

To What Extent Does the Town of Keighley Reflect the General
Pattern of Growth, Stagnation and Decline in the West Riding Wool
Textile Industry, 1851 to 1881?

Gail Louise Jenkins

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Abstract

The town of Keighley in the West Riding of Yorkshire, close to the Lancashire border, had its textile origins in cotton but by the early nineteenth century was firmly a wool town, specialising in the manufacture of worsted. Keighley was also an important centre of textile engineering, developing a thriving worsted machine-making industry. Whilst the woollen industry is generally considered to have been in decline by the middle of the nineteenth century, worsted experienced a boom period when the American Civil War of 1861-65 led to what became known as the Cotton Famine. From the mid-1870s, a downturn in trade led to economic distress for many manufacturers. This study considers the extent to which Keighley reflects the pattern of growth, stagnation and decline that took place in the West Riding worsted industry between 1851 and 1881.

Through examination of trade directories and business records the study charts the numbers and progress of worsted manufacturers and machine-makers across the period. It analyses census returns to assess whether changes in the occupations of Keighley's residents reflect what was happening in the industry and whether there were differences in relation to gender and age. The impact of mechanisation on male employment is discussed, particularly the effect it had on Keighley's hand-combers in the 1850s.

The study concludes that Keighley can be seen to closely reflect the pattern of growth, stagnation and decline in the West Riding between 1851 and 1881 in its worsted manufacturing industry. However, the town's worsted machine-makers fared better, gaining a prominent position in the global market.

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Personal Statement

I declare that this dissertation is my own, unaided work and that I have not submitted it, or any part of it, for a degree at The Open University or at any other university or institution. Parts of this dissertation are built on work I submitted for assessment as part of A825.

Acknowledgement

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Chapter 1: Introduction

The rationale for this research study arose from a review of the then recently published book *The British Wool Textile Industry 1770-1914* by D. T. Jenkins and K. G. Ponting in which Kenneth D. Brown welcomed the work, lamenting the 'quiet neglect' of the wool industry by economic historians, arguing that the prominence of the cotton industry in the industrial revolution left the wool industry's standing as Britain's major industry for the preceding 400 years, 'pushed into the background'.¹ This study will therefore focus on this lesser investigated area of the British textile industry, the setting of which will be Keighley in the West Riding of Yorkshire where wool overtook cotton in importance from the beginning of the nineteenth century and where an important textile machine-making industry developed alongside.

Whilst more has been written about the wool industry by historians such as Hudson and King since Brown's review, the focus has tended to be on the period up until 1850.² This study will focus on the years 1851 to 1881. King states that by the 1850s the Yorkshire woollen industry was in decline.³ However, according to Jenkins and Ponting, in Yorkshire's West Riding, the period up until 1881 was more one of growth, stagnation and the beginnings

¹ Kenneth D. Brown, Review of Jenkins, D. T. and Ponting, D. G., *The British Wool Textile Industry, 1770-1914* (London: Heinemann Educational Books, 1982) in *The Historian*, 46 (1984), 610.

² Pat Hudson, *The Genesis of Industrial Capital: A Study of the West Riding Wool Textile Industry c.1750-1850* (Cambridge: Cambridge University Press, 1986); Steven King, 'Women, Migration and Textile Work in West Yorkshire, 1800-51', *Family and Community History*, 24 (2021), 4-23.

³ Steven King, 'Women, Migration and Textile Work in West Yorkshire, 1800-51', *Family and Community History*, 24 (2021), 5.

of decline.⁴ The study will seek to determine the extent to which Keighley reflects this pattern.

Each chapter provides detail of the primary sources used, their strengths and weaknesses, the methodology employed, and problems encountered, but a brief summary is given here. Through examination of trade directories and other contemporary accounts, the study will seek to establish the number of mills and machine-makers in existence in Keighley at the beginning, middle and end of the period. It will explore whether the growth, stagnation and decline were experienced by the industry as a whole, or whether there was variation amongst Keighley's numerous firms. Through the examination of business records, a case study will allow a more detailed comparison of two Keighley businesses, one a worsted spinning firm, the other a worsted machine-making firm, assessing what can be deduced from this as to the rise and fall of the industry in Keighley and whether both branches of the textile industry followed the same pattern.

Through analysis of the four decennial censuses for Keighley from 1851-81, the study will assess whether changes in the occupations of the town's inhabitants can be seen to reflect what was happening in the wool industry generally and whether there were differences in relation to gender and age, along with the numbers and ages of children working in the industry, and whether these things changed over time. Hudson states that in 1851 the

⁴ D. T. Jenkins and D. G. Ponting, *The British Wool Textile Industry, 1770-1914* (London: Heinemann Educational Books, 1982), pp. 272-3.

workforce of Yorkshire's worsted mills was 'largely female whilst male employment suffered'.⁵ This study will seek to show the extent to which Keighley reflected Hudson's findings for 1851 over the next three decades. The ages of children recorded as working in the mills or elsewhere will be analysed for evidence of change as a result of the Education Act of 1880, which made school attendance compulsory for children from the ages of five to ten.⁶

Whilst more has been written about cotton than wool with regard to the history of Britain's textile industry, and much of what has been written about wool has concentrated on the earlier period and the transition to mechanisation and the factory system, there are a number of works relevant to this study including the aforementioned work by Jenkins and Ponting. Jenkins and Ponting provide in-depth analysis of the progress and development of the industry, including that of the West Riding's worsted trade, and also the period after 1850 with analysis of the decline from the 1870s.⁷ Clapham's seminal work on the decline of the Norwich worsted industry charts the rise of the industry in the West Riding, aiding further understanding of the development of Keighley.⁸ Cookson's work on textile engineering, whilst focusing primarily on the period up to 1850, provides valuable insight into the development of machine-making and the significance of Keighley within that.⁹ Relevant to the study's assessment of

⁵ Pat Hudson, *The Industrial Revolution* (London: Edward Arnold, 1992), p. 119.

⁶ *Elementary Education Act 1880* (43 & 44 Vict. c. 23).

⁷ D. T. Jenkins and D. G. Ponting, *The British Wool Textile Industry, 1770-1914* (London: Heinemann Educational Books, 1982).

⁸ J. H. Clapham, *The Woollen and Worsted Industries* (London: Methuen and Co., 1907).

⁹ Gillian Cookson, *The Age of Machinery: Engineering the Industrial Revolution, 1770-1850* (Woodbridge: The Boydell Press, 2018).

occupations in relation to gender and age is work by Garrett on the impact of the mechanisation of the worsted trade on male and female employment in Keighley.¹⁰ Discussion on the reliability of Census Enumerators' Books by Higgs and Wilkinson is useful in the analysis of the records for Keighley, as is Shaw and Tipper's work on trade directories.¹¹ General histories of Keighley include work by Ian Dewhirst.¹²

¹⁰ Eilidh M. Garrett, 'Before their time: Employment and family formation in a Northern textile town, Keighley, 1851-81' (unpublished doctoral thesis, University of Sheffield, 1986).

¹¹ Edward Higgs and Amanda Wilkinson, 'Women, Occupations and Work in the Victorian Censuses Revisited', *History Workshop Journal*, 81 (2016), 17-38; Gareth Shaw and Allison Tipper, *British Directories: A Bibliography and Guide to Directories Published in England and Wales (1850-1950) and Scotland (1773-1950)* (New York: Mansell, 1997), pp. 42-59.

¹² Ian Dewhirst, *A History of Keighley* (Keighley: Keighley Corporation, 1971).

Chapter 2: The Wool Industry in the West Riding and Keighley

This chapter provides a background to the nineteenth century wool industry, setting the industry in Keighley within the wider context of the West Riding. It tracks the town's worsted manufacturers, ancillary businesses, and machine-makers across the period of study using trade directories to chart any growth or decline in order to determine the extent to which Keighley reflected the general pattern of the industry in the West Riding. It will find that the pattern in Keighley was similar, although the town's wool textile machine-making industry gave the town an extra string to its worsted bow and, whilst worsted manufacturing experienced the same growth and decline as elsewhere, this other branch of the industry continued to grow as Keighley established a prominent position for itself in the global market for worsted machinery.

The development of the worsted industry in the West Riding and Keighley

Laxton states that textile manufacture in Britain was characterised by 'its relentless tendency towards geographical specialisation and concentration'.¹ As mechanisation took off, traditional centres of the woollen industry for hundreds of years such as East Anglia, and the counties of Somerset, Gloucestershire and Wiltshire, found themselves unable to compete with the scale of manufacture in the north of the country and, from the early nineteenth century onwards, the primacy of Yorkshire's position within the industry was

¹ Paul Laxton, 'Textiles', *Atlas of Industrializing Britain* (London: Taylor and Francis, 1987), p. 106.

established, most notably in the West Riding.² Geographical specialisation can be seen even within the West Riding where there was differentiation of particular sectors of the wool industry according to district: the south and east of the region concentrated on woollen wool, whereas many (although not all) towns in the northern and western parts of the county, including Keighley, specialised in worsted manufacture.³ Worsted cloth is made from combed rather than carded wool in order to remove the shorter fibres, producing longer staples (clusters) of wool, which are laid parallel to each other rather than being crossed in different directions, before being woven into a smooth fabric ideal for clothing.⁴ Worsted manufacture moved to mechanisation at a faster pace and bigger scale than woollen did and so the mill towns of the 'worsted belt' experienced much greater population growth. In terms of the county's position nationally, Jenkins and Ponting assert that the history of the worsted industry during the nineteenth century, 'is really the history of the Yorkshire industry'.⁵ In 1850, of the 501 worsted mills in the United Kingdom, 418 were in Yorkshire and the county was home to 70,905 of the industry's 79,737 employees.⁶

Keighley's geographical location in the West Riding of Yorkshire, close to the Aire Gap and the Lancashire border, and its increasingly good transport links during the nineteenth century with the Leeds and Liverpool Canal, improving

² J. H. Clapham, *The Woollen and Worsted Industries* (London: Methuen and Co., 1907), pp. 12-21.

³ J. Geraint Jenkins, ed., *The Wool Textile Industry in Great Britain* (London and Boston: Routledge and Kegan Paul, 1972), pp. 211-23.

⁴ Alan Fowler, 'Great Britain: textile workers in the Lancashire cotton and Yorkshire wool industries' in *The Ashgate Companion to the History of Textile Workers, 1650-2000*, ed. by Els Hiemstra-Kuperus and Lex Heerma van Voss (London: Routledge, 2016), p. 234.

⁵ D. T. Jenkins and D. G. Ponting, *The British Wool Textile Industry, 1770-1914* (London: Heinemann Educational Books, 1982), p. 77.

⁶ D. T. Jenkins, 'The Factory Returns: 1850-1905', *Textile History*, 9 (1978), 58-74, (pp. 58-69).

road network and later the railway, linked it to the major industrial towns of the north and was instrumental in its rapid industrialisation and growth.⁷ Keighley's first textile mill was a cotton mill, which began operating in 1780 with other mills quickly following.⁸ By the early nineteenth century, Keighley's textile industry had largely moved to wool and many of its cotton mills had converted to the manufacture of worsted. The first worsted spinning mill was in operation by 1808 and by 1835 only four of the town's cotton mills were still in existence, from which point worsted mills continued to spring up, numbering almost forty by the middle of the century.⁹

Sources and methodology

This chapter makes extensive use of contemporary trade directories in an attempt to chart the number of worsted manufacturers operating in Keighley at the start, middle and end of the period of this study and the extent to which this changed over time. Trade directories are not without their limitations as historical sources. As Norton states in her guide to directories up to 1856, errors were not uncommon in their compilation and comparison of two different directories of a single place published in the same year often show discrepancies.¹⁰ However, Shaw and Tipper in their guide to later publications argue that directories tend to be more complete in their coverage of businesses,

⁷ Asa Briggs, Harry Bancroft and Eric Treacy, *One Hundred Years: The Parish of Keighley, 1848-1948* (Keighley: John Wadsworth Ltd., The Rydal Press, 1948), pp. 9-11.

⁸ Eilidh M. Garrett, 'Before their time: Employment and family formation in a Northern textile town, Keighley, 1851-81' (unpublished doctoral thesis, University of Sheffield, 1986), p. 95.

⁹ Garrett, pp. 95-7.

¹⁰ J. E. Norton, *Guide to the National and Provincial Directories of England and Wales, Excluding London, Published before 1856* (London: Royal Historical Society, 1950), pp. 1-16.

concluding that for economic data they, 'have few serious rivals'.¹¹ Where possible, more than one directory has been used for each point of study. John Hodgson's 1879 work, *Textile Manufacture and Other Industries in Keighley* provides a contemporary detailed overview of the worsted industry in the town, including the manufacturers and also its worsted machine-making industry.¹² With regard to the potential limitations this work presents as a primary source, Hodgson himself declared, 'no one is more conscious than ourselves of the many defects this book contains'.¹³ However, in her introduction to a reprinted edition of the book, Cookson reassures that Hodgson's 'thorough' and 'systematic' approach ensured he avoided the antiquarian style often typical of the time, which 'sets [the] book apart from other nineteenth century local histories'.¹⁴

The intended straightforward counting of mills in operation at the start, middle and end of the period proved problematic for a number of reasons. Some mills had more than one manufacturer operating from them at any given time. For example, in 1853, Fleece Mill had Jonathan Murgatroyd operating as a worsted spinner at the same time as W. and J. Sugden were spinning and John Collier was operating a machine wool-combing business.¹⁵ Also in 1853, Acres Mill had William Thompson spinning whilst at the same time Timothy Hird and Son ran

¹¹ Gareth Shaw and Allison Tipper, *British Directories 2nd edn: A Bibliography and Guide to Directories Published in England and Wales (1850-1950) and Scotland (1773-1950)* (London: Mansell Publishing Ltd., 1998), pp. 22 and 43.

¹² John Hodgson, *Textile Manufacture, and Other Industries in Keighley* (Keighley: A. Hey, 1879).

¹³ Hodgson, p. iv.

¹⁴ Gillian Cookson in John Hodgson, *Textile Manufacture, and Other Industries in Keighley* (Keighley: A. Hey, 1879; repr. Stamford: Shaun Tyas, 1999), p. viii.

¹⁵ William White, *Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufacturers* (Sheffield: William White, 1853), p. 545.

their worsted manufacturing business from the premises.¹⁶ Given that some of the mills constructed were vast structures, this is unsurprising. It was also the case that the various stages of the worsted process, from combing and spinning through to weaving, dyeing and finishing, tended to be divided between separate businesses and premises.¹⁷ Examples of this multiple usage by mill owners can be seen in advertisements such as one placed by machine-makers Bland in 1868 who advertised 'room and power to let for thirty to forty spinning frames and preparing' in their Alexandra Mills premises.¹⁸ A year later, Reed and heald maker (component parts for worsted power looms) Thomas Carr advertised room and power in his Hanover Works for 'weaving, spinning or mechanics'.¹⁹ Therefore, rather than counting mills, individual manufacturers have been counted to provide a more accurate picture of change as, whilst a mill may have continued operating throughout the period, individual manufacturers within that mill may have ceased or begun operating over the same period of time.

Shaw and Tipper highlighted the issue of double entry under different categories as a problem with directories and this proved to be the case with Keighley.²⁰ Some manufacturers were listed more than once under separate headings, such as George Hattersley's listing as a worsted manufacturer, a machine-maker, and also a roller, spindles and flyer maker (component parts for worsted spinning frames).²¹ Since the purpose of the chapter is to establish

¹⁶ White, pp. 544-5.

¹⁷ Irene Hardill, *The Regional Implications of Restructuring in the Wool Textile Industry* (Aldershot: Gower Publishing Company, 1987), p. 4.

¹⁸ 'To be Let or Sold', *Keighley News*, 28 March 1868, p. 2.

¹⁹ 'To be Let or Sold', *Keighley News*, 13 November 1869, p. 2.

²⁰ Shaw and Tipper, p. 50.

²¹ White, pp. 544-5.

change over time, it was decided to treat each listing as a separate business for statistical purposes as, if one area of business for a manufacturer failed, another may have continued.

The data has been divided into three categories, the first being worsted manufacturers, which includes those listed as being in the business of machine wool-combing, spinning, and weaving. The second category covers ancillary activities to worsted manufacture, such as wool-staplers (dealers and agents), dyers and finishers. The third category includes those businesses listed as being in the production of textile machine-making and engineering. In the preface to Hodgson's guide he explains that his original intention to cover only the worsted manufacturers of the town quickly expanded to include textile machine-making, so significant an industry had it become.²² Hodgson describes the firm of Prince Smith and Son as, 'unrivalled throughout England and the whole world' as a manufacturer of worsted spinning machinery.²³ Cookson states that over the course of the nineteenth century, Keighley became 'a great centre of textile engineering'.²⁴ Saul describes Keighley as maintaining a global monopoly on the manufacture of worsted machinery into the early twentieth century.²⁵ According to Garrett, the machine-making industry became increasingly important as a source of employment for men in the town and by 1881, whilst the main source of occupation for women remained worsted

²² John Hodgson, *Textile Manufacture, and Other Industries in Keighley* (Keighley: A. Hey, 1879), pp. iii-iv.

²³ Hodgson, pp. 248-9.

²⁴ Gillian Cookson, *The Age of Machinery: Engineering the Industrial Revolution, 1770-1850* (Woodbridge: The Boydell Press, 2018), p. 89.

²⁵ S. B. Saul, 'The Market and Development of the Mechanical Engineering Industries in Britain 1860-1914', *The Economic History Review*, 20 (1967), 112-13.

manufacture, more men were working in the machine-making sector than in textiles.²⁶ This will be explored in greater depth in Chapter 3.

Worsted manufacturers, ancillary businesses, and machine-makers in Keighley across the period

As can be seen in Table 2.1 and Figure 2.1, in Collinson and Co.'s *West Riding of Yorkshire, Leicestershire and Norwich Woollen and Worsted Directory of 1852* there are thirty-seven listings for worsted manufacturers in Keighley, eighteen listings for ancillary businesses to the worsted trade and nine listings for worsted related machine-makers.²⁷ These results were compared to White's directory of 1853 in order to look for any significant discrepancies of the sort previously discussed.²⁸ The results for both directories were very similar, there being only one less manufacturer listed in White's directory and two more ancillary businesses.

²⁶ Garrett, p. 108.

²⁷ Collinson and Co., *West Riding, Leicestershire and Norwich Woollen and Worsted Directory* (Bradford: Collinson and Co., 1852), pp. 401-14.

²⁸ William White, *Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufacturers* (Sheffield: William White, 1853), pp. 539-46.

Table 2.1: Number of worsted manufacturers, ancillary businesses, and machine-makers in Keighley, 1852-1881 (Source: Trade directories)²⁹

Year	Worsted Manufacturers	Ancillary Businesses	Machine-makers
1852	37	18	9
1866	38	16	15
1870	45	25	21
1881	37	15	25

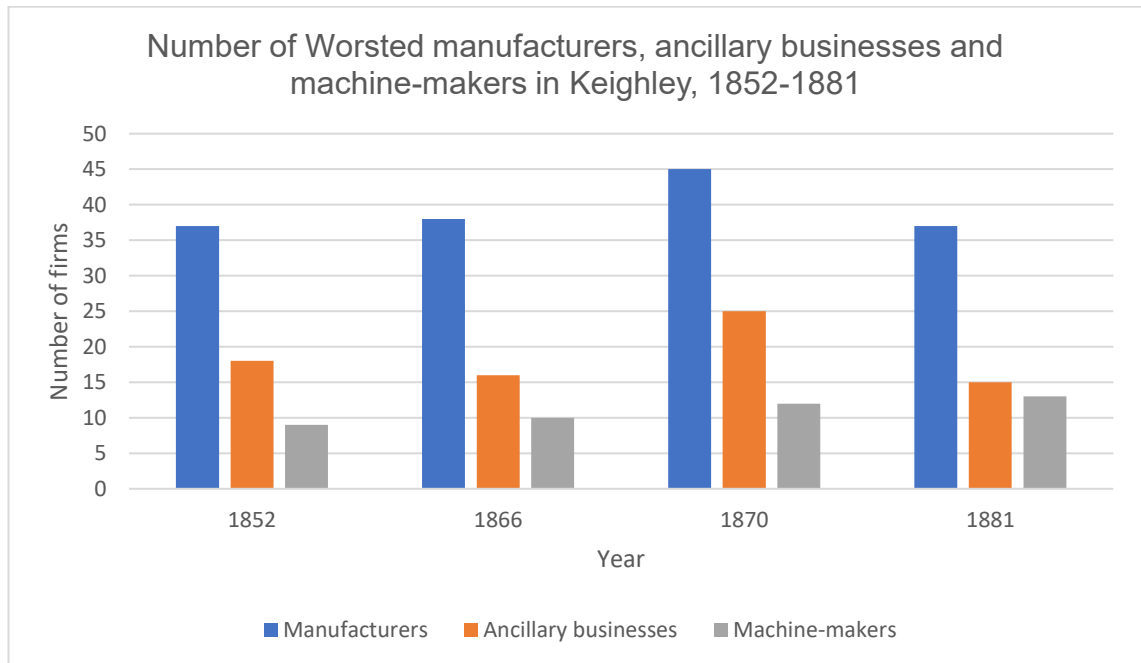


Figure 2.1: Number of worsteds manufacturers, ancillary businesses, and machine-makers in Keighley, 1852-1881 (Source: Trade Directories)³⁰

²⁹ Collinson and Co. *West Riding of Yorkshire, Leicestershire and Norwich Woollen and Worsted Directory* (Bradford: Collinson and Co., 1852), pp. 401-414; William White, *Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufactures* (Sheffield: William White, 1853), pp. 539-46; William White, *Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufactures* (Sheffield: William White, 1866), pp. 666-83; William White, *General and Commercial Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufactures* (Sheffield: William White, 1870), pp. 823-42; Kelly, E. R., *Kelly's Directory of the West Riding of Yorkshire* (London: Kelly and Co., 1881), pp. 573-585.

³⁰ See footnote 29.

Whilst historians such as King describe the Yorkshire woollen industry as being in decline from the 1850s onwards, the situation for the West Riding worsted trade was more complex.³¹ Jenkins and Ponting describe a turbulent period for the worsted industry in the 1860s, hampered at the start of the decade by severe foreign tariffs, the high cost of wool for combing due to supply shortages following the loss of sheep to drought in 1859, and then a reduction in demand for summer cloths during a wet, cool summer in 1860.³² As the decade progressed, the effects of the American Civil War of 1861-65 and resulting Cotton Famine brought about an upturn in demand for worsted cloth and exports increased by forty percent in 1863, rising to an increase of nearly one hundred percent in 1865.³³ From the late 1830s, the West Riding manufactured primarily mixed worsteds whereby non-wool fibres were added to the cloth during weaving, most commonly cotton but also other fibres such as mohair and alpaca.³⁴ As cotton increased in price as a result of shortages during the American Civil War, the wool content in mixed worsteds lowered the cost of worsted cloth in comparison to cotton, which, coupled with an increase in demand for cheaper still all wool worsteds, led to boom conditions for the West Riding industry.³⁵ Garrett observes that worsted clothing also increased in popularity, becoming fashionable at this time.³⁶

³¹ Steven King, 'Women, Migration and Textile Work in West Yorkshire, 1800-51', *Family and Community History*, 24 (2021), 5.

³² Jenkins and Ponting, pp. 153-154.

³³ Jenkins and Ponting, p. 162.

³⁴ Christine Johnstone, 'The Standard of Living of Worsted Workers in Keighley during the Nineteenth Century' (unpublished doctoral thesis, University of York, 1976), pp. 39-40.

³⁵ Johnstone, pp. 43-4.

³⁶ Garrett, p. 102.

The end of the war in America led to concern that demand for worsted would fall but this did not materialise. An annual review of the trade in the *Bradford Observer* in January 1866 was very positive, declaring that since the end of the war the trade's 'fearful forebodings' had proved unfounded, instead buyers had 'flocked' to the market and manufacturers were 'filled with orders, even for very distant delivery', declaring, 'an unexampled state of manufacturing prosperity'.³⁷ Demand continued to be high for the remainder of the decade with the number of worsted mills in Yorkshire rising from 443 in 1862 to 626 by 1867-8.³⁸ This increase is not evident in Keighley in White's directory of 1866, which shows only a small rise in the number of worsted manufacturers from the 1852 and 1853 directories, with thirty-eight listings in 1866.³⁹ There are fewer listings for ancillary businesses to the worsted industry at sixteen.⁴⁰ The most significant change was in the number of listings for machine-makers at fifteen, although the number of worsted machine-makers had increased by only one since 1852 - the other five listings were for the emerging industry of makers of washing machines and sewing machines.⁴¹

As Table 2.1 and Figure 2.1 demonstrate, the picture looked very different by the end of the decade. In White's Directory for 1870, the number of worsted manufacturers in Keighley had increased to forty-five.⁴² Ancillary businesses

³⁷ 'Annual Review of the Worsted Trade', *Bradford Observer*, 4 January 1866, p. 4.

³⁸ Jenkins and Ponting, p. 78.

³⁹ William White, *Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufactures* (Sheffield: William White, 1866), p. 683.

⁴⁰ White, pp. 678-83.

⁴¹ White, p. 681.

⁴² William White, *General and Commercial Directory of Leeds, Bradford, Huddersfield, Halifax, Wakefield, Dewsbury ... and all the Parishes and Villages in and near those Populous Districts of the West Riding, forming the Great Seats of the Woollen and Worsted Manufactures* (Sheffield: William White, 1870), p. 841.

had increased by nine to twenty-five.⁴³ As had been the case in 1866, the listings for machine-makers had risen, this time to twenty-one, twelve of which were for the worsted industry.⁴⁴ By the end of the decade the worsted industry in Keighley can be seen to be following a similar pattern to the rest of the West Riding in that there appears to be a marked increase in economic activity. It is possible that the same may be true of the town's industry in 1866 in terms of the amount of trade each manufacturer was doing if not in an increase in the number of manufacturers. The examination of business records in Chapter 4 will be more illuminating on this matter.

From the mid-1870s the tide had turned. The *Bradford Observer's* annual review of the worsted trade at the end of 1878 had a very different tone to the buoyant optimism of 1866, lamenting that the last four annual reviews had reported, 'an uninterrupted succession of bad years', declaring that business had become 'worse and worse' with 'every occasional improvement immediately followed by renewed gloom'.⁴⁵ The newspaper gave the number of worsted firms declared bankrupt for 1878 as being thirty-four (five of which were Keighley firms), listing the numbers for the previous three years as forty-two in 1875, twenty-four in 1876 and thirty-one in 1877.⁴⁶ This contrasts markedly with a Yorkshire-wide average of fifteen firms per year failing in the years 1866-70.⁴⁷ Of the West Riding firms in existence in 1870, only half had survived by 1875.⁴⁸

⁴³ White, pp. 835-41.

⁴⁴ White, p. 839.

⁴⁵ 'Annual Review of the Bradford Trade', *Bradford Observer*, 28 December 1878, pp. 6-7.

⁴⁶ 'Annual Review of the Bradford Trade', *Bradford Observer*, 28 December 1878, p. 7.

⁴⁷ Jenkins and Ponting, p. 274.

⁴⁸ Jenkins and Ponting, p. 272.

Dewhirst describes industry in Keighley as 'booming' at the end of the 1870s, although he includes in this the textile engineering and machine-making branch of the town's industry.⁴⁹ In contrast, Garrett argues that for the worsted manufacturers of Keighley from the mid-1870s, industry was far from booming; 'fickle fashion' turning away from worsteds coupled with foreign tariffs that disadvantaged heavier cloth hit Keighley especially hard as the heaviest worsteds were produced in the town.⁵⁰ *Kelly's Directory of the West Riding of Yorkshire* of 1881 has been used for the end of the period of the study.⁵¹ The number of worsted manufacturers listed had fallen from the forty-five of 1870 to thirty-seven, as had ancillary businesses, which had fallen to fifteen. Machine-makers had risen to twenty-five, thirteen of which were for the worsted industry and twelve for washing and sewing machines.

In conclusion, Keighley can be seen to have largely followed a similar pattern to that of the West Riding, with trade growing in the latter half of the 1860s and then declining from the mid-1870s. Returning to Laxton's description of the geographical concentration and specialisation typical of the textile industry, he goes on to say that this made textile towns vulnerable to downturns as they were economically heavily reliant on one industry.⁵² This can be seen in the West Riding with towns such as Bradford suffering great economic downturns as described in the annual reviews in the *Bradford Observer*. The same is true of Keighley, although whilst the home market declined, the global market for worsted machinery referred to by Saul meant the town's parallel engineering

⁴⁹ Ian Dewhirst, *A History of Keighley* (Keighley: Keighley Corporation, 1971), p. 92.

⁵⁰ Garrett, p. 105.

⁵¹ E. R. Kelly, *Kelly's Directory of the West Riding of Yorkshire* (London: Kelly and Co., 1881), pp. 573-85.

⁵² Laxton, p. 106.

and machine-making industry continued to grow as the period of this study came to an end and was to thrive into the twentieth century.⁵³ Wool, therefore, continued to bring prosperity to the town, albeit in a different form.

⁵³ Saul, 112-13.

Chapter 3: Keighley's Working Men, Women and Children

The industrialisation of Britain during the eighteenth and nineteenth centuries brought about large-scale population change, with the population of England and Wales increasing in size from 8,872,980 million in 1801, to 32,527,843 million in 1901.¹ According to Anderson, much of this growth took place in manufacturing cities and towns, of which Keighley is one such example.² This chapter will explore changes in the occupations of the population of the town between 1851 and 1881, and the extent to which this follows the pattern of what was happening in the West Riding as a whole.

The period is described as one of growth, stagnation, and the beginnings of decline in the town's worsted industry and this chapter will assess whether this is reflected in the occupations of its population.³ Was the proportion of people employed in the worsted industry at the end of the period smaller than at the start, and did this differ according to gender and age? It will find that the proportion of women employed in the industry changed little over the period, but for men the proportion was much smaller at the end than the beginning. The proportion of younger children working in the mills also fell as the numbers attending school increased, but for older children it continued to be the main recorded occupation. Following on from the previous chapter, this chapter explores whether evidence in the growth of the machine-making and

¹ *1901 Census of England and Wales: General Report with Appendices*, c. 2174, p. CVIII (1904).

² Michael Anderson, 'The social implications of demographic change', in *The Cambridge Social History of Britain 1750-1950, Volume 2, People and their environment*, ed. by F. M. L. Thompson (Cambridge: Cambridge University Press, 1990), p. 3.

³ Christine Johnstone, 'The Standard of Living of Worsted Workers in Keighley during the Nineteenth Century' (unpublished doctoral thesis, University of York, 1976), p. 55.

engineering industries apparent in the trade directories and Hodgson's work is evident in the occupations of the residents of Keighley but will find that the recordings in the census returns are inconclusive.

Sources and methodology

Using the four decennial census returns from 1851 to 1881, the chapter will examine the recorded occupations of the residents of Keighley, assessing how dominant a sector the woollen textile industry was as a source of employment, whether that changed significantly over the period, and whether the situation was different for men than for women, for adults than for children. In the census Summary Tables, occupation statistics were only published for 'principal towns' (which Keighley was not) during the period, with the exception of 1861 and, even then, only for people over the age of twenty, thereby excluding the large numbers of child and teenage millworkers. It was therefore decided to use a sampling method instead, looking at the recorded occupations of the residents of eleven streets in Keighley (Westgate, Turkey Street, South Street, Leeds Street, King Street, Green Street, Fell Lane, Eastwood Square, Burlington Street, Park Lane, and Wellington Street). The selected streets contain 553 (twenty-seven percent) of the 2,066 households enumerated in Keighley in 1851. Whilst the population of Keighley had grown substantially by 1881, the selected streets still provide a significant sample at 728 (thirteen percent) of the 5,617 households enumerated that year.

In deciding which streets to include in the sample, a number of limiting factors quickly became apparent. Whilst a large number of streets were listed in the

1851 returns, many consisted of very few households, often only three or four. Streets with large numbers of households were therefore selected to provide as large a sample as possible. In order to measure change over time it was decided to use streets that were in existence throughout the period, which reduced the choice further as some streets were missing in subsequent censuses (several may have been renamed but it was not possible to verify this from the available maps). The location of Keighley's mills traced the town's water sources: the River Worth, the North Beck, and the River Aire, and the town's residential streets developed around them. The most populous streets were, therefore, close to one or more of Keighley's many mills.

There has been much debate between historians on the reliability of Census Enumerators' Books, particularly as a source of information on the work of women. Higgs outlines the potential biases associated with the male-dominated nature of census-taking in the nineteenth-century when the majority of enumerators were men, most heads of households providing information were men, and the civil servants producing the census schedules and collating the results were also men.⁴ In a recent revisiting of the issue, Higgs and Wilkinson cast doubt on the negative conclusions drawn by historians such as Davidoff and Hall, Hill, Horrell and Humphries, and Higgs himself, whose work in the 1980s and 1990s argued that inaccuracies and general under-recording of the work of women rendered Census Enumerators' Books problematic as a source.⁵ Higgs now casts doubt on how evidence-based these conclusions

⁴ Edward Higgs and Amanda Wilkinson, 'Women, Occupations and Work in the Victorian Censuses Revisited', *History Workshop Journal*, 81 (2016), 17.

⁵ Leonore Davidoff and Catherine Hall, *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* (London: Routledge, 1987); Edward Higgs, 'Women, Occupations and Work in the Nineteenth-century Censuses', *History Workshop Journal*, 23 (1987) 59-80; Bridget Hill,

were, suggesting that many of the assertions were founded not on empirical evidence but on the arguments of others – mainly a guide of his from 1989.⁶ Higgs cites subsequent work including that of McKay, Anderson, and Shaw-Taylor, which, whilst acknowledging that Census Enumerators' Books are not without their flaws, especially in the recording of casual and seasonal work (including that carried out by men and boys), found Census Enumerators' Books to be a useful and reliable source for the work of women.⁷ A more recent study by You on the work of women used the 1881 Census Enumerators' Books to very good effect.⁸ For adults aged sixteen and over, all occupations have been counted across the period. For children, results have been collected according to age: those aged eight to ten, and those aged eleven to fifteen (there were less than twenty recordings for children with occupations aged under eight across the period). The Summary Tables were consulted for statistics for the West Riding overall.

Male and female employment and the impact of mechanisation

The population of the West Riding increased by almost five times in size between 1801 and 1901, rising from 572,168 to 2,746,867.⁹ This growth is echoed in Keighley where the population increased by almost six times, from

'Women, Work and the Census: A Problem for Historians of Women', *History Workshop*, 35 (1993), 78-94, in Higgs and Wilkinson, 17-18.

⁶ Edward Higgs, *Making Sense of the Census: The Manuscript returns for England and Wales 1801-1901* (London: HMSO, 1989), p. 81 in Higgs and Wilkinson, 19.

⁷ John McKay, 'Married Women in Nineteenth-century Lancashire: The Evidence from the 1851 and 1861 Census Reports', *Local Population Studies*, 61 (1998), 25-37; Michael Anderson, 'What Can the Mid-Victorian Censuses Tell Us About Variations in Married Women's Employment?', *Local Population Studies*, 62 (1999), 9-30; Leigh Shaw-Taylor, 'Diverse Experiences: the Geography of Adult Female Employment in England and the 1851 Census', in *Women's Work in Industrial England: Regional and Local Perspectives*, ed. by Nigel Goose (Hatfield: Local Population Studies, 2007), p. 39 in Higgs and Wilkinson, p. 19.

⁸ Xuesheng You, 'Women's Labour Force Participation in Nineteenth-century England and Wales: Evidence from the 1881 Census Enumerators' Books', *The Economic History Review*, 73 (2020), 106-133.

⁹ *Census of England and Wales 1861 Population Tables Vol. I Numbers and Distribution of the People*, c. 3056, p. 156; *Census of England and Wales 1901 (63 Vict. c. 4) Preliminary Report and Tables of the Population and Houses*, c. 616, p. 3.

8,387 in 1801 to 49,413 in 1901.¹⁰ During the period of this study, the population of the West Riding increased by more than one and a half times, from 1,325,495 in 1851 to 2,197,999 in 1881.¹¹ Keighley followed a similar trajectory, the population increasing from 18,259 in 1851 to 33,540 by 1881.¹² Briggs described Keighley's growth during the nineteenth century as 'spectacular', the causes of which he firmly associated with the town's industrialisation in his description of, 'more men and more machines, fields turned into furnaces, meadows turned into mills'.¹³

According to Hodgson in his 1879 book about the textile industry in Keighley, approximately eighty percent of the male population of the town were employed as weavers or combers between 1810 and 1820.¹⁴ From where Hodgson obtained his figures he does not say, but the wool industry was an important source of male employment in Keighley until the introduction of power looms for weaving in the 1840s and power-driven combing machines in the 1850s meant the resulting lighter work could be done by lower paid women and children, from which point Garrett states the number of adult males employed in woollen textiles began to fall.¹⁵

¹⁰ Great Britain Historical GIS, Population Statistics: Keighley Subdivision through time, Total Population, *A Vision of Britain through Time*.

¹¹ *Census of England and Wales 1861*, c. 3056, p. 156; *Census of England and Wales (43 & 44 Vict. c. 37) 1881 Vol. II, Area, Houses and Population, Registration Counties*, c. 3563, pp. iii.

¹² Ian Dewhirst, *A History of Keighley* (Keighley: Keighley Corporation, 1971), p. 79.

¹³ Asa Briggs and others, *One Hundred Years: The Parish of Keighley, 1848-1948* (Keighley: John Wadsworth Ltd., The Rydal Press, 1948), p. 11.

¹⁴ John Hodgson, *Textile Manufacture, and Other Industries in Keighley* (Keighley: A. Hey, 1879), p. 179.

¹⁵ Eilidh M. Garrett, 'Before their time: Employment and family formation in a Northern textile town, Keighley, 1851-81' (unpublished doctoral thesis, University of Sheffield, 1986), pp. 98-101.

The census returns for 1851 support Hodgson's description of a significant fall in male employment in the worsted industry from the eighty percent of the early decades of the nineteenth-century, although it continued to be an important source of employment. This can be seen in Table 3.1 and Figure 3.1, with over half of adult male occupations in the sample recorded as being in the woollen industry.¹⁶ As can be seen in Figure 3.2, for women it remained by far the biggest employer at almost ninety percent of recorded occupations - only twelve had occupations recorded as being other than in the worsted industry, including dressmakers, servants, landladies, and two mangle women.¹⁷ Whilst the worsted industry was the single largest employer for men, forty-four percent were employed in a variety of other occupations including, amongst others, general and agricultural labourers (and many recorded as simply 'labourer'), iron moulders, hawkers, mechanics, stonemasons and stonemasons' labourers, carpenters, grocers and blacksmiths.¹⁸ The census returns for 1851 show that the worsted industry was the dominant source of employment in the town but that this differed according to gender with a much higher percentage of women employed in the industry than men.

¹⁶ Census Enumerators' Books for Keighley, 1851 (HO107/2287).

¹⁷ Census Enumerators' Books for Keighley, 1851 (HO107/2287).

¹⁸ Census Enumerators' Books for Keighley, 1851 (HO107/2287).

Table 3.1: Numbers and percentages of men and women employed in wool and other industries in the sampled census returns for Keighley, 1851-1881 (Source: Decennial Censuses)¹⁹

	1851		1861		1871		1881	
	Number	%	Number	%	Number	%	Number	%
Men								
Wool	500	56	442	45	292	23	154	17
Other	396	44	534	55	958	77	774	83
Total	896	100	976	100	1250	100	928	100
Women								
Wool	483	88	566	89	608	86	436	85
Other	67	12	70	11	96	14	78	15
Total	550	100	636	100	704	100	514	100

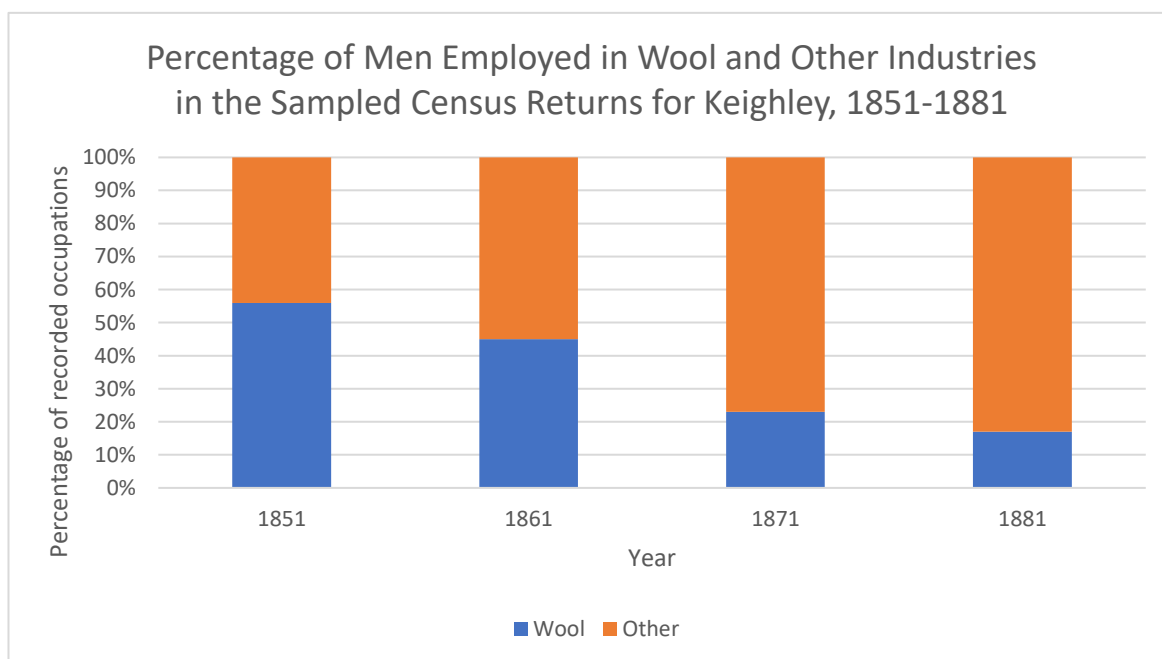


Figure 3.1: Percentage of men employed in wool and other industries in the sampled census returns for Keighley, 1851-1881 (Source: Decennial censuses)²⁰

¹⁹ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

²⁰ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

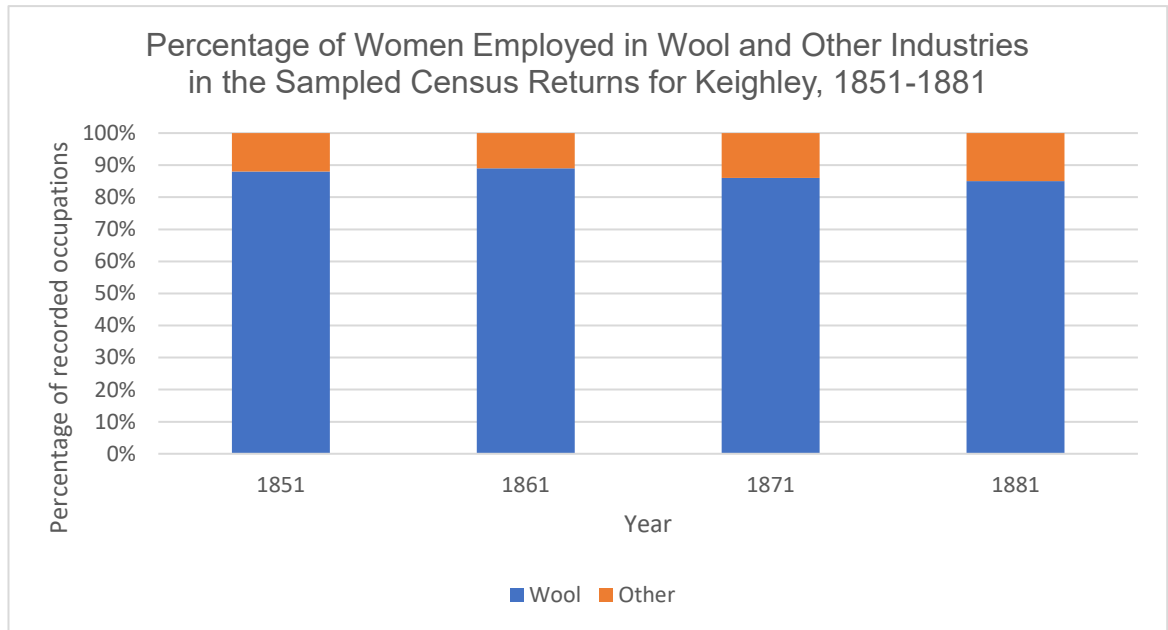


Figure 3.2: Percentage of women employed in wool and other industries in the sampled census returns for Keighley, 1851-1881 (Source: Decennial censuses)²¹

The manufacture of worsted cloth involved a number of processes and, whilst the rate at which each became mechanised varied, hand-spinning, hand-loom weaving, and hand-combing were all but obsolete in the West Riding by 1860. By 1830, spinning was an entirely mechanised process, although the transition was more gradual for weaving as power looms were refined and improved, allowing for absorption of hand-loom weavers into other occupations over a period of time.²² The development of a successful combing machine happened later than it had for spinning but, whilst the mechanisation of combing was a slow and painful process for the industry's hand-combers, once machines were introduced from 1845 the demise of the hand-combing industry was rapid, resulting in acute distress for its workers.²³

²¹ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

²² Eric M. Sigsworth, *Black Dyke Mills: A History* (Liverpool: Liverpool University Press, 1958), pp. 41-2.

²³ Sigsworth, pp. 30-43.

Combing had been a mainly male occupation but, with power loom weaving a largely female occupation and spinning carried out by women and children, the mechanised worsted mills could not provide alternative employment for such a large number of unemployed hand-combers. The hand-combers were faced with the unenviable choice of either taking lower-status jobs in other industries or emigrating.²⁴ A public meeting to discuss what could be done about 'the impoverished state' of the district's wool combers was held in Bradford in 1854; the situation was considered so dire that it was proposed by the Woolcombers' Committee that financial support to enable emigration to the colonies could be a solution to the very real prospect of starvation faced by many wool combers and their families.²⁵ A solution not welcomed by all - one comber present at the meeting, Abraham Robinson, argued that, 'no Englishman should be transported to a foreign land in order to obtain a livelihood', calling for an additional plan of 'home colonisation' for those who, like him, 'loved his country and wished to stay in it'.²⁶

Emigration continued to be seen as a viable solution seven years later when wool was by this time being combed almost exclusively by machine. A report in the *Bradford Observer* in 1861 declared the extent to which machine-combing had replaced hand labour over the previous decade to be 'almost incredible', stating that 219 combing machines were now in operation in the Bradford district with each machine replacing 100 men, leaving a total of 21,900

²⁴ Johnstone, p. 48.

²⁵ 'The Distressed Condition of the Woolcombers, Meeting to Devise Means of Relief', *Bradford Observer*, 26 January 1854, p. 6.

²⁶ *Bradford Observer*, p. 6.

displaced hand-combers, half of whom were struggling to find alternative work.²⁷ The plight of Keighley's hand-combers was equally desperate. Unemployment levels of sixteen percent in 1852 had risen to sixty-three percent by early 1857, ninety-one percent by the summer of that year, and one hundred percent by September.²⁸ The mechanisation of the worsted industry brought with it mass employment for women, but men found themselves surplus to its labour needs as most mechanised jobs were, 'almost wholly reserved for women, adolescents and children'.²⁹ The exception to this was machine-combing but, with a single machine carrying out the work of a hundred men, mechanisation left large numbers of men technologically redundant.

The decline of men employed in the worsted industry described by Hodgson from the earlier part of the century can be seen to have continued throughout the study period. The sampled returns for 1861 show a decrease of eleven percent of men employed in wool from 1851 with fifty-five percent recorded as having other sources of occupation.³⁰ For women, there was no significant change – eighty-nine percent continued to be recorded as working in the worsted industry and eleven percent elsewhere.³¹ A decade later saw more marked change in the recorded occupations of men in the sample. The returns for 1871 show much lower numbers of men working in wool, down to twenty-three percent, with seventy-seven percent recorded as being employed in other

²⁷ 'The Census: The Progress and Prospects of Bradford', *Bradford Observer*, 16 May 1861, p. 6.

²⁸ Johnstone, p. 109.

²⁹ Johnstone, p. 211.

³⁰ Census Enumerators' Books for Keighley, 1861 (RG9/3224, 3225, 3226, 3227).

³¹ Census Enumerators' Books for Keighley, 1861 (RG9/3224, 3225, 3226, 3227).

sectors.³² Once again, the returns show little change for women with eighty-six percent continuing to work in wool and fourteen percent in other occupations.³³

By 1881 more significant change can be seen. Firstly, the total number of occupations is fewer at 1,442 compared with 1,951 in 1871.³⁴ This may be due, in part, to there being fewer household returns at 728, compared with 855 in 1871.³⁵ One street in particular, Park Lane, had significantly fewer returns in 1881 than 1871.³⁶ It is unclear whether this is due to a section of the street falling under a different address or having a number of houses unoccupied or demolished by 1881. Whilst it has not been possible to ascertain whether this was the case from the available contemporary maps, given that the number of returns for the street in the 1891 Census ten years later continued to be much lower than the 1871 figure, this seems a plausible explanation.³⁷ The returns for women show scarcely any change with eighty-five percent recorded as working in wool and fifteen percent in other occupations.³⁸ The returns for 1881 show much more significant change for men with only seventeen percent recorded as working in wool and eighty-three percent in other occupations.³⁹

The sampled returns for Keighley show that the woollen textile industry continued to be the dominant source of employment for women across the

³² Census Enumerators' Books for Keighley, 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321).

³³ Census Enumerators' Books for Keighley, 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321).

³⁴ Census Enumerators' Books for Keighley, 1881 (RG11/4347, 4348, 4349, 4350, 4351).

³⁵ Census Enumerators' Books for Keighley, 1881 (RG11/4347, 4348, 4349, 4350, 4351).

³⁶ Census Enumerators' Books for Keighley, 1881 (RG11/4351).

³⁷ Census Enumerators' Books for Keighley, 1891 (RG12/3539).

³⁸ Census Enumerators' Books for Keighley, 1881 (RG11/4347, 4348, 4349, 4350, 4351).

³⁹ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

period at eighty-eight percent in 1851, falling by only three percent by 1881.⁴⁰ In contrast, the percentage of occupations recorded in the industry for men fell from fifty-six percent in 1851, to seventeen percent in 1881, indicating a growth in other industries and sources of occupation across the period. In his discussion of employment in Keighley, Briggs states it, 'was not a town which put all its eggs in one basket'.⁴¹ By this he was referring to the engineering and machine-making industry which had begun when Keighley firm Hattersleys started making power looms in the 1830s, from which point the town became known as a centre of textile engineering as well as textile manufacture as discussed in the previous chapter.⁴² The growth of this industry in the 1860s produced a demand for male labour and Garrett states that by 1881 more males were working in this sector than in textiles.⁴³

Whilst the census returns sampled across the whole period do show a significant number of men recorded as having occupations in engineering or machine-making, there is no marked increase in those numbers over time and occupation titles are often vague – 'labourer' or 'mechanic' could refer to those industries, but it is not possible to know for sure. For the purposes of this dissertation those numbers have been included in the 'other' category. The male residents of the sampled streets can certainly be seen to have moved into occupations outside the woollen textile industry between 1851 and 1881, but further research using a wider sample or different method using alternative

⁴⁰ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

⁴¹ Briggs and others, p. 13.

⁴² Briggs and others, pp. 11-13; Dewhirst, pp. 23-24.

⁴³ Garrett, p. 108.

sources would be required to capture the increase in engineering and machine-making referred to by Garrett.

Keighley's children

Children made up a sizeable proportion of the workforce of the woollen industry as mechanisation got underway. Historians such as Landes have argued that even without child labour, the efficiency of the mechanised textile mills of the industrial revolution in contrast to hand labour meant they would still have succeeded.⁴⁴ Humphries, conversely, asserts that child labour was crucial, citing Robert Collyer, himself a former child worker in a West Riding mill whose parents were sent from orphanages in London and Norwich to the West Riding as apprentices and who describes, 'an urgent need' to recruit children for the mills, with factory owners going south to, 'scour the asylums where children were to be found in swarms, bring them north and set them to work'.⁴⁵

⁴⁴ David Landes, 'What Do Bosses Really Do?', *The Journal of Economic History*, 46 (1986), 611.

⁴⁵ Robert Collyer, *Some Memories* (Boston: American Unitarian Association, 1908), p. 5 in Humphries, Jane, 'Childhood and Child Labour in the British Industrial Revolution 1: Childhood and Child Labour', *The Economic History Review*, 66, 2 (2013), 404-5.

Table 3.2: Numbers and percentages of the recorded occupations (wool, other, half timer, scholar, and nil) of younger and older children in the sampled census returns for Keighley, 1851-1881 (Source: Decennial Censuses)⁴⁶

	1851		1861		1871		1881	
	Number	%	Number	%	Number	%	Number	%
Wool								
Ages 8-10	35	9	154	24	172	25	18	3
Ages 11-15	130	35	251	40	346	50	257	44
Other								
Ages 8-10	6	2	6	1	3	>1	0	0
Ages 11-15	34	9	46	7	24	3	17	3
Half Timer								
Ages 8-10	16	4	1	>1	30	4	2	>1
Ages 11-15	7	2	2	>1	15	2	3	>1
Scholar								
Ages 8-10	62	17	103	16	41	6	201	35
Ages 11-15	29	8	31	5	43	6	67	12
Nil								
Ages 8-10	30	8	26	4	9	1	8	1
Ages 11-15	20	5	13	2	14	2	8	1
Total	369	103	633	99	697	99	581	99

⁴⁶ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

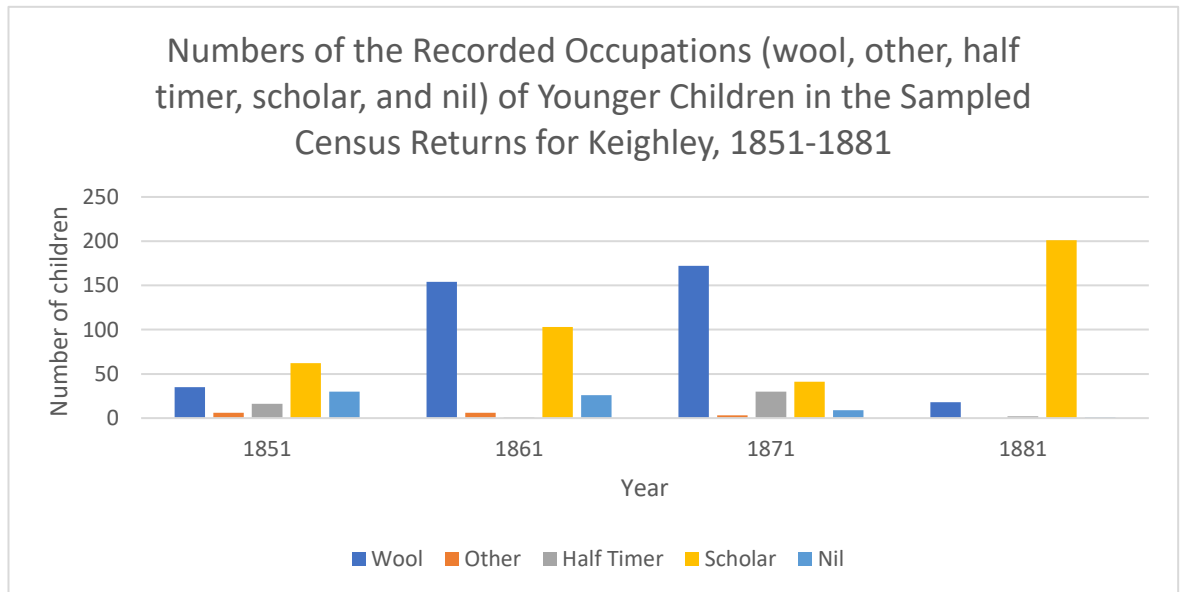


Figure 3.3: Numbers of the recorded occupations (wool, other, half timer, scholar, and nil) of younger children in the sampled census returns for Keighley, 1851-1881.⁴⁷

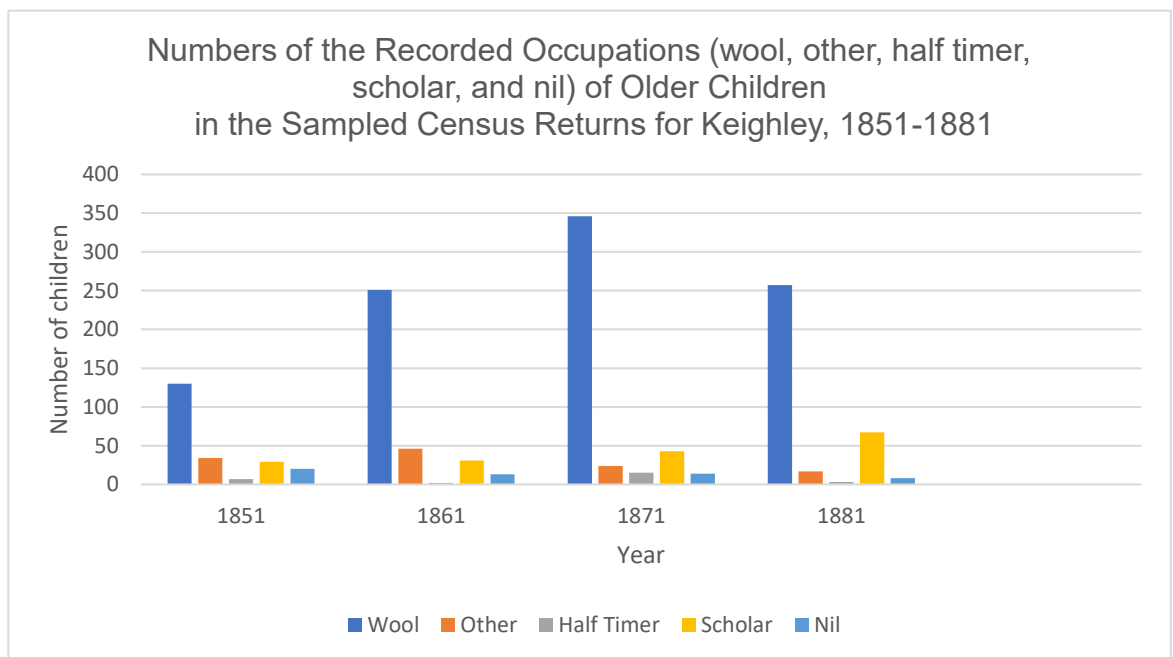


Figure 3.4: Numbers of the recorded occupations (wool, other, half timer, scholar, and nil) of older children in the sampled census returns for Keighley, 1851-1881 (Source: Decennial Censuses)⁴⁸

⁴⁷ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

⁴⁸ Census Enumerators' Books for Keighley, 1851 (HO107/2287); 1861 (RG9/3224, 3225, 3226, 3227); 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321); 1881 (RG11/4347, 4348, 4349, 4350, 4351).

As illustrated in Table 3.2 and Figures 3.3 and 3.4, at the start of this study period a large number of children were working in Keighley's woollen mills. In 1851, forty-four percent of children between the ages of eight and fifteen in the eleven streets sampled are recorded as working in the worsted industry.⁴⁹ Eleven percent are recorded as having employment elsewhere and only twenty-five percent are listed as scholars with a much smaller percentage working as half-timers in the mills or having no recorded occupation.⁵⁰ By 1861 almost a quarter of eight to ten year olds in the sample were working in the mills and forty percent of eleven to fifteen year olds, with the percentage of scholars overall down to twenty-one percent.⁵¹ The numbers had increased again by 1871, with seventy-five percent of the sample's 518 eight to fifteen year olds listed as having occupations in the worsted industry and only twelve percent recorded as scholars.⁵²

The establishment of 'school boards' as a result of the 1870 Education Act had met with resistance in Keighley and one was not set up in the town until 1875.⁵³ By the time a further Education Act was passed in 1880 making school attendance compulsory for children between the ages of five and ten, six Board Schools had been opened.⁵⁴ The changes by 1881 in the recorded occupations of the sample's children is striking. Only three percent of eight to ten-year-olds were working in the mills and the percentage of scholars in that age group had increased from six percent in 1871 to thirty-five percent in 1881.⁵⁵ For the older

⁴⁹ Census Enumerators' Books for Keighley, 1851 (HO107/2287).

⁵⁰ Census Enumerators' Books for Keighley, 1851 (HO107/2287).

⁵¹ Census Enumerators' Books for Keighley, 1861 (RG9/3224, 3225, 3226, 3227).

⁵² Census Enumerators' Books for Keighley, 1871 (RG10/4316, 4317, 4318, 4319, 4320, 4321).

⁵³ Johnstone, p. 73.

⁵⁴ Johnstone, p. 74.

⁵⁵ Census Enumerators' Books for Keighley, 1881 (RG11/4347, 4348, 4349, 4350, 4351).

age group the situation had changed less dramatically. Forty-four percent were recorded as working in the worsted industry and, although the percentage listed as scholars had doubled since the previous decade, it was still low at only twelve percent.⁵⁶ For younger children, the proportion employed in the woollen industry fell significantly by the end of the period but for older children it continued to be a major source of employment.

Comparison with the West Riding

Figure 3.5 shows the number of people in the West Riding employed in the woollen industry across the study period.⁵⁷ However, it is difficult to measure the extent to which Keighley followed what was happening in the county as a whole. The Summary Tables for the West Riding provide statistics for the number of people with occupations in the woollen industry, but the results are organised differently from one census to another. It is possible to chart the numbers working within the woollen trade, but more difficult to establish this as a percentage of recorded occupations overall, especially as the figures for other occupations are not all decipherable. It is also possible to chart the numbers

⁵⁶ Census Enumerators' Books for Keighley, 1881 (RG11/4347, 4348, 4349, 4350, 4351).

⁵⁷ *Census of Great Britain 1851 Population Tables Vol. II, Ages, Civil Conditions, Occupations and Birthplace of the People*, c. 1691-II, pp. 685-99; *Census of England and Wales 1861 Population Tables Vol. II Abstracts of Ages, Occupations and Birthplaces of People*, c. 3221, pp. 404 and 701-719; *Census of England and Wales 1871 Vol. III, Population Abstracts of Age, Civil Conditions and Birthplaces*, c. 872, pp. xxxvi, 465-72; *Census of England and Wales 1881 Vol. III, Ages, Condition as to Marriage, Occupations and Birthplaces*, c. 3722, pp. viii-xiv and 401-12.

according to gender, but more difficult to accurately chart numbers according to age.

In the 1881 Summary Tables the numbers are not broken down into ages as they are in the Tables for the previous three decades. As can be seen in Figure 3.5, for males, the number of occupations recorded as being in the woollen industry fell from 116,949 in 1851 to 79,916 in 1861 before increasing to almost 100,000 in 1871.⁵⁸ The numbers begin to decline again by 1881, which coincides with the slump in the worsted trade from the mid-1870s but could also be a result of the reduction in the number of children recorded as being employed in the woollen mills following the 1880 Education Act, as had happened in Keighley, although this is difficult to say for sure and does not seem to be borne out in the statistics for females.⁵⁹ For females, there is an increase from the recorded 78,361 in 1851 to over 100,000 for the remainder of the study period with growth also apparent for 1881, but this is not a meaningful statistic without knowing the percentage of the overall workforce it represents.⁶⁰ Some thought as to how else to measure Keighley against the West Riding is needed; it would be a laborious task to work out percentages from the Summary Tables and there is likely to be an issue with accuracy due to some of the numbers being impossible to decipher.

⁵⁸ *Census of Great Britain 1851 Population Tables Vol. II, Ages, Civil Conditions, Occupations and Birthplace of the People*, c.1691-II, pp. 685-99; *Census of England and Wales 1861 Population Tables Vol. II Abstracts of Ages, Occupations and Birthplaces of People*, c. 3221, pp. 404 and 701-719; *Census of England and Wales 1871 Vol. III, Population Abstracts of Age, Civil Conditions and Birthplaces*, c. 872, pp. xxxvi, 465-72.

⁵⁹ *Census of England and Wales 1881 Vol. III, Ages, Condition as to Marriage, Occupations and Birthplaces*, c. 3722, pp. viii-xiv and 401-12.

⁶⁰ *Census of Great Britain 1851 Population Tables Vol. II, Ages, Civil Conditions, Occupations and Birthplace of the People*, c. 1691-II, pp. 685-99; *Census of England and Wales 1861 Population Tables Vol. II Abstracts of Ages, Occupations and Birthplaces of People*, c. 3221, pp. 404 and 701-719; *Census of England and Wales 1871 Vol. III, Population Abstracts of Age, Civil Conditions and Birthplaces*, c. 872, pp. xxxvi, 465-72; *Census of England and Wales 1881 Vol. III, Ages, Condition as to Marriage, Occupations and Birthplaces*, c. 3722, pp. viii-xiv and 401-12.

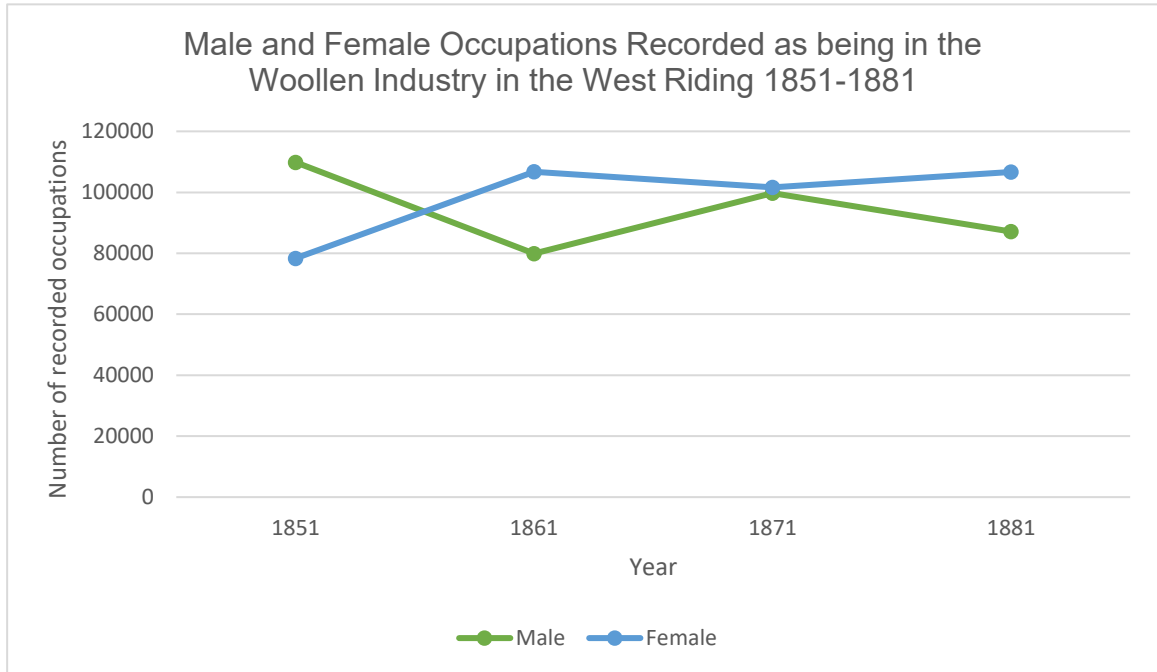


Figure 3.5: Male and female occupations recorded as being in the woollen industry in the West Riding, 1851-1881 (Source: Summary Tables).⁶¹

In conclusion, the worsted industry was an important source of employment in Keighley at the start of the study period. The occupations of over half the men in the returns sampled were recorded as being in wool and almost ninety percent of women. Whilst the majority of men were working in other occupations by the end of the period, for women it remained the dominant source of paid work. Men moved into other occupations in other industries, although more research is needed to evidence the significance of the growth of the engineering and machine-making industries found in the previous chapter's examination of contemporary trade directories. Wool continued to provide employment for almost half of older children throughout the period, but a much smaller

⁶¹ *Census of Great Britain 1851 Population Tables Vol. II, Ages, Civil Conditions, Occupations and Birthplace of the People*, c. 1691-II, pp. 685-99; *Census of England and Wales 1861 Population Tables Vol. II Abstracts of Ages, Occupations and Birthplaces of People*, c. 3221, pp. 404 and 701-719; *Census of England and Wales 1871 Vol. III, Population Abstracts of Age, Civil Conditions and Birthplaces*, c. 872, pp. xxxvi, 465-72; *Census of England and Wales 1881 Vol. III, Ages, Condition as to Marriage, Occupations and Birthplaces*, c. 3722, pp. viii-xiv and 401-12.

proportion of younger children were working in the mills by 1881. More work is needed to assess the extent to which Keighley followed the pattern of what was happening in the West Riding.

Chapter 4: Manufacturers and Machine-makers: the worsted industry in Keighley

The following chapter takes a more detailed look at two specific companies: R. V. Marriner Limited and George Hattersley and Sons Limited in an attempt to assess whether the general patterns in the West Riding worsted trade were borne out by the business and trading affairs of individual Keighley companies. Work by the University of Leeds from 1948 on the history of the wool textile industry led Sigsworth to conclude that in response to wartime appeals for scrap paper, 'an immense destruction of business records had taken place'.¹ Marriner and Hattersley were selected because they each represent a different branch of Keighley's worsted industry (Marriners as worsted spinners and Hattersleys as worsted machine-makers) and because business records for the period, whilst by no means complete, do still exist. However, the records had significant limitations as historical sources including:

- The trading life of both companies extended long beyond the period of this study. This was the case for almost all companies for which existing records could be traced and therefore represent the 'successes'. The records of companies which failed within the study period are largely absent, creating a bias in the findings.
- Even where financial records did exist, substantive financial summaries were not found. Identifying the most illuminating documents was difficult. The number of records held by the archives is vast (360 boxes in the case of Hattersleys alone) and the catalogue listing of 'accounts' was

¹ Eric Sigsworth, *Black Dyke Mills: A History* (Liverpool: Liverpool University Press, 1958), p. ix.

less informative in reality than the term when considered in its twenty-first century usage might suggest. It was beyond the scope of this dissertation to examine every box in each collection.

- Very few sequential records were found in either of the companies which extended throughout the study period (or a substantial period of it) and the analysis of each individual company was therefore constrained by those records which did.

Nevertheless, it was possible to perform the following analysis: for Marriners, the general financial standing of the company throughout from the half yearly balance books and, for Hattersleys, the export performance of the engineering arm of the company for the period 1866-81 from the foreign sales ledger. All of which helps to indicate the extent to which the trading performance of the companies did or did not conform to the overall pattern of the West Riding industry. Amongst the records were a number of miscellaneous items such as invoices, correspondence, and receipts for orders, many of which provided additional relevant information about the two companies. The chapter also looks at the impact of the 'Great Depression' on Keighley through contemporary newspaper reports. The chapter will find that whilst it was not possible to establish how profitable either company was during the period, the expansion of Marriners from the mid-1860s until the start of the downturn did follow the West Riding pattern of growth during the boom times created by the Cotton Famine with evidence of more turbulent times thereafter. Hattersley's foreign exports followed a different trend with growth during the 1870s followed by a downturn at the end of the study period. Both companies survived the wider economic difficulties of the mid-1870s onwards and continued to trade into the twentieth century.

R. V. Marriner Ltd.

The Marriner family began manufacturing worsted cloth from Greengate Mill, a former cotton mill, in 1815 and by 1818 were also spinning their own yarn.² Weaving was discontinued in 1835 from which point the firm concentrated solely on the manufacture of yarn, much of it for the hand knitting market.³ *The Century's Progress* describes the yarn produced by Marriners as, 'known the world over for its unequalled quality of material, manufacture, and durability', crediting the firm's 'efficient machinery' as a major factor in its success.⁴ Combing machines had been installed in 1854 after which time the firm expanded rapidly and also began commission combing for other worsted manufacturers.⁵ The boom in the West Riding worsted trade as a consequence of the American Civil War and resulting Cotton Famine can be seen in the expansion of Marriners during this period. Plans for major extensions to the mill still exist and were carried out between 1867 and 1874.⁶ The changes can be seen in images dating from 1851, 1870 and 1890 with the mill having increased in size throughout the period with the addition of several new buildings (see Figures 4.1, 4.2 and 4.3).⁷ This expansion is also apparent in the valuation of the mill buildings in the half yearly balance books, their value increasing from

² John Hodgson, *Textile Manufacture, and Other Industries in Keighley* (Keighley: A. Hey, 1879), pp. 53-5.

³ Hodgson, p. 54.

⁴ *The Century's Progress* (no author) (London: The London Printing and Engraving Co., 1893), p. 203.

⁵ Hodgson, p. 54.

⁶ Brotherton Library Special Collections (Brotherton), BUS/Marriner/6/Box 57, Plans for the extension of Greengate Mill, January 1861.

⁷ George Ingle, *Marriner's Yarns* (Lancaster: Carnegie House Publishing Ltd., 2004), p. 78; p. 87; p. 123.

£2,823 in 1866 to £6,421 in 1867, and again to £17,034 in 1874 following a second major extension completed in 1873.⁸

Surprisingly, the value of the machinery at Greengate Mill did not vary greatly across the period. An increase might have been expected after the introduction of combing machines in 1854 but there is little change throughout the 1850s up until 1866, with the valuations averaging at £7,045 and only fluctuating by a few hundred pounds either way in any given year.⁹ One explanation for this may be that whereas other Keighley manufacturers such as spinning firm Robert Clough updated their machinery frequently, Marriners chose instead to buy second-hand machines or repair existing ones.¹⁰ An increase to £8,754 is seen in 1867 with the value thereafter remaining fairly constant until 1873, after which the value increased to £10,050 in 1874.¹¹ The increases in 1867 and 1874 could be as a result of the mill extensions when additional machinery may have been purchased for the new buildings.

The value of the company's stocks of raw wool and yarn ready for sale each year accounted for a major part of its circulating capital. During the boom period of the 1860s the stock of wool and yarn was consistently valued at between £20,000 and £30,000 at the end of each year, varying by no more than £5,000 from any one year to the next.¹² As the 1870s progressed until the end of the

⁸ Brotherton, BUS/Marriner/6/Box 66, Ledger 1851-81.

⁹ Brotherton, BUS/Marriner/6/Box 66, Ledger 1851-81.

¹⁰ Maurice G. Smith, 'Robert Clough Ltd., Grove Mill, Keighley: A Study in Technological Redundancy, 1835-65', (unpublished M.A. thesis, University of Leeds, 1982) pp. 41-2; Ingle, pp. 88-9.

¹¹ Brotherton, BUS/Marriner/6/Box 66, Ledger 1, 1851-55; Ledger 2, 1856-81.

¹² Brotherton, BUS/Marriner/6/Box 66, Ledger 1, 1851-55; Ledger 2, 1856-81.

study period in 1881, the value of the stock of wool and yarn was much more volatile: £32,077 in 1873 but £53,741 a year later in 1874; £48,550 in 1876 down to £33,279 in 1877; £34,456 in 1878 jumping to £58,480 in 1879, with a final valuation of £50,853 at the end of the study period in 1881.¹³ It is difficult to draw any conclusions from these figures with regard to how successful trade had been in any given year, although a higher valuation could indicate a less successful year when the company had either overbought raw wool or else sold less yarn, but it is not possible to know with any degree of certainty from the valuations alone. However, the volatility in the valuations throughout the 1870s does seem to reflect the unsettled state of the West Riding worsted industry during this period as described in Chapter 2.

Ingle states that Marriners was never highly profitable, although the firm's financial position was often distorted by members of the family withdrawing large sums of money for personal use, and the purchasing of raw wool was financed with either bank overdrafts or credit from the wool merchants.¹⁴ Nevertheless, the fact the bank was willing to loan the firm money and the wool merchants readily offered credit suggests they considered Marriners to be creditworthy, even during the economically more difficult times of the 1870s. Another mark of the firm's success is that it did survive at a time when many others failed and, whilst the partnership between the two Marriner brothers was dissolved in 1888 due to personal differences and the business divided between them, it remained within the Marriner family until it was sold as a going concern

¹³ Brotherton, BUS/Marriner/6/Box 66, Ledger 1, 1851-55; Ledger 2, 1856-81.

¹⁴ Ingle, p. 101.

in 1957.¹⁵ From the analysis of the records consulted, Marriners would seem to follow the pattern of great expansion in the West Riding trade as a result of the Cotton Famine in the 1860s and early 1870s. However, it is more difficult to draw conclusions as to how it fared after that, other than to say the firm did survive the downturn in trade when other manufacturers did not.

IMAGE REDACTED FOR COPYRIGHT REASONS

Figure 4.1 Greengate Mill circa 1851 (Source: Ingle, p. 78.¹⁶)

¹⁵ Ingle, p. 127.

¹⁶ Ingle, p. 78 (Ingle states that the images were taken from illustrated invoices and business cards from the Marriner records at the Brotherton Library Special Collections but does not give an exact reference for any).

IMAGE REDACTED FOR COPYRIGHT REASONS

Figure 4.2 Greengate Mill circa 1870 showing expansion of the mill buildings since 1851 (Source: Ingle, p. 87.¹⁷)

IMAGE REDACTED FOR COPYRIGHT REASONS

Figure 4.3 Greengate Mill circa 1890 showing further expansion of mill buildings after final extension in 1873 (Source: Ingle, p. 123.¹⁸)

¹⁷ Ingle, p. 87 (see footnote 16).

¹⁸ Ingle, p. 123 (see footnote 16).

George Hattersley and Sons Ltd.

Engineering and machine-making became an important part of the West Riding textile industry during the nineteenth century, especially so in Keighley, which from the 1850s onwards had a near monopoly on the manufacture of worsted spinning frames and power looms.¹⁹ George Hattersley and Sons was founded by Richard Hattersley in Keighley in 1789 when he established a successful business making precision parts for textile machinery.²⁰ Cookson credits Hattersley with being one of 'three influential individuals key to Keighley's transformation into a great centre of textile engineering'.²¹ (The others were William Carr and William Smith, both makers of spinning frames).²² Hattersley's sons and grandsons joined the business, which expanded over time to include four worsted spinning mills in the town between 1840 and 1890. However, the Hattersley name became best known for textile machine-making. Richard's son George Hattersley began making power looms in 1835 alongside the firm's existing precision parts business and, from the mid-1840s, the company focused extensively on worsted power loom manufacture.²³ When George's son Richard Langdon Hattersley became involved in the Keighley business in 1841, annual trips to Germany and the Low Countries to promote the company and

¹⁹ Gillian Cookson, *The Age of Machinery: Engineering the Industrial Revolution, 1770-1850* (Woodbridge: The Boydell Press, 2018), p. 245.

²⁰ Hodgson, pp. 241-5.

²¹ Cookson, p. 89.

²² Hodgson, pp. 244-52.

²³ *The Century's Progress*, p. 204.

keep abreast of technological changes became routine and by 1861 orders from foreign customers made up over a third of the company's business.²⁴

As already discussed, analysis of the Hattersley accounts was confined to its foreign sales ledgers and, as these do not include the earlier part of the study period, it is difficult to know the extent to which it followed the pattern of growth in the West Riding industry at this time without further archival research.

However, the ledgers do give a good indication of what was happening from 1866 onwards. As can be seen in Table 4.1, the value of goods sold to foreign customers fell from £17,328 in 1866 to £10,430 in 1870 before climbing back to just over £17,000 in 1871.²⁵ However, the situation appears to have improved as the new decade progressed. Sigsworth details the extreme pressure worsted machine-makers found themselves under to produce looms quickly enough to meet demand at this time, describing them as 'incessantly engaged'.²⁶ The Hattersley records include a number of letters chasing orders for looms. An order for sixty-one looms from a Hamburg manufacturer placed 'before Easter' in 1871 resulted in a letter in May stating, 'I am forced to request most particularly the earliest possible delivery of them, please do consider my urgency'.²⁷

Sigsworth states that half of the 9,000 worsted looms produced in Britain in 1871 went to West Riding manufacturers.²⁸ It therefore seems reasonable to

²⁴ Cookson, pp. 251-2.

²⁵ West Yorkshire Archive Service (Bradford) (WYAS (Bradford)), 32D83/2/9-10, Hattersley Foreign Ledger, 1866-1881.

²⁶ Sigsworth, pp. 75-6.

²⁷ Brotherton, BUS/Hattersley/II, Letter from Franz Schmidt to Richard L. Hattersley, 11 May 1871.

²⁸ Sigsworth, pp. 75-6.

suggest the home market for Hattersleys may have been equally as buoyant.²⁹ Numerous receipts from 1870 show orders for looms from local manufacturers including thirty-three to Prospect Mill in Wibsey, seven looms to Merrall and Son in Keighley, and forty-two to Joseph Brook in Bradford.³⁰ Table 4.1 shows a sharp increase in the number of active foreign customer accounts as the decade progressed, reaching over a hundred in 1878 before falling back to sixty-four by 1881.³¹ The value of goods sold also increased, jumping to just over £35,000 in 1872, fluctuating thereafter for the remainder of the decade but not falling below £20,000 until the very end of the study period in 1881.³² The growth of its foreign exports started later than the boom in the West Riding worsted industry, but Hattersleys does seem to have followed a similar pattern towards the end of the period with its number of foreign customer accounts falling significantly by 1881 and its value of goods sold also on a downward trajectory. However, as will be discussed later, the company was to continue to thrive well into the next century.

²⁹ Sigsworth, pp. 75-6.

³⁰ WYAS (Bradford), 32D83/33/12, Receipts for orders: Prospect Mill, 10 February 1870; Merrall and Son, 10 May 1870; Joseph Brook, 16 May 1870.

³¹ WYAS (Bradford), 32D83/2/9-10, Foreign Ledger, 1866-1881.

³² WYAS (Bradford), 32D83/2/9-10, Foreign Ledger, 1866-1881.

Table 4.1: George Hattersley and Sons Limited: Active Customer Accounts and Value of Goods Sold, 1866-1881 (Source: WYAS (Bradford), 32D83/2/9-10, Foreign Ledger, 1866-1881)³³

Year	Active Customer Accounts (Purchase Made During Year)	Value of Goods Sold £
1866	51	17,328
1867	58	15,205
1868	52	13,454
1869	53	14,592
1870	48	10,430
1871	54	17,141
1872	76	35,018
1873	82	37,763
1874	81	29,358
1875	90	32,821
1876	93	27,033
1877	90	36,270
1878	103	24,396
1879	85	32,139
1880	68	21,479
1881	64	19,372

The era of Keighley's 'blackest year'

From 1873 until 1896 Britain, along with much of Europe and the United States, experienced an economic downturn which became known as the 'Great Depression'. There has been much debate both at the time and since as to the accuracy of this description and even whether the term should be used at all.³⁴ However, the decline in the worsted industry from the mid-1870s is evident in

³³ WYAS (Bradford), 32D83/2/9-10, Foreign Ledger, 1866-1881.

³⁴ S. B. Saul, *The Myth of the Great Depression, 1873-1896* (London: Macmillan, 1969), p. 55.

reports in local newspaper the *Keighley News* at the start of 1879. In a review of the preceding year, the newspaper described it as 'memorable and sad', lamenting, 'the same dull monotony of falling markets, wages reduced, workmen discharged, mills closed', with the new year having begun in 'depression and distress, such as the present generation has seldom or ever known', and with little prospect of the situation improving - 'neither as yet can we see any ray of light to warrant our hopes that we shall have any immediate change for the better'.³⁵ The newspaper's fiftieth anniversary edition in 1912 declared 1879 to have been the town's 'blackest year', with firms old and new 'unable to bear the strain', stating that 'failures [were] chronicled throughout the greater part of the year, not in ones or twos, but in shoals'.³⁶ Soup kitchens were opened to provide some relief, which, by June, had provided 45,000 pints of soup to the needy.³⁷

Even firms that survived the depression of the 1870s did not escape unscathed. An account of worsted spinning firm Ira Ickringill in 1893 talks of the company's 'steady and substantial development' since its formation in 1867 and the 'conspicuous practical skill, enterprise, and sound judgement' of its administration, but omits to mention the crisis it had faced fourteen years earlier.³⁸ The firm is typical of the large number that sprang up as a result of the boom times of the 1860s only to find itself in financial trouble during the downturn in trade from the mid-1870s. The *Daily News* reported in 1879 that a petition had been filed in Bradford County Court by Ickringill, with the firm's

³⁵ 'The Strikes of 1878', *Keighley News*, 4 January 1879, p. 2.

³⁶ 'Keighley's Blackest Year', *Keighley News Jubilee Number*, 1912, p. 36.

³⁷ *Keighley News Jubilee Number*, p. 36.

³⁸ *The Century's Progress*, p. 204.

liabilities estimated at £42,000.³⁹ The *Keighley News* described the case as being ‘the most sensational’ of the town’s failures at this time.⁴⁰ However, there would appear to be truth in the claims made about the successful administration of the company because it did survive and, eleven years later, had repaid all its creditors in full.⁴¹ There was a less happy ending for another Keighley firm whose petition to the court was reported alongside that of Ickringill in January 1879. Worsted manufacturer Benjamin Bedford of Hope Mill failed with liabilities of £18,000.⁴²

Whilst Marriners and Hattersleys both survived the turbulence of the 1870s, neither was untouched by the difficulties of the decade and it is unlikely that the failure of other firms had no impact on them. Indeed, the failed firm of Benjamin Bedford mentioned above had been a customer of Marriners for commission combing, although whether Marriners was owed money at the point Benjamin Bedfords failed is not known.⁴³ Within the Hattersley records is a request for a summary of the monies owed to them by local worsted manufacturer Green Brothers who had had bankruptcy proceedings filed against them in October 1875.⁴⁴ The records for Hattersley also contain correspondence detailing the lack of returns on the company’s overseas investments. One such letter in 1878 regarding bonds held in the Illinois and St Louis Bridge Company states that no interest will be paid for some time, declaring the bridge company to be ‘loaded

³⁹ ‘Money Market’, *Daily News*, 14 January 1879, p. 3.

⁴⁰ *Keighley News Jubilee Number*, p. 36.

⁴¹ A. Almond, *Biography of James Ickringill* (Keighley: Ogden and Shuttleworth, 1919), p. 34.

⁴² *Daily News*, 14 January 1879, p. 3.

⁴³ Ingle, pp. 88-9.

⁴⁴ WYAS (Bradford), 32D83/33/15, Notice to Creditors in the case of Green Brothers of Kildwick, October 1875.

up with all kinds of indebtedness'.⁴⁵ Whilst not unusual for businesses to face ups and downs even during economically stable times, these sorts of incidents are in keeping with what was happening in the wider West Riding industry during this period.

Hattersleys, however, does seem to have fared better than many. Whilst Keighley saw many manufacturers running at reduced capacity from the mid-1870s, in 1879 Hodgson commented that, 'during the stagnation of trade, which has now continued for several years, they [Hattersleys] have never run their works short time', suggesting the company either continued to prosper or else was financially secure enough to weather the downturn.⁴⁶ Indeed, the company does seem to have continued to thrive throughout and beyond the study period. In 1893 Hattersleys is described as controlling, 'an immense trade, exporting to all parts of the world as well as supplying [manufacturers] ... in all quarters of the United Kingdom'.⁴⁷ The company's original Honours Board is currently displayed in Bradford city centre and shows patents awarded between 1858 and 1929 including six between 1874 and 1881, together with a list of international awards including Moscow in 1872, Leeds in 1875, Paris in 1878, and Bradford in 1882.⁴⁸ Patents and international awards continued to be received into the twentieth century with the last patent recorded on the board sometime after 1929, and the final award in Roubaix in 1911.⁴⁹

⁴⁵ WYAS (Bradford), 32D83/33/13, Letter from H. Waddington to Richard L. Hattersley, 22 May 1878.

⁴⁶ Hodgson, p. 275.

⁴⁷ *The Century's Progress*, p. 204.

⁴⁸ George Hattersley and Sons 'Company Honours Board', 1858 to 1929, on public display in Sunbridge Wells, Sunbridge Road, Bradford, 5 December 2022.

⁴⁹ Hattersley 'Company Honours Board', 1858 to 1929.

In conclusion, Marriners appears to have followed the pattern of the West Riding worsted industry with a period of growth during the boom times created by the Cotton Famine. The value of the mill buildings increased following extensions to Greengate Mill between 1867 and 1873. The turbulence of the worsted trade from the mid-1870s is echoed in the volatility of the value of the company's stocks of raw wool and yarns ready for sale. For Hattersleys, the pattern looks different in that the firm's export trade increased from 1872 with a growing number of customer accounts and less dramatic fluctuations in the value of goods sold, although a downturn does seem to have begun from 1880. Both companies were affected by the economic downturn of the time with customers declared bankrupt and the overseas investments of Hattersleys being adversely affected. However, both firms survived long beyond the period of this study and, as an example of Keighley's worsted engineering sector, Hattersley illustrates how this other branch of the worsted industry continued to bring prosperity to the town.

Chapter 5: Conclusion

This study sought to determine the extent to which Keighley reflects the pattern of growth, stagnation and decline in the West Riding wool textile industry between 1851 and 1881. Using trade directories from the time the study looked at the listings of worsted manufacturers, ancillary businesses, and worsted machine-makers across the period in order to chart any growth or decline in their numbers. The numbers of manufacturers increased between the mid-1860s and 1870 before falling back to levels similar to those of the early 1850s by 1881, reflecting the pattern of growth and decline in the West Riding industry at this time. Ancillary businesses to the worsted trade decreased between 1852 and 1866 but had risen in 1870 before falling back at the end of the study period. Whilst the growth in the number of worsted manufacturers and ancillary businesses in Keighley can be seen to have closely followed the pattern in the West Riding across the period, the numbers of machine-makers, in contrast, did not. There was no notably big increase at any particular point in the period, although the number of machine-makers did continue to grow steadily throughout with no visible decline by 1881.

Differences in relation to gender were found and these became more pronounced as the period progressed. Hudson's assertion that in 1851 the workforce of Yorkshire's worsted mills was 'largely female whilst male employment suffered' continued to be true of Keighley for the following three decades.¹ The analysis of the Census Enumerators' Books for the four decennial censuses during the study period showed

¹ Pat Hudson, *The Industrial Revolution* (London: Edward Arnold, 1992), p. 119.

the worsted industry to be an important source of employment in Keighley in 1851. Over fifty percent of the men and nearly ninety percent of the women in the returns sampled gave their occupations as being in the wool industry. Evidence from local and regional newspapers demonstrated the impact the mechanisation of the worsted industry, particularly that of wool combing, had on male employment. By 1881, the worsted mills in Keighley had become much less important as a source of employment for men, the majority of whom had moved into other occupations, whereas it continued to be the main source of employment for the sample's women. Evidence of Garrett's description of the large numbers of men migrating to the engineering and machine-making industries was not found in the sampled returns, although this was likely to have been due, at least in part, to the vagaries of the terms used in the Census Enumerators' Books.²

Differences were also found in relation to age. Significant changes were seen in the recorded occupations of younger children in the study's sample, with a quarter recorded as working in the mills in 1871, falling to three percent by 1881. However, this may reflect the changes brought about by the Education Act of 1880 rather than the decline of the worsted industry, especially as the proportion of older children recorded as working in the mills remained fairly constant throughout the period at around fifty percent.³ The absence of a breakdown of age groups below twenty in the Summary Tables mean that further research would be needed to establish the extent

² Eilidh M. Garrett, 'Before their time: Employment and family formation in a Northern textile town, Keighley, 1851-81' (unpublished doctoral thesis, University of Sheffield, 1986), p. 108.

³ *Elementary Education Act 1880* (43 & 44 Vict. c. 23)

to which the situation in Keighley regarding the industry's impact on the occupations of those living there reflected that of the West Riding.

The case studies of Marriners and Hattersleys showed the different trajectories the worsted manufacturing and worsted machine-making industries took over the period. Whilst the analysis yielded no conclusive evidence as to the profitability of either firm, the expansion of Greengate Mill took place during the period of growth in the West Riding worsted industry, whilst Hattersley's foreign exports appeared to stagnate at this time. The volatility in the valuations of Marriner's stocks of wool and yarns from the mid-1870s echoed the volatility in the wider industry and contrasted with the stability of the valuations during the 1860s. In contrast, Hattersley's foreign sales grew at this time and continued to do so until at least the very end of the study period when both the number of customer accounts and the recorded sales fell. However, unlike many other Keighley businesses, Hattersleys never needed to run its works on short time. The records consulted give no indication of how financially lucrative the 1870s were for Hattersleys, but the company can be seen to have prospered in the awards it received and the patents it secured during the final decade of the study period. Whilst both firms survived, they were each affected by the economic difficulties of the time in different ways, with customers of both firms declared bankrupt and Hattersley's overseas investments performing poorly.

The boom conditions as a result of the Cotton Famine were evident in Keighley in newspaper reports from the time, as was the impact of the economic difficulties from the mid-1870s. Reports of an unparalleled buoyancy in trade even after the

American Civil War ended gave way to sombre reports of company failures, mills running at reduced hours and soup kitchens feeding the hungry, culminating in the town's 'blackest year' in 1879. Keighley can be seen to closely reflect the pattern of growth, stagnation and decline in the West Riding between 1851 and 1881 in its worsted manufacturing industry. However, the town's worsted machine-makers fared better, gaining a prominent position in the global market.

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