0	0	0	0	0	0	0	1
Milliner	6	0	0	0	0	0	0	4
Milliners and Dressmakers	0	8	27	18	5	10	6	0
Mourning Warehouse	0	0	0	1	0	0	0	0
Musical Instrument Manufacturer & Agent	0	0	0	0	0	0	0	1
Music and Musical Instrument Warehouse	0	0	0	1	0	2	1	0
Music Sellers	0	0	1	0	0	0	0	0
Newsagent	0	1	1	2	3	3	3	6
Newspaper	1	1	1	2	2	2	2	2
Nursery and Seedsmen	1	1	0	2	2	1	0	3
Oil and Colormen	2	3	5	2	2	3	3	0
Oil and Color Merchants	0	0	0	0	0	0	0	3

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Oilman	0	0	0	1	0	0	0	0
Oil and Italian Dealer	0	3	0	0	0	0	0	0
Optician	0	0	0	1	1	1	1	0
Organ Tuners	0	0	0	0	0	0	0	1
Outfitters	0	0	0	0	3	2	1	
Outfitters - Ladies	0	0	0	0	0	0	1	3
Painter and Decorator	0	0	0	6	7	3	5	7
Painter and Glazier	0	0	0	0	0	0	1	1
Paper Hangers	0	2	0	5	2	0	1	2
Pawnbrokers	1	1	2	1	2	2	2	2
Perfumer	0	3	0	1	1	0	0	0
Pharmaceutical Chemist	0	0	0	0	0	2	3	0
Photographer	0	0	0	0	4	4	3	4
Physician	2	2	0	1	1	2	0	0
Pianoforte Tuner	0	0	0	0	0	1	1	2
Pianoforte Warehouse	0	0	0	1	2	2	1	1
Picture and Lookingglass Manufacturer	0	0	0	0	0	0	3	0
Picture Frame Maker	0	0	0	2	2	2	0	2
Plasterer	0	0	0	0	1	0	1	1
Plumber and Glazier	0	0	0	7	7	13	10	10
Plumber and Painter	0	0	7	0	0	0	0	0
Plumber, Painter and Glazier	7	6	0	0	0	0	0	0
Pork Butcher	0	3	0	2	2	4	2	1
Poulterer	1	0	0	0	0	4	2	2
Poulterers and Dealers in Game	0	3	3	2	3	0	0	0
Printers	3	5	4	3	7	8	3	4
Professional Cricketer	0	0	0	0	0	0	1	0
Provision Dealers	0	0	0	1	3	2	3	0
Race Horse Breeder	0	0	0	0	1	0	0	0
Racket Court Proprietor	0	0	0	0	1	0	0	0
Rag Merchants	0	0	0	1	0	0	0	0
Refreshment Room	0	0	0	0	0	2	2	6
Rope Maker	1	1	0	0	0	0	0	0
Saddlers and Harness Makers	5	5	4	5	8	6	6	7
Sauce Manufacturers	0	0	0	0	1	0	0	0
Savings Banks	0	0	0	1	0	0	0	0
Saw Makers	0	0	0	0	0	0	0	1
Sawing, Planing and Moulding Mills	0	0	0	0	0	0	1	0
Scale and Weight Makers	0	0	0	1	1	0	1	1
School Desk Manufacturer	0	0	0	0	1	0	0	0
Sculptors	0	0	0	0	0	0	0	1
Seed Merchants	0	0	0	0	0	2	0	0
Servants Registry Office	0	0	0	0	0	1	0	1

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Sewing Machine Agents	0	0	0	0	0	1	1	0
Sewing Machine Manufacturer	0	0	0	0	0	1	0	0
Shawl and Mantle Warehouse	0	0	0	2	0	0	0	0
Shopkeepers	12	19	36	29	27	22	24	40
Sieve Manufacturers	0	0	0	1	0	0	0	0
Silk Mercer	1	0	0	3	2	1	1	1
Silk Mercer and Glover	1	0	0	0	0	0	0	0
Silversmith	0	0	0	0	1	0	0	0
Silversmith and Jeweller	4	8	3	3	4	2	2	3
Slate Merchants	0	0	0	0	1	0	1	0
Soap Warehouse	0	0	0	1	0	0	0	0
Soda Water, Ginger Beer & Mineral Water Manufacturers	0	0	0	0	1	2	1	2
Solicitor	7	9	0	10	9	13	15	16
Spirit Merchants	2	0	0	0	0	0	0	0
Stained Glass Manufacturer	0	0	0	0	0	0	0	1
Stationer	0	0	4	6	2	13	6	8
Stay and Corset Makers	2	4	2	2	0	1	1	0
Stay , Corset and Dress Maker	1	0	0	0	0	0	0	0
Steam Launch Proprietor	0	0	0	0	0	0	0	2
Stone Engraver	0	0	0	1	0	0	0	0
Stonemason	2	3	1	3	3	1	1	1
Stone Merchant	0	0	0	0	0	1	0	0
Straw Hat Makers	4	11	10	2	0	0	0	0
Surgeons	6	9	11	11	10	10	11	14
Surveyor	0	2	4	6	3	6	5	2
Tailors	16	14	14	14	14	16	19	17
Tailors and Drapers	4	9	3	0	0	0	0	0
Tallow and Wax Chandler	0	3	0	0	2	1	0	0
Tanners	0	0	0	0	1	0	0	0
Tapestry Manufacturer	0	0	0	0	0	0	1	0
Taverns and Public Houses	30	38	42	51	65	70	67	66
Teachers of Drill	0	0	0	0	0	0	0	1
Teachers of Music	0	0	0	0	0	0	0	4
Tea Dealer	2	0	0	0	0	0	0	1
Temperance Hotels	0	0	0	0	0	0	1	0
Theatre	0	0	0	0	0	1	1	1
Timber Dealers	0	0	0	0	1	0	0	0
Timber Merchant	0	1	6	3	2	2	2	2
Timber Surveyors and Valuers	0	0	0	2	1	0	0	0
Tin and Zinc Plate Worker	0	3	0	0	0	0	0	0
Tobacconist	3	8	4	9	10	0	14	13
Toy Dealers	0	5	0	2	3	0	1	0
Toy Dealers and Perfumers	2	0	2	0	0	0	0	0
Trade Protection Societies	0	0	0	0	0	0	0	1

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Tripe Dressers	0	0	0	0	0	0	0	1
Umbrella Maker	0	1	0	0	0	1	0	1
Upholsterer	0	0	0	3	5	2	4	9
Van and Cart Makers	0	0	0	0	0	0	0	1
Veterinary Surgeons	4	3	2	2	2	3	2	2
Watch and Clock Makers	3	7	9	4	9	11	8	8
Wardrobe Dealer	0	0	0	0	1	0	0	2
Waterworks	0	0	0	0	0	0	0	1
Well Sinker	0	0	0	0	1	0	0	0
Wheelwrights	3	4	10	5	5	6	0	8
Whip Maker	1	0	0	0	0	0	0	0
Whitesmith	0	0	1	2	1	0	0	0
Wig Maker	0	0	0	1	0	0	0	0
Window Blind Manufacturer	0	0	0	0	0	0	0	1
Wine Bottler	1	0	0	0	0	0	0	0
Wine and Spirit Merchants	0	5	3	4	7	3	4	5
Wire Fencing Manufacturer	0	0	0	1	0	0	0	0
Wood Carvers	0	0	0	0	0	0	1	0
Wood Dealers	0	0	0	0	1	0	0	0
Woolstaplers	0	0	0	0	3	0	0	0
Woodturners	2	2	3	2	0	1	1	1
Writer on Glass	0	0	0	0	1	0	0	0
Writers and Grainers	0	0	0	0	0	0	2	2
Zinc Workers	0	0	0	1	0	0	0	2
<i>Total Number of Businesses</i>	<i>368</i>	<i>530</i>	<i>604</i>	<i>647</i>	<i>671</i>	<i>680</i>	<i>716</i>	<i>856</i>

Appendix 7: Businesses in Abingdon by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountants	0	0	1	1	0	0	1	1
Agents	3	0	0	0	0	0	0	0
Ale, Porter and Hop Merchant	0	0	0	1	0	0	0	0
Architect and Surveyor	0	0	0	0	1	1	3	2
Artificial Teeth Manufacturer	0	0	0	0	0	0	0	1
Artists	0	0	1	0	0	0	0	0
Artists Colorman	0	0	0	0	0	0	0	1
Auctioneer and Estate Agent	0	0	0	0	0	0	1	0
Auctioneer Valuer and Estate Agent	0	0	0	0	0	0	1	1
Auctioneers	4	3	3	3	2	2	1	2
Bacon Curer	1	0	0	0	0	0	0	0
Bacon Factor	0	3	0	0	0	0	0	0
Baker and Confectioner	0	0	0	5	3	3	1	3
Baker and Grocer	0	0	0	0	0	0	3	2
Baker and Mealman	0	0	0	0	0	0	1	0
Baker and Public House	0	0	0	1	0	0	0	0
Baker of Fancy Bread and Biscuits	0	0	0	0	0	0	1	0
Bakers	18	15	28	9	11	12	5	8
Banks	1	1	3	2	2	2	3	3
Basket and Sieve Maker	0	0	0	1	0	0	2	0
Basket Maker and Cooper	0	0	0	0	0	1	0	0
Basket Makers	4	2	3	2	1	0	0	3
Beer Retailer and Coal Dealer	0	0	0	1	0	0	0	0
Beer Retailers	0	33	19	21	18	10	8	10
Berlin wool, Baby Linen and Ladies Underclothes Dealer	0	0	0	0	0	0	1	1
Bill Poster	0	0	0	0	0	0	0	2
Birmingham and Sheffield Warehouses	0	2	0	0	1	1	0	0
Blacksmiths and Farriers	9	5	10	4	2	2	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 2-5.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 23-26.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 4-7.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 582-585.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 625-630.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 525-531.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 10-21.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 13-24.

Boat and Barge Builder	0	0	0	2	1	1	0	1
Bookseller, Stationer, Music Seller and Fancy Goods Dealer	0	0	0	0	0	0	1	0
Booksellers and Stationers	4	2	5	2	6	2	0	0
Boot and Shoe Warehouse	0	0	0	0	0	0	4	0
Brass and Iron Founders	3	0	0	0	0	0	0	0
Brewer and Maltster	0	0	0	0	0	3	0	0
Breweries	5	3	5	4	5	4	4	1
Brewers Traveller	0	0	0	0	0	0	0	1
Brick, Tile and Pipe Maker	0	0	2	3	2	0	0	0
Bricklayers	5	0	6	0	0	1	0	3
Builder and Carpenter	0	0	0	2	0	0	0	1
Builder and Contractor	0	0	0	1	1	0	0	0
Builder and Surveyor	0	0	0	1	0	0	0	0
Builder, Timber Merchant and Surveyor	0	0	0	1	0	0	0	0
Builders	0	3	0 ⁹	5	8	5	4	6
Builders and Farmers Merchant	0	0	0	0	0	0	0	1
Butcher and Matting Manufacturer	0	0	0	0	0	0	1	0
Butchers	10	6	9	12	9	12	6	8
Cabinet Maker	0	0	0	0	0	3	4	6
Cabinet Makers and Upholsterer	0	4	4	5	4	1	2	0
Carpenter and Builder	0	0	0	0	0	0	1	0
Carpenters	3	3	16	2	1	2	6	3
Carpet and Rug Manufacturer	1	21	1	1	0	0	0	0
Carpet Slipper Maker	0	0	0	0	0	0	2	1
Carpet Warehouse	0	0	0	0	0	1	0	0
Carpet, Rug and Matting Manufacturer	0	0	0	0	0	0	0	1
Carrier and Furniture Van Proprietor	0	0	0	0	0	0	1	0
Carriers	0	39	0	0	1	1	1	1
Cheesemongers	2	0	1	0	0	0	0	0
Chemists and Druggists	4	4	7	3	4	3	3	1
Chimney Sweep	0	0	0	1	2	2	4	3
China, Glass and Earthenware Dealer	1	3	4	3	2	2	3	1
Civil Engineer	0	0	0	0	0	0	1	0
Cloth Manufacturers	0	2	2	2	1	1	1	1
Clothes and Shoe Dealers	0	0	0	1	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

⁹ Slater's 1850 directory has no listings for builders, which suggests, given the number of bricklayers listed, either that the directory compilers had not counted that trade, the omission is an error in the printed directory, or most likely, that the data collectors listed builders as bricklayers for this year.

Clothes Dealers	3	4	2	1	0	0	0	0
Coach Builders	0	2	3	2	2	2	3	1
Coach Smith	0	0	0	1	1	1	0	0
Coach Trimmer and Harness Maker	0	0	0	1	0	0	0	0
Coal and Salt Merchant	0	0	0	0	0	0	0	1
Coal and Slate Merchant	0	0	0	0	0	0	0	1
Coal and Wood Dealer	0	0	0	0	0	0	1	2
Coal Merchant, Maltster, Brewer and Hop Dealer	0	0	0	1	0	0	0	0
Coal Merchants	6	8	14	3	0	0	2	0
Coal, Iron and Slate Merchant	0	0	0	2	2	3	1	2
Cobbler and Clothier	0	0	0	1	0	0	0	0
Cobblers	19	16	21	14	15	22	15	17
Cocoa Matting, Rope and Twine Manufacturer	0	0	0	1	0	0	0	0
Coffee and Chop House	0	0	0	1	0	0	0	0
Commercial Traveller	0	0	0	1	2	3	1	2
Confectioner and Fruiterer	0	0	0	1	0	0	1	1
Confectioner, Fishmonger & Fruiterer, Poulterer & Game Dealer	0	0	0	1	0	0	0	0
Confectioners	2	2	5	4	3	1	3	2
Cooper	1	2	2	0	0	0	1	1
Copper and Wood Turner	0	0	0	1	0	0	0	0
Coppersmith and Brazier	1	0	0	0	0	0	0	0
Corn and Seed Merchant	0	0	0	0	0	0	1	0
Corn Dealer and Confectioner	0	0	0	1	0	0	0	0
Corn Dealers	8	4	9	1	1	1	0	1
Corn, Hay and Straw Dealer	0	0	0	1	0	0	0	0
Cow Keeper and Coal Merchant	1	0	0	0	0	0	0	0
Cricket and Athletic Outfitter	0	0	0	0	0	0	0	1
Curriers and Leather Cutters	0	5	0	0	0	0	0	0
Curriers and Leather Cutters	3	0	2	1	1	1	0	0
Cutler and Tinman	0	0	0	1	1	0	1	1
Dairy	0	0	0	0	0	1	2	1
Dairymen	0	0	0	2	1	1	3	5
Dealer in Antiques	0	0	0	0	0	0	1	0
Dealer in Fishing Tackle	0	0	1	0	0	0	0	0
Dentist	0	0	0	0	0	0	1	1
Dining Rooms	0	0	0	0	0	0	0	1
Draper	0	0	0	0	0	1	2	10
Draper and Haberdasher	0	0	0	0	0	1	0	0
Draper and Milliner	0	0	0	0	0	0	2	0
Draper and Upholsterer	0	0	0	0	0	0	1	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Draper, Silk Mercer, Hosier, Haberdasher and Upholsterer	0	0	0	0	2	1	2	0
Dressmaker	0	0	0	1	0	3	10	9
Drill Instructor	0	0	0	0	0	1	2	1
Dyer	0	1	3	2	2	2	0	0
Eating Houses	0	2	2	0	0	0	0	0
Engineer	0	0	0	0	0	0	2	1
Engineer and Boilermaker	0	0	0	0	0	0	1	0
Engineer and Launch Builder	0	0	0	0	0	0	0	1
Engineer and Millwright	0	0	0	1	1	1	0	0
Engineer, Millwright and Brass Founder	0	0	0	0	0	0	0	1
Estate Agent	0	0	0	0	1	0	0	0
Fancy and Berlin Repository	0	1	1	4	1	3	1	2
Fellmonger	0	0	0	0	0	0	1	1
Fellmonger and Parchment Maker	1	2	1	1	0	0	0	0
Fishing Tackle Manufacturer	0	0	0	1	0	0	1	0
Fishmonger and Fruiterer	0	0	0	1	0	0	0	0
Fishmonger, Poulterer and Game Dealer	0	0	0	1	0	0	0	0
Fishmongers	3	1	0	0	0	1	3	2
Fishmonger and Poulterer	0	0	0	0	2	1	0	1
Florist	0	0	0	0	1	0	0	0
Fruiterer	1	1	1	1	2	3	1	1
Fruiterer and Greengrocer	0	0	0	0	0	0	0	1
Fruiterer and Sugar Boiler	0	0	0	1	0	0	0	0
Fruiterer and Tobacconists	0	0	0	1	0	0	0	0
Furniture Broker and Appraiser	1	4	4	0	0	0	0	0
Furniture Dealer	0	0	0	1	2	2	1	2
Gardener	0	0	0	2	0	0	0	0
Gas Fitter and Tin Plate Worker	0	0	0	0	1	1	2	1
Gas Works	0	0	0	2	1	1	1	1
General Merchant	0	0	0	0	0	0	1	1
Ginger Beer Manufacturer	0	0	1	0	0	0	1	1
Greengrocer	1	0	0	13	1	2	6	3
Grocer and Draper	0	0	0	0	0	0	1	0
Grocers and Tea Dealers	12	15	16	11	16	19	21	16
Gunsmiths	0	0	1	0	0	0	0	0
Haberdashers and Hosiers	4	0	0	0	0	0	0	0
Hairdresser and Perfumer	4	2	6	2	3	3	5	3
Hairdresser, Perfumer and Toy Warehouse	0	0	0	1	0	0	0	0
Hat Manufacturer	6	5	4	0	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Hemp, Flax and Coconut Fibre Manufacturer	0	0	0	1	0	0	0	0
Hop Merchants	0	3	3	0	0	0	0	0
Horse and Gig Leaser	2	0	0	0	0	0	0	0
Horse Dealer	0	0	0	1	1	0	1	0
Hotel	0	0	0	0	0	2	2	4
House Decorator	0	0	0	0	0	0	0	1
Hurdle Maker	1	0	0	0	0	0	0	0
Iron and Brass Founders	0	0	2	2	1	1	1	1
Ironmongers	4	5	5	3	3	2	4	3
Jobbing Gardener	0	0	0	0	0	0	1	3
Kitchen Range and Stove Manufacturer	0	0	0	1	0	0	0	0
Ladies Underclothing Warehouse	0	0	0	0	1	0	0	0
Laundress	0	0	0	0	0	0	6	4
Leather and Parchment Manufacturer	0	0	0	1	0	0	0	0
Leather Dresser	1	1	0	0	0	2	0	0
Leather Dresser and Parchment Maker	0	0	0	0	1	2	0	0
Leather Seller	0	0	0	0	1	0	2	1
Linen and Woollen Drapers	7	6	5	3	2	4	2	1
Linen Draper, Hosier and Haberdasher	0	0	0	5	3	0	0	0
Lodging House	0	0	0	1	1	0	6	7
Machine Maker	0	0	1	0	0	0	0	0
Machinist and Agricultural Implement Manufacturer	0	0	0	0	3	1	1	1
Maltster and Coal Merchant	0	0	0	1	0	0	0	0
Maltster and Hop Merchant	0	0	0	0	0	0	1	0
Maltsters	11	10	11	4	2	4	2	1
Maltsters, Wine and Spirit Merchants	0	0	0	0	2	1	1	0
Marine Store Dealer	0	0	0	0	0	2	0	0
Matting Manufacturers	3	0	0	1	1	1	1	1
Medical Botanic Practitioner	0	0	0	1	1	1	1	1
Millers	5	4	4	2	2	2	0	0
Milliner and Straw Bonnet Maker	0	0	0	1	0	0	0	0
Milliners and Dressmakers	9	5	13	8	2	2	1	1
Millwright	1	0	0	0	0	0	0	0
Miniature Painter	1	0	0	0	0	0	0	0
Musical Instrument Dealer	0	0	0	0	0	1	1	1
Music Seller and Pianoforte Tuner	0	0	0	0	0	0	0	1
Newsagent	0	0	0	1	1	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Newspaper	0	0	0	0	1	2	2	1
Nursery and Seedsmen	7	0	0	0	2	2	1	1
Nurserymen and Florists	0	0	0	0	0	0	1	0
Oil and Colormen	3	2	3	1	0	0	0	0
Outfitter and Draper	0	0	0	0	2	1	0	0
Painter	0	0	0	0	0	0	2	3
Painter and Confectioner	0	0	0	0	0	0	0	0
Painter and Plumber	0	0	0	0	0	0	1	0
Painters, Plumbers and Glaziers	6	0	9	0	6	0	1	0
Paper Hanger	0	0	0	2	0	0	1	1
Paper Makers	1	0	1	0	0	0	0	0
Pastrycook	0	1	0	0	0	0	1	0
Pawnbrokers	0	2	1	0	0	0	0	0
Pharmaceutical Chemist	0	0	0	0	0	0	1	1
Photographer	0	0	0	1	2	0	1	3
Photographer and Stationer	0	0	0	0	0	1	0	0
Plasterer	0	0	1	0	0	0	0	0
Plasterer and Slater	1	0	0	1	0	0	0	0
Plumber	0	0	0	0	0	1	1	1
Plumber and Glazier	0	0	0	0	0	0	0	1
Plumber and Painter	0	0	0	0	0	4	0	1
Plumber, Painter, Glazier, Toy Warehouse and Confectioner	0	0	0	1	0	0	0	0
Plumbers, Painters and Glaziers	0	7	0 ¹⁰	6	0	1	1	0
Pork Butcher	0	3	3	2	3	1	1	1
Porter Merchant	0	1	0	0	0	0	0	0
Potato Factor, Straw and Firewood Dealer and Hurdle Manufacturer	0	0	0	0	0	0	1	0
Poulterer and Fishmonger	0	0	1	0	0	0	0	0
Printer	0	0	0	0	0	0	1	1
Printer, Bookseller and Publisher	0	0	0	0	0	0	1	0
Printer, Stationer and Bookseller	0	0	0	1	1	2	1	1
Publisher	0	0	0	0	0	0	0	1
Rag Merchant	0	1	0	0	0	0	0	0
Railway Agent	0	0	0	0	0	0	0	1
Refreshment Rooms	0	0	0	0	0	3	1	1
Registry Office for Servants	0	0	0	0	0	0	2	2
Road Surveyor	0	0	0	0	1	1	0	0
Rope and Matting Manufacturer	0	0	0	1	0	0	0	0
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

¹⁰ Slater's 1850 directory has no listings for businesses operating in all three of these trades together.

Rope and Twine Manufacturer	0	14	7	3	6	6	4	4
Sack Hirer	0	0	0	0	0	1	0	0
Sacking Manufacturer	22	12	16	1	1	0	1	1
Saddler and Harness Makers	2	4	6	4	2	4	2	3
Saw Mill	0	0	0	0	1	1	1	0
Seed Grower and Merchant	0	0	0	0	0	0	1	1
Seedsman & Market Gardeners	0	3	3	1	3	1	1	0
Sewing Machine Agent	0	0	0	0	0	1	2	1
Shopkeepers	19	14	26	4	7	10	5	10
Silversmiths and Jewellers	0	1	0	0	0	0	0	0
Slop and Frock Makers	0	0	2	0	0	0	0	0
Soda Water Manufacturer	0	0	0	0	0	2	2	1
Solicitors	9	7	12	9	10	15	10	14
Spirit and Hop Merchant	0	0	0	0	0	0	1	0
Stationer	0	0	0	0	2	2	1	0
Stationer and Tobacconist	0	0	0	0	0	0	0	1
Stationer, Bookseller and Agent for Sutton and Co.	0	0	0	0	0	0	1	0
Stay Maker	1	1	3	1	1	1	1	1
Steam Miller	0	0	0	0	0	0	1	1
Stone Masons	2	2	4	2	2	2	5	2
Straw Bonnet Warehouses	0	2	0	0	0	0	0	0
Straw Hat Makers	2	4	8	3	2	1	1	1
Sugar Boiler	0	0	0	0	0	0	1	0
Surgeons	5	5	7	7	4	4	4	3
Surgeon and Certifying Factory Surgeon	0	0	0	0	0	0	0	1
Surveyor	0	0	0	0	0	0	0	2
Tailor and Draper	0	0	0	0	2	0	0	0
Tailor and Hatter	0	0	0	1	0	0	0	0
Tailors	13	9	9	9	5	4	7	10
Tanners	2	0	0	0	0	0	1	1
Taverns, Inns and Public Houses	48	45	71	42	49	45	43	34
Tea Dealers	2	0	0	0	0	0	0	0
Timber Dealer and Wood Hurdle Manufacturer	0	0	0	1	0	0	0	0
Timber Merchant	0	6	1	0	2	2	3	1
Timber, Brick, Tile and Slate Merchant	0	0	0	1	0	0	0	0
Tinplate and Coppersmith	0	0	1	2	0	0	0	0
Tobacco Pipe Maker	0	0	0	0	1	0	0	0
Tobacconist	0	0	0	1	1	1	2	2
Tobacconist and Stone Mason	0	0	0	0	0	0	1	1
Type of Company	1830	1840	1850	1864	1869	1877	1887	1895

Toy Dealers	2	2	4	1	2	1	0	0
Umbrella Maker	1	1	1	1	1	1	2	2
Upholsterer	0	0	0	0	3	0	0	0
Veterinary Surgeon	1	1	1	1	1	1	1	1
Wardrobe Dealer	0	0	0	0	1	2	1	1
Watch and Clock Makers	3	4	7	7	7	6	5	5
Wheelwright and Carpenter	0	0	0	1	0	0	0	0
Wheelwrights	4	4	9	1	2	2	1	2
Wine and Spirit Merchants	4	0	5	0	2	2	1	0
Wine Manufacturer (British)	0	1	0	0	0	0	0	0
Wine Spirit and Hop Merchants	0	0	0	0	0	0	0	2
Wood Turner	0	0	0	1	2	1	0	0
Wool Stapler	0	0	0	1	0	0	0	0
Wool-stapler and Fellmonger	0	0	0	0	0	0	0	1
Wool Stapler, Parchment and Leather Manufacturer	0	0	0	0	0	0	1	1
<i>Total Number of Businesses</i>	360	424	495	343	321	326	352	344

Appendix 8: Businesses in Wallingford by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	0	0	1	1	1	0	1
Agent for W.H.Brakspear and Son	0	0	0	0	0	0	0	1
Architect and Surveyor	0	0	0	0	0	0	0	1
Auctioneer	2	3	3	0	0	0	3	4
Auctioneer and Upholsterer	0	0	0	1	1	1	0	0
Auctioneer, Land and Estate Agents & Valuers	0	0	0	1	2	1	0	0
Baker	10	10	12	5	5	2	3	2
Baker and Beer Retailer	0	0	0	0	0	0	1	1
Baker and Corn Dealer	0	0	0	1	1	1	0	1
Baker and Grocer	0	0	0	1	0	1	0	0
Bank	1	1	3	3	3	3	7	5
Barge Master	0	1	0	0	0	0	0	0
Basket Maker & Sieve Maker	2	2	2	3	1	1	1	0
Beer Retailer	0	16	15	13	13	19	15	18
Berlin Repository	0	0	1	0	0	0	0	0
Bible Repository	0	1	0	0	0	0	0	0
Birmingham and Sheffield Warehouse	0	1	0	0	0	0	0	0
Blacksmith	7	6	6	1	3	1	1	1
Boarding House	0	0	0	0	1	0	0	0
Boat Builder	0	0	0	0	0	0	0	1
Boat Proprietor	0	0	0	0	0	0	1	0
Bookseller, Bookbinder & Stationer	0	0	4	0	0	0	1	0
Bookseller and Printer	0	0	0	0	1	1	0	0
Bookseller and Stationer	2	2	0	0	0	0	0	0
Boot and Shoe Dealer	2	0	3	0	1	1	0	0
Brewery	3	2	2	1	2	1	2	2
Brewery and Maltster	0	0	0	1	0	1	0	0

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 32-34.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 60-65.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 49-52.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 668-670.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 724-727.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 641-645.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 170-176.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 222-229.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Brewery, Wine & Spirit Merchants and Maltsters	0	0	0	0	0	0	1	0
Bricklayer	0	0	1	0	0	0	0	0
Bricklayer and Plasterer	0	4	0	0	0	0	0	0
Bricklayer and Slater	0	0	0	0	0	0	1	1
British Wine Maker	0	1	0	0	0	0	0	0
Builder	0	3	0	2	2	3	4	1
Builder and Carpenter	0	0	4	1	0	0	0	0
Butcher	10	9	11	5	5	4	4	6
Butcher (Pork)	0	0	0	1	0	0	0	0
Cabinet Maker	2	1	3	3	3	2	1	1
Carpenter	3	0	1	1	4	1	1	1
Carpenter and Builder	3	0	0	0	0	0	0	0
Carpenter and Timber Merchant	0	0	1	0	0	0	0	0
Carrier	0	4	0	0	1	1	0	0
Carrier and Shopkeeper	0	0	0	0	0	0	1	1
Carver, Gilder, Tailor, Woollen Draper & Tobacconist	0	0	0	1	1	0	0	0
Cattle Dealer	0	0	0	0	0	1	0	0
Chemist	1	3	2	1	1	2	3	2
Chemist and Grocer	0	0	0	1	0	0	0	0
Chemist, and Wine & Spirit Merchant	0	0	0	0	0	1	0	0
Chimney Sweep	0	0	0	0	2	1	1	1
China and Glass Dealer	2	3	3	2	1	1	1	1
China Dealer	0	0	0	0	0	0	1	1
Clothier	1	3	5	1	1	0	0	0
Coach Builder	0	0	1	1	1	1	1	1
Coach Proprietor	0	2	0	0	0	0	0	0
Coach Smith	0	0	0	0	0	0	1	0
Coach Smith and Beer Retailer	0	0	0	0	0	0	0	1
Coal Merchant	2	2	4	0	1	1	1	2
Coal and Timber Merchant	1	1	0	0	0	0	0	0
Coal Merchant and Manure Manufacturer	0	0	0	0	0	0	1	0
Coal, Coke & Lime Merchant & Cartage Agent to the Great Western Railway Company	0	0	0	0	0	1	1	1
Coal, Coke, Salt and General Merchant	0	0	0	0	0	0	1	0
Coal, Corn and Salt Merchant	0	0	0	1	0	0	0	0
Coal, Timber and Salt Merchant	0	0	0	1	0	0	0	0
Cobbler	14	11	17	13	11	6	8	6
Cobbler and Fruiterer	0	0	0	0	0	0	1	0
Coffee Rooms	0	0	0	0	0	1	1	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Commercial Traveller	0	0	0	0	0	1	1	1
Confectioner	0	0	0	1	2	1	1	2
Cooper	2	3	2	2	2	2	1	0
Corn Merchant	6	5	8	1	2	2	1	1
Cow keeper	0	0	0	0	0	1	1	0
Currier and Leather Cutter	1	3	1	0	0	0	0	0
Dairyman	0	0	0	0	0	0	4	3
Dealer in Leaches	0	1	0	0	0	0	0	0
Dining Rooms	0	0	0	0	1	1	0	0
Draper	6	4	7	2	1	2	7	7
Draper, Clothier, Hatter, Hosier & Haberdasher	0	0	0	0	1	0	0	0
Dressmaker	0	0	0	1	2	2	3	3
Eating House	0	0	0	1	0	0	0	0
Estate Agent	0	1	0	0	0	0	0	0
Fancy Repository	0	1	1	1	0	0	1	1
Farrier and Beer Retailer	0	0	0	0	0	0	1	0
Farrier	0	1	3	1	0	0	0	1
Fellmonger	0	1	1	0	0	0	1	1
Fellmonger and Parchment Maker	1	0	0	1	1	1	0	0
Fishmonger	1	1	0	1	1	1	2	2
Florist and Seedsman	0	0	0	0	0	0	0	1
Fly Proprietor	0	0	0	0	0	0	1	1
Fruiterer	0	1	0	1	3	1	1	2
Fruiterer and Greengrocer	5	0	3	0	0	0	0	0
Fruiterer and Poulterer	0	0	0	2	0	0	0	0
Furniture Warehouse	2	0	3	0	2	1	1	1
Game Dealer	0	2	0	0	0	0	0	0
Gardener	0	0	4	1	0	0	0	1
Gas Fitter	0	0	0	1	0	1	0	0
Gas Works	0	0	1	1	1	1	1	2
General Dealer	0	0	0	2	2	0	0	0
Greengrocer	0	0	0	2	2	2	1	0
Grocer	0	9	7	4	5	10	8	5
Grocer and Cheesemonger	5	0	0	0	0	0	0	0
Grocer and Furniture Warehouse	0	0	0	0	0	0	1	1
Grocer and Organ Builder	0	0	0	0	1	0	0	0
Grocer and Pork Butcher	0	0	0	0	0	0	1	0
Grocer and Tallow Chandler	0	0	0	1	1	0	0	0
Grocer, Wine and Spirit Merchant	0	0	0	0	0	0	0	1
Gunsmith	0	1	0	0	0	0	0	0
Hairdresser	0	4	0	3	2	2	1	1
Hairdresser and Perfumer	5	0	4	0	0	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Hairdresser and Photographer	0	0	0	1	0	0	0	0
Hairdresser and Stationer	0	0	0	1	1	0	0	0
Hatter	1	4	0	1	1	0	0	0
Hay and Straw Merchant	0	0	0	0	1	0	0	0
Horse Dealer	0	1	0	1	0	0	0	0
Horse and Carriage Hirer	0	0	0	1	0	0	0	0
Hotel	0	0	0	0	0	0	3	5
Hotel and Stationer	0	0	0	0	0	0	0	1
Iron foundry and Engineers	3	3	2	1	1	2	1	1
Ironmongers	4	4	4	3	3	3	3	3
Laundress	0	0	0	0	0	0	1	1
Linen and Woollen Drapers and Silk Mercers	0	0	0	0	1	1	0	0
Livery Stable Keeper	0	1	0	0	0	0	0	0
Lodging House	0	0	0	0	0	0	1	0
Maltsters	7	3	3	1	1	2	0	0
Maltster & Corn Dealer	0	0	0	1	1	0	0	0
Marine Store Dealer	0	0	0	0	0	2	1	0
Mealman	0	0	0	0	0	1	1	1
Miller	3	1	3	1	1	0	0	0
Miller (Steam)	0	0	0	0	0	0	1	1
Milliner	0	0	0	1	0	0	0	0
Milliner and Dressmaker	4	6	14	2	2	0	0	0
Milliner and Staymaker	0	0	0	1	0	0	0	0
Milliner, Dressmaker and Haberdasher	1	0	0	0	0	0	0	0
Milliner, Dressmaker and Toy Dealer	1	0	0	0	0	0	0	0
Millwrights	1	2	2	0	0	0	1	1
Millwright and Engineer	0	0	0	1	0	0	0	0
Music Seller	2	0	0	0	0	0	0	0
Newspaper	0	0	0	1	1	1	3	2
Nursery and Seedsman	0	0	0	3	3	2	2	2
Organ Builder	0	0	0	1	0	1	0	0
Parcel Agent for the Great Western Railway Co.	0	0	0	0	1	0	0	0
Pastrycooks & Confectioner	1	2	0	0	0	0	0	0
Pawnbroker	1	0	0	0	0	0	0	0
Perfumer, Bookseller and Stationer	0	0	0	0	0	1	1	0
Photographer	0	0	0	1	1	1	1	1
Picture Frame Maker	0	0	0	0	0	0	0	1
Pig Dealer	0	0	0	1	0	0	0	0
Pipe (Tobacco) Maker	0	1	1	1	0	0	0	0
Plasterer	0	0	0	0	0	0	0	1
Plasterer and Slater	1	0	0	0	0	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Plumber	0	0	0	0	4	4	1	0
Plumber & Beer Retailer	0	0	0	1	1	0	0	0
Plumber and Glazier	0	0	6	5	0	0	0	0
Plumber & House Decorator	0	0	0	0	0	0	2	2
Plumber, Painter and Glazier	4	3	0	0	0	0	0	0
Plumber, Painter, Glazier and General House Decorator	0	0	0	0	0	0	0	1
Poulterer	3	1	2	0	0	0	0	0
Printer	1	2	3	0	0	0	0	0
Printer and Bookseller	0	0	0	1	0	0	0	0
Provision Dealer & Pork Butcher	0	0	0	0	0	0	0	1
Refreshment Rooms & Confectioner	0	0	0	0	0	0	1	1
Rope and Sack Maker	0	0	0	0	1	1	0	0
Rope and Twine Manufacturer	2	4	2	0	0	0	1	0
Sack Hirer	0	0	0	0	0	0	1	1
Saddle and Harness Maker	3	3	5	4	3	3	2	2
Salt Merchant	1	1	2	0	0	0	0	0
Seed Merchant	5	3	0	0	0	0	0	0
Shoe Factory	0	0	0	0	0	0	0	1
Shopkeeper	15	4	14	3	2	5	3	6
Silk Dyer	0	0	0	1	1	0	0	0
Silversmith	1	1	0	1	1	0	0	0
Singer Machine Manufacturing Company (Branch)	0	0	0	0	0	0	1	1
Solicitor	0	2	4	3	4	2	6	4
Stationer	0	0	0	2	1	0	1	2
Stationer and Hairdresser	0	0	0	0	0	0	1	1
Stationers and Music Seller	0	0	0	0	0	0	1	1
Stay Maker	0	0	1	0	1	1	1	1
Stonemason	2	1	1	1	1	2	1	1
Stove Grate Manufacturer	0	1	0	0	0	0	0	0
Straw Bonnet Maker	5	3	5	0	0	1	1	1
Surgeon	4	4	3	4	2	2	5	2
Surveyor	0	1	1	1	1	2	0	1
Tailor	10	7	8	2	2	4	2	1
Tailor and Draper	0	3	0	0	1	0	0	0
Tallow Chandler	1	2	0	0	0	0	0	0
Tanner and Currier	1	1	0	1	1	1	1	1
Taverns, Inns and Public Houses	26	17	26	19	17	17	12	7
Tea Merchant	1	0	2	0	0	0	0	1
Timber Merchants	1	0	2	0	0	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Timber and Corn Merchant	0	1	0	0	0	0	0	0
Tinplate Worker	1	3	4	1	1	1	1	1
Tin, Copper and Zinc Worker	0	0	0	1	0	0	0	0
Tobacconist	0	0	1	0	0	0	0	1
Tobacconist and Butcher	0	0	0	0	0	0	1	0
Tobacconist & Hairdresser	0	0	0	0	0	0	0	1
Town Crier	0	0	0	0	0	0	1	1
Truss Maker	0	1	1	0	0	0	0	0
Umbrella Maker	0	1	0	1	1	1	0	0
Upholstress	0	0	0	0	0	1	0	0
Upholsterer and Confectioner	0	0	0	0	0	0	1	0
Veterinary Surgeon	0	0	0	2	2	1	1	2
Watch and Clock Maker	3	4	4	2	3	2	1	1
Watch and Clock Maker & Bookseller	0	0	0	1	0	1	0	0
Watch and Clock Maker & Silversmith	0	0	0	0	0	1	0	0
Watch and Clock Maker & Tobacconist	0	0	0	0	0	0	1	1
Watchmaker and Jeweller	0	0	0	0	0	0	1	0
Wharfinger	1	2	2	0	0	0	0	0
Wheelwright	5	1	5	2	2	1	0	0
Wine and Spirit Merchant	4	3	4	3	3	4	2	1
Wine, Spirit and Corn Merchant	0	0	0	0	0	1	0	0
Winnowing Machine & Basket Maker	0	0	0	1	1	0	0	0
Wire Worker	0	0	0	0	1	1	0	0
Woodturner	0	2	0	0	0	0	0	0
<i>Total Number of Businesses</i>	232	240	286	185	178	171	184	173

Appendix 9: Businesses in Wantage by Industrial Sector by Year

Type of Company	1830 ¹	1840 ²	1850 ³	1864 ⁴	1869 ⁵	1877 ⁶	1887 ⁷	1895 ⁸
Accountant	0	0	0	1	0	1	2	2
Agricultural Implement Agent	0	0	0	0	0	0	1	0
Ale, Porter and Wine Merchant	0	0	0	0	0	0	1	1
Architect	0	0	0	2	1	0	1	0
Auctioneer and Valuer	0	1	0	2	1	1	2	3
Bacon Curer	0	0	0	0	0	0	0	1
Bacon and Cheese Dealer	0	1	0	0	0	0	0	0
Baker	9	11	11	11	6	4	7	6
Baker and Bootmaker	0	0	0	0	0	1	0	0
Baker and Confectioner	0	0	0	0	2	2	1	0
Baker and Grocer	0	0	0	1	1	1	0	0
Baker, Hay and Corn Dealer	0	0	0	2	0	0	0	0
Bank	1	3	4	3	2	2	2	3
Basket Maker	0	0	2	1	0	0	1	1
Basket and Sieve Maker	0	1	0	0	2	1	0	0
Beer Retailer	0	10	6	5	10	5	5	6
Berlin Wool Repository	0	0	1	0	0	1	1	0
Bill Poster	0	0	0	0	0	0	2	1
Bill Poster and Town Crier	0	0	0	0	0	0	0	1
Birmingham and Sheffield Warehouse	0	1	0	0	0	0	0	0
Blacksmith	4	6	7	2	5	4	2	2
Boot Warehouse	0	0	1	0	3	3	1	1
Brandy Merchants	2	0	0	0	0	0	0	0
Breeches Maker and Glover	3	0	0	0	0	0	0	0
Brewer	1	3	4	1	2	3	3	1
Brewer, Wine and Spirit Merchant	0	0	0	1	1	1	0	2
Bricklayer	0	3	3	1	1	1	0	0
Builder	0	1	3	2	2	6	6	5
Builder and Stone Mason	0	0	0	1	0	0	0	0

¹ Reading, Reading Central Library, Pigot and Co.'s National Commercial Directory; Comprising a Directory and Classification of the Merchants, Bankers, Professional Gentlemen, Manufacturers and Traders in all the Cities, Towns, Sea-Ports, and Principal Villages in the Following Counties viz: Berkshire, Buckinghamshire, Gloucestershire, Hampshire, Oxfordshire; 1830 (London, 1830), 34-35.

² Reading, Reading Central Library, Robson's Commercial Directory of Berkshire: 1840 (Reading, 1840), 68-72.

³ Reading, Reading Central Library, Slater's Directory of Berkshire: 1850 (Reading, 1850), 52-54.

⁴ Reading, Reading Central Library, Kelly's Berkshire Directory: 1864 (London, 1864), 671-675.

⁵ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1869 (London, 1869), 728-731.

⁶ Reading, Reading Central Library, Kelly's Post Office Directory of Berkshire: 1877 (London, 1877), 646-650.

⁷ Reading, Reading Central Library, Kelly's Directory of Berkshire, Bucks and Oxon. : 1887 (London, 1887), 178-183.

⁸ Reading, Reading Central Library, Kelly's Directory of Berkshire: 1895 (London, 1895), 233-236.

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Butcher	4	4	7	6	3	4	3	6
Butcher (Pork)	0	0	0	1	0	0	1	0
Cabinet Maker	0	1	2	0	1	0	0	0
Canal Agent	0	0	0	0	1	0	0	0
Canal Office (Berks and Wilts)	0	0	1	1	1	0	0	0
Carpenter	0	1	3	1	2	0	1	1
Carrier	0	0	0	3	1	1	0	2
Carver and Gilder	1	0	0	0	0	0	0	0
Cattle Dealer	0	0	0	3	0	0	0	0
Cheese Factor	0	0	0	0	1	0	0	0
Chemist	2	2	3	2	1	1	1	2
Chemist and Dentist	0	0	0	0	1	1	0	0
Chemist, Stationer, Printer, Bookseller	0	0	0	0	0	0	0	1
Chemist, Dentist, Bookseller, Stationer & Printer	0	0	0	1	1	1	1	0
Chimney Sweep	0	0	0	0	0	0	1	3
China, Earthenware and Glass Dealer	1	2	2	2	2	2	2	2
Clothes Seller	5	1	2	0	0	0	1	1
Coach Builder	0	0	1	1	1	2	2	2
Coach Painter	0	0	0	0	0	0	1	1
Coal and Timber Merchant	0	0	0	0	1	0	0	0
Coal Merchant	0	1	4	0	1	3	3	2
Coal and Salt Merchant	0	0	0	1	0	0	0	0
Coal Merchant and Canal Carrier	0	0	0	0	0	0	0	1
Cobbler	12	10	15	19	14	8	11	10
Coffee House	0	0	0	0	0	1	0	1
Commission Agent	0	1	0	0	0	0	0	0
Confectioner	2	2	1	2	1	3	2	2
Confectioner and Fruiterer	0	0	0	0	0	0	1	0
Conveyancer	0	1	0	0	0	0	0	0
Cooper	3	2	1	1	1	1	1	1
Corn Dealer	1	4	7	1	2	2	0	2
Cow Keeper	0	0	0	1	1	0	0	0
Currier and Leather Seller	0	2	0	0	0	0	0	0
Dairy	0	0	0	0	0	1	1	1
Dairyman	0	0	0	0	0	0	1	1
Dentist	0	0	0	0	0	0	1	1
Dentist and Chemist	0	0	0	0	0	0	1	0
Draper	7	6	3	5	5	5	8	5
Dressmaker	0	0	0	0	1	1	2	6
Dyer	0	1	1	1	1	1	0	0
Engineer	0	0	0	0	0	1	2	2
Fancy Repository	0	1	0	0	2	1	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Farrier	1	2	0	2	0	0	0	0
Fellmonger and Parchment Maker	0	0	1	0	0	0	0	0
Fishmonger	0	1	1	1	0	1	2	2
Fruiterer	0	0	0	2	1	0	0	0
Furniture Broker	1	0	0	1	0	0	0	0
Gas Works	0	0	1	1	1	1	1	1
Glover	0	1	2	0	1	0	0	0
Glover and Gaiter Maker	0	0	0	1	0	1	0	0
Greengrocer	0	0	0	0	0	1	1	2
Grocer	8	9	6	7	6	7	9	6
Grocer and Cheesemonger	0	0	0	1	0	0	0	0
Grocer and Hop Merchant	0	0	0	1	0	0	0	0
Grocer, Ale and Porter Merchant	0	0	0	0	0	1	0	0
Great Western Railway Office	0	0	0	0	1	0	0	0
Gunsmith	0	0	1	0	0	0	0	0
Haberdasher	0	0	0	0	1	1	0	0
Hairdresser	2	0	1	2	2	1	3	3
Hairdresser and Photographer	0	0	0	0	0	1	0	0
Hairdresser and Perfumer	0	1	0	0	0	0	0	0
Hairdresser and Toy Dealer	0	0	1	0	0	0	0	0
Hatter	4	2	0	0	0	0	0	0
Haulier	0	0	0	0	0	0	0	1
Hay, Corn and Cattle Dealer	0	0	0	1	0	0	0	0
Hoop Maker and Lath Renderer	1	0	1	0	0	0	0	0
Hop Merchant	0	0	2	0	0	1	0	0
Horse and Cart Hirer	0	0	5	0	0	0	0	0
Hotel	0	0	0	0	0	0	1	1
House Furnisher	0	0	0	0	0	0	1	2
Iron Foundry	2	2	1	2	1	1	0	1
Iron Merchant	0	1	0	0	0	0	0	0
Ironmongers	2	2	3	4	4	4	4	3
Jeweller	0	0	0	2	0	1	1	0
Leather Cutter	0	0	1	1	1	1	1	1
Locksmith and Bellhanger	0	0	0	0	1	1	0	0
Machine Makers	0	2	0	0	0	0	0	0
Maltster	2	0	4	2	2	1	1	1
Manufacturer of the Black Mixture for Cattle	0	0	1	0	0	0	0	0
Marine Store Dealer	0	0	0	2	1	2	1	0
Miller (Water and Steam)	0	0	0	0	0	0	1	1
Miller (Water)	2	3	3	3	4	1	2	1
Milliner	0	7	0	4	2	1	1	1
Milliner and Dressmaker	4	0	7	1	1	0	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Mineral Water Manufacturer	0	0	0	0	0	0	0	1
Music and Instrument Seller	0	0	0	0	0	0	0	1
Music Seller and Tobacconist	0	0	0	0	0	1	0	0
Newspaper Agents	2	0	0	0	0	0	0	0
Oil and Colourman	0	0	2	0	0	0	0	0
Oxford Cycle Company Agent	0	0	0	0	0	0	0	1
Painter	0	0	0	0	0	0	1	0
Paper Hanger	0	1	0	0	0	0	0	0
Physician and Surgeon	0	0	0	0	0	0	0	4
Plasterer	0	0	0	0	0	0	0	1
Plumber	0	0	0	2	3	1	1	2
Plumber, Painter and Glazier	2	4	4	3	0	3	1	2
Plumber, Painter, Glazier and Paper Hanger	0	0	0	0	1	0	0	0
Porter Merchant	0	0	1	0	0	0	0	0
Poulterer	0	0	0	0	0	1	1	1
Printer	0	0	0	1	1	1	1	0
Printer and Stationer	0	0	0	0	0	0	0	1
Sacking and Rope Manufacturers	5	6	2	0	0	0	0	0
Saddle and Harness Maker	3	3	3	4	5	4	3	2
Seed Merchant	0	2	1	1	1	1	2	2
Servants Registry Office	0	0	0	0	0	1	0	0
Sheep Dipper	0	0	0	0	0	1	0	0
Shopkeeper	12	9	5	8	3	2	5	4
Solicitor	5	3	3	2	2	2	3	7
Stationer	0	0	0	1	2	2	0	1
Stationer and Bookseller	2	0	0	1	0	0	0	0
Stationer and Printer	0	0	0	0	0	0	1	1
Stationer, Printer and Bookseller	0	3	4	0	0	0	0	0
Stay Maker	0	0	1	0	0	0	0	0
Stone Mason	1	0	0	0	0	0	1	2
Straw Bonnet Manufacturer	3	0	3	0	0	0	0	0
Surgeon	2	2	3	3	2	2	5	0
Surveyor	0	0	0	0	1	0	1	1
Tanner, Currier and Leather Seller	0	0	0	1	1	0	0	0
Tailor	6	6	9	7	6	5	4	3
Tallow Chandler	0	1	0	0	0	0	0	0
Taverns, Inns and Public Houses	23	20	5	22	22	15	13	14
Tea Merchant	1	0	0	0	2	1	0	1
Timber Haulier	0	0	0	0	0	0	0	1
Timber Merchant	0	1	2	0	0	0	0	0
Timber Merchant and Grocer	0	0	0	0	0	1	0	0

Type of Company	1830	1840	1850	1864	1869	1877	1887	1895
Tinplate Worker	1	0	1	1	0	0	0	0
Toy Dealer	0	0	1	0	1	1	0	0
Tramway Company	0	0	0	0	0	1	1	1
Umbrella Repairer	0	0	0	0	0	0	0	1
Upholsterer	0	0	0	0	0	1	1	0
Veterinary Surgeon	0	1	2	3	1	1	1	1
Wardrobe Dealer	0	0	0	0	1	1	0	0
Watch and Clock Maker	2	2	0	3	3	2	3	4
Wheelwright	2	2	7	7	4	1	1	1
Wine and Spirit Merchant	0	2	3	2	1	1	1	1
Wood Turner	0	3	0	0	0	1	0	0
<i>Total Number of Businesses</i>	159	187	199	201	178	160	167	181