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Work and Society in Newcastle upon Tyne, c. 1600-1710

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Work and Society in Newcastle upon Tyne

c. 1600-1710

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Thesis submitted for the degree of Doctor of Philosophy

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September 2013

Andrew Burn, 'Work and Society in Newcastle upon Tyne, c. 1600-1710'.

This study examines the social context of work in seventeenth-century England through a case study of Newcastle upon Tyne, based on a relational database of tens of thousands of linked parish, tax and probate records. Newcastle was a boom town at the start of the seventeenth century, and while the surge in the coal industry produced great wealth for some, it brought flocks of migrant workers that made Newcastle perhaps the fastest-growing provincial town in England. Newcastle's experience was by no means typical, but it is an example of an early modern town changing under economic opportunity and demographic pressure. As well as coal, the town sustained a variety of older trades throughout, although there was a decisive and important structural shift towards wage labour over the century. However, there was no artificial separation between these industrial and 'traditional' workers, nor were the new migrants as universally poor as has sometimes been suggested; the 'hierarchy of occupations' was more an overlapping series of loose categories rather than a rigid structure. The availability and regularity of work is shown to be the critically important factor in making a living in the town even when, by the second half of the seventeenth century, the first coal boom was over and Newcastle society began to settle into its new patterns of life and work.

The study is structured around a series of thematic chapters. Chapter Two charts the development of Newcastle from a relatively marginal port to a huge exporter of coal. Chapter Three explores the impact this growth had on Newcastle's migration-fuelled demography. Chapter Four offers analysis of structural change in occupations brought by these developments, using the parish registers to offer a fuller picture than can be gleaned from other sources. Chapter Five maps occupations in the town and considers whether it was geographically segregated by occupation or class, as well as the role of Newcastle's burgeoning suburbs. Chapter Six introduces linked probate and hearth tax evidence to analyse the wealth and status of individuals working in different groups. Chapter Seven considers the work role of the family in supplementing the income of the household head. Finally, Chapter Eight brings together work from other chapters in considering the meanings and rewards of proletarian labour in early modern England, and in particular in Newcastle.

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Abbreviations

'Accounts'	M.H. Dodds (ed.), 'Municipal Accounts'
C&C	*Continuity and Change*
EcHR	*The Economic History Review*
CCM	M.H. Dodds (ed.), *Common Council Minutes*
DPRI	Durham University, Archives and Special Collections: Probate
Hostmen	F.W. Dendy (ed.), *Records of the Company of Hostmen*
IRSH	*International Review of Social History*
JEH	*Journal of Economic History*
LPS	*Local Population Studies*
NH	*Northern History*
NLS	Newcastle Libraries Service, Department of Local History
OED	*Oxford English Dictionary* (online, revised 2007)
TNA	The National Archives, Kew
TRHS	*Transactions of the Royal Historical Society*
TWA	Tyne and Wear Archives Service
P&P	*Past and Present*
PRD	Parish Register Database – see Appendix I
Shipwrights	D.J. Rowe (ed.), *Records of the Company of Shipwrights*
SS	Surtees Society
UH	*Urban History*
VCH	*Victoria County History*

Conventions

Quotations have, wherever possible, been given in their original spelling, although I have silently expanded routine contractions and occasionally added punctuation, where it is essential for clarity. The year is taken to begin on 1 January and dates on parish registration, probate, and town council records have been adjusted accordingly. Monetary values are given in the original '£ s d' format throughout the text but converted to decimal pounds in the database and tables for ease of calculation. In Chapters 6 and 7, the year of an individuals' probate (which is not necessarily their year of death) is indicated in brackets after their name.

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Acknowledgements

Maps

Map A – John Speed's Newcastle, 1610
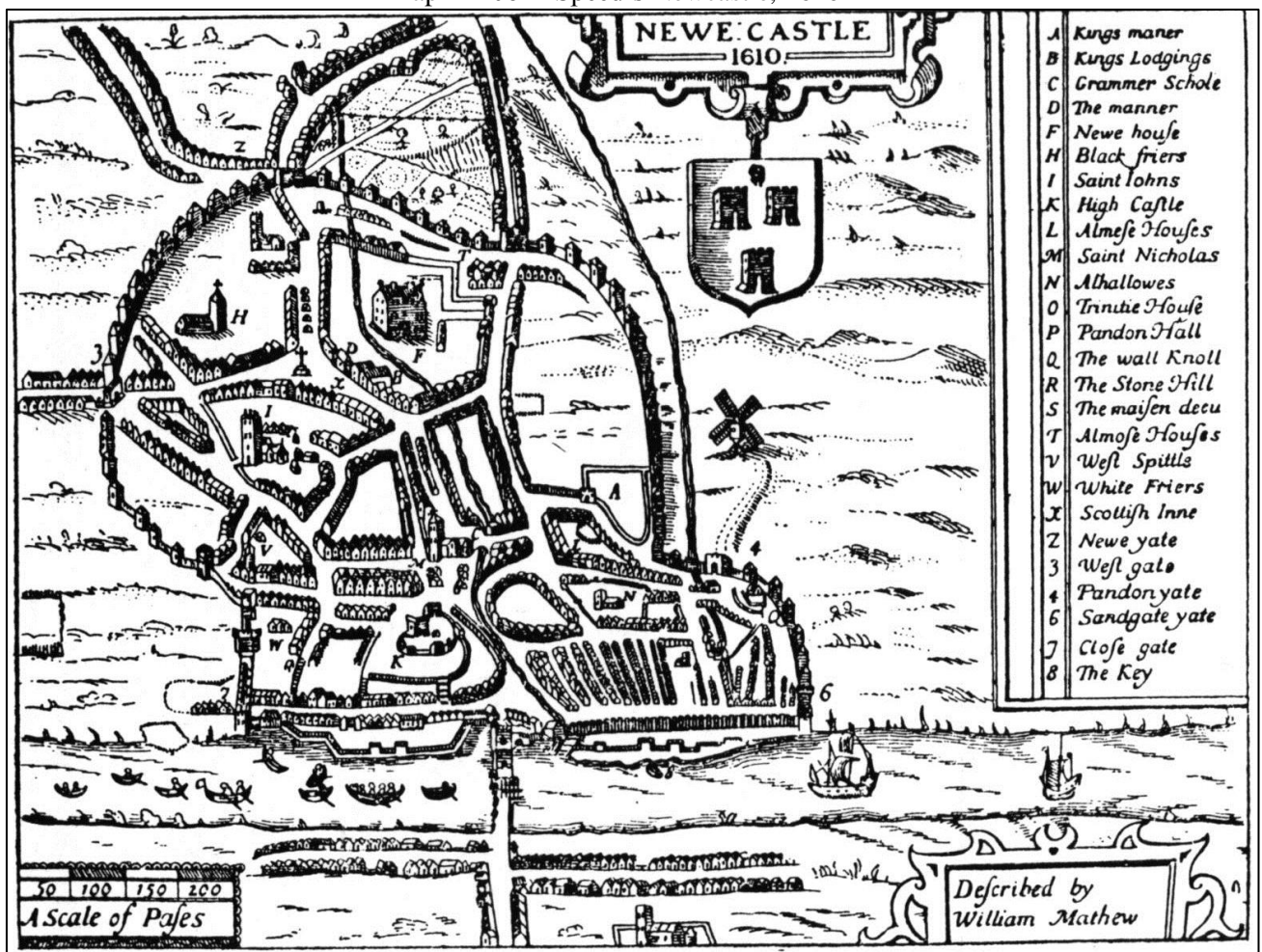
Source: John Speed, 'Northumberland', in his *Theatre of the Empire of Great Britaine* (1611-12).
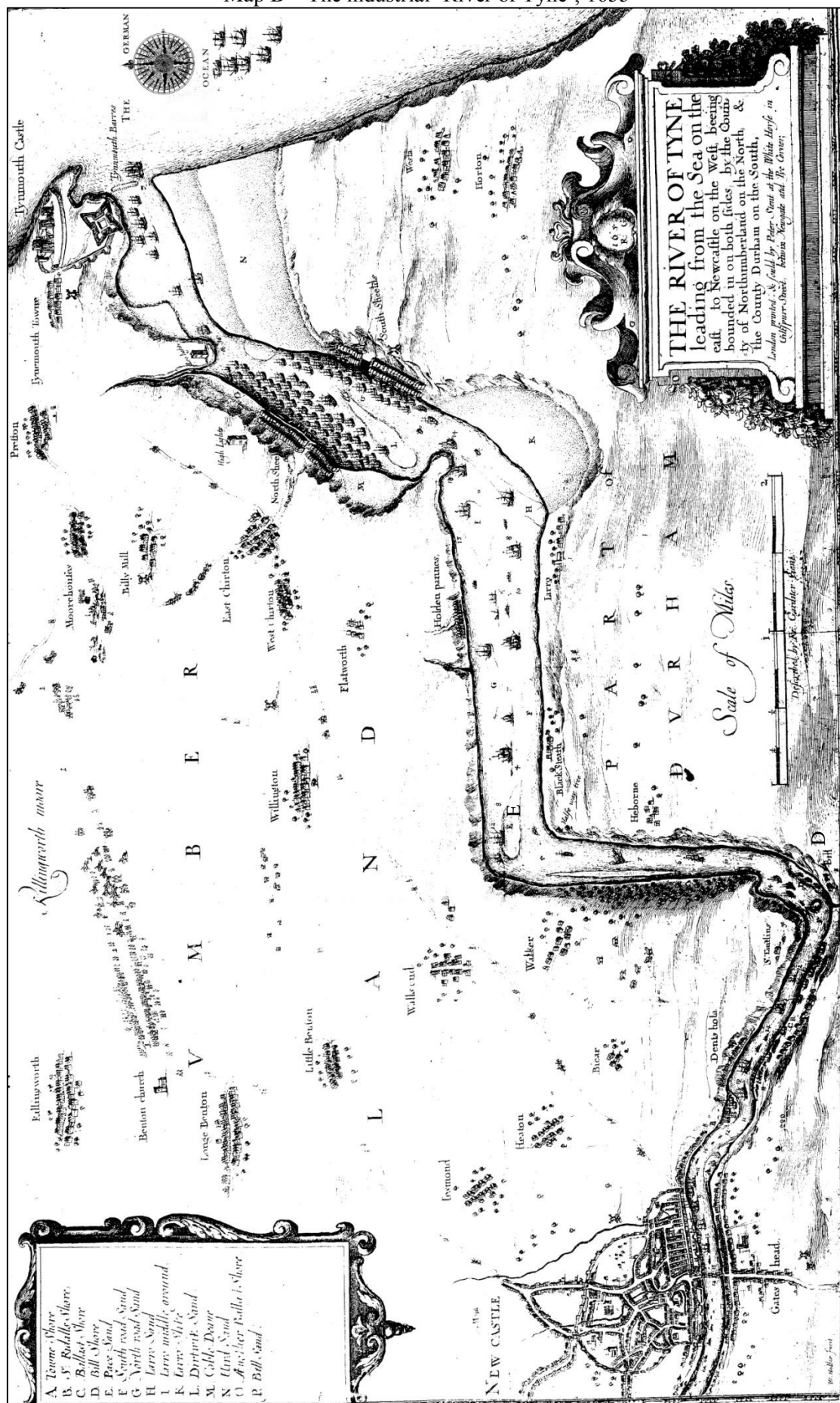
Edited from Ralph Gardiner, *England's Grievance Discovered…* (London, 1655).

Map C – Corbridge Map of Newcastle, 1723

Source: Map in Bourne, *History*, based on James Corbridge, 'Newcastle' [1723], in Frank Graham (ed.), *Maps of Newcastle* (Newcastle, 1984).

Map D – Newcastle upon Tyne, c. 1710, with approximate parish boundaries
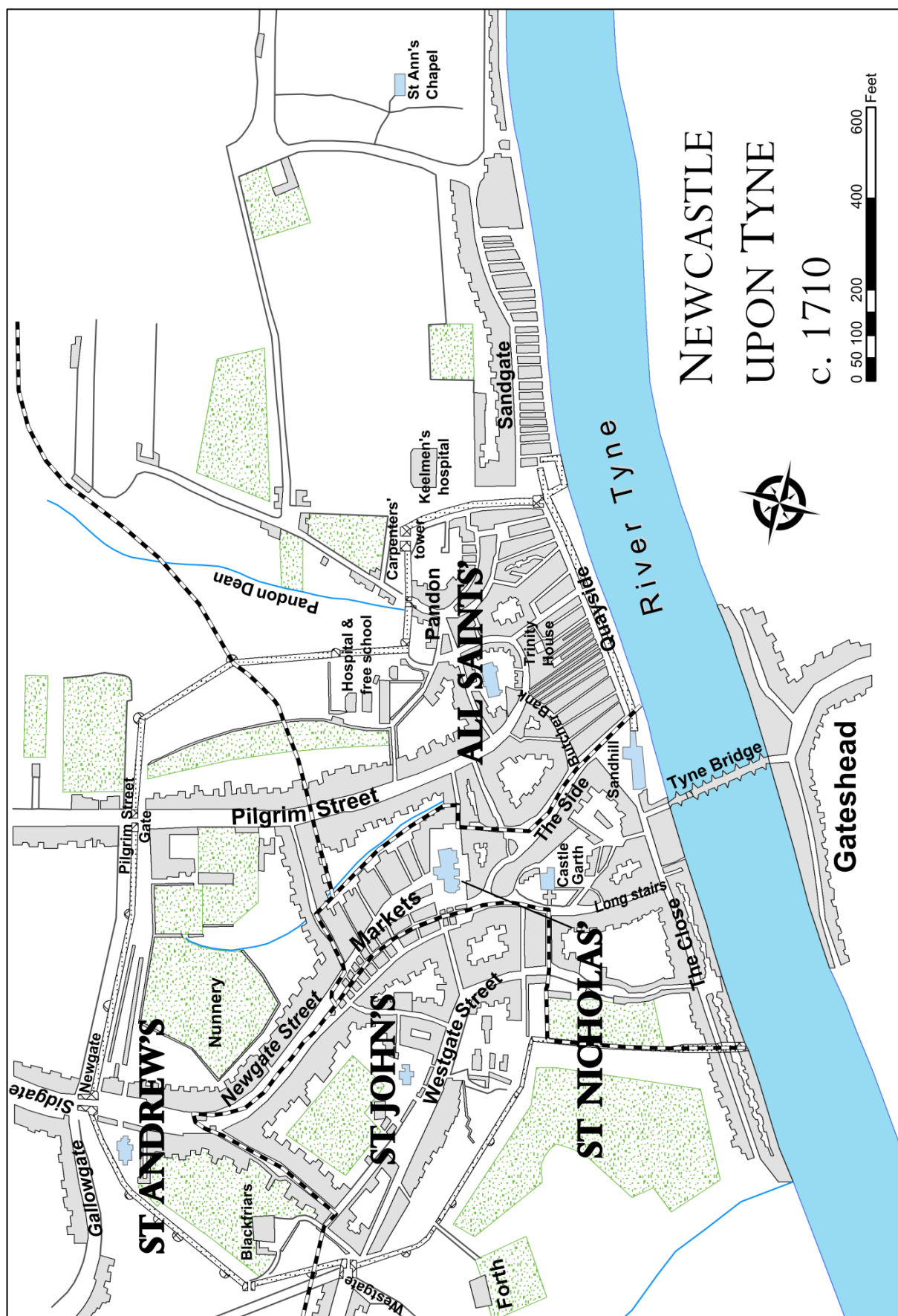
Source: Map C, digitised by the author. Parish boundaries (black and white dashed lines) are based on the addresses given in parish registers. See Chapter 5.

Map E – Occupations of fathers in Newcastle's 9 Areas, 1701-5 (see Chapter 5)
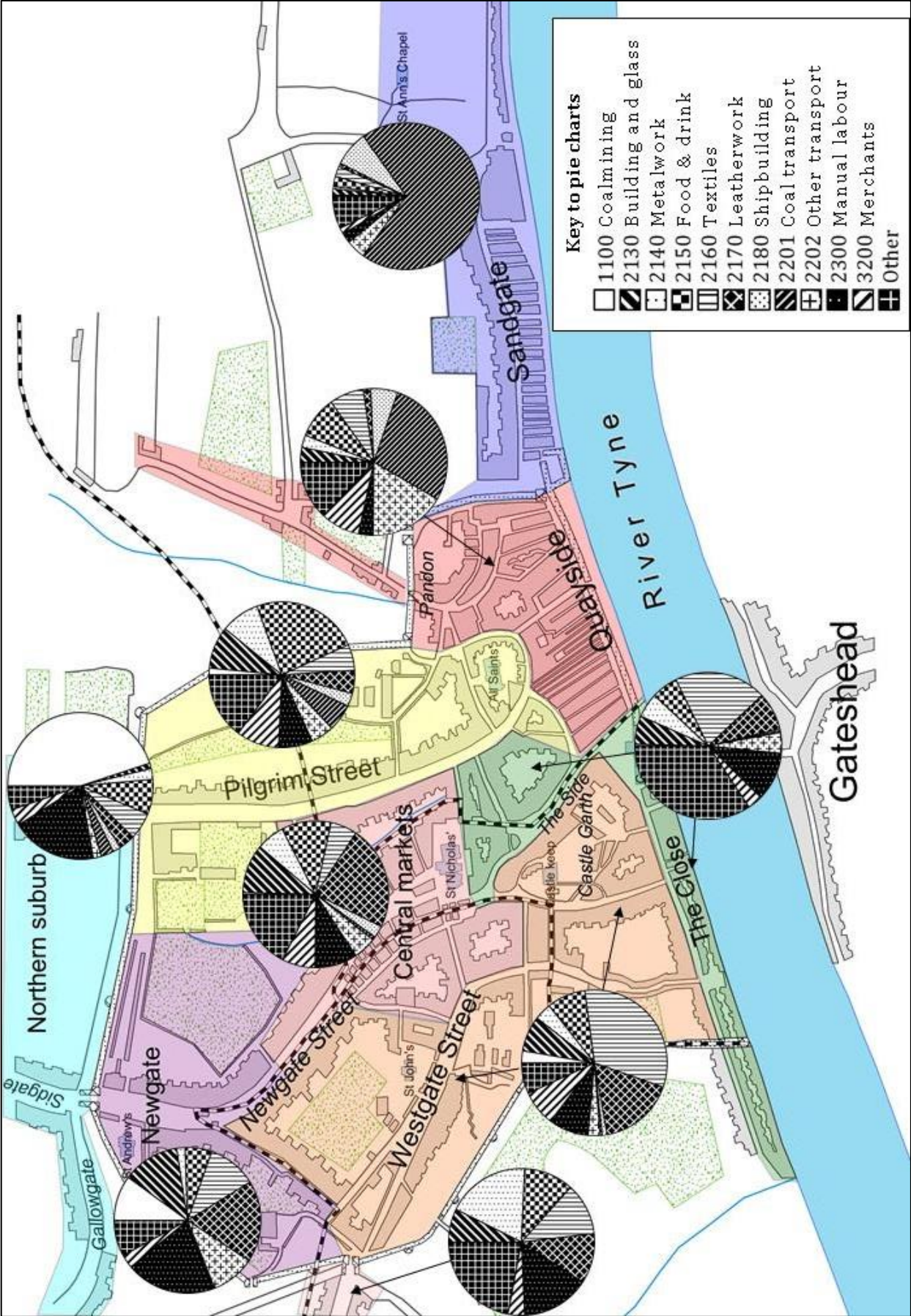
Source: Table 5.3. See Chapter 5

Map F – North-East England: places mentioned in the text

Berwickshire

Berwick-upon-Tweed

Norham

Kelso

Roxburghshire

Jedburgh

Alnwick

Hepple

Northumberland

Ridsdale

Morpeth

Blyth

Cullercoats

Tynemouth

Newcastle upon Tyne

North & South Shields

Hexham

Ryton

Jarrow

Gateshead

Whickham

Sunderland

Chester-le-Street

Houghton-le-Spring

Durham

Stanhope

Cumberland

Hartlepool

Bishop Auckland

County Durham

Heighington

Staindrop

Stockton

Barnard Castle

Darlington

Westmoreland

Yorkshire

Map G – English towns identified as origins of 'foreign' burials (see Chapter 2)

Newcastle ○

Whitby

Scarborough

Bridlington

York ○

Hull

Selby

Key: number of burials

21+

11-20

6-10

2-5

Wells

Blakeney

Burnham

King's Lynn

Yarmouth

Woodbridge

Ipswich

Aldeburgh

Colchester

Harwich

London

Margate

Rochester

Sandwich

Dover

Rye ○

0   50   100 km

Plymouth

Source: PRD ASBur. Map reproduced by permission of Ordnance Survey © Crown copyright 2013, and adapted by the author. *Note:* Scottish and European sailors are identified by country not town, so are not counted.

Chapter 1. Introduction: work and society

Work was the essential economic experience for most people in early modern England. It occupied most waking hours of the day and every day of the week but one. It formed the biggest share of anyone's interaction with the metaphorical and literal marketplace. It determined when or if men and women could get married, how large their families could be, and how well they would be fed; it decided how much energy, time and money was at their disposal for leisure. Work was paradoxically at once a choice and a compulsion, occasionally a joy and more often a curse. Yet it has rarely been given the prominence it deserves in social history. 'Work is a big subject with extensive ramifications', wrote Corfield and Keene in 1990, but 'its history has often been subsumed into wider social and economic studies'.[1] 'Occupations' have usually been thematically separated into a single chapter; only occasionally is work threaded through a book in the same way it was threaded through life.[2] Other studies focus on a single type or section of work – apprenticeship and service, or the brewing or building trades, for example.[3] Both approaches place limitations on the study of occupations, constraining the connections that can be made between different types of work, and between work and other areas of early modern life. Only if we set work firmly in its social context can we hope to more fully explore its significance.

This study considers work in a single town, during a particularly important period in its history, and in the development of English society and the economy. The parishes in Newcastle upon Tyne and the neighbouring coalfields in southern Northumberland and north Durham saw a level of industrial growth over the seventeenth century that was more

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[1] 'Preface' in Penelope Corfield and Derek Keene (eds.), *Work in Towns 850-1850* (Leicester, 1990), p. vi.

[2] Keith Thomas, *The Ends of Life: Roads to Fulfilment in Early Modern England* (Oxford, 2009), ch 3; Keith Wrightson, *English Society, 1580-1680* (London, 1982), ch. 1; Jeremy Boulton, *Neighbourhood and Society: a London Suburb in the Seventeenth Century* (Cambridge, 1987), ch. 3; Fiona Lewis, 'The Demographic and Occupational Structure of Liverpool: a study of the parish registers, 1660-1750', unpublished PhD thesis (University of Liverpool, 1993), ch. 3. Two exceptions, which consider work throughout, are Keith Wrightson, *Earthly Necessities: Economic Lives in Early Modern Britain* (New Haven, 2000) and Brodie Waddell, *God, Duty and Community in English Economic Life, 1660-1720* (Woodbridge, 2012).

[3] Ann Kussmaul, *Servants in Husbandry in Early Modern England* (Cambridge, 1981); Judith Bennett, *Ale, Beer and Brewsters in England: Women's work in a changing world, 1300-1600*, (Oxford, 1996); Donald Woodward, *Men at Work: Labourers and Building Craftsmen in the Towns of Northern England* (Cambridge, 1995).

than equivalent to anywhere else in the world.[4] For John Nef, this growth demonstrates an early industrial revolution in Durham and Newcastle, a prototype for what was to follow all across Britain.[5] For David Levine and Keith Wrightson, Whickham on the south bank of the River Tyne, 'was not a "pre-industrial" parish: it was an industrial parish in a pre-industrial age'.[6] In nearby Newcastle, this sudden growth in industrial activity supplemented a vibrant and already established medieval port that was 'among the wealthiest towns in England…despite its proximity to the Scottish border.'[7] It was the regional centre for the trade in wool, corn and coal, and its position on the east coast gave it close links across the North Sea to the Baltic and the Netherlands, down the coast to London and the intermediate ports, and up to Scotland's east coast. This trade was transformed by the demand for coal in London and by Queen Elizabeth's grant of the 'Grand Lease' to Newcastle's Hostmen in 1578.[8] The expanding trade placed heavy demand on Newcastle's stock of workers and the town is, therefore, an important case study for changes in the pattern of work in this early industrial region, which partly foreshadowed changes that would happen elsewhere in industrialising England over the next two centuries.

At the beginning of the twentieth century Arnold Toynbee's view that the industrial revolution from the 1760s marked a sharp discontinuity had become generally accepted. Writing in the 1930s, Nef was one of few pioneering historians who set to change this received view, arguing that industrialisation was not as 'revolutionary' as Toynbee suggested, at least in its chronology.[9] Nef was calling into the dark, but his point resurfaced in the 1980s and 1990s when Nick Crafts and Knick Harley showed, independently and together, that economic growth in the late eighteenth century was far below the previous calculations of Deane and Cole.[10] Both their figures and interpretation are still the subject of debate, but they have succeeded in cautiously redirecting macroeconomic history towards understanding industrialisation as a phenomenon with much deeper roots, which began well

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[4] R.I. Hodgson, 'The Progress of Enclosure in County Durham, 1550-1870', in H.S.A. Fox and R.A. Butlin (eds.), *Change in the Countryside: Essays on Rural England* (London, 1979), pp. 83-102.

[5] J.U. Nef, *The Rise of the British Coal Industry*, (London, 1932), I, pp. 165-89.

[6] David Levine and Keith Wrightson, *The Making of an Industrial Society: Whickham, 1560-1765* (Oxford, 1991), p. 175.

[7] Constance Fraser, 'The economic growth of Newcastle upon Tyne, 1150-1536', in Diana Newton and A.J. Pollard (eds.), *Newcastle and Gateshead before 1700* (Chichester, 2009), p. 64.

[8] See Chapter 2 for Newcastle's trade; also Levine and Wrightson, *Whickham*, Ch. 1.

[9] J.U. Nef, 'The progress of technology and the growth of large-scale industry in Great Britain, 1540-1640', *EcHR*, Vol. 5 (1934), pp. 3-24

[10] C. Knick Harley, 'British Industrialisation Before 1841: Evidence of slower growth during the industrial revolution', *JEH*, Vol. 42 (1982), pp. 267-89; N.F.R. Crafts, *British Economic Growth during the Industrial Revolution* (Oxford, 1985), ch.1; Crafts and Harley, 'Output Growth and the British Industrial Revolution', *EcHR*, Vol. 45 (1992), pp. 703-730.

before the eighteenth century.[11] For some historians, these roots lie in an emerging culture of capitalism that embraced science and progress, or a certain 'bourgeois dignity'.[12] For others, they lie in a high-wage economy caused by England's demography, a relic of the labour shortages that resulted from the fifteenth-century Black Death.[13] There can be little doubt that the later sixteenth and seventeenth centuries saw economic and social changes that were as important, if less dramatic, than those that came in the eighteenth century. We must look much further back than the 1760s to find the foundations on which English industrial growth was built.

Perhaps the key early development in England was the movement of the population out of agriculture, towards manufacturing and the towns.[14] The economic theory behind this link between growth, development, and the shifting 'sectors' of the workforce can be traced to the wartime and post-war 'progress' economics of Australian civil servant Colin Clark, which identified a large tertiary sector as the hallmark of a 'developed' economy.[15] Simon Kuznets meticulously reconstructed the historical veracity of these claims and it is now widely understood amongst economists that the onset of a modern 'developed' economy is invariably signalled by a long-term shift from the majority of the population working in agricultural production to 'secondary' manufacturing and eventually towards a 'tertiary' service sector.[16] This process combined a revolution in agricultural production and heavy urbanisation, such that in England the population living in 'urban' settlements grew from 5 per cent in about 1520 to 28 per cent in 1801, and more than half of that growth took place before 1700.[17] Thus migration to towns was a crucial part of England's early industrialisation and commercialisation.

As England and Scotland's trade – both internal and overseas – continued to expand, it brought a diverse and continually refreshing set of goods to the market; this in turn, it is argued, precipitated a fundamental change in the way people approached work in the late-seventeenth and early-eighteenth centuries. Jan de Vries's 'industrious revolution' – based broadly on Gary Becker's theory of the allocation of time within the household[18] – describes a surge in demand brought about by intensified desires for the useful and the

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[11] Maxine Berg and Pat Hudson, 'Rehabilitating the Industrial Revolution', *EcHR*, Vol. 45 (1992), pp. 24-40.

[12] Joel Mokyr, *The Enlightened Economy: Britain and the Industrial Revolution* (New Haven, 2009); Deirdre N. McCloskey, *Bourgeois Dignity: Why economics can't explain the modern world* (Chicago, 2010).

[13] Robert Allen, *The British Industrial Revolution in Global Perspective* (Cambridge, 2009), p. 1-22.

[14] See Allen, *British*, p. 17; E.A. Wrigley, 'Urban growth and agricultural change: England and the continent in the early modern period', *Journal of Interdisciplinary History*, Vol. 15, No. 4 (1985), pp. 683-728.

[15] Colin Clark, *The Conditions of Economic Progress* (London, 1940).

[16] Simon Kuznets, *Economic Growth and Structure: Selected Essays* (New York, 1965).

[17] Wrigley, 'Urban growth', p. 688. See below, Chapters 3 and 4.

[18] Gary Becker, 'A Theory of the Allocation of Time', *The Economic Journal*, Vol. 75 (Sep., 1965), pp. 493-517.

exotic that reached down to a progressively wider constituency.[19] In order to buy these goods, households became less self-reliant, making less food at home, and instead selling their labour on the market. Relative material abundance could be achieved, despite falling real wages, because households could devote more time to working. This theory makes an important link between the economic history of the seventeenth century and, in the last 35 years, an explosion in cultural history directed towards consumption. Perhaps in part influenced by the 'trickle-down' economics of the 1980s, the 'consumer revolution' thesis spearheaded by Neil McKendrick argued that a demand boom in the late seventeenth and early eighteenth centuries was the driving force behind economic growth.[20]

The glimmer of exotic consumerism provided by this cultural history is exceptional in the positive spin it gives the experience of industrialisation for ordinary workers as well as capitalists. Most commentators and historians have taken a considerably gloomier view: to be forced into a new pattern of work, to become detached from access to land, to become alienated from the whole process of manufacture, was to lose something very significant.[21] Adam Smith, the principal advocate of the division of labour, nonetheless identified its social and psychological loss:

> …the understandings of the greater part of men are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations, of which the effects are perhaps always the same, or very nearly the same, has no occasion to exert his understanding or to exercise his invention in finding out expedients for removing difficulties which never occur. He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become. The torpor of his mind renders him not only incapable of relishing or bearing a part in any rational conversation, but of conceiving any generous, noble, or tender sentiment, and consequently of forming any just judgment concerning many even of the ordinary duties of private life.[22]

This view influenced the Communist pioneer Friedrich Engels who, during his stay in Manchester in the 1840s, identified 'proletarian conditions…in their classical form, in their perfection'. Industrialisation had caused a profound drop in the living conditions of its workers, manifested in shorter, less healthy, and less fulfilling lives.[23] This was to be central

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[19] Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge, 2008).

[20] Neil McKendrick, John Brewer and J.H. Plumb, *The Birth of a Consumer Society* (Bloomington, 1982); John Brewer and Roy Porter (eds.), *Consumption and the World of Goods* (Abingdon, 1993).

[21] For a recent survey of this literature, see Emma Griffin, *Liberty's Dawn: A People's History of the Industrial Revolution* (New Haven, 2013), pp. 10-16.

[22] Adam Smith, *An Inquiry Into the Nature and Cause of the Wealth of Nations*, eds. Campbell and Skinner (1776; Oxford, 1976), pp. 781-2.

[23] Friedrich Engels, *The Condition of the Working Class in England* (1845); original German preface: <http://www.marxists.org/archive/marx/works/1845/condition-working-class/ch01.htm>

to his and Marx's *Communist Manifesto* (1848) and Marx's masterpiece *Capital* (1867).[24] Marx and Engels' work would largely not be translated into English until the end of the 1880s, but in the meantime (and apparently independently) Arnold Toynbee continued the development of this particular strain of Smith's thought, identifying the industrial revolution as:

> a darker period – a period as disastrous and as terrible as any through which a nation ever passed;… because, side by side with a great increase of wealth was seen an enormous increase of pauperism […]. The misery which came upon large sections of the working people at this epoch was often, though not always, due to a fall in wages... But they suffered likewise from the conditions of labour under the factory system, from the rise of prices… [and] sudden fluctuations of trade […]. The effects of the industrial Revolution prove that free competition may produce wealth without producing well-being.[25]

Toynbee's posthumously published lectures introduced the expression 'industrial revolution' and advanced the themes of industrialisation and alienation. These would be pushed forward by the Webbs, the Hammonds, and the British Marxist historians of the later twentieth century, including Eric Hobsbawm and in particular E.P. Thompson, who noted that 'the process of industrialisation must, in any conceivable social context, entail suffering…'.[26]

A succession of empirical studies largely confirmed this view, reporting that workers lost control of the hours of their day, that children were forced into difficult and dangerous work, and that real wages declined with the advent of industrialism.[27] Yet these findings do not reflect the way in which working people wrote about their lives in autobiographies, argues Emma Griffin. In fact, they reported more power and security in their work, not less, and 'substantial improvements in their living standards, not in spite of industrialisation, but because of it'.[28] Similarly, free market economists remind us that 'the poor have been the chief beneficiaries of modern capitalism'.[29] While this particular debate applies most closely to the factory work of north-west England in the industrial revolution after 1760, other areas that saw early industrial growth need to be considered. This includes the pitmen of Whickham who 'were something of a race apart, in the extraordinary environment they inhabited, the nature of their work, and the structure of their society', but they could also

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[24] Karl Marx and Friedrich Engels, *The Communist Manifesto*, trans. Moore with Engels (1848, ed. 1888): <http://www.marxists.org/archive/marx/works/>; Karl Marx, *Capital: Critique of Political Economy*, trans. Moore and Aveling (1867, ed. 1887): <http://www.marxists.org/archive/marx/works/>.

[25] Arnold Toynbee, *Lectures on the Industrial Revolution in England* (1884, ed. 1956), pp. 57, 66; D.C. Coleman, *Myth, History, and the Industrial Revolution* (London, 1992), p. 19.

[26] See especially J.L. and Barbara Hammond, *The Town Labourer, 1760-1832* (London, 1917); E.J. Hobsbawm, *Labouring Men: studies in the history of labour* (London, 1964); E.P. Thompson, *The Making of the English Working Class* (London, 1963), p. 204.

[27] See references in Griffin, *Liberty's Dawn*, pp. 13-17.

[28] Ibid., p. 55.

[29] McCloskey, *Bourgeois Dignity*, p. 70; see also Daron Acemoglu and James Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (London, 2012), pp. 182-212.

acquire 'a certain material indulgence denied most of the labouring poor of their day' and 'bargaining power which loosened their dependence…on their "betters".'[30] Newcastle was the lynchpin of this early industrial society, and it developed its own labouring population in the century after 1560.[31] Despite the careful and highly sympathetic archival work of Joseph Fewster, our understanding of these men and their families retains the 'condescension of posterity' lampooned by Thompson.[32] Historians know their numbers, their migratory origins, and their social standing only through the estimates of their employers – these will be shown in this study to be little more than politically-motivated caricature. In Newcastle and across England, empirical social history still needs to be done. It is an important criticism of the dramatic transnational economic theories of development that they lack a firm empirical basis. Mark Overton noted in 2004 that, in the field of the household economy, 'the development of ideas…has far outpaced further archival work': an overemphasis on the minutiae of élite and middling household consumption has outstripped a real understanding of how such goods were produced and afforded.[33]

It is clear that the two centuries preceding the industrial revolution's traditional springboard in 1760 saw a number of transformations in work that were of critical importance to the industrial change that would follow. But there are still important questions to be answered about the timing and scale of occupational change across England. The Cambridge Group for the History of Population and Social Structure, most known for its innovations in the 'backward projection' of population data, is doing a similar job on occupational data in the centuries before the first official Censuses recorded work systematically.[34] The Group is analysing occupational structure on a national level, using the information recorded on parish baptisms to demonstrate in particular the shift from an agriculturally-dominated economy in England to one increasingly characterised by manufacturing.[35] Undoubtedly, the national and regional-level statistics generated by this project will be an essential benchmark against which local occupational structures can be judged, but the realities of local registration and local language need to be carefully

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[30] Levine and Wrightson, *Whickham*, p. 432. See also Andy Wood, *The Politics of Social Conflict: the Peak Country, 1520-1770* (Cambridge, 1999).
[31] See Chapters 2 and 4.
[32] Joseph Fewster, *The Keelmen of Tyneside: Labour organisation & conflict in the North-East coal industry, 1600-1830* (Woodbridge, 2011); Thompson, *Making*, p. 13.
[33] Mark Overton et al., *Production and Consumption in English Households, 1600-1750* (London, 2004), p. 170; Judith Welford, 'Functional Goods and Fancies: The Production and Consumption of Consumer Goods in Northumberland, Newcastle upon Tyne and Durham c. 1680-1780', unpublished PhD thesis (Durham, 2010).
[34] The work is currently unpublished, but the Group has placed a number of preliminary papers online: <http://www.geog.cam.ac.uk/research/projects/occupations/abstracts/>
[35] E.A. Wrigley, *Continuity, Chance and Change: The Character of the Industrial Revolution in England* (Cambridge, 1988). See below and Chapter 4 for the use of parochial records for occupations.

considered in the way that such data are interpreted. As Chapter 4 demonstrates, Newcastle's coal economy created a specific, highly localised occupational terminology. A combination of the national picture and local texture will be the only way to reliably summarise changing patterns of work. Similarly, we must acknowledge that the population and demography of towns outside London is still at best partially understood. Wrigley only intended his 1985 article on the subject as 'an initial application of this line of thought', but it has been cited by at least fifty articles since 2010.[36] Chapter 3 demonstrates how the demography of provincial towns remains poorly understood: findings from London are too easily extrapolated outwards, with little thought to differing dynamics in other towns.[37]

It is worth considering in close detail the changing pattern of work in Newcastle during its transition from a medieval port economy to the industrialising early modern town of the seventeenth century. The structure of work changed dramatically from being dominated by the medieval pattern of guild-regulated manufacturers, and with a small cohort of powerful merchants, to the distinctively modern abundance of proletarian workers. The medieval trades of the port adapted and developed to meet the changing demands of a growing industrial population, and only declined in relative terms. An equally important question is what impact the changing structures of work had on the lives of the workers involved. The impact of the coal boom was undoubtedly dramatic, but we should not exaggerate the extent to which it created social polarisation. This study removes the keelmen from a historiography that isolates them from the rest of the town, instead considering them alongside other migrant and manual workers. Part of the problem has been a tendency to look backwards on the seventeenth century as an inevitable path up to the eighteenth, and of using a mere handful of later seventeenth-century examples to illustrate this apparent continuity.[38] In the close analysis of different groups in Newcastle's industrialising society, I aim to free Newcastle society from the teleology of a long eighteenth century that definitively ends in a heavy-industrial society.[39] As the early paragraphs of this introduction demonstrated, the seventeenth century is deserving of examination in its own right.

Overall, this study offers evidence – a single piece in a jigsaw – that seeks to inform the wider debates on English economic development. In doing so, it follows in the tradition

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[36] Wrigley, 'Urban growth', p. 684. Citations estimated using Google Scholar <http://scholar.google.com>.

[37] Chris Galley, *The Demography of Early Modern Towns: York in the Sixteenth and Seventeenth Centuries* (Liverpool, 1998), and Chapter 3 of this study.

[38] This is particularly true of Joyce Ellis, 'A dynamic society: social relations in Newcastle-upon-Tyne 1660-1760', in Peter Clark (ed.), *The Transformation of English Provincial Towns 1600-1800* (London, 1984), pp. 190-227.

[39] See Adrian Green with Barbara Crosbie, 'Introduction: "Beyond Coal and Class"' in their *Economy and Culture in North-East England, 1500-1800* (forthcoming).

of English local studies that focus on communities while contributing to larger questions. The pioneer of this field, W.G. Hoskins, applauded close attention to the evidence, including topographical and architectural sources; he also strongly encouraged amateur historians' involvement in the local history of their own parish.[40] In contrast, John Marshall disapproved of the 'discreteness' of most community studies, both in scale and scope, and in particular their unwillingness to look outside the community limits, spatially and thematically.[41] Hoskins argues that the best targets for community study are isolated and rural; his *Midland Peasant* ends at the first glimpses of industrialisation. This, Marshall claimed, conjures an unrealistic 'idealized local community', almost void of conflicts and tensions, and fomenting an 'indiscriminately romantic attitude to the past.'[42] The field has advanced, and Wrightson and Levine were careful not to write isolated community studies. Instead, they aimed 'to study how the villagers of Terling [in Essex] experienced and came to terms with their places in an important period of England's history'. 'If we are to make sense of the history of our village', they reasoned, 'we must begin with that of the nation.' But only by narrowing their scale to such a degree 'can we hope to fully taste the blend of continuity and change, to fully capture the processes of transition that made the sixteenth and seventeenth centuries what they were for the common people of the English countryside.'[43] The community study, when executed well, can capture the detail of economic and social changes within a community, while adding texture to broader patterns.

This study uses similar methods and tools to place the urban experience of seventeenth-century Newcastle fully in its national context, an element often missing from the 'urban histories' considered in Chapter 2. Direct comparisons are made where possible, although they are hampered by particular gaps in our historical knowledge. Alongside a bias towards the countryside, work on English society retains a notable southern bias: a wealth of documentation and a tendency to give the south-east an elevated historical status ensure that few studies escape the London focus instigated by Thorold Rogers and others in the late nineteenth century.[44] Donald Woodward broke this trend with his *Men at Work*, a study focused on the building trades in significant northern early modern towns.[45] Four years earlier, Levine and Wrightson concentrated on the parish of Whickham in county Durham, repeating the formula used in their study of Terling for a very different socio-economic

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[40] W.G. Hoskins, *Local History in England* (London, 1983), p. 14.

[41] J.D. Marshall, *The Tyranny of the Discrete: A Discussion of the Problems of Local History In England* (Aldershot, 1997), p. 131.

[42] W.G. Hoskins, *The Midland Peasant* (New York, 1957); Marshall, *Tyranny*, pp. 22, 67, 43.

[43] Keith Wrightson and David Levine, *Poverty and Piety in an English Village: Terling, 1525-1700* (Oxford, 1979), pp. xii, 2, 18.

[44] J.E. Thorold Rogers, *A History of Agriculture and Prices in England…* (Oxford, 1866), p. v.

[45] Woodward, *Men at Work*.

context, and producing a study that drastically altered the way historians think about the social processes that surrounded the early coal boom. At the centre of their work is an enormous exercise in family reconstitution. They created a separate entry for each family in a card index, linking parish records with probate inventories and other records.[46] This revealed aspects of society and families in the parish that had previously gone almost unstudied. Whickham, just south-west of Newcastle, was at the heart of the Tyneside coal belt, in many ways the archetype of Nef's 'early industrial revolution'. Already by the seventeenth century, north-east England was both a highly concentrated producer of coal and the locus of a kaleidoscope of identities and associations that had not yet condensed into a coherent 'regional' identity,[47] although it was on the path from a 'mosaic of localised societies' to a 'striking…commercial connectedness of the north-east'.[48] The development of Durham and Northumberland from 1560 to 1700 was driven by coal but it had multifarious characteristics: it spawned a number of spin-off consumer industries including glass and paper; it strengthened and conditioned links with the English capital; and it created an extraordinarily, perhaps uniquely, large proletarian sector in the economy of Newcastle.[49] This had enormous significance for the development of work and society.

The importance of the town of Newcastle and its industrial hinterland are clear, as is the need for empirical work on occupations, but finding the sources to illuminate these problems has proven more challenging. It has been an enduring limitation on economic historians and historical geographers alike that 'occupational statistics on any considerable scale' are rare before the first official national Census in 1801 – and even the Census was defective in its recording of occupations until 1841.[50] Some records relating directly to work do survive, for example individual household lists, drawn up for bureaucratic or tax reasons. Seventeenth- and eighteenth-century Militia Lists, drawn up to assess the potential strength of a local militia often included occupations of individuals, and have offered historians a number of case studies. A particularly thorough list for Gloucester in 1608 gave a broad and detailed picture of the occupational structure in that year, but such a wealth of detail in a single year can be deceptive.[51] Historical geographer Paul Glennie notes that the scarcity of

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[46] Levine and Wrightson, *Whickham.*
[47] Adrian Green and A.J. Pollard, 'Introduction' in their *Regional Identities in North-East England* (Woodbridge, 2007), p. 1.
[48] Keith Wrightson, 'Elements of Identity: The re-making of the North East, 1500-1760' in Robert Colls (ed.), *Northumbria: History and Identity, 547-2000* (Chichester, 2007), pp. 134, 144, 136.
[49] See Welford, 'Functional goods', and Chapters 4, 7 and 8 of this study.
[50] A.J. and R.H. Tawney, 'An occupational census of the Seventeenth Century', *EcHR*. Vol. 5 (1934), pp. 25-64; E.A. Wrigley, 'The occupational structure of England in the mid-nineteenth century', in *idem, Poverty, Progress, and Population* (Cambridge, 2004), pp. 129-203; Paul Glennie, *Distinguishing Men's Trades: occupational sources and debates for pre-census England* (Bristol, 1990).
[51] Tawney & Tawney, 'Occupational Census', Appendix A.

information gives an unfair impression of stability in occupations, as more dynamic individuals could often be missed, and warns that 'most textile, metalworking and other manufacturing regions contained very local specializations, and that these activities could be very dynamic, with rapid changes of fortune and employment'.[52] The limited chronology of source material presents a significant obstacle to the historical analysis: a momentary glimpse is, in isolation, of little use in revealing change and continuity.

Historians' use of misleading, incomplete or socially exclusive sources has been just as problematic. Studies for the later eighteenth century tend to have an over-reliance on trade directories, which are unrepresentative due to the complete absence of workers who had no shop or belonged to no recognised trade.[53] Studies of the seventeenth and early eighteenth centuries are more likely to use freemen's rolls or probate material. The rolls, which recorded the admission of all freemen to guilds in a town, including their company, are wonderfully coherent and easy to use but again they omit important sectors of work including manual labour and, as we shall see, the growing industrial employment that existed outside the corporate guild structure.[54] In other studies, the use of wills and probate inventories, though not restricted by incorporation in the same way, is still socially exclusive because inventories would not normally be taken in households with moveable goods worth under forty shillings. Overton and colleagues estimate that at least 40 per cent of the deceased were missing from their sample, either because their estates were not subject to probate, or because the documents did not survive.[55] In Newcastle, the overlap between geographical areas makes it difficult to generate an accurate estimate of the proportion of the whole population that was recorded in probate, but the occupational character of those that were missed off tends heavily towards labouring and industrial groups, indicating that this would be a highly misleading source to use in isolation.[56]

Parish registers provide a much more complete, though still imperfect, picture; they offer a continuously changing and inclusive cross-section of society. The Newcastle parish registers are richly detailed, and can support far more than bald structural analysis; they are, therefore, the core of the database and additional work presented here. Their quality and detail is inconsistent, however. The number of parish registers that recorded occupations was low until the Rose Act in 1813 made it a legal requirement. There were considerable spikes in the 1690s and 1750s when the Marriage Duty Acts and Hardwicke's Marriage Act

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[52] Glennie, *Distinguishing*.
[53] See e.g. Neil Raven, 'Chelmsford during the industrial revolution, c. 1790-1840', *UH*, Vol. 30 (2003), pp. 42-60.
[54] See Sacks, *Widening Gate*; Reed, 'Ipswich'; Langton, 'Residential Patterns', and countless other studies.
[55] Overton, *Production*, p. 26.
[56] See Table 6.1.

respectively emphasised the requirement for good-quality parish registration, but the impact was geographically inconsistent and short-lived.[57] With a wide regional study in mind, I initially conducted a preliminary occupational survey of a number of parishes in County Durham and Northumberland. This included a study of three contrasting parishes: the coal-mining town of Chester-le-Street, south of Newcastle; the upland farming parish of Stanhope-in-Weardale; and the fishing village and port of Hartlepool.[58] The occupational sources available for these area proved impossibly thin for quantitative analysis; the parish registers provided absolutely no occupational data, barring passing references regarding cause of death. A further survey of forty parish registers for County Durham and Northumberland found they mostly recorded very few occupations across the seventeenth century. Peter Kitson's sample of registers likewise found that barely 6 per cent of Northumberland parishes recorded occupations in four consecutive years or more, compared to the national average of 10.[59] Nonetheless, County Durham's urban and industrialising parishes were more likely to record some occupations than rural areas; coalmining Ryton, on the south bank of the Tyne, and Bishopwearmouth, better known as Sunderland, both had short periods of occupational recording around 1700, but the farming parishes of Sedgefield and Staindrop did not.[60]

This distinction between agricultural and industrial takes us to the heart of the economic and social character of the region in the seventeenth and eighteenth centuries, as well as the purpose of parish registration. The registers were principally a record of baptisms, marriages and burials that parishioners could use to prove their origins or 'settlement' in a particular place, often for the purpose of poor relief. It is no coincidence that the spread and preservation of detailed parish registers closely maps the growth of the Elizabethan Poor Law: vagrancy was a politically charged issue, and parish registers and account books were crucial in the management of the poor.[61] While keeping track of the population in geographically large rural parishes presented authorities with problems, it was the busier and denser parishes with a greater turnover in population that struggled most. Paul Griffiths identifies a strict culture of secrecy in managing parish and guild records in

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[57] Glennie, *Men's Trades*, p. 30.

[58] Andrew Burn, 'An Industrious Revolution in County Durham? Evidence from three parishes', unpublished MA dissertation (Durham University, 2009).

[59] Peter Kitson, 'The recording of occupations in the Anglican baptism registers of England and Wales, 1690-1799', *Cambridge Group for the History of Population and Social Structure: Preliminary papers*, 14 (2007): <http://www.hpss.geog.cam.ac.uk/research/projects/occupations/abstracts/>.

[60] DRO EP/Ryt 1/1-2; EP/Biw/1-3; EP/Stai 1/1; EP/Se 1/1-2.

[61] Tate, *Parish Chest*, p. 46; Steve Hindle, *On the Parish? The Micro-Politics of Poor Relief in Rural England, c. 1550-1750* (Oxford, 2004), ch. 5.

seventeenth-century London, in order to monitor their use.[62] It was in monitoring, identifying, and writing down the names of large and changing populations in urban and industrial parishes that more information was required, and therefore that occupations were recorded more consistently. Newcastle's All Saints' parish, for instance, had as many as eight John Thompsons baptising children at the same time; in a parish of five thousand people, the clerk needed to record more information in order for him to distinguish between homonymous fathers, so recording 'John Thompson, waterman' instead aided these identifications.

It was clearly a time- and paper-consuming process to regularly record occupations on a parish register, and it was only done consistently when external pressure was applied – such as the spike in the 1690s – or when it was absolutely necessary to identify individuals. Despite a generally disappointing level of occupational recording across Durham and Northumberland, Newcastle's parish registers are extraordinarily rich in detail of occupations and sometimes other information such as addresses. There were four principal registers recording in the seventeenth century: St Nicholas' was Newcastle's ecclesiastical parish; St John's, St Andrew's and All Saints' (or Allhallows') were chapelries, but they were administered as independent parishes, with their own clerics and churchwardens. St Nicholas' and All Saints' had further chapelries – on the Tyne Bridge and at the end of the Sandgate Quayside – but they were not administered separately in the same way. St Nicholas' register began recording baptisms in 1558 and the others consistently survive from about 1600, running through to the eighteenth century and beyond with very few gaps.[63] As a result, it has been possible to reconstruct the pattern of population growth and occupational structure in the town from 1600, including counts of all the baptisms and burials for all four parishes every month, analysed in Chapter 3 and three five-year occupation samples, which are presented in Chapter 4.

The records from All Saints' parish form the core of the database which is introduced in Appendix I. All Saints' was the largest, fastest-growing and poorest of the four parishes, and therefore its register was the richest in occupational data; it was simultaneously the most important Newcastle parish, in terms of its developing industrial economy, and the best documented. In total, there were about 31,000 baptisms and 25,000 burials in All Saints' between 1600 and 1710 and all the information on the registers has been captured

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[62] Paul Griffiths, 'Secrecy and authority in late sixteenth- and seventeenth-century London', *Historical Journal*, Vol. 40 (1997), pp. 925-51.

[63] Original registers are held at Northumberland Record Office: NRO EP 9/1-7 (All Saints'), EP 86/1-3 (St Nicholas'), EP 13/1-4 (St Andrew's), EP 73/1-5 (St John's). Microfilm copies are held at Tyne and Wear Archives (TWA): MF 249/250 (All Saints'); MF 263 (St Nicholas'); MF 279 (St Andrew's); MF 528 (St John's).

for the database. This comprises 26 separate fields for the burials, including name of a father or husband, their occupation, the occupation of the deceased, name and occupation of a master if in service or apprenticeship, association with a ship or a birthplace if one is given, and cause of death, although there are few of these given. There are 20 separate fields for the baptisms: alongside the date and the name and surname of the child, the parish clerk usually included the Christian name and occupation of the father. For the relatively rare illegitimate baptisms (discussed in Chapter 3), the names of both the parents would sometimes be recorded. Occupations of mothers were never given, and the efficient clerk rarely included any extraneous information other than these basic details, except occasionally a place of origin for the father (discussed in Chapter 2). Father's occupation was recorded in over 90 per cent of baptism records, although a further 6 per cent were given a status tag such as 'gentleman' or 'yeoman', which could have had some association with their occupation but it was not clear. Such extensive coverage of occupations in the baptism register gives a remarkably complete picture of fathers in All Saints' across the entire century.

We should not imagine that this presents a complete picture of *all* people who worked, however. Baptism registers almost always excluded unmarried men. Thus the vast majority of servants were not represented, nor were apprentices, child workers or highly mobile and very poor inhabitants, who were not married or settled.[64] These groups were still at risk of dying and appearing on the burial registers, which are analysed alongside baptisms in Chapter 4. More serious is the exclusion of women, who, in a patriarchal legal and social system, were usually subsumed into the occupational identities of their fathers or husbands. This omission is not easily corrected, and is particularly significant because the work of women has consistently been seen as a key part of economic development, at least since John Hajnal's sociological study of 1965 which divided Europe according to patterns of marriage. To the north and west of Hajnal's line, which runs 'from St. Petersburg to Trieste', women were more likely to marry later or not at all; women in the south and east would married earlier and had more children.[65] Chapters 4 and 7 offer a qualitative assessment of the work available to Newcastle women, but it has not been possible to generate a quantitative source base that is comparable either with male occupations in

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[64] Problems discussed in, e.g. E.A. Wrigley and R.S. Schofield, *The Population History of England, 1541-1871: A Reconstruction* (London, 1981), p. 137; Andy Wood, *The Politics of Social Conflict: The Peak Country, 1520-1770* (Cambridge, 1999), p. 96; John Langton and Paul Laxton, 'Parish registers and urban structure: the example of eighteenth-century Liverpool', *UH Yearbook* (1978), pp. 74-84.

[65] John Hajnal, 'European marriage patterns in perspective', in D.V. Glass and D.E.C. Eversley (eds.), *Population in History: essays in historical demography* (London, 1965), p. 101. For recent work on Hajnal's marriage pattern, see Tine de Moor and Jan Luiten van Zanden, *Vrouwen en de Geboorte van het Kapitalisme* (Amsterdam, 2006).

Newcastle, or with work that has been done on other towns.[66] A further proportion of the population were not included on registers through religious choice, although the impact of nonconformity is questionable: Wrigley and Schofield showed that little adjustment was required for this when they were reconstructing births and deaths from baptisms and burials across England.[67] Newcastle might have been particularly nonconformist: Robert Jenison, the lecturer at All Saints' was banished during the Bishops' Wars because of his threatening 'nonconformitie'.[68] And by the later eighteenth century the town was awash with dissenting chapels and meeting houses; in the seventeenth century, there was a prominent meeting of Quakers.[69] Chapter 3 offers an attempt to account for those missing, but because these migrants were unlikely to be individually recorded on any surviving records (including tax, probate or Corporation records), their numbers are impossible to estimate accurately.

Despite these problems, the parish registers remain the seventeenth-century occupational source that is simultaneously the most socially comprehensive and chronologically dynamic. The Newcastle Parish Register Database created for this thesis records most All Saints' families across the seventeenth century, and reveals important details about where and how they lived, examined in Chapters 5 and 6. It also provides a useful framework for contextualising other documents, for instance hearth tax. Introduced in 1662, and usually known to contemporaries as the 'chimney tax', it was a detested intrusion into the homes of England's poor and rich alike. In principle, it taxed each hearth in the country (which was not dedicated solely to business use, such as a bakers' oven) at 1 shilling per half-year, collected at Lady Day and Michaelmas. Hearths were seen as a marker of disposable income, which makes the tax particularly useful in estimating the relative wealth of households.[70] Linking hearth tax with the All Saints' register allows occupations to be analysed alongside the number of hearths, and therefore a more complex picture of social structure to be drawn. Similarly, Chapters 6 and 7 consider the parish registers in conjunction with probate evidence from Newcastle, allowing the correction of structural biases in the survival of the probate records against poor labourers. The database also allows contextual information about the age, family composition, location and hearth

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[66] Amy Louise Erickson, 'Married Women's Occupations in Eighteenth-century London', *Continuity and Change*, Vol. 23, No. 2 (2008), pp. 267-307; Peter Earle, 'The Female Labour Market in London in the Late Seventeenth and Early Eighteenth Centuries', *Economic History Review*, Vol. 42 (1989), pp. 328-53; Amy M. Froide, *Never Married: Singlewomen in Early Modern England* (Oxford, 2005).
[67] Wrigley and Schofield, *Population History,* pp. 89-100.
[68] Howell, *Newcastle*, pp. 89-90.
[69] Eneas Mackenzie, *Historical Account of Newcastle-upon-Tyne (Newcastle, 1827), pp. 370-414;* Lindsay Varner, 'North-East Quaker Business Culture: The Society of Friends & the Newcastle Glass Industry, 1660-1700' in *Economy and Culture in North-East England, 1500-1800* (forthcoming).
[70] See essays in Kevin Schurer and Tom Arkell (eds.), *Surveying the People: The Interpretation and Use of Document Sources for the Study of Population in the Later Seventeenth Century* (Oxford, 1992)

tax status of certain individuals to augment what inventories tell us about their living conditions. It is, after all, only at this closely defined level of study that many of these real people who worked can emerge.

In this vein, Robert Fleming was one of many Scottish migrants to arrive during the Scots occupation of the Civil War, after Newcastle's famous siege defence. He managed to settle in the town, baptising four children over twenty years.[71] He practised as a tailor despite never taking an apprenticeship or being granted the freedom of his Company, something that guild records might suggest was very rare – evidently Fleming was one of Brodie Waddell's 'difficult to find…later Stuart craftsmen who were not influenced by the powerful appeal of "the trade" and its norms'.[72] John Ainsley, meanwhile, followed his brother and sister from the Scottish borders at Redburgh to Newcastle, hoping to make his living with a pen. Despite the pervasive legal restrictions on Scotsmen practicing trades in Newcastle, Ainsley probably arrived about the same time as Keith Wrightson's micro-historical subject Ralph Tailor; barring the misfortunes of health, he could have been Tailor's equal.[73] But where Tailor married, and died a wealthy and propertied notary public, Ainsley perished in 1633 in a room of his brother-in-law's house in St Nicholas', expressing a wish to be 'buried under the Thorne Tree there, so neere, unto my Brother Andrew Ainsley deceassed, as convenientely as may be'. He had little more to his name than his clothing and a trunk.[74] More happily, the keelman Thomas Hall took full advantage of the incredible demand for his labour during the coal boom at the beginning and middle of the seventeenth century. He earned himself the funds to buy his own boat, which he rented out well into his retirement. If the parish register can be believed, he was born in the first few years of the seventeenth century and lived to more than 90, dying in relative comfort in his Sandgate house.[75] For Newcastle society, even more than for other English towns outside London, this was a transformational period. It brought with it both wealth and hardship, but the story was a complex one. Far from suffering the ravages of industrialisation, Hall had retained his freedom and earned himself a modest pile in the process. If 1636 was Ralph Tailor's summer, then perhaps the 1600s was Thomas Hall's century.

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[71] PRD/Fathers/fleming.rob

[72] Waddell, *God, Duty*, p. 205.

[73] Keith Wrightson, *Ralph Tailor's Summer: A Scrivener, his City and the Plague* (New Haven, 2011).

[74] DPRI/1/1633/A1/1.

[75] DPRI/1/1694/H3/1; PRD/Fathers/hall.tho.7. There were five 'Thomas Halls' baptised (all to keelmen and labourers) between 1601 and 1608: PRD/ASBap/112, 294, 379, 669, 1304.

Chapter 2. 'A spacious, extended, infinitely populous place': Newcastle upon Tyne in urban history

English roads were crowded with travellers and writers in the seventeenth century and most had something to say about Newcastle upon Tyne. Thanks to its famously sooty export, Newcastle was increasingly a household name across the country: in 1625, Peter Heylyn noted the river 'Tine, famous for Newcastle and her inexhaustible Coale-pits'.[1] Seven years earlier, when John Taylor, the 'water poet', recounted his arrival into Newcastle-under-Lyme, he felt his readers might need clarification: '(Not that Newcastle standing upon Tine)/ But this Townes scituation doth confine/ Neere Cheshiere, in the famous County Stafford'.[2] Evidently the northernmost Newcastle attracted more attention than its namesake, and visitors were often impressed with what they saw. Sir William Brerereton, a Cheshire gent, commented in 1635 that it was 'beyond all compare the fairest and richest towne in England: inferiour for wealth and building to noe cittie save London and Bristow: and whether itt may nott deserve to be accounted as wealthy as Bristow I make some doubt'.[3] Daniel Defoe, ninety years later, was outwardly less complimentary: 'The situation of the town to the landward is exceeding unpleasant, and the buildings very close and old…which, together with the smoke of the coals, makes it not the pleasantest place in the world to live'. But for a man of business like Defoe, people and commerce trumped any aesthetic consideration. He praised the town as 'spacious, extended, [and] infinitely populous', and remarked that its outward ugliness was 'made amends abundantly by the goodness of the river, which…makes it a place of very great business'.[4] Defoe knew the town better than most travellers since he had sought refuge in Gateshead from about 1710 to 1716, while 'sorely prest by persecuting foes'.[5] And his description does seem particularly apt. Newcastle was spacious and extended, spreading out northwards and eastwards to Jesmond, the Ouseburn and beyond, and its trade monopoly stretched further even than that.

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[1] Peter Heylyn, *Mikrokosmos* (London, 1625), p. 462.
[2] John Taylor, *The pennyles pilgrimage…* (London, 1618), B3.
[3] J.C. Hodgson (ed.), *North Country Diaries, Second Series*, SS 124 (Durham, 1915), p. 15.
[4] Daniel Defoe, *A tour thro' the whole island of Great Britain…* (London, 1727), Letter 9.
[5] MacKenzie, *Newcastle*, pp. 745-60. See below, Chapters 3 and 8, for Defoe's writing in support of Newcastle keelmen at this time.

This gave the impression of an infinite population, which regenerated so quickly that the parochial and town authorities found it difficult to keep tabs on individuals. Newcastle's population had, since its medieval foundations, made it one of the largest provincial towns in England, but in the century after the 1560s, the coal industry gave it an importance well beyond simple numbers. This chapter expands on this development, considering first why the seventeenth and early eighteenth centuries were a crucial period in urban history, and why it is so fundamentally important to study towns.

The historical study of towns and cities has a long pedigree, but 'urban history' as a recognised discrete discipline dates only to the 1970s in Britain. As Jonathan Barry has it, urban history 'came of age' in 1976, with the creation of a course at the Open University, and the textbook by Peter Clark and Paul Slack that accompanied it.[6] The new urban historians looked at towns in a wholly different way from their predecessors. Whereas Victorian antiquarians and county historians had pursued 'the grail of democracy in the history of the medieval town', Clark and Slack were pursuing the social and economic heart of towns, the 'peculiar urban phenomenon that set towns apart'.[7] Such a socially driven model required a social definition of what is a 'town', and a number of historians have produced influential urbanisation models that define urbanity in strictly demographic terms by their population.[8] This is particularly useful in comparative study between countries and regions, but Paul Glennie calculates from 1801 census data that only a hundred or so of the 700 places considered 'urban' had over 5,000 inhabitants.[9] Any arbitrary lower boundary for the population of a town runs into similar problems.

Undoubtedly there is more to urbanity than a profusion of people; towns shared particular modes of production, ways of living, political systems. The line separating a small 'urban' town from a large 'rural' village cannot be neat. Nonetheless, Clark and Slack settle on five 'basic and readily recognizable characteristics of English pre-industrial towns': 'first, an unusual concentration of population; second a specialist economic function; third, a complex social structure; fourth, a sophisticated political order; and fifth, a distinctive influence beyond their immediate boundaries.'[10] Others sense in towns and cities something ethereally irreducible: 'students of comparative urbanism', remarked Paul Wheatley, have

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[6] Jonathan Barry, *The Tudor and Stuart Town, a Reader in English Urban History, 1530-1688* (Harlow, 1990), p. 1; Clark and Slack, *English Towns*.
[7] Peter Clark and Paul Slack (eds.), *Crisis and Order in English Towns* (London, 1972), p. 1.
[8] E.A. Wrigley, *People, Cities and Wealth: the Transformation of Traditional Society* (Oxford, 1987), 157-93; Jan de Vries *European Urbanization 1500-1800* (London, 1984); Paul Bairoch, Jean Batou, and Pierre Chèvre, *La population des villes européenes* (Geneva, 1988).
[9] Paul Glennie, 'Town and country in England, 1570-1750', in S. R. Epstein (ed.), *Town and Country in Europe, 1300-1800* (Cambridge, 2001), pp. 132-55.
[10] Peter Clark and Paul Slack, *English Towns in Transition 1500-1700* (Oxford, 1976), pp. 4-5.

long understood that 'cities of the traditional world were constructed as reduced models of the cosmos and furnished with a plastic symbolism which…afforded commentaries on one's place in the family, the city, the kingdom, the universe'.[11] The extra-terrestrial language here is contrasted by another common theme: the personification of cities. The symbiosis of urban systems is often metaphorically represented by organs in a larger body.[12] Thus cities defy and burst disciplinary boundaries, and are studied (or 'experienced') through the kaleidoscope of the creative arts. Stephen Barber feels that only 'fragments' of a city reveal themselves to students, and his literary, descriptive, almost phenomenological approach offers little breadth but a remarkable textured depth.[13] It is important to ponder the qualities of towns that are unquantifiable.

With these qualities and quantities of towns and cities in mind, historians can trace a progression of urbanity across Europe through a continually adjusting hierarchy of cities that were centres of art, expression and innovation, as well as population. The Mediterranean was the hub of vibrant urban life in the middle ages, at the centre of the Renaissance in the visual and literary arts. Although Paris topped the population hierarchy in about 1500, sixteen of the largest twenty cities in Europe were Mediterranean – London was fifteenth behind Florence, Lisbon, Palermo and others.[14] The Italian city-states were at the cutting edge of financial innovation: the original bankers or *banchieri*, sat at their benches in Florence and Venice.[15] But the sixteenth century in particular witnessed a transfer of urban dynamism northwards, from the Mediterranean to north-western Europe. Antwerp became 'the great beehive' of European trade, with a population of over 90,000. The Low Countries seized the initiative on financial innovation with interest granted on Crown bonds, and its towns became heavily specialised. Leiden was a centre for textiles, Gouda for pipe-making, Delft for art.[16] England's towns were part of this move north-westwards, building on a powerful medieval urban structure, although they were already commercial centres long before the 'shift northwards' of urbanity.[17] Newcastle was already a trading community by 1150, and had set up its first Guild Merchant and seal by 1233, and its growth was built entirely on the profits of its successful port. It is impossible to

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[11] Paul Wheatley, 'Review: City as Symbol', *History of Religions*, Vol. 29 (1990), p. 412; *idem.*, *City as Symbol* (London, 1969).
[12] Adrian Green, 'Introduction', in Adrian Green and Roger Leach (eds.), *Cities in the World, 1500-2000* (Leeds, 2006), pp. 1-14.
[13] Stephen Barber, *Fragments of the European City* (London, 1995).
[14] Peter Clark, *European Towns and Cities, 400-2000* (Oxford, 2009), p. 37.
[15] S.R. Epstein, 'Introduction', in his *Town and Country in Europe, 1300-1800* (Cambridge, 2001).
[16] Ibid., pp. 5-7.
[17] Richard Britnell, *The Commercialisation of English Society, 1000-1500* (Cambridge, 1993), pp. 179-86.

accurately quantify this trade in the twelfth to fourteenth centuries, but the breadth of trade was undoubtedly large. Henry III's toll from 1265 reveals shipments of:

> herring, salmon, cod, wool, cloth, linen, horses, oxen and cows, hides, wool-fells, furs and animal skins, sheep, pigs, grain, white peas, salt, charcoal, brushwood, peat, grease and tallow, butter and cheese, sea-coal, wax, pepper, almonds, cumin, figs and raisins, garlic, onions, wine, ashes, woad, 'Rochester earth', alum, teasels, kitchenware, lead, pitch and tar, oil, nets, deal-boards, maple-boards and Eastland-boards, felt steel, millstones and oars.[18]

Wool merchants, in particular, were very wealthy, and frequently boasted Mediterranean connections: Hugo Gerradino, a merchant from Lucca, married the widow of Gilbert of Pandon. They had the largest lay subsidy assessment of the town in 1296 at £84.[19] Towns in northern Europe could share in the urban successes of the South, although it was only in the later fifteenth and sixteenth centuries that the northward trend of wealth and trade set in.

This proved too good to last, and in most north-western European cities, as well as in the Mediterranean, there was a considerable urban decline up to the seventeenth century.[20] Textiles in Leiden slumped by 40 per cent and population by a third; war in Germany had a devastating effect from the 1630s. Textile employment in Antwerp plummeted, and Brussels went into a contraction. England's cities too were falling into decline by the end of the sixteenth century, at least according to the bulk of urban historiography; this was, to Patrick Collinson, 'the narrow neck' of 'a metaphorical hour-glass' that connected the 'rich tumultuous, irrepressible animal' of medieval society with the 'civilisation, high society and social class' of the eighteenth-century town.[21] Charles Phythian-Adams paints a vivid picture of the *Desolation of a City*, chronicling Coventry's population collapse from more than 10,000 at the Black Death to barely 4,000 by 1650. Without the continuous renewal of immigration, Coventry's urban environment and society fell into disrepair, and it was not alone. Norwich also complained that 'many houses habitacions and dwellynges stode onlaten and grue to ruyn'.[22] Partly, administrators blamed the outsourcing of manufacturing to the countryside where the steady decline of rural living standards 'offered the incentive for capital to drift from the high-cost urban production centres'.[23] The all-consuming role of London was also bemoaned by provincial towns. In the 1580s, the 'Discourse of Corporations' complained that 'the only trade of merchants is now to London, which has

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[18] Fraser, 'Economic Growth', pp. 42-3.
[19] Ibid., p. 47.
[20] Clark, *European Towns*, p. 109.
[21] Patrick Collinson, *The Birthpangs of Protestant England: religious and cultural change in the sixteenth and seventeenth centuries* (Basingstoke, 1988), pp. 58-9; Withington, *Politics*, p. 4.
[22] Charles Phythian-Adams, *Desolation of a City: Coventry and the Urban Crisis of the Late Middle Ages* (Cambridge, 1979), pp. 281-3
[23] Clark and Slack, 'Introduction', p. 11.

eaten up all the rest of the towns and havens of England, because they find speedy vent and speedy freight again'.[24] The economic position of the provincial towns was under threat.

These ostensibly grim and depressed Tudor and early Stuart towns are thrown into sharp contrast by those of the post-Restoration period, with a 'long' eighteenth century that saw a splurge of conspicuous consumption and extravagant building. Besides an architectural focus, eighteenth-century town-dwellers had a sensual obsession – how things looked, tasted, smelled, sounded had an emboldened significance. Such values were part of a broad change in the social and cultural life of towns, for Peter Borsay a cultural transformation of such magnitude that it amounts to an urban renaissance.[25] Characteristic of eighteenth-century provincial towns was the pursuit of leisure. Sport gained an elevated status; horse races grew in popularity as a place to express sociability, as well as gain enjoyment. Other towns developed almost solely for the pursuit of leisure: the springs at Bath or Harrogate sparked a vibrant tourist industry. Newcastle shared in this urban rebuilding and commercialisation of leisure, though it does not feature prominently in Borsay's evidence. Its theatre companies came back strongly after repression in the Interregnum, and plays proved very popular with, among others, the Merchant Adventurers, who resolved to stop their apprentices 'loitering' in the playhouses.[26] In 1698, Celia Fiennes was delighted to find 'a pretty Garden, by the side a shady walk, its a sort of spring garden where the Gentlemen and Ladyes walke in the Evening – there is a green house in the garden, its a pleasant walke to the town by the walls'. Newcastle, remarked Fiennes, 'most resembles London of any place in England'.[27]

The extent to which such superficial progress in Newcastle represented a true 'urban renaissance' has been challenged strongly by Rebecca King, who argues that there was more continuation in social and cultural life than radical change across the seventeenth and early-eighteenth centuries. While people 'began to expect a more pluralistic social life' over the seventeenth century, the extent of this should not be exaggerated: rather than surrender their influence, Newcastle guilds became more flexible about sociability, melding the old with the new.[28] Some of King's criticisms have a much broader currency: Borsay's approach looks purely at elite sociability, exaggerating the extent of change. So, if the study of horse racing were expanded from Borsay's focus on elite, established courses to include

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[24] Epstein, 'Introduction', p. 12.
[25] Peter Borsay, *The English Urban Renaissance: Culture and Society in the Provincial Town, 1660-1770* (Oxford, 1991).
[26] Rebecca King, 'Aspects of Sociability in the North East of England 1600-1750', unpublished PhD thesis (Durham, 2001), p. 193.
[27] Fiennes, *Through England.*
[28] King, 'Aspects', pp. 60-75

more humble, *ad hoc* racing, the picture seems rather different. There was a huge growth in courses in the Tudor period and onwards, and similarly in private horse ownership.[29] But *printed* records of races only expanded in the eighteenth century, after the growth of provincial presses. Some of the urban renaissance can be attributed to a greater wealth of historical material.

Besides an imbalance of source material, the concept of renaissance also relies on the overly pessimistic interpretation of late-medieval and Tudor towns. Newcastle has often been considered an exception to this rule, described by Dobson as 'the most successful of all the "new towns" of post-conquest England'.[30] An important development in the structure of Newcastle's foreign trade was precipitated by the calamitous collapse of the Dutch cloth trade in the 1510s and 20s.[31] This crisis reduced the hegemony enjoyed by the Hanseatic traders in the Baltic, admitting other nationality traders that had previously been excluded: Newcastle shipmasters began to muscle in on a trade route which had been plied only by very small numbers of English masters from London and King's Lynn. By 1537, Newcastle ships entering the Sound (between Denmark and Sweden) outnumbered those from other English ports.[32] In the late-sixteenth and seventeenth centuries, the power of the Hanseatic League's monopoly on Baltic trade continued to wane and when the Eastland Company of London was formed in 1579, Newcastle merchants numbered amongst its members, and their position in relation to the company was constantly on the agenda of Newcastle's Merchant Adventurers.[33] Even in the depths of European urban depression, trade around the North Sea and Baltic was booming.

Perhaps this unusual trade route made Newcastle exceptional in avoiding decay, but it was not alone. While Coventry was a vivid example of a city in decline, many others were less clear cut. In 1979, Alan Dyer argued that just as many towns prospered in the period, partly at the expense of those in decline: the picture is too varied for a general narrative.[34] Two years later, A.R. Bridbury lamented the 'gloom' still pervading urban studies: 'Towns are forever declining from some golden age in the distant and undefined past. Crises oppress

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[29] Ibid., p. 132.
[30] R.B. Dobson, 'Urban decline in late medieval England', *TRHS*, 5th series, Vol. 27 (1977), p. 19. For a dissenting view, see A.E. Butcher, 'Rent, population and economic change in late-medieval Newcastle', *NH*, Vol. 14 (1978), p. 77.
[31] I.S.W. Blanchard, 'Commercial crisis and change: trade and the industrial economy of the north east, 1509-1532', *NH*, Vol. 8 (1973), pp. 64-85.
[32] Ibid., p. 75; John Fudge suggests we should treat these figures with some caution: 'Maintaining a presence: Baltic enterprise and the merchants of Lynn during the reign of Henry VIII', in Patrick Salmon and Tony Barrow (eds.), *Britain and the Baltic* (Sunderland, 2003), pp. 3-21.
[33] Dendy, *Merchant Adventurers*, pp. 35-37, 115, 129, *passim*.
[34] Alan Dyer, 'Growth and decay in English towns, 1500-1700', *Urban History Yearbook* (1979), pp. 60-76.

them. Insoluble problems sap their vitality.'[35] This was in part a backwards projection of the gloom of 1970s British declinism, when towns were seen as dirty and dangerous, and industry seemed in perpetual retreat. Any evidence could be used to present a pessimistic view of towns, if manipulated a certain way, and that urban historians take complaints from the towns themselves without the necessary pinch of salt, when usually 'they meant to persuade the king that their burden of civic obligations was hopelessly onerous and that the fiscal demands they had to meet were beyond their means.'[36]

On the whole, in European terms, English towns showed remarkable resilience into the seventeenth century. In particular, the new manufacturing centres were spared Clark and Slack's gloom: they were 'freed from the heavy overheads coincident with sophisticated civic machinery', so that Manchester was allowed to grow to have a trade 'not inferior to that of many cities of the kingdom' and a parish population in excess of 27,000.[37] Intense specialisation set these towns apart: Manchester had textiles, Sheffield grew through metallurgy, and 'buttons' and guns came from Birmingham. Joining these new towns in their success were a number of older port towns, including Bristol which used the death of its Gascony wine trade as an opportunity to break into Atlantic trade.[38] Daniel Defoe understood that these towns 'lately increased in trade and navigation, wealth and people, while their neighbours decay[ed]…because they have some particular trade…which is a kind of nostrum to them, inseparable to the place, and which fixes thereby the nature of the thing'.[39] Reports of the death of the sixteenth- and seventeenth-century town have been exaggerated. There was undoubtedly a major transition in English towns in the seventeenth century, as the economy was restructured into specialised economic regions focused on particular industries. But the reality was mixed, with many successes as well as failures.

Newcastle was at the heart of one successful industrial region, driven by a national demand for carbon-based energy.[40] Britain's economy, as we have seen, was making a step change in commercialisation and specialisation, and the specialism of Newcastle and its surrounding counties would prove particularly lucrative. The export of coal was not new: as Constance Fraser puts it, 'having discharged the grain, wine, spices, dye-stuffs and onions, the wooden ships needed a return weight to maintain stability in the water – why not coal if

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[35] A.R. Bridbury, 'English Provincial Towns in the Later Middle Ages', *EcHR*, vol. 34, no. 1 (1981), p. 1.
[36] Ibid., p. 2.
[37] Clark and Slack, 'Introduction', p. 30.
[38] David Harris Sacks, and Michael Lynch, 'Ports 1540-1700', in in Peter Clark (ed.), *The Cambridge Urban History of Britain, Volume II 1540-1840* (Cambridge, 2000), pp. 377-424.
[39] Defoe, *Tour*, Letter I.
[40] For the energy-based interpretation of industrialisation, see E.A. Wrigley, *Energy and the English Industrial Revolution* (Cambridge, 2010).

a market could be found for it?'.[41] But there was a shift in both the size and nature of the coal trade, which ignited in the 1550s. This was partly driven by the requirements of an urbanising society: an adequate supply of fuel was crucial in allowing the Low Countries such a large extent of urbanisation in the late Middle Ages.[42] Initially, the area was heavily wooded, with a good waterway network for transporting wood but gradually, as wood supplies dwindled from the late sixteenth century, the large cities including Antwerp and Amsterdam, turned to peat, removing more than six billion cubic metres of it from the bogs near Antwerp.[43] If the Netherlands had peat, then Britain had coal deposits, which were even more energy-rich. Crucially they were also shallow and coastal, meaning they did not need an advanced and expensive canal system to be accessible. John Nef emphasised the Tudor crisis in wood supplies, which, combined with London's population growth, led to a severe supply shortage of fuel.[44] The argument has had its sceptics, but has been enduring and was more recently reasserted, with a regional nuance, by John Hatcher.[45] Even if there was no national wood 'famine', there was a severe shortage on the East Coast, the site of some of the kingdom's largest towns and relatively sparse supplies of firewood, not least in London. Coal took off because its price in London inflated only 20 per cent between 1590 and 1630 when the price of firewood doubled – and the gap was still opening. London did not have the supply of peat that Amsterdam and Antwerp had, and so was driven by price rises in wood to convert to coal, which in the long run proved a much cheaper alternative.[46]

The area around Newcastle was able to respond quickly to this demand. Although William Gray, writing a triumphant history of the town in 1649, was keen to emphasise the international nature of Tyneside coal, in reality the vast majority was shipped down the coast to East Anglia and London: coastal trade was anywhere between five and fifteen times the tonnage of overseas trade in coal.[47] Moreover, the level of growth in the industry was enormous. John Hatcher's figures indicate shipments from the Tyne of about 45,000 tons annually in 1508-11, rising modestly to 60,000 tons in the 1560s, then very rapidly to 220,000 tons by the turn of the seventeenth century, more than 500,000 tons by 1655-60 and

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[41] Fraser, 'Economic Growth', p. 53
[42] Ad van der Woude, Akira Hayami and Jan de Vries (eds.), *Urbanization in History: A Process of Dynamic Interactions* (Oxford, 1990).
[43] Ibid., p. 11.
[44] Nef, *Coal*, I, pp. 156-64
[45] Hatcher, *Coal*, pp. 31-8. For a scornful view of the Nef argument: D.C. Coleman, *The Economy of England, 1450-1750* (Oxford, 1977), pp. 85-6.
[46] Allen, *Industrial*, Ch. 2.
[47] William Gray, *Chorographia, or a Survey if Newcastle upon Tyne* (1649), p. 83; Nef, *Coal Industry*, I, p. 239; Hatcher, *Coal*, pp. 487-9.

800,000 tons at a peak in 1680: an impressive tenfold increase in production.[48] William Gray could perhaps be forgiven some exaggeration in boasting coalmines forty fathoms underground, and that in places there were '3 [or] 4 collemines under another'.[49] By the mid-seventeenth century, Newcastle and coal were almost synonymous: already in 1662, the phrase 'to carry coals to Newcastle', meaning to do something plainly superfluous, had long been coined.[50] Such rapid growth required a concentration of capital to start up and extend pits that was made possible by the Grand Lease, granted initially in 1578.[51] It required high initial investment by Newcastle merchants but meant that they could be certain of their monopoly powers in selling coal, and therefore the return on their investment, although this was not without risk.[52] This oligarchic power was consolidated amongst an élite pool of merchants who obtained incorporation as the Company of Hostmen in 1600.[53] As well as immense profits, the hostmen locked up local political power for the subsequent century. Roger Howell's enduring study of the local and national politics of Newcastle during the 'puritan revolution' shows how they played out in attempts by the Newcastle's hostmen to extend and consolidate their oligarchy over coal and the local economy – the whole affair could be compared to 'merely a game of musical chairs' for the seats of municipal power.[54]

Contemporary historians and commentators knew that Newcastle was a crucial cog in the developing, specialising, industrialising British economic machine. William Gray was particularly proud of Newcastle's role as 'The Harth that warmeth the south parts of the Kingdom with fire', a metaphor broadened in 1651 poem John Cleveland's *News from Newcastle*:

> England's a perfect World! Has *Indies* too!
> Correct your maps: Newcastle is Peru!
> Let th'haughty Spanyard triumph, till 'tis told,
> Our Sootie Min'rals purifye his gold![55]

Rather than expressing the exoticism of north-east England, Cleveland was keen to impress how far England's happiness depended on Newcastle coal, just as Spain's (albeit illusory)

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[48] Hatcher, *Coal*, p. 45; Nef, *Coal*, Appendix D; See also B. Dietz, 'The North-East Coal Trade 1550-1750: Measures, Markets and the Metropolis', *NH*, Vol. 22 (1986), pp. 280-94.
[49] Gray, *Chorographia*, pp. 83-4.
[50] John Graunt observed it was 'our English Proverb', see 'Coal', *OED*.
[51] The best short account is in Levine and Wrightson, *Whickham*, pp. 10-25.
[52] Gray, *Chorographia*, p. 86.
[53] *Hostmen*, 'Introduction'.
[54] Roger Howell, Jr., *Newcastle upon Tyne and the Puritan Revolution: A Study of the Civil War in North England* (Oxford, 1967), Ch. 3-5; Newton and Pollard, 'Introduction', p. xxx.
[55] John Cleveland, *News from Newcastle* (Newcastle, 1651), p. 1. Although this poem is often ascribed to William Ellis (e.g. Levine and Wrightson, *Whickham*) it seems more likely to have been written by John Cleveland, Ellis being the publisher. The editor of *The Complete Cleveland* notes it appears in 'Cleveland Revived' and 'is certainly characteristic of his manner in every particular'. J.M. Berdan (ed.), *The Poems of John Cleveland* (New York, 1903), p. 187.

economic success had rested on the discovery of precious metals in the Americas. The physical and symbolic power of coal to subvert and subsume precious metals was also used in a poem by John Johnston, quoted by Gray. He describes how coal 'melteth iron, brasse and gould, so pliable and soft', and more: 'it doth, dull metals change to gold,/To say therefore it is a god, our alchymists are bold.'[56] Such hyperbole is striking but not untypical: both locals and commentators with a national outlook emphasised the importance of Tyneside coal.

In turn, the impact the industry had on Newcastle and the coalfield that surrounded it was enormous. The analysis of different aspects of the social change that accompanied the expansion of coal in Newcastle occupies much of the following chapters. The industry made work for tens of thousands of men, in Newcastle and around – in coalmining, in the carriage of coal, and in a wealth of other related industry outlined in Chapters 3 and 4. Substantial glassworks, ironworks and salt panning went alongside coal, boosted by the cheap fuel. For Gray, this was an 'infinite' population employed by coal:

> Many thousand people are imployed in this trade of coals; many live by working of them in the pits; many live by conveying them in waggons and waines to the river Tine; many men are imployed in the conveying of coals in keels from the stathes aboard the ships[57]

Such wild estimates do not suffice, but this industrial population (in Newcastle and Tyneside) was, on the whole, very difficult to track.[58] When Defoe remarked that Newcastle was spacious, extended and populous, he was referring to the sprawl of Newcastle that extended to the east of the town walls, through the Sandgate, which seems invariably to have generated feelings of mistrust and concern amongst the town's rulers, who feared poverty and vagrancy as the results of inward migration, but who also understood that such migration was necessary to provide the workforce for Newcastle's industry.[59]

Such fears of poverty are borne out by the surviving hearth tax of 1665. Chapter 6 will offer a more detailed critique of the use of hearth tax as an indicator of poverty, but it is one of few indicators that can be compared between towns. Newcastle ranks highly in both the proportion of households with a single hearth and the proportion of households that were exempted from the tax (see Table 2.1). It is clear that the towns that demonstrated the closest correlation with Newcastle were the port towns: Whitby had an even larger preponderance of single-hearth households than Newcastle, and Colchester was not far behind, with an exemption rate that was even higher. Nine of Colchester's parishes had

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[56] Gray, *Chorographia*, p. 83.
[57] Ibid., p. 84.
[58] See Chapter 3 for estimates; for the 'industrial society' of Whickham, see Levine and Wrightson, *Whickham.*
[59] J.M. Fewster, 'The Keelmen of Tyneside in the eighteenth Century', *Durham University Journal*, vol. 19 (1957-58), p. 27.

Table 2.1 – Comparative hearth tax totals in towns, percentages.

County	Town	Hsholds	Exempt	1 h	2 h	3-4 h	5-9 h	10+ h
North Riding	Whitby	868	13	69	18	10	3	
Newcastle	Newcastle	2510	41	62	14	18	5	1
Westmoreland	Kendal	917	11	60	22	13	5	
Essex	Colchester	2219	52	46	25	17	11	1
West Riding	Halifax	480	31	44	19	23	11	2
Warwickshire	Coventry	1435	41	44	24	20	10	2
West Riding	Leeds borough	1198	n.d.	43	26	20	10	1
West Riding	Sheffield	495	16	36	25	26	11	2
Yorkshire	York	2124	21	34	22	30	11	4
Kent	Maidstone	802	50	21	35	23	18	3
Kent	Average towns	6323	34	20	37	25	15	3
Kent	Rochester	712	35	17	31	31	17	4
East Riding	K. u. Hull	1373	19	17	23	21	16	2
Kent	Deptford	999	34	12	37	34	14	3

Sources: Hearth Tax Online. Data for Yorkshire East Riding, 1672 Lady Day: [http://www.hearthtax.org.uk/communities/eastriding/index.html], accessed January 2013; Ferguson, Catherine, Christopher Thornton and Andrew Wareham (eds.), Essex Hearth Tax Return Michaelmas 1670, British Record Society Hearth Tax Series VIII (London, 2012); Harrington, Duncan (ed.), Kent Hearth Tax Assessment Lady Day 1664, British Record Society Hearth Tax Series II (London, 2000); Phillips, Colin, Catherine Ferguson and Andrew Wareham (eds.), *Westmorland Hearth Tax Michaelmas 1670 & Surveys 1674-5*, British Record Society Hearth Tax Series VI (London, 2008); Welford, 'Newcastle householders', pp. 49-76.

more than 50 per cent of households exempt from the hearth tax, together comprising more than 1200 households in total. Deptford, in Kent, had a low number of single-hearth households, but a fairly high exemption rate at 34 per cent. Inland towns seem to show lower rates of exemption: Leeds, for instance, seems to have had 'relatively few paupers'; the same could be said for Sheffield, whose metal industry was on the cusp of a rapid expansion.[60] Drilling down further, it is evident that Sandgate, the ward outside the walls to the east of town, was the poorest, with an exemption rate of 79 per cent. Chapters 5 and 6, taken together will explain this phenomenon in terms of the workers who lived there. It compared very closely with the parish of Whickham, which had an exemption of 79 per cent, the Warwickshire coalfield, with an exemption of 77 per cent.[61] This hearth tax profile suggests an industrial character: a very large number of heavily concentrated, and relatively poor, individual householders. In common with all towns, there had always been wage labourers working in Newcastle: they featured as pavers, masons, sawyers, street cleaners, labourers and watermen from the first council account books in 1508, long before the take-

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[60] David Hey, 'West Riding', p. 33.
[61] Levine and Wrightson, *Whickham*, pp. 155-7.

off of coal.[62] But at no other time in Newcastle's history – and nowhere in Britain outside London – did society develop along the same lines as the century after 1570. Newcastle's large population of relatively poor inhabitants signified its industrial nature, setting it apart from most other early modern towns, but not from other industrial districts.

It is important to remember, therefore, that early modern towns did not exist as islands in a rural countryside; the links between a town and its hinterland, or with other towns, were vital to its existence. Newcastle was the lynchpin of a Tyneside area: the population living around Newcastle certainly had a lot of contact with the town itself. Gray stressed the importance of the large food markets: 'On the east side…is the Flesh Market, I think the greatest market in England…the reason is not the populousnesse of the town,…it is the people of the country (within twelve miles of the towne), who makes their provision there…'.[63] Judith Welford confirms that, 'as a centre of exchange and retailing, [Newcastle] had a dominant influence on the hinterlands, drawing in producers and customers from surrounding villages to its central market'.[64] Indeed, as Newcastle's markets continued to become more dominant in the later seventeenth and eighteenth centuries, smaller market towns in Northumberland and County Durham decayed: amongst others, the market at Stanhope had disappeared entirely.[65] The lives and livelihoods of Newcastle's residents and citizens were closely intertwined with those that came from these nearby areas.

Outside the immediate vicinity, the extent and variety of the East Coast, as well as the Continental and Baltic, trades were just as significant. Not only did they line the pockets of Newcastle's wealthier merchants, they also altered the horizons of the whole town and the way its people conceived of the world. Newcastle was plugged into a large and vibrant British east coast trade, which brought a large number of sailors into the town. A small proportion of these men feature in the burial records: All Saints', as the main waterside parish, bore the brunt of sailors who had died aboard ships on the river or while enjoying the hospitality of Newcastle's hostlers and victuallers. Nearly one in every fourteen men buried was explicitly identified as from outside Newcastle, and the sailors who met their demise in the Tyne were, for the most part, from East Anglia and Scotland. Between these two large groups were nearly 3 per cent of all adult male burials in the parish, illustrated neatly by Map G. The Dutch Republic also sits very high in the list. Fully two-thirds of men in this category were identified as 'Dutch' or 'Dutchman', a term which, in the sixteenth century,

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[62] Fraser, *Chamberlains' Accounts*.
[63] Gray, *Chorographia*, p. 68.
[64] Welford, 'Functional', p. 198; Alan Everitt, 'Country, county and town: patterns of regional evolution in England', *TRHS*, 5th Series, 29, pp. 79-108.
[65] Welford, 'Functional', p. 200; Defoe, *Tour*, III.

Table 2.2 – Counties or countries of 'foreigners' buried at All Saints'.

County or country	Freq	% of 'foreign'	% adult men
Scotland	91	20.2	1.4
Norfolk	71	15.8	1.1
Suffolk	50	11.1	0.8
Netherlands	43	9.6	0.7
Yorkshire	39	8.7	0.6
London	35	7.8	0.6
Kent	27	6.0	0.4
Baltic	22	4.9	0.3
Essex	16	3.6	0.3
Durham	8	1.8	0.1
Northumberland	8	1.8	0.1
Devon & Cornwall	7	1.6	0.1
France	6	1.3	0.1
Sussex & Surrey	5	1.1	0.1
Ireland	3	0.7	0.0
Cumbria	2	0.4	0.0
Maryland	1	0.2	0.0
Wales	1	0.2	0.0
West Indies	1	0.2	0.0
Lincolnshire	1	0.2	0.0
Unkown	13	2.9	0.2
Total	450	100.0	7.1

Source: PRD/ASBur.

had applied to Germans as well as those from the Low Countries, so we should be slightly cautious about attributing a nationality.[66] Four others came explicitly from Amsterdam, two from Friesland, and two were recorded as from Holland or the Netherlands specifically. Thus the burials illustrate the sorts of people trading in Newcastle: most came from boats, and many were born in East Anglia, with smaller numbers also from the continent (and in particular the Low Countries). The burials clearly map out the widening reach of trade.

Just as 'strangers' traded, and sometimes died, in Newcastle, the town's own mariners and merchants travelled to, and died in, other ports. The nature of historical source-work makes them more difficult to identify, but examples survive from probate cases in the Durham diocese. Henry Riddell, a young merchant adventurer, died in 1597 in Elbing, near Danzig, in Prussia, the son of a wealthy and powerful Newcastle merchant (soon to be one of the founding hostmen).[67] More than eight decades later, John Rand, a Newcastle master mariner, died while he was at the East Prussian port of Königsberg (modern-day Kaliningrad). His will was taken nuncupatively (i.e. by word-of-mouth) 'in the house of the merchant Daniel Collins situated on the old town marketplace, and in the presence of

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[66] 'Dutch', *OED*

[67] DPRI/1/1599/R4/1-2; Newton, 'Newcastle', pp. 265-6.

several other English and Scotch merchants resident there'.[68] Perhaps Rand was consciously making use of the powerful networks that Scottish merchants had already built up in the Baltic, or perhaps he had reached out for other men who spoke English.[69] Like Riddell, he requested his body be buried in the church of the port where he died. Sometimes emigrants left for reasons other than trade. When Robert Jenison was dismissed as the Newcastle vicar because of his unacceptably Puritan views in the lead-up to the Civil War, he chose to flee to Hamburg.[70] And when Newcastle inhabitants fled the invading Scots in 1640 and 1644, 500 families travelled to King's Lynn, and others to the Low Countries, including the family of William Barker, a merchant adventurer who petitioned his company for the funds.[71] They were, as Paul Whillis puts it, 'sufficiently confident to throw themselves upon the charity of distant communities'.[72] They must have known and understood where they were going; they might have known someone who lived there, or who had been before. Whether in good times or bad, Newcastle residents increasingly lived in a world that extended beyond the physical and administrative boundaries of the town, symbolic though the walls were, or the artificial limits of a North-East region. Their world extended with relative ease to London and East Anglia, and with a drop more danger, across the North Sea to the Netherlands, and through the Sound to the Baltic.

Seventeenth-century Novocastrians were riding the wave of a rapidly expanding industry in coal. The hostmen controlled both the town and the trade, and as Bourne observed in 1736, 'It is the Money arising from the Coal Trade, that almost entirely Circulates in this great Town and adjacent Country.'[73] Yet it was built on a history of trading in wool and other commodities that runs back to the eleventh-century foundations of the town itself. The tension between the old and the new only underlines the need for a carefully empirical study that considers the seventeenth century on its own merits, stripped of a heavy-industrial, nineteenth-century teleology. Newcastle's coal made its economy unique: Clark and Slack regretted that it was missed from their original edited volumes on *Crisis and Order* and *Towns in Transition*, and that gap has not yet quite been filled.[74]

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[68] DPRI/1/1682/R1/6-7

[69] See Steve Murdoch, 'Kith and Kin: John Durie and the Scottish community in Scandinavia and the Baltic, 1624-34', in Patrick Salmon and Tony Barrow (eds.), *Britain and the Baltic: Studies in Commercial, Political and Cultural Relations, 1500-2000* (Sunderland, 2003), pp. 21-46.

[70] Newton, 'Newcastle and the World', p. 293.

[71] *A Declaration Wherin Satisfaction is given Concerning Sir Edward Dering* (London, 1644), p. 5; Boyle and Dendy, *Merchant Adventurers*, p. 146.

[72] Whillis, 'Experience', p. 37.

[73] Bourne, *History*, p. 158.

[74] Clark and Slack, *Crisis*, p. 2.

Chapter 3. Population and migration

From a wide, vibrant base supported by thriving trade links, Newcastle upon Tyne's population expanded quickly between about 1570 and 1630, as the continual growth of work pulled more and more people in. Urbanisation is considered by historians to be a defining feature of the early modern period, and there was something distinctive about urban life. 'Towns', wrote Fernand Braudel, 'are like electric transformers. They increase tension, accelerate the rhythm of exchange and constantly recharge human life'.[1] They occupied a keystone role in the dynamic economic structures of pre-industrial and industrialising north-western Europe. The French urban population was concentrated in Paris and its satellites, but nearly a tenth of the French population lived in large towns of more than 10,000 by 1700.[2] A third of the Dutch population lived in towns this large by 1700, a proportion which had doubled since 1550.[3] England's urban growth was not quite as dramatic as the Netherlands, but the proportion of the population living in towns of equivalent size rose from 5 per cent in 1500, to 9 per cent by 1600 and 18 per cent by the turn of the eighteenth century.[4] Undoubtedly, this growth was accelerated by London, which alone accounted for 10 per cent of the national population by 1700, but Newcastle saw considerable growth too. Totals from the parish registers hint that its population almost doubled between 1600 and 1636, and more modestly in the later decades; but growth was frequently disrupted by plague, civil war in England and Scotland, and war with the Netherlands. Newcastle was moving up the urban hierarchy, leapfrogging York to become the most populous town in the North, a fact laden with symbolism for contemporaries who considered the population of towns an important marker of their prosperity and status.[5] York was the political and ecclesiastical capital of the North, but by the seventeenth century, the lack of a manufacturing or commercial base to its economy caused the population to

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[1] Fernand Braudel, *The Structures of Everyday Life* [1967], trans. Siân Reynolds (Berkeley, CA, 1981), p. 479.
[2] Roger Chartier, Guy Chaussinand-Nogaret et al., *L'histoire de la France urbaine: la ville classique de la Renaissance aux Révolutions* (Paris, 1981), p. 45.
[3] De Vries, *Urbanization*, pp. 39, 65.
[4] David Souden, 'Migrants and the population structure of later seventeenth-century provincial cities and market towns', in Peter Clark (ed.), *The Transformation of English Provincial Towns 1600-1800* (London, 1984), p. 134; Ian D. Whyte, *Migration and Society in Britain, 1550-1830* (Basingstoke, 2000), p. 65; De Vries, *Urbanization*, p. 65.
[5] Peter Clark (ed.), *Cambridge Urban History of Britain, Volume II 1540-1840* (Cambridge, 2000), pp. 1-6.

stagnate.[6] A firmly commercial town, by 1700 Newcastle was the fourth largest in England behind London, Norwich and Bristol.[7] Urban growth was a feature of development across north-western Europe, and Newcastle played its part.

Despite this celebrated growth, towns have been widely conceived as drains on human life, 'devourers of mankind' – disease-ridden mortality traps which killed far more people than they could hope to reproduce.[8] As a result, 'urban growth was largely an index of net migration' and towns, like Newcastle, that needed a sizeable workforce would have to import it.[9] This view of uncontrollably high mortality has been strongly challenged by Nigel Goose and Chris Galley for towns outside London, and the following discussion will demonstrate that Newcastle should not be entirely written off as a death trap.[10] It is undoubtedly true that the town's eastern, industrial suburb of Sandgate provided 'optimum conditions for plague,…[with families] packed closely together in its narrow chares' near one of the city's great middens, but this did not produce consistently shocking levels of mortality except in the big outbreaks of plague.[11] Indeed All Saints' population naturally increased – baptisms slightly outnumbered burials – in almost all years of the seventeenth century. But migration remained a key feature of Newcastle's demographic system, not least in the speedy recovery from large outbreaks of plague and disease, and the rapid and flexible expansion required in a developing economy.

Until the 1960s, most historians thought pre-industrial Britain was relatively immobile and gave migration little thought; Hoskins's typical midland peasant certainly was never though to have left Wigston Magna.[12] Partly this was due to local parochial sources which in their nature placed emphasis on those who were more stable; partly it was also due to a bias in local history, which favoured a particular location at the expense of a wider view. As David Rollison explains, 'histories of regions and communities in early modern England too readily incorporate house-holds, families, neighbourhoods, parishes, manors, hundreds, counties, kingdoms, commonwealths, nations and empires – relatively unchanging

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[6] See D.M. Palliser, *Tudor York* (Oxford, 1979); Galley, *Demography*, p. 51.
[7] Wrigley, 'Urban growth', pp. 686-7. I am sceptical about Wrigley's figures for Newcastle, which drastically underestimate Newcastle's population in 1670 (12,000). See below.
[8] Wrightson, *Earthly Necessities*, p. 230
[9] Souden, 'Migration'; Whyte, *Migration*, p. 91.
[10] Chris Galley, 'A model of early modern urban demography', *EcHR*, new series, Vol. 48 (1995), pp. 448-69; N.R. Goose, 'In search of the urban variable: towns and the English economy, 1500-1650', *EcHR*, Vol. 39 (1986), pp. 165-85.
[11] Wrightson, *Ralph Tailor*, p. 32.
[12] W.G. Hoskins, *The Midland Peasant* (London, 1957). In fact, one of Wigston's children became Rector of Houghton-le-Spring in County Durham: see Brenda M. Pask and Margaret Harvey (eds.), *The Letters of George Davenport, 1651-1677*, SS 215 (Woodbridge, 2011).

institutions – at the expense of more mobile and dynamic communities of the people'.[13] A wave of empirical studies sparked by Peter Laslett drastically re-evaluated this view. He found in the village of Clayworth in Nottinghamshire a 60 per cent turnover of householders in the twelve years between 1676 and 1688, a pattern that was confirmed in other areas by subsequent historians.[14] By 1984 the transformation in historical literature was so great that Souden and Starkey could make the remarkable statement that 'in almost any village of the seventeenth and eighteenth centuries, those who were born, lived and died in the same place…were often a tiny minority. […] The villager who never moved was so rare as to be an oddity'.[15] Such movement had deep roots: migration was a feature amongst communities of craftsmen and merchants in medieval towns, a process that gained momentum in the seventeenth century as networks of exchange widened and modes of production specialised, requiring a greater concentration of labour.[16]

The incessant mobility of the English population from the thirteenth century up to the industrial revolution has been given as an example of 'individualism', distinguishing an exceptional England from peasant societies in continental Europe.[17] As well as denying any substantive change in the English, the argument overstates the 'backwardness' of European economies. Guilds in sixteenth-century Brugge, for example, were struggling to regulate migrant craftsmen and their produce, just as they were in London.[18] Around half of grooms between 1670 and 1749 in Rouen were recent immigrants.[19] Urban centres across Europe were suffering and enjoying the consequences of the 'wandering moods' of poor and rich in the seventeenth century, which posed a number of contradictions for towns.[20] European towns were not 'traditional societies', merely contented with things as they stood and instinctively hostile to outsiders: they were aware of the economic benefits of migration,

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[13] David Rollison, 'Exploding England: The Dialectics of Mobility and Settlement in Early Modern England', *Social History*, Vol. 24 (1999), pp. 1-16.

[14] Peter Laslett and John Harrison, 'Clayworth and Cogenhoe', in H.E. Bell and R.L. Ollard (eds.), *Historical Essays, 1600-1750: presented to David Ogg* (London, 1963), pp. 157-84; Whyte, *Migration*, p. 5; Motoyasu Takahasi, 'Family Continuity in England and Japan', *C&C*, Vol. 22 (2007), pp. 193-214.

[15] David Souden and David Starkey, *This Land of England* (London, 1985), pp. 19-20.

[16] L.R. Poos, *A Rural Society after the Black Death: Essex, 1350-1525* (Cambridge, 1994), p. 161; R.K. Field, 'Migration in the later Middle Ages: the case of the Hampton Lovett villeins', *Midland History*, Vol. 8 (1983), pp. 29-48; David Siddle (ed.), *Migration, Mobility and Modernization* (Liverpool, 2000), p. 1.

[17] Alan MacFarlane, *The Origins of English Individualism* (Oxford, 1978).

[18] Heidi Deneweth, 'De interactie tussen arbeidsmarktregulering, migratiebeleid en sociaal beleid: de textielnijverheid in sestiende-eeuws Brugge', in Margo de Koster et al., (eds.), *Werken aan de Stad: Stedelijke actoren en structuren in de zuidelijke Nederlanden, 1500-1900* (Brussels, 2011), pp. 103-111. Cf. Patrick Wallis, 'Controlling Commodities: search and reconciliation in the early modern Livery Companies', in Gadd and Wallis (eds.), *Guilds, Society and Economy in London, 1450-1800* (London, 2002), pp. 85-101.

[19] Jean-Pierre Bardet, *Rouen aux XVIIe et XVIIIe siècles: les mutations d'un espace social*, 2 Vols. (Paris, 1983), p. 108.

[20] Daniel Roche, *Humeurs Vagabondes: de la circulation des hommes et de l'utilité des voyages* (Paris, 2003); Patricia Fumerton, *Unsettled: The Culture of Mobility and the Working Poor in Early Modern England,* (Chicago, 1996).

and trod a line between restrictive regulation and welcoming migrants depending on their own economic and political circumstances. In the words of Leslie Moch, the city was 'a node of movement in the preindustrial world. It must serve as the final resting place for the stereotypical view of sessile preindustrial life'.[21]

We have not quite reached consensus. Some English local historians would disagree about such pervasive migration – if not in towns, then at least for the countryside. Richard McKinley showed, in every county he studied, that inherited surnames had distinctive local characteristics and a number of unique toponymic names, which rarely strayed far from their origins.[22] The 1881 census confirms this view: single-origin surnames rarely spread far from their home town; even the widespread adoption of railways from the mid-nineteenth century had little impact on this.[23] The impact that migration had on communities is also open for dispute. For David Hey, following on from Hoskins's work on Wigston, the long-term residents were the most important in promoting community: it was 'stable families that provided Wigston with a real sense of continuity'.[24] This was not merely true of rural communities. In Mary Prior's study of the Oxford riverside, the sense of community amongst the water tradesmen and their families was little impacted by the constant movement. A stabile group of native families kept alive 'a world which thought in terms of family duties, family alliances, of inheritance, of favour and privilege' well into the nineteenth century.[25]

It was this consolidation of the settled population with more mobile workers that fuelled growth in many towns and was central to England's economic development in the later sixteenth and seventeenth centuries. Newcastle, as this chapter shows, grew by a combination of high fertility amongst much of the working-age population and widespread inward migration. Many of the migrants who arrived had every intention of staying in All Saints' parish, of raising a family there, and dying in old age. This they shared with Newcastle's existing population – and these are the two groups that feature most heavily in surviving parochial and administrative records. There was, however, a further group of migrants who are by necessity sketched more speculatively throughout. These men – and in Newcastle, they were mostly men – came to the town purely for work: they were rarely householders in tax returns because they lodged; they often did not marry or have children.

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[21] Leslie Page Moch, *Moving Europeans: Migration in Western Europe since 1650* (Bloomington, IN, 1992), p. 44.

[22] Richard McKinley, *A History of British Surnames* (Harlow, 1990).

[23] George Redmonds, Turi King, and David Hey, *Surnames, DNA, & Family History* (Oxford, 2011), p. 8.

[24] Hey, 'Stable families', p. 166.

[25] Mary Prior, *Fisher Row: Fishermen, Bargemen, and Canal Boatmen in Oxford, 1500-1900* (Oxford, 1982), p. 25.

Only an unknown proportion feature in the parish burials. Nonetheless, demographic indicators do suggest that the balance between the settled and highly mobile migrants shifted decisively in the middle of the seventeenth century, as the population became more stable and less seasonal.

Population growth: an outline

The nature and timing of population growth in Newcastle is not well understood by historians, although the broad outline is clear: the town grew from an insignificant river crossing to become a thriving provincial mercantile town over the two centuries before the Black Death in 1350, which wiped out as much as half the population. Newton and Pollard suggest a population 'something of the order of 7-8,000' for 1300, the height of the early trade boom, while the 1377 poll tax suggests a post-plague population in Newcastle of around 3,500 to 4,000. This probably dropped even further by 1400: certainly tithal income for St Nicholas' collapsed to less than half in this period.[26] The population had barely recovered to pre-Black Death levels by the time of an ecclesiastical visitation in 1563, although Sydney Middlebrook offers a surprisingly large figure of 10,000 'by Elizabeth's reign', for which he offers no source, a figure repeated by Wrigley.[27] If 1600 is a little murky, it is certainly clear that, prompted by the growth of the coal trade, population had increased again considerably by 1665 to at least 16-17,000, as indicated by hearth tax totals. Growth then slowed before surging again at the beginning of the eighteenth century, reaching 25,000 by 1750, and 28,000 in 1801 (covering a smaller geographical area than had the hearth tax).[28] The general outline is presented in Table 3.2.

As for all pre-modern towns, population totals for Newcastle have usually been based on household totals from tax returns and ecclesiastical censuses, in combination with multipliers based on estimated household sizes. They are therefore approximate, and usually considerable underestimates because households were far more likely to be missing from returns than be double-counted.[29] The contrast between the 'household' and the 'houseful' (that is the inclusion or not of temporary lodgers) can cause a further underestimate of

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[26] Newton and Pollard, 'Introduction', p. xix.

[27] Ibid., p. xx; S. Middlebrook, *Newcastle-upon-Tyne, its Growth and Achievement* (Newcastle, 1950), p. 63; Wrigley, 'Urban growth', pp. 686-7.

[28] Mike Barke 'The People of Newcastle: A demographic history', in Robert Colls and Bill Lancaster (eds.), *Newcastle upon Tyne: A modern history* (Chichester, 2001), pp. 133-66.

[29] Adrian Green, 'County Durham at the Restoration: A social and economic case study' in Elizabeth Parkinson and Margaret Spufford (eds.), *County Durham Hearth Tax Assessment, Lady Day 1666* (London, 2006), p. xxxv-xv.

Table 3.1 – Population estimates from the 1665 and 1666 hearth tax

	Multiplier	1665	1666
Household totals		*2,513*	*3,460*
Population estimates	4.5 (National)	11,309	15,570
	4.2 (Southwark)	10,555	14,532
	5.8 (Liverpool)	14,575	20,068

Sources: PRD/HTax_all; Wall, 'household'; Boulton, *Neighbourhood*, p. 17; Lewis, 'Liverpool', table 2.5.

population total, even when allowances are made for the presence of servants.[30] Household sizes would vary considerably between urban and rural places, between wealthier and poorer households, and between different areas of the same town. Jeremy Boulton shows that for Boroughside, on London's south bank, it is possible to estimate household and houseful size from lists of communicants at the parish church, offering about 4.2 heads per household, although he stresses the imprecision of the exercise and offers a range of possibilities.[31] Tom Arkell, following the research of Peter Laslett and others, proposes a national average (excluding London) of between 4.3 and 4.5; London totals he saw as much higher.[32] Meanwhile, Fiona Lewis's study of eighteenth-century Liverpool suggests much bigger households still, at nearly six heads.[33]

This problem is compounded for Newcastle by the variety of household totals, even from ostensibly consecutive years of hearth tax returns. Local historians tend to use the published 1665 returns, but in fact 1666 offers a considerably different picture, with a third more hearths recorded in total, despite the fact that a number of exemption lists have not survived.[34] If the 1666 return seems to underestimate household numbers, the 1665 return must do so to a greater extent. The earlier return could be based on assessments of households made as early as 1662 or 1663 – with the tax simply re-collected every half year rather than reassessed – which could help to explain the vastly different household totals. There was a substantial change in administration between the assessments made for these two returns: the legislation was altered, moving the responsibility for assessment away from local officials to professional tax 'farmers'. The hearth tax was very unpopular everywhere,

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[30] Richard Wall, 'The household: demographic and economic change in England 1650-1970', in R. Wall (ed.), *Family Forms in Historic Europe* (Cambridge, 1982), p. 497. Howell, *Newcastle*, p. 9, allows for 2 servants in 1/3 of households.
[31] Boulton, *Neighbourhood*, pp. 14-19.
[32] Tom Arkell, 'Multiplying Factors for Estimating Population Totals from Hearth Tax', *LPS*, No. 28 (1982), pp. 51-7; Wall, 'Household', p. 497.
[33] Lewis, 'Liverpool', table 2.5.
[34] TNA E179/158/102; for 1665 see Richard Welford, 'Newcastle householders in 1665: Assessment of Hearth or Chimney Tax', *AA*, Series 3, Vol. 7 (1911), pp. 49-76. I am grateful to the British Academy Hearth Tax Project for the use of their 1666 digitized hearth tax data.

Table 3.2 – Population estimates for Newcastle

Year	Population
1300	7,000
1377	3,500-4,000
1562	7,000-8,000
1600	10,000
1666	15,000-17,000
1700	16,000-18,000
1736	20,000
1801	28,294

Sources: see text

but the inhabitants of Newcastle were notably rowdy in their dealings with the 'chimneymen', who complained of stone-throwing from 'the ruder people' in Sandgate.[35] The inaccuracy of the returns is no great surprise, and it seems likely that both are considerable underestimates of the real number of households. Given the difficulties of estimating both household size and number of households, the best we can offer is a range, which is presented in Table 3.1. Taking a middle estimate of around between 15,000 and 17,000 fits with the broader narrative of population change in Newcastle, though the nature of the town's sprawling eastern suburb in the 1660s means this must be an underestimate. Adrian Green inflates household totals by 25 per cent to account for under recording in County Durham as a whole; if that were also the case for Newcastle, it would certainly have reached nearer 20,000 by 1666.[36]

Single-year estimates of household totals allow only a broad outline, but the contours of Newcastle's population growth can be fleshed out using the surviving parish registers. Figure 3.1, an adjusted five-year moving average of totals from all four parishes, demonstrates a substantial growth in the frequency of baptisms and burials across the seventeenth century, most of which occurred in the first 35 years, before the arrival of a catastrophic outbreak of the plague in 1636 and the Scottish military invasion and occupation in 1640 and again in 1644.[37] This early growth was due to the major expansion of coal shipments in this period, which provided employment for many more people in each successive decade. This in turn created more work opportunities to feed and service the growing population.[38] The 1620s was also a period of subsistence crisis, particularly in Scotland, and this pushed a substantial number of poorer people towards the town, in search of refuge: burials surged in the Scottish lowland towns of Dunfermline and Kelso, for

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[35] Fewster, *Keelmen*, p. 17.
[36] Green, 'County Durham', p. xxxviii.
[37] Wrightson, *Ralph Tailor*; Howell, *Newcastle*.
[38] See Chapter 4.

Figure 3.1 – Adjusted burial and baptism 5-year moving averages from Newcastle parish registers.
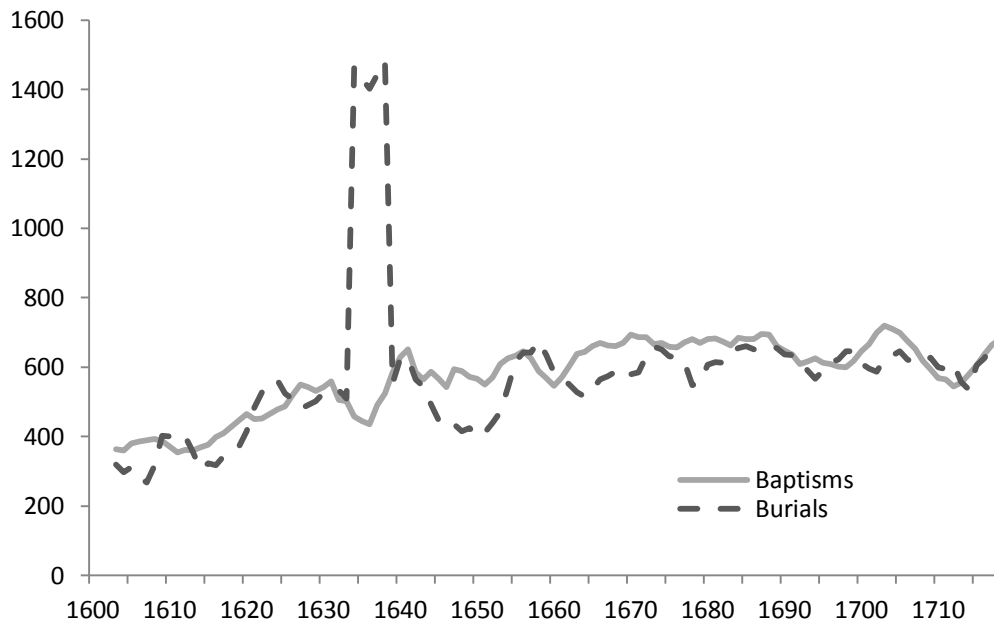
Source: PRD/ASBap, ASBur, NclBap, NclBur. See below for adjustments.

instance, and it is certainly possible that a portion of Newcastle's burials could have been temporary vagrants, although in All Saints' parish they were not recorded specifically as such.[39]

This population bubble deflated spectacularly in 1636, but then reflated equally quickly. Figure 3.1 demonstrates the horrifying impact of plague in Newcastle. Registration was disrupted in all four parishes, and most severely in All Saints', where it ceased entirely for most of 1636; the totals have therefore been adjusted according to suggestions by Keith Wrightson based on totals collected by Robert Jenison.[40] In totting up the dead of the plague, Newcastle's mayor and aldermen put the total as 'verie near 6,000 persons', or around half of the population of the town at the start of the plague; by the autumn the death toll was falling as the population dropped, 'there being not soe many people left in the towne as there was'.[41] This makes it all the more striking that, by 1639, the baptisms had completely recovered and risen to a peak of over 600, presumably catching up on a backlog of unbaptised infants. Baptisms settled at well over 500 per year for the next ten years. The speed of recovery from the plague is important because it indicates the magnitude of the pull of work towards the Quayside, which brought people in despite fears of contagion. This was

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[39] Michael Flinn (ed.), *Scottish Population History from the Seventeenth Century to the 1930s* (Cambridge, 1977).

[40] Wrightson, *Ralph Tailor*, pp. 28-31; Robert Jenison, *Newcastle's Call: to her Neighbour and Sister Townes and Cities throughout the Land* (London, 1637); F.W. Dendy, 'The Plague in Newcastle', *Proceedings of the Society of Antiquities in Newcastle upon Tyne*, 3rd series, No. 1 (1905), p. 48.

[41] J. Raine, 'A letter from the Corporation of Newcastle upon Tyne', *AA*, Vol. 2 (1832), pp. 366-7.

not unique: in London, for instance, the number of apprentices shot up by a half in the two years after the plague of 1603.[42] Similarly in Newcastle, admissions to the freedom in 1636, 1637 and 1639 were double what they had been at the beginning of the 1630s: people were being quickly promoted and stepping, perhaps literally, into the shoes of those who had died.[43]

The impact of the Civil War was a significant but short-lived drop in the 1640s and 1650s. Newcastle, initially Royalist, but with a strongly Puritan streak, was attacked by Scottish and Parliamentary forces in 1640, and besieged and occupied again in 1644-7.[44] Trade had been continually disrupted in 1637-8 – problems included Dunkirk pirates and crosswinds – and the threat of a Scottish invasion was enough to send a number of Newcastle's tradesmen running for the hills or further afield.[45] The contemporary historian and lawyer John Rushworth explained the extent of the problem, which was not just limited to the town itself:

> Newcastle and the Coal Mines that had wont to employ ten thousand people…[had] now not a man to be seen, not a coal wrought, all absconding, being possest with a fear the Scots would give no quarter…. many Families [were] gone leaving their houses and goods to the mercy of the Scots; who possessed themselves of such corn, cheese, beer, *&c.* as they found…[46]

This disruption was fleeting, however: we have seen that baptisms recovered quickly in 1639 and 1640. The same can be said for the order books of the butchers and the bakers and brewers, which showed little difference between 1640 and 1639; moreover, apprentice numbers in both companies were increasing.[47] There was disruption to Newcastle's population, but no fundamental discontinuity.

The siege of 1644 had an immediate impact on the economy. The Royalist mayor John Marley held out against Scottish forces between February and October, eventually retreating to the Castle itself. Conflict resulted in the destruction a portion of the physical town and the stoppage of shipping. All Saints' parish church was burned, as was the mayor's house and the guild hall.[48] According to William Gray in 1649 (an ardent Royalist himself), the suburbs to the north and west had been 'ruinated' by a combination of 'enemy' action by the Scots forces, and wanton destruction by the Earl of Newcastle, who burned buildings to slow their approach, 'notwithstanding the cries of many poore widows and

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[42] Rappaport, *Worlds*, p. 74.

[43] Dodds, *Admissions*.

[44] Howell, *Newcastle*, Chapters 3-4; Paul Whillis, 'The Experience of Scottish Occupation in Newcastle-upon-Tyne and the Bishopric of Durham, 1640-1647', unpublished M.A. dissertation (University of Durham, 2002).

[45] *CSPD* 1637-38, p. 76; TNA SP 16/408 f.98.; Matthew Greenhall, 'Economic causes and consequences of the Scottish invasions of north-east England, 1637-1647', *NH*, Vol. 49 (2012), pp. 265-80.

[46] John Rushworth, *Historical collections of private passages of state…* (London, 1680-1701), III, pp. 1221-86; <http://www.british-history.ac.uk/source.aspx?pubid=618>

[47] Howell, *Newcastle*, p. 133; Greenhall, 'Economic Causes', p. 273.

[48] Whillis, 'Experience', chapter 3.

fatherless children that begged him with tears to refrain'.[49] Mercifully for the coal trade, Sandgate – the eastern quayside suburb – 'escaped the fury of these warres, except some neere the walls of the towne, which was fired'.[50] As a result, the siege has left only a modest dent in the demographic record: a large number of illegitimate children of soldiers, many of them explicitly Scottish, helped to fuel a minor boom in the later 1640s.[51] There was a generally low level of burials in 1644-5, which is probably due to under recording as much as to a falling population. The surviving registers for these years are chaotic, with some months missing entirely and others out of chronological order. This was due in part to the burning of the Church, although the civil administration of the town also struggled to stay on top of its paperwork through the disrupted siege years.[52] Similarly, the stoppage in shipping was intense but relatively short-lived. While only 200 ships arrived in Newcastle in 1644, instead of the usual 3,000, by 1648 business was already much stronger, with 1200 ships, and by 1652 the number was back to normal.[53] Newcastle's strategic importance for the provision of fuel to London ensured that the resumption of coal exports was a national priority. By March 1646 there were so many ships entering the Tyne in ballast, to return with coal, that the accumulation of dumped ballast was deemed dangerous for navigation, because 'ships that had 8 foot of water at the quay [last October] now have only 4'.[54] Moreover, the occupation that followed the siege brought a notable increase in certain types of trade, particularly between England and Scotland, which included supplies of muskets, pistols and swords to supply the occupying force.[55] Newcastle's domestic production had restarted as well. In 1650, Newcastle shipwrights had '25 flatboats and an unspecified number of shallops' under construction for the use of the State; admissions to the butchers' and bakers' guilds were on par with what they had been before the plague.[56] Not even the war against the Dutch in 1652-4 could put a damper on trade, and by 1655, the Corporation had found the money – nearly £10,000 in all – to start construction of a new Guildhall and Exchange in the Sandhill.[57]

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[49] Gray, *Chorographia*, p. 94; *Full Relation of the Scots Besieging Newcastle…* (London, 1644), quoted in Whillis, 'Experience'.
[50] Gray, *Chorographia*, p. 94.
[51] See Chapter 4 for the link between illegitimacy and prostitution.
[52] Howell, *Newcastle*, pp. 133-4; 164-8.
[53] Nef, *Coal*, II, pp. 69, 287; Howell, *Newcastle*, p. 355.
[54] TNA SP16/515/1 f.52.
[55] Greenhall, 'Economic Causes', pp. 277-8.
[56] Howell, *Newcastle*, p. 286; Whillis, 'Experience', pp. 71-5.
[57] Middlebrook, *Newcastle*, p. 77.

Figure 3.2 – Coal shipments from Newcastle and All Saints' baptisms
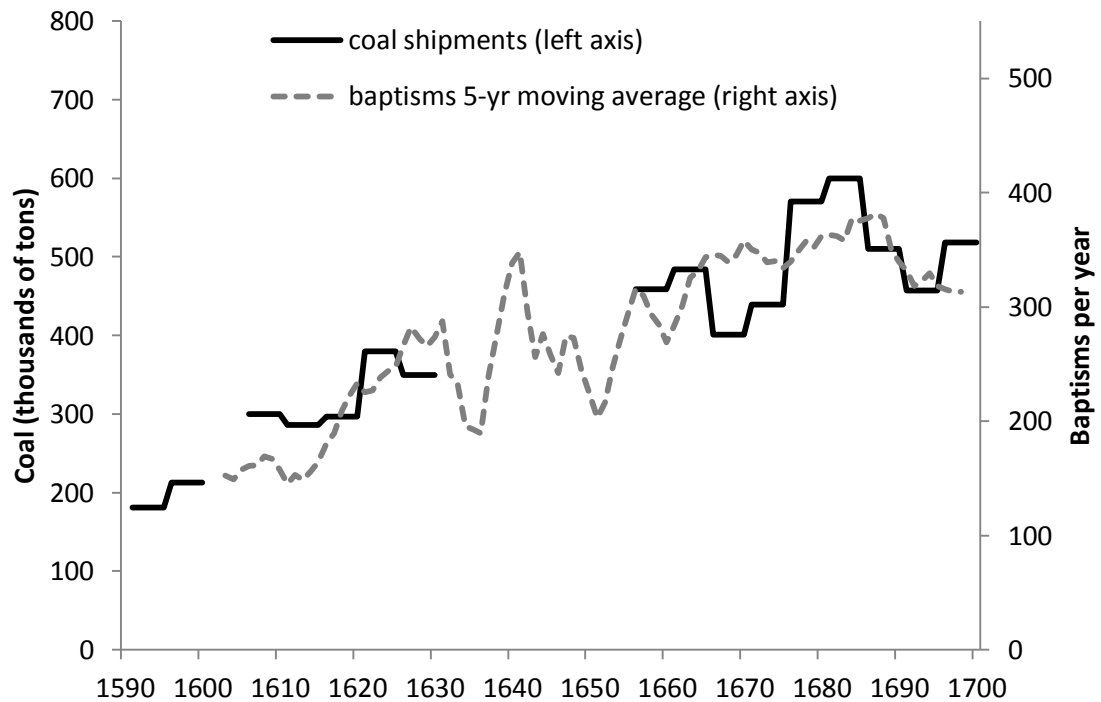
Sources: PRD/ASBapt; Hatcher, *Coal*, pp. 486-9.

Following the disruption of the 1640s, there was a moderate rise in the numbers of baptisms from the mid-1650s until about 1670, from where they slowed and slightly declined. Again, this pattern closely follows the course of Newcastle's coal industry which saw a similar surge over the beginning of the seventeenth century, more than doubling in volume by the 1630s, followed by a hiatus and a post-Civil War recovery (see Figure 3.2). At the end of the century, trade slowed considerably, in a similar fashion to the registered baptisms. There were recurrent disruptions to trade in the 1660s and 70s, due in part to the Second and Third Anglo-Dutch Wars (1665-7 and 1672-74), although the danger to shipping was not merely confined to wartime. Mayor Robert Ellison wrote in 1660 that there were 'several masters of ships in this harbour, who are ready to sail for the Eastern Seas, but dare not do so' because of the threat of 'several Ostend men-of-war'.[58] In June 1666, Richard Forster was concerned that 'the coal fleet is still in harbour, and some men-of-war are hovering, waiting for them'.[59] It was not an idle threat: in December, Forster wrote again that 'some of the vessels that sailed on Friday arrived safely, but the rest are said to have met 14 Dutch men-of-war…'.[60] In June 1667, the naval civil servant Samuel Pepys was concerned that 'the Dutch may go and burn all our colliers at Newcastle'.[61] Ongoing trade disputes, piracy and war cooled off the rate at which the coal industry

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[58] TNA SP18/220 f.35.
[59] TNA SP29/159 f.95.
[60] TNA SP29/180 f.169.
[61] Samuel Pepys' Diary, 23 June 1667, 11 December 1667.

Figure 3.3 – Coastal coal shipments originating from Newcastle and north-eastern ports
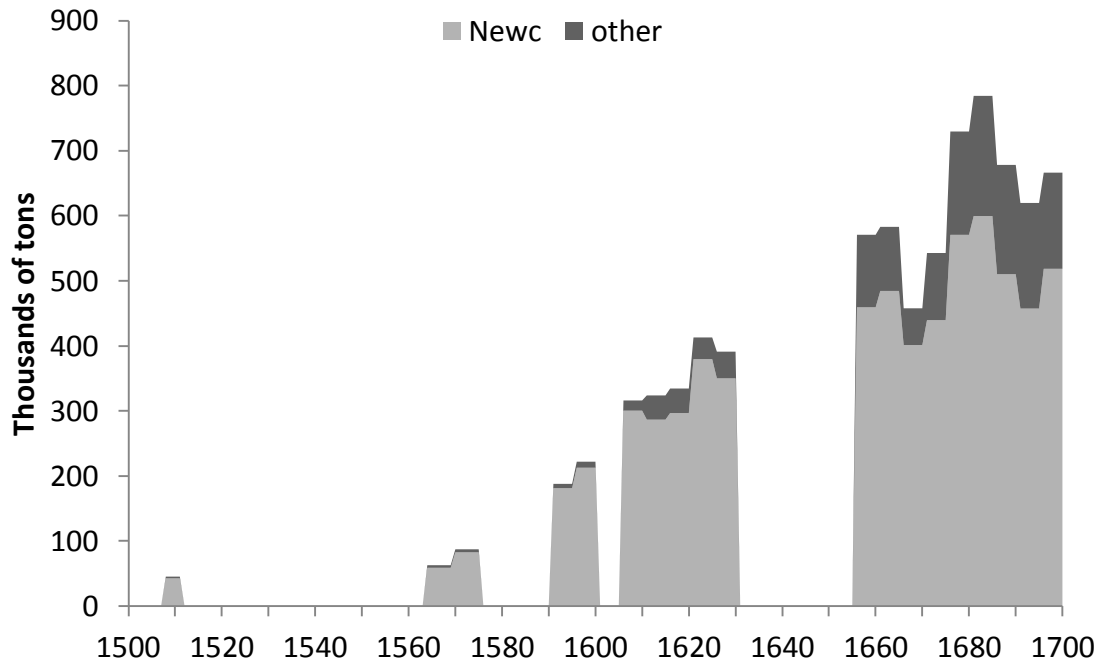
Source: Hatcher, *Coal*, pp. 486-9.

demand Newcastle workers in the 1660s and 1670s, and the town's population stabilised accordingly.

The Wearside coal trade from Sunderland was also offering increased competition to the hostmen's exports. Newcastle's Royalist stand in the Civil War had slackened the control of the ruling élite over coal supplies from County Durham; Parliamentary London was desperate for fuel and no longer recognised the monopoly rights granted in Newcastle's Royal Charter.[62] A number of large-scale pits were in operation close to the banks of the River Wear at places like Harraton and Chester-le-Street. Although the Wear was more heavily silted and difficult to navigate than the Tyne, Sunderland had cut significantly into Newcastle's trade by 1660, as demonstrated by the darker band in Figure 3.3.[63] The Hostmen's southern competitors doubled their share by capturing a number of the smaller markets over the following decades, and by the 1660s their coastwise trade amounted to as much as a quarter of the volume of Newcastle's trade, and more than a third by 1680.[64] The minor ports of Blyth, Hartley and Cullercoats were smaller local competitors by the 1680s, and Scottish and Yorkshire coal was also cutting into Newcastle's business.[65] The competition of Newcastle's neighbours checked the unrestrained growth of the town that

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[62] Middlebrook, *Newcastle*, p. 87.
[63] Nef, *Coal*, I, pp. 30-1.
[64] Ibid., p. 286; Nef, *Coal*, II., p. 380; Maureen Meikle and Christine Newman, *Sunderland and its Origins: Monks and Mariners* (Stroud, 2008).
[65] Middlebrook, *Newcastle*, p. 87.

had taken place in the first decades of the seventeenth century, and the level of population stabilised accordingly.

Thus Newcastle's population closely followed the contours of trade in its primary industry: coal had an important impact on far more than just those that worked directly in the industry, as Chapter 4 demonstrates. While plague and war had their own devastating short-term impacts, it seems that workers in Newcastle were easily – and very quickly – replaced by new migrants. Only when the *trade itself* was disrupted by war and competition did population growth really begin to slow. The mechanisms, and components, of this growth need to be considered in more detail: clearly work-related migration played an important role, but, as far as we can tell, fertility also seems to have been quite high in Newcastle's most mobile parish.

The components of growth: fertility and migration

It is commonplace in urban studies to remark on the dreadfully high mortality in early modern towns. 'Constant recruitment was a matter of necessity', wrote Braudel, because before the nineteenth century, 'cities were areas of high mortality. If they were to expand, they could not do so unaided.'[66] Perhaps the first to explore urban demography in this way was John Graunt, who scoured London's weekly bills of mortality in the mid-seventeenth century, tallying baptisms and burials in all parishes. He observed that London was growing much faster than the rest of the country and, further, that:

> …in the said bills there are far more burials than christenings.[…] From this single observation it will follow, that London hath decreased in its people, the contrary thereof we see by its daily increase of building upon new foundations, and by the turning of great palacious houses into small tenements. It is therefore certain, that London is supplied with people from out of the country…[67]

By 'country', Graunt meant the area immediately around London, and indeed his suspicions have been confirmed using modern demographic techniques. At least 700 immigrants a year would have been required to keep London's population stable between 1550 and 1650; to grow as it did, it needed 6,000 immigrants, who came from across England and Scotland and further afield.[68]

It has often been assumed that high mortality was the only important component in London's cavernous baptism deficit: the model is roughly that the death of more migrants caused more to arrive, perpetuating a cycle of disease and ill-health. In Manchester in 1795, a town whose revolutionary cotton mills were driving population to unprecedented levels, it

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[66] Braudel, *Structures*, p. 490
[67] John Graunt, *Natural and political observations…* (London, 1662), pp. 41-2.
[68] Finlay, *Population*, pp. 4-5.

was said that 'a lodger fresh from the countryside often lies down in a bed, filled by infection from its last tenant, or from which the corpse of a victim to fever has only been removed a few hours before'.[69] On the face of it, Newcastle would seem to fit this model of immigration making up for high mortality: over the century, there was a deficit of 829 baptisms, or 2.7 per cent of the total. Indeed Newcastle counts among the towns in Wrigley's model:

> Large towns such as York, Bristol, Norwich, Newcastle, or pre-eminently London, often failed to balance their demographic books. More were buried than were born within the city walls and in the surrounding suburbs. Without a steady stream of immigrants many, perhaps most, towns before the 19th century would have lost population.[70]

The model was challenged by Allan Sharlin in 1978, who argued that 'most migrants were young and single. Consequently, with low rates of illegitimate fertility, they made negligible contributions towards fertility but a significant contribution to the death rate since the level of urban mortality was high'.[71] The interaction between high mortality and low fertility in London was the key to its desperate need for immigrants. Rather than *enormous* numbers of immigrants dying, the problem was that they were equally or more at risk of dying as other members of the population, but they were much *less* likely to have children. Sharlin's conclusion is neat but lacking in supporting evidence: temporary migrants left precious little record of themselves unless their passing visit became, happily or calamitously, permanent. It was this interaction between fertility and mortality that determined the general course of an individual town's demography – although the persistence of the older type of analysis led Nigel Goose to remark in 1994 of the need 'explode once and for all the familiar well-worn errors or exaggerations about the unhealthiness of urban environments and universality of urban natural decrease'.[72] In fact, English towns did not all suffer excess burials, and although they did usually have higher rates of mortality than the countryside surrounding them, they were often not as high as pessimists have argued.[73] Studies of towns have shown that they did not consistently exhibit parish baptism deficits: the list includes a wide variety of early modern urbanity, from the large market town of Gloucester, to the northern administrative and ecclesiastical capital of York, and the port of Ipswich.[74]

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[69] Quoted in Whyte, *Migration*, p. 91.
[70] Wrigley, *Population and History*, pp. 97-9.
[71] Allan Sharlin, 'Natural Decrease in Early Modern Cities: A Reconsideration', *P&P*, No. 79 (1978), pp. 126-38; Galley, 'a model', p. 449.
[72] Galley, 'A model'; N.R. Goose, 'Urban demography in pre-industrial England: what is to be done?', *UH*, Vol. 21 (1994), p. 279; Goose made the same remark at an LPSS demography conference in London, 13 April 2013.
[73] Pessimists include Houston, *Population History*, pp. 53, 61; Clark, *Early Modern Town*, p. 26.
[74] Galley, *Demography*; Palliser, *York*, pp. 125-7; Michael Reed, 'Economic structure and change in seventeenth-century Ipswich', in Peter Clark (ed.), *Country Towns in pre-industrial England*, pp. 94-5; P.

With these considerations in mind, a closer evaluation of the Newcastle parish registers suggests that it also did not consistently exhibit deficits: in fact, in most periods, the industrial parish of All Saints' showed a significant surplus. This has important implications about the people who lived there, but it requires cautious interpretation. Understanding the components of growth in a population like Newcastle requires a precise grasp of the levels of baptisms and burials, and it is therefore necessary to carefully consider who was omitted from the registers. D.V. Glass found a serious under-registration of births in the baptism registers compared to tax returns in London in 1694.[75] Roger Finlay, again for London, argues that across the seventeenth century, the time between birth and baptism increased, meaning that infants who died shortly after birth would be at greater risk of not appearing on the baptism register: he suggests a shortfall adjustment of anywhere between 3.5 and 7 per cent.[76] A total of 1,247 infants in All Saints' parish were recorded as buried with no first name recorded, and 22 were recorded with no surname either. It is likely that these were unbaptized infants who therefore had no 'official' name – and, in any case, it would be difficult to link them to baptisms with any certainty.

To take a specific example: two 'infant Emersons' were buried in All Saints' in January and February 1683.[77] There were four contemporaneous fathers called Emerson, each of which baptised children in 1680 or 81, but none recorded any baptisms in 1682 or 83.[78] The two 'infants' buried in 1683, a term which contrasted with 'child' and 'boy' or 'girl' used elsewhere in the register, suggests they died and were buried shortly after birth and before a baptism could be registered.[79] This is a fairly typical example of unnamed infants in All Saints' burials and it corresponds with other studies.[80] If we assume these records were those of unbaptised infants, they suggest a level of under-registration of baptisms of 7.5 per cent due to death shortly after birth.[81] This figure is notably similar to those compiled the Cambridge Group for their 16 parishes (between 6.5 per cent and 8.3 per

Ripley, 'Parish register evidence for the population of Gloucester, 1562-1641', *Bristol and Gloucestershire Archaeological Society Transactions*, No. 91 (1972), p. 203.

[75] D.V. Glass (ed.), *London inhabitants between the walls, 1695* (London, 1966).

[76] Roger Finlay, *Population and Metropolis: The demography of London, 1580-1650* (Cambridge, 1981), p. 31.

[77] PRD/ASBur/19753, 19755;

[78] PRD/ASBap/emmerson.john.5, emmerson.chr, emmerson.hen, emmerson.tho.

[79] The generic term 'infant' was also used, rarely, when parish registration became overwhelmed by a rush of plague burials when the clerk clearly felt it more important to record the name of the father than the child. This will not prejudice the results because the 1636 burials are entirely absent for All Saints and there is no apparent spike in the use of 'infant' in other outbreaks, such as 1611. PRD ASBur 1352-1666 are most of the plague victims.

[80] Galley, *Demography*; Wrigley et al., *Population History*, pp. 214-260.

[81] 1,247 infants ÷ 16,622 burials.

cent died in the first week of life across the seventeenth century);[82] Chris Galley in his family reconstitution of York between 1563 and 1700 (7.05 per cent across all parishes);[83] Finlay's figures for two London parishes at 6.8 and 7 per cent;[84] and somewhat lower than in Fiona Lewis's study of eighteenth century Liverpool (where 11.6 per cent died in the first week of life), although she notes that Liverpool had particularly high infant mortality, even compared to other towns.[85]

Under-registration of burials has also been identified as a significant problem nationwide, although it is more difficult to trace than the under-registration of baptisms. Langton and Laxton, for example, find a shortfall of between 3 and 5 per cent in their late eighteenth-century Liverpool burials.[86] One component has been identified by Peter Razzell, who linked together baptisms and burials of 'same-name siblings' under the assumption that 'it was the custom in England and elsewhere sometimes to give the name of a dead child to a subsequent sibling of the same sex', for reasons of family continuity and perhaps also inheritance.[87] In a Newcastle example, John Cuthbertson named three of his sons John, apparently trying desperately to continue his name. The burials of three of his other children are recorded in the All Saints' register, but not the two Johns who presumably died in between.[88] We can use these absences to estimate the general shortfall. Three samples from All Saints' parish indicate a variety of totals.[89] In the first decades of the century, 32 of 75 same-name siblings are absent (31 per cent); in the first of the post-Civil War samples, this rose to 19 of 44, or 43 per cent; the final sample is 10 from 28, or 35 per cent.[90] Such figures correspond with those from other parts of the country. Razzell finds that as many as 34 per cent of the same-name siblings could not be traced in the corresponding burial registers before 1600, declining to about 23 per cent by 1800.[91] Although the absolute numbers represented in this sample are small, it hints at a wider scale of under-registration of burials which was compounded by 'clerical negligence' and the non-payment of burial fees.[92] Registration in All Saints' does not seem to have suffered this particular problem, except in

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[82] Wrigley et al., *Population History*, p. 239.
[83] Galley, *Demography*, p. 61.
[84] Finlay, *Population*, p. 31.
[85] Lewis, 'Liverpool', pp. 178-9.
[86] Langton and Laxton, 'Parish registers', pp. 75-8;
[87] Peter Razzell, 'Evaluating the same-name technique as a way of measuring burial register reliability in England', *LPS*, Vol. 64 (2000), p. 10.
[88] PRD/Fathers/cuthbertson.john.2; /ASBur/24646, 23751, 21539.
[89] The sample is taken from fathers with five or more baptisms to their name, who baptised their first child between 1601-5, 1671-5 and 1681-5.
[90] PRD/Samenamesample
[91] Razell, 'Evaluating', p. 18.
[92] Peter Razzell, 'An Evaluation of the Reliability of Anglican Adult Burial Registration', *LPS*, No. 77 (2006), p. 52.

specific years such is 1644-5: it was common to record burials as 'unpaid' (and not to leave them off) in the 1680s and 1690s. We should be extremely cautious before expanding this under-recording to the whole population, however. Razell's assumption about the naming of children has come under fire from historical demographers who have used reliable census data to reconstruct communities where more than one living child had the same name; in other words modern cultural assumptions about the family do no easily translate backwards.[93] For the time being, the jury is out on the quality of burial registration.

The impact of religious non-conformity in Newcastle on both baptisms and burials is unclear and difficult to estimate. There is some evidence to suggest that the emergence of Ballast Hills (an area to the east of Sandgate, well out of the town) as a non-conformist burial ground in the eighteenth century had a deprecatory impact on parish burial registration across the town, but was most severe in All Saints', which was closest to Ballast Hills, straddling the eastern end of the town wall. By 1800, the All Saints' vicar, Reverend Emerson, had become so concerned with this phenomenon that he sent an assistant to record unregistered burials in Ballast Hills. In one year, she recorded 466 burials from residents of All Saints' parish, compared to only 201 in the church's register.[94] The nineteenth-century historian Mackenzie assumed, in the absence of any evidence to the contrary, that this practice went back to at least the late sixteenth century.[95] It is significant, however, that neither William Gray in 1649 nor Henry Bourne in 1736 mentioned burials at Ballast Hills. Indeed, Gray refers to women employed shifting ballast from the riverside to the Hills, and chamberlain's accounts record that men were frequently employed at four or five pence per day to do the same job.[96] The rise of the Hills as a large-scale burial ground must have taken place later, a change that has been quantified by Graham Butler using the Bills of Mortality printed in eighteenth-century newspapers (a source that does not survive for the seventeenth). The growth of Ballast Hills in burials, as revealed by the Bills, coincided with a substantial decline in burial registration in All Saints' parish from around 300 to 150 burials per year in the half-century after 1736.[97] The Hills may have already been a non-

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[93] Chris Galley, Eilidh Garrett, Ros Davies, and Alice Reid, 'Living same-name siblings and British historical demography', *LPS*, No. 86 (2011), pp. 15-36, and the reply from Razzell and response from Galley et al. in *LPS*, No. 87 (2011) and again in *LPS*, No. 88 (2012).
[94] Revd. Emerson's commentary on the parish register, quoted by Peter Wright, 'Water Trades on the Lower River Tyne in the Seventeenth and Eighteenth Centuries', unpublished PhD thesis (Newcastle-upon-Tyne, 2011), pp. 72-3.
[95] Mackenzie, *Newcastle*, pp. 370-414.
[96] See Chapters 7 and 8; TWA 543/26 f.139, 140, 142.
[97] Graham Butler, 'Disease, Medicine and the Urban Poor in Newcastle-upon-Tyne, c. 1750-1850', unpublished PhD thesis (Newcastle, 2012), pp. 51-4.

Figure 3.4 – Cumulative natural change, 1600-1720, baptisms and burials adjusted.
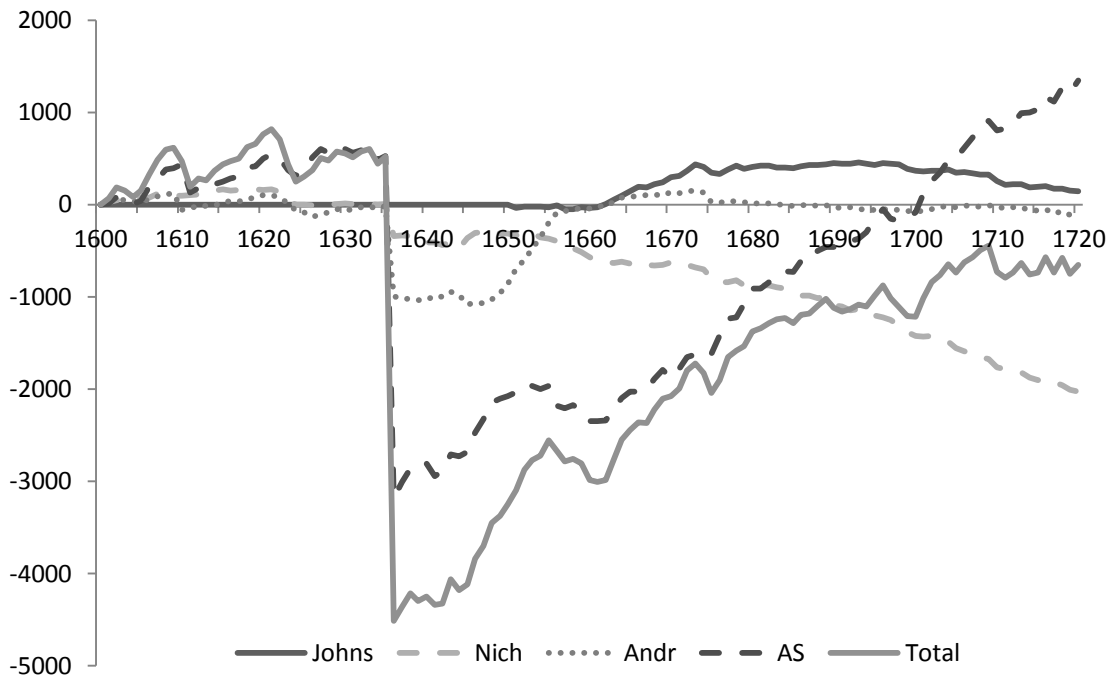
Sources: TWA MF 249/250, MF 263, MF 279, MF 528; Dendy, 'The Plague in Newcastle', p. 48; Wrightson, *Ralph Tailor*, p. 31.

conformist burial ground in the very late seventeenth century, but it is clear that even if it was, the area did not reach the scale of burials that would be seen in the eighteenth century.

While we cannot be sure about the timing of the rise of Ballast Hills as a burial ground, there is evidence of another, earlier, non-parochial burial ground in Newcastle, described as 'Garth-side' in Robert Jenison's tabulation of mortality in the 1636 plague.[98] Keith Wrightson justifiably dismisses suggestions that this refers to Gateshead, which was often known as 'Gateside' but never 'Garth-side' (the two are etymologically worlds apart), or the Castle Garth, which would have made very unsuitable terrain for a substantial burial ground.[99] Instead, Wrightson identifies 'Garth-side' as the 'Place of Pleasure and Recreation' known as 'Garth-Heads' by Henry Bourne, which was outside the Pandon Gate, on a lane to the right.[100] The 515 burials here in 1636 were a considerable minority of the town's total, at 9.1 per cent, and it is certainly plausible that the people buried here were social, economic, or confessional 'outsiders' to the town. Burials in Garth-side peaked in early July, just as mortality in All Saints' started to climb, suggesting that early victims from Sandgate were buried here.[101] This would have been a serious snub for many: place of burial

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[98] Robert Jenison, *Newcastle's Call: to her Neighbour and Sister Townes and Cities throughout the* Land (London, 1637).
[99] Wrightson, *Ralph Tailor*, pp. 31, 36-8.
[100] Bourne, *History*, p. 153. 'Garth-heads' is not marked on Map B, but it would have been close to 'Z', the Carpenters' Tower.
[101] Wrightson, *Ralph Tailor*, pp. 31, 38.

was one of the common clauses stipulated on wills, and 'to specify one's place of burial was to evoke symbolic membership of…a community'.[102] Even James Dunne, whose will was taken nuncupatively on his plague death bed, started it with the bequest of his body to 'the churche yard of Alhalowes our parishe Churche'.[103] Garth-side receives no other mention as a burial ground in Newcastle records, so it seems doubtful that it operated, like Ballast Hills would a century later, outside the peak mortality of a plague year.

It is safe to estimate, therefore, that the level of natural decrease, or more probably increase, of the whole population of Newcastle was small. This was boosted by a much larger level of migration. Splitting the registers by parish indicates that the change was not spread evenly across the city. Figure 3.4 shows the cumulative natural change (in other words, the surplus or deficit for each year added on to the previous year) after adjustments have been made for the 1636 plague and estimations of baptism and burial under-recording. The graph for St John's parish does not begin until 1650 because of the difficulties of separating baptisms and burials in the register itself, and it has a short period of excess baptisms, before evening out and beginning to fall towards the end of the century. St Andrew's parish followed a similar pattern, enjoying a small growth in baptisms in the 1610s and 1620s (when a number of pitmen took home in the parish), followed by the plague, a period of population recovery where baptisms outnumbered burials considerably, and then a rough balance through the rest of the century. Neither saw a particular net growth or loss in their 'natural populations' according to the records.

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[102] Ibid., p. 96.
[103] DPRI/1/1637/D9; Wrightson, *Ralph Tailor*, pp. 95-6.

Table 3.3 – Estimated numbers and fertility of All Saints' watermen

year	keels	men	baptisms (5-yr avge)	fertility
1626	300	1050	65	35.4
1638		1800	60	19.0
1655	320	1120	94	48.2
1704	400	1400	168	68.6

Sources: ASBap; Nef, *Coal*, I, p. 389; TNA SP 16/408; Gardner, *England's grievance discovered* (1655). Note: estimates based on the number of keels have assumed 3.5 men per keel, based on contemporary descriptions of 3 or 4 men, or 3 men and a boy. See Chapter 8. The baptism average is centred (i.e. two years either side) to control for normal annual variation.

The registers of All Saints' and St Nicholas' parishes show clear – and divergent – patterns, however. Baptisms in St Nicholas' grew slightly at the beginning of the century, from around sixty a year to approximately 80 to 90 by the mid-1630s. Burials also increased at the beginning of the century – but to between 110 and 120 per year, on a fairly consistent basis – and stayed there for the rest of the century.[104] The result was a consistent baptism shortfall of about 25 baptisms per year, a loss of nearly 2,000 over the century. There was clearly a general stagnation in the population of the parish: for much of the century, it was where the merchants predominantly lived, but they gradually began to move out at the end of the century and were replaced partly by commercial property.[105] In addition, it is clear that executed prisoners were counted amongst the burials in St Nicholas'. On 2 July 1645 an unnamed prisoner was 'executed for flying from his colers to the enemie' – that is, with the Royalist force who resisted the siege in 1644; in August 1649, twenty of thirty burials on the register were executions.[106] A stagnating birth rate was mixed with a slightly rising – sometimes in quite large peaks – level of burials, some of which were external to the population of the parish.

The pattern in All Saints', the maritime parish to the east of the town, was the opposite of that in St Nicholas'. Baptisms consistently outnumbered burials by between 50 and 150 per year, with two exceptions – the plague and the dip in the 1660s, explained above. Burials did increase in All Saints' over the century, but they hovered from 1650 onwards at around 250 to 350, while baptisms were usually higher, at between 300 and 400. The result is the dashed dark line in Figure 3.4, which dragged the town's lighter grey line up with it. In total for Newcastle, there was a deficit of 749 baptisms below burials, reflecting the general trends in St Andrew's and St John's and the downward trend in St Nicholas'. But in All Saints', despite losing 3,500 people *in a single year*, 1,214 more people were baptised

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[104] PRD/NclBap, NclBur.
[105] See Chapter 5.
[106] TWA MF263.

than were buried. Given the estimates of population growth above, the population of All Saints' parish would have been around 9,000 by 1666, and slightly higher by 1700, which represents a gain of at least 4-5,000 people since the beginning of the century. The other parishes between them saw a more modest growth, and St Nicholas' probably had no growth at all or a slight decline. Total net migration into Newcastle must therefore have been in the order of 5-7,000 people over the century, most of it focused in the first three decades of the century, and three-quarters of it directed to All Saints' parish.

Counting the people of All Saints' has revealed some important information about who they were. Many had migrated into the city, and it seems that they were having many more children than were dying, despite unhealthy living and working conditions.[107] There is not enough information to calculate fertility rates, as we simply cannot be sure about the population 'at risk' of fertility – that is, married women of a fertile age – without a full 'family reconstitution' and even this method suffers from a large amount of missing information. Other studies suggest 'high and rising birth rates are a known feature of cities experiencing heavy immigration of young adults', like, for example, the growing population of working-age men and women in All Saints'.[108] In areas with high employment, thanks to growing industry, like Norwich and Southwark, the influx of immigrants boosted births higher than what demographers would consider a 'natural level', as high as 76 per 1,000.[109] An approximation of fertility in the families of keelmen is possible because there exist independent estimates of their numbers (see Table 3.3). Assuming, hypothetically, that three-quarters of the men were married, and inflating their population accordingly, gives fertility figures of as low as 19 per 1000 in 1638 and as high as 69 per 1000 in 1704.[110]

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[107] Wrightson, *Ralph Tailor*, pp. 10-20; Fewster, *Keelmen*, pp. 3-6.
[108] Boulton, *Neighbourhood*, p. 32; Penelope Corfield, 'A provincial capital in the late seventeenth century: the case of Norwich', in Clark (ed.), *The Early Modern Town*, p. 235.
[109] Boulton, *Neighbourhood*, p. 32.
[110] See the next section of this chapter for discussion (though no firm conclusion) on the proportion of men settled in Newcastle.

Table 3.4 – Sex ratio in All Saints' adult burials (males per 100 females).

decade	n	sex ratio
1601-10	723	101.4
1611-20	997	104.7
1621-30	1369	118.3
1631-40	1141	132.9
1641-50	979	122.0
1651-60	1456	113.5
1661-70	1143	103.7
1671-80	1325	111.7
1681-90	1389	110.5
1691-1700	1497	98.3
Total	12,019	111.3

Source: PRD/ASBapt.

In fact, how many of the men were married is of critical importance to such a calculation. Chris Galley demonstrates that a drop in the married population in eighteenth-century York depressed fertility rates: the majority of migrants were female domestic servants, who would not be married and therefore have no children, but still be at risk of dying.[111] A similar comparison between the numbers of adult male and female burials in All Saints' gives a useful but imperfect picture of the overall sex structure of the population, and is presented in Table 3.4.[112] At best, calculations like this are only an indication of the whole population, although Galley has noted that 'any changes in the sex structures should be reflected by changes in the sex ratio at burial'.[113] It indicates a slight bias towards men in most decades, although in the 1600s, 1660s and 1690s, it fell slightly under the empirically-shown 'natural ratio' of 104.[114] In the 1630s and 1640s when the bias was more pronounced, an anomaly clearly brought about by the influx of soldiers and sailors during the Civil War, as well as the very rapid migration brought about by recovery from the plague in the decade before. The slight male bias in other (but not all) decades indicates the fact that migration in Newcastle was predominantly driven by men's employment, specifically in areas such as river and sea transport and shipbuilding. The bias was strongest when men were needed quickly, that is at the end of the 1630s and in the 1640s, as well as when migration was strongest in the 1620s.[115] All Saints' was a heavily male-dominated, industrial community – a finding that is confirmed by the occupational structure outlined in Chapter 4. It is therefore

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[111] Galley, *Demography*, Table 5.12.
[112] 'Adult' means removing entries marked 'son/daughter/child/infant of…'.
[113] Galley, *Demography*, pp. 142. This has proved the case in nineteenth-century studies, where census material is compared with burials, such as in York.
[114] See Souden, 'migration', p. 318.
[115] See Chapter 4 for the changing structure of occupations.

necessary to separate the population history of seventeenth-century Newcastle into two somewhat contrasting halves.

The same division is shown in the very different seasonal patterns of burials.[116] During the period of Newcastle's fastest sustained growth, 1600-35 (and having removed the plague year of 1611), Newcastle's burials were consistently low in the winter and peaked in late summer and autumn. This contrasted heavily with the period of relative stability in the city's population (1666-1700), when the peak in burials climbed through December, January and February (see Figure 3.6). The latter follows patterns found in many parishes around England, reflecting a seasonal spike in disease and relatively low nutrition in the winter and early spring (see Figure 3.8).[117] A number of killers, including scarlet fever, diphtheria, and dysentery, had their highest incidence in cold months; other diseases such as influenza, whooping cough and measles were more lethal in the winter because they were likely to be compounded by pneumonia.[118]

Baptisms in Newcastle generally followed national patterns (Figures 3.5 and 3.7): they formed two distinct peaks, one in March, and one in September, and had a considerable trough over the summer months, due to relatively low rates of conception in the previous winter, because of low nutrition and high mortality.[119] The flat profile of All Saints, compared especially to the national picture, but also to Southwark – the subject of Jeremy Boulton's study and an economy in some ways comparable to that of Newcastle[120] – is an indicator of relative deprivation all year round. Conceptions were not as high in the summer as rural areas, because of a continuous threat of disease floating up from the river.[121] This is the pattern of a *relatively* settled English community in the second half of the seventeenth century. The pattern in the first three decades, by contrast, is indicative of heavy seasonal migration into Newcastle (See Figure 3.6). The peak in burials falls at the end of the summer rather than in the winter, which corresponds more closely with burial seasonality in London than in the rest of the country (Figure 3.8).[122] Again, the pattern of migration is at the heart of this change: there were considerably fewer people in Newcastle in the early winters of the seventeenth century compared to the end of the century, something which is

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[116] Seasonality is calculated compared to an index, where 100 would be the expected value in a randomly distributed year – i.e. (total events ÷ 365.25) x number of days in the month. February is assumed to have 28.25 days.
[117] Wrigley and Schofield, *Population History*, pp. 292-3.
[118] L. Bradley, 'An enquiry into seasonality in baptisms, marriages and burials'. Part 3. Burial seasonality', in Michael Drake (ed.), *Population Studies from Parish Registers* (Matlock, 1982), pp. 85-96.
[119] Boulton, *Neighbourhood*, pp. 51-2.
[120] See below, Chapter 4.
[121] Ibid., pp. 58.
[122] Southwark's seasonality was similar to that of other London parishes. Boulton, *Neighbourhood*, p. 55; cf. Finlay, *Population*, pp. 25-37.

explored further in the section below. Newcastle's burials indicate a substantial shift from very high levels of migration, much of it seasonal, at the beginning of the seventeenth century, to a more stable population by the end of the century.

Thus it is clear that many watermen did not arrive in Newcastle alone – or at least they married quickly after arrival. Indeed, there was more than half the number of wives of keelmen and watermen on the burial records as the men themselves: this was one of the highest ratios in all occupations, and implies that at least half of watermen who were buried in All Saints' were married. These wives they had some political clout. When George Dawson suggested in 1653 that keelmen should be impressed into the Navy for the fight against the Dutch, he quickly reassessed his view, not only because 'such nasty creatures on board would do more harm than good', but more charitably because 'it falls heavily upon married men having families and who are very poor'.[123] In the end, the captain responsible for the impressed keelmen was forced to discharge them, not through any action of their own, but rather 'the mighty clamour of their wives'.[124] Keelmen consistently made the best political hay out of their wives and families. Daniel Defoe, probably during his residency at Gateshead, picked up their case in a pamphlet intended for the House of Commons, 'Humbly Shewing:

> That the said poor Skippers and Keelmen, being in number about 1,600 men, besides women and children, for many years past have suffered great misery and distress, and were exceedingly burthensome to the parishes where they lived, for the support of their poor, (viz.) such as by reason of age, or accident, were past labour, and the widows and children of such as were dead; which said poor very often perished, and were lost for want of relief.[125]

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[123] TNA SP 18/36 f.94; *CSPD*, 1652-53, p. 348, George Dawson to Admiralty Committee, 14 and 23 May 1653: Fewster, *Keelmen of Tyneside*, pp. 12-3.
[124] *CSPD*, 1652-53 p. 353, Capt. Bart. Yale to Robert Blackborned, 26 May 1653.
[125] Daniel Defoe[?], *The Case of the poor Skippers and Keelmen of Newcastle* (1712?).

Figure 3.5 – Seasonality of baptisms in all parishes, 1601-35 and 1666-1700
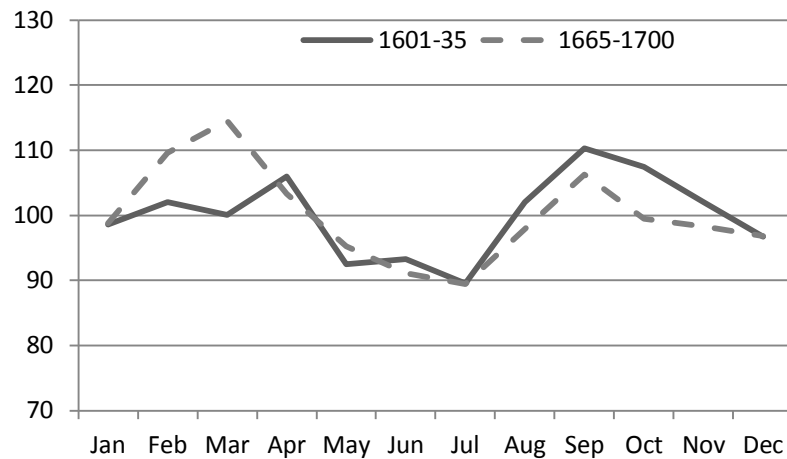
Source: Newcastle parish registers

Figure 3.6 – Seasonality of burials in all parishes, 1601-35 and 1666-1700
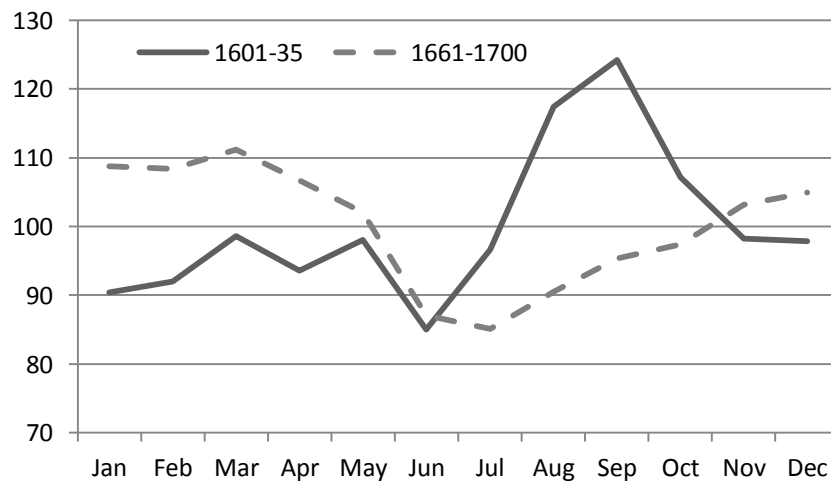
Source: ibid.

The skippers and keelmen, whose numbers had been mainly made up from migrants to Newcastle over the late-sixteenth and seventeenth centuries evidently considered themselves as settled there. They were not necessarily young men, and when they grew too old to work they would not move away; if the male household head died, the widow and children would also stay in Newcastle. It is clear that Newcastle was their home, even if they had migrated into the town from elsewhere: they demanded to be buried in its churches, and they recognised both their new neighbours and their home-village kin in their wills.[126]

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[126] E.g. DPRI/1/1636/D3/1; DPRI/1/1639/K1/1.

Figure 3.7 – Seasonality of baptisms, 1550-1650, Southwark and England.
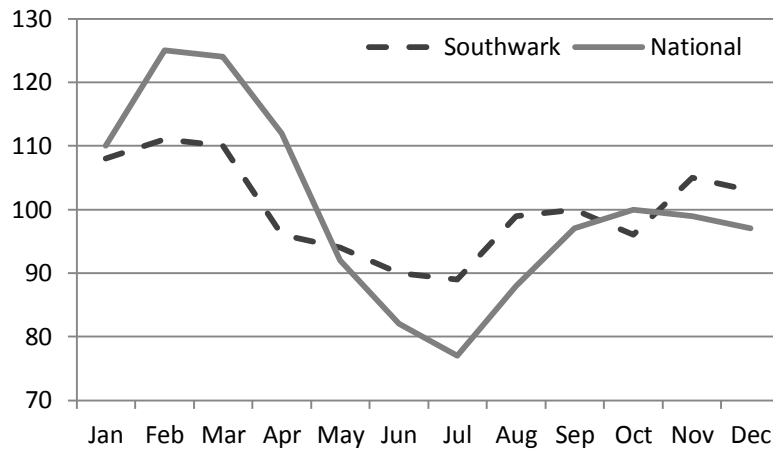
Source: Boulton, *Neighbourhood*, p. 55.

Figure 3.8 – Seasonality of burials, 1550-1650, Southwark and England.
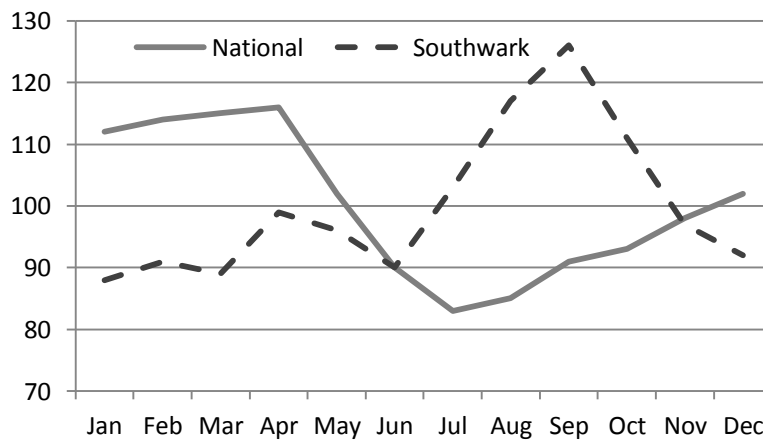
Source: Ibid., p. 55.

Although a proportion of the growth of All Saints' no doubt came from the fertility of its residents, many of the families that had flocked into All Saints' in the boom years of the coal industry were migrants. But it is equally clear that very large numbers of them settled with families, and in the second half of the seventeenth century, when growth in coal became more sluggish, migration slowed with it. Those that remained were relatively stable families: as far as can be told, these people did not disappear for the winter. They had a relatively large number of children, but disease or malnutrition still took a heavy toll. The same-name sample technique implies that many of the children born died before they reached majority – and many of them in infancy. Almost two-thirds of burials across the century were of children, a roughly consistent proportion, which compares with about half in York.[127] There was usually one burial of a child to every 1.5 to 2.5 baptisms. This was

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[127] Galley, *Demography*, p. 111.

certainly not a comfortable life, even though the town was naturally growing. Newcastle was both devouring and creating human life.

Seasonality and temporary migration

This stable core of family inhabitants in All Saints' was not representative of the entire population. Figures produced for migration into a specific place are nearly always those for *net* migration – that is, those moving out subtracted from those moving in. This study is no different, because the registers usually do not allow finer analysis than observing changes in the aggregate totals of events. Clues from other cities suggest there was a degree of emigration as well as immigration. Apprenticeship attrition was frequently high, with barely 30 per cent of London apprentices staying with their masters the full seven years, and only 50 per cent remaining there for more than three.[128] Only one in six seventeenth-century apprentices from County Durham and Newcastle made it through the entire duration of an apprenticeship in London.[129] Many more completed their apprenticeship term but never went on to practise their trade, for example Thomas Scales, who disappeared from London records shortly after completing his apprenticeship and joining the Company of Coopers, perhaps to set up shop back in his home town of Durham.[130] In Chester, Donald Woodward identified this desire to 'do business away from the restrictive atmosphere of town and gild' as the reason many apprentices chose not to stay in the city.[131]

Circular and seasonal migration patterns are even more difficult for historians to pin down: unsurprisingly, very short-term migrants were much less likely to leave a dent in the administrative records, except for apprentices. They were likely to be young and single, so would not have children baptised, and were less likely to die themselves. For industrial workers, their only appearance on the records of the town's authorities would be highly sporadic interactions with the guilds. The 1666 hearth tax offers a useful cross-reference. Around 14 per cent of male householders in the returns did not correspond to any fathers in the baptism register, meaning that either they did not have children, or that those children were not baptised in Newcastle.[132] Amongst the unlinked men, there were a handful of high-

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[128] Chris Minns and Patrick Wallis, 'Rules and Reality: quantifying the practice of apprenticeship in early modern England', *EcHR*, Vol. 65 (2012), p. 562.

[129] Jacob F. Field, 'Apprenticeship Migration to London from the North-East of England in the Seventeenth Century', *The London Journal*, Vol. 35 (2010), p. 17.

[130] Rappaport, *Worlds*, pp. 331-2; if he did end up in Durham, there is no surviving will. See Durham probate database: <http://familyrecords.dur.ac.uk/>.

[131] Donald Woodward, 'Sources for Urban History: I: Freemen's Rolls', *Local Historian*, Vol. 9 (1971), pp. 92-3.

[132] See below, chapter 6 for more analysis of hearths and occupations and the methodology.

status individuals, with five or more hearths.[133] But the majority lived in houses of one or two hearths: the hearth-per-household mean, at 1.70, is considerably lower than the average of the whole parish, suggesting a disproportionate number of low-status individuals that cannot be linked. There may be bias in the registers – that the relatively transient and poor, often Scottish, often non-conformist, watermen would be left out entirely, but would appear on the snapshot hearth tax. But to appear on the hearth tax, they had to be householders, and many would not, so 14 per cent is undoubtedly a drastic underestimate for this population.

Some written sources suggest a seasonal 'subsistence' migratory population in the seventeenth century. A report from 1605 indicated that localised bad harvests caused particular problems for the area's agricultural labourers, who had relatively few opportunities to fall back on: 'there be no great trades as clothing and suchlike used by which the poorer sort are sett on worke and relieved from begary, saving only the trades of colyery and salting'.[134] John Langton's detailed analysis of population in the Lancashire coal fields of the eighteenth century indicates that in fact 'occupational rigidity within and between generations of pitmen in the region combined with short-distance spatial mobility to provide most of the manpower needed by new collieries' – or, succinctly, 'people for the pits were largely produced by people from the pits'.[135] Lancashire coalminers had a relatively high rate of fertility in times of high demand for coal, which made populations consistently buoyant, and excess labour in slack times would move temporarily to the bigger towns. Some of the migration into and out of Whickham, and other coal settlements in the North East, was clearly very short term. Workers in these sorts of jobs were offered housing as well as wages, at least temporarily, in housing structures often identified as 'lodges', which were erected as part of the start-up costs of a colliery.[136] At Chester-le-Street, cottages were placed on the commons to house 'certain ill disposed persons aliens and forinners', including pitmen.[137] An order of the Durham quarter sessions confirms that these temporary cottages (in an unidentified location) could only 'continue as long as the ten[a]nte

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[133] This was the threshold of gentility used by Gregory King in calculating his population tables from hearth tax. See Tom Arkell, 'Illuminations and distortions: Gregory King's Scheme calculated for the year 1688 and the social structure of later Stuart England', *EcHR*, Vol. 59 (2006), pp. 32-69.

[134] Quoted in Paul W. Brassley, 'The Agricultural Economy of Northumberland and Durham in the Period 1640-1750', unpublished B. Litt. Thesis (Oxford, 1974), p. 57.

[135] John Langton, 'People from the Pits: The origins of colliers in eighteenth-century south-west Lancashire', in David Siddle (ed.), *Migration, Mobility and Modernization* (Liverpool, 2000), pp. 86-7.

[136] Levine and Wrightson, *Whickham*, p. 189.

[137] Quoted in Adrian Green, 'Heartless and Unhomely? Dwellings of the Poor in East Anglia and North-East England', in Pamela Sharpe and Joanne McEwan (eds.), *Accommodating Poverty: The Housing and Living Arrangements of the English Poor, c. 1600-1850* (London, 2011), p. 75; see Christine Issa, 'Obligation and Choice: aspects of family and kinship in seventeenth-century County Durham', unpublished PhD thesis (St. Andrews, 1986).

within the same houses shall continue in the said cole work'.[138] Coal workers were used to having only temporary work and this also applied to Newcastle's coal transport workers, at least in the late sixteenth and early seventeenth century.

It was widely commented by Newcastle's officials that residence in the town was not always permanent, although their statements usually had obviously political motivations. The mayor commented in 1710 that 'many Scotch young fellows…come hither to work att the Keels for the Summer only', implying that they went back to their homes in the winter.[139] In 1712, writing again on behalf of the Newcastle keelmen, Daniel Defoe complained in a further pamphlet directed to Parliament that:

> strange accounts have been given to the House of the numbers of keelmens hands, obtained by the Magistrates to join their said request, which have been sometimes called a thousand, sometimes eight hundred. But the keelmen than to have them be obliged to produce them, since it is well known the whole number of Keelmen is within 1600, near one thousand whereof have put their hands to this petition, 400 are them are yet in Scotland whither *they go always in the winter* to their families; and they do not doubt but they shall get all the rest to sign.[140]

In other words, the Hostmen were accused of forging signatures to a petition, which would have been a relatively easy if unethical task since very few keelmen could sign their own name.[141] But the men were not there, and more importantly *were not expected* to be there either – 'whither they always go in the winter to their families'.

There can be little question that the amount of available work was seasonally determined. On the supply side, this was partly due to the difficulty of keeping mines open through the winter months of freezing and flooding. There were also much greater risks to shipping. In an anonymous dialogue from 1708, a servant explains to an inexperienced coal owner that:

> you must have a good stock of coals provided against the time of sale, which is chiefly in summer by reason of the weather, which makes it hazardous for ships to sail in winter on those coasts, for which reason, I have heard good saylers say, they had rather run the hazard of an East-Indie voyage, then be obliged to sail all the winter between London and New-castle.[142]

Because of the relatively low cost of the cargo, colliers were not insured until the eighteenth century, so the ship's master and investors stood to lose all of a substantial investment if the ship sank: John Hatcher argues 'the threat of catastrophe was sufficient for most masters and owners to keep considerations of profit' closer in their minds than safety.[143] There were

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[138] Durham Quarter Sessions quoted in Levine and Wrightson, *Whickham*, p. 189*n*83.
[139] Fewster, 'Keelmen', p. 28.
[140] Daniel Defoe, *A Farther Case relating to the poor Keelmen of Newcastle* (1712). Italics added for emphasis.
[141] Only 1 from 11 keelmen in the sample used in chapters 6 and 7 whose wills survive signed his own name (Thomas Kelley, DPRI/1/1639/K1/1). Gylbart Erington (DPRI/1/1608/E2/1) and Thomas Hall (DPRI/1/1694/H3/1) signed their initials.
[142] J.C., *The Compleat Collier…* (London, 1708), pp. 18-19.
[143] Hatcher, *Coal*, I, p. 478.

Figure 3.9 – Seasonality of coastwise coal shipments and exports, 1508-1678.
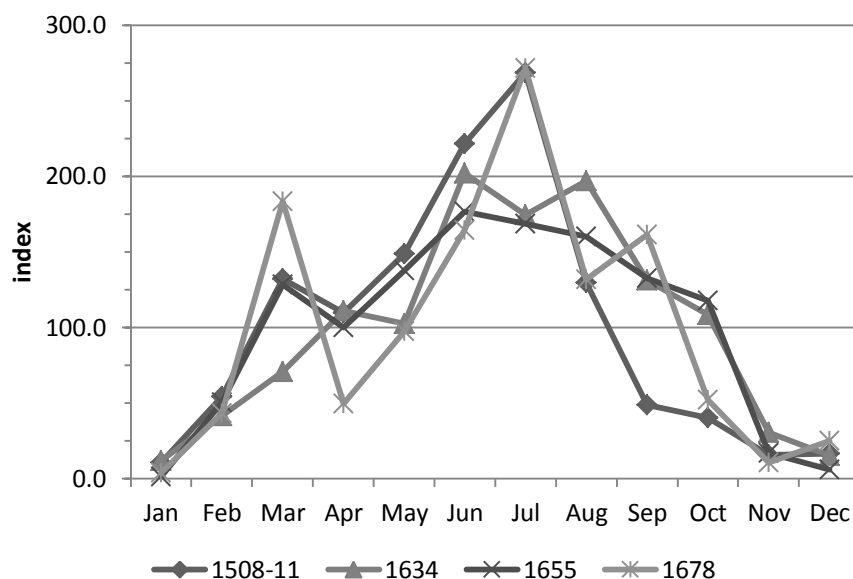
Sources: Hatcher, *Coal*, I, p. 477; Nef, *Coal*, II, p. 389. Note: 1508-11, 1634 and 1655 are coastwise shipments; 1678 are exports.

some sailings in the winter months, but the chamberlain's accounts and customs records reveal that the seasonality of shipping changed very little in the seventeenth century: there were scarcely any sailings between November and February, more in the spring and autumn, and a pronounced peak in the summer, with up to ten times as many colliers embarking in July as in the winter (see Figure 3.9).[144]

It is highly significant that there was such a big change in the seasonality of burials between the first half of the century and the second, despite very little change in the seasonal pattern of work: it indicates that a larger proportion of the population were settled in Newcastle, with their families, in the second half than the first. There was, of course, plenty of motivation for Defoe and the keelmen to exaggerate their numbers in the 1712 case, in order to strengthen their position; and this emphasis on the number of keelmen who could not easily be accounted for shows a sharp contrast with Defoe's previous pamphlet, which had stressed the precarious position of 'the widows and children of such [keelmen] as were dead'.[145] The same was said in 1638 when, 'By reason of the stopp of trade occasioned by crosse windes this yeare, [the keelmen] have wanted imployment, and are therby in great necessitie, haveing most of them great charge of wives and children.'[146] In December 1666, in the period immediately following the plague and fire in London, as well as the threat of Dutch men-of-war, Richard Forster, a Newcastle merchant, wrote to London complaining

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[144] Index is calculated as the same way as seasonality of baptisms and burials: see p. 67*n*. For similar figures in 1648 and 1651 see Howell, *Newcastle*, p. 355.

[145] Daniel Defoe[?], *The Case of the poor Skippers and Keelmen of Newcastle* (1712?).

[146] TNA SP 16/408 f.96.

Figure 3.10 – Analysis of new surnames on baptisms by decade in All Saints parish.
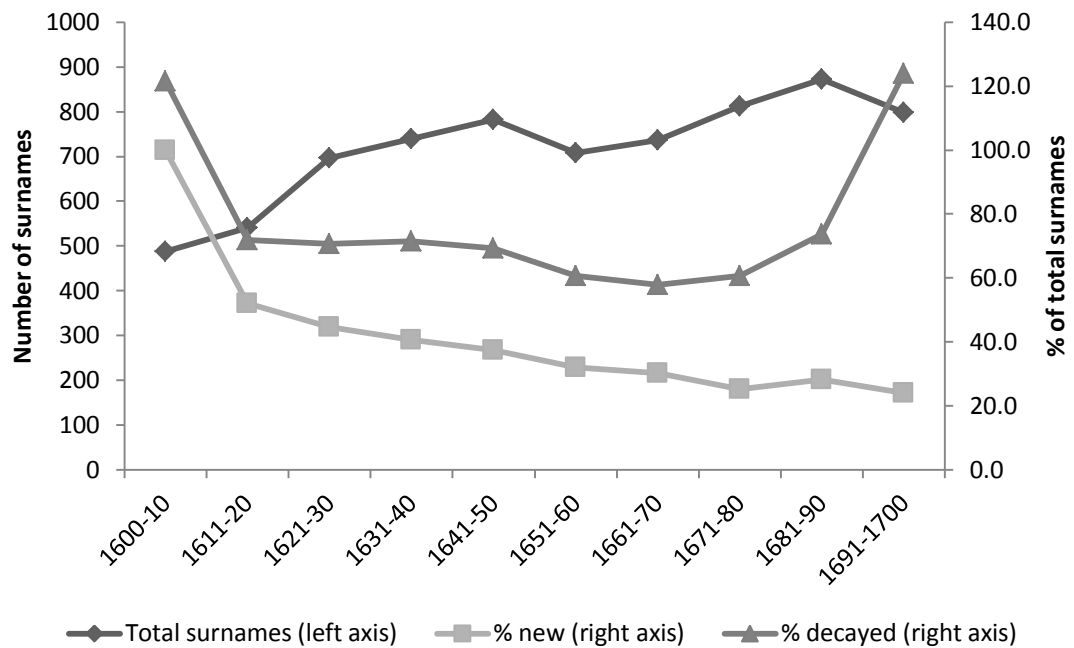
Source: PRD/ASBapt

that, last Wednesday, the keelmen drove 'the Colleckters of the hath money out of Sandgate and this day I heare thay have again driven both them and sume others the maior had sent to assist them, out of that place agane; none but women to be seane, they are the Keall mans wiffs'.[147] Whatever Forster was seeking to imply about the keelmen's behaviour, it is clear that Newcastle's ruling classes could, when it suited them, seek to emphasise, *either* the indigent, temporary nature of Newcastle's mobile workforce – and the dangers that implied. *Or* they could emphasise that Newcastle's industrial workforce was in fact settled in the town, and putting a severe charge on poor relief when work was hard to come by. Clearly, both positions were caricatures of the workforce, designed to provoke a particular response, but nonetheless real. These were two distinctive though overlapping groups of people – and the balance between the two groups was changing.

This picture of a number of core stable families along with others that remained in the town for barely a few years (and, at the beginning of the seventeenth century, not even for the whole year) is supported by analysis of surnames. There were 2,770 distinct surnames recorded on the All Saints' baptism register in the seventeenth century, and a large proportion lasted very little time in the parish: more than 40 per cent were only recorded once on the register. Part of this is certainly due to error: the seventeenth-century parish clerks struggled to spell newer surnames consistently, and the microfilms and transcripts used for this study are worn and difficult to read in places, so some names that should be the

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[147] TNA SP 29/180 f.169.

Table 3.5 – Analysis of new and decaying surnames by decade from All Saints baptisms.

	First appearance	Last appearance	Total surnames	% new	% decaying
1600-10	488	105	488	100.0	21.5
1611-20	282	107	541	52.1	19.8
1621-30	311	182	697	44.6	26.1
1631-40	300	229	740	40.5	30.9
1641-50	292	249	782	37.3	31.8
1651-60	226	204	708	31.9	28.8
1661-70	223	204	737	30.3	27.7
1671-80	204	289	812	25.1	35.6
1681-90	247	397	873	28.3	45.5
1691-1700	191	798	798	23.9	100.0

Source: PRD/ASBap

same have unintentionally and unavoidably been separated for this analysis. Nonetheless, many of the solitary entries are not garbled and are in fact surnames that were common elsewhere in the country: Masterson, Melton, and Finch, for example.[148] A further 16 per cent of surnames persisted for fewer than ten years before discontinuing, and another 10 per cent for fewer than 20 years – in other words, for a single generation of fertility. Relatively few surnames survived for between 20 and 80 years, and 8 per cent of surnames persisted for virtually the entire century (see Figure 3.11). That surnames consistently disappeared, as well as arriving, suggests a degree of emigration as well as immigration in Newcastle.

The two hearth tax listings that are most accessible, from 1665 and 1666, offer us some further evidence of this turnover, although they also need to be read with some caution. Over a third of names in the wards of All Saints' parish had changed between 1665 and 66, which was slightly more than the change in Whickham between the hearth tax listings of the same years.[149] Some of the changes are fairly obvious – 'Mr Stobbs' from 1665 is replaced by 'widow Stobbs' in 1666 – but it is difficult to account for most, except through movement.[150] In all, 241 of the 648 householders listed in 1665 for the wards that roughly made up All Saints' parish could not be traced at all in the lists for the same wards in 1666; a further 52 were uncertain, because two or more men seem to have had the same name. The householders that disappeared between the two listings had a mean of 2.4 hearths compared with 2.8 for those that were linked between the two. Both groups had a wide range of hearth numbers, although the 'movers' were more heavily weighted in single- and two-hearth dwellings, indicating that those who had moved between the two dates were on

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[148] PRD/ASBapt; see Redmonds, King and Hey, *Surnames*.
[149] Levine and Wrightson, *Whickham*, pp. 170-3.
[150] PRD/HTax_AS/104,106.

Figure 3.11 – Length of stay of surnames
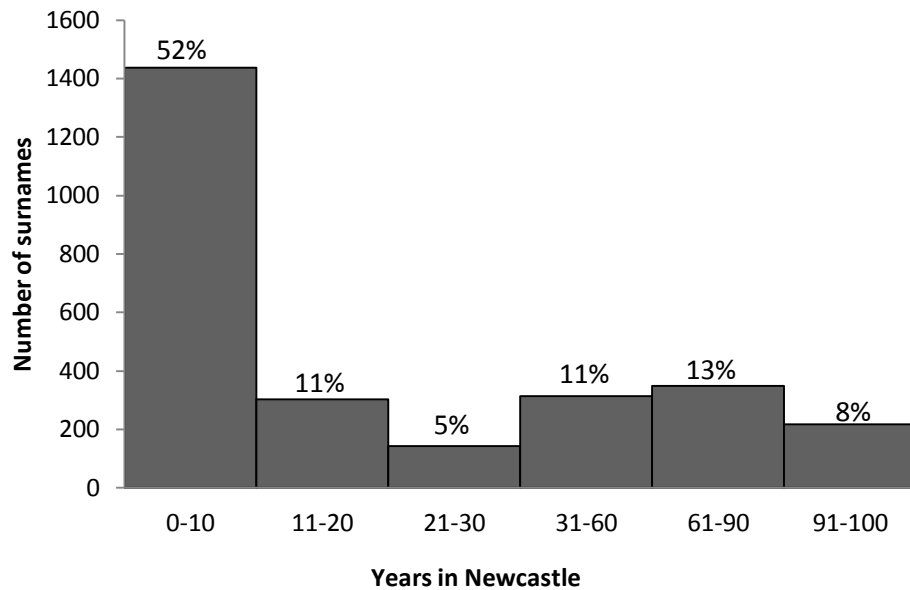
Source: PRD/ASBapt

average slightly poorer. It is also clear that watermen are seriously under-represented amongst the 'stayers', making up 4 per cent, compared with shipwrights' and mariners' 10 per cent shares each and bakers' 6 per cent.[151] The householders most likely to have moved between these two returns were keelmen, and they were more likely to have only one or two hearths. This confirms again that these groups were the most geographically mobile in Newcastle society.

Similar conclusions were drawn by Adrian Green from a document amongst the Newcastle hearth tax assessments: 'An account of the removal of Tenantes with the Increase and decrease of Fire hearths in the Town and County of Newcastle upon Tyne for the year ending Michaelmas 1671'. In all, 183 properties had changed hands in a single year and numerous others had hearths either erected or demolished.[152] Some of the householders who disappeared between the two listings, or moved out in 1670-1 were geographically mobile, taking fairly short lets in an active housing market. It is likely that some only moved short distances within Newcastle or Tyneside, like the inhabitants of Southwark, where the records are considerably richer.[153] Levine and Wrightson have the benefit of a family reconstitution when they conclude that 'Whickham's householders exhibited an extraordinary degree of geographical mobility', some of which was also local.[154] That could also be true for the population of All Saints', and in particular of the large number of coal

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[151] Cf. Table 4.9, p. 134.
[152] TNA E179/158/109; I am grateful to Adrian Green for lending me his transcription; Green, 'Houses', pp. 240-1.
[153] Boulton, *Neighbourhood*; see Chapter 5.
[154] Levine and Wrightson, *Whickham*, p. 172.

transport workers and mariners who, like Whickham's miners, depended solely on income from what was in effect seasonally-determined work.

The most mobile men were simply ineligible to appear on parish baptisms (if they were not fathers), or marriages (if they did not marry), or as householders in the Hearth Tax, although occasionally they did father illegitimate children. Amongst the first records to feature in All Saints' surviving baptism register, the keelman, Alexander Foster, baptised twin girls on 1 January 1601.[155] Only about a third of illegitimate baptisms listed the name of the mother as well: the mother for Foster's twins was Jenat Towler, who also baptised another illegitimate child to a mariner in 1606.[156] It was fairly common throughout the century for watermen or mariners to have a single illegitimate child and then never feature again in the records.[157] Again, numbers peaked at the beginning of the century, suggesting a large number of young and single men. The crude illegitimacy ratio (illegitimate baptisms per hundred legitimate baptisms) ranged between 2.1 per cent and 4.6 per cent in the first four decades of the seventeenth century before falling away significantly at the end of the century, when comparatively few illegitimate births were recorded.[158] This is consistent, up to a point, with national averages which describe a peak in the first decade of the seventeenth century, falling to a trough in the 1650s, and were generally higher in the north and west.[159] This gradual decline over the seventeenth century has been linked to a cultural shift that made a quasi-formal betrothal resulting in the sexual anticipation of marriage much less socially acceptable, although this practice was less common in towns than in the countryside.[160] In Newcastle, it seems far more likely that the peak in illegitimacy was associated with the upsurge in the turnover of fairly young and unsettled individuals at the end of the sixteenth and beginning of the seventeenth century, rather than in any national cultural change relating to pre-marital sex.

Illegitimacy was just one manifestation of a mobile and seasonally migrating population in Newcastle, which principally arrived at the beginning of the century. In 1600-35, males outnumbered females and there was a pronounced winter dip in burials, which indicates that the less settled end of every occupation – in particular, manual labourers and

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[155] PRD/ASBap/12,13.

[156] ASBapt 776, gray.john.1.

[157] E.g. PRD/Fathers/baker.wm, barnett.tho, clark.tho.1, crawford.james, dalglish.edw, davie.franc, davison.james.4, dines.james.1, gibson.hen, gill.sam, lawson.hen, mason.rog, nicholson.geo.2.

[158] It is impossible to calculate actual *rates* of illegitimacy for Newcastle, in the absence of secure information on the number of unmarried women in the city. The link between illegitimacy and prostitution is discussed in more detail in chapter 7.

[159] Richard Adair, *Courtship, Illegitimacy and Marriage in Early Modern England* (Manchester, 1996), pp. 48-50; Galley, *Demography*, pp. 116-17.

[160] Wrightson, *Earthly Necessities*, p. 225.

journeymen – also moved in and out of the town with relative freedom in this period, responding to the surge in trade that came over the summer. Principal among these, of course, were the keelmen, whose work was particularly dependent on seasonal variation, and whose pay left little capacity for an unemployed winter.[161] It is unfortunate that these seasonal workers are much more difficult to trace and count than other sections of society, which led Peter Wright recently to dismiss almost entirely their existence.[162] But it would be unwise to reject the written evidence of a large number of contemporary observers, simply because of the absence of any supporting demographic evidence. Those of Newcastle's water tradesmen who were Scottish, or were Presbyterian, would surely have been far less likely to register in All Saints' church at all. As a result, the estimates of population given here, and of some occupational groups in the next chapter, are certainly underestimates of unknown magnitude: these unsettled men were real, even if they cannot be adequately accounted for, and if their numbers seem to have been declining from the 1650s. But the shift towards a more settled population, characterised by balanced sex ratios, more typical seasonality of burials, and higher fertility, was equally real. As the demand for Newcastle coal began to settle after the Restoration, so did large numbers of its workers.

Migration origins

Finally, we turn to the question of where Newcastle's migrants came from. Again, only the more settled residents made any substantial impact on the city's records (though there are hints for the more unsettled), so this can be at best only a partial story. Nonetheless, it is also clear that the regional position – as an important port in an east coast trading bloc that extended from Kent and London up to Scotland; as an increasingly important port in English and British trade to the Baltic; and at the heart of a newly-industrialising Tyne and Wear coalfield – was crucial in determining the immigrants it recruited.

Many of Newcastle's in-migrants were fairly local in origin. The influence of Newcastle over its hinterland was very significant indeed: the political and social reach as 'the eye of the north' was accompanied by, for example, the retailing reach of the city's markets described by Gray as 'twelve miles' from Newcastle; in fact the cultural reach of Newcastle was much further. While it is tempting to track the movements of individuals through different parish registers in the region, the sheer lack of originality in names would make it impossible in virtually all cases, particularly as the survival and condition of County

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[161] See Chapter 8 for the seasonality of pay.
[162] Wright, 'Water trades', Ch3.

Durham's parish registers becomes considerably patchier the further one strays from the Tyneside industrial belt.[163] Nonetheless, they do allow the tracing of some general trends. Robert Hodgson concludes that 'an increasingly mobile [work]force…was establishing new mining colonies or swelling the numbers in urban or quasi-urban centres'.[164] In general, there was a substantial migration within County Durham from the western uplands to the north-eastern lowlands. Stanhope-in-Weardale, one of the largest parishes in the County, saw a fall in household numbers between a visitation in the 1560s and the 1666 hearth tax assessment, but had a baptism surplus of at least 15 per cent until the 1690s.[165] Some of this migration would have been down the Wear Valley to Chester-le-Street, where household numbers trebled, as well as to other similar coal areas like Ryton and Whickham, or the ports of Newcastle and Sunderland.[166]

That Newcastle was the end point for some of this migration within the region is shown by evidence of the kinship links, frequently expressed through bequests in wills, that were maintained with migrants' places of origin. Thus Edward Nixon, a wealthy master mariner who died in 1676, had moved into the town from Nether Heworth, close to Jarrow on the south bank of the Tyne. In his will, Nixon left his houses in Newcastle to his eldest son; a younger son was given his 'farmold and lands…thereunto belonging lyeing and being in Nether Heworth', and all the children were to receive annuities from this patch of land.[167] This was a common pattern: Anthony Joseph, butcher (1670), left his 'Messuages…known as Fynburne in the parish of Chester[-le-Street]' to his son Richard; George Kitching, yeoman (1633) bequeathed to his son 'all those my lands and tenements' both in Woosley near Rainton and Colyerley, eight miles north-west of Durham City.[168] Frequently, these wealthier migrants also chose to endow their home parish with a bequest for the poor at their death. Newcastle's Corporation administered a charity in the name of Mrs Frankland, who had left money – the annual interest on a £200 lump sum to buy clothing for its neediest inhabitants – for the poor of Houghton-le-Spring.[169] Similarly, John March of Heighington parish in County Durham, left bequests to his tenants as well as to the poor: a surviving memorial brass reads that 'by his will & Testament give and bequeath unto the

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[163] Cf. Newcastle and Sunderland (TWA MF249-250, EP/Biw/1-3); Sedgefield (DRO EP/Se1/1-2); Staindrop (DRO EP/Stai1/1).
[164] R.I. Hodgson, 'Demographic Trends in County Durham, 1560-1801', *University of Manchester School for Geography Research Papers*, Vol 5 (1978), pp. 8, 6.
[165] Analysed in Burn, 'Industrious', pp. 3-8.
[166] Ibid.; Chaytor, 'Household'; Levine and Wrightson, *Whickham*.
[167] DPRI/1/1675/N7/1
[168] DPRI/1/1670/J6/1, DPRI/1/1633/K2/1
[169] *CCM*, pp. 130-1; Howell, *Newcastle*, pp. 316-17.

poor of the parish of Heighington five pounds yearly for ever'.[170] Nor was it merely the wealthy Newcastle residents who maintained links with home villages: a keelman, Thomas Dods, gave 'his lande and tenemente in Tilmouth in Countie Palatine of Durham' to his wife and two sons.[171] Kinship and the links of home were spread between Newcastle and all around County Durham and Northumberland.

Newcastle was also an attraction for workers who did not have their own land outside the town. The growth of the coal industry had multiplied the work available since the end of the sixteenth century. Moreover, wages for all types of labour were relatively high in Newcastle, itself partly an expression of the rising demand for labour that was drawing people in. Male building labourers, the only group for whom any really reliable records survive, were paid around 12 pence per day, 50 per cent more than men working in Durham, and on a par with the highest rates in other northern towns.[172] There were accusations that shipwrights, at the turn of the eighteenth century, were extraordinarily well paid, 'exceeding those of any part of the country'.[173] Keelmen were also paid well – in beer as well as in cash – although their continual disruption of trade from 1654 right through to the end of the eighteenth century speaks to the dissatisfaction of conditions of work as well as the power they communally held.[174] Thus living in Newcastle could have its attraction, in the form of relatively high wages when work was available, although there was hardship in periods of low trade.

The attraction of high wages was not diminished by the Scottish border. It is generally understood that the keelmen of Newcastle were drawn from an endless pool of Scottish and Borders labourers.[175] This was the view presented in a very rough count, probably by the hostmen, in 1638: 'There is in Newcastle upon Tyne of keelmen, watermen, and other labourers above 1800 able men, the most of them being Scottish men, and Borderers wich came out of Tinedale and Riddisdale [Redesdale]'.[176] Sometimes coal owners were forced to send directly to Scotland to fill an acute labour shortage, such as in the 1580s at Winlaton colliery, south-west of Newcastle, although it seems to have been a last resort.[177] A somewhat more systematic census of the keelmen taken in 1740 indicated that 55 per cent of the workers had been born in Scotland, although three-quarters of these men had been in

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[170] The brass is reproduced in Diana Newton, 'Newcastle and the world beyond Tyneside, 1550-1650', in Newton and Pollard (eds.), *Newcastle and Gateshead*, pp. 266-7.
[171] DPRI/1/1636/D3/1
[172] Woodward, *Men at Work*, pp. 261-72.
[173] Dendy, 'Hostmen', pp. 184-5.
[174] See Chapter 8.
[175] Ibid., Nef, *Coal*, II, p. 148; Levine and Wrightson, *Whickham*, p. 186.
[176] TNA SP 16/408 fol.96.
[177] Levine and Wrightson, *Whickham*, pp. 93-4.

Newcastle for more than ten years, and many for much longer than that, indicating, as the parish registers have shown, that many migrant families came to Newcastle permanently.[178]

Many individuals and families were pushed rather than pulled. Scotland's economy was particularly prone to subsistence crises during the seventeenth century, and near-starvation sometimes pushed large numbers of vagrants and migrant workers out of the countryside and into lowland towns like Edinburgh and Aberdeen.[179] Many more Scottish workers were pushed further: a study of Kentish towns turned up a number of Scottish migrant servants and labourers; and London was always a magnet for migrants from Scotland.[180] In 1665, the Scottish Corporation was set up to provide relief for poor Scots in London and, writing in 1680, Robert Kirk mentioned a club formed of migrant Presbyterian teachers in London.[181] Yet more Scots migrated to the newly-formed American colonies.[182]

Thus the Anglo-Scottish border was no serious obstacle to the potential migrant into Newcastle and the Durham coalfield; even before the Union of the Crowns in 1603 it was highly porous. Maureen Meikle, in charting the fortunes of cross-border landed families at the turn of the seventeenth century, has observed that '[the border] could be highly visible in political or religious terms, yet invisible in a social, economic and military context'.[183] Political developments of the seventeenth century made the border yet more porous. Matt Greenhall demonstrates that 'the Unions of 1603, 1654 and 1707 all had tangible and immediate impacts upon the level and nature of inter-regional trade', which included growth in the quantity and variety of trade between the two nations. This included an overland trade through Berwick upon Tweed on to Edinburgh, and through the border dales at Kelso and Jedburgh, which were also the routes for carriages and the passage of migrants.[184]

Scottish migrants were a permanent part of Newcastle life throughout the century, but they were seldom made welcome. The weavers' guild had an ordinance that 'any brother calling another "Scot," or "mansworn," in malice' was an offence punishable by a fine. Masters were also commonly barred from taking Scottish apprentices, usually by a clause in the guild's founding ordinances. The masons decreed in a common phrase in 1581 that 'no

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[178] TWA 394/11 Keelmen's papers, quoted in Wright, 'Water Trades', pp. 78-9.

[179] Ian Whyte, 'Population mobility in early modern Scotland', in R.A. Houston and Ian Whyte (eds.), *Scottish Society, 1500-1800* (Cambridge, 1989), pp. 37-58.

[180] Peter Clark, 'The migrant in Kentish towns, 1580-1640' in Clark and Slack (eds.), *Crisis and order in English towns*, pp. 117-63.

[181] Whyte, *Migration*, p. 100.

[182] T. Christopher Smout, Ned C. Landsman, and Thomas M. Devine, 'Scottish emigration in the seventeenth and eighteenth centuries' in Nicholas Canny (ed.), *Europeans on the Move: Studies on European migration 1500-1800* (Oxford, 1994), pp. 76-112.

[183] Maureen M. Meikle, *A British Frontier? Lairds and Gentlemen in the Eastern Borders, 1540-1603* (East Linton, 2004), p. 1.

[184] Matthew Greenhall, 'The Evolution of the Bristish Economy: Anglo-Scottish Trade and Political Union, an Inter-Regional Perspective, 1580-1750', unpublished PhD thesis (Durham, 2011), pp. 320-1, 79-82

Scotsman should be taken apprentice…nor ever be admitted into the company on any account whatever'.[185] In practice, prohibitions against Scottish migrants seem to have been enforced laxly or selectively. For instance, John Douglas, the son of Scottish parents was entered as a clerk to the Guild of Barber-Surgeons in 1640 and rose to become Newcastle town clerk between 1699 and 1709.[186] Similarly, the scrivener John Ainsley, who died apparently at quite a young age in 1633, was a Scot who was living in fairly meagre rooms in Newcastle. He was clearly practising his trade in the town, following on from his brother, Andrew.[187] Despite prohibition written into the workings of Newcastle's town government, rules could be bent for skilled Scottish migrants.

Poorer migrants were the subject of still more suspicion. The 1740 census was inspired by the concern about foreign workers stemming from the Jacobite threat: it demanded of each individual hostman 'an exact list of all skippers (and bound men)…with an Account of the time they have respectively been in Town, and the place respectively they came from and were born or settled in'.[188] Similarly, the 1638 declaration was driven by the threat that such a large concentration of restless individuals could pose in the growing tensions of the late 1630s. The fact that Scotland and the Borders were simply rolled into one area in the document implies that Newcastle's élites paid little attention to the formal Scottish border when it came to migrant labourers; anybody, from anywhere near the border, was considered uncivil and a threat. This was equally true of those that had been in Newcastle for years, as explained in alarming terms by Conway in 1640:

> In these parts are many hundred Scots, mostly with families, which have lived long here, yet are they as much of the Scotch party as if they dwelt at Edinburgh. I think that these Scots who do thus from all parts in the world conspire in one for the destruction of Bishops are of the race of the rats that persecuted the German bishop and ate him in his tower...[189]

This was particularly true of those considered to have Puritan or Presbyterian sympathies, which included a number of Newcastle's middling merchants, with the result that Newcastle was considered by Secretary Windebank as 'the greatest danger we conceive in northern parts' on the eve of first invasion.[190]

Surnames on the baptism register provide some tentative support to this notion of the Scottish origins of particular groups of workers. Using the crude assumption that all men with a surname beginning with 'Mac' were Highland Scottish, they accounted for just over

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[185] McKenzie, *Newcastle*, pp. 679-98.
[186] Matthew Greenhall, 'Cattle to Claret: Scottish Economic Influence in North-East England, 1660-1750', *History Today*, Vol. 56, No. 10 (2006), pp. 23-4.
[187] DPRI/1/1633/A1/1
[188] TWA 394/11; Ellis, 'dynamic society', pp. 289-91.
[189] *CSPD 1640*, 29 April 1640, p. 81
[190] *CSPD 1639*, 19 January 1639.

0.5 per cent of registered All Saints' fathers, 57 in total.[191] This is scarcely a large total, but it is notable that all but four of these men were coal transport workers – and two of the exceptions were mariners. Expanding this sample to a carefully-chosen list of 88 Scottish-origin surnames confirms this result: whereas a third of All Saints' baptisms across the century were from watermen, in the 'Scots' sample, this number was well over half, 465 of the sample of 801 baptisms.[192] Not all of these fathers *were* Scottish, but it provides indirect evidence that Scottish-origin migrants were more likely to work on the water.

More broadly, the character of the surnames of waterman and mariners was notably different from other occupational groups, including general manual labourers and building workers (see Table 3.6). Comfortably the most popular surname for waterman was Thompson, which was mostly a northern English surname, common in Northumberland, Yorkshire, Westmorland and Durham.[193] However, the variant spelling 'Thomson' was usually Scottish, being found on the 1881 census most commonly in East Lothian, followed by Fife: seven of the top ten counties were Scottish.[194] The two spellings of the name probably also sounded subtly different, of course. Spellings of surnames were never entirely fixed on the register, but individuals commonly seem to have favoured one or the other, and it is notable that 255 fathers were spelled 'Thompson' or 'Tompson'; 216, meanwhile, were spelled 'Tomson' or 'Thomson'.[195] In other words, the name was spelled in the 'Scottish' way on 46 per cent of occasions. The surname Dixon ('son of Richard') has similar origins: in this case, the spelling 'Dickson' was preferred in Scotland and 'Dixon' in northern England, although this time, the All Saints parish clerks preferred the 'English' spelling in a ratio of four to one.[196] Combined, these two surnames covered around 4 per cent of waterman baptisms in All Saints', and they tell us something about the migration of watermen and the development of surnames in the overlap between England and Scotland. The rest of the watermen names tended to come from English (Smith), lowland Scottish (Brown), or both northern English and Scottish (Taylor and Hall) backgrounds.[197] It is worth emphasising the sheer heterogeneity of surnames in occupations where migration was the widest. A child born to a Newcastle keelman was *relatively* likely to inherit the surname

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[191] ASBapt macaffee.adam, macallister.arch, macally.james, etc.

[192] PRD/QScotsNames. The names chosen were those which were most densely concentrated in Scottish counties in the 1881 Census available online and in Stephen Archer, *The British 19th Century Surname Atlas* (Archer Software, 2003). Names were only included where all five of the top five counties were in Scotland. See Redmonds, King and Hey, *Surnames*, Chapter 1, for evidence that, despite widespread migration, the geographical origins of surnames has remained remarkably consistent.

[193] See Archer, *Atlas*.

[194] Titford, *Surnames*, p. 459; Archer, *Atlas*.

[195] PRD/ASBap

[196] Titford, *Surnames*, p. 459; Archer, *Atlas*.

[197] Redmonds, King and Hey, *Surnames*, and McKinley, *Surnames* for individual origins.

Thompson, but for every child that did, 43 did not. In all, 1219 different surnames were associated with coal transport workers over the entire century; 719 were associated with other transport (especially mariners); 446 with labourers; and 176 with merchants and hostmen.

As we saw in Chapter 2, 'strangers' were frequently laid to rest in the All Saints' churchyard, and it is a reasonable assumption that these men were mostly mariners.[198] The baptism register was very rarely specific about place or country of origin, although those fathers that were identified by place came from the same North Sea area as the burials. For instance, ten fathers were identified specifically as Dutch and two as German, one as a Dane, and thirty as Scottish. More exotically, Timothy Phara was described as 'an Indian born at Mr Blakiston's' – perhaps the child of an East Indies slave or servant?[199] These specific mentions only make up a very small proportion of the total number of baptisms, and also the number of immigrants. It was clearly used to identify men that could not be identified directly by their occupation: again, the 'Scots' were mostly from 1640-44, and were clearly part of the occupying force. The Germans and Dutch were probably resident merchants, with their families, since the children are not recorded as illegitimate.

Other people on the move included craftsmen and apprentices, although in Newcastle they were outnumbered by migrant keelmen and mariners. David Souden uses church court depositions to explore the types of people who moved into provincial towns in the southern half of England, showing that between half and two-thirds of townspeople had made at least one significant move. Craftsmen were likely to travel shorter distances; professionals and merchants travelled on average at least half as far again.[200] Similarly in Newcastle, the most popular surnames among shipwrights (Foster), food and drink workers (Robinson), and building craftsmen (Walker) were all distinctively 'northern' names.[201] A Foster was 14 times more likely to come from Northumberland than an 'average' county, although they were spread across the country; Robinsons were most common in Westmoreland, Cumberland and Durham; and Walkers were found commonly in Yorkshire and Westmoreland. According to their names, Newcastle's craftsmen were less likely to have Scottish origins than its watermen and labourers, and were most likely to come from close by in northern England. For Newcastle and other provincial towns as well as London, Christopher Brooks has shown that apprenticeships kept rough pace with the population

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[198] See above, Table 2.2 and Map G.
[199] PRD/ASBapt/99, 1230, 1917, 25183(etc.); /ASBapt/25702.
[200] Souden, 'Migration', p. 144.
[201] See Archer, *Atlas*.

growth up to 1650, and that some (albeit a relatively small proportion) of those boys came from outside the city.[202]

Some adult migrants were already craftsmen of considerable skill. Again, surnames can give us some clues. The sugar baker Michael Dunford arrived in Newcastle some time before the birth of his first daughter in 1689; there were no Dunfords recorded in All Saints before his arrival. He may have been apprenticed to one of the three active confectioners in the parish, who baptised 25 children between them across the middle of the century.[203] 'Dunford', although absent from any surname dictionaries, perhaps has its origins in the village of Dunford, south of Huddersfield, in the West Riding of Yorkshire. Although details of him are fairly sketchy, Dunford might have followed a similar path to William Holme, a grocer in eighteenth-century Liverpool, who came from a middling background in the Lancashire countryside, before making his own fortune in the town.[204] Similarly 'Wetwang' was an apparently unique topographical surname which featured sixteen times with three separate fathers in the baptism register. We can presume its origins are in the unusually-named village in the East Riding of Yorkshire, which is about fifteen miles inland from the east-coast port of Bridlington, on a major seventeenth-century road, within a straightforward connection of Newcastle. Another group of highly skilled migrants were Newcastle's immigrant Huguenot glassmakers – namely the Henzell, Tyzack and Tytory families. Henry Bourne recorded how, after a brief stint in Staffordshire, they settled and set up shop at Ouseburn, known as the glasshouses.[205] These families feature prominently in the baptisms from the 1620s and throughout the century, but by the 1650s there were already a large number of other names associated with glassmaking and the glasshouses.[206]

The origins of Newcastle's migrants mapped very closely on to the economic 'regions' in which it was involved, as identified in Chapter 2. The port was of key importance, and some of the people who arrived in the town did so on boats from the active ports of Britain's east coast, and across the North Sea from the Netherlands. Because people were rarely identified directly by their origin in Newcastle records, we cannot be quantitatively precise. Probably the largest group, however, moved from within twenty miles or so of the town, as is suggested by the demography of County Durham and by the Newcastle testators who chose to recognise their home villages, and the kin who lived there.

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[202] Brooks, 'Apprenticeship', pp. 55-8.
[203] PRD/Fathers/dunford.mich.
[204] Diana Ascott and Fiona Lewis, 'Motives to Move: Reconstructing individual migration histories in early eighteenth-century Liverpool' in David Siddle (ed.), *Migration, Mobility and Modernization* (Liverpool, 2000), p. 95.
[205] Bourne, *History*, p. 155.
[206] see Table 3.6 and Chapter 4.

Finally, the surnames of Newcastle's water traders provide tentative support to the notion that a proportion were Scottish – though the majority had what might be considered 'north-eastern' surnames. Despite institutional anti-Scottish rules and a constant concern that immigrants would become either burdensome or rebellious, Scotland and the Borders provided a very substantial minority of these migrants. This potent mix had profound implications for Newcastle society, as the following chapters demonstrate.

Conclusion

Newcastle saw considerable population growth between the 1570s and about 1680, and in particular in the first three decades of the seventeenth century when the coal trade was in a strong period of growth, and before the disturbances and dislocations of the 1636 plague, the 1642 siege and the Dutch wars that followed. While it is unfortunate that there are no parish registers for three of the four Newcastle parishes before 1600, enough evidence survives to allow a reasonably detailed picture of the town's demography from then onwards. Most of this demographic growth was the product of immigration into Newcastle, although there was some natural growth in All Saints' parish, where young, fertile families were settling to work on the water and in manufacturing. In the absence of external indicators, it was impossible to estimate the numbers of burials missing due to under-registration, so all demographic figures must be treated with some caution. If we adjust for under-recording of baptisms, there was a deficit of around 700 baptisms over the entire century, but a surplus of around 500 between 1600 and 1635. As Keith Wrightson has shown, the 1636 plague in Newcastle was a particularly (perhaps uniquely) severe outbreak. In this year alone, half of the town's population died, and it accounted for one in ten of the entire century's burials. In All Saints' parish, the epicentre of plague, the figure was one in six. But, aside from this one year, we should not exaggerate the mortality in All Saints', which was consistently the fastest-growing parish.

All Saints' residents were young, industrious, and fertile, but they did not provide the level of population growth that Newcastle saw without considerable migration as well. To make up the deficit of 700 and the population growth of up to 8,000 (not to mention emigration of Newcastle-born men, women and children) a very large number of migrants arrived in the city. Some came for a short period of time. In All Saints', the number of families that continued in the parish for more than one generation was very low. Only a third of surnames, let alone individuals, survived for more than 20 years, and only a fifth for more than 60 years. At the beginning of the century, seasonal migration – according to the demands of shipping – was reflected in a very distinctive seasonal pattern of burials. But

after the 1660s, this pattern disappeared: the furious pace of migration to fill the needs of the expanding coal industry eased; the sex ratio of burials settled; and it is clear that a substantial proportion of Newcastle's migrants had permanently settled. They had kin in the city as well as their home parish; they gave money to the local poor, or took poor relief in hard times; they 'bequeathed' their body to the local church yard, demanding burial on the same terms as a Newcastle native. There was undoubtedly a strong core of the population in All Saints' parish, even as inward migration continued.

This was true wherever migrants were originally from. The immigrants that came to work in Newcastle were a combination of locals from the surrounding areas of County Durham and Northumberland, and Scottish immigrants, mostly from lowland and Borders areas, as well as a smaller number from the east coast and North Sea trading areas in which Newcastle participated. There was, therefore, a heterogeneous mixture of culture and language on Newcastle's quayside, and even within individual occupational groups. Despite affirmations that Newcastle's keelmen were drawn from a majority of Scottish migrants, no actual estimate of their numbers puts the proportion so high, so they were not the homogeneous blue-bonneted group they are sometimes portrayed as.[207] Nor were they quite as unsettled: particularly in the second half of the century, the great majority of the keelmen had settled with wives and children.

What is perhaps most clear from the Newcastle data is the extent to which shipping generally, and the coal industry specifically, controlled the pace of economic growth in the town. Newcastle could weather the terrible plague and Civil War siege and continue to grow, as long as the demand for coal remained high. It took the dislocation of the London market in 1665 and 1666 to cause real problems. This applied to other industries as much as those that were directly involved in the shipment of coal, something the next chapter examines in more detail. Trade and industry of all types in Newcastle were intimately interconnected. The town had been a flourishing medieval port, but by the early seventeenth century, the profits to be made from coal dwarfed all others. Nonetheless, the nature of the changing structure of Newcastle's economy was such that coal brought prosperity in a number of areas as well as just to the hostmen, and the keelmen that could find work.

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[207] See Fewster, *Keelmen*, and references in Chapter 8.

Table 3.6 – Top 12 surnames of fathers in eight occupation groups.

coal transport	N	%	other transport	N	%	shipwrights	N	%	labour	N	%
thompson	165	2.3	thompson	48	1.9	foster	39	2.6	smith	29	2.9
brown	121	1.7	brown	40	1.6	cook	37	2.4	brown	21	2.1
taylor	111	1.6	smith	38	1.5	green	35	2.3	johnson	16	1.6
dixon	110	1.6	watson	30	1.2	steel	34	2.2	bell	14	1.4
hall	96	1.4	reed	29	1.2	wilkinson	30	2.0	thompson	14	1.4
smith	95	1.3	robinson	28	1.1	thompson	29	1.9	davison	13	1.3
graham	90	1.3	wilson	27	1.1	lawson	24	1.6	trott	12	1.2
davison	89	1.3	dawson	26	1.0	watson	24	1.6	wilson	12	1.2
young	89	1.3	dixon	26	1.0	nicholson	23	1.5	humble	11	1.1
pattison	81	1.1	atkinson	25	1.0	robinson	23	1.5	foster	10	1.0
robinson	80	1.1	anderson	24	1.0	turner	23	1.5	watson	10	1.0
gray	76	1.1	johnson	23	.9	trewhitt	22	1.5	harrison	9	.9

food & drink	N	%	building	N	%	glass	N	%	merchant & hostman	N	%
robinson	67	3.2	walker	29	5.6	henzell	111	28.5	anderson	32	3.4
brown	66	3.2	watson	19	3.7	tizick	27	6.9	gray	30	3.2
hall	58	2.8	johnson	16	3.1	crissom	19	4.9	fenwick	21	2.3
smith	49	2.4	reed	14	2.7	dale	13	3.3	johnson	21	2.3
wilson	45	2.2	robson	13	2.5	wilson	12	3.1	lewen	19	2.0
jackson	37	1.8	milburn	12	2.3	goddard	11	2.8	man	16	1.7
hedley	32	1.5	shevill	12	2.3	richardson	9	2.3	dobson	15	1.6
dixon	31	1.5	pattison	11	2.1	harbottle	7	1.8	errington	15	1.6
leck	29	1.4	willowby	11	2.1	potter	7	1.8	jackson	15	1.6
dalton	28	1.4	bell	10	1.9	brown	6	1.5	gibson	14	1.5
johnson	28	1.4	graham	10	1.9	newton	6	1.5	starkin	14	1.5
hindmarsh	27	1.3	atkinson	9	1.7	robson	6	1.5	fell	13	1.4

Chapter 4. Earning a living: the changing structure of primary occupations

Newcastle's seventeenth-century demography was characterised by dramatic growth in the first third followed by disruption, re-growth, and then stability in the final quarter. The link between work and population has been established: only when the coal trade itself faltered did population growth decelerate. This chapter adds texture to this outline, closely tracing the chronology of the shifting occupational structure, which tightly matched changes in population. While the town's medieval guild-based industries were never entirely supplanted, and some almost matched demographic growth, the rapid change was clearly driven by the industries that benefitted most from the export of coal. By the end of the seventeenth century, Newcastle's economy had been transformed from one in which most fathers were based in manufacturing or service trades to one in which most were effectively proletarian – in other words had little to sell but the value of their labour.

To analyse this structural change requires some simplification. Work in the early modern period was complicated and socially contextual: what classed as 'work' for one man, woman or child would not necessarily be considered the same by another.[1] To form the broad chronology presented here, 'work' has been reduced to the first stated occupation of fathers at the baptism of their children, but multiple occupations and the impact of the life cycle on work are also considered. Multiple and changing occupational identity demonstrates that in fact it was possible and not uncommon for Newcastle men to sustain more than one occupation, especially over a lifetime.

Parish registers and occupations

In total, the All Saints' parish baptisms contain 282 different occupation tags, indicating a high level of specialisation: even after removing the duplication of fairly similar jobs, there were as many as 150. London had around 120 individual occupations in 1300 compared to Norwich at 60 or 70, but by the end of the seventeenth century, when London

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[1] See Chapter 8.

had grown enormously, it had 721.[2] This comparison emphasises the economic diversity that Newcastle had inherited from its medieval port, and the acute sensitivity that Newcastle's parish officials had to the importance of work and how it was described. In constructing the database, the occupations have mostly been left as they are described in the registers, although some tags that are obviously synonymous have been standardised, as well as the spellings. These needed to be grouped such that the results make up a representation of economic reality in Newcastle that is also amenable to analysis.

The difficulties of occupational classification have generated considerable discussion and a number of solutions.[3] The 1851 census distinguished different jobs by the material exploited in the industry, which led to idiosyncrasies such as the fact that wool and cotton spinning would be considered entirely separately, since one is a plant-based product, and the other is animal-based.[4] Neil Raven, on the other hand, chooses to look at methods of production and is left with a huge and cumbersome (at 78 per cent of adult males) category of 'handicrafts' in his study of Chelmsford.[5] John Patten attempts to split up the handicrafts by using groups that describe the relationship of the worker to the market – 'distributive trades' were purely selling, 'artisan-retailers' would produce and sell goods, and 'manufacturing trades' were only involved in production.[6] E.A. Wrigley lends Patten's efforts more theoretical sophistication with the development of a PST ('primary, secondary, tertiary') classification to describe occupation structure.[7] PST is both simple and comprehensive, and aims to provide comparability between studies.

Yet the beguiling simplicity of PST conceals the very real difficulty of dividing the secondary and tertiary sectors of early modern occupations on the basis of an often single-word description.[8] Cordwainers could be relatively poor shoemakers; or have an outfit that was almost entirely retail-oriented; or they could sometimes repair rather than manufacture leather products. From Newcastle, John Allen, who had six children in the 1680s and 90s was described intermittently as 'cordwainer', 'cobbler' and 'translator' – the latter two terms being associated mostly with repair rather than production.[9] It is clear that a neat

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[2] Keene, 'Continuity and development', p. 7.
[3] Michael Katz, 'Occupational Classification in History', *Journal of Interdisciplinary History*, Vol. 3 (1972), pp. 63-88.
[4] Wrigley, *Poverty, Progress*, pp. 133-6.
[5] Neil Raven, 'Chelmsford during the industrial revolution, c. 1790-1840', *UH*, Vol. 30, No. 1 (2003), p. 50.
[6] John Patten, 'Changing occupational structures in the East Anglian countryside, 1500-1700', in H.S.A. Fox and R.A. Butlin (eds.), *Change in the Countryside: Essays on Rural England* (London, 1979), pp. 105-6.
[7] Wrigley, *Poverty*, ch. 5.
[8] Patten, 'occupational structures', p. 106.
[9] PRD/Fathers/allen.john.6

distinction was not kept between these jobs in Newcastle: the common council, no doubt at the request of the cordwainers' company complained in 1617 that:

> divers persons, for years, under colour of exercising the trade of a cobler, who should only mend old shoes that are brought to them to be mended, do buy great numbers of old shoes mended and made fit to be worn at London and elsewhere, and cause them to be brought to Newcastle-upon-Tyne, and…sell them…whereby the fraternity of Cordwainers of Newcastle aforesaid is much impoverished.[10]

The blurring of titles, both for individuals and for the parish officials who kept the record, hints at a real fluidity of occupations, especially amongst poorer workers. Such variation of primary work in a lifetime was in fact a crucial strategy by which individuals and households could eke out a living in times of relatively sparse work: this was a vital feature of work in early modern towns.

The tendency to over-simplify should also be avoided because the vocabulary for describing occupations was specific, reflecting local and regional language and patterns of work. Certain terms in Newcastle that at first glance could be generic labouring jobs in fact had unique meanings. The *OED* is no more specific about a 'shovelman' than 'a labourer who uses a shovel', but in Newcastle they shovelled coal: they were, in effect, keelmen. There is little direct record of how coal was loaded onto keels from the staithes on the side of the river, but Nef records that 'when a collier reached [London], a gang of "coal heavers" came aboard with shovels and vats', with which they filled waiting lighters.[11] A shovelman would no doubt have performed a similar role in Newcastle, and indeed this is borne out by the linkage of fathers' names: John Abernathy had two daughters and a son in the 1620s and was described twice as a keelman and once as a shovelman, and James Armstrong had a similar brood.[12] Shovelman, then, was not a general term for labourer, but rather represents a specific role in the movement of coal – keelmen and shovelmen had similar roles; labourers were subtly different.

There was very little overlap between other water-based occupations. In general usage, a mariner is 'a person who navigates or assists in navigating a ship; a sailor'; a waterman is a 'seaman, mariner' or 'a man working on a boat'; a wherryman is more specifically the operator of 'a light rowing-boat' or 'a large boat of the barge kind', depending on the context.[13] A skipper is 'the captain or master of ship, esp. of a small trading, merchant, or fishing vessel', and a master-mariner is a 'person who commands, or is qualified to command, a ship'.[14] Despite the similarities in terms, they had very different

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[10] Mackenzie, *Newcastle*, pp. 670-8.
[11] Nef, *Coal*, I, p. 394.
[12] PRD/Fathers/abernathy.john, armstrong.james.
[13] *OED*
[14] Ibid.

meanings in Newcastle, and there was little correspondence between categories. A waterman in London specifically ferried people across the Thames, and had his own corporate body.[15] But in Newcastle, watermen ferried coal, as did boatmen, keelmen and shovelmen; wherrymen, in contrast, worked in smaller boats ferrying smaller cargoes; mariners and seamen, on the other hand, worked on the sea-going ships.[16] At a higher status, it is clear that 'masters' of ships referred to the sea-going vessels, and they were usually mariners as well; skippers, in contrast, were invariably higher-ranking keelmen, usually in control of a keel.

With these local considerations in mind, I have devised an alternative classification, presented in Appendix II. While this might constrain comparison with other similar studies (though I have adapted my categories where possible to aid comparison), it is more sensitive to the historical reality of work. The classification used here has been aided by an iterative process: I have tried, where possible, to avoid imposing national or modern preconceptions and economic models on the parish registers. Instead, I have been guided by the All Saints fathers and parish clerks, and the models and preconceptions they used to classify occupation. In this way, fathers have not been forced into categories where they would not have seen themselves. Some terms were clearly interchangeable, others were clearly not; some were more ambiguous. Comparison with other towns is also constrained by varying types of sources for occupations identified in the Introduction, although it is crucially important if we are to place Newcastle in its national context. It is rare for towns to record such a complete occupational record on the parish registers as Newcastle did, and it is even rarer for historians to have compiled all of the data in this manner. Studies seldom process the parish registers in exactly the same way, making it necessary to adjust the processing method used here in order to facilitate comparison. Three comparisons are made – with Bristol, Southwark, and eighteenth century Liverpool – to demonstrate that, even for an early modern port town, Newcastle was a specialised *industrial* port town with a heavy concentration of labour dedicated purely to moving goods, particularly coal. The parish registers present a number of technical difficulties, but they allow a luxuriant level of occupation detail, deep both in social and chronological coverage, which is simply not available from other pre-Census sources in Newcastle or England more generally. This discussion takes these differences into careful consideration.

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[15] *OED*, 'waterman'.
[16] Wright, 'Water trades', Ch. 1.

What follows is an in-depth analysis of the male adult occupational structure of Newcastle, based on three five-year samples of all of the town's parishes, and a full examination of the parish registers of All Saints'. The occupational structure is constructed primarily on the basis of baptisms, for two related reasons. First, a higher proportion of entries record occupations alongside a name – 90 per cent as opposed to 75 per cent on burials – which gives greater confidence that the statistics generated do not misrepresent the population registered. This differential is partly due to life-cycle changes including retirement, which will be discussed in more detail below. Second, baptisms also provide a cross-section, in life-cycle terms, of the adult working population. If we assume that a Newcastle man married and began to have children within a few years of beginning work, and continued having children for almost their entire working life, then they will have a continued presence in the baptism register for most of the time they worked. Thus any time period has a chance of including every working man presently baptising children.

Men at work: the structure of fathers' employment

The close link between Newcastle's population growth and the rise of the coal industry was established in Chapter 3; here the particular economic sectors which led Newcastle and All Saints' expansion will be considered in more detail. These were all linked, either directly or indirectly, with Newcastle's principal trade, which required a large number of men moving coal on the River, and also supported a number of ancillary trades which expanded either thanks to the cheap coal costs or to the demand created by the growing coal workforce. The result was that Newcastle's historic trades were overtaken in relative terms by the new industrial face of the town, although they, too, grew in numbers as demand for a range of goods and services soared. Still, this was an important structural change in the economy, from one characterised by variety and balance, to one that was increasingly dominated by a single industry, and whose fortunes rose and fell with the demand for coal. Table 4.1 illustrates the broad changes that occurred in the city as a whole over the seventeenth century, using five-year samples of baptisms from the 1600s, 1660s, and 1700s.[17] The samples are five years in order to minimise the 'noise' found in single years, which can deviate significantly from trends.

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[17] For St John's 1661-5 is replaced with 1671-5 because of very low occupational recording in the 1660s.

Table 4.1 – Occupations from baptisms in all four Newcastle parishes.

		1601-5		1661-5		1701-5	
		Freq	**%**	**Freq**	**%**	**Freq**	**%**
Primary		6	1	1	-	108	3
manufacturing	carpentry	39	3	92	3	83	3
	building	39	3	137	5	156	5
	glass	-	-	40	2	38	1
	smiths	70	6	82	3	115	4
	food & drink	65	6	211	8	247	8
	textiles	108	9	248	9	243	8
	leatherwork	107	9	130	5	171	6
	shipbuilding	14	1	146	6	131	4
	surgeons	22	2	57	2	72	2
	household goods	10	1	16	1	20	1
transport	coal transport	107	9	621	24	891	29
	other transport	119	10	210	8	243	8
	total transport	226	20	831	32	1134	37
	manual labour	115	10	101	4	193	6
tertiary	merchant	111	10	201	8	120	4
	professions/service	66	6	130	5	159	5
other	status	158	14	224	9	120	4
	blank/unknown	539	[32]	387	[13]	1153	[35]
total		1693		3020		3326	

Source: PRD ASBap.

Note: the 'blank/unknown' category is not included in the other percentages.

Groups directly involved with the Quayside coal trade showed the strongest growth: children baptised to coal transport workers multiplied in number by a factor of eight over the seventeenth century, slightly exceeding the expansion in coal tonnage over the same period. In this case, the growth in baptisms probably slightly exaggerates the true growth in the number of workers because, as was demonstrated in the previous chapter, migrant workers to Newcastle were more likely to settle with families in the second half of the century than the first, and less likely to move back to their origins over the winter. It therefore reflects both a growth in the absolute number of workers and in the number of settled workers. Since coal transport saw few real gains in productivity in this period, it remained a laborious task until the advent of more sophisticated staithes in the early nineteenth century, which loaded boats directly through chutes.[18] Four keelmen would shift as much as 21 tons of coal onto a keel, sailing or oaring it out to the waiting colliers, which often could not venture further up the Tyne than Shields, so clogged was the river with ballast from earlier generations of ships. They then lifted the coal onto the collier through

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[18] Nef, *Coal*, I, pp. 387-8.

Figure 4.1 – Coal transport workers from baptisms at All Saints'.
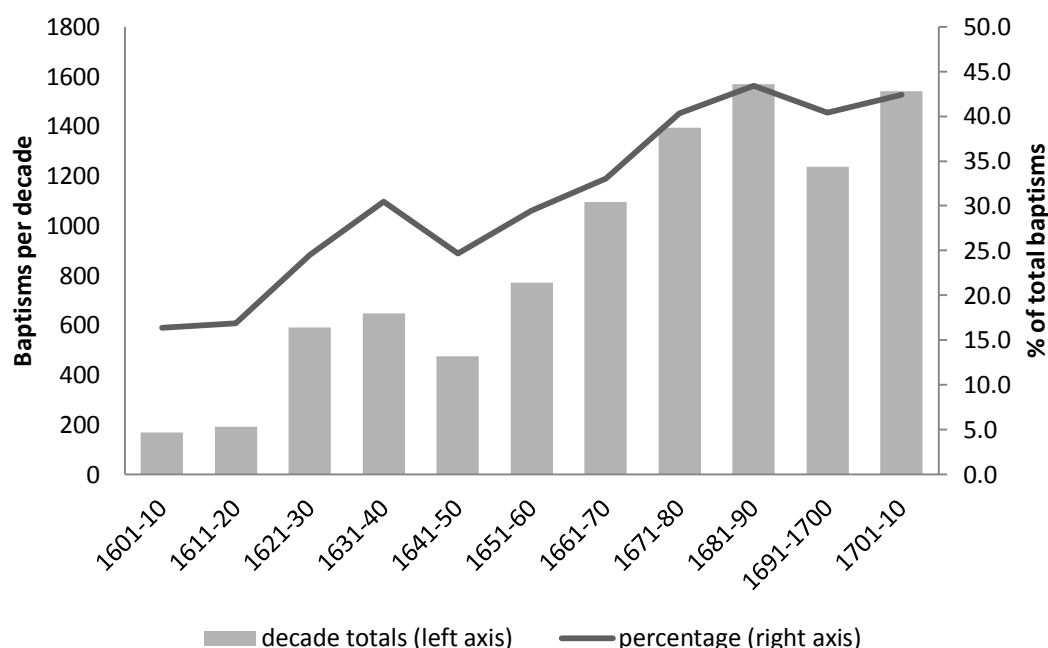
Source: PRD ASBapt

portholes, before returning to Newcastle twelve or fifteen hours later.[19] This was a tough manual job so the growth in the export of coal from the Tyne – which was still tightly controlled by Newcastle's hostmen and so remained within the city – produced a proportional growth in the workforce required to move it, and a more than proportional growth in baptisms (see Figure 4.2). These fathers grew from a peripherally small minority of fathers in Newcastle at the beginning of the seventeenth century to become the largest single group of all workers by the end.

Most of these transport workers lived somewhere near the Quayside in the Wallknoll or Pandon Tower wards and, increasingly, outside the Town Walls in Sandgate.[20] All Saints' register therefore gives a good indication of the timing of this structural change towards coal transport workers (see Figure 4.1). The biggest burst was between about 1610 and 1630 with the number of children baptised to coal transport workers trebling across two decades. The 1630s saw a more modest increase: it would probably have been just as large but for the plague in 1636 which wiped as much as half of Newcastle's population. The Civil War stalled growth in coal transport for another decade, as the Town declared itself for the King and was besieged, blockaded and then occupied by Scottish Parliamentary forces from 1644 to 1645. Recovery from these twin setbacks was astoundingly swift, indicating

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[19] Fewster, *Keelmen*, pp. 3-15.
[20] See Chapter 5.

Figure 4.2 – Coal exports and baptisms to coal transport workers.

Sources: PRD ASBapt, Hatcher, *Coal*, I, pp. 487-92.

the significance both sides in the Civil War had vested in Newcastle's coal: the pits that supplied rapacious demand of London and the eastern ports of England were not allowed to be idle for long. Baptisms to coal transport workers more than trebled again up to the 1680s, as the trade picked up, before settling out towards the end of the century, including a substantial dip in the 1690s.

Some of this growth in coal transport came at the expense of other transport workers, in particular men generally termed as 'mariner' or 'master and mariner', which overlapped considerably in usage. This does not imply that Newcastle's trade was significantly narrowing, or that mariners could no longer find work in the town. A few of these men or their sons did move into coal transport occupations, but in fact the absolute number of mariners (as well as 'sailors', 'wherrymen' and 'porters', also in that group) continued to rise until 1680, before falling away sharply. As Figure 4.3 shows, in all, the number of children baptised to mariners more than doubled between 1600 and 1680, while the enormous growth in keelmen meant that their proportion of the total had fallen by more than a third in the same period. Newcastle's port retained a large quantity and variety of trade. This included a dynamic shipping trade with Scotland, characterised partly by the complementary 'carboniferous' economies of the Tyne and the Firth, which re-exported goods from the continent to one another, as well as shipments of fish and other items to North Sea ports.[21] The numbers of men required to move traded goods and work on the east-

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[21] Greenhall, 'Evolution', *passim*.

Figure 4.3 – Non-coal transport workers, from baptisms at All Saints
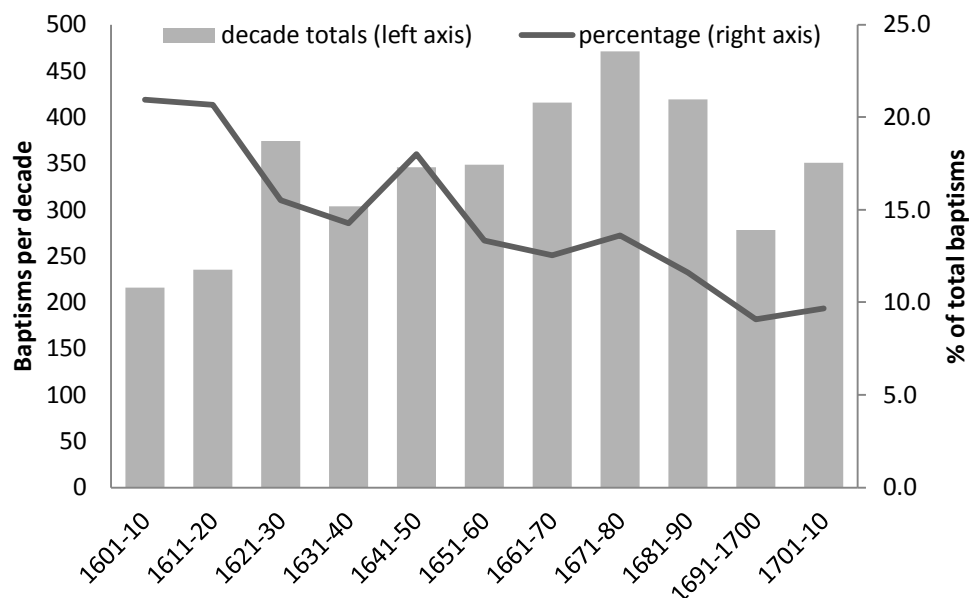
Source: PRD ASBapt

coast trading ships that transported it remained strong. There was often considerable overlap between the workers involved in all the types of river transport, with men shifting easily between the different types, and coal keels were regularly used to transport other goods.[22] This overlap was reflected in the general term 'waterman' which overtook 'keelman' by the 1660s and on its own accounted for more than 40 per cent of all fathers in All Saints by the end of the century. The increasing use of the catch-all term reflects the expansion in numbers working at the Quayside by the last decades of the seventeenth century. Newcastle was, by the standards of contemporary towns, a highly specialised port which required a very large labouring force.

Only at the end of the seventeenth century did the shipment of coal begin to stagnate and decline, thanks to the mixture of disruptive wars, dips in demand in London and the competition provide by a buoyant Wearside.[23] Nonetheless, this increased competition was taking place in the context of generally high levels of demand, driven by London, but encompassing a range of other ports on the east coast and abroad. The proportion of coal exported by Newcastle had halved between the 1590s and the 1650s, but after 1700 it began to creep up again as home demand slackened, and by 1738 and 1739 it averaged 50,000 tons. Sunderland, in the same period, had increased its own exports to 70,000 tons by

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[22] See Peter Wright, 'Bigger than Bristol? Cultures of Consumption in the Sea Trades to Newcastle upon Tyne, c. 1700' in Adrian Green and Barbara Crosbie (eds.), *The Economy & Culture of North-East England* (forthcoming, 2014).
[23] See Chapter 3.

Figure 4.4 – Shipbuilding, from All Saints baptisms
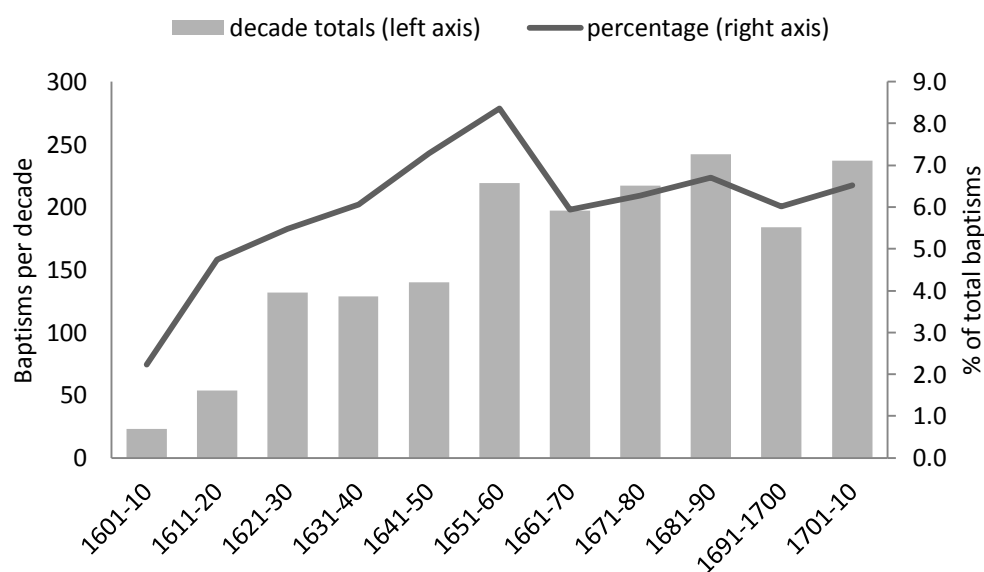
Source: PRD ASBap

capturing the Dutch market and forcing Tyneside coal into smaller markets, further away.[24] Undoubtedly the greater competition played a part in Newcastle's coal slowdown at the end of the seventeenth century, but it is worth stressing that this slowdown was relative: All Saints' parish and Newcastle as a whole had seven times as many coal transport workers living within its boundaries at the end of the seventeenth century as at the beginning. Newcastle's workforce was specialising around its port, and specifically around the transhipment of coal.

Outside coal transport, it is clear that industries with a direct link to the port prospered alongside shipping and coal, as did others that supplied the growing workforce. In some sectors, the link with the coal industry was straightforward. Workers involved in shipbuilding were baptising ten times as many children by the end of the century than at the beginning. This was reflected by a growth in the size and prestige of the shipbuilder's guild, which found £500 to rebuild its meeting house in the Wallknoll Tower in 1716, although this category also includes anchorsmiths, pulley-makers and ropemakers who operated in different guilds.[25] Coal demanded fleets of new ships to fill its growing demand for capacity: already by 1610, the tonnage of coal-trading ships had overhauled that of coastal trading and fisheries, and nearly matched foreign trade.[26] In 1624, the naval commissioners estimated that there were 300 ships involved in the Newcastle coal trade alone, and this

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[24] Dietz, 'Coal Trade', p. 287.
[25] Rowe, *Shipwrights*, p. 4.
[26] Hatcher, *Coal*, p. 471.

would grow to 1,000 by 1700; likewise the capacity of ships trebled between the 1570s and 1670s.[27] As a result, demand for Newcastle's boats was subject to substantial peaks and troughs, something that was reflected in the population of shipbuilders resident in the town (see Figure 4.4). War had a stimulating impact, as it prompted the need for a strong navy, and contracts tended to be spread across a number of coastal ports, including Newcastle, Whitby, Ipswich, Yarmouth, Bristol and London.[28] The 25 flatboats commissioned by Cromwell in 1650 represent only the tip of a substantial Newcastle industry, which also employed others including anchorsmiths, ropemakers, and pulley- and sail-makers.[29] Carpenters, who are not included in the 'shipbuilding' group for analysis, saw an increase in absolute numbers, and their work was sometimes supportive of shipwrights. Early vessels are often difficult to account for, as small boats (for example, keels) could be built by any carpenter without leaving trace in their accounts: the tools, skills and materials were similar to other types of carpentry.[30]

Shipbuilding, in its widest sense, saw a huge growth in workers in the early part of the seventeenth century, but this stagnated from the 1660s, when numbers barely rose in real terms. There were a few factors at play. The shipyards in the eastern suburb were said by Gray to have largely escaped the damage of the Civil War siege, but the demand for ships would certainly have dipped thanks to English victories in the Anglo-Dutch wars. Ralph Davis estimates that around 1000 Dutch ships taken as prizes in the First Dutch War (1652-4), and more than 500 in each of the subsequent wars (1664-7, 1672-4).[31] If only a fraction of these boats were undamaged and successfully pressed into service, it would have shocked demand in shipyards like Newcastle. At the same time, the Newcastle shipwrights' guild was struggling to maintain its monopoly against craftsmen working at the mouth of the Tyne. In a fight that went to Cromwell's Board of Trade, Ralph Gardner pressed the case of his friend Thomas Cliffe, a shipwright who was being harassed by Newcastle for practising his trade at Shields.[32] While Gardner was ultimately unsuccessful, the episode marked a turning point in the movement of shipbuilding down to Shields: in 1718-20 Robert Ward successfully defended himself against two suits for building a ship at Shields, effectively

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[27] Ibid., p. 473; Nef, *Coal*, I, p. 239.
[28] David Dougan, *The History of North-East Shipbuilding* (London, 1968), p. 21.
[29] Howell, *Newcastle*, p. 286.
[30] Ralph Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (London, 1962), p. 47.
[31] Davis, *Shipping*, p. 51
[32] Howell, *Monopoly*.

Figure 4.5 – Glassworkers, from All Saints baptisms
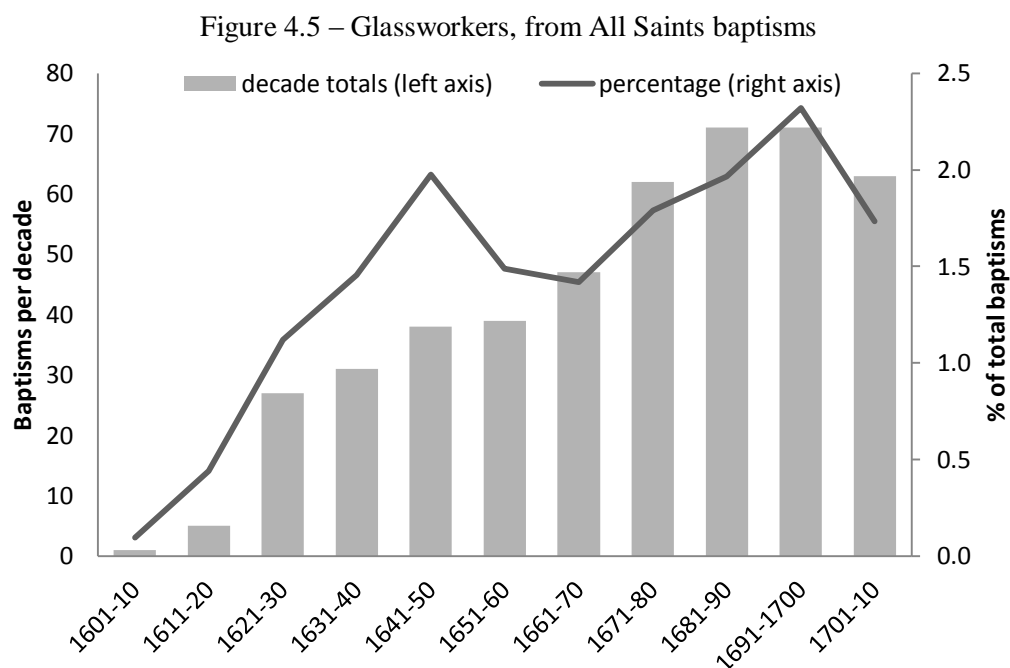
Source: PRD ASBap

breaking open the monopoly.[33] It was ultimately a fragile business, but nonetheless was a key part of Newcastle's industrial growth over the seventeenth century.

Another industry which owed its success in a large part to the growth in coal was the manufacture of glass. An abundance of ballast sand and low coal costs provided the perfect conditions for growth, alongside expanding demand for window broadglass. Very few records survive of early Tyneside glass. Although there was a small export already in 1574, thanks to the arrival of the Huguenot glassmakers we met in the previous chapter.[34] Production expanded considerably after the injection of capital from Sir Roger Mansell, whose furnaces were already operational by 1617.[35] Mansell was highly active in the running of his glassworks, as was clear when the threat of the arrival of a Scottish invading force in 1640 caused him concern that the continued presence of the Scots would freeze the fuel supply and 'totally destroy the Mannufacture, and foarce all the Glassemakers being strangers to quit the kingdom and therby occasion my losse of 20 yeares tyme and expence of £30000'.[36] He might have been exaggerated the size and importance of his works, but the setback in proportional terms of the Civil War is made clear in Figure 4.5. Alongside the broadglass works were a number of bottle-works in the second half of the seventeenth

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[33] *Shipwrights*, p. 6.
[34] Nef, *Coal*, I, p. 180; Lindsay Varner in *The Economy and Culture of North-East England* (forthcoming).
[35] Catherine Ross, 'The Development of the Glass Industry on the Rivers Tyne and Wear, 1700-1900', unpublished PhD thesis (Newcastle-upon-Tyne, 1982), p. 37.
[36] TNA SP 16/467 f.141, 15 September 1640.

Figure 4.6 – Food and drink production, from All Saints' baptisms
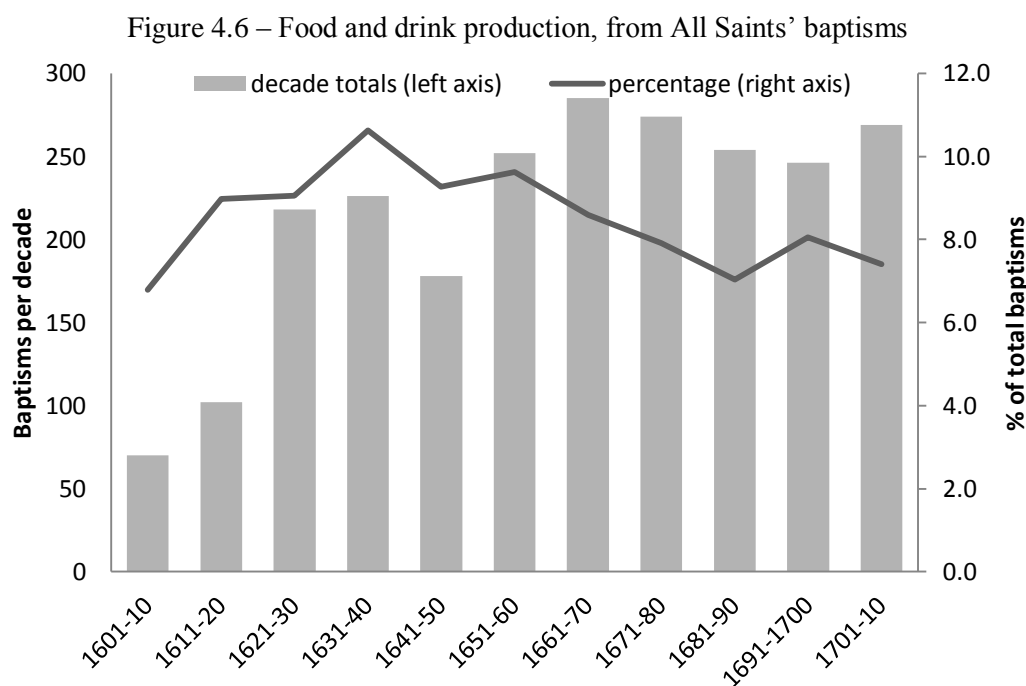
Source: PRD ASBap

century, which attracted the capital of colliery owners. Thickly-set green bottles hid sulphurous imperfections well and could be manufactured using poor-quality coal, which was otherwise unsaleable, giving Newcastle's bottle-works a comparative advantage over competitors.[37] The dependable trading links along the east coast, including to Scotland, were equally important: Judith Welford's survey of the Newcastle port books reveals that, already by the 1680s, 'sand, soaper's ashes and broken glass were delivered from Lynn, kelp was shipped from Aberdeen, iron from Hull, broken glass, pearl ashes, barilla ashes, potash, lead ash, old iron, Russian bar iron and pig iron from London, and ashes from Ipswich and Yarmouth'.[38] All were critical to the growth of the glassworks, which was a complex manufactory in an intricate system of trade. The sudden arrival and rapid growth of the Newcastle glassworks is corroborated by the parish registers, which show only a single baptism to a glassworker in the first decade of the seventeenth century and a sharp climb to 60 or 70 baptisms per decade by the 1670s, when they made up more than 2 per cent of fertile workers in All Saints parish and 1 per cent in Newcastle overall. This was an industry in rapid growth on the Tyne in the seventeenth century, thanks to coal capital and cheap raw materials.

Other expanding occupational groups were involved in servicing the growing population which demanded additional provisions. Newcastle's food and drink producers

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[37] Welford, 'Functional Goods', pp. 72, 119.
[38] Ibid., pp. 85-6.

(mostly millers, maltsters, bakers, brewers and butchers) saw an increase in numbers that was slightly more than proportional, indicating that they were supporting the growing population of Newcastle and its hinterland – a fact confirmed by Gray, as we saw above, and later by Celia Fiennes who stressed the scale and value for money of Newcastle's Flesh Market.[39] Henry Bourne also noted the proliferation of brewers who, along with keelmen and merchantts, 'made their living by shipping'.[40] Notably, it was not just Newcastle's core population that supported the food trades, but a wider hinterland. This was commonly and increasingly the case for English 'provincial capitals' by the eighteenth century, such as Nottingham, whose economic and social influence spread far into Derbyshire and Leicestershire.[41] The increasingly specialised economy of the Tyneside industrial belt meant that Newcastle was already exerting this influence as a regional centre by the early seventeenth century.[42] As we have seen, Newcastle's hinterland of food supply stretched twelve miles, according to Gray, or as far as Chester-le-Street to the south and Morpeth to the north. Further than this, the Tyneside and Wearside coalfield was an area heaving under a mammoth influx of colliers across the seventeenth and eighteenth centuries.[43] Christopher Prierman's butcher shop gives us an idea of how a successful food business was run at the height of the coal boom in the first decade of the seventeenth century. It was obviously a huge operation. He was owed debts by a wide range of customers, mostly from Newcastle, Gosforth, Gateshead, and nearby towns in County Durham and Northumberland, but also by a Thomas Barker of Ipswich and a Richard Jones of Colchester. He had also built extensive regional networks of debt in order to bring his sheep and cattle into the town – for instance, he owed nearly £20 to 'William Hall of hepple', thirty miles away, 'for 60 sheepe'.[44] Thus Newcastle's population was growing, along with the industrial belt that surrounded it, and food brought in at Newcastle was crucial in feeding these working men and families. The result was that the proportion of fathers in All Saints' engaged in food production remained roughly steady, as the absolute numbers increased considerably (see Figure 4.6).

This stability might seem undramatic, but it should be considered in contrast to the experience of other trades in Newcastle. As coal became king and began to dominate the occupational structure, so the guild-controlled manufacturing trades waned and their share

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[39] Fiennes, *Thro' England*, p. 177.
[40] Bourne, *History*, p. 133.
[41] Joyce Ellis, 'The stocking country: industrial and urban growth in Nottingham 1680-1840', in Jon Stobart and Penelope Lane (eds.), *Urban and Industrial Change in the Midlands, 1700-1840* (Leicester, 2000), pp. 93-115.
[42] Wrightson, 'Elements of Identity', pp. 126-150.
[43] Hodgson, 'Demographic Trends', pp. 8, 6.
[44] DPRI/1/1606/P7/1-4. See Map A.

Figure 4.7 – Manufacturing trades and labourers, from All Saints' baptisms
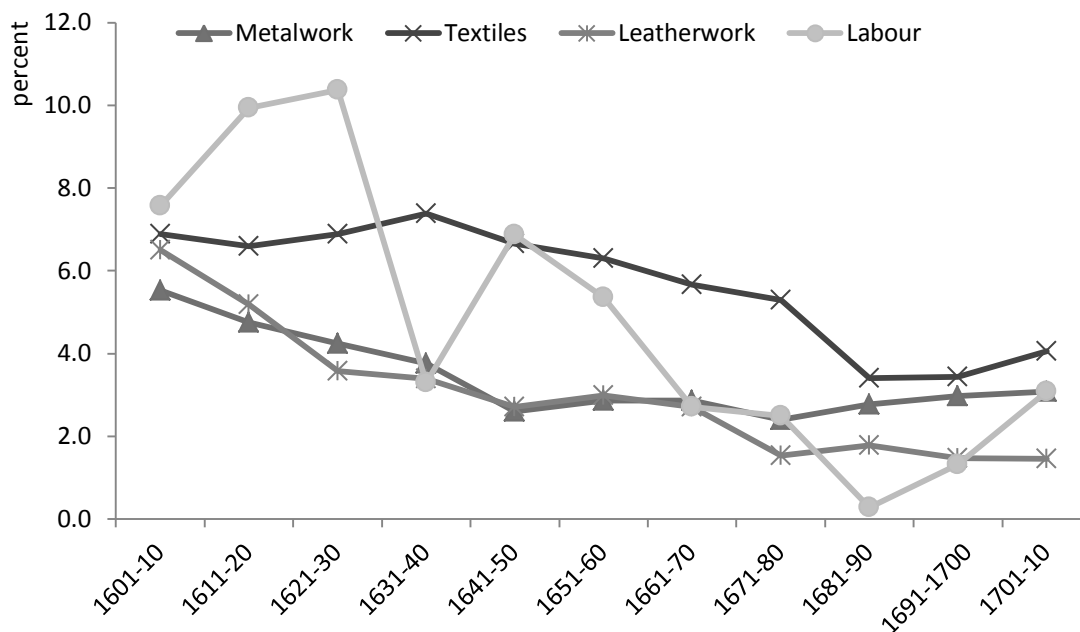
Source: PRD ASBap

of the workforce dipped (see Figure 4.7). Metalworkers, including smiths and braziers, fell from around 6 per cent of fathers in 1600 to 4 per cent by the 1680s, but the drop was even more pronounced amongst leatherworkers, whose share of the baptisms in All Saints fell from nearly 7 per cent to less than 2 per cent. These figures represent a small increase in absolute numbers in all the groups, but as a proportion of the total, they fell; this was true both in the samples from all four Newcastle parishes and the All Saints' data. The traditional handicrafts trades of Newcastle were being overshadowed, in terms of numbers, by in-migrants occupied in the port trades, in shipbuilding and the production of food.

This is significant finding, because it apparently contradicts the pattern of men being admitted to the freedom of the town, which was on a constant upward trajectory, as has frequently been noted. Joyce Ellis estimates that half of male householders were freemen, which 'compares favourably with the figures for other towns', particularly Norwich where the figure was only a quarter; Phil Withington argues that Newcastle 'emerged from the later middle ages with its guild economy not only intact but institutionally enhanced'.[45] On the face of it, the freemen's rolls confirm the vitality of Newcastle's guilds, and an estimate of the number of living freemen suggests that numbers doubled between 1610 and 1650 and more than doubled again by 1700 (see Figure 4.8).[46] This assessment of the numbers of

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[45] Ellis, 'dynamic society', p. 201; Withington, *Politics*, p. 169.

[46] This does not factor in the disruption of the plague and the Civil War, and it is evident that the steepest rise in entry to the freedom was between 1636 and 1664, a period which saw a colossal proportion of Newcastle's residents leave the city or die.

Figure 4.8 – Estimated 'stock' of Newcastle freemen, 1610-1710
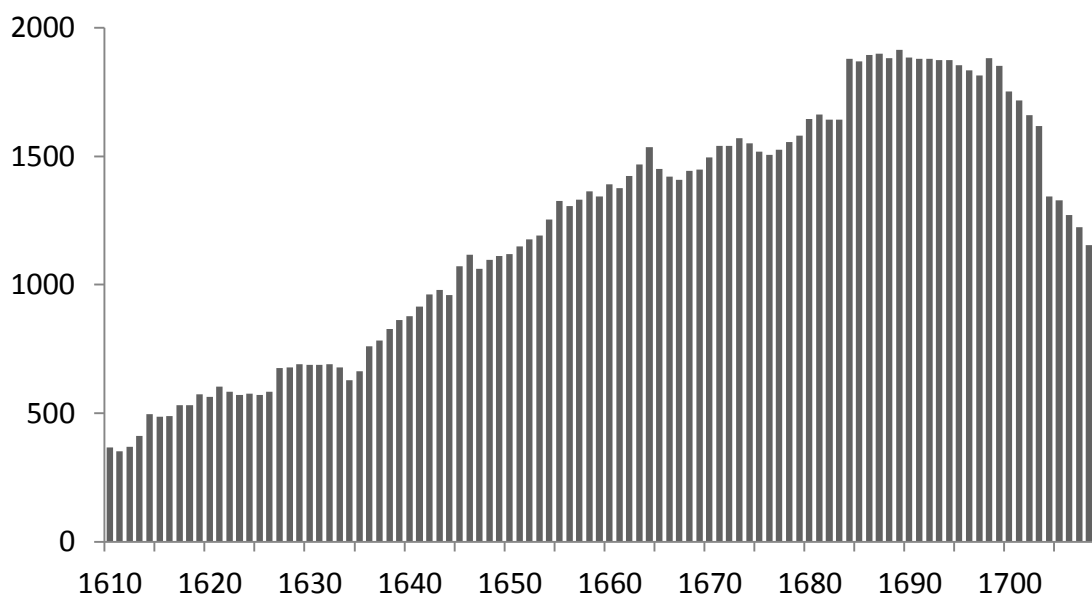
Source: 'Register of Freemen'. Note: 'stock' calculation assumes freemen survived on average 20 years in the town after their admission.

freemen, whilst certainly an overestimate, still points us to the fact that not all of Newcastle's manufacturers had set up their own workshops along the traditional urban model of work.[47] A proportion of these 'freemen' must have left Newcastle, and a further proportion did not have access to the capital required to buy materials and rent a workshop, or start a family, and are therefore absent from parish records, which is why the register does not tally with the totals given in the parishes. The probate sample analysed in chapter 7 reveals that there was a real change in this over the seventeenth century: whereas 70 per cent of manufacturers in the sample before 1650 had work gear or evidence of a workshop amongst their possessions, by the second half of the century it had dropped to just under half.[48] Guild membership expanded at a far greater rate than the number of master craftsmen who could actually set up workshops in town.

Thus a large and rising number of Newcastle's workers were engaged in the town's guild-regulated manufactures and services, constituting a still fairly large but gradually falling proportion. Table 4.2 illustrates this comparison between the relative shares of manufacturers and labourers. The latter group largely comprised labourers, keelmen and colliers but also, in the adjusted column, contains an extrapolated estimate of those men who identified with a manufacturing trade but did not, according to inventories, own capital in their trade. Adjusting the percentages by reallocating manufacturers according the proportions suggested by the probate sample (i.e. 30 per cent of manufacturers before 1650

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[47] Keene, 'Continuity', pp. 1-10.
[48] See below, p. 231*ff.*

Table 4.2 – Sectorial shares of Newcastle fathers' occupations at baptism

	1600-5			1700-5		
	freq	%	% adj.	freq	%	% adj.
manufacturing	467	40	28	1260	41	19
selling labour	356	31	43	1464	47	69
capital/professional	168	15	15	246	8	8
other	163	14	14	129	4	4
Total	1154	100	100	3099	100	100

Source: as Table 4.1. For the proportional adjustments, see text. Note: fathers whose occupation could not be identified are omitted.

and 53 per cent after 1650 were moved to 'selling labour') makes the change in structure even more sharply defined. Even without the adjustments, manufacturers kept roughly the same proportion of Newcastle fathers across the century; with the adjustment, they fell considerably. In either case, the proportion of those selling their labour as their primary means of earning a living rose considerably, to at least half, but perhaps as high as two-thirds of all fathers – and of course, the value amongst the population must have been even higher, considering that young and unmarried people would most likely have been in this category.

Newcastle's economy, which had since its medieval origins revolved around the port, depended on it more heavily than ever by 1710. The economy was rapidly specialising in coal transport, and this sector supported a growing proportion of the population. Almost without exception, the trades that had a growing number of fathers in the seventeenth century were directly related to the port and to the trade in coal. When the coal trade was steaming ahead in the first three decades of the seventeenth century, so too did Newcastle's population, including those working in shipbuilding, food production, glass and so on. When coal stalled from the 1680s, and population growth in the country as a whole began to slow, so too did the growth in workers in all Newcastle's industries. This was a fact not lost on contemporaries like Henry Bourne, who noted that: 'It is observable in this place that when the Coal Trade is brisk, that all other Business is too, and when the it is otherwise, through the Contracts of the Coal Owners, or of their Masters, that there is a certain Deadness in all Trafick'.[49] Specialisation like this was an important feature of regional and local economies in the seventeenth century, as trade increased in volume and communications improved. Thus pottery expanded substantially in Staffordshire after the 1660s; Burton was already brewing on a large scale; Birmingham quadrupled under the influence of metal goods and guns; and by 1672 there were 600 smithies at work in a ten-

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[49] Bourne, *History*, p. 158.

Table 4.3 – Occupations from the Freeman's Rolls in Bristol and Newcastle

	Bristol, 1626-36	Newcastle, 1635-64
	%	%
shipping transport	19	21
food & drink	6	12
metal & glass shipbuilding	12	8
merchant	5	18
textiles & clothing	26	12
leatherwork	4	11
woodwork	1	5
building	7	10
professional & medical	2	4
retail	12	
household goods manufacture	3	
miscellaneous	1	
Total	100	100

Sources: Sacks, *Widening Gate*, pp. 120-1; Langton, 'Residential patterns', Table I. For discussion of variation in occupational classification systems, see text.

mile radius of Sheffield.[50] In Newcastle, this process was already well underway at the beginning of the seventeenth century and had strengthened by the end.

Newcastle was a highly specialised port town by comparative historical standards. Unfortunately, useful comparisons with these figures are hampered by a lack of equivalent data. Bristol was another medieval port that found a new lease of life in the seventeenth century, thanks to the capitalist spirit of its Merchant Venturers' widening transatlantic trade, but the study by David Harris Sacks has only limited occupational data, based on admissions to the freedom.[51] These suited his intention of teasing out power structures in the city's government, but they exclude the majority of unskilled, unregulated or poorly paid work. Nonetheless, the towns can be compared with data from Newcastle rolls, which imply that Newcastle's working population was oriented more closely towards feeding and housing its own population than Bristol's, and fewer in textiles.[52] Newcastle's coal industry made work for a larger proportion of merchants and fitters – although part of this difference will no doubt be because Sacks used a 'retail category', whereas Langton did not. More confident comparisons directly with parish registers of Liverpool (in a slightly later period) and seventeenth-century Southwark can be made. Jeremy Boulton used baptism records

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[50] Wrightson, *Earthly Necessities*, pp. 242-4; David Hey, *The Fiery Blades of Hallamshire: Sheffield and its Neighbourhood, 1660-1740* (Leicester, 1991), pp. 61-5.
[51] Sacks, *Widening Gate*.
[52] Cf. Langton, 'Residential patterns', p. 12.

from Southwark, on the south bank of the Thames, to link individuals that were recorded in a number of tax returns in the early seventeenth century.[53] Fiona Lewis used a technique that was fairly similar in compiling occupational statistics from Liverpool's parish registers, for which she used a combination of fathers of baptised and buried children.[54] Both were particularly concerned to remove the danger of the 'double-counting' of fathers with more than one child.[55] Lewis's technique of deleting the repeated instances was heavily labour-intensive and made no appreciable difference to the results, since there was 'an almost uniform relative loss' from different occupational categories. This implies that differences in fertility between occupations were not significant enough to change the results noticeably, making comparison with the Newcastle parish registers an acceptable proposition.

The contrast between All Saints' and Southwark is striking (Table 4.4). As a parish, All Saints' was apparently much more specialised than either of the Southwark parishes given by Boulton. Although manual work and transport was of crucial importance to St Saviour's, making up a third of the population, it was even more dominant in All Saints', providing more than half of the fathers. Both Southwark parishes had a higher proportion of fathers working in food manufacture and a variety of typical urban manufactures, including leatherwork and carpentry. Despite these contrasts, the general economic structure in All Saints' was not dissimilar to Southwark. Key characteristics were: very little primary production, including agriculture and mineral extraction; a large proportion of wage labourers, whether working in boats or in building or similar; and a substantial and reasonably varied manufacturing sector. The comparison between all the Newcastle data and Liverpool, according to Lewis's data, gives a similar observation. Except in leatherwork, which was barely a feature of Liverpool's economy at all, Newcastle had a smaller population of fathers than Liverpool in all the manufacturing trades, including shipbuilding. Newcastle had proportionally more food producers, who were feeding the transport and manual labour workers, of whom there were proportionally between 60 and 100 per cent more in Newcastle than in Liverpool.[56]

As far as comparisons can be made, it is apparent that Newcastle had a larger proportion of its population working in shipping and transport than either Bristol or

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[53] Boulton, *Neighbourhood*, Chapter 3.

[54] Lewis, 'Liverpool', chapter 3.

[55] Ibid., p. 57.

[56] Depending if the manual labour category is included, as it is not clear how Lewis categorised manual labourers. Perhaps Liverpool did not have any generic labourers recorded, or she perhaps put them into the 'building' category, in which case their numbers must still have been very small.

Table 4.4 – Comparison between All Saints and Southwark parishes, c. 1615-35

	Newcastle, All Saints'		Southwark St Saviours		Southwark St Olave's	
	freq	%	freq	%	freq	%
transport & labour	2349	51.9	627	33.7	314	19.4
food & drink	436	9.6	331	17.8	238	14.7
metal & glass	346	7.6	93	5.0	47	2.9
shipbuilding	249	5.5	8	0.4	2	0.1
merchant	226	5.0				
tailor - final clothes	211	4.7	110	5.9	93	5.8
leatherwork	189	4.2	163	8.8	110	6.8
woodwork	118	2.6	63	3.4	116	7.2
textiles	110	2.4	157	8.4	413	25.6
building	86	1.9	61	3.3	138	8.5
medical	67	1.5				
professional	51	1.1	80	4.3	57	3.5
retail	32	.7	75	4.0	54	3.3
extractive	19	.4				
service	17	.4				
household goods	13	.3	18	1.0	4	0.2
misc	9	.2	46	2.5	14	0.9
agriculture	2	.0	28	1.5	16	1.0
blank/unknown	1434	24.0	-		-	
Total	**5964**		**1860**	**100**	**1616**	**100**

Sources: PRD ASBapt; Boulton, *Neighbourhood*, p. 66. Note: the unknown category is excluded from the percentages. Boulton also excludes men whose occupation could not be recovered. For discussion of variation in occupational classification systems, see text.

Southwark in the seventeenth century, or Liverpool in the mid-eighteenth century, when all three areas sustained a large and vibrant water trading culture. This is due to the nature of trade through Newcastle: coal was an unusually high-bulk, low-value good, which required a huge workforce to move before mechanisation was fully introduced. Other goods were also moved by hand but the density of coal required a workforce of a different scale entirely. In half a century up to 1630, and into the second half of the seventeenth century as well, Newcastle's population and workforce was completely transformed the requirements of transporting coal and the money to be made by doing so.

Between the coal transport population itself and provisioning for the multiplying inhabitants of Newcastle and its hinterland, the economy was transformed by the middle of the seventeenth century. Its guilds were still large and they retained an important role in the social as well as economic character of the town, but it is clear that an increasing proportion of the town's workers had little involvement with them, except as employees. Perhaps as many as two-thirds of the town's fathers were wage labourers of some form by the end of

Table 4.5 – Comparison between Newcastle and Liverpool

| | | Newcastle, 1701-5 | Liverpool, 1745 |
		%	%
	extractive	3.4	1.1
	agriculture	0.1	
manufacturing	wood	2.7	12.2
	building	6.3	5.4
	metal	3.7	2.9
	food	8.0	5.6
	textiles	7.8	13.2
	leather	5.5	0.6
	shipbuilding	4.2	5.9
	miscellaneous	2.3	
	total	*40.5*	*45.8*
transport	coal transport	28.8	
	non-coal	7.8	22.3
	total	*36.6*	*22.3*
	manual labour	6.2	
	coal merchant	1.8	
	merchant	2.1	
	professional/education	2.3	5.7
	retail	0.9	
	govt/administration	0.9	
	service	1.1	11.9
	status	3.6	0.7

Sources: PRD ASBapt and Lewis, 'Liverpool', pp. 59-61, table 3.2. Note: fathers whose occupation could not be recovered are excluded.

the century: Newcastle, in the process of precocious industrialisation, brought about by the demand for coal, had become a majority proletarian town. These workers were not necessarily poorer than their predecessors or peers, as Chapter 6 demonstrates, but they did have to adopt different strategies for survival; work was, of course, at the heart of this. Thanks to its chief export, Newcastle was on the way to becoming a truly industrial town.

Worked to death: occupations and the life cycle

Analysis of broad structural changes in the economy has thus far assumed that a man's working life can simply be reduced to a single-word tag. This is problematic for a number of reasons. First, it underestimates occupations that were under-represented amongst the fathers. Second, it oversimplifies the work of wage-labourers in a world where, as Keith Wrightson puts it, 'multiple occupations, or engagement in a series of occupations successively, was a commonplace experience, indeed a necessary expedient'.[57] Just as

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[57] Wrightson, *Earthly Necessities*, pp. 308-17.

problematically, many occupations must have had a life-cycle dimension: heavy lifting (particularly for the keelmen) is assumed to have made their occupation 'age-specific'.[58] Whilst it is difficult to reconstruct the impact of retirement or multiple occupations in a town with the population turnover of Newcastle, a small-scale reconstruction of individual lives here shows that the patterns of work over the life cycle defy easy categorisation.

This section uses the parish register database to see how fathers changed occupation as they baptised their children over their lifetime. The 28,000 baptisms in All Saints have been whittled down to about 10,000 father identifiers through linking their names, a necessary process towards the hearth tax analysis presented in Chapter 6, where the theoretical and practical implications are considered in detail. One key limitation is that baptisms that shared the same father's name have commonly been linked with the help of the occupation; where the fathers have proved impossible to disaggregate, they have all been entered separately. This will have caused an overestimate of the number of fathers, and an underestimate of the scale of mobility between occupations. While the commonality of many of Newcastle's names makes any analysis of this sort tentative, it is clear that there was considerable occupational mobility amongst labourers and coal transport workers, which included mobility into a wide range of other trades.

Despite the fact that historians have painted the keelmen as a 'race apart' that only ever worked on the water, the registers reveal that in fact Newcastle's coal transport workers were frequently flexible in terms of the occupations they took.[59] This places them in the same bracket as labourers in other towns, but different from the Whickham coal miners studied by Levine and Wrightson.[60] Newcastle's urban economy set it apart in the region as a place with a broader and more flexible labour market, in common with other northern towns. Donald Woodward notes that building craftsmen frequently required the input of 'brute force'. Each role would have a different title ('barrowman', 'bricky's labourer', or 'free labourer') but none of the roles required any particular skill or training. Indeed, York's council resorted to forcing labourers working at the staithes to purchase their own distinctive clothing, in the shape of 'a harden shirt with sleeves, and the porters likewise harden shirts with hoods' to limit worker turnover and protect their monopoly.[61] Jeremy

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[58] Ellis, 'dynamic society', p. 210.
[59] Fewster, *Keelmen*, pp. 3-5. The picture in Ellis, 'dynamic society', pp. 209-12 is more subtly drawn, although this impression still stands.
[60] Levine and Wrightson, *Whickham*, pp. 227-30.
[61] Woodward, *Men at Work*, pp. 94-5.

Boulton identified a pattern of changing occupations for twenty individuals in Southwark, which included Henry Stanfield as 'labourer, tapster and plasterer'.[62]

Whether Newcastle's fathers sustained more than one occupational identity at any one time could be open to question, but it is clear that such multiple identities were not recognised by the parish authorities in All Saints'. Few individual records explicitly referenced more than one occupation for a father on the same baptism. In an exceptional case, William Dixon baptised his daughter Jane in June 1695, and was described in the register as 'waterman & glassman', having apparently baptised four previous children in the parish.[63] In all other cases, he was described merely as 'waterman'. This suggests that he worked an unskilled task at the glasshouses while also continuing his role on the water: perhaps he transported glass for the glasshouses, or worked on the keels in the summer and glass in the winter.[64] He would not have been alone: John Glen and a handful of others mixed occupations in the glassworks with working on the water. Many occupations could coexist with 'labour' or a role in transport in a working lifetime. Richard Readhead was recorded on separate occasions between 1602 and 1620 as a carpenter, shipwright and mariner. Cuthbert Grocer, in spite of his surname, baptised five children in the 1660s and 70s as a mariner and one as a brickmaker. William Carnaby was recorded on separate occasions as a shipwright, labourer and a mason; Thomas Thackeray was recorded in the 1670s four times as being a shipwright, with an interval where he was recorded twice as a mariner. William Palmer at the beginning of the 1602s was recorded separately as a mariner and a shipwright and Robert Davison was recorded separately as a labourer, shovelman, joiner and keelman.[65] Although the recording of two occupations at the same time was rare, more than one over a lifetime was more common amongst labourers and watermen. Merchants and very high status professionals seldom had any other recorded occupation. The single exception was Edward Punshon, recorded as a tanner at the baptism of his first child in 1689, as a fitter in 1690, and then a hostman in 1692 and 1694 – seemingly a rare ascendancy to Newcastle's hostmen élite from the ranks of ordinary tradesmen.[66] It was most common that 'labourer', 'waterman' or 'keelman' was combined with another manual trade. Of those fathers with three or more baptisms to their name whose *most common* occupation was either a waterman or labourer (coded 2201 or 2301) – 1410 men in all – 104, or 7.4 per cent, also held a manufacturing occupation (coded 2000-2192) at some point

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[62] Boulton, *Neigbourhood*, p. 73.
[63] PRD/Fathers/dixon.wm.18.
[64] See Chapter 8 for the seasonality of work.
[65] PRD/Fathers/glen.john, readhead.rich, grocer.cuth, carnaby.wm, thackery.tho.1, palmer.wm, davison.rob.1.
[66] PRD/Fathers/punshon.edw. Social exclusivity is examined in Chapter 6.

in their fertile lives, and a further 5 men held extractive occupations as pitmen or quarrymen. The methodology used here makes it difficult to be more precise, but it is clear that there was little pattern in the types of trades that frequently mixed with manual labour.[67] The other recorded occupations for these mixed-occupation fathers included bakers, housewrights, shipwrights, cordwainers, tanners, tailors and barber surgeons, amongst many others. There were both indoor and outdoor trades, 'dirty' and 'clean'; manual labourers were required to manufacture food as well as to carry bricks.[68] Switching occupations within a lifetime was not a universal experience, but nor was it entirely uncommon.

Despite this persistent level of occupational instability, particularly amongst labourers and keelmen, the burial register indicates that the majority of Newcastle men in fact retained their lifetime occupational identity through to the grave. Undoubtedly, old age severely limited the amount of work that men could actually perform, even in ostensibly 'easier' occupations. A capper in medieval Coventry could expect his career to be over by the age of 50, and Adam Smith remarked of London carpenters that they could only manage eight years of 'utmost vigour'.[69] Yet Newcastle's craftsmen typically held on to their craft affiliations at burial, whether they still practised their trade or not, and indeed the guilds themselves were heavily involved in the organisation and regulation of their members funerals well into the eighteenth century.[70] Nicholas Brown could have still been working when he died in 1677, at the age of 55, only three years after baptising his son John: that he was still described as a 'cooper' at his burial is probably an accurate description of his occupation when he died. This seems less likely in the case of George Cram, who was described as a 'mason' on his burial entry in 1695, when he died at the age of 62 after baptising seven children between 1663 and 1676, and even less likely for Thomas Peacock, who recorded as 'shipwright' at his burial in 1695, at the age of 72, and having baptised his last child 24 years before. The same was true for three coopers in this sample, along with six bakers, brewers and butchers; five tailors and weavers; and ten miscellaneous others, with two exceptions.[71] As members of Newcastle's handicraft guilds grew older, they generally retained their title, even if they were probably no longer working.

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[67] See PRD Qfathers_modeocc. Note that the crude methodology in doing this (finding the minimum and mode occupational codes, and selecting those with a mode of 2201 or 2301 and a minimum of below 2201) means that some of these men had more than one 'manufacturing' occupation. It would therefore be inaccurate to draw firm conclusions from these data about the most common jobs.

[68] Two men that were watermen and food producers were PRD/Father/mitchelson.wm, bone.geo.1.

[69] Boulton, *Neighbourhood*, p. 155.

[70] King, 'Sociability', pp. 57-71.

[71] PRD/LifeCyc

The exception is again provided by the coal transport workers, who were considerably less likely to retain the same occupational identity to their burial. They probably could sustain work for less time even than a London carpenter: there can be no suggestion that shifting coal on the Newcastle Quayside was a job for old men. It was supremely physical, requiring, in the words of a nineteenth-century commentator, 'a combination of nervous and muscular strength not to be found in any other class of men'.[72] Coal was driven in waggons to the wooden staithes at the Quayside, or commonly on the south banks of the River Tyne at Team or Dunston, from where Newcastle's keelmen would load their keels by hand, shovelling upwards of 20 tons of coal between three men and a boy.[73] The steep banks and heavy loads were still evident even as staithes became more worker-friendly in the mid-eighteenth century (Figure 4.9). The keel itself was normally roughly oval in shape, around 42 feet long and 19 feet wide, with a large open hold and very little deck space, so 'something akin to sea-legs' was required to remain on the boat in rough seas.[74] It is unsurprising, therefore, that nearly half of the 24 keelmen fathers whose burials could be identified had apparently switched occupation by the time they died. Of these men, three had become yeomen, something that is difficult to interpret because of the imprecise nature of the term, and another had apparently become a 'translator', a term usually used by shoe repairers. More significantly, six men who were listed as watermen at the baptism of their children were described as labourers when they were buried, which apparently indicates a shift to other wage labour work in later life. The poor survival of keelman inventories and non-survival of poor relief records makes knowledge of these men's living conditions in retirement necessarily fragmentary.[75] The burial register did occasionally list 'poor', 'alms' or 'unpd' next to some of the names, indicating if they were too poor for their family or executor to pay burial fees. Most of these 130 men were just listed as poor, but nine were also described as watermen, another nine as yeomen, and seven as labourers, along with a single haberdasher, a single housewright and a handful of other individuals. Keelmen and watermen were relatively less likely to die retaining the same occupational identity they had had during their fertile life.

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[72] Baillie, *Impartial*, p. 142.

[73] Levine and Wrightson*, Whickham*, p. 212.

[74] Fewster, *Keelmen*, p. 2.

[75] Those inventories that survive indicate a mix of poverty for some and relative comfort for others. See Chapters 6 and 8.

Figure 4.9 – A sophisticated staithe with a waggonway and a keel, mid-18th century.

Source: Drawing by John Gibson on 'Plan of the collieries on the rivers Tyne and Wear…' (1788), DUL NSR Planfile C 22/5.

The burials also capture a number of men who died early, including unmarried men who would not normally feature on the baptism register. Nearly all adult men were recorded under their own occupation or status. The burials are a very useful supplement to the baptisms, although they seldom record the age of those buried, which makes it difficult to discriminate between people who died of old age and those who died earlier of accident or disease. As a result, jobs which we might expect to have the highest mortality rates do not feature as prominently in the burial records as those which drew older men. Also more common in burials were status descriptions like 'yeoman' and 'gentleman' used by men who no longer worked, or whose work was no longer the formative part of their identity. Thus the guild-regulated trades, which as we have seen took an active role in members' funerals, remained well represented.

Working on the water as a waterman, mariner or keelman extracted a death toll that was probably higher than other occupations. Storms could be lethal, and keelmen were particularly hesitant to work near the mouth of the River Tyne, where their small boats were frequently swept out to sea. Death was never far away for keelmen, and it worked into their musical culture, with continuous reference to wives' concern for the husbands' safety. In one example, from the eighteenth century, a 'lass' cheerfully enquires about her 'bonny lad', only to be met with a macabre response:

> Yes, I've seen your bonny lad,
> 'Twas on the sea I spied him,
> His grave is green, but not wi' grass,
> And thou'lt never lie aside him.[76]

It would be impossible to be certain of the numbers of keelmen who died but we can compare the baptism and burial registers. In all, 227 men are recorded as 'drowned' in the

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[76] W.G. Whittaker, *North Countrie Ballads, Songs and Pipe Tunes* (London, 1921).

burial register, of which 35 were identified as mariners, 34 as keelmen, and 13 as labourers; the rest were given no occupational tag. How many of the watermen and mariners recorded on the burial register were killed in the line of work is uncertain, but it was probably many more than those explicitly recorded as drowned. As Figure 4.10 demonstrates, coal transport workers were in fact significantly under-recorded in burials in comparison to the baptism of children, a phenomenon that was echoed in Liverpool amongst the community of sailors.[77] It is difficult to explain. Certainly, a number of mariners were lost without trace at sea, and therefore would remain unrecorded, but this would surely have been rarer amongst keelmen, who remained for the most part within the limits of the River Tyne. Probably the causes of this under-recording were more social and demographic: as we have seen, a larger proportion of mariners and watermen were originally Scottish – and therefore more likely to have been non-conformist Presbyterians. Perhaps, then, they would be less likely to be buried in All Saints' churchyard itself, but instead somewhere outside the town, or indeed for their corpses to be trans-shipped back to Scotland.[78] Evidence for this can probably never be fully discovered, so it remains merely suggestive.

The three areas which were over-represented in burials compared with baptisms were household service, general status terms, and manual labour. The general 'service' group in All Saints' burial record probably also included deceased apprentices: 'John Smith's man' would be classified as a 'servant' but if Smith were a carpenter, the 'man' could in fact have been an apprentice. The over-representation of this combined group can be explained in terms of the life cycle: male household servants and apprentices would usually be young and unmarried, and therefore unlikely to have baptised children. Similarly, status terms like 'gentleman' and 'yeoman' were used more frequently in cases of men who no longer worked when they died. The over-representation of labourers was probably caused by a combination of both explanations. A few of the men included above in the reconstitution exercise moved on from other occupations (including blacksmiths and watermen) at the time of the baptisms of their children to be labourers at burial. Many needed the money that casual labour afforded to supplement an insufficient parish pension. Despite their reduced physical power and productivity, older labourers were sometimes kept on at lower pay: the Newcastle Corporation paid a gang of 'old labourers' 2d per ton to shift ballast away from the south shore of the Tyne in the years around 1600.[79] Many of the labourers buried were

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[77] Lewis, 'Liverpool', p. 57.

[78] Cf. Jeremy Boulton, 'Traffic in corpses: interment, burial fees and vital registration in Georgian London', unpublished working paper (2010).

[79] TWA 543/19; Woodward, *Men at Work*, p. 94.

Figure 4.10 – Comparison between fathers on baptism register and adult men buried, All Saints, 1600-1700
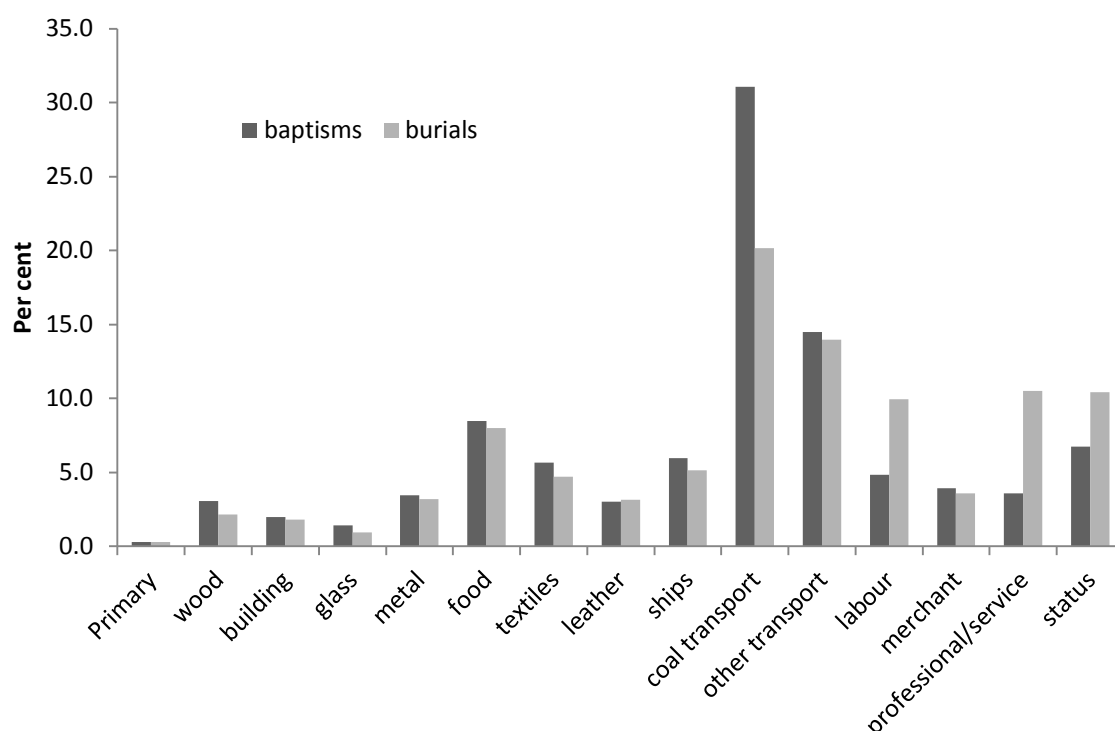
Source: PRD/ASBapt, ASBur

younger men who were unsettled and therefore particularly vulnerable to the tough working conditions and relatively insanitary conditions in Newcastle's northern and eastern suburbs. They were unmarried because they could not afford to support a family, and they were unrecorded in other documents because they were rarely household heads and they were of little interest to civil administrators except as the potential cause of unrest.

If occupational change in a lifetime was not highly unusual, then equally occupational change between generations was common but not universal. Again, the overlap between common first and surnames in the registers makes this difficult to analyse with certainty. The Blakelock brothers, who had a relatively rare surname and both seem to have been married in their early twenties, offer an unusual case study. Thomas, the eldest, was born in 1643, the third Thomas to be baptised to Christopher Blakelock, a skipper from Sandgate (the first two died in infancy).[80] Thomas was presumably married in his early twenties and baptised his first child at the age of 25, when he was recorded as a 'cordwainer' in the register. He then baptised a further son and two daughters in the 1670s and each time was recorded as 'waterman'. Christopher's second son Richard followed a similar route, baptising his first child at the age of 23, recorded as 'tailor', and then six further children as 'waterman' and one as 'skipper'. In the absence of probate records it is difficult to shed any

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[80] PRD/Fathers/blacklock.chr, blacklock.tho, blacklock.rich.

further light on this career progression: neither was granted freedom in their first occupation and it was strongly against the regulations of Newcastle's guilds for apprentices to marry.[81] More likely, they were labouring at an unskilled level for Newcastle craftsmen before turning to the River Tyne when the coal trade picked up again in the 1660s.

The movement between occupations can be an important indicator of social mobility: most studies have relied on a single movement between discrete groups, frequently between a father's occupational status and his son's, or in 'marrying up' or 'marrying down' into groups of higher or lower status.[82] Such discrete groups have the advantage of being statistically testable, allowing linear regression to determine which factors were most closely related to the existence or absence of 'mobility'.[83] Unfortunately, they tend to distort the reality of social mobility, which was a continuous process in early modern towns. Sons might obtain a 'higher status' apprenticeship than their fathers' occupations but their own socio-economic status might vary throughout their lives, in a predictable way according the life cycle stages, or in an unpredictable way, according to fortune and talent.[84] The parish registers allow us to trace occupations across the life cycle – between child-bearing and burial of an individual father – and between father and son, although the limitations of nominal linkage are even more acute when the records are further apart in time. In a random sample of 200 fathers who baptised children in the 1660s, 70 men could be matched to their own burial, and only 35 could be matched back to their own baptism.[85] The sample is therefore not representative, since it is by definition only the relatively stable individuals who could possibly be linked like this.

Despite these limitations, a few observations can be drawn from the men who could be linked to their fathers. The first is rational in the context of the structural occupational changes outlined in this chapter: men working in the 1670s were more likely to be keelmen than their fathers. All eleven men in this sample whose fathers had been keelmen became keelmen themselves (except four who were described as 'yeomen' when their children were baptised). Likewise, Leonard Brown, the son of a brewer, became a waterman, as did William Gardener, the son of a skinner and glover, and Henry Lee, the son of a slater. It is clear that the booming Newcastle coal transport industry was absorbing the surplus labour of its own population, as well as bringing in migrants. Shipbuilding, another growing

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[81] Dodds, 'Register'.
[82] See e.g. Brooks, 'Apprenticeship'; V.B. Elliott, 'Single Women in the London marriage market: age, status, and mobility, 1598-1619' in R.B. Outhwaite (ed.), *Marriage and Society. Studies in the Social History of Marriage* (London, 1981), pp. 81-100.
[83] A technique used in Minns and Wallis, 'Rules and Reality', pp. 556–579.
[84] Boulton, *Neighbourhood*, p. 155.
[85] PRD/LifeCyc

industry, offered similar opportunities. Both John Beckworth and Thomas Peacock were sons of mariners, and John Saburn was the son of a general labourer, but all were shipwrights by the 1670s. Intergenerational change in occupations in this sample was, most common towards coal transport trades, but also to mariners and shipwrights.

Aside from movement into the growing water trades, sons commonly worked in the same occupation as their fathers. Brooks's analysis of apprenticeship records demonstrates that fathers frequently bound their own sons as apprentices or those of fellow members of their guild.[86] Further ties were operative between occupations working on the same materials, and therefore in the same broad categories in the tables presented here. George Cram's father Andrew was a quarryman, but George became a mason; the father of William Pearson, a currier, had been a cordwainer. A handful of other individuals moved to very different areas from their fathers, such as Ralph Rogerson, who became a baker and brewer when his father had been a wherryman, or Bartholomew Parkin, who became a tailor when his father had been a 'wright'. It would be hazardous to generalise these conclusions but it is clear that Newcastle sons were not necessarily tied into their father's line of work.[87] They were *slightly* more likely to become a keelman or a shipwright than their father had been; but they were perhaps even more likely to move within their fathers' guild or into related lines of work. Others evidently found whatever work they could.

In all, there were three important and relatively widespread changes to occupational identity in Newcastle over the life cycle. Occupational change between the baptisms of a particular father's children was fairly common but not universal. Labourers and watermen, in particular, were more likely to change their work at some point, and nearly one in ten keelmen did. This was because of the relative uncertainty of their work and, more positively, the easy transferability of the skills and physical attributes they possessed. It was this group that were also much more likely to have changed occupational identity between the baptism of their children and their own burial. Again, the lack of guild-reinforced identity, as well as guild-supported pensions and relief, meant they were more easily described in a different group, or as a yeoman, when their burial was recorded – and as Chapter 6 will argue, it might also have been a 'status inflation' to be described as a yeoman rather than a labourer. At the same time, thanks to the growing numbers of watermen in Newcastle, the sons of fathers from other trades were also more likely to have become watermen than to have joined other trades. The nature of the work and the transformation of

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[86] Brooks, 'Apprenticeship', pp. 52-83.
[87] See also Leunig, Minns, and Wallis, 'Networks', pp. 413-43.

Newcastle's economy over the seventeenth century towards the specialism in coal transport were both vital in the way in which the men of All Saints' earned their living across their lifespan. Those who belonged to the traditional guild-based manufactures were more likely to retain their occupational identity than those working in the new sectors; conversely, the growing areas of coal transport, shipping and shipbuilding at could employ the sons of these men. As Chapter 6 will argue further, we should not overstate the extent of segregation brought about by industrialisation in seventeenth-century Newcastle.

Servants, spinsters and widows

The use of burial registers to illuminate the life cycle introduces a further crucial but neglected category, that of single women, servants, and working widows.[88] More than simply marginalised by their marital status or overshadowed by their husbands, women's work was wilfully ignored in the parish registers and municipal documents. A woman whose husband had been dead for many years would still normally be referred to as 'widow' even, as in some of the examples here, when they were involved in commerce in their own right. When women baptised illegitimate babies, the register might record the father's occupation – if he was identified at all – but the clerk showed no interest in the mother's. The Council's accounts record a payment of 2s 10d in 1594 'to a woman sargint in parte payment…for heling…Anne Grensworlle of a disease'; this surgeon, unlike so many men recorded in the accounts, remains anonymous.[89] The cultural construction of societal order required that the patriarchal structure of households was maintained at each level of government: the state, the borough, the guild, the household. Work was conceived in towns as a male-controlled domain, regulated by the men in the Corporation, and if possible reserved for the men of the guilds. Women infrequently achieved membership of the freedom of any town and they were able to trade only under what were presented as privileged circumstances, frequently as the widow of a tradesman, as a domestic servant within the patriarchal household of one of the town's tradesmen, or, rarely, on payment of a special fee.[90]

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[88] Working wives and children are considered in Chapter 7.
[89] 'Accounts', p. 34.
[90] Bridget Hill, *Women Alone: Spinsters in England* (New Haven, 2001), p. 2-8; Amy M. Froide, *Never Married: Singlewomen in Early Modern England* (Oxford, 2005), pp. 2-12.

Table 4.6 – Occupation or status of women in All Saints' burials

	freq	%
'wife of'	3069	54
widow	1470	26
none recorded	658	12
spinster	298	5
servant	134	2
singlewoman	39	1
Mrs [see note]	4	0
occupation	4	0
total	5676	100

Source: PRD/ASBur. Note: 54 women in total were given the title 'Mrs'. Of these, 48 were associated with their husband or explicitly labelled as 'widow', and these women have been allocated into those categories.

Despite this bias, single women were an essential component of the economies of early modern towns. As shown in the previous chapter, population growth was driven in many towns by the inward migration of women for domestic service, which resulted in skewed sex ratios.[91] Using the Marriage Duty of 1696, Amy Froide calculates that more than half of adult women in Southampton, including widows, were single.[92] Newcastle was different from many other towns, though: the sex ratios at burial ranged from strongly male to roughly the natural rate, so these proportions would be lower. In the absence of a true census, burials give in imprecise indication for All Saints'. The proportion of women who were buried having never married (at least according to their descriptions on the register) was approximately unchanging, at between 10 and 20 per cent across the century (see Table 4.7). In total, 5676 'adult' women (not recorded specifically as children) were buried at All Saints' (see Table 4.6). Of these, more than half were recorded in the register under their husband's name and occupation, even if he was already deceased (as in 262 cases). A further quarter were widows with no husband listed; 6 per cent were spinsters or singlewomen. A comparison with national figures calculated by Wrigley and Schofield, which suggest that somewhere between 13 and 27 per cent of men and women remained single throughout their lives, suggests that Newcastle had relatively few women who did so.[93] This distribution bears the same biases as the male burials: it will overestimate the number of older people (widows) and underestimate the number of young people (in this

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[91] See Chapter 3.
[92] Amy M. Froide, 'Hidden Women: Rediscovering the Singlewomen of Early Modern England', *LPS*, 68 (2002), pp. 35-6; Froide, *Never Married*, pp. 2-3.
[93] Wrigley and Schofield, *Population History*, p. 257; David Weir, 'Rather Never than Late: celibacy and age at marriage in English cohort fertility', *Journal of Family History*, Vol. 9 (1984), pp. 340-54.

Table 4.7 – Married and never-married proportions among buried women

decade	married/widow		never married	
	freq	%	freq	%
1601-10	290	81	70	19
1611-20	413	85	74	15
1621-30	540	86	89	14
1631-40	434	89	55	11
1641-50	383	87	57	13
1651-60	545	80	137	20
1661-70	526	94	36	6
1671-80	510	82	110	18
1681-90	568	86	91	14
1691-1700	664	89	86	11
1601-1700	4870	86	802	14

Source: PRD/ASBur. Note: these figures assume that half of the women for whom no occupation or status was recorded were married and half were never married.

case, servants and some spinsters); a number of girls recorded as 'daughter of' could have, in fact, been economically active adults.[94]

Servants made up by far the biggest occupational group of unmarried female burials in All Saints' – more than 2 per cent of all female burials and more than 16 per cent of those that had never married. This is an underestimate of the real proportions of servants working in the economy, because younger servants, who made up the vast majority, would have been less likely to die. Like apprenticeship, service marked a stage in the teenage years and early twenties of many lives, between leaving home and setting up a new household. Service also furnished the servants with important skills that went beyond domestic tasks. That servants did not just cook and clean (as they would in the nineteenth century) is implied by the gender differential, according to the occupations of masters. For instance, while bakers, brewers and butchers had a roughly equal gender balance of servants, millers had exclusively boys and men (see Table 4.8). The first group would have performed a variety of tasks related to the household, the preparation of food and similar work, but the latter were required to do the manual work of driving mill horses and working heavy millstone machinery.[95] Similarly, shipbuilders and smiths took overwhelmingly men and boys, while gentlemen, women and widows (status) employed mostly females: the tasks that they required would more likely be based in the household. Although the burials offer no secure basis on which to reliably estimate servant numbers, it is clear that they represented a large

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[94] Froide, 'Hidden', p. 34.
[95] For milling in Newcastle: Heley, *Material Culture*, pp. 54-5.

Table 4.8 – The proportion of male and female servants, All Saints' burials

occupation of master/mistress	female		male		total
	freq.	%	freq.	%	
transport	5	14	31	86	36
food production	10	48	11	52	21
shipbuilding	2	10	18	90	20
status	12	80	3	20	15
leatherwork	5	36	9	64	14
merchant	5	56	4	44	9
food ingredients			5	100	5
smith			5	100	5
textile	2	40	3	60	5
coal transport	3	60	2	40	5
carpentry	1	33	2	67	3
tailor	1	33	2	67	3
military	1	33	2	67	3
retail	1	50	1	50	2
customs			2	100	2
building	1	100			1
cooper			1	100	1
glass	1	100			1
goldsmith			1	100	1
medical			1	100	1
metalwork			1	100	1
law			1	100	1
administrative			1	100	1
none recorded	85	62	52	38	137
totals	**135**	**39**	**208**	**61**	**343**

Source: PRD/ASBur

proportion of single female workers in Newcastle across the century, and worked in a wide variety of households in the city.

'Spinster' is more difficult to interpret, with a variety of interlinked and socially and economically contextual meanings.[96] A spinster could literally be a spinner of yarn, particularly in the climate of quickly expanding demand and supply that was engaging a growing proportion of the population across the seventeenth century.[97] Chapter 7 will consider in more detail the role of spinning in Newcastle's households as a supplement to income, but it was also possible for some single women, in some parts of the country, to entirely make their living from it. In rural Colyton in Devon, Pam Sharpe attributes a rise in the average age of women at marriage directly to the success of the woollen yarn industry,

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[96] See Amy Louise Erickson, 'Marital status and economic activity: interpreting spinsters, wives, and widows in pre-census population listings', Cambridge Working Papers in Economic and Social History, no. 7 (2012), http://www.econsoc.hist.cam.ac.uk/working_papers.html

[97] Craig Muldrew, '"Th'ancient Distaff" and "Whirling Spindle": measuring the contribution of spinning to household earnings and the national economy in England, 1550-1770', *EcHR*, 65, 2 (2012), pp. 498-526. See below, pp. 223*ff*.

and the ability of women to be self-supporting on the profits of their spinning: these women, she says, were 'literally spinsters, in the old double meaning of the word'.[98] This seems unlikely in Newcastle, where spinning wheels were relatively rare in inventories for any households (though the numbers were climbing slowly across the seventeenth century); likewise, none of the seven spinsters from Durham and Northumberland in Judith Welford's sample possessed a spinning wheel.[99] It is unlikely that Newcastle spinsters were literally just that.

Unfortunately only a few single women were given a specific description other than 'servant' or 'spinster', and two of the three worked in notably 'feminine' occupations. The exception was Margaret Sheavill, who died in 1693, was recorded as 'smoke seller', and was one amongst only three people in All Saints' recorded specifically as selling the drug, although other merchants had it amongst their wares.[100] Catherine Wilkinson was a midwife and Margaret Hogg was a huckster, a term that applied to small-scale hawkers of goods.[101] Unfortunately, it has not been possible to add detail to any of these women from other town records (although Catherine Wilkinson could have been one of three 'Widow Wilkinson's on the Hearth Tax) so they sit as merely isolated instances of the recording of female occupations. Perhaps they were particularly well known for their jobs – a midwife was, of course, a life-saving occupation, and a tobacconist was quite unusual – but the difference between these women, whose occupations were recorded, and the hundreds of women, widows and spinsters who were not, remains obscure.

A few more examples indicate that it was possible – even respectable – for a singlewoman to run a shop in Newcastle. In 1647, five of the owners of 'houses in the Fleshmarkett' (in the centre of town near St Nicholas' Church), were fined for 'setting out of stalls upon the Markett daies before their respective fronts whereby they violate & infringe the just rights & privileges of this Towne'. They were presented to the Common Council and warned that, if they offended again, an officer of the town 'shall have the power to remove & cast downe all such stalls' and that reoffenders would be severely punished.[102] It seems the Council only enforced this selectively or occasionally, but it is significant that two of the five people presented were women. One of the women, Alice Parker, was a thirty-year-old spinster in 1647, clearly living on the fleshmarket, although

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[98] Pamela Sharpe, 'Literally Spinsters: A new interpretation of local economy and demography in Colyton in the seventeenth and eighteenth centuries', *EcHR*, Vol. 44 (1991), p. 63.
[99] Chapter 7; Welford, 'Functional Goods', p. 274.
[100] PRD/ASBur/9374; /Fathers/spencer.steph, madeley.ralph; DPRI/1/1666/S7/1
[101] PRD/ASBur/18175, 23450.
[102] *CCM*, pp. 88-9.

unfortunately there is no more record of her in the town.[103] Amy Froide likewise found isolated examples of single shopkeepers in Southampton in the seventeenth century and we can perhaps take the general absence of evidence in Newcastle to indicate it was also quite rare.[104]

It was more common for widows to run shops and sell merchandise. In some cases they were continuing their husbands' businesses. The other woman presented in 1647 was a widow, Mrs Barbara Shafto, presumably the same Mrs Shafto who was paid 44s twelve years later for 'sack and wyne delivered by her when the aldermen went to visit Generall Muncke'.[105] She was one of at least three widows who seem to have maintained a substantial business selling food: the Common Council recorded the renewal of a lease in 1654 for 'Dorathy Wood…widdow of that Shop wherein she now Trades beinge upon the end of Tyne bridge'. At the cost of £8 per year, this was clearly a fairly wealthy shop, and Wood was recorded after her death in 1670 with more than £633 recorded to her inventory, although there is no mention of debt.[106] These widow-shopkeepers were notably wealthy, another common feature with eighteenth-century singlewomen shopkeepers, at least in Southampton.[107] The vast majority of Newcastle's population could not have afforded an £8-a-year rent, not to mention the other costs involved in running a shop, but some poorer widows took on their husband's labouring work after his death. Elizabeth Dawson, the widow of Robert who was sexton of St Mary's Church in Hull seems to have taken over his job when he died in 1696 and she was paid £2 a year for the job, being described as Dawson 'who officiates sexton with the help of her son'.[108] At 9d a week, slightly less than the average man would have been paid, and perhaps with a child still to support, this was scarcely princely living, but it was at least a steady wage.

Widows who could not work, particularly the old and infirm, relied on the charity of the town and the guilds. Widowhood prompted the greatest frequency of personal economic crises in early modern people. In a large combined sample of petitions to magistrates, Steve Hindle and Brodie Waddell found that two in five petitions for poor relief pleaded on the basis of old age – a large family size and disability came second and third.[109] Petitions stressed a hard working past: 'a distressed and destitute Widdow…having formerly lived

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[103] PRD/ASBur/17697, /ASBapt/2527. There is a 'Widow Parker' recorded with 3 hearths in Pilgrim Street ward: /HTax_all/1014.
[104] Froide, *Never Married*, pp. 94-6.
[105] Richardson, *Reprints*, p. 56.
[106] PRD/Probate/1647. It is unclear whether she is any of the three 'Widow' or 'Mrs' Woods on the Hearth Tax return – none match this address.
[107] In Southampton, for instance, women paid higher entry fines than men: Froide, *Never Married*, p. 102.
[108] Woodward, *Men at Work*, p. 112.
[109] Waddell, *God, Duty*, p. 129; Hindle, *On the Parish?*, p. 164.

well By hard Labour and Industry, but now by reason of Age & infirmities…'.[110] In Newcastle, guilds looked after the widows of their members: when the Cordwainers' and Tailors' Companies vacated their halls in Newcastle's Blackfriars – where they had been situated since its dissolution – they turned them into widows' apartments. There was also another hospital for poor widows of clergy and merchants.[111] Likewise, from 1699 the keelmen made specific provision 'for the reliefe of themselves, their widows and children' by paying into a charitable fund which support the Keelman's hospital, built two years later.[112] The town's Corporation and charitable donors also frequently stepped in. The Holy Jesus Hospital – the 'Town's Hospital in the Manours' – was chartered in the 1680s to look after 39 poor freemen, or freemen's widows.[113] Forty years earlier the 'poore widowes in Puddinge Chaire Almeshouse' had their former allowance of money and coal restored by the Corporation; there is no indication why it had been stopped.[114]

It was a moral imperative to take care of elderly widows, but some still had little or no access to relief. For poorer widows, the plague offered an unusual opportunity to earn their living as 'keepers' of the sick and dying. Amongst these women, Ann Pullame was a 60-year-old Scottish immigrant who had lived in Newcastle for eighteen years; Barbara Hall was a widow of only 35, and 'her husband is lately dead and left her in debt but howe much she knoweth not'.[115] Keepers were not merely employed in the year of the plague, though more were required then than at any other time. When, in 1671, Richard Tempest was encouraged by his surgeon to settle his estate and 'remember his friends', it was witnessed by Christobell Woodmas, a widow, 'who were also employed to keep him in his sayd sicknesse'. In effect she was paid to care for him in replacement of absent kin. In answer, he said he had no family and 'As for my freinds, I have none that ever I was the better by save Mr Carr and his wife'.[116] He was, we can presume, a fairly young merchant, probably lodging with Mr Carr and otherwise alone in the city, and he had fallen ill quickly.[117] Precisely what Woodmas did to support Tempest in his illness is not clear, although Keith Wrightson records the details of an earlier case where Margaret Hyndmers risked both physical injury and illness to reach the merchant John Stobbs in his sickness. On arriving at his house she knocked but he called from his chamber window and 'willed her to goe to a

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[110] West Yorkshire Quarter Sessions, 1705, quoted in Waddell, *God, Duty*, p. 129.
[111] Bourne, *History*, p. 21; Mackenzie, *Newcastle*, pp. 670-8.
[112] *Hostmen*, pp. 154-5. See below, Chapter 8.
[113] Bourne, *History*, p. 137; Mackenzie, *Newcastle*, pp. 528-31.
[114] *CCM*, p. 46.
[115] Wrightson, *Ralph Tailor*, pp. 102-3.
[116] DPRI/1/1671/T2/1-2.
[117] He was admitted to the freedom of Newcastle as a boothman three years earlier: Dodds, *Freemen*, p. 84.

smith and get his helpe to put her in att a window of the same house, which she did accordinglie'. When she had clambered through his window she 'helped him to his bedd for his legs failing him' and took care of him until he died the next Saturday morning.[118] The keepers earned modest sums for this perilous work, although pay was in line with female labourers in the city: Laverock's keeper earned eight shillings for sixteen days' work, around two-thirds of a male labourer's daily wage. Some women hired themselves out as keepers more than once, suggesting it was a welcome source of income.[119] All types of people needed nursing, and widows like Woodmas were willing to take the burden off the sick person's more distant kin.

At the shadier end of the economy was prostitution, which involved single women, married women and widows alike.[120] It undoubtedly would have been prevalent in a port such as Newcastle, but does not appear in any of the histories of the town. Nor is there yet a full history of prostitution in the early modern world.[121] Barring a full examination of quarter sessions and church court material for the town, which goes beyond the scope of this project, it would not be possible to quantify prostitution. Nonetheless, circumstantial evidence does suggest that soldiers and sailors visited prostitutes, such as (perhaps) Isobel Browne who baptised four children in quick succession between 1640 and 1644.[122] It is no coincidence that this was only months after the military build-up provoked by the First Bishops' War, which was followed by the first occupation of Newcastle.[123] No occupations are recorded for the fathers of four children, but one is recorded explicitly as Scottish and two of the other surnames were commonly Scottish (Gascoigne and Hadderick). One of the biggest spikes in illegitimate baptism registration was in 1641-2 and, although this reflects promiscuity and not necessarily prostitution, we can surmise that part of the cause of this was a sudden surge in the numbers of soldiers and sailors in the town. These were not the only clients; in fact they came from 'a cross-section of respectable occupations' including hatters, chandlers, victuallers, upholsterers, soldiers, carpenters, footmen, gentlemen and tourists'.[124]

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[118] Wrightson, *Ralph Tailor*, pp. 49, 102.
[119] Ibid., pp. 102-3.
[120] For evidence from the nineteenth century see Jonathan Mood, 'Employment, Politics and Working Class Women in North East England', unpublished PhD thesis (Durham, 2006), p. 25.
[121] For a medieval account see Ruth Karras, *Common Women: Prostitution and Sexuality in Medieval England* (Oxford, 1996).
[122] PRD/Qillegit
[123] Middleton, *Newcastle*, p. 59.
[124] Famerz Dhaboiwala, 'The pattern of sexual immorality in seventeenth- and eighteenth-century London', in Paul Griffiths and Mark Jenner (eds.), *Londinopolis: Essays in the Cultural and Social History of Early Modern London* (Manchester, 2000), p. 101.

Sometimes, prostitution was full-time work. In 1839, nearly all of Newcastle's prostitutes were classed as 'having no visible means of subsistence' inside the law.[125] A late seventeenth-century satirical ballad presented prostitution as just another form of work for Jenny to try out:

> Sweet fac'd Jenny receiv'd a Guinea,
>   but she lost her Maiden-head just at that time,
> […]
> Saying, Mother the Wanton I play'd,
> But for the same I have been well payd,
>   I had Gold and Treasure besides the Pleasure,
> 'Tis better for me than the Spinning-Trade.[126]

Despite this satirical spin, prostitution was usually a signal of desperation rather than a positive employment strategy. But we should take care not to condescend. Prostitution was never a socially acceptable professional, but it had a wide variety of forms, and seems sometimes to have been tolerated. Nor did not sit entirely outside the wider system of sexual morality; if women's customers were a cross-section of ordinary men, then their 'friends' – at least according to court testimony – were just as ordinary. Jonathan Mood observes that, in nineteenth-century Newcastle, prostitutes were not segregated by their neighbours, who were willing to stick up for them in court.[127] Similarly, in early modern London, 'bawdy houses' took on a number of forms within residential communities, including a private home or apartment (sometimes with the connivance of the landlord), a tavern or a brothel 'of greater or lesser sophistication and expense'.[128] Prostitution could also be used to promote other products being sold. In July 1664, Pepys was drawn into a bawdy house and complained that the 'wickedness of those houses' was in 'forcing a man to present expense', in other words to pay up front.[129] Jane White, a prostitute in another establishment, explained in court how clients 'used to sitt up and drink till late att night'; the owner received a fee 'for the use of the bed…besides the benefit of the liquer she sold'.[130] For a poor country spinner or a prosperous city madam, there was money to be made in exchanging sexual favours for economic advantage. As Dabhoiwala concluded for London, 'in short, women who engaged in prostitution were not, as a group, socially or economically

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[125] Mood, 'Employment', p. 108.
[126] 'The Country Lass,/Who left her Spinning-Wheel for a more pleasant Employment', *Pepys*, III, p. 290; <http://ebba.english.ucsb.edu/ballad/21305/>
[127] Mood, 'Employment', p. 119.
[128] Dabhoiwala, 'Pattern', p. 93;
[129] *Pepys's Diary*, 23 July 1664.
[130] Dabhoiwala, 'Pattern', p. 94.

distinct from respectable society'.[131] They might, like Jane White's keeper, have been a victualler who used sex as much to boost beer sales as an earner in its own right.

Single women, both widows and those who had never married, had to adopt a variety of strategies for work in seventeenth-century Newcastle. The fact that between 10 and 20 per cent of women in the town had never married when they died indicates that single women were a significant proportion of available workers, although not as high as in many other towns because of Newcastle's heavy industrial character. Despite the absence of quantifiable sources, it is clear that Newcastle's single women worked in some of the same occupations as those in Peter Earle's sample from London church court records in 1695-1725. More than 60 per cent of Earle's spinsters were servants, 15 per cent worked in making or mending clothes, and 6 per cent in shopkeeping; the rest were split between a handful of other occupations. For widows, the second most populated category was nursing.[132] These patterns were also present in Newcastle. The growing population that maintained the large male manufacturing and service sectors outlined above undoubtedly required clothing, and for those clothes to be laundered; it required feeding, although Chapter 7 will demonstrate that more food was probably prepared in Newcastle workers' homes than was the case in London; and individuals needed care in their sickness and old age. Single women, in particular spinsters, seem to have been separated to 'women's work': nursing, spinning, service. Those who moved outside prescribed areas often found themselves working against the economic regulations of the town – and they were presented in court for it.

Conclusion

Both the extent of female work and life-cycle variation in All Saints' are a pertinent reminder that the parish baptisms were not a complete record of everyone who lived and worked in seventeenth-century Newcastle. It is impossible to accurately gauge how many labourers and watermen never crossed the town's administrative or parochial records because their stay was too brief and they were neither fathers nor householders. But it is clear that the figures presented in this chapter will substantially underestimate the number of men working in coal transport and general labouring occupations. They will also underestimate the manufacturing trades, not least because they exclude women and children, apprentices and temporary journeymen employees of Newcastle's craftsmen, who were

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[131] Ibid., pp. 101, 94.

[132] Peter Earle, 'The Female Labour Market in London in the Late Seventeenth and Early Eighteenth Centuries', *EcHR*, Vol. 42 (1989), p. 339. See also Chapter 7 of this study.

neither fathers nor householders. The burials from All Saints' demonstrate that household service and apprenticeship was an important minority occupation, as it was in other towns. Like other occupations, however, it was eclipsed over the century by the specialised growth in coal transport and other related wage-labouring occupations. The general picture presented by parish registers is somewhat incomplete but it is much more complete, both socially and chronologically, than any other pre-Census statistical source on occupations – and they offer some clear conclusions.

The town boomed between 1600 and 1636 – in fact the boom started before 1600, but unfortunately the parish registers did not. This boom was driven by the east coast and metropolitan demand for Durham and Northumberland coal, and the growing population reflected that. Most arrived in Newcastle specifically to work shifting coal, but other industries grew that had an indirect link with the industry. The economic specialisation of towns, and more generally of regions, was perhaps the key feature of England's developing and commercialising national economy in the seventeenth century. In this respect Newcastle's unique geographical features and mineral assets, backed up by a valuable political settlement, furnished it with a leading role. Its coal transport population was proportionally significantly larger than the equivalent populations in Bristol, London's Southwark parishes, or even in Liverpool, a town which expanded from very little to become a powerful port. Coal transportation was by no means the only economic experience in Newcastle in the mid-seventeenth century. There was already a burgeoning manufacturing trade in a number of household consumption goods alongside the medieval incorporated manufacturing trades, which were declining only relatively, maintaining their numbers in absolute terms.

This chapter has dealt mostly with male primary employments, that is to say what men in Newcastle did most of the time to earn a living, according to their parish clerk and their own statements. For self-employed craftsmen, this could have been their only job; but for many of those lower in the social scale it would not. Most men did not earn enough from their primary occupation to keep their family alive, particularly at the end of the sixteenth century and into the seventeenth, when a quickly-growing population depressed wages nationally and inflated food costs across the board. Urban labour markets tended to only provide work in the short term, so these men were forced to move between similar, heavy manual occupations with different titles. Usually this did not present a distinctive life-cycle pattern, at least between the baptisms of children and the burial of the father, although men were more likely to be labourers or to be described with general status terms at their burial

than they were earlier in life. Evidently the experience of work for guild manufacturers and labourers was very different, which in turn impacted on many aspects of life including income, the feeling of security, the purchase of a variety of household items, and – as we will consider first – where in the town they lived.

Table 4.9 – All Saints occupational structure. Total baptisms per decade.

		1601-10	1611-20	1621-30	1631-40	1641-50	1651-60	1661-70	1671-80	1681-90	1691-1700	1701-10	1601-1710
primary	generic	3	2	6	5	15	1	0	2	1	1	1	**37**
manufacturing	wood	53	45	48	37	54	83	82	113	100	110	101	**826**
	building	12	15	38	34	29	56	88	79	75	93	98	**617**
	glass	1	5	27	31	38	39	47	62	71	71	63	**455**
	metal	58	54	102	80	50	75	95	83	100	91	112	**900**
	food	70	102	218	226	178	252	285	274	254	246	269	**2374**
	textiles	67	70	157	134	113	135	165	168	116	100	147	**1372**
	leather	67	59	86	72	52	78	90	53	64	45	53	**719**
	ships	23	54	132	129	140	219	197	217	242	184	237	**1774**
	misc	17	21	44	31	29	50	51	50	46	60	59	**458**
	total	**371**	**427**	**858**	**779**	**698**	**988**	**1100**	**1101**	**1069**	**1001**	**1140**	**9532**
transport	coal transport	169	192	591	648	474	772	1096	1395	1570	1236	1540	**9683**
	other transport	216	235	374	304	346	349	416	471	419	278	351	**3759**
	total	**385**	**427**	**965**	**952**	**820**	**1121**	**1512**	**1866**	**1989**	**1514**	**1891**	**13442**
labour		78	113	250	70	132	140	90	86	10	40	112	**1121**
tertiary	merchant	45	75	116	106	98	129	137	104	126	134	119	**1189**
	profess./service	50	27	46	72	116	110	82	90	123	137	130	**983**
	total	**95**	**102**	**162**	**178**	**214**	**239**	**219**	**194**	**249**	**271**	**249**	**2172**
status		96	66	163	132	53	122	386	210	284	223	213	**1948**
unknown/blank		589	650	144	403	724	89	10	23	68	124	69	**2893**
total		**1618**	**1787**	**2552**	**2529**	**2645**	**2705**	**3324**	**3484**	**3678**	**3178**	**3686**	**31186**

Source: PRD ASBap

Table 4.10 – All Saints' occupational structure from baptisms. Percentages by decade.

		1601-10	1611-20	1621-30	1631-40	1641-50	1651-60	1661-70	1671-80	1681-90	1691-1700	1701-10	1601-1710
primary	generic	0.4	0.2	0.4	0.7	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3
manufacturing	wood	5.1	4.0	2.0	1.7	2.8	3.2	2.5	3.3	2.8	3.6	2.8	2.9
	building	1.2	1.3	1.6	1.6	1.5	2.1	2.7	2.3	2.1	3.0	2.7	2.2
	glass	0.1	0.4	1.1	1.5	2.0	1.5	1.4	1.8	2.0	2.3	1.7	1.6
	metal	5.6	4.7	4.2	3.8	2.6	2.9	2.9	2.4	2.8	3.0	3.1	3.2
	food	6.8	9.0	9.0	10.6	9.3	9.6	8.6	7.9	7.0	8.0	7.4	8.4
	textiles	6.5	6.2	6.5	6.3	5.9	5.2	5.0	4.9	3.2	3.3	4.0	4.8
	leather	6.5	5.2	3.6	3.4	2.7	3.0	2.7	1.5	1.8	1.5	1.5	2.5
	ships	2.2	4.7	5.5	6.1	7.3	8.4	5.9	6.3	6.7	6.0	6.5	6.3
	misc	1.6	1.8	1.8	1.5	1.5	1.9	1.5	1.4	1.3	2.0	1.6	1.6
	total	**36.0**	**37.6**	**35.6**	**36.6**	**36.3**	**37.7**	**33.2**	**31.8**	**29.6**	**32.7**	**31.4**	**33.7**
transport	coal transport	16.4	16.9	24.5	30.5	24.7	29.5	33.1	40.3	43.4	40.4	42.4	34.2
	other transport	21.0	20.7	15.5	14.3	18.0	13.3	12.5	13.6	11.6	9.1	9.7	13.3
	total	**37.3**	**37.6**	**40.1**	**44.7**	**42.7**	**42.8**	**45.6**	**53.9**	**55.0**	**49.5**	**52.1**	**47.5**
labour	**total**	**7.6**	**9.9**	**10.4**	**3.3**	**6.9**	**5.3**	**2.7**	**2.5**	**0.3**	**1.3**	**3.1**	**4.0**
tertiary	merchant	4.4	6.6	4.8	5.0	5.1	4.9	4.1	3.0	3.5	4.4	3.3	4.2
	profess./service	4.8	2.4	1.9	3.4	6.0	4.2	2.5	2.6	3.4	4.5	3.6	3.5
	total	**9.2**	**9.0**	**6.7**	**8.4**	**11.1**	**9.1**	**6.6**	**5.6**	**6.9**	**8.9**	**6.9**	**7.7**
status		9.3	5.8	6.8	6.2	2.8	4.7	11.6	6.1	7.9	7.3	5.9	6.9
unknown/blank		**36.3**	**36.4**	**5.6**	**15.9**	**27.3**	**3.2**	**0.3**	**0.6**	**1.7**	**3.8**	**1.5**	**10.1**

Source: PRD ASbap. *Note the unknown/blank category is not included in the other percentages.*

Table 4.11 – Occupation structure from adult male burials. Total per decade

		1601-10	1611-20	1621-30	1631-40	1641-50	1651-60	1661-70	1671-80	1681-90	1691-1700	1601-1700
Primary	generic	1	-	-	3	1	3	1	2	2	-	15
manufacturing	wood	9	8	5	6	9	11	10	21	16	14	109
	building	9	5	19	10	12	24	12	13	15	26	145
	glass	1	-	6	6	5	8	6	4	7	10	53
	metal	6	21	21	14	10	13	18	20	21	19	163
	food	15	26	37	37	42	49	45	57	57	57	422
	textiles	17	19	30	25	16	34	27	22	26	26	242
	leather	18	18	17	24	8	17	11	16	11	15	155
	ships	11	16	22	17	20	35	23	44	48	38	274
	misc	3	6	6	2	7	8	17	16	14	22	101
	total	**88**	**119**	**157**	**135**	**124**	**194**	**166**	**212**	**210**	**220**	**1625**
transport	coal transport	37	78	167	147	63	133	81	74	156	161	1097
	other transport	45	73	124	73	62	67	68	89	55	64	720
	total	**82**	**151**	**291**	**220**	**125**	**200**	**149**	**163**	**211**	**225**	**1817**
labour		32	57	110	57	6	40	122	90	13	15	542
tertiary	merchant	7	10	21	15	9	26	26	25	28	28	195
	profess./ service	26	52	77	108	57	35	44	50	42	49	540
other	status	25	59	63	37	23	40	68	82	91	73	561
	blank/unknown	103	59	20	72	192	234	5	59	129	124	997
total		365	507	747	653	542	778	585	684	733	743	6337

Source: PRD/ASBur

Table 4.12 – Occupational structure from adult male burials. Percentage by decade

		1601-10	1611-20	1621-30	1631-40	1641-50	1651-60	1661-70	1671-80	1681-90	1691-1700	1601-1700
Primary	generic	0.4	-	0.3	0.5	0.3	0.6	0.2	0.3	0.3	-	0.3
							0.2	0.2	0.3	0.3	0.3	0.1
manufacturing	wood	3.4	1.8	0.7	1.0	2.6	2.0	1.7	3.4	2.6	2.3	2.0
	building	3.4	1.1	2.6	1.7	3.4	4.4	2.1	2.1	2.5	4.2	2.7
	glass	0.4	-	0.8	1.0	1.4	1.5	1.0	0.6	1.2	1.6	1.0
	metal	2.3	4.7	2.9	2.4	2.9	2.4	3.1	3.2	3.5	3.1	3.1
	food	5.7	5.8	5.1	6.4	12.0	9.0	7.8	9.1	9.4	9.2	7.9
	textiles	6.5	4.2	4.1	4.3	4.6	6.3	4.7	3.5	4.3	4.2	4.5
	leather	6.9	4.0	2.3	4.1	2.3	3.1	1.9	2.6	1.8	2.4	2.9
	ships	4.2	3.6	3.0	2.9	5.7	6.4	4.0	7.0	7.9	6.1	5.1
	misc	1.1	1.3	0.8	0.3	2.0	1.5	2.9	2.6	2.3	3.6	1.9
	total	**33.6**	**26.6**	**21.6**	**23.2**	**35.4**	**35.7**	**28.6**	**33.9**	**34.8**	**35.5**	**30.4**
transport	coal transport	14.1	17.4	23.0	25.3	18.0	24.4	14.0	11.8	25.8	26.0	20.5
	other transport	17.2	16.3	17.1	12.6	17.7	12.3	11.7	14.2	9.1	10.3	13.5
	total	**31.3**	**33.7**	**40.0**	**37.9**	**35.7**	**36.8**	**25.7**	**26.1**	**34.9**	**36.3**	**34.0**
labour		12.2	12.7	15.1	9.8	1.7	7.4	21.0	14.4	2.2	2.4	10.1
tertiary	merchant	2.7	2.2	2.9	2.6	2.6	4.8	4.5	4.0	4.6	4.5	3.7
	profess./ service	9.9	11.6	10.6	18.6	16.3	6.4	7.6	8.0	7.0	7.9	10.1
other	status	9.5	13.2	8.7	6.4	6.6	7.4	11.7	13.1	15.1	11.8	10.5
	blank/unknown	**28.2**	**11.6**	**2.7**	**11.0**	**35.4**	**30.1**	**0.9**	**8.6**	**17.6**	**16.7**	**15.7**

Source: PRD/ASBur. *Note: the 'blank/unknown' category is not included in the other percentages.*

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Chapter 5. The geography of work

The ebb and flow of work in Newcastle upon Tyne was heavily dependent on the town's geography. Shallow Tyneside mineral deposits and transport afforded by the River drove all areas of the town's economic growth; proximity to Scotland and coastal ports shaped the origins of its migrant workforce. This chapter considers how work was conversely a vital component in structuring the social geography of Newcastle and other towns – although the link between the two was complex. It has been widely commented that Sandgate, the eastern suburb, was mostly populated by keelmen and shipwrights. This was true, but it formed only one part of the residential grouping of occupations, which will be explored more fully here. Newcastle has already taken an unwittingly central role in the understanding of the social topography of early modern towns, as the most completely documented of four case studies in John Langton's article on residential patterns, which concluded that 'the relationships between workplace and home, in functional and spatial terms' was at the heart of 'the reasons why residential choices [we]re made'.[1] It was the easy availability of Richard Welford's printed hearth tax lists, and not the town's economic status, that led to Newcastle being selected. This chapter will not disprove Langton's findings, but by taking a longer chronological view, over a full century, and by considering non-guild occupations omitted from Langton's analysis, it makes some important adjustments.

For a seventeenth-century arrival into Newcastle, or for a newly-formed household such as a married couple, the decision on where to live was a difficult one, balancing space requirements, access to markets or water, the social and economic benefits of being close to the hub – and, of course, the decision was always constrained by cost. Where and alongside whom early modern town-dwellers chose, or were obliged, to live is an important question for urban historians because residential patterns are thought to reflect the social composition of towns and the nature of the daily interactions of their inhabitants.[2] 'Neighbourliness' was a watchword for sixteenth-century social relations: neighbours supported each other in times of need and, with religious and legal authority, policed minimum standards of behaviour

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[1] Langton, 'Residential patterns', p. 23.
[2] Boulton, *Neighbourhood*, p. 166.

amongst one another.[3] But, as neighbourhoods were altered beyond recognition by the economic and demographic changes of the late sixteenth and early seventeenth centuries, and as early modern people supposedly become more individualistic in their approach to many aspects of life, neighbours, it is argued, were no longer as important in determining the nature of their social relations.[4]

What was probably true in the countryside has been given a different theoretical slant in towns. The classic narrative used by historical geographers to describe the social topography of towns up to the industrial revolution is a simple one, expressed most influentially by Gideon Sjoberg in 1960. Pre-industrial urban society was characteristically 'feudal', comprising a small élite and a much larger mass of lower-class and outcast groups. Spatially, the élite occupied the city's administrative centre (commonly also its physical centre) including 'the most prominent governmental and religious edifices and usually the main market' which served as 'meeting places and ceremonial sites for the populace. Into these open spaces flow[ed] the citizenry to hear public pronouncements'.[5] Crucially, 'because political and religious activities in feudal cities have far more status than the economic, the main market, though often set up in the central sector, is subsidiary to the religious and political structures there.'[6] Banished from the high-status physical centre of town, just as they were from holding any corporate political power, lower-class groups congregated in other areas around the periphery of pre-industrial towns. Here they were free to make their own associations, and as a result formed 'subdivisons along ethnic and/or occupational lines', comprising 'relatively homogenous populations that develop special forms of social organization' due to technological constraints on transport and communication.[7] Groups of the lowest status were relegated to the true outskirts 'through the efforts of the elite to minimize contact with them', particularly those with malodorous occupations and what Engels called the 'surplus army' of urban labour.[8] Though they had long been a feature of Europe's metropolises, suburbs were increasingly an unwelcome part of the provincial urban landscape in the sixteenth and seventeenth centuries, feared as the source of disorder or disease. Thus in 1598, the Newcastle Corporation paid 4d to 'John Butlande, bellman, for goeing about the towne to commande all the coall workers to provide them howses without the walls'; by keeping the poorest workers outside the walls, the town

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[3] Wrightson, *English Society*, pp. 52-5.
[4] Keith Wrightson, 'The "Decline of Neighbourliness" Revisited', in Norman Jones and Daniel Woolf, *Local Identities in Late Medieval and Early Modern England* (Basingstoke, 2007), pp. 19-20.
[5] Gideon Sjoberg, *The Preindustrial City* (Glencoe, 1960), p. 96.
[6] Ibid., p., 97.
[7] Ibid., pp. 100-1.
[8] Langton, 'Residential patterns', pp. 2-3.

hoped to quash the threat of disease.[9] Thomas Nashe referred to the outskirts of London as 'licensed stews' and the sprawling of Dublin's urban fringe prompted the building of bridewells and prisons.[10] Residential segregation could be related to choice and convenience, or to the policy and prejudice of those who hoped to maintain order.

The occupational specialisations that for Sjoberg were a side show in the development of pre-industrial towns have been given more prominence by others, notably James Vance.[11] Vance considers guilds the economic and political core of the 'pre-capitalist' town, buying access to markets and consumers, and therefore prosperity, and also to political power through the structure of corporations, which elected mayors and councils from their guild members.[12] As a result, towns were settled *ad hoc* by different groups of craftsmen as they expanded, and the location of different economic specializations had less to do with price than chance – it was 'a popular rather than a patrician society'. Craftsmen worked and lived on the same plots, as did their apprentices, journeymen and families, so houses were tall, with the shop taking the pride of street level, the craftsman and his family living just above and the rest (including the stores) relegated to the rafters or below ground. The result was 'occupational zoning and social class mixing'.[13] Two groups were excepted from this system: merchants usually dominated the centre of cities, because they were 'pre-eminent in status and wealth', and so could bid higher rents; and poorer labourers, who were pushed to the periphery.[14]

These two models describe very similar residential patterns in practice, although their causes are different. They both note occupationally segregated neighbourhoods in pre-industrial (or pre-capitalist) towns; both models have also proved markedly resilient to the pressures of academic revisionism: urban anthropologist Aidan Southall wrote in 1998 about 'cities of the feudal mode of production in Europe', where merchants seized simultaneous control of religious, political and economic sources of power.[15] The sixteenth to eighteenth centuries are seen as the period of critical transition from 'pre-capitalist' to 'capitalist' or 'pre-industrial' to 'industrial' cities. Capitalist cities, in contrast to pre-capitalist cities, arose because 'the accumulation of capital by individuals became not only

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[9] 'Accounts', p. 45

[10] Aaron Allen, 'Conquering the Suburbs: Politics and Work in Early Modern Edinburgh', *Journal of Urban History*, Vol. 37 (2011), p. 424.

[11] James E. Vance, Jr., 'Land Assignment in the Precapitalist, Capitalist, and Postcapitalist City', *Economic Geography*, Vol. 47, No. 2 (Apr., 1971), pp. 101-120.

[12] Ibid., p. 107.

[13] Langton, 'Residential Patterns', p. 4.

[14] Ibid., pp. 4-5.

[15] Aidan Southall, *The City in Time and Space* (Cambridge, 1998), chapter 4.

morally acceptable, but the criterion of social status and power'.[16] Competition for land plots in the middle of towns was high, and in a capitalist city, their value was calculated using only returns to capital; social value no longer had the same currency.[17] The result was that occupational zoning in cities was eroded and gradually replaced by class zoning, 'with rent-paying ability forming the index and arbiter of class ascription'.[18] The practical results, which happened gradually from the late sixteenth century onwards, were a (slowly) declining power of guilds and the movement of the wealthy away from central locations in cities, where higher rents could be earned by leasing buildings as commercial property or multiple-tenancy accommodation for the poor.

The chronology of change is impossible to calibrate more accurately than that, at least for the general picture, as these transitions had localised and regionalised triggers; empirical evidence for this change is somewhat short of conclusive proof. It is therefore critical to trace these changes in real towns. Newcastle, as we have seen, was a pioneering industrialising town from the end of the sixteenth century; it also showed some of the tendencies of a 'capitalist town'. But Langton sided in favour of Sjoberg, noting that Newcastle's 'merchant clique was pre-eminent in wealth and municipal power' and that 'its social dominance was expressed geographically' and similarly that 'economically and socially functional groups based on occupations still existed'.[19] Newcastle was by no means an archetype of Vance's 'capitalist city' by 1701-5 – such a thing could probably never exist anyway – but in these two key respects, it was moving in that direction. Increasingly, though by no means entirely, the poor and the middling sort lived separately in 'class zones' – in particular in Sandgate and the northern suburbs – and the wealthy merchant elite was in fact leaving the central areas of Newcastle. These gradual changes only come to light through the chronological spread and social coverage of the parish registers.

Locating occupations

The data presented in this chapter are taken principally from the four Newcastle parish registers for the period 1701-5, a period in which addresses were recorded with the baptism of children. This was considered preferable to the method of two other studies of Newcastle's occupational geography, based on freeman's rolls and probate. John Langton linked the names on hearth tax lists with the register of freemen in Newcastle, an approach whose biases became immediately clear. Langton was able to link three times as many

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[16] Langton, 'Residential Patterns', p. 5.
[17] Vance, 'Land Assignment', p. 113.
[18] Langton, 'Residential Patterns', p. 5.
[19] Ibid., pp. 21-22.

merchants from the freeman's lists to the hearth tax as any other occupation, indicating that a much higher proportion of them were household heads that had stayed within the city after earning their freedom. The worst-represented group was maritime occupations, where only eleven individuals could be linked between the two.[20] It is clear that the sample produced by Langton was biased against water trades – of course, most of all against keelmen, who were technically employed by the hostmen and therefore ineligible for freedom. Probate evidence can be used as an alternative to hearth tax for roughly the same purpose, but has limitations in its social coverage. Gwendolynn Heley uses a sample of just over five hundred 'tradesmen's' probate records, including inventories, wills and any related bonds, to map both household size (where the inventory makes it clear) and occupation against location. Normally, the testator had to own a house for an address to be traced; so again, probate tends to drastically under-represent poorer sections of society.[21]

It is therefore valuable to compare Langton's and Heley's studies with figures from the parish registers, which offer considerably fuller coverage of Newcastle's workers. In the period 1700-5, St Nicholas', St Andrew's and St John's parishes all included a nearly complete set of street addresses alongside baptisms, which have been recorded in the parish register database.[22] It is likely that this sudden inclusion of a new piece of information on the registers was in response to the Marriage Duty Acts of 1694-5, which were introduced to tax vital events in order to fund war with France.[23] This formed part of a national trend of attention to the quality of parochial registration which also saw men's occupations being recorded in parishes where they had not been previously.[24] Direct street addresses were not included in All Saints' parish, perhaps because of the larger volume of baptisms, and the much larger number of streets in the parish, which would have required more effort on the part of the clerk. Instead, there were frequent references to the administrative wards in which individual fathers lived, which corresponded roughly to a street address – either Pilgrim Street, Pandon Gate, the Quayside, the Sandgate, or a few other rarely-used locations. This overlap means that the street addresses can be substituted directly with these wards, albeit with a loss of some precision. Coverage of addresses was also considerably less full in All Saints'. Addresses were included on virtually all baptisms from St Nicholas' and St John's parishes between 1700 and 1705, 85 per cent in St Andrew's and only 30 per cent in All Saints'. By 1700, the latter was as large as the three other parishes combined,

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[20] Langton, 'Residential Patterns', p. 12.
[21] The comparative use of inventories and hearth tax is considered in more detail in Chapter 6.
[22] PRD/PRaddr.
[23] Jeremy Boulton, 'The Marriage Duty Act and parochial registration in London, 1695-1706', in Schurer and Arkell (eds.), *Surveying the People*, pp. 222-52.
[24] See Introduction.

Table 5.1 – Fathers with and without addresses in All Saints and St Andrew's, 1700-5

	All Saints'				St Andrew's			
	Address given		No address		Address given		No address	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
primary	2	.3	3	.2	88	26.4	9	14.8
wood	15	2.1	35	2.1	6	1.8	1	1.6
building & glass	25	3.5	76	4.6	28	8.4	5	8.2
metal	20	2.8	52	3.2	7	2.1	1	1.6
food & drink	53	7.5	121	7.3	38	11.4	6	9.8
textiles	32	4.5	64	3.9	19	5.7	2	3.3
leather	11	1.5	15	.9	23	6.9	2	3.3
shipbuilding	44	6.2	91	5.5	3	.9	1	1.6
misc manuf.			3	.2	2	.6		
medical	10	1.4	30	1.8	1	.3		
coal transport	322	45.3	699	42.4	3	.9		
transport	53	7.5	165	10.0	10	3.0	3	4.9
labour	21	3.0	55	3.3	64	19.2	11	18.0
coal merchant	15	2.1	34	2.1				
merchant	7	1.0	14	.8	4	1.2		
services & profess.	32	4.5	58	3.5	14	4.2	4	6.6
status	19	2.7	100	6.1	11	3.3	2	3.3
unknown	30	4.2	33	2.0	12	3.6	14	23.0
Total	711	100.0	1648	100.0	333	100.0	61	100.0

Source: PRD PRaddr

and St Andrew's was the second largest, so it would have been considerably more time-consuming and difficult for the clerk of each parish to keep track of the addresses of its inhabitants.

This imbalance has the potential to skew the results away from Newcastle's largest parishes, and towards the relatively wealthy smaller parishes, but it is straightforward to correct. The important question is whether the inclusion or not of addresses in St Andrew's and All Saints' was biased. On closer examination, the occupational makeups of fathers who did have an address included at the baptism of their child and those who did not were *very* similar, with barely more than a single percentage point difference between them. The occupation structures of St Andrew's and All Saints' are shown side-by-side in Table 5.1.[25] This suggests strongly that the inclusion or exclusion of addresses on baptisms in All Saints' was an artefact of the preparation of the documents, and did not depend on the father's occupation. For this reason, we can assume that the addresses given for All Saints' are representative of the population as a whole, and weight them upwards accordingly. Similar

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[25] This result is confirmed by a chi-square test, indicating the strength of the statistical relationship:

	Value	df	Asymp. Sig.
Pearson Chi-Square	44.26	18	.001
N of Valid Cases	2359		

tests were run on the data from St Andrew's, demonstrating likewise that the 15 per cent with no address given was fairly representative of the occupational structure of the rest of the parish.[26] Assuming that the surviving information on occupations and addresses is roughly representative of the population, the data from each parish have been weighted to give a 'standard five years'.

Taking these minor variations into account, a picture was generated of occupational geography across Newcastle in around 1700. In order to produce the geographical information provided here, the street addresses from the baptisms were compared with the annotated map and descriptions given in Henry Bourne's *History*.[27] When this map failed to locate a particular address, a number of other references were consulted, including Gray's *Chorographia* (1649), a guidebook dating from 1807, and Brand's *History* from 1789.[28] The result is around 60 separate, identifiable locations in Newcastle, which need to be categorised for meaningful analysis. For this, the 'Neighbourhoods' described by Gwendolynn Heley in her thesis on Newcastle's tradesmen were deployed in order to allow for smoother analysis of changes and continuities in the town, and because they offer a convenient breakdown of addresses.[29] Here they will be labelled as 'Areas' and not 'Neighbourhoods', however, in order to avoid confusion with the concept of neighbourliness: these areas are defined purely by the topography of the town, and not by any social constructions. Some of the names have been altered to remove anachronisms (Heley's originals are in square brackets). The Areas are defined as follows:

1. *The Quayside [Lower East Side]*, which was mostly formed by the quay itself and the narrow chares of All Saints' parish, within the walls, including Austin, Pandon, Corner and Part of Wall Knoll wards. References in the parish baptism register to 'Pandon' and 'Pandon Gate' were taken to be in this area, as were references to the 'Key Side'; whereas 'Sandgate' was included in Area 9 (see below). It is possible that these two areas overlapped: both areas were in Sandgate ward for the administration of the hearth tax, but they were certainly not synonymous – they showed a notably different occupation character.

2. *Pilgrim Street [Upper East Side]*, to the north of the Quayside. This Area included much of All Saints' parish within the walls, including the Church, Butcher Bank and Pilgrim Street up to the Gate; it also contained part of St Andrew's parish. In the parish register addresses this area was dominated by Pilgrim Street, a major trading thoroughfare.

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[26] In the case of St Andrew's, 55% of cells had expected counts less than 5, making a chi-square test unreliable, but the general spread of occupations was roughly similar.

[27] Bourne, *Newcastle*.

[28] Gray, *Chorographia*; *The Picture of Newcastle upon Tyne...* (Newcastle, 1807); Brand, *Newcastle*. Only a handful of locations could not be traced, including 'the thorn tree' and 'the tower in the walls'.

[29] Heley, *Material Culture*, pp. 60-1.

3. *Closegate [Lower West Side]* comprising the Tyne Bridge, Sandhill, the Side, the Close and the Long Stairs, running from the Close up to Bailiff Gate. These streets all featured frequently in the parish baptisms.

4. *The Central Markets* were located just north of St Nicholas' Church, and a few of the streets that led away from them. Most of the addresses from the parish register came from the Bigg, Groat and Flesh Markets, Denton Chare, Upper Dene Bridge and Middle Street. This was the other thoroughfare for craftsmen and traders.

5. *Newgate [Upper Central Markets]* included all of the area north of the Bigg Market up to the Newgate. The Nun's Gate and Huckster's Booths as well as High Friar Chare all featured prominently in the parish baptisms, and St Andrew's Church and the buildings surrounding it were also in this Area.

6. *Westgate [Upper West Side]* comprised the area from the Castle and up Westgate Street to the Westgate, and a number of side streets including the Back Row and the buildings around St John's Church. It also included the Castle Garth.

7. *The Western Suburb* included the recreational space of the Forth, but most of the parish baptisms in this Area came from further afield in Elswick. It was relatively sparsely population, and unfortunately occupational information was also unfortunately thin.

8. *The Northern Suburb* was outside the Newgate and the Pilgrim Gate, running up Gallowgate and Sidgate, and including the Castle Leazes and Barras Bridge. The parish registers of St Andrew's Church recorded fathers as far afield as Jesmond, Sandyford and Fenham, who are all included in this Area.

9. *Sandgate [the Eastern Suburb]* included Sandgate and Wall Knoll wards which ran outside the Sandgate itself. The entire length of the road, which ran as far as St Ann's Chapel to the east, was also called Sandgate, which prevents fine discrimination of locations. All Saints' recorded baptisms from further still, including the Ouseburn and the Glasshouses, around the bend of the Tyne, as well as Dents-hole and Byker.

In all, 1897 individual addresses and occupations were linked, which is both a larger and more representative sample than those used by Langton and Heley. The simple percentages of occupations within the Areas show some clear concentrations of particular work in certain parts of the town, shown in Tables 5.2, 5.3 and 5.4. It is important to offer some statistical robustness by comparing the values in each cell with the overall proportions, both within Areas and within occupation groups. This has been done using Pearson (adjusted) standardised residuals, which are presented in Table 5.9.[30] If an adjusted residual is greater than ±1.96, there is less than 0.05 probability that the apparent

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[30] Alan Agresti, *Categorical Data Analysis* (New York, 2002), p. 81.

relationship between the occupation and that Area being caused by chance. If the residual is positive, it shows a concentration of the occupation in that Area; negative residuals indicate a relative dearth of an individual occupation. Where cells have very low expected counts (generally less than 5), the statistical mechanism is much weaker. But overall, the figures offer a robust indication of residential patterns in Newcastle, highlighting concentrations of occupations in individual Areas.

Occupational concentrations

For many of Newcastle's craftsmen and tradesmen, either Langton's freemen, or Heley's probated tradesmen, their home was also their place of work.[31] But many others worked outside of the home in employments based in a specific location, which had an impact on their residential patterns. The coalmining population was heavily concentrated to the north of the town, just outside the Newgate, on or around Sidegate. Nearly 80 per cent of colliers that featured in the Newcastle registers lived here, and in turn they made up more than 40 per cent of the population of fathers in the area.[32] The colliers formed a significant minority of the population, but it is unclear exactly where they worked. Certainly, there was a 'town pit' which was the concern of the Council in the 1590s, since it required round the clock draining at great expense.[33] Some of the workers evidently lived within the walls, as the town recorded paying porters tuppence each for 'letting fourthe coliers at Pilgram streete gate and Newiate earlie in the morning to worke'.[34] This is strongly suggestive of a pit to the north of the town, though whether it survived the century is doubtful. Bourne suggested that coal mines in the Castle Leazes had been closed already by his time, and the pits to the north of Newcastle had been decommissioned by the publication of Gibson's map of Northumberland collieries in 1788.[35] This cannot be taken as evidence of an absence of pits, and the large and growing population of colliers concentrated in this northern suburb certainly suggests a working pit somewhere nearby.

The most dramatically clear occupational concentration was around the Sandgate and in the eastern suburbs of Newcastle along the river, in an area described by Gray in 1649 as 'populous all along the water side; where ship-wrights, sea-men and keel-men most live.'[36] More than 80 per cent of all the fathers who worked in coal transport lived in this part of town. Undoubtedly, watermen prized living very close to the river; waterside areas in

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[31] Heley, *Material Culture*, Ch. 4. See also below, Chapter 7.
[32] See Table 5.3 and Table 5.4.
[33] See Chapter 8; Woodward, *Men at Work*, pp. 128, 132.
[34] 'Accounts', p. 33.
[35] Bourne, *History*, p. 146; Gibson, 'Plan'; Nef, *Coal*.
[36] Gray, *Chorographia*, p. 37.

Table 5.2 – Occupations and Areas 1700-5, totals

	Areas									Total
	1 Qsd	2 PS	3 CG	4 CM	5 NG	6 WgS	7 WS	8 NS	9 Sgt	
agriculture					1	2		5		8
extractive		7	1	1	10	3		85	3	110
wood	10	24	21	16	1	4		4	7	87
building	20	43	16	30	14	16	2	2	17	160
glass	10	3	9	5	0	0	0	0	7	34
metal	17	40	14	17	2	8	5	5	7	115
food & drink	56	109	15	30	7	17	3	15	28	280
textiles & clothing	46	27	53	16	12	65	3	12	28	262
leather	10	24	21	63	21	34	3	7	10	193
shipbuilding	36	13	1	7		2		4	96	159
misc manuf.		2	11	6		3				22
medical	13	7	6	10	1	4		1	10	52
coal transport	173	28	1	2		1		6	866	1077
transport	103	23	12	14	11	5		4	53	225
labour	20	35	28	26	23	18	4	38	28	220
coal merchant	36		1						13	50
merchant	3	19	41	2	2	2	1		3	73
misc services & professional	53	44	8	20	3	16	1	7	17	169
status	7	13	1	8	4	0	5	6	50	94
blank/unknown	20	19	18	33	20	34	27	11	63	245
Total	633	480	278	306	132	234	54	212	1306	3635

Source: PRD/PRaddr . Note. These are 'weighted' values, i.e. an estimated five-year total for each parish to compensate for missing data. See text for discussion of the method used.

Boroughside in Southwark as well as in York attracted large concentrations of boatmen in a similar fashion.[37] In Newcastle, they were close to the Sandgate Quayside staithes from which their keel boats were launched. High-status mariners tended to live inside the town walls in the Lower East Side, much closer to the town's centre than coal transport workers: the average mariner or master mariner lived only 688 feet from the guildhall and Castle. From within the town walls, mariners still had access to the Quayside through small gates in the wall that were more or less monitored, depending on the prevailing political conditions or hygiene – in 1616 they were ordered locked by the Corporation 'to prevent Servants casting Ashes and other Rubbish into the River', an order repeated in a Privy Council Act which allowed 'one or two' gates to remain open, 'to lett out masters and marriners to goe aboard their shippes, and those two gates to be watched'.[38] From this area of town, mariners had access to Trinity House (their guild meeting house), and the centre of their administration and social life.

Shipwrights were also heavily concentrated in Sandgate, although not as exclusively as watermen. Nearly two-thirds of all shipwright fathers were located here, including a

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[37] Boulton, *Neighbourhood*; Hibberd, 'Inequalities', p. 118.
[38] Bourne, *History*, pp. 132-3; TNA PC 2/28 f.545 14 Feb 1617.

Table 5.3 – Occupations and Areas 1700-5, percentages within Area

%	Areas									Total
	1 Qsd	2 PS	3 CG	4 CM	5 NG	6 WgS	7 WS	8 NS	9 Sgt	
agriculture					0.8	0.9		2.4		0.2
extractive		1.5	0.4	0.3	7.6	1.3		40.1	0.2	3.0
wood	1.6	5.0	7.6	5.2	0.8	1.7		1.9	0.5	2.4
building	3.2	9.0	5.8	9.8	10.6	6.8	3.7	0.9	1.3	4.4
glass	1.6	0.6	3.2	1.6					0.5	0.9
metal	2.7	8.3	5.0	5.6	1.5	3.4	9.3	2.4	0.5	3.2
food & drink	8.8	22.7	5.4	9.8	5.3	7.3	5.6	7.1	2.1	7.7
textiles & clothing	7.3	5.6	19.1	5.2	9.1	27.8	5.6	5.7	2.1	7.2
leather	1.6	5.0	7.6	20.6	15.9	14.5	5.6	3.3	0.8	5.3
shipbuilding	5.7	2.7	0.4	2.3		0.9		1.9	7.4	4.4
misc manuf.		0.4	4.0	2.0		1.3		0.0	0.0	0.6
medical	2.1	1.5	2.2	3.3	0.8	1.7		0.5	0.8	1.4
coal transport	27.3	5.8	0.4	0.7		0.4		2.8	66.3	29.6
transport	16.3	4.8	4.3	4.6	8.3	2.1		1.9	4.1	6.2
labour	3.2	7.3	10.1	8.5	17.4	7.7	7.4	17.9	2.1	6.1
coal merchant	5.7		0.4						1.0	1.4
merchant	0.5	4.0	14.7	0.7	1.5	0.9	1.9		0.2	2.0
misc services & professional	8.4	9.2	2.9	6.5	2.3	6.8	1.9	3.3	1.3	4.6
status	1.1	2.7	0.4	2.6	3.0		9.3	2.8	3.8	2.6
blank/unknown	3.2	4.0	6.5	10.8	15.2	14.5	50.0	5.2	4.8	6.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: See Table 5.2.

quarter who lived further away to the east of town in an area known as 'the shore'. A minority lived nearer town at the Quayside, and a handful were sprinkled in the other Areas. That a number of master shipwrights lived at the far eastern end of Sandgate was confirmed by Bourne, who wrote that 'Below [St Ann's Chapel] to the Glass-house-bridge are the Houses of Ship-Wrights, and Master-Builders.' When the wooden glasshouse bridge fell into disrepair in 1669 it was a shipwright, Thomas Wrangham, who commissioned it to be rebuilt in stone 'on Account of Lands which the Town let him'.[39] It was a generous gesture, perhaps, but with a growing industry in a crowding city, shipwrights were critically short on space, and it was partly this requirement for land that drove the shipwrights out of the town and down to the shore. It is significant that their guild meeting house was in the Wall Knoll Tower, the furthest east of all the guild meeting halls in Newcastle. On average, a coal transport worker lived 950 feet from the guildhall and Castle, but the average shipwright lived 1045 feet away. Clearly, the access to the land required to do their work was more important to shipwrights than a short walk to the administrative centre of town.

The Quayside and Sandgate were growing population centres that sustained a range of trades in small numbers. These included a substantial population engaged in the provision of

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[39] Bourne, *History*, p. 155.

Table 5.4 – Occupations and Areas, percentages within occupation group

%	Areas								
	1 Qsd	2 PS	3 CG	4 CM	5 NG	6 WgS	7 WS	8 NS	9 Qsd
agriculture					12.5	25.0		62.5	0.0
extractive		6.4	0.9	0.9	9.1	2.7		77.3	2.7
wood	11.5	27.6	24.1	18.4	1.1	4.6		4.6	8.0
building	12.5	26.9	10.0	18.8	8.8	10.0	1.3	1.3	10.6
glass	29.4	8.8	26.5	14.7					20.6
metal	14.8	34.8	12.2	14.8	1.7	7.0	4.3	4.3	6.1
food & drink	20.0	38.9	5.4	10.7	2.5	6.1	1.1	5.4	10.0
Textiles & leather	17.6	10.3	20.2	6.1	4.6	24.8	1.1	4.6	10.7
leather	5.2	12.4	10.9	32.6	10.9	17.6	1.6	3.6	5.2
shipbuilding	22.6	8.2	0.6	4.4		1.3		2.5	60.4
misc manuf.		9.1	50.0	27.3		13.6			
medical	25.0	13.5	11.5	19.2	1.9	7.7		1.9	19.2
coal transport	16.1	2.6	0.1	0.2		0.1		0.6	80.4
transport	45.8	10.2	5.3	6.2	4.9	2.2		1.8	23.6
labour	9.1	15.9	12.7	11.8	10.5	8.2	1.8	17.3	12.7
coal merchant	72.0		2.0						26.0
merchant	4.1	26.0	56.2	2.7	2.7	2.7	1.4	0.0	4.1
misc services & professional	31.4	26.0	4.7	11.8	1.8	9.5	0.6	4.1	10.1
status	7.4	13.8	1.1	8.5	4.3		5.3	6.4	53.2
blank/unknown	8.2	7.8	7.3	13.5	8.2	13.9	11.0	4.5	25.7
Total	17.4	13.2	7.6	8.4	3.6	6.4	1.5	5.8	35.9

Source: PRD/PRaddr

food and drink, which although small in number compared to the coal transport workers, in fact represented nearly a third of all the food producers in Newcastle. Another 39 per cent of food and drink workers lived around Pilgrim Street, the location of twice-weekly wheat and rye markets;[40] the rest were dispersed through the other Areas in town. Bakers and brewers were scattered throughout the eastern sections of Newcastle fairly evenly: 12 per cent resided in the central markets on Newgate Street; an equal proportion were located in Sandgate, and just over a quarter cent on the Quayside.

Milling was even more diversely spread with millers in the markets, on Pilgrim Street and in suburbs all around the town. This wide spread of mills is confirmed by a Newcastle guidebook published in 1805, which commented that the number of mills (now including steam mills) in Newcastle 'is probably greater than of any single town in the kingdom. Indeed the number of wind mills forms a striking object on approaching Newcastle.'[41] These mills, because of their need of space, were usually pushed to the edges of the town, and therefore millers were very widely dispersed around the periphery.[42]

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[40] Gray, *Chorographia*, p. 71.
[41] *Picture of Newcastle*, p. 109.
[42] See Heley, *Material Culture*, p. 210.

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The only heavily concentrated food producers were butchers, but they were not 'relegated to the outskirts of the city' because of their malodorous work, as Sjoberg's model suggests; rather, they lived at the heart of the east side of town, amongst a wide variety of other trades.[43] According to the baptisms, more than half of butcher fathers were concentrated on the south end of Pilgrim Street, with a few also located at the Quayside, a few more at the Westgate, and others sprinkled around the town. The written evidence suggests that butchers were located near Pilgrim Street on Butchers' Bank, also known as Allhallows' Bank, 'which is a narrow Street, and a great Descent', running to the east side of the Church.[44] There can be no doubt that a large number of butchers did live on the street: it had been called '*vicus carnificum*' as early as 1336.[45] It was also described as the street 'where butchers most dwell' by Gray in 1649 and as 'mostly inhabited by Butchers, who have their Shops and Houses there' by Bourne in 1736; and in Whitehead's first directory of Newcastle in 1778, half of the town's listed butchers still had shops on Butcher Bank.[46] Deborah Hibberd notes that York butchers tended to be concentrated in a single street known as 'the Shambles' in Holy Trinity King's Court parish; similarly in York, Leona Skelton argues that the municipal authorities took a 'distinctly proactive, rather than reactive, approach to limiting the negative impact of dirty trades', which included the designation of areas to which butchers were required to remove their waste.[47]

The same concerns partly underlay the residential concentration of leather workers around Westgate, Northgate and particularly the central markets. A few cobblers and tanners lived on Pilgrim Street, but 44 per cent of leather workers lived near the markets on Newgate Street, and a further 18 per cent around Westgate Street and in the chares and steps around the Close. In particular, two-thirds of tanners lived near the White Cross to the north of the town (marked 16 on Map B). It is also indicative of their 'malodorous occupation' that tanners were relegated to a position on the outskirts of town, a considerable distance from the main food markets and the Quayside. York tanners were likewise located on the periphery of the built-up area, against the walls because of the 'noxious' nature of their craft.[48] Carlisle tanners were ordered in 1568 to dry their skins in 'the common kilnes

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[43] Langton, 'Residential Patterns', p. 2.

[44] Bourne, *History*, p. 108.

[45] Boyle, and Knowles, *Vestiges*, p. 271

[46] Gray, *Chorographia*, p. 66; Bourne, *History*, p. 108; William Whitehead, *The First Newcastle Directory* (Newcastle, 1778).

[47] Hibberd, 'Inequalities', p. 117; Leona Skelton, 'Environmental Regulation in Edinburgh and York, c. 1560-c. 1700 with Reference to Several Smaller Scottish Burghs and Norther English Towns', unpublished PhD thesis (Durham, 2012), pp. 150-1.

[48] Hibberd, 'Inequalities', pp. 118-19.

Table 5.5 – Mean distance of father's address from the guildhall and castle, in feet

occupation	N	Mean distance	Std. Dev.	Rank
extractive	89	1419	296	19
wood	82	625	390	5
building	144	788	317	12
glass	26	497	230	2
metal	99	633	295	6
food & drink	256	723	323	10
textiles	242	559	373	4
leather	185	674	363	8
shipbuilding	148	1045	477	18
misc manuf.	23	442	298	1
medical	52	634	344	7
coal transport	1032	950	197	17
transport	211	688	326	9
labour	187	856	464	15
coal merchant	51	790	194	13
merchant	74	508	303	3
misc services & prof.	157	727	315	11
status	52	894	414	16
blank/unknown	144	793	355	14
Total or mean	3252	813	364	

Source: PRD PRaddr; Map D. Note: the distances were calculated along the shortest possible route on roads and steps, using ArcMap. The values taken for each address location are the centre-point of the road or square. The 'centre' of town is taken as the area containing the guild hall and castle, so mean distances are from each location in town to both of these buildings. The map is not perfectly to scale, but the values are good approximations.

withoute the citie', but it is unclear whether Newcastle tanners had to do the same.[49] Their location was convenient for another reason: the White Cross was also the site of the annual cattle and horse markets at the Noult market, where the tanners' four-legged raw material could be purchased.[50]

In contrast to tanners, the leatherworkers who made and sold the final products – the skinners and glovers and cordwainers – were more likely to live near the other main markets of the town. More than a fifth were located around the Closegate and a further 44 per cent in the central market area; the two groups made up a fifth of all Central Market fathers. Leather workers, therefore, were largely concentrated on the western artery of town running from the base of the Tyne Bridge, up the Side and through the market area, as well as along Westgate Street, which forked off to the left after the Castle. Precisely where they were most likely to live depended on economic structure: the 'finished product' cordwainers usually lived near the markets; the 'noxious' tanners out near the northern walls.

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[49] Skelton, 'Environmental regulation', pp. 71-2; Heley, *Material Culture*, p. 52.
[50] Bourne, *History*, p. 48.

Textile workers were also slightly more likely to be found on the western side of town, mainly in the lower areas and the Castle Garth, although a significant number of them also lived on the Quayside and in Sandgate. Of 57 weaver fathers, 18 lived in Sandgate or further to the east, 13 also lived near the Pandon Gate and only 7 lived near the central market area, with 6 in the Castle Garth. Tailors also had a strong presence on the Quayside and along Pilgrim Street, but nearly half lived on the Close, the Side, the Sandhill and the Castle Garth, at the heart of Newcastle. Tailors dominated the Castle Garth, which was itself a hive of low-status textile manufacturing activity, with a wide variety of specialist textiles occupations, discussed in more detail below.

Building trades, which comprised mainly house carpenters and masons with a number of ancillary trades including bricklaying, brickmaking, and slating, made up 5.7 per cent of the total weighted sample of fathers, and they were concentrated around Pilgrim Street and the central markets where 45 per cent of them lived. Roughly, they shared this pattern with coopers and carpenters, suggesting again that the skill of carpentry in Newcastle transcended the specific products they made; in other words, that even though ship carpenters, house carpenters and joiners were nominally members of different guilds, they shared many of the same skills and were known to move between the three areas of work (see Chapter 4). Pilgrim Street Gate was also the meeting house of the Joiners' Company, so again, the carpenters' community identity and sociability were perhaps reflected in where many chose to live.[51] Needless to say, the men who did live around the markets and Pilgrim Street made up less than half of the total: other carpenters, as well as house wrights, masons and others, were sprinkled throughout the rest of the town. They lived in higher numbers further from the river and the Close, presumably where housing was cheaper and they could slot into relatively low-quality accommodation in the yards and vennels off the main streets. There were builders in every Area in town: there may have been a concentration of house wrights around Pilgrim Street, but there was certainly no segregation.

A similar case can be made for manual labourers, who made up 9 per cent of the sample and were widely spread, with fairly small numbers in each Area across Newcastle. There were slightly higher numbers in the northernmost parts of the city, inside and outside Pilgrim Gate and the Newgate, although the overall numbers here are relatively small. Labourers made up just over 17 per cent of the fathers in around Newgate and the northern suburb but they also maintained a minority presence in all the other Areas, again filling the lower-rent lower-status housing. Twenty-nine labourers were recorded on Pilgrim Street and ten on the Quayside, but they were conspicuously absent from the wealthy centre of town,

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[51] For the guilds see Mackenzie, *Newcastle*, pp. 678-698 and Brand, *Newcastle*, pp. 321-30.

including the Close and the Sandhill, where rent would have been particularly high. The average labouring father lived 856 feet from the guildhall and the Castle; only coal miners, shipbuilders and keelmen lived further away. Both building craftsmen and labourers, many of whom would have worked in the building trade for part of the year, were spread across the city but were more likely to be found in the upper parts of town; in most cases they seem to have avoided the premium housing areas around the markets.

New data have allowed me to flesh out Langton's conclusion that 'economically and socially functional groups based on occupations still existed' in Newcastle. They did, but only in a limited number of occupations and usually for specific reasons. Tanners were relegated to the northern part of town adjacent to the suburbs, and butchers mainly to a single street above the Quayside, due in part to sanitary concerns, but also to remain close enough to their respective markets. The reality is that other concentrations were usually a minority within each occupation: there were seldom more than a fifth of fathers in one occupation group living in the same Area; and conversely few Areas had more than a fifth of fathers from a single occupation group. All Areas were mixed, although Sandgate and, to a lesser extent, the Quayside, were heavily dominated by families whose income was brought in by the Tyne. The next section expands on why occupations congregated in particular sections of town. The town's occupational geography revolved around a number of centres, not just the 'heart' of the city. Equally, it had a centre of gravity that was increasingly moving towards the river as the east end above the Quayside became the chosen destination for Newcastle's merchant élite, and Sandgate became a self-sufficient community that catered for its migrant and increasingly industrial population.

Continuity and change

A common, fanciful trope shared by Gray, Bourne and a number of others in writing the history and antiquity of the town was that it had its origins in a handful of separate settlements. These were in particular 'Monkchester' – the friaries in the north – and Pandon, which had been 'a Town of itself distinct from Newcastle' until the two were united in 1299', and was supposedly named after the Roman Parthenon.[52] While Mackenzie rightly concludes that 'these suppositions rest on such flimsy foundations, as scarcely to deserve consideration' – as we have seen, Newcastle had its origins with the Castle itself – they raise the important question as to whether the 'heart' of the city was static as the population grew and became more distinctively proletarian.[53] In order to consider this question of

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[52] Bourne, *History*, p. 39.
[53] Mackenzie, *Newcastle*, pp. 160-82.

continuity and change, this section also compares the residential patterns produced by Heley based on probate and by Langton based on hearth tax, which give three individual impressions of residential patterns in 1560-1640, 1665, and 1701-5. It is unfortunately impossible to quantitatively analyse change over time, because the sources used by Heley and Langton vastly underestimate the numbers of keelmen and ignore the poorer members of other trades who made their homes in Sandgate and the northern suburb. Ultimately, without a continuous source that gives addresses and occupations consistently, historians can produce little more than snapshots of residential patterns in cities.

Where such snapshots exist they suggest that mobility both into cities and around them were very important features of early modern urban society.[54] It is generally assumed that mobility was high in these societies, and Newcastle appears to fit that pattern: the comparison between hearth tax samples form 1665 and 1666 suggests a rapid turnover in householders. People did not necessarily move far: ratepayers' assessment books survive for a number of years in Southwark, and offer a useful historical corrective. Boulton concludes that householders in Boroughside were actually fairly persistent in their residence: 30 per cent of the original 1631 householders were in the same house nine years later, and 45 per cent were still living in the same district of Boroughside, a level which was not dissimilar to that found in some rural areas of pre-industrial England.[55] No such sources survive for Newcastle, but it is extremely important to assess how much stability or change there was in residential patterns. Although there would be some 'path dependency' in residential pattern in Newcastle – in other words, an inertia preventing fast change along the lines suggested in the ideal types of Sjoberg or Vance – we would see some change over the century of evidence presented here. This proves to be the case. While superficially, much of the residential pattern remained essentially the same over the century, there were two significant developments. The first was a gradual movement of Newcastle's élite merchants from the area near the Guildhall into the main part of the Quayside as they increasingly focused their attention on coal. The second is the development of the area from Sandgate eastwards to the glasshouses as a large and expanding community that was increasingly a self-provisioning virtual town in itself.

'The lower part of town': the Sandhill, the Close, and the Castle Garth

Just as predicted by the models of Sjoberg and others, Newcastle's merchants dominated the central area of the town, symbolically surrounded by the Castle, the principal church (St Nicholas') and the Guildhall. Over half of all merchants lived in the Closegate

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[54] E.g. for York: Palliser, *York*, p. 114; for Coventry: Phythian-Adams, *Desolation*, pp. 191-2.
[55] Boulton, *Neighbourhood*, pp. 216-17.

Area, which included the Sandhill and the Side, both very prestigious addresses in seventeenth-century Newcastle, and there were also a smaller number living on the Close and up town on Pilgrim Street.[56] Merchant fathers were the largest group in the Close Area, making up 17.4 per cent of the fathers, compared to only 2 per cent in the town as a whole. The only group that outnumbered them were textile workers and retailers who, as we shall see, were also concentrated in the Castle Garth. Despite the large number of merchants who lived in this core area of Newcastle, the trend was downward, though inertia was high and movement slow.

Newcastle's merchants had not always lived on the Side and the Sandhill, however. Gray recounts how, from the early thirteenth century:

> [T]his town flourished in trading; builded many faire houses in the Flesh Market (then called the Cloath Market). The merchants had their shops and warehouses there, in the back parts of their houses…In that street the mayors, aldermen, and richest men of the towne lived. In after times, the merchants removed lower down towards the river, to a street called the Side, and Sandhill…[57]

The shift in focus from the Flesh Market a few hundred feet down to the Side and the Sandhill reflected the economic pull of the river in Newcastle, as well as the physical growth of the area, which had expanded through piecemeal reclamation from the twelfth century onwards.[58] By the seventeenth century, after a series of consolidations, the merchants firmly controlled the politics of the town, and Pamela Graves argues that the buildings and open spaces of the Side and the Sandhill were used by the town's oligarchy in the expression and practice of their power. In particular, the replacement of the Corpus Christi celebrations with a new mayoral election procession, which 'brought the focus of ritual to the lower end of town…was coincident with the epiphany of the Hostmen as an elite'.[59] Henry Bourne agreed that 'It is a spacious Place, and adorned with Buildings very high and stately…It is now that Part of the Town where the chief Affairs of Trade and Business are transacted…', and that the houses and shops 'are altogether those of Merchants'.[60]

This area was also the hub of Newcastle's specialist goods retailers, who bought from and supplied these élite merchants and households. The Side, wrote Bourne, 'is a very great descent, and lies narrow…It is from one end to the other fill'd with Shops of Merchants, Goldsmiths, Milliners, Upholstereres &c.' Below on the Sandhill was 'the Market for Fish,

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[56] C. Pamela Graves, 'Civic ritual, townscape and social identity in seventeenth- and eighteenth-century Newcastle upon Tyne', in Susan Lawrence (ed.), *Archaeologies of the British: Explorations of identity in Great Britain and its colonies, 1600-1945* (London, 2003), pp. 31-55.
[57] Gray, *Chorographia*, pp. 62-3.
[58] Colm O'Brien et al., *The Origins of the Newcastle Quayside: Excavations at Queen Street and Dog Bank* (Newcastle, 1988), Ch. 1-3.
[59] Graves, 'Civic ritual', p. 37.
[60] Bourne, *History*, p. 123; see also D.H. Heslop, G. McCombie and C. Thompson, *Bessie Surtees House: two merchant houses in Sandhill, Newcastle-upon-Tyne* (Newcastle, 1995).

Table 5.6 – Proportion of merchant and coal merchant fathers in Newcastle parishes

		merchant		coal merchant	
		N	% of parish	N	% of parish
St Nicholas'	1601-5	76	29.3	0	0
	1671-5	85	14.2	1	0.2
	1701-5	39	8.9	1	0.2
All Saints'	1601-5	18	3	3	0.5
	1671-5	23	1.4	21	1.2
	1701-5	16	0.8	45	2.3

Source: PRD/Allbap

Herbs, Bread, Cloth, Leather, &c.'[61] There was a perfumer living on the Long Stairs, a handful of tobacco cutters and tobacconists mostly living on the Side, a handful of watchmakers in the Close, and a bookbinder living in the Church Yard (of St Nicholas'). These specialist retailers clearly located themselves close to the concentration of wealthy merchants and large houses at the heart of the city.

Yet by beginning of the eighteenth century, Newcastle's merchants were gradually moving away from the relatively enclosed areas of the Sandhill, Side and the Close. The parish registers for Newcastle picked up this initial movement of merchants out of St Nicholas' at the end of the seventeenth century, although it did not happen quickly, and it is unclear where they were moving. St Nicholas' parish recorded the baptisms of 79 children to merchants in 1601-5, 58 in 1671-5 and only 39 in 1701-5: proportionally, this was a drop from more than 30 per cent of the parish's fathers at the beginning of the seventeenth century to less than 9 per cent at the beginning of the next (see Table 5.6). The houses they deserted were no longer occupied by a single wealthy businessman, often being sub-divided or put into commercial usage. One advertisement from the *Newcastle Courant* in 1723 suggests such an opportunity for redevelopment: 'The Old Fleece Tavern on the Key-side, Newcastle, at the Back and adjoining the Customs house, now in good Repairs, convenient, as ever it was for a Publick House, or particular Dwellings, for it may be divided into two or three tenements, and done with great Conveniencies, it having three Pairs of Stairs'.[62] Although the parish registers recorded a general loss of merchant fathers in Newcastle over the seventeenth century, other evidence suggests that at least some of them moved into new housing developments like Charlotte Square and Hanover Square on the west side of town, and as far out as the Leazes in the northern suburbs.[63] Peter Borsay's 'urban renaissance' included a withdrawal of elites from public space to conduct their leisure and entertainment

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[61] Bourne, *History*, p. 122.
[62] *Newcastle Courant* 158 (June 1723) quoted in Green, 'Houses and Households', pp. 263-4.
[63] Graves, 'Civic Ritual', pp. 46-8.

in private – or at least away from the rabble.[64] They began to prize the 'pleasant situation' of the upper town and Castle Leazes more than the convenience of being very close to the Quayside.[65] The stench of the Lort Burn, awash with the debris of urban life, was amongst a number of inconveniences that were driving the elite from the cental streets. So gradually they moved up town. A guidebook from 1805 describes how Westgate Street 'was gradually built after the opulent families had quitted the lower streets, and retired to the higher parts of the town.'[66]

The evidence suggests that Pilgrim Street was becoming another desirable address for Newcastle's merchants and higher-status tradesmen. While William Gray noted the Pilgrims' Inn 'where Pilgrims lodged that came to visit the shrine in Gesmond' but the longest paragraph on the single page devoted to the street is about the 'many passages into other parts of town'.[67] Bourne followed Gray's lead in the way he described many sections of town but for Pilgrim Street, he effused about the gentility of the neighbourhood and quality of the housing. Past the Upper Dene Bridge, he wrote, 'from hence downwards is the most beautiful Part of the Street, the Houses on each Side of it being most of them very pretty, neat and regular…', offering a list of the gentlemen who lived there.[68] These included Mr Fenwick, whose house is still standing at 98 Pilgrim Street. Though an older and smaller house originally, it was substantially rebuilt in the middle of the seventeenth century, and again remodelled in 1690.[69] Although Fenwick's house is the only surviving example, it is indicative of a number of the residents of late-seventeenth and early-eighteenth century Pilgrim Street.

This movement amongst Newcastle's non-coal merchants was reflected in the residential patterns of the hostmen, the merchants who primarily held the coal trade monopoly and therefore the key to enormous wealth in Newcastle. In 1701-5, half of hostman fathers lived in the Pandon area of All Saints, with a further fifth living on the Quayside and another fifth in Sandgate. Notably, none lived on the Side or the Sandhill, despite the fact that they had been recorded in the corresponding wards in the 1665 hearth tax.[70] Gray had said in 1649 that the Sandhill was home for 'merchant adventurers, merchants of coals, and all those that have their living by shipping', but by 1736 Bourne no

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[64] Borsay, *Urban Renaissance*.
[65] Bourne, *History*, p. 126.
[66] Anon., *Picture*, p. 10.
[67] Gray, *Chorographia*, p. 71.
[68] Bourne, *History*, p. 85.
[69] D.H. Heslop, B. Jobling and G. McCombie, *Alderman Fenwick's House: the history of the seventeenth-century house in Pilgrim Street, Newcastle upon Tyne, and its owners* (Newcastle, 2001).
[70] Langton, 'Residential patterns', p. 20.

Figure 5.1 – Tyne Bridge, from Gray, Chorographia (1649)
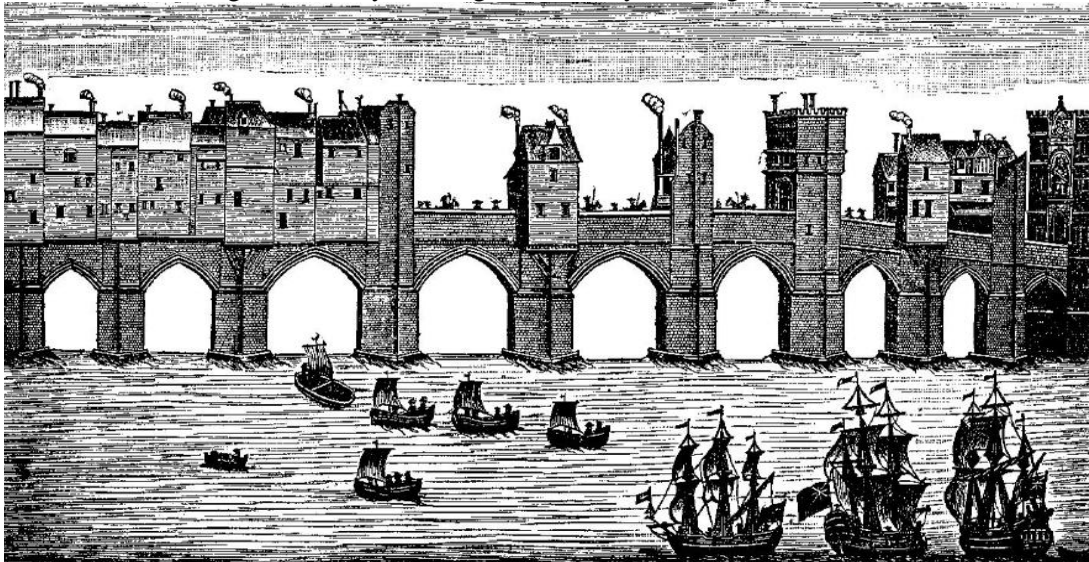
longer mentioned coal merchants specifically.[71] It is possible that some older hostmen still lived in the Sandhill, but younger, fertile hostmen were in very short supply in this area: in the space of 35 years, merchant numbers were slowly declining in the traditional 'core' of Newcastle.

As merchant numbers in the area dwindled, clothing manufacturers and retailers were making up the slack. This included a number of haberdashers as inhabitants of the Side in 1701-5, and a number of tailors were living here and on the Sandhill. Part of the attraction for tradesmen was the thoroughfare into the town from the Tyne Bridge, the main entry from the south, which came into Newcastle between the Sandhill and the Close (see Map D). There were a number of shops and houses on the Bridge itself, as is clearly shown on Gray's engraving of the Bridge (Figure 5.1).[72] Shops on the Bridge were small, but some in the Sandhill were very large: one cordwainer had more than one hundred pairs of shoes and boots listed in his probate inventory; another had a property with at least five distinct rooms and two separate workshops.[73] The Side and the Sandhill were clearly very prosperous trading areas for Newcastle's craftsmen.

Textile workers also dominated the area around the Castle, but this area attracted a much less prosperous sort. The Castle Garth was an administrative anachronism: freed by its royal prerogative from the oversight and regulation of Newcastle's Corporation, 'it drew itinerant traders, those not practising a recognized craft such as cobblers, and especially persons who through differences in religion or nationality might be looked on as "spies,

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[71] Gray, *Chorographia*, p. 64; Bourne, *History*, p. 123*ff.*
[72] Gray, *Chorographia*, pp. 38-9;
[73] Heley, *Material Culture*, p. 62.

Table 5.7 – Occupations in the Castle Garth, 1701-5

	Freq	%
bodicemaker	3	4.6
cordwainer	12	16.9
haberdasher	1	1.5
hatter	1	1.5
labourer	1	1.5
mariner	1	1.5
miller	1	1.5
musician	1	1.5
perriwigmaker	1	1.5
pitman	1	1.5
tailor	41	58.5
weaver	4	6.2
wigmaker	1	1.5
Total	70	100.0

Source: PRD/PRaddr

rogues, and traitors".'[74] It was built up from a ruin at the beginning of the seventeenth century, to have 'at least three public houses, a non-conformist chapel, a theatre, and numerous shops and houses' by the end.[75] Such a high proportion of non-conformists (including a meeting house) would suggest an even higher level of under-recording in the parish registers than other areas of the town, so it would be difficult to estimate the full occupational composition, but it was clearly dominated by textile workers, in particular tailors (see Table 5.7). The link with textiles was cemented when the first lease of the Castle Garth by James I was to the Tailors' Company in 1605, before it reverted to private hands in 1616. It was also known for having more space than other areas of town, which included nineteen gardens and thirteen low-quality houses occupying a large waste by 1620.[76] Thus the Castle Garth, from almost nothing at the beginning of the seventeenth century, had become a highly concentrated textiles area, another venue for trade, away from the markets, and an alternative neighbourhood with relatively cheap housing.

The result was that the character of this lower part of town changed significantly between the middle of the seventeenth century and the beginning of the eighteenth. Firstly, its share of the élite merchants that ran Newcastle was dwindling as they increasingly entirely specialised their efforts in coal and lived in the wealthier parts of the Quayside. This was the end of the transformation of Newcastle's trade from the export of wool, fish, grindstones and other commodities to a heavy specialisation in coal; while those who dealt directly in coal moved closer to the Quayside, it seems that those who did not were beginning to move away from the centre of town. What remained in the core of the town

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[74] Mackenzie, *Newcastle*, p. 653.
[75] John Nolan, 'The Castle of Newcastle upon Tyne after *c.* 1600, *AA*, 5th Series, Vol. 18 (1990), p. 79.
[76] Ibid., pp. 86-7.

was a number of high-status retailers on the Sandhill, the Side and the Close, who still catered for the tastes and requirements of Newcastle's élites and a wider market that was increasingly coming to Newcastle to shop.[77]

'Without the walls but within the liberties': Sandgate and the Quayside

If the Castle Garth was an area physically inside but administratively outside the central hub of Newcastle, then Sandgate was the reverse. The fast-growing population of All Saints' was led by the extramural area of Sandgate, although the Quayside inside the walls was also densely populated. The economic and social character of the two neighbouring areas differed markedly, and Sandgate was frequently the source of anxiety for Newcastle's élite writers. Suburbs were often seen as poverty-stricken, lawless communities, or conversely as places to escape from oppressive city regulations or religious harassment. For better or for worse, suburbs were seen as below or outside the towns on which they depended. This was not the case for Newcastle's eastern suburb. While Sandgate was frequently painted by the Newcastle élites as a seething, swearing, dirty mass of humanity, it was in fact a vibrant, varied and almost self-supporting economic community. Its wealthier inhabitants had no desire to escape regulation by Newcastle's corporation, something reflected in a common phrase from their wills – they lived in Sandgate, 'without the walls but within the liberties' of Newcastle.[78] This paradox – the separation of Sandgate as a distinct social unit and the need to maintain its economic integration in the town – led to a tension that coloured the way in which Newcastle's suburb was perceived and described at once as the dirty, cramped and poor suburb, and the economic powerhouse of Newcastle's coal trade and ancillary industries. Despite the overbearing words of contemporary commentators, Sandgate was a varied neighbourhood.

Alongside the growing number of merchants and hostmen identified in the previous section, occupations around the Quayside included a substantial proportion of the town's mariners and assorted other service trades. Contemporary commentators associated this with the range of ancillary trades supported by the port. Bourne described the Quayside as 'chiefly inhabited by such as have their Living by Shipping, such as Merchants, Hostmen, Brewars &c. As it is the great Place of Resort for the Coal-trade (the grand Support of this Town and Country, and many other Places also)…you see almost nothing but a whole Street of Sign-posts of Taverns, Ale-houses, Coffee-houses, &c.'[79] This was borne out by the parish registers, which recorded that one fifth of all food and drink workers in Newcastle

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[77] Welford, 'Functional goods', pp. 198-212.
[78] E.g. DPRI/1/1666/C11/1, DPRI/1/1676/R26/1, DPRI/1/1675/N7/1.
[79] Bourne, *History*, p. 133.

lived in this Area, as well as nearly one in five textiles workers and a quarter of barber surgeons. It also housed the town's customs officers, who were employed in taxing and regulating trade. The economy of the Quayside was certainly oriented towards the river, but it also sustained a variety of other trades through booming demand from the relatively wealthy men who lived within this neighbourhood, and nearby in the Side and the Sandhill.

Bourne contrasted this aspect of the Quayside directly with Sandgate, outside the walls, saying of the latter that 'It is chiefly inhabited by People that work upon the Water, particularly the Keelmen'.[80] It is easy to see how he formed this opinion: coal transport workers made up two-thirds of fathers in Sandgate, compared with fewer than a third in the town overall. But other occupations intermingled with this large group: Sandgate was at least as widely representative as any other area of town. It was home to at least one father from almost every occupation group and included more than a tenth of all smiths, food workers, barbers, glassmakers – not to mention more than two-thirds of the shipwrights and more than one-fifth of mariners and seamen. Some of the population were undoubtedly drawn to live close to the water because of their occupation; but, despite Bourne's lack of comment on the subject, there was clearly a substantial service industry that provided the local population with food, drink, household goods and a variety of other necessities. Keels required their 'furniture', including a long oar, a sail, ropes, and the shovels used for the coal; and keelmen and other Sandgate residents were consumers of a range of household goods alongside the most basic necessities.[81] Undoubtedly the families of Sandgate bought some of these goods in the formal markets of the central part of town and Pilgrim Street. But it is not much of a stretch to assume they interacted – both economically and socially – more frequently with the people that lived around them. We should allow for more interaction between occupations than did Clark and Slack, who saw social cohesion in early modern towns only where 'face-to-face relationships may have been preserved…in separate streets and quarters of towns which were often dominated by a single occupational group'.[82]

This occupational intermingling can be revealed in the debts recorded on Newcastle inventories. William Cooke, a Sandgate shipwright who died in 1624, was in debt to, among many others, Jane Browne of Sandgate widowe' and 'Will[ia]m Crosbie of Sandgate', who could have been the keelman recorded as a father, or at least some relation to the keelman Thomas Crosby, since it was an unusual surname.[83] The mutuality between different trades and occupations in Sandgate is implied even more strongly by the witnesses to wills. Whilst

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[80] Ibid., p. 154.
[81] See Chapter 6.
[82] Clark and Slack, *English Towns*, p. 142.
[83] DPRI/1/1624/C7/1-3; PRD/Fathers/crosby.wm, /crosby.tho.

it has generally been difficult to trace the individuals mentioned as witnesses, and occupations were rarely given on the will itself, the pattern is clearly one of a mixed group more than any distinctive occupational segregation. The shipwright Robert Davison was witnessed by William Fletcher and Francis Crabtree, two butchers; William Harrison, the blacksmith, by 'my trysty Freinde John Stobbs merchante', who also wrote the will; and Edward Nixon a master and mariner, was witnessed by George Story, a barber surgeon.[84] The keelmen had their wills witnessed by an equally wide variety of tradesmen: William Grame by a baker-brewer called William Dalton; Gilbart Hunter by a master and mariner among others; and John Whitehead by shipwrights.[85] It is considerably more difficult to find examples of men whose witnesses were solely from their own trade.[86] The pattern of this is clear, and seems to have changed little over the century: social networks, at least as far as they can be revealed by the witnessing of wills, were no more occupationally segregated in Sandgate, the alleged 'keelman ghetto', than they were anywhere else in the town, or indeed in the country.[87]

It is clear that, despite the apparent dominance of the port, a wide variety of Newcastle trades rubbed shoulders in Sandgate; but the sectoral dominance of the River nonetheless gave the area a distinctive atmosphere. The coal transport workers operated on a daily routine that was very different from other parts of the town. Their work was governed by the tide and not strictly by time, although working on Sunday was still condemned.[88] Mariners, as we have seen, needed access to the Quayside at all times of day and night and the same was true in Sandgate. A petition from nearby competitor Sunderland noted that 'this is a seaport in which many people are obliged to be up at all hours of the night to attend the tides and their affairs upon the river', and in Newcastle too the influence of the tides went further than just the mariners and keelmen.[89] We might presume that the inns and alehouses (or 'canhouses') of Sandgate worked along a similar pattern, given that it was a common practice to provide beer after work; a host of other cleaning, sweeping, carrying jobs pertained to the keels that had just returned.[90] Even some of the guild-organised trades – the shipwrights, and presumably the victuallers – operated with the tide in mind. Almost all residents of the Quayside and Sandgate must instinctively have known both the time of day

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[84] DPRI/1/1680/D4/1; DPRI/1/1614/H5/1; DPRI/1/1675/N7/1.

[85] DPRI/1/1636/G8/1; DPRI/1/1611/H23/1; DPR/1/1686/W12/1.

[86] The single possible exception was George Nicholson, a shipwright. In his case, the only one of three witness that could be traced shared the same trade: DPRI/1/1685/N2/1.

[87] Cf. Margaret Spufford and Motoyasu Takahashi, 'Families, Will Witnesses, and Economic Structure in the Fens and on the Chalk: Sixteenth and Seventeenth-Century Willingham and Chippenham', *Albion*, Vol. 28 (1996), pp. 379-414.

[88] Dendy, *Hostmen*, pp. 38, 129 and *passim*.

[89] Quoted in E.P. Thompson, 'Time, Work-Discipline, and Industrial Capitalism', *P&P*, No. 38 (1967), p. 60.

[90] See below, Chapter 8.

Table 5.8 – Occupations of fathers living inside and outside the town walls, 1701-5

	inside		outside		uncertain		Total
	N	%	N	%	N	%	
agriculture	2	28.6	5	71.4			7
extractive	20	17.7	93	82.3			113
wood	77	87.5	11	12.5			88
building	138	91.4	13	8.6			151
glass	27	79.4	7	20.6			34
metal	93	79.5	19	16.2	5	4.3	117
food & drink	228	81.1	52	18.5	1	0.4	281
textiles	219	81.7	41	15.3	8	3.0	268
leather	175	89.3	21	10.7			196
shipbuilding	60	37.5	100	62.5			160
misc manuf.	22	95.7	1	4.3			23
medical	39	75.0	13	25.0			52
coal transport	204	19.0	872	81.0			1076
transport	167	74.2	58	25.8			225
labour	144	64.9	77	34.7	1	0.5	222
coal merchant	38	74.5	13	25.5			51
merchant	70	94.6	4	5.4			74
misc services & prof.	136	80.0	34	20.0			170
status	33	35.1	61	64.9			94
blank/unknown	136	55.7	108	44.3			244
Total	2028	55.6	1603	44.0	15	0.4	3646

Source: PRD/PRaddr

and the condition of the tide. This surely promoted the need for the quasi-autonomous economy that could be found in the east end of town, and helps to explain the full range of occupations that were to be found here.

Sandgate's localised economy ensured that the town's merchant élites envisioned it as different from the rest of town in two important and related ways: it was where the poor lived, and it was a place of questionable morals.[91] The first problem had its origins in the town's physical history. In the seventeenth century, Sandgate was a fairly recent addition to Newcastle's eastern wing: although not drawn on Speed's map, it had already been inhabited for around hundred years by this time. Since the eleventh-century origins of the town's shipping trade, the area had been used to dump sand ballast, gradually filling out the riverbank. The lack of surviving records of the late-medieval town mean that we have to rely on archaeological evidence, and it is clear that, by the fifteenth century, the main street of Sandgate had been laid and the neighbouring land was divided and the first houses and workshops erected.[92] It is difficult to be very specific about the quality of this housing by the seventeenth century, although it was known by contemporaries to be cramped and of

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[91] Fewster, *Keelmen,* pp. 3-6.
[92] Glyn Goodrick et al., 'Excavations at Newcastle Quayside: The Evolution of Sandgate', *AA*, 5th series, Vol. 22 (1994), pp. 219-33; Barbara Harbottle, 'The Medieval Archaeology of Newcastle', in Newton and Pollard (eds.), *Newcastle and Gateshead before 1700*, pp. 23-40.

poor quality. There were a number of single-room tenements, some with garrets above; other housing was created by the subdivision of larger buildings into smaller tenements. A Sandgate shipwright, George Watson, who died in 1623, let what he called six 'little tenements' to six individual keelmen in Sandgate.[93] This practice that was very common in seventeenth century towns, including in Bouroughside in Southwark, where large inns in the back alleys away from the High Street were converted into multiple tenements for poorer occupants.[94] Similar patterns have been noted elsewhere including Ipswich, where population growth outstripped the growth in housing stock.[95] In Sandgate, this was combined with buildings that were already very close together creating, for some contemporary writers at least, the overall effect of overcrowding.

This notion of small, densely-packed households is largely confirmed by analysis of the hearth tax, as we briefly saw in Chapter 2. Households in Pandon and Austin Tower wards, which included the Quayside inside the walls, had on average three hearths per household compared with two in Sandgate.[96] The same result is also true if we control for occupation: mariners had an average of 3.9 hearths in Pandon ward compared with 2.1 in Sandgate. Food and drink workers had an average of 2.3 hearths in Sandgate but 3.8 in Pandon and Austin and 4.2 in Plummer Tower wards. Men of different occupations therefore all lived in a level of housing, at least as measured by the number of hearths, that was lower than the standard at the Quayside and other areas of the town inside the walls. The housing rent must have been particularly attractive in this area, implying a degree of Vance's 'class zoning' – that is, that poorer members of many trades lived in this area. Shipwrights were the exception: many lived in, or just east of, Sandgate amongst their poorer neighbours, whereas only relatively few lived inside the walls. Shipwrights were frequently landlords to their poorer neighbours in Sandgate, and some of them had substantial property empires, a process that mirrored the behaviour of the mariners and shipwrights in London, who, according to Stow's 1598 *Survey* 'have builded many large and strong houses for themselves, and smaller for Saylers'.[97]

Thus most houses had only a single hearth, and Sandgate had very high exemption rates. This left a deep impression with many of the contemporary commentators and some more recent historians. Bourne lamented the overpopulation of Sandgate: 'This Street has in it a vast Number of narrow Lanes on each Side of it, which are crouded with Houses…The number of Souls in this Street and the Lanes belonging to it, is computed to several

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[93] Heley, *Material Culture*, p. 49.
[94] Boulton, *Neighbourhood*, p. 174.
[95] Reed, 'Ipswich', pp. 118-19.
[96] PRD/HTax_AS
[97] Heley, *Material Culture*, p. 49; John Stow, *Survey of London* (London, 1598).

Thousands.'[98] By 1830, the dismal reputation of the area was confirmed: the *Gateshead Intelligencer* reported that in Sandgate 'you may wind your way through dark labyrinths of cross passages which lead and twist into all the living sepulchres of the place, comprising an endless mass of rubbish, exhibiting every variety of vice and misery…'.[99] Joseph Fewster comments drily that 'Sandgate retained an unsavoury reputation' from the seventeenth through to the nineteenth.[100]

We should be cautious in reading the extent of actual deprivation in Sandgate from these sorts of contemporary comments, and even from basic hearth tax calculations. Criticisms of the physical properties of Sandgate were too easily compiled with complaints about the religious and moral condition of the area, which worried clerics and commentators inside and outside the Church of England. The quotation from the *Intelligencer* continues '…this asylum of bawds, rogues, prostitutes, fortune tellers etc.', accusations that have frequently been ascribed to ports and the poorer suburbs of towns alike.[101] Yet this moralistic trope on Sandgate has been cultivated since at least the mid-eighteenth century, and the visit of John Wesley, who famously described the area as 'the poorest and most contemptible part of town';[102] such a rhetorical caricature exaggerates the character of deprivation in the seventeenth century. Non-religious commentators were less likely to see Sandgate in this uniquely negative light. It is unsurprising that the Gray offered no criticism – he was, as we have seen, overwhelmingly positive about the Tyne – but other sources are also less critical.[103] Sandgate in Corbridge's map is visually no more cramped than the Quayside, for instance, and the Privy Council noted in 1617 that

> whereas it is a thinge much complayned of that servantes in the Cloase, Sandgate, and Gatesheade, doe use ordinarvlie to cast all their rubbishe into the river in the night season… that for redresse thereof, every servant inhabitinge in the places aforesaid be sworne once every yeare not to doe any such thinge.[104]

It is important to note that Sandgate is considered alongside the Close and Gateshead in the same thought: the servants of tradesmen and householders in all three areas should be stopped from disposing of waste in the River. Sandgate was not seen as different, as distinctively poor, or as notably more immoral.

The aggregate hearth tax analysis hides some important variation. There were a number of large houses in the area with over seven rooms, and a variety of auxiliary rooms

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[98] Bourne, *History*, p. 154.
[99] Quoted in Fewster, *Keelmen*, p. 4.
[100] Ibid., pp. 4-6.
[101] Ibid., p. 4.
[102] Nehemiah Cullock (ed.), *The Journal of the Rev. John Wesley…*, 8 Vols. (London, 1909-16), iii., pp. 13-14.
[103] Gray, *Chorographia*; Sweet, 'Urban Histories', pp. 176-7.
[104] TNA PC2/28 f.545. Servants were commonly blamed in such nuisance complaints: Skelton, 'Regulation', pp. 22, 53.

and buildings including cellars, shops and brew houses. Some of the houses on the thoroughfare through Sandgate, and in particular 'upon the North side of the forestreet', were substantial indeed, and attracted wealthier residents.[105] These included Edward Nixon, a master mariner who died in 1676, leaving an inventory valued at more than £177 and a large farm in County Durham as well as his house in Newcastle.[106] On the south side of the road, the houses of shipwrights were frequently large, occupying a considerable floor area, often from the road right down to the river side and including large cellars, at the dryer end of the house, up and away from the river.[107] Furthermore, while hearths were seen by contemporary social commentators, and are seen now by historians, as a valuable and roughly accurate guide to wealth, it should be noted that a single hearth in a dwelling certainly did not indicate it was very poor; nor did it necessarily indicate it was very small. Shared housing like Sandgate's tenements would have been easier to heat than a standalone household, and could easily have included separate unheated parlours or chambers; similarly single-hearths households in Newcastle, where they can be traced between the hearth tax and probate records, are shown in Chapter 6 to be sometimes far from destitute, including a number of new consumer goods in their inventories by the late seventeenth century.[108] Not everyone in Sandgate was desperately poor, then, but they were on average poorer than men who lived on the Quayside within the walls, even in the same occupation groups.

Despite having a noticeably different character from the rest of the town, Sandgate's tradesmen were keen to associate themselves closely with Newcastle itself. For Gilbart Hunter and Thomas Dods, this was reflected in an insistence they be buried at All Saints', within the walls, despite living outside.[109] The keelman James Bell, asserted that he lived in 'Sandgate within the lybties of Newcastle upon Tyne', and should therefore be buried at All Saints' 'unto the southeast end of the sayde Churche'.[110] This claim of the 'liberty' of Newcastle implied by residency in Sandgate was particularly common among guild-affiliated tradesmen. Edward Nixon, a typical master mariner, identified himself as living 'in Sandgate without the walls but within the Liberties of the said Town and County of Newcastle upon Tine'.[111] Surely these men valued their participation in what Phil

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[105] This side of the road is mentioned specifically in a few wills including DPRI/1/1633/R2/1, DPRI/1/1675/N7/1, DPRI/1/1666/C11/1-2
[106] DPRI/1/1675/N7/1.
[107] Heley, *Material Culture*, p. 67.
[108] Green, 'Houses and Households', p. 75.
[109] DPRI/1/1611/H23/1; DPRI/1/1636/D3/1.
[110] DPRI/1/1609/B2/1.
[111] DPRI/1/1675/N7/1. Other examples of the 'without-but-'within' formula include DPRI/1/1666/C11/1-2, DPRI/1/1676/R26/1.

Withington has called the 'politics of commonwealth'. Citizenship allowed them to contribute to the democratic processes of their guilds and the town, which included the election of the aldermen, Mayors, and Parliamentary representatives; it also permitted participation in the ceremonial life of the town, which presented an image of inclusion and mutual responsibility amongst citizens.[112] More prosaically, citizenship also embodied the concern for collective and – by extension – individual profit; and the tradesmen of Sandgate were keen to maintain a share in Newcastle's wealth. In practice, this often meant their identification with Newcastle and against the true suburb – Shields, at the mouth of the Tyne. It was both socially and commercially necessary for a shipwright to identify as a full resident member of Newcastle's Company, and not one of the 'thirteen-penny men' like John Wilkins and George Selby who lived at Shields and had to pay a fee in order to be thrown the scraps of work that could not be fulfilled by full members of the Company.[113]

This commonplace insistence on the inclusion of Sandgate within the town is a marker of the relationship between the two. It reflects a pressing concern that Sandgate might be seen as separate from Newcastle, a suburb in line with those around London or Edinburgh that retained a degree of economic autonomy, and not an integral neighbourhood of town. This independence was not wanted by the area's tradesmen, who stood to benefit greatly from inclusion in Newcastle's economic prerogatives. Nonetheless, a quasi-autonomy *was* reflected in Sandgate's occupational makeup, which thanks to its sheer size was at the same time both specialised and varied – while keelmen did make up a large proportion of inhabitants, there were large numbers of other workers too. It is clear that this area of town, by 1705, was an urbanised and practically self-contained community, and this is something that developed over the seventeenth century as the flow of migrants into the area soared and then slowed. They were distinctively poorer than their neighbours inside the town walls around the Quayside; but, as Chapter 6 elaborates further, they were not as poor, as rough, nor as homogenous as has since been assumed.

Conclusion

This chapter began by considering the question of whether seventeenth-century Newcastle was residentially organised by the class of its inhabitants or by their occupation. In other words, was this industrialising town exhibiting the geographical characteristics that

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[112] Phil Withington, *The Politics of Commonwealth: Citizens and Freemen in Early Modern England* (Cambridge, 2005); *idem.*, 'Two renaissances: urban political culture in post-Reformation England reconsidered', *Historical Journal*, Vol. 44 (2001), pp. 239-68; King, 'Sociability', pp. 57-9. See also David Rollison, *Commune, Country and Commonwealth: The People of Cirencester, 1117-1643* (Woodbridge, 2011).
[113] Rowe, *Shipwrights*, pp. 14-15 and *passim*.

theorists would associate with a medieval city or with an industrial – and capitalist – city? John Langton, as we have seen, thought that in 1665 it was predominantly the former, but the source he used was unrepresentative of the poorer inhabitants. The answer is not a simple one. In reality we could never expect a real town, on the basis of an empirical study, to conform to a geographer's 'ideal type'. Nonetheless, the parish registers have added new evidence, which paints Newcastle, once again, as a growing industrial town, organised on the basis of social status or class amongst other considerations.

Occupations certainly played a role in where people lived throughout the seventeenth century, and the differences between sources make it difficult to be certain whether that role was quantitatively transformed over the period. What is clear is that there was substantial continuity in the areas which were occupationally concentrated: tanners lived in the far north of town in all three samples; disproportionately large numbers of merchants lived in the Sandhill, the Side and at the Quayside in all three; large numbers of cordwainers lived in the markets; and victuallers lived on Pilgrim Street. Whatever pull the guilds had in concentrating where their members lived and operated at the beginning of the seventeenth century was still functioning, to a diminished degree, a century later. This tallies with earlier discussion: other evidence agrees that Newcastle's guilds continued to exert a social and economic pull on the townspeople well into the eighteenth century, albeit in a somewhat altered and diminished form. There was a combination of social and practical forces at work, which can be divided into three principal considerations: first, a location that was particularly convenient, or necessary for their occupation. So the shipwrights were more likely to live at St Anne's Close, where there was more space; tanners were relegated to the higher parts of town, away from people who could be offended by the smell. Second, proximity to markets and customers: cordwainers and food producers tended to congregate around the central markets and Pilgrim Street, but had begun to spread outwards. Third, proximity to the guildhall, the Castle or individual guild halls, which embodied the civic and social life of the town, but were gradually losing their pull.

Although they help to explain some of the residential concentrations that still existed in Newcastle, the evidence from baptisms has shown that these patterns were at best very loose for most occupations by 1700, and that social class – also within occupation groups – was an increasingly important in where people lived. The sudden surge in population in Newcastle at the beginning of the seventeenth century and its continued slow growth later had shaken up residential patterns, and required large suburbs to house the growing industrial population, in particular for keelmen in the east and pitmen in the north. These men were joined in the suburbs by the poorer practitioners of almost all other occupations,

and the result was neighbourhoods, outside the walls, which had a new character mistrusted by the town's authorities. Here the guilds no longer had the same occupational and social pull; the markets for food and other goods began to decentralise as the population expanded in the areas outside the walls and the town's centre of gravity was pulled inexorably southwards and eastwards. Over the seventeenth century, Newcastle's eastern suburb of Sandgate had developed a size and occupational diversity that meant it functioned as a self-supporting neighbourhood. Despite the apparent concentration of keelmen in the area, it housed the poorer families associated with virtually every other trade in the town. Although, for social, spiritual or commercial reasons the association with Newcastle was very important for the residents of Sandgate, in practice they would not have needed to venture through the gate itself into the town from one week to the next – the main road outside the walls housed alehouses, bakeries, apothecaries, smiths, shoemakers, tailors, glassmakers, carpenters, and others. Henry Bourne was wrong: the 'town of itself distinct from Newcastle' did not lie in the distant and romantic Roman past of Pandon but in the present and future of Sandgate.

Table 5.9 – Occupation groups in Newcastle's Areas, 1700-5

		Area									
		1 Qsd	2 PS	3 CG	4 CM	5 NG	6 WgS	7 WS	8 NS	9 Qsd	Total
agriculture	Count	0	0	0	0	1	2	0	5	0	8
	Expected Count	1.4	1.1	.6	.7	.3	.5	.1	.5	2.9	8.0
	Adjusted Residual	-1.3	-1.1	-.8	-.9	1.3	2.1	-.3	6.8	-2.1	
extractive	Count	0	7	1	1	10	3	0	85	3	110
	Expected Count	19.2	14.5	8.4	9.3	4.0	7.1	1.6	6.4	39.5	110.0
	Adjusted Residual	-4.9	-2.2	-2.7	-2.9	3.1	-1.6	-1.3	32.5	-7.4	
wood	Count	10	24	21	16	1	4	0	4	7	87
	Expected Count	15.2	11.5	6.7	7.3	3.2	5.6	1.3	5.1	31.3	87.0
	Adjusted Residual	-1.5	4.0	5.9	3.4	-1.3	-.7	-1.2	-.5	-5.5	
building	Count	20	43	16	30	14	16	2	2	17	160
	Expected Count	27.9	21.1	12.2	13.5	5.8	10.3	2.4	9.3	57.5	160.0
	Adjusted Residual	-1.7	5.2	1.1	4.8	3.5	1.9	-.3	-2.5	-6.8	
glass	Count	10	3	9	5	0	0	0	0	7	34
	Expected Count	5.9	4.5	2.6	2.9	1.2	2.2	.5	2.0	12.2	34.0
	Adjusted Residual	1.9	-.8	4.1	1.3	-1.1	-1.5	-.7	-1.5	-1.9	
metal	Count	17	40	14	17	2	8	5	5	7	115
	Expected Count	20.0	15.2	8.8	9.7	4.2	7.4	1.7	6.7	41.3	115.0
	Adjusted Residual	-.8	6.9	1.9	2.5	-1.1	.2	2.6	-.7	-6.8	
food & drink	Count	56	109	15	30	7	17	3	15	28	280
	Expected Count	48.8	37.0	21.4	23.6	10.2	18.0	4.2	16.3	100.6	280.0
	Adjusted Residual	1.2	13.2	-1.5	1.4	-1.1	-.3	-.6	-.4	-9.4	
textiles	Count	46	27	53	16	12	65	3	12	28	262
	Expected Count	45.6	34.6	20.0	22.1	9.5	16.9	3.9	15.3	94.1	262.0
	Adjusted Residual	.1	-1.4	8.0	-1.4	.9	12.6	-.5	-.9	-8.8	
leather	Count	10	24	21	63	21	34	3	7	10	193
	Expected Count	33.6	25.5	14.8	16.2	7.0	12.4	2.9	11.3	69.3	193.0
	Adjusted Residual	-4.6	-.3	1.7	12.5	5.5	6.5	.1	-1.3	-9.1	
shipbuilding	Count	36	13	1	7	0	2	0	4	96	159
	Expected Count	27.7	21.0	12.2	13.4	5.8	10.2	2.4	9.3	57.1	159.0
	Adjusted Residual	1.8	-1.9	-3.4	-1.9	-2.5	-2.7	-1.6	-1.8	6.6	
misc. manufacturing	Count	0	2	11	6	0	3	0	0	0	22
	Expected Count	3.8	2.9	1.7	1.9	.8	1.4	.3	1.3	7.9	22.0
	Adjusted Residual	-2.2	-.6	7.5	3.2	-.9	1.4	-.6	-1.2	-3.5	
medical	Count	13	7	6	10	1	4	0	1	10	52
	Expected Count	9.1	6.9	4.0	4.4	1.9	3.3	.8	3.0	18.7	52.0
	Adjusted Residual	1.5	.1	1.1	2.8	-.7	.4	-.9	-1.2	-2.5	

		Area									
		1 Qsd	2 PS	3 CG	4 CM	5 NG	6 WgS	7 WS	8 NS	9 Qsd	Total
coal transport	Count	173	28	1	2	0	1	0	6	866	1077
	Expected Count	187.5	142.2	82.4	90.7	39.1	69.3	16.0	62.8	386.9	1077.0
	Adjusted Residual	-1.4	-12.3	-11.1	-11.6	-7.6	-10.1	-4.8	-8.8	36.3	
other transport	Count	103	23	12	14	11	5	0	4	53	225
	Expected Count	39.2	29.7	17.2	18.9	8.2	14.5	3.3	13.1	80.8	225.0
	Adjusted Residual	11.6	-1.4	-1.3	-1.2	1.0	-2.7	-1.9	-2.7	-4.0	
manual labour	Count	20	35	28	26	23	18	4	38	28	220
	Expected Count	38.3	29.1	16.8	18.5	8.0	14.2	3.3	12.8	79.0	220.0
	Adjusted Residual	-3.4	1.2	2.9	1.9	5.6	1.1	.4	7.5	-7.4	
coal merchant	Count	36	0	1	0	0	0	0	0	13	50
	Expected Count	8.7	6.6	3.8	4.2	1.8	3.2	.7	2.9	18.0	50.0
	Adjusted Residual	10.2	-2.8	-1.5	-2.2	-1.4	-1.9	-.9	-1.8	-1.5	
other merchant	Count	3	19	41	2	2	2	1	0	3	73
	Expected Count	12.7	9.6	5.6	6.1	2.7	4.7	1.1	4.3	26.2	73.0
	Adjusted Residual	-3.0	3.3	15.8	-1.8	-.4	-1.3	-.1	-2.1	-5.7	
misc. services & professional	Count	53	44	8	20	3	16	1	7	17	169
	Expected Count	29.4	22.3	12.9	14.2	6.1	10.9	2.5	9.9	60.7	169.0
	Adjusted Residual	4.9	5.0	-1.5	1.6	-1.3	1.6	-1.0	-1.0	-7.2	
status	Count	7	13	1	8	4	0	5	6	50	94
	Expected Count	16.4	12.4	7.2	7.9	3.4	6.1	1.4	5.5	33.8	94.0
	Adjusted Residual	-2.6	.2	-2.4	.0	.3	-2.6	3.1	.2	3.5	
unknown	Count	20	19	18	33	20	34	27	11	63	245
	Expected Count	42.7	32.4	18.7	20.6	8.9	15.8	3.6	14.3	88.0	245.0
	Adjusted Residual	-4.0	-2.6	-.2	2.9	3.9	4.9	12.8	-.9	-3.5	
Total	Count	633	480	278	306	132	234	54	212	1306	3635

Source: PRD/PRaddr. See text for explanation of terms.

Chapter 6. Work, status and wealth

Questions of order, rank, sort, status or degree were a deep preoccupation for the seventeenth-century English writer. In the countryside, this was reflected in the relationships between gentlemen, yeoman, husbandmen, and cottagers and labourers. Towns could be divided into three 'parts' or 'sorts', along the scheme of an anonymous *Apologie* from 1580s London. At the top were merchants and 'chief retailers', wholesale traders who could be splendidly wealthy; in the middle, 'the most part of retailers and all artificers', who comprised both self-employed masters and waged journeymen; and finally, the 'hirelings', labourers of no economic independence and just as little social standing.[1] Similar sentiments ran through a number of sixteenth- and seventeenth-century texts before being given proto-scientific precision by the herald Gregory King's 1688 'scheme'.[2] It was undoubtedly an impressive achievement, classifying householding men not strictly by degree but by an estimate of the wealth that they created and the size of household they could support. Categories were broadly driven by occupation, so 'Persons in Offices' had a higher yearly income than 'Persons in Sciences and Liberal Arts', who came above 'Artisans and Handicrafts': work created wealth which tallied with status. The reality was not quite so simple. While social commentators carefully delineated categories in the lofty echelons of society, lower down they were much less specific, indicating a lack of interest and knowledge. Since the 1990s, historians have paid closer attention to language, apprenticeship, sociability, and the nature of urban citizenship, revealing a 'middling sort' of many layers and overlaps, but notable shared characteristics.[3]

Only recently have we begun to disentangle the 'hirelings': Peter Laslett's comment that 'it is probably safe to assume that at all times before the beginnings of industrialization a good half of all those living were judged by their contemporaries to be poor' has been left largely intact for too long.[4] At its crudest, King's scheme divided the country's households

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[1] Wrightson, *Earthly Necessities*, p. 38.

[2] Reprinted in Thirsk and Cooper, *Economic Documents*, pp. 780-1

[3] E.g. Peter Earle, *The Making of the English Middle Class: Business, Society, and Family Life in London, 1660-1730* (London, 1989); Barry and Brooks, *Middling Sort*; Henry French, *The Middle Sort of People in Provincial England, 1600-1750* (Oxford, 2007); Withington, *Politics*.

[4] Peter Laslett, *The World We Have Lost* (London, 1965), p. 45.

into those 'increasing the wealth of the country' and those 'decreasing' it. The decreasers outnumbered the increasers by nearly two to one, but were given only four categories – two military, one 'cottagers and paupers', and one 'labourers and out-servants'. These two latter groups were very large, amorphous and ill-defined. Tom Arkell demonstrates that they bore little relation to any studies of either household size or income, and he suggests that King's scheme was in fact 'semi-fictitious' and that 'the real world was quite different, as King certainly knew, with people's incomes ranging widely within most categories and overlapping with others'.[5] Perhaps instead we should follow the lead of Daniel Defoe, who was more sensitive to the levels of both poverty and skill amongst labourers and mechanics, and what that implied for their status. For Defoe, the 'property of skill' distinguished artisans from the 'workmen' below them and the 'drudges and labourers' below them; and in turn this distinguished those 'who labour hard but feel no want' from 'the poor that fare hard' and finally 'the miserable, that really pinch and suffer want'.[6] This kind of subtly layered analysis is more helpful for understanding seventeenth-century urban society as well the eighteenth.

Nowhere is this more so than in Newcastle, a town which has been characterised by Joyce Ellis in this period as being highly polarised 'between an unusually restricted elite and the vast, quasi-proletarian multitude of the poor'.[7] While it is undoubtedly fair to characterise Newcastle's merchants as a restricted élite, and a very wealthy group indeed, the second part of this statement will be shown to be an unfair characterisation of a wide and diverse group. A growing proportion of the population were proletarian, in the strict sense that they made a living by selling their labour. These families *did* overwhelmingly have a single hearth, but this did not necessarily make them a uniform poor, as the statement suggests. Furthermore, occupation proves to be an imperfect predictor of wealth and status according to the measures of hearth tax and probate. Drawing sharp boundaries between social classes or strata in Newcastle – between the middling sort and those both above and below – with any accuracy or predictive power is impossible. There were real differences in economic experience but, just as some merchants lived in relatively modest accommodation (at least when they were in town), and some craftsmen were extravagantly wealthy, so the differences between the labourers and keelmen and poorer middling sort craftsman were not set in stone.

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[5] Tom Arkell, 'Illuminations and distortions: Gregory King's Scheme calculated for the year 1688 and the social structure of later Stuart England', *EcHR*, Vol. 59 (2006), p. 65.
[6] Wrightson, *Earthly Necessities*, pp. 307-9; John Rule, 'The Property of Skill in the Period of Manufactures', in Patrick Joyce (ed.), *The Historical Meanings of Work* (Cambridge, 1987), pp. 99-118.
[7] Ellis, 'Dynamic society', p. 197.

Measuring status and wealth

A number of tools are available to historians to capture the wealth and status of individuals in English society, but all are imperfect. Thanks to a blooming fiscal state, tax records (in this case the hearth tax) offer an attempt by local and national authorities to account for every household in the country, including an indication of their level of wealth. Likewise, thanks to the insecurities of a growing economy of debt that required executors to closely account for their disposal of an estate, probate inventories offer a much deeper glimpse into the material lives of a narrower section of society. The two types of record, in conjunction with occupations drawn from the parish register database, are imperfect, but offer both breadth and depth of analysis.

The hearth tax lists used in this study are from Lady Day 1666.[8] Hearth tax has been used on its own and in conjunction with other records for social or historical research since Gregory King drew up his population tables in the 1690s. Nearly forty years ago, John Langton linked Newcastle's 1665 hearth tax with the freemen's rolls to enable him to map occupation zones, as we saw in the previous chapter. By linking a one-off levy with the Warwickshire hearth tax, Phillip Styles, and later Tom Arkell, have been able to include more detail on individuals, including a full range of occupations, both rural and urban.[9] Hearth tax has consistently been a staple of local and micro-historians, as well as regional and national comparative studies. In a town as varied and fluid as Newcastle, record linkage is somewhat more problematic than in a relatively isolated village. Non-standard spelling of names is a particular problem: Arkell calculates that (in Warwickshire) 7 per cent of names were altered very substantially within four years, through the process of transcription and retranscription.[10] The All Saints' registers present a further obstacle. The parish clerks dealt with a host of unfamiliar names (many Scottish, but also Dutch and Scandinavian) that led to an array of spellings of 'Duncan' or 'McLeish', for instance. This makes the margin for error in linkage high, but sensitivity to local phonetic spelling has allowed 10,000 individual fathers to be identified from baptisms,[11] and their names and dates to be matched against the 1666 hearth tax returns for the areas that correspond with All Saints' parish.[12]

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[8] TNA E 179/158/101, compiled in PRD/HTax_AS. I'm grateful to the British Academy Hearth Tax project for allowing me to use their data.

[9] Tom Arkell, 'Introduction', in his *Warwickshire Hearth Tax Returns: Michaelmas 1670 with Coventry Lady Day 1666* (Stratford, 2010), p. 82.

[10] Arkell, 'Introduction', p. 43.

[11] For the theory and practice of these techniques: E.A. Wrigley (ed.), *Identifying People in the Past* (Suffolk, 1973).

[12] Because of the administrative structure and rapid growth of Newcastle, the parish boundaries do not align neatly with the administrative units used for the hearth tax: the wards line up with the towers on the city walls and not the civil parishes. Nonetheless, there is enough overlap to make a reasonable assumption seven wards

Of the 1196 households recorded in All Saints in 1666, 599 named householders were linked with unique fathers in the baptism register. This leaves 597 'missing links', of which 277 are demonstrably female so would not usually appear in the baptisms. Another 177 records could not be linked because of uncertainty, usually because two or more men with the same name baptised children close to 1666. A further 172 records were impossible to link because there was no obvious correlation with any father in the baptism record. Amongst the unlinked men, there was a handful of individuals with five or more hearths, the marker for gentility suggesting by Gregory King and later endorsed by Peter Laslett.[13] But the majority of unlinked householders lived in houses of one or two hearths: the hearth-per-household average, at 1.70, is considerably lower than the average of the whole parish, suggesting a disproportionate number of low-status individuals that cannot be linked. There may be bias in the registers – that the relatively transient and poor labourers would not have children but might appear on the snapshot hearth tax. The lack of any additional information about these men makes it difficult to weight accordingly. But, given that these unlinkable names represent less than 15 per cent of all the hearth tax records, the problem is relatively minor. It is much more difficult to estimate how many fathers from the parish register are missing from the relevant hearth tax returns. Firstly, the absence of exemption certificates for any ward other than Sandgate means that households that were not required to pay are simply not present: either they were never recorded properly, or the records have since perished or are lurking undiscovered.[14] It is also impossible to be sure which fathers should be present on the hearth tax returns without fully reconstituting the parish register data, and in particular linking marriage and burial records to baptisms of children, to determine which fathers were still alive and living in Newcastle at the time of the tax. In practice, this is much more challenging than linking the children for each father together: there might be a considerable gap, especially before burial, which amplifies the problem of name overlap. In this context, mistaken linkages would be a particular danger: further reconstitution attempts may shed more shadow than light on the people missing from hearth tax returns.

Historians using the hearth tax are of course concerned with the extent to which hearth totals or exemptions are truly indicative of relative wealth or poverty, either within or between parishes and settlements.[15] Generally such studies have reinforced the value of the

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considered here represent All Saints' parish: Austen Tower, Gunner Tower, Pandon Tower, Plummer Tower, Sandgate and Wall-knoll.

[13] Laslett, *World We Have Lost*, p. 43.

[14] The National Archives' tax database makes this less likely: <http://www.nationalarchives.gov.uk/e179/>.

[15] Tom Arkell, 'Assessing the reliability of the Warwickshire hearth tax returns of 1662-74', *Warwickshire History*, Vol. 6 (1986-7), pp. 183-97; Chris Husbands, 'Hearths, wealth and occupations: an exploration of the hearth tax in the later seventeenth century', in Arkell and Schurer, *Surveying the People*, pp. 65-77.

hearth tax as an indicator of poverty, if used carefully: Henry French concludes that 'while assessors *were* fairly clear about who should pay, and who should be exempt, [the evidence from the parish of Newport in Essex] also indicates that historians should be wary of treating exemption as an invariable badge of poverty'.[16] The Newport exempt were a broad group, including some who were extremely poor, and many who oscillated between paying parish rates and not.[17] In other words, hearth tax was only likely to capture people of a certain social stratum, omitting the poorest and vagrants entirely. This problem is, of course, highly relevant to Newcastle society, and is therefore considered in more detail in the last section of this chapter.

The second tool used to estimate wealth is the probate inventory. This chapter is partly based on a structured sample of probate wills and inventories from across the seventeenth century, which has been designed to be inclusive of occupations which would normally be under-represented in a random sample. All historians who use inventories acknowledge the 'middling' bias that they represent, excluding both the poorest and the very wealthiest. The wills and inventories of the wealthiest Newcastle testators were frequently examined in the Prerogative Courts of York or Canterbury rather than in Durham's Consistory Court, particularly when the testator owned property in more than one diocese in the north (York) or across the country (Canterbury).[18] It has also been widely stated that probate records under-represented labourers and industrial workers: Lorna Weatherill reports that in her sample 'they are extremely rare for labourers' and Keith Wrightson notes that in the industrial parish of Old Swinford, in Shropshire, in 1688-9, 72 per cent of deaths did not result in an inventory.[19] The loss of some of the wealthiest testators is less of a problem for this study, with its focus on middling and lower groups, although some effort needs to be made to correct the absence of such a large proportion of labourers. We can explore the extent to which certain groups were under-represented in Newcastle by linking probate to the burials records. In total, 875 individual probate records were linked from Durham University Library's probate database to burials in the parish register database. These links came from a total of 2654 records listed as from 'Newcastle' or 'Newcastle All Saints', making just under a third of the records that could feasibly have been linked to Newcastle burials. 457 records were specifically listed as from All Saints', and of those, 247 were

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[16] Henry French, 'Essex and the Hearth Tax in the Late Seventeenth Century', in Catherine Ferguson, Christopher Thornton and Andrew Wareham (eds.), *Essex Hearth Tax Return Michaelmas 1670* (London, 2012), p. 57.

[17] Ibid., pp. 58-60.

[18] Arkell, 'The Probate Process', pp. 3-5. Records from PCY are at the Borthwick Institute, York. Wills from PCC are at TNA PROB11: <http://www.nationalarchives.gov.uk/records/wills.htm>.

[19] Wrightson, *Earthly Necessities*, p. 319.

Table 6.1 – Representativeness of the Newcastle probate sample in PRD Probate

	burials		probate				probate sample		
	n	%	n	%	% burials	ratio	n	%	ratio
primary	15	0.3					3	2.9	
wood	109	2.0	14	2.6	12.8	1.3	5	4.9	2.4
building	145	2.7	15	2.8	10.3	1.0	4	3.9	1.4
glass	53	1.0	7	1.3	13.2	1.3	2	2.0	2.0
metal	163	3.1	38	7.1	23.3	2.3	4	3.9	1.3
food	422	7.9	82	15.3	19.4	1.9	10	9.8	1.2
textiles	242	4.5	28	5.2	11.6	1.2	6	5.9	1.3
leather	155	2.9	15	2.8	9.7	1.0	4	3.9	1.3
ships	274	5.1	59	11.0	21.5	2.1	10	9.8	1.9
misc	100	1.9	30	5.6	30.0	3.0	3	2.9	1.6
total	*1624*	*30.4*	*288*	*53.7*	*17.7*	*1.8*	*48*	*47.1*	*1.5*
coal transport	1097	20.6	15	2.8	1.4	0.1	19	18.6	0.9
other transport	720	13.5	61	11.4	8.5	0.8	11	10.8	0.8
total	*1817*	*34.1*	*76*	*14.2*	*4.2*	*0.4*	*30*	*29.4*	*0.9*
labour	542	10.2	2	0.4	0.4	0.0	3	2.9	0.3
merchant	195	3.7	60	11.2	30.8	3.1	7	6.9	1.9
prof./ service	541	10.1	35	6.5	6.5	0.6	6	5.9	0.6
status	561	10.5	75	14.0	13.4	1.3	5	4.9	0.5
unknown	998		340		34.1				
Total	**6332**	**100.0**	**876**	**100.0**	**13.8**		**102**	**100**	

Sources: PRD/ASBur, Probate, Qwealthstat. Note: individuals with unknown occupation are omitted from the percentages.

linked with burials, an unimpressive 54 per cent.[20] Assuming that half of the 'general' Newcastle records were in fact from All Saints' (roughly in line with the relative population of the parish) we can estimate that 57 per cent of probate records relating to people who died in All Saints' were successfully searched in the parish registers. This is considerably lower than large parishes in Bedford reviewed by Peter Razzell, which fluctuated around 77 per cent, although the All Saints' figures are much closer to Lyme Regis in Dorset, where 65 per cent of probate records could be traced in the burials.[21]

The fact that only just over half of probate records were linked with the database means that, in turn, only 13 per cent of burials were successfully linked to a probate record. The results of this analysis are presented in Table 6.1, which demonstrates fewer than one in ten All Saints' adult burials were successfully traced in probate, and the coverage was uneven. Of 542 recorded labourers who were buried in All Saints', only 2 could be traced with any certainty in the probate record – despite comprising 10 per cent of the buried adult

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[20] Links are made in PRD Prob.
[21] Razzell, 'Reliability', pp. 46-9.

male population, labourers made up barely a third of one per cent of records that were successfully linked. Coal transport workers fared a little better, but were still vastly under-represented, making up just under 3 per cent of the linked probate records. The most over-represented group were merchants, where nearly one in three adult men who were buried could be traced in probate. With the exception of leatherworkers, all of Newcastle's manufacturing tradesmen were over-represented in linked probate, although the number in each category whose wills and inventories survive was still low compared with the number of burials in each category. The surviving probate record is evidently drastically unrepresentative of seventeenth-century Newcastle society. To correct the problem of representation in the detailed content analysis of wills and inventories in this chapter, a probate sample was drawn in a quasi-random fashion based on the proportions of these categories.[22] Generally the sample evens up the occupation bias, boosting the number of labourers and keelmen included by a considerable amount. Thus the probate sample is drawn from the whole town, and not just All Saints' parish, and is designed to offer a roughly proportionate cross-section of Newcastle's male workers, with a large enough sample from each occupational category to capture some variety in chronology and household experience.[23]

Aside from being occupationally unrepresentative, probate inventories suffer from a shopping list of other problems outlined by Levine and Wrightson: 'patchiness of survival, inconsistency of form, casual or deliberate omissions, unreliable valuations, and variations according to the life-cycle stage of the deceased person'.[24] The first three problems are fairly straightforward, providing we treat the evidence that does exist with some caution. Certainly, some things were often missing from inventories: items bequeathed in a will were not recorded, because they were not saleable, nor were those that belonged to the widow of an inventoried man, even if they were located in the same place.[25] Frequently, appraisers would skip over the items that are of most interest to historians, describing clothes and personal as goods as 'apparel', or the whole contents of a room as 'divers householde stuffe, 25s'. Lena Orlin has proved a particularly trenchant critic of the use of inventories. She describes them as 'fictitious' documents that hide more than they reveal, and are therefore 'almost inadmissible', and cites a number of court suits challenging mishandled probate

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[22] PRD/Qprobatesample. The probate catalogue was divided into occupational groups then each entry was assigned a random number for selection.

[23] PRD ProbSample. Note that female-headed households were excluded from the sample because they were not identified by occupation either on probate documents or in parish registers (see Chapter 4). I hope to expand the probate sample to include these households in the future.

[24] Levine and Wrightson, *Whickham*, p. 89.

[25] Margaret Spufford, 'The Limitations of the Probate Inventory' in John Chartres and David Hey (eds.), *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk* (Cambridge, 1990), p. 149.

cases.[26] That these cases were brought, however, suggests that care was routinely taken in the production of the documents – they were legal documents, taken seriously. Despite their flaws, there probate represents one of few opportunities for the study the non-élite material culture of the seventeenth century.

A more fundamental difficulty is that probate inventories, by their very nature, represent a frozen moment in their subject's material culture – the moment of death. As such, they represent a stock of goods rather than the flow of consumption, and they could be heavily dependent on the testator's age when they died.[27] We might assume that younger testators had had less opportunity to amass a stock of household items and therefore would seem relatively poor, in comparison with older testators, even if their position was high in comparison with others of the same age. On the other hand, older testators might have already handed on their work tools to an heir, and even moved to more modest accommodation in their retirement.[28] Neither Newcastle burials nor probate documents recorded the age of testators, so it has been necessary to consider this on a case-by-case basis, using clues such as children and parents mentioned in the will and baptism registers, and also if the will implies that the death seems sudden or expected. Again, when used with caution, the documents left by probate can provide a wealth of information about individuals.

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[26] Lena Cowen Orlin. 'Fictions of the Early Modern English Probate Inventory', in Henry Turner (ed.), *The Culture of Capital: Property, Cities, and Knowledge in Early Modern England* (London, 2002), pp. 51-83.
[27] Overton, *Production*, pp. 87-9.
[28] Green, 'Houses', p. 160.

Figure 6.1 – Hearth totals and probate inventory totals for 49 linked All Saints' fathers

Sources: PRD/ASBapt, Probate, HTax_AS
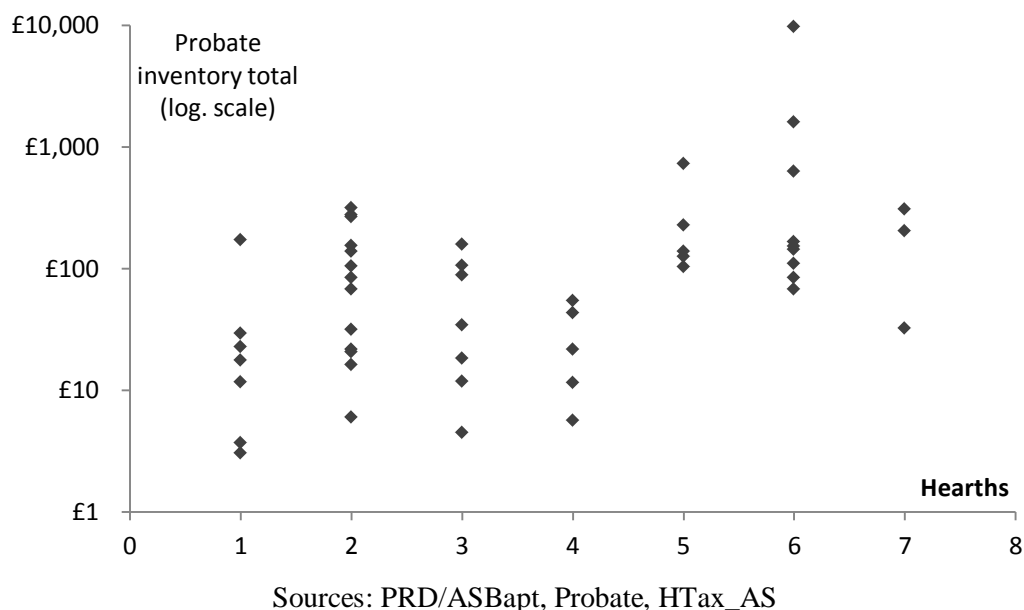
Probate inventories are also frequently used for sophisticated statistical calculations, but this analysis offers no claim to statistical validity because the sample of documents used here is relatively small and was not selected with completely robust randomness. Besides, the valuations of the worth of probate subjects are particularly uncertain: debts owed to the testator were recorded intermittently in Newcastle inventories and the recording of debts owed by the testators was even rarer, probably because of the difficulties in collecting such information if they were recorded on the other tradesmen's books and not their own. Margaret Spufford describes this problem as 'moving on quicksand', frequently giving a falsely comfortable image of the financial position of testators.[29] A common approach to this problem is to group particular types of categories such as 'household goods' or 'work goods' and make comparisons of value on that basis.[30] In this chapter, a number of 'key goods' have been identified in order to make comparisons, noting their presence or absence in each inventory.[31] These included normal household items such as cooking gear, tables, chairs, beds, pots and pewter, and articles including brass, musical instruments, china, pictures and looking glasses. Total inventory values are presented alongside this evidence to construct an impression of the relative wealth or poverty of Newcastle's residents from what remained of their possessions after they died.

Moreover, despite their undoubted problems, total inventory values are shown to have some numerical validity when compared with hearth numbers, reinforcing the usefulness of

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[29] Spufford, 'Limitations', pp. 151-3.
[30] Used by Weatherill, *Consumer*; Shammas, *Pre-Industrial*; Overton, *Production*; Welford, 'Functional goods', ch. 7.
[31] PRD/Probatesample.

both types of source for determining wealth and status, at least in broad bands if not with forensic precision. Comparisons between probate inventories and hearth tax records for Roxwell in Essex allow Pat Ryan to conclude that 'on the whole, those houses with the least hearths had fewest rooms and those with the largest number of hearths the most; however, the various categories overlap considerably'.[32] This was also true in All Saints', where 49 probate records could be matched to household heads from the 1666 Hearth Tax – a sample too small to be anything more than indicative. Nonetheless, a rough correlation is evident between a large number of hearths and a high inventory total (See Figure 6.1). Inventory values of more than £500 were matched only with houses of five to seven hearths; only three households with that many hearths had an inventory value of less than £100. There was, however, a group of householders with fewer hearths and relatively high inventory values. Some anomalies were merchants living in relatively small housing (which is discussed in more detail below). Others were men who were early in a career, and would make their fortunes, or inherit their large houses, later in the century, such as Hnery Shaw, the barber surgeon, Richard Handcock, a tailor, and others.[33] Despite these exceptions, the analysis has confirmed the validity of using both hearth tax and probate to reconstruct the strata of Newcastle's seventeenth-century society.

The hierarchy of urban occupations

Perhaps the simplest way to represent these strata is through the construction of a vertical hierarchy of occupations: such a structure reflected some of the realities of social relations in the town. That does not make it an easy exercise, and it must be recognised that the groups produced must by definition be large, loose, and heavily overlapping. This analysis endorses Chris Husbands' view that the hearth tax demonstrates 'a broad continuum, with the rich at the top of the scale, the poor at the bottom, and much overlap of the groups in between' but also that 'broad comparisons between the relative wealth and prosperity of different communities can be advanced'.[34]

Merchants and hostmen

There can be no doubt that merchants and hostmen comprised the highest social group in All Saints' parish, and the town as a whole, in terms of both wealth and status. They enjoyed large houses in the wealthier areas of the Quayside and a considerable material

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[32] Pat Ryan, 'The Houses of Essex in the Late Seventeenth Century', in Ferguson, Thornton and Wareham (eds.), *Essex Hearth Tax Return, Michaelmas 1670* (London, 2012), p. 102.
[33] PRD/ASBur/23058, 19214, 20663, 24156.
[34] Husbands, 'Hearths', p. 75.

affluence which dwarfed the other groups. With an average of more than five hearths per household, the merchants and hostmen enjoyed the biggest – and warmest – houses of Newcastle's residents, but they were not universally large. Three merchants had three hearths or fewer; the category 'gentleman', which included a number of merchants who were identified by their status rather than their occupation, had a similar pattern, with a cluster of low-hearth households, and others with very large numbers. It is likely that some of the lower values are due to the listed households being temporary small lodgings and apartments, part-time accommodation for men with a larger home elsewhere, or for newly-married couples.[35] The extent of Newcastle's market for lodgings for is shown by advertisements in eighteenth-century newspapers: in 1728 the *Courant* carried a notice that 'in Pilgrim Street, Newcastle, there are to be Lett some very commodious and good Private Lodgings, to any Gentleman, during the Time of the Assizes', suggesting a temporary let, or in 1727 'the Apartment where Mr. Joseph Turner now dwells, with all the conveniencies thereto belonging,…scituate[d] in the Side', a salubrious Newcastle address, as we have seen.[36] That these arrangements would be taxed was enshrined in law: the hearth tax legislation was carefully worded to include the occupiers of 'every dwelling and other house and edifice and all lodgings and chambers in the Inns of Court Innes of Chancery Colledges and other Societies that are or hereafter shall be erected'.[37] The probate sample has not captured any merchants making the most of such accommodation, although Thomas Ainsley, a scrivener, apparently lived alone in a small apartment. Yet living in lodgings was relatively uncommon among merchants who appeared in the Hearth Tax, however: only 3 of 23 merchants and fitters who could be linked lived in households of 3 hearths or fewer, barely 13 per cent.

Nor was it common for merchants to be found in extremely large houses. One merchant and another adventurer had ten and eleven hearths respectively, as they did in York and Durham, towns that provided the focus for regional gentry families.[38] But in Newcastle, the majority clustered around five, six and seven hearths – probably substantial townhouses – and invested heavily elsewhere. Frequently, a large proportion of a merchant's wealth was tied up in his business interests, although this was complemented a rich world of goods. The hostman Henry Milbourne, who died in 1698, left household goods worth over £230 to his wife.[39] This was not a small amount by any means, but was
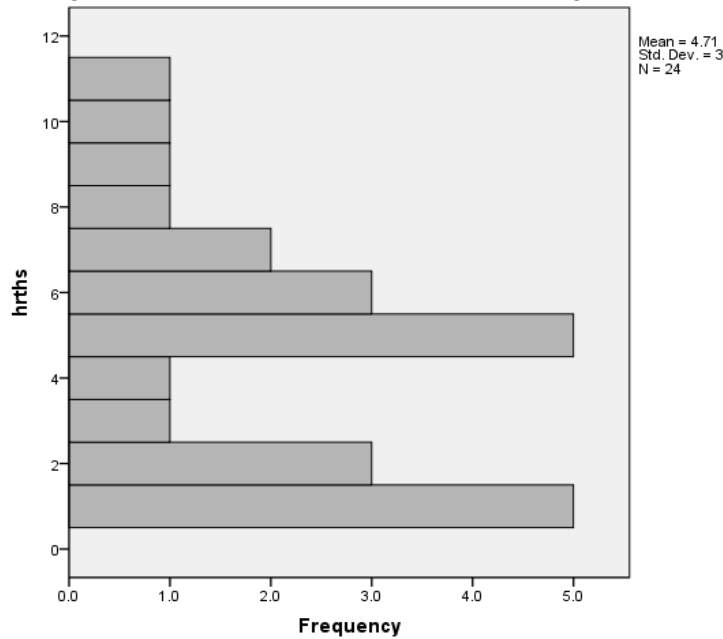
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[35] Green, 'Houses', pp. 170, 214.
[36] *Newcastle Courant*, quoted in Green, 'Houses', p. 266.
[37] 'Charles II, 1662: An Act for establishing an additional Revenue…', Sec. 1.
[38] Cf Green et al., *County Durham*; Galley, *Demography*.
[39] DPRI/1/1698/M5/2.

Figure 6.2 – Hearth totals for merchants and gentlemen.

considered inconsequential by his appraisers in comparison with his shipping interests, and likewise in his own will:

> I am interested possessed and concerned of and in a great many parts of shipps which by a moderate Computation I doe reclaim and Estimate to be worth the sum of Two Thousand Two Hundred Ninety and Eight Pounds. And alsoe I am Interested in and possessed of twelve keeles and Lightners, Two Coaleboates which I vallue and reckone to be worth six hundred pounds…[40]

On top of this he controlled quarter parts of two collieries in Gateshead, demonstrating a vertically integrated control of the mining and shipment of coal that was characteristic of the industry. His total capital assets dwarfed any household goods and remind us of the risks that these merchants were taking, in spite of their visible material affluence. William Gray reported that the coal owners 'are at great charge to maintain men to work their collieries, they waste their own bodies with care, and their collieries with working, the kernel being eaten out of the nut, their remaineth nothing but the shell'.[41]

When merchants did not own shipping or collieries, they would frequently have wealth tied up in merchandise. James Carr, who died in 1639, had a well-appointed house, including more than £3-worth of books, an expensive bearskin coverlet for his bed and silver plate worth £99.[42] But the £381 in household goods was overshadowed by the 'March[andise] in the shoppe amounting to the some of £1447 4s', as well as debts of nearly £900 owing to him and 'Monyes in the house £284'; his own debts amounted to £2,200. Carr had been trading with other ports on credit, and he seems to have been running fairly

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[40] DPRI/1/1698/M5/1.
[41] Gray, *Chororgraphia*, p. 86.
[42] DPRI/1/1639/C4/3-8.

tight margins. No list of debts survives for Mark Ward, who died in 1698, but he had barely £10 in household goods, compared to £24 of goods in his shop.[43] His inventory does not display a spartan existence: it includes feather beds, 2 pictures worth 10s, 'one Tin cullander', amongst other goods. But the inventory's appraisers were disparaging of the condition of some of Ward's items: his servant(s) probably slept on the 'old falling downe Bedd' that was worth a measly 4s. Ward's inventory totals were unusually low for a merchant: 'Ordinary Mault' made up a third of the value of his goods, along with 'Six Scupes', 'One Seave', 'One Large Beam & Scailes' and 3 reams of brown paper. All these items suggest he was more likely to be a malt merchant, selling to Newcastle's bakers and brewers, rather than a high-status coal or overseas merchant: he certainly was not a hostman. We might also assume he was fairly young: he mentioned a wife, Jane, and brother, William, in his will but no children. On occasion, especially if a merchant was young, investment in goods for trade could leave little over for decorations or household goods.

Most Newcastle merchants, however, and in particular the coal merchants, maintained a more lavish standard of living than Ward. This high social and economic status was closely linked with political power. Between 1600 and 1640, all 28 of Newcastle's elected mayors were members of the Merchant Adventurers' company, and 26 were also hostmen; in the same period, all of Newcastle's eight separate Members of Parliament were members of both companies.[44] The Civil War, Interregnum and Restoration caused turbulence in the town's highest circle, the 'Inner Ring', propelling a Puritan element in the town's mercantile élite to pre-eminence, and then to relative obscurity again. Although this was a considerable revolution in local government, it did little to widen the social inclusiveness of the town's governing bodies: all but five of Newcastle's 63 elected aldermen between 1660 and 1719 were merchants or hostmen; the five were untraceable.[45] There was certainly much to gain from controlling Newcastle's economic power, and the Merchant Adventurers and Hostmen guarded it jealously.

As a result, entry to Newcastle's merchant adventurer guild was exclusive, and was becoming more so throughout the seventeenth century. Christopher Brooks calculates 29 per cent of fathers of new apprentices to the Company had the status of 'gent' or above in 1580-85, while 30 per cent were yeomen and 20 per cent from trade and craft guilds. But by 1625-30 the number of apprentices whose fathers were from the highest group was 39 per

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[43] DPRI/1/1697/W6/2-3.
[44] Howell, *Newcastle*, pp. 45-6.
[45] Ellis, 'turbulent society', p. 203.

cent, and by 1680-5 this was more than half. This exclusivity was exacerbated by the fact that 41 per cent of new apprentices were from Newcastle already, and 34 per cent were the sons of serving merchant adventurers.[46] To the chagrin of some of Newcastle's other tradesmen, who were effectively barred from the channels of power, this exclusivity was also maintained through the intermarriage of merchant families. A petition of 1714 complained vigorously that 'the Magistrates have made such an affinity by marriages that they are linked in Interest and become formidable…and now there is no balance of power between the Merchants…and the other trades', a complaint confirmed by Roger Howell's prosopographical study of Newcastle power.[47] Between 1660 and 1688, at least 27 of the 29 mayors were merchant adventurers and 22 were also hostmen; a similar picture could be painted for the makeup of sheriffs and MPs.[48] The merchants and hostmen of Newcastle kept a closed social group at the top of the hierarchy of Newcastle occupations – and already at the beginning of the seventeenth century, 'magistrates' or 'aldermen' and 'merchants' or 'hostmen' were virtually synonymous.

The close links expressed by merchants and aldermen through intermarriage were reinforced by the selection of godparents for their children. In the first five years of the seventeenth century, the parish clerk of St Nicholas recorded godparents alongside the father on baptisms, which was very unusual in English registers.[49] Perhaps he wanted to record the interconnectedness of St Nicholas's relatively small congregation; godparenting was one of many mutual bonds that existed between the residents of this wealthy, central neighbourhood. It was a fairly loose institution at best – Will Coster questions the extent to which the link between godparent and child has ever been strong in individual terms – and the bonds that were formed were between kinship groups and families more than between the individual godparents and children involved.[50] It is therefore significant that the largest proportion of godparents recorded on the St Nicholas' register were merchants, and they were often godparents to the children of merchants. Of 87 children whose godparents were recorded, 29 were the offspring of merchants, and at least 28 of these had a merchant or alderman amongst their godparents.[51] Merchants nearly always chose people of similar status to be the godparents of their children, but merchant godparents were also willing to confer their status 'downwards', in becoming godparents those born into other trades. The

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[46] Brooks, 'Apprenticeship', pp. 56-9, 64.
[47] 'The case of the freemen of Newcastle-upon-Tyne', quoted in Ellis, 'turbulent society', p. 204; Howell, *Newcastle*.
[48] Howell, 'Newcastle', pp. 278-9.
[49] TWA MF263.
[50] Will Coster, *Baptism and Spiritual Kinship in Early Modern England* (Ashgate, 2002), pp. 7-8, 250; Thomas, *Ends*, pp. 191-2.
[51] St Nicholas' parish register

families who benefited included those of tailors, a miller, a mariner, a slater, a customs officer, the vicar, a saddler, a housecarpenter, and a labourer – twenty children in all. Many of fathers in these 'other' occupations also named godparents who were *not* merchants and it is clear that they were more likely to stay within their own occupations than move outside guild-enabled social groups – although this was not universal. Of four tailors who acted as godfathers, three were to the children of other tailors, and one to a 'gardener at the nunnes' – a historical nunnery, by then a large garden, just off Newgate Street. Of the six leather workers (skinners, glovers and tanners) who became godparents, four were to the children of other leather workers. On the other hand, the only cutler in this sample had a chandler and a glover as godparents to his child, and an embroider engaged an apothecary and the wife of a cordwainer as godparents to his child. The numbers are low and the patterns difficult to tease out for all but the highest status: it appears that same-occupation godparents were slightly preferred, but nearly all children had godparents from other lines of work as well. The exception was merchants, who stayed within their own occupation in seeking godparents.

This glimpse of the hierarchy of urban occupations given by godparenting confirms that Newcastle's hostmen and merchants, frequently also aldermen, occupied the place right at the top. They would never ask a Newcastle tradesman to be godparent to their child, although they might be godparent to the children of tradesmen. Merchants had very high status in Newcastle, controlling the political power vested in the town, and managing the economy (in this case mostly the coal industry) to the advantage of their small group. Merchants had comfortably the highest mean numbers of hearths, and the size and location of their houses expressed a considerable amount about this power, although houses were not as grand as those in other provincial capitals.[52] They also had high probate inventory values, which partly reflected the inclusion of their business interests, as well as a degree of material opulence.

Manufacturers and professionals

If the merchants occupied a tight, socially restricted group at the top of Newcastle's occupational hierarchy, then the widely defined middling sorts that came below offer a more continuous and fluid spectrum of experience. Such social differentiation had a long pedigree in medieval towns like Newcastle: Keith Wrightson observes that a pecking order of urban occupations 'was reflected in the fees charged to enter a given trade, access to positions of honour and authority in urban institutions, and the orders of precedence adopted in the rich

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[52] Graves, 'Civic Ritual'.

ritual and ceremonial life of the late-medieval city'.[53] Christopher Brooks offers a hierarchy of occupations based on the social status of those who were apprenticed to different trades.[54]

This was based on more than just material wealth. Status in the community could frequently be expressed through the running, and the funding, of the church, for instance. This provoked disputes over church pew allocation, which were commonplace in English parishes. In the rural Shropshire parish of Myddle, Richard Gough drew up a detailed diagram of the 'right and superiority in the seats in Church', but was concerned that 'noe man will blame mee' for mistakes: the reality was so complex it was 'a thing impossible for any man to know'.[55] The pews in urban parishes were just as contested: Marie Chambers of Boroughside in London found herself in court in 1634 'for refusing to sit in the pew where she is placed by the churchwardens and procuring a key to be made to the lock of that pew from whence she was removed…and striving to sit there still'.[56] In Newcastle, while the merchants dominated the town's government, they had to jostle for position with other guilds at the church of All Saints'. Henry Bourne's survey of the churchyard suggests a number of merchant adventurers and hostmen took pride of place, laying some of the finest rhyming gravestones, which he transcribed in full:

> Here lyeth laid under this Place,
> Robert Brandling, Merchant Adventurer, by God's Grace,
> Margaret, his wife, and Children dear,
> In fear of God they live here.
> Like as the Brand doth flame and burn,
> So we from Death to Life must turn.[57]

Yet close by lay bakers and brewers, mariners, shipwrights, a goldsmith, and the 'blue stone' of a cooper, George Borne, which improbably managed to rhyme 'Blood-shedding' with 'everlasting'. Borne had been a churchwarden of All Saints' at the end of the sixteenth century, one of many tradesmen who took on an important parish role alongside his day job:

> Here lies Robin Wallas,
>   The King of good Fellows;
> Clark of All-Hallows,
>   And a Maker of Bellows:
> He Bellows did make 'till the Day of his Death,
> But he that made Bellows could never make Breath.[58]

The contest between occupations continued inside the church. A prominent family of merchants, the Fenwicks, had erected a large stone with their coat of arms on it. Close by,

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[53] Wrightson, *Earthly Necessities*, p. 38.
[54] Brooks, 'Apprenticeship', pp. 52-83.
[55] Richard Gough, *The History of Myddle*, ed. Hey (Harmondsworth, 1981), p. 78.
[56] Boulton, *Neighbourhood*, p. 147; see also Ian W. Archer, *The Pursuit of Stability: social relations in Elizabethan London* (Cambridge, 1991).
[57] Bourne, *History*, pp. 94-7.
[58] Ibid., pp. 99-100.

some steps led to the 'butchers' gallery', and the neighbouring part of the church was the 'sailor's gallery…built and finished by the Trinity-house in Newcastle upon Tyne in 1618'. Trinity House had been, at its origins, a religious institution before it became more concerned with the worldly matter or the Tyne river trade, as the guild of mariners.[59] The message in the gallery was clearly the worldly and spiritual safety of the guild members, including 'a Picture of St. Paul's Shipwreck' and 'Jonah vomited up upon the dry Land'.[60]

Outside the church, guilds played a crucially important role in Newcastle's social life right across the seventeenth century – both for their own members, and in the pageantry of the town's Corpus Christi processions. These included mystery plays, such as the shipwrights' 'dirge' that stressed the godly value of their work. In it, an Angel warned Noah to:

> …go make a Ship
> Of stiff Board and great,
> Although he be not a Wright

Noah replied:

> Unlusty I am to such a Deed, […]
> For I was never since I was born,
> Of Kind and Craft to burthen a Boat;
> Christ be the Shaper of this Ship, […]
> For a Ship need make I must.[61]

Despite their continuing presence in sociable circles, some of the powerful grip of the guilds was slipping by the end of the century. There was, for example, a general weakening of the control guilds had over the communal mourning of deaths of their members: the Shipwrights' Company complained at the end of the seventeenth century that pall bearers at shipwright funerals were not from the Company, although they reluctantly complied with this trend.[62] And while guilds maintained a presence in the more fashionable pursuits of the late seventeenth century – the mercers were involved in horse-racing; the surgeons met in a coffee shop – nonetheless, Rebecca King notes that 'both the inclusivity and the extent of guild sociability had been eroded by the mid-eighteenth century'.[63]

Sociability was expressed within the household as well, and the wealthiest sections of the middling sort showed some qualitative differences from those further down the hierarchy. A factor that all the wealthiest tradesmen, from any occupations, had in common was a substantial quantity of cooking and eating wares. While they probably had large

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[59] Howell, *Newcastle*, p. 94.
[60] Bourne, *History*, pp. 89-90.
[61] Ibid., p. 140.
[62] *Shipwrights*, pp. 18-19; King, 'Sociability', pp. 62-3.
[63] Ibid., pp. 68-70.

households that included numerous servants alongside their wives, children and apprentices, these large numbers of plates, spoons and cups are evidence of entertaining others in their house. There was also sometimes specialist equipment involved. Thomas Atkinson, the shipwright, also had a 'spice box' in his kitchen, an item indicating sophisticated cooking, as did Thomas Hickson, a vintner; Heley's sample indicates that spice boxes were not rare amongst Newcastle's master mariners.[64] Other items which indicating an increasing interest in the taste and variety of cooked food include salt cellars, which were certainly increasing in number across the century, and mortars and pestles which did likewise. There was specialist equipment for sociable eating as well as cooking: William Crawfoot (1610) had 'twelve banqueting dishes', used for a dessert of sweetmeats, alongside his regular pewter dinner set; a barber surgeon who died in 1636 kept 'banqueting dishes' a 'painted coffer' and a 'dresser cloth' together, all items with hospitable purposes; and another surgeon who died thirty years later had 6 'banquet dishes' alongside his two dozen pewter dishes.[65] Partly, these would have been used to entertain and impress social superiors or friends of the same social standing, but providing dinner for the less fortunate was also an integral part of a longstanding tradition of hospitality in English culture. It afforded the opportunity both for displays of affluence to superiors and displays of Christian virtue by providing for those who were poorer. Hospitality was also, crucially, 'perceived as a household activity, emanating from the *domus* and concerned with the dispensing of those goods best afforded by it – food, drink and accommodation'.[66]

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[64] DPRI/1/1674/H14/1; Heley, *Material Culture*, pp. 77-8.
[65] DPRI/1/1610/C12/2-3, DPRI/1/1635/P2/1-3, DPRI/1/1667/C11/2; 'banquet', *OED*.
[66] Felicity Heal, 'The Idea of Hospitality in Early Modern England', *P&P*, No. 102 (1984), p. 67.

Table 6.2 – Comparative hearth totals and occupations: All Saints', Warwickshire towns, and Leicester.

	All Saints		Warwickshire		Leicester	
	freq	mean	freq	mean	freq	mean
merchant	13	5.4				
coal merchant	10	5.0				
gentleman	11	3.9				
cooper	6	3.5	5	1.8		
food	49	3.4	53	2.2	72	2.6
tailor	22	2.9	23	1.4	32	2.1
medical	11	2.8	14	3.3		
mariner	103	2.7				
shipbuilding	44	2.5				
textile	9	2.4	21	1.2		
leatherwork	13	2.4	58	1.7	70	2.0
yeoman	17	1.9				
glass	10	1.9				
smith	19	1.9	37	1.4	24	3.2
food ingredients	17	1.7	34	2.1		
building	7	1.6	16	1.4	29	2.2
carpentry	8	1.5	21	1.2		
labourer	15	1.3				
waterman	197	1.2				

Sources: PRD/Qwealthstat; Arkell, 'Introduction', p. 80; Husbands 'Hearths, wealth', p. 74. Note: the Warwickshire towns are Alcester, Henley-in-Arden, Stratford-upon-Avon and Warwick. See text below for discussion of differences in occupational classification between the samples.

It was amongst this group of wealthier middling tradesmen, and not the merchants, that some of the seventeenth century's 'new goods' could be seen first, something noted by Lorna Weatherill's pioneering study that put the middling sorts at the cutting edge of Britain's new consumerism.[67] Newcastle was in tune with national trends: china was recorded on four inventories on the sample: two of the owners were shipwrights, one was a waller, another a miller.[68] Heley's larger sample found china earlier in the inventories of three mariners from the 1620s and 1630s, but she notes it was generally very rare.[69] Thomas Atkinson (1688), a shipwright, had 'twelve Chiny dishes, two Chiny potts, One Chiny Bason & Cover, Six Small Chiny Plates 13s' amongst his kitchen possessions.[70] These might not have been imported porcelain, as inventories rarely distinguish between imitative English tin-glazed earthenware and true china; nonetheless, they were relatively expensive plates and the prices here accord with Weatherill's estimate of 6d per plate in 1700.[71] The adoption of glass bottles was also widely spread amongst middling tradesmen by the second

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[67] Weatherill, *Consumer*.
[68] Lorna Scammell, 'Was the North-East Different from Other Areas?' in Berry and Gregory, *Creating and Consuming Culture*, pp. 12-23.
[69] Heley, *Material Culture*, p. 77.
[70] DPRI/1/1688/A13/1.
[71] Overton, *Production*, p. 103; Weatherill, *Consumer*, p. 159.

half of the century, appearing in nearly half of tradesmen and professionals' inventories; window curtains were in about one in five inventories, and these men included mariners, tailors, a confectioner and a cordwainer.

There was a relatively high standard of interior comfort among tradesmen of all status. Nearly all the inventories included some form of soft furnishings, a social breadth – 'descended yet lower even unto the inferiour artificers' – that was the cause of some anxiety for sixteenth and seventeenth-century commentators, reigniting the centuries-old 'luxury debate'.[72] Carole Shammas has dubbed the seventeenth century the 'age of the bed', and Newcastle's residents invested quite heavily in this item: nearly all inventories registered a bed of some form, and three-quarters of tradesmen across the century had at least one feather bed. These were substantial investments, and Heley records that all groups of tradesmen spent, on average, more on their bedding than their tableware.[73] The tableware and cookware was also generally of a high standard in Newcastle, and Welford has noted that urban inventories had the highest proportion of many goods and were consistently the first to record a number of new goods at the end of the seventeenth and beginning of the eighteenth centuries. There was pewter in 69 per cent of household inventories in her sample of north-eastern towns by 1700 as opposed to 45 per cent of rural inventories; there were looking glasses in 40 per cent of urban in contrast with 7 per cent of rural inventories.[74] In Newcastle there was already pewter in 4 out of every 5 inventories, and seeing glasses in half. And, as we shall see in the next section, this level of material comfort was also prized by Newcastle's labourers and keelmen.

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[72] Quotation from William Harrison, *The Description of England* (1577; 2nd ed., London, 1587); see (for Newcastle context) Heley, *Material Culture*, p. 76; John Sekora, *Luxury: the concept in western thought from Eden to Smollett* (Baltimore, 1977).
[73] Shammas, *Pre-Industrial*, pp. 169, 181; Heley, *Material Culture*, p. 78.
[74] Welford, 'Functional Goods', pp. 242-3.

Table 6.3 – Summary of probate and hearth tax linked with occupations from All Saints' parish registers.

		Inventory or account value (£)				Hearths			
		Mean	N	St Dev	Rank	Mean	N	St Dev	Rank
	extractive	6.9	1		33	1.0	1		27
	agriculture					2.0	1		16
	fishing	29.8	1		29				
wood	carpentry	17.0	5	9.4	30	1.5	8	0.5	22
	cooper	83.3	13	77.4	24	3.5	6	2.1	4
building	building	30.9	34	24.7	28	1.6	7	1.0	21
	glass	114.3	1		18	1.9	10	1.0	18
metal	metalwork	90.7	28	90.1	22	3.5	4	2.6	4
	smith	176.8	13	342.5	9	1.9	19	1.3	19
	precious	632.7	1		2				
food	food ingredients	109.1	26	224.1	19	1.7	17	1.2	20
	final product	146.7	67	159.2	13	3.4	49	2.1	6
	specialist	468.2	2	323.3	3				
textiles	textile & cloth	348.6	47	743.2	6	2.6	8	1.9	12
	clothing	142.2	31	328.4	14	2.8	23	2.0	9
leatherwork	leather	94.5	25	86.3	21	2.9	9	3.2	7
	final product	100.6	52	114.3	20	1.3	4	0.5	25
shipbuilding	shipbuilding	121.1	51	186.3	17	2.5	44	1.6	13
misc	household	85.9	4	74.9	23	2.5	2	2.1	14
	medical	154.7	22	213.8	12	2.8	11	1.8	8
transport	coal transport	12.0	14	7.0	32	1.2	197	1.0	26
	general transport	140.7	55	175.6	15	2.7	103	1.9	11
labour	manual labour	14.0	2	7.1	31	1.3	15	0.6	24
	coal merchant	403.3	5	422.0	4	5.0	10	1.5	3
	merchant	763.2	117	1197.7	1	5.4	13	3.0	2
	law	170.8	6	193.4	10	6.0	4	3.4	1
	retail	166.6	23	168.0	11	1.0	1		27
	customs					1.0	1		27
	administrative	309.2	14	485.6	7				
	physician	370.4	3	411.9	5	1.5	2	0.7	22
	household serv.	36.0	3	43.8	27	2.0	1		16
	music	82.1	2	106.0	25	1.0	1		27
	religion & educ.	66.0	4	40.3	26				
	status	199.1	119	351.2	8	2.7	28	2.4	10
	blank	128.5	276	301.9	16	2.0	597	2.0	15
total		1067				1196			

Sources: PRD/ASBapt, ASBur, Qwealthstat.

Considering hearth numbers in aggregate allows a simple comparison of mean hearth and inventory totals between the trades (Table 6.3) and hearth totals between towns (Table 6.2), but these should be read with some caution. There is some difference in the way Tom Arkell (for Warwickshire), Chris Husbands (for Leicester) and I have classified occupations in the three places which made comparison difficult – although categories have been adjusted as far as possible.[75] To add further complication, Arkell's Warwickshire data include the rural areas of Warwickshire areas as well as the towns, because, although he has

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[75] Husbands, 'Hearths', p. 72; Arkell, 'Introduction', pp. 80.

compiled towns separately in his data, they are not separated out in the aggregate statistics.[76] The result is that means are generally lower in the aggregate statistics than they would be in the towns alone, although the pattern of occupations and means was apparently broadly similar.[77] Husbands' data, meanwhile, are compiled using the freeman's rolls for Leicester, which (for reasons elaborated in the introduction and elsewhere) are unrepresentative of the poorer sorts, so we might expect them to exaggerate the mean number of hearths for tradesmen.

Nonetheless, there are some striking conclusions. Secondary food producers and retailers come out near the top in all three towns, averaging 3.5 and 2.2 and 2.6 hearths respectively. It is possible that the extra average hearth in the All Saints' sample is down to inconsistency in the administration of the tax. Despite the fact that the law specified the hearth tax 'shall not extend to charge any Blowing house and Stampe Furnace or Kiln or any private Oven within any of the houses hereby charged', they were sometimes charged alongside the household chimneys, although the fact that smiths did not also get a similar boost to their hearth numbers means we can conclude that this was probably not an artificial hike.[78] The food production category is also one of the only categories with sufficient numbers that it can be sub-divided (see Figure 6.3), and so we can separate the producers of food ingredients (mostly millers and maltsters) from the purveyors and producers of more processed food (mostly bakers and brewers and butchers. It is clear that the latter group had considerably more wealth than the former by any measure: they had many fewer one-hearth households and higher inventory values on average. The relatively large houses of the bakers and brewers and butchers of Newcastle indicate their flourishing business in the seventeenth century, in part thanks to the impact of the Quayside trade. This was in spite of Keith Thomas's notion that baking and brewing were low-status occupations, 'thought to be unmanly because they could equally well be done by women'.[79] Their high standard of living was also reflected in household goods. A baker Edward Rand's inventory records twelve separate rooms, and includes in the back kitchen a number of saucepans, as well as pewter and earthenware, a chopping knife and pots for mustard, spices and pepper.[80] Also in this kitchen was a wooden horse and 'one ch[a]ine and dogwheel', a wooden wheel,

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[76] Arkell, 'Introduction', pp. 80-1. It is impossible to 'reverse engineer' the statistics presented in the table because '5+' hearths are aggregated together.

[77] Based on very rough estimates using the data in Arkell, 'Introduction', Table 5.

[78] 'Charles II: 1662', sec. 19; Elizabeth Parkinson, *The Establishment of the Hearth Tax 1662-66*, List and Index Society Special Series, Vol. 3 (Chippenham, 2008), pp. 104-5; see also 'Hearths, wealth and occupations', p. 74*n*.

[79] Thomas, *Ends*, p. 104.

[80] DPRI/1/1693/R3/1-3

Figure 6.3 – Hearth numbers for food ingredients (2151) and final product manufacturers (2152) in All Saints'
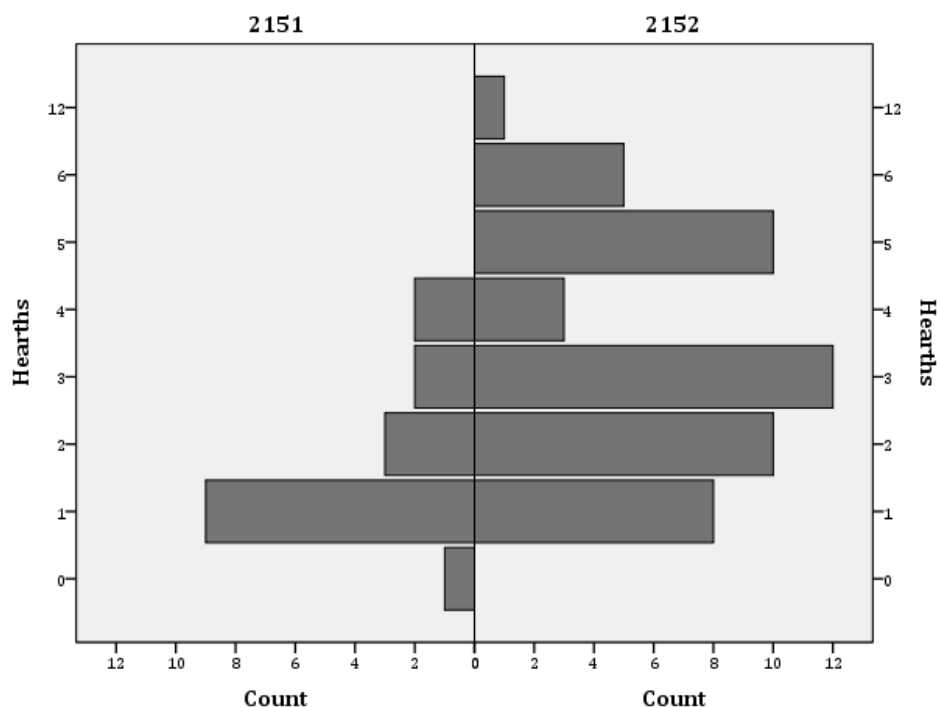
Source: PRD/Qwealthstat

suspended on the wall near the fireplace, which required a cooperative dog to turn the meat spit – certainly a luxury piece of kitchen equipment.

Expensive and highly specialised food goods could also generate wealth. Robert Plumpton was assessed for five hearths in 1666, and when he died a decade later, he left a thriving confectionary business and a large house 'together with the shopp and two Cellars therunto belonging' to his brother Tymothy, his wife having already died.[81] His household goods made up just under half of the £129 total and included a number of luxuries such as a quantity of glasses and bottles, pictures and looking glasses.[82] The kitchen boasted a 'seaven small Marbell salts [cellars]', seven 'Chease plates', a mustard pot and 'seventeen custard Cupps' – perhaps Plumpton entertained guests with his sweet goods as well as selling them to customers. His shop was richly fitted, including a marble mortar and four wooden pestles, 'one hundred Maple Biskett frames, and three sett of Wyres for baking of Cakes' (worth 15s), as well as expensive ingredients such as 'coloured carawayes' and 'a parcell of Sweatmeats and a parcell of Sugarr' valued at £41. In all, the shop and workhouse contained nearly £70 worth of goods and objects. Clearly, confectionary was a business that required quite some investment, not only in the goods and ingredients themselves, which were very expensive, but also in their marketing: wooden boxes, 'Gally potts', and silver plate all

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[81] PRD/HTax_AS/243; DPRI/1/1676/P9/1
[82] DPRI/1/1676/P9/2

helped to sell Plumpton's wares to a hungry public, which boasted sophisticated and delineated tastes. There was considerable money to be made in the production and sale of food, and these were amongst the wealthiest tradesmen.

This sort of analysis is not possible for most other groups because of small sample sizes, although it is also clear that coopers tended to be much wealthier than carpenters and other woodworkers. Smiths occupied an inconsistent position, with one of the lowest hearth totals, ranked nineteenth in the list of occupations, and a higher inventory value, ranked ninth. Smiths also sat in the middle of the table in the Warwickshire sample, but this contrasts with Husbands' figures for Leicester which he argues confirms the truth that (unnamed) 'historians have generally argued that…smiths were amongst the wealthiest sections of the urban community'.[83] It seems not to have been true in Newcastle nor Warwickshire and Coventry. Unfortunately, the probate sample for Newcastle only captures two smiths, so the reasons for this discrepancy are uncertain – the two featured here both had middling wealth of around £50, which included a well-stocked shop and a comfortably furnished home. Both also had at least £5 invested in silver.[84] Heley's larger (and earlier) sample suggests that the wealth of some (but not all smiths) might also have been tied up in property – such as for Edward Lawson, who owned three houses around All Saints' Church.[85]

At the bottom of the scale, cordwainers are generally considered to have been tradesmen of lower wealth and status in towns. Brooks puts them, along with weavers, as 'the poorer members of the community' in contrast to 'the more élite business activities and the guilds that represented them [which] generally attracted the richer and better-born recruits'.[86] Indeed, cordwainers had a lower average hearth total and inventory value than some of the other trades, although it was higher in Newcastle than in Warwickshire or Leicester. Inventory values of about £100 compared with those of food producers of £146 and tailors of £142. Despite this, cordwainers could be very wealthy indeed, such as Timothy Collingwood, whose inventory covered fifteen individual rooms including a separate 'paistrie chamber', 'high' and 'little' fore chambers, a parlour, a 'low parlour', and a 'room above the low parlour'. He was one of the first to get window curtains in more than one room and indeed one of the only tradesmen to have any musical instruments in the form
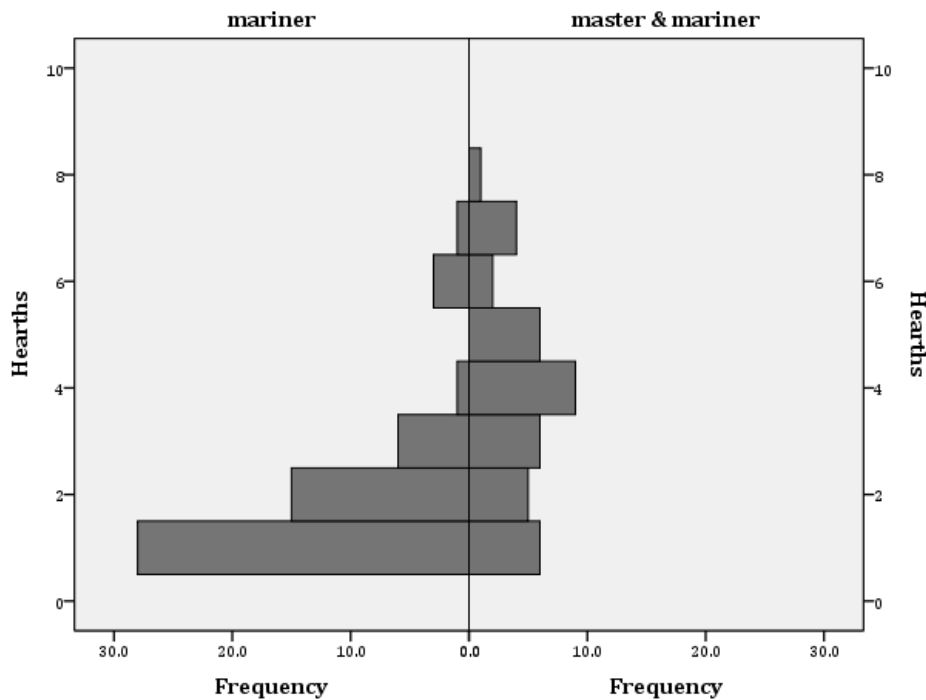
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[83] Husbands, 'Hearths, wealth', p. 74.
[84] DPRI/1/1614/H5/2, DPRI/1/1693/W29/1
[85] Heley, *Material Culture*, p. 50.
[86] Brooks, 'Apprenticeship', p. 60.

Figure 6.4 – Hearth tax totals for mariners and master mariners

Source:/PRD Qwealthstat

of a pair of 'virginells' and a frame. He was also the only other testator whose kitchen contained a dog-driven spit.[87]

The picture for mariners is also varied, although it is clear that the mariners and sailors were on average considerably wealthier than keelmen, watermen and skippers. The degree of differentiation in the second group will be considered in the next section, but there was also a significant spread amongst mariners. The same occupational tag covered a vast array of households, including those were amongst the wealthiest in the town, and those amongst the poorest. Master mariners were generally considerably wealthier, with probate inventories averaging £180 compared with mariners' £80. They also had a higher profile of hearths, including fewer one hearth households (see Figure 6.4). This matter is confused by the fact that the parish clerk of All Saints' used the two terms interchangeably, but they were more fixed in probate documents – the difference between mariners and master mariners was whether or not they *owned* shipping. In this sample four of the five master mariners owned a portion of one or more boats, and none of the five ordinary mariners did. This could substantially raise inventory totals: John Bee's 'one 16th part of a shipp called the John of Newcastle' at £10 was worth a third of his inventory's total; Michaell Shaw had a reasonably well-appointed house, with £30 worth of household goods, but he had a further £23 invested in items for his shop (see Chapter 7) and £56 in the half-share of his ship

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[87] DPRI/1/1667/C15/3-5

Figure 6.5 – Number of hearths and date of first child's baptism for All Saints' mariners

Sources: PRD/Qwealthstat, Qfathers
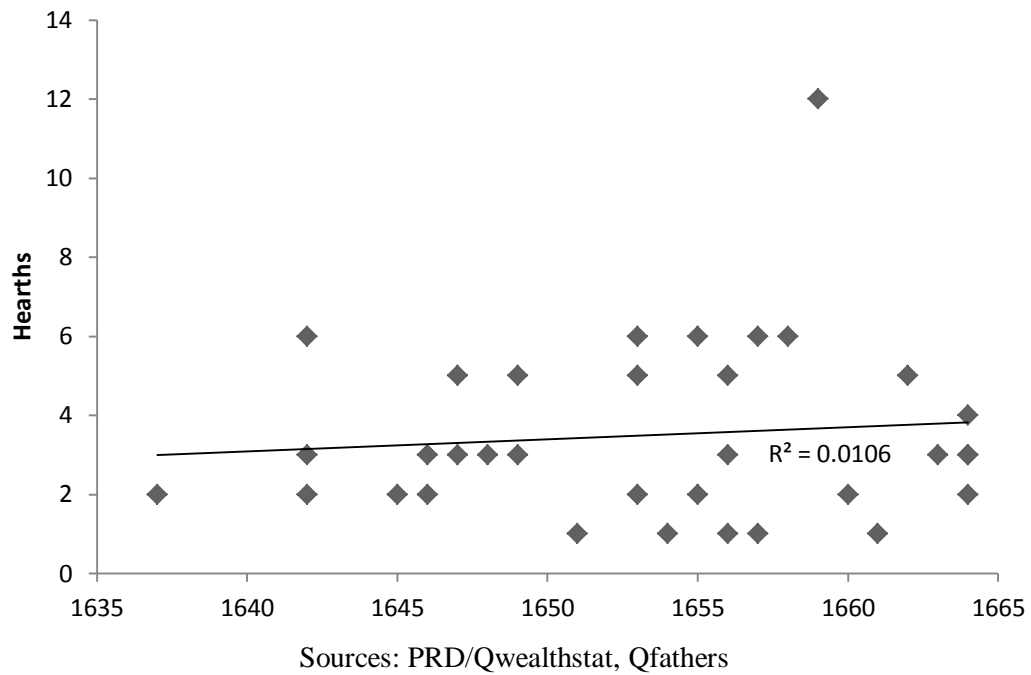
'called Constant of Newcastle whereof the deceased was late master'.[88] In probate, at least, mariners without ownership of boats seem to have been merely sailors: this is certainly true of William Crossier (1607), whose inventory amounted to only £2, John Bell (1666) who lived in a slightly better-equipped house, and Thomas Dalton whose inventory is little more than a very detailed listing of his clothes, plus a bed and an old blanket.[89] Mariners were considerably richer than watermen and keelmen on average then, but alongside the wealthiest masters who owned large portions of shipping were much poorer sailors who owned little more than clothes: the limits of wealth and poverty are not easily drawn along simple occupational lines.

The same was generally true for Newcastle's shipwrights, who frequently owned keelboats or were landlords for their neighbours in Sandgate, another route to wealth and status that we met in Chapter 5. One of the wealthiest, George Nicholson (1685) had a very substantial collection of coal boats, skippered by a number of different men. Most had oars, a mast and sails and a variety of equipment with them, and were valued at between £10 and £30, depending on the quality of the boat. The total of more than £100 dwarfed his comfortably but not lavishly furnished house, in which the most expensive items were 23s in pewter and 48s in linen.[90] Others, such as George Watson owned a number of houses, frequently in Sandgate, let to keelmen. Thus Henry Cooke the elder, for example was owed

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[88] DPRI/1/1660/B1/1; DPRI/1/1666/S7/.
[89] DPRI/1/1607/C12/1, DPRI/1/1666/B4/1, DPRI/1/1669/D1/2.
[90] DPRI/1/1685/N2/3

10s in house rent, and George Watson let 'six little tenements' to six Sandgate keelmen.[91] Investment again drove some of the highest inventory values for shipwrights; the wealthiest were widely invested in housing and boats – two areas in heavy demand in seventeenth-century Newcastle. This was also reflected, as we saw in the last chapter, in a variety of housing qualities both owned and occupied by shipwrights.

This variation within the occupational groups eludes simple modelling. As we have seen, life-cycle variations are known to impact on both hearth numbers and inventory totals. But, in the absence of detailed information on ages for most of the testators, this is speculative: it has been an impossible correlation to demonstrate statistically. Figure 6.5 shows, as a typical example, the relationship between the year in which the first child of secondary food producers (code 2152) was born and the number of hearths they had in 1666. It is clear that there is no correlation whatsoever, and similar graphs could be produced for any of Newcastle's occupations. While it is certainly true that the date since first baptism is a *very* rough proxy for the age of a tradesman, it is still quite striking that it offers no support at all for the notion that older fathers lived in larger houses. Nor such a relationship clear from probate inventory totals, which again give no observable correlation to this proxy of age (calculated as the difference between the year of burial and the year of baptism of the first recorded child), even when we control for occupation.[92] On the evidence here, the relationship between age and wealth was far from straightforward.

It is clear that occupation is at best a rather poor way to predict hearth tax totals (or vice versa) and that notions of what may have been a 'wealthy' or 'poor' trade in Newcastle describe the experience of individuals very badly. Simply identifying someone as a 'cordwainer' or a 'tailor' could not have identified them immediately as rich or poor. These occupational tags roughly patch over the substantial overlap that existed between many occupations and many groups. The boxplot in Figure 6.6 shows how most occupations had a large number of householders with between one and four hearths, demonstrating the extent of this overlap. Even where mean hearth values seem quite different, such as between wealthier food producing group and the apparently poorer shipwrights (coded 2152 and 2181), the boxplot demonstrates that a quarter of shipwrights had more hearths than half of the wealthy food producing group. Tom Arkell sees these middling householders as a group of 'merchants, professionals, tradesmen and craftsmen who did not belong to the homogeneous occupational groupings in any ordained sequence'.[93] In Newcastle, as well,

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[91] DPRI/1/1666/C11/4; Heley, *Material Culture*, p. 49.

[92] See PRD QProbFChild. The r^2 value for all occupations together is 0.006.

[93] Arkell, 'Introduction', p. 79.

Figure 6.6 – Boxplot of hearths and occupations.
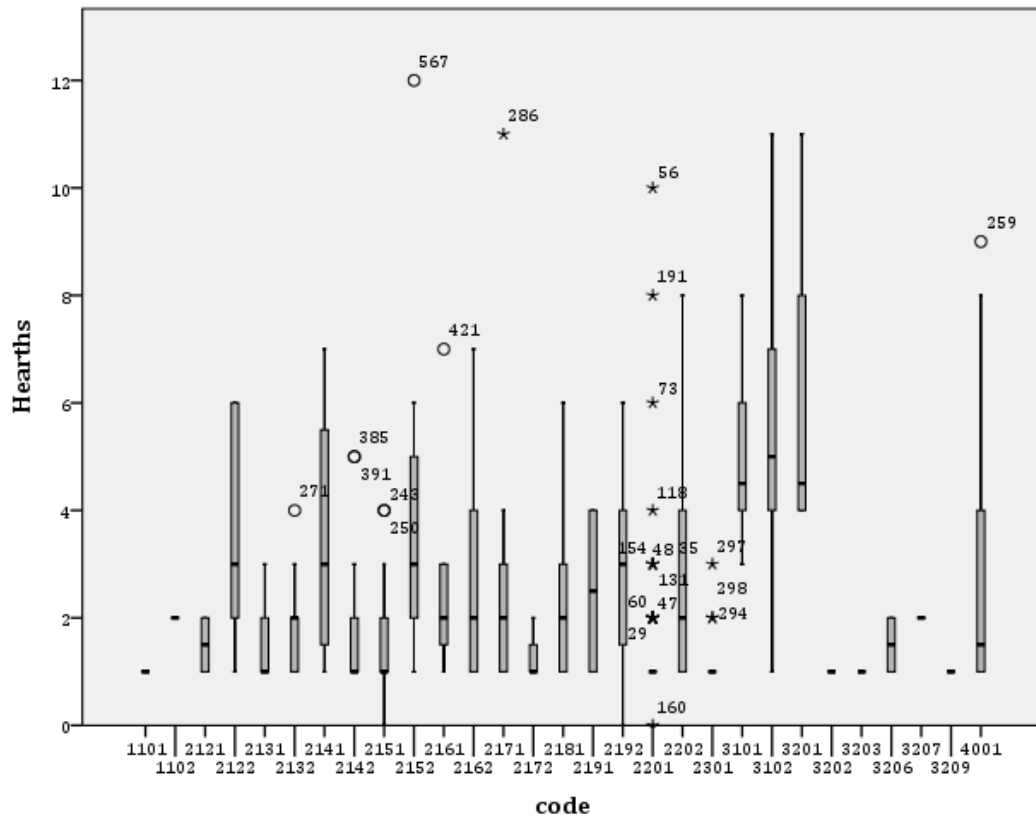
Source: PRD/Qwealthstat. For occupation codes, see Appendix II

personal and individual circumstances were more important in determining wealth than occupation alone.

There were some occupational patterns at play in the *way* that wealth was built up, however. The accumulation of wealth or capital tended to take place in particular forms, depending on occupations. So, mariners and shipwrights would buy and own boats; others would buy and rent property. There were variations, of course. William Crawfoot, a mariner who died in 1610, was an exception to this rule: he did not own a boat (and therefore was not a master mariner) but he does seem to have been the landlord of at least three separate properties on the east side of Newcastle, as evidenced by a list of leases on his inventory worth between £5 and £13. Men of all trades were landlords in a similar fashion, and such a status would often coincide with a wealth in new goods. Almost everyone, it seems, had bought into a certain level of material comfort, including bedding. After 1650, pictures, bottles and looking glasses were becoming much more widespread, and a high proportion of the wealthier Newcastle tradesmen also spent considerable sums on entertainment, as shown by their kitchen and dining equipment.

Watermen and wage labourers

If the occupational hierarchy of the middling sort was fluid and overlapping, there was one group who stood out at the bottom in both hearth tax and probate totals. Manual labourers consistently had a very low number of hearths, averaging barely more than a single hearth per household. Similarly, watermen or keelmen were mostly poor, with over 90 per cent having just a single hearth, and 65 per cent excused from paying the tax entirely. Both groups also lingered at the bottom of the inventory total table (Table 6.3), averaging £14 and £11 respectively, which in fact is an exaggeration of the real value of goods that the average labourer or keelmen would have been able to pass on. Not only were the great majority of men working in these categories left out of probate altogether, but the rough inventory values do not take account of debts, which frequently wiped out the whole values of goods: for the three keelmen whose lists of debtors and creditors both survive, the average level of debt was 96 per cent of the value of their inventories, second only behind the merchants in the occupations table.[94] This is at best an indicative statistic, not least because very few records of debts survive from the 1650s onwards when, as Chapter 8 indicates, keelmen were enjoying higher real wages. But it does highlight the fact that labourers and keelmen could rarely have made a 'significant transfer of accumulated wealth or goods across the generations', and it contrasts strongly with the capital accumulation witnessed amongst the middling sorts.[95]

Then again, we should be cautious about considering Newcastle's keelmen and labourers with excessive gloom, or packaging them all into a single neat 'labouring poor' category, even if that was the prevailing mood amongst seventeenth-century social commentators. While the question of the status of labourers within the seventeenth-century urban economic and social system will be considered in Chapter 8, Newcastle wills make the undesirability (for some) of being described as a manual labourer or a keelman plain. John Turner, Thomas Dods and Thomas Hall all described themselves as 'yeoman' in their own wills, but were identified by their inventory appraisers as 'keelman'.[96] Similarly, Thomas Roper and David Lee considered themselves yeomen but were designated by their peers as 'labourer'.[97] All these men's estates are analysed below, and it is important to consider the fine gradations that existed at the bottom levels of society as well as those amongst the middling sorts and between them and the self-proclaimed and self-reinforced élites of Newcastle.

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[94] PRD/Qdebtratio.
[95] Wrightson, *Earthly Necessities*, p. 319.
[96] DPRI/1/1625/T6/, DPRI/1/1636/D3/, DPRI/1/1694/H3/.
[97] DPRI/1/1642/L1/, DPRI/1/1691/R14/.

Some of Newcastle's 'labouring poor' were certainly less poor than others. Amongst the probate documents, there are a number of Newcastle keelmen who do not seem to have been excessively troubled by this poverty trap, at least by the time of their deaths – and the situation was improving across the century. The inventories confirm that some watermen at least were able to afford a reasonably comfortable existence. Nine of the seventeen keelmen studied here had at least one feather bed in their house, including five of the eight who died after 1660; the latter figure was roughly in line with the general average for the town. Nearly two-thirds owned candlesticks, and almost all had pewter amongst their belongings. Ten of the seventeen owned some brass, in line with the town's average. Half the keelmen inventoried after 1650 possessed a looking glass, again matching the average ownership in the same period. Perhaps the presence of looking glasses was indicative of the importance of appearance in their households' lives. This seems to have been true of John Hughson's (1679) family, who had a collection of clothes that included 'on[e] brodcloth suet and Clo[a]cke, £2', 'on huswif Cloth suet with a brodcloth Clocke £1 10s', and 'two payer of draweres with two Elderen wasckotes 3s'.[98] Most men's clothes were not so elaborately described in inventories, but if a keelman's household could afford one luxury item, it would probably be a mirror. Despite Gwendolynn Heley's withering remark that 'keelmen stand out as being particularly poorly dressed', it seems that a number were not: they took as much pride and comfort in their appearance as any other group of Newcastle residents.[99]

Altogether this could amount to a well-equipped home, on a par with those of Newcastle's humbler tradesmen. Amongst Gylbert Erington's £6 of household goods were fifteen pieces of pewter, three brass candlesticks and three brass pots.[100] His household slept on three separate bedsteads, two of which held featherbeds, and there was at least one pair of linen sheets.[101] Thomas Hall's (1694) household goods included silver; 15 pieces of pewter; a glass case, two seeing glasses and an hour glass; and two feather beds and two flock beds.[102] William Grame (1636) left behind a number of items including clothes and breeches worth £2.[103] He bequeathed 'to Margarett Grame in the country one petticott a hatt & a seing glasse & to my sister Meary Grame a Gowne & a petticote': perhaps, sadly, he did not anticipate that his wife, and the child she was expecting, would survive that terrible

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[98] DPRI/1/1679/H20/1. 'Elderen' means 'old' in this context.

[99] Heley, *Material Culture*, p. 81.

[100] DPRI/1/1608/E2/1.

[101] His children are not recorded in the All Saints' registers, which only began in 1600, and his will makes no mention of anyone other than his wife.

[102] DPRI/1/1694/H3/3.

[103] DPRI/1/1636/G8/2. Note: Grame's petticoats and seeing glass are not noted in his inventory, because they were bequeathed in his will.

summer.[104] Although it could not protect him from the dangers of plague, Grame had built up a decent material existence through his work on the water.

The wealthiest keelmen often owned at least part of their boats. More than a third of Grame's total inventory value was given over to the half of 'a v chalder [keel]botte' valued at £3. Keel ownership could make a significant difference to the total inventory values of water tradesmen, even if they only represented a 'moiety', or half part, of a keel. Of course, not all boats were equal: we can assume Robert Elder's 'halfe of one old skuller', scrawled at the bottom of his inventory as an afterthought and worth only 7s, was not fit to carry coals; it was probably a small dilapidated ferry propelled by sculls.[105] The inventory of John Hughson, which unusually for a keelman's inventory ran to two pages, recorded a total value of £104 including a keel (along with its furnishings) at £35.[106] Hughson was undoubtedly quite a wealthy man, described by his appraisers at the top of his inventory, in the place usually given over to an address and occupation, as 'sciper off sandgat with on[e] house and on[e] Coalle[keel]' – the ownership of both these items was integral to his occupational identity.

In most cases, ownership of a keelboat boosted the inventory value by less than a half, but in two cases the ownership of boats provided nearly all the inventoried wealth. Matthew Grant (1690), owned 'one coal boat' valued at £21, and 'One moiety of a Coalboat £2 10s'; the boat and a half contributed more than 80 per cent of Grant's total inventory value.[107] The same was true for John Whitehead whose whole inventory makes fairly slim reading:

> Chaffe Bedd and Bolster, Two Sheetes, One Blankett and Three happins [bed clothes] 8s
> three old Curtaines and Vallans 5s
> One Old longsettle Bedd, One old Table, one old Cupboard one Stoole and six trenchers 3s
> One old skeele, one Washing Tubb and one Tray 1s 2d
> One old Chist, one Beefe Tubb & Three old Chaires 3s
> Three Piggons [small vessel], one Earthen dish and 3 Spoones 6d
> One Yetling [a cast iron pot] and one old Craddle 2s
> One old Coalboat with the Appur[ten]ences £13 14s
> Purse and apparell 5s
>   Summa Totalis £15 1s 8d[108]

Again, the coal boat (at 90 per cent of the total) is the only item of any real value amongst Whitehead's goods and chattels – most of the rest were 'old' – although his family still had the opportunity to sleep in beds, wash, cook in a variety of pots, and warm around a hearth. Thus the ownership of a boat could spell wealth and opportunity, but it did not in every

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[104] DPRI/1/1636/G8/1
[105] DPRI/1/1641/E1/1; 'scull', *OED*.
[106] DPRI/1/1679/H20/1
[107] DPRI/1/1690/G2/1
[108] DPRI/1/1686/W12/1

case. What separated Grant and Whitehead, whose wealth was concentrated almost entirely in their keelboats, from those keelmen who enjoyed a more abundant material life?

Part of this important distinction is in the diverse ages of testators, although a simple assumption that younger testators had acquired only a lesser quantity of household goods is unsustainable. Whitehead was certainly young, with four children under the age of eight and four who had died in infancy – and 'one old Craddle' amongst his goods.[109] Although his youngest child was only nine when Grant died, he was probably slightly older than Whitehead, and he seems to have been semi-retired.[110] Perhaps Grant was still working in his smaller boat, valued at only £4, but the larger boat was recorded as 'one coalboat or lightnor wherof Rich Bowey is skipper together with all her furniture', implying he did not sail in it. Thomas Hall, whom we met at the end of the introduction, was more obviously retired. A keelman who identified himself as yeoman, Hall no longer skippered his boat: he bequeathed to his wife Margaret 'one full Moyety or halfe part of my Coal boat or Lightner wherof Oswald Cook now is or late was Skipper…'; the other half was to go to his daughter Anne.[111] A number of clues suggest that Hall could have been very old indeed at the time of his death, perhaps 90 or 91. A number of Thomas Halls were baptised in All Saints' at the beginning of the century in 1601-8; one boatman or shovelman was baptising children from 1627-46.[112] Of his seven children who were baptised, only two survived past early childhood: a son, John, who went on to become a waterman, and a daughter Ann. John died in 1690, at the age of 50, but Ann's burial cannot be traced in the seventeenth century (though she may, of course, married and changed surname). It is therefore possible that this was the same Thomas Hall and his bequest was to his 67-year-old daughter, and his wife who must have been at least 85. Unfortunately, the hostmen's records do not record a Thomas Hall as young as this man, so this cannot be corroborated.[113] Even if this is a case of mistaken identity, if Anne and Margaret were to make the most of their gift, they would not be expected to man the boat themselves: it must have been bringing in an income for Hall in his retirement, although the amount is uncertain.[114] The ownership of a boat twinned with an older age could often spell relative prosperity; those who still had young children, like Grant and Whitehead, could struggle in spite of their boat. It clearly took some considerable time and fortune to pay back the sums required for investment.

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[109] PRD/FatherID/whitehead.john.1.

[110] PRD/FatherID/grant.matt.

[111] DPRI/1/1694/H3/1.

[112] PRD/Fathers/hall.tho.6, hall.tho.7. Their dates overlap slightly, which is why they have been identified as two fathers. It could be a single father, and the overlap down to inconsistencies of the interval between birth and baptism.

[113] *Hostmen*, pp. 44, 53-4, 70 does record a Thomas Hall, but he was probably PRD/Fathers/hall.tho.2.

[114] PRD/ASBur/24172.

If keelmen did not own their own boats, it was possible for some to boost their inventory values by buying property in Sandgate. James Bell (1609) did not own his own keels but he did leave 'all his lands' in Sandgate to his wife, on the condition that if she remarried she would transfer 'all the tementes in the Chayre [narrow lane] called James Bell his chayre (except her house at the Chayre and towards the water) unto my sonne Xtopher Bell'.[115] Bell had apparently purchased or built the entire chare – a Newcastle term for a narrow lane leading off a road – which probably ran between Sandgate road itself and the Quayside. Dying in 1609, he had presumably been installed in Sandgate since at least the 1590s, and had ridden much of the boom in coal exports, making enough for a comfortable living for himself and his family. His kitchen goods were noticeably prosperous, including a good deal of pewter, as well as brass potts and a pestle and mortar, plus 'two owld bruing tubes a [m]ashing tube', indicating the household brewed its own beer.[116] His house had two individual chambers, which were decorated with cushions and a dozen pillowcases, and a flock bed – although there is no mention of addition fire gear to suggest the house had more than one hearth. Another example, Edward Thompson, who died in 1641, did own one half of a boat, which was worth £4, but he also mentioned in his will 'the house wherin I now dwell, and also two other houses or tenements now in the occupacions of John Browne & Thomas Swane, kealeman;…And alsoe all that my…wharfe in the occupacon of Robert Wilkinson shipwright'.[117] The ownership of a slice of property in Sandgate could bolster a waterman's relatively fragile prosperity.

Others owned or leased farms outside the town, although the prevalence of this diminished over the seventeenth century.[118] These men were either recent migrants who had arrived to supply coal's rapacious demand for labour, or else they were more distant migrants who had inherited land outside the town.[119] Thomas Kelley (1638) left 'my landes & groundes in Northam…now possessed by my…mother I will that after her death my…wife Margarey shall possesse & enjoy her Thirdes thereof'.[120] Kelley's only interaction with Newcastle's registers was 'to be buryed in the parish Church of Alhallowes', and his kin still lived up in Norham, suggesting that he had arrived quickly in Newcastle to answer the shortage of labour caused by the plague, renting a house in Sandgate from Thomas Colyer, a local shipwright.[121] Luxury items in his house included a

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[115] DPRI/1/1609/B2/1
[116] DPRI/1/1609/B2/2
[117] DPRI/1/1641/T3/1
[118] See Chapter 7.
[119] See Chapters 3 and 4.
[120] DPRI/1/1639/K1/1. 'Northam' is probably Norham, Northumberland, on the Tweed.
[121] PRD/Fathers/collier.tho.

'little glass case' and 'one firr close-bedstead'. Similarly Gilbart Hunter (1611) had a smallholding rented from the Crown in Tynedale, which was being run by a man called John Lawson.[122] He and his wife had little household comfort in Newcastle, with very little linen, pewter or brass, and nearly everything was described by the appraisers as 'old'. The cows and sheep in Tynedale were worth £4, equivalent to his household's contents in Newcastle. Thomas Dods (another plague victim), bequeathed half his lands and tenements in Tilmouth, County Durham, to his wife and son.[123] His household wealth was a fairly modest £5 10s, but he did own a 'salte kitt', two rolling pins and 'one Iron lamp & a keale Can', valued at 5s.[124] These examples remind us that migrant keelmen were not uniformly poor subsistence migrants; many in the early seventeenth century had some external form of income, or at least property.

Relative material comfort amongst labourers and keelmen cannot simply be predicted by the possession of boats or land, though; there are other examples of men who built up a number of household goods with no obvious form of capital investment. That William Fairbarne (1604) had a 'cuppord at anwick…' and a 'chest at anwick in the custidy of william Fermyck', indicates that he maintained close links with the country but no obvious source of income.[125] Nonetheless, his family were unusually well dressed, with '1 cloke, 1 Jerkin & 1 pare of Bretches,…2 hattes, and a Richmond capp', as well as '1 vyolet frock, 1 brodclothe frock…1 Russet cote' and '1 ould blew apron'. The household was furnished with featherbeds, a letton candlestick, fifteen pieces of pewter, linin napkins and worsted curtains. Similarly it is difficult to imagine what income Thomas Roper (1691), another labourer, would apparently have earned little from the 'Remaine of a lease of a ruinous house at Greenley in the County of Durham', but his house was also comfortably furnished. He had a large amount of pewter, as well as a feather bed, plenty of cooking gear, two lanterns and 'a glasse cupp' and – uniquely in this Newcastle sample – a 'Glase Chamber pott' in which to relieve himself.[126] Sometimes relative prosperity seems to have been linked with the ownership of property, but this relationship was far from straightforward.

Yet this cream of watermen, keelmen and labourers who were wealthy enough to leave probate records is unrepresentative of the whole population; there were strata in this lowest level of Newcastle society, too. The property empire of Edward Thompson, mentioned above, gave him some financial security and status in Sandgate, but what of his

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[122] DPRI/1/1611/H23/1-4
[123] DPRI/1/1636/D3/1. I have been unable to locate a Tilmouth in Co. Durham.
[124] DPRI/1/1636/D3/2. Dods may have also dealt in coal. See Chapter 8.
[125] DPRI/1/1604/D6/1
[126] DPRI/1/1691/R14/1

tenants? Thompson's will listed 'All those my three houses with lofts over the[m]…[occupied by] William Thompson, Thomas Rutter, Issable Wrigglesworthe, Thomas Hodgson & Jeremy Willys and William Dick' – these were six small tenements occupied by seven adult tenants.[127] William Thompson and Wrigglesworth are impossible to trace with any certainty but Thomas Rutter had a wife and four children under the age of ten, and William Dick had three children of about the same age.[128] Thomas Hodgson had at least one son and Jeremy Willis had four or five young children, implying a minimum of four young families and at least 22 people in the six rooms, and probably considerably more than that.[129] If, as can be inferred from the will, Hodgson and Willis shared the same tenement, it would surely have been a cramped lifestyle.

It is significant that many of Thompson's tenants were keelmen with young families, implying that cramped housing of this type was contingent on the ability to pay rent, and that this, in turn, depended at least in part on the family and life-cycle circumstances. None of Thompson's tenants made a noticeable rise in economic or social status in their lifetimes, however, and none of their offspring are traceable with any certainty in the records. By the 1666 hearth tax return, there was no sign of a Thomas Rutter, though Isabel Rutter, perhaps his wife, was recorded as a poor widow.[130] Thomas Hodgson was recorded as having a single hearth and 'non solvente' in 1666, and he was buried at All Saints' in 1671.[131] Before 1642, when he appeared on Edward Thompson's will, Hodgson had had two daughters, Ann and Jane, and would later have a third, Katheren, but they were not baptised, suggesting that could have died before they were baptised; his son John was baptised, but died at just two months old.[132] Thompson's tenements, it seems, were quite an unhealthy place to bring up a family. Jeremy Willis was also assessed for one hearth in 1666, and found to be too poor to pay; he died in receipt of alms in 1675.[133] None of these men or their wives seems to have left a will or inventory, so we cannot do any more than speculate about the interiors of their lodgings or houses either when they lived as tenants of Thompson or later when they were assessed for the hearth tax. Of course, they could have still been living in the same houses, and besides, none had leapt up the social hierarchy.

Again, we should resist patronising this poorer group, because where evidence of them does exist, it tends to show they participated at least to some degree in a wider culture

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[127] DPRI/1/1641/T3/1

[128] PRD/ASBapt/rutter.tho, dick.wm.1.

[129] PRD/ASBapt/hodgson.tho, willis.jer; PRD/ASBapt/9960, 10911. For similar housing in London, see Boulton, *Neighbourhood*, p. 193.

[130] PRD/HTax_Ncl/9064. This is highly uncertain, although Rutter is a rare surname.

[131] PRD/HTax_Ncl/8746; /ASBur/16160.

[132] PRD/ASBapt/5934, 8746, 8807, 9714.

[133] PRD/HTax_Ncl/9399; /ASBur/17495.

of consumption, and had more than the most basic items. Judith Welford uses distraint cases from the Bowes estate in County Durham to illustrate the material culture of those hit by hard times. Robert Blaicklock, who had his goods seized for debt in 1749, was a farmer but the account records the seizure of, among other items, 'eighteen pictures', 'eight Delf dishes and nine plates' and 'cane chairs', all new items scarcely seen even in Newcastle a century before.[134] Other studies of pauper inventories have tended to show that, for example, tea kettles and seeing glasses were nearly universal items in pauper cottages by the mid-eighteenth century, something that Adrian Green writes were aimed at 'ameliorating lives of toil'.[135] Unfortunately, there are no surviving pauper inventories for Newcastle itself, nor do many survive anywhere for the seventeenth century. But it is not difficult to believe that poorer householders like those in Thompson's tenants, whose relative poverty meant they generated no probate records, nonetheless strove hard to afford some of the material comforts available new or second-hand from Newcastle's traders.

The keelmen, watermen and labourers were clearly overall the poorest group in Newcastle, but it was certainly possible for them to earn a relatively comfortable existence through hard work and persistence, wise investment in a boat or property, or just through good fortune. This was particularly true after 1650, when the easing pressure of real wages afforded a household budget that had room for small material pleasures, including mirrors, cups, pewter plates and the occasional silver trinket; this was a life that overlapped with the less wealthy sections of the middling sort tradesmen, who tended to own these goods in similar numbers.[136] Those who had amassed capital sufficient to buy keelboats or property did fairly well, as did those with an external income from land. The wealthier keelmen, who breached the threshold of probate, had a level of material existence which was not desperate. It is a simple fact that possessing a single hearth in 1666, or being assessed as exempt from the hearth tax, did not mean Newcastle's keelmen or labourers would be permanently in poverty. The real human experience was more layered and complex than that.

Conclusion

Whilst work was undoubtedly the core economic experience for early modern people, dictating to a large extent their level of income, this chapter has exposed a subtle and

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[134] DRO D/St/E5/10/45; Welford, 'Functional goods', p. 291.

[135] Peter King, 'Pauper Inventories and the Material Lives of the Poor in the Eighteenth and Early Nineteenth Centuries' in Tim Hitchcock, Peter King and Pamela Sharpe (eds.) *Chronicling Poverty: the Voices and Strategies of the English Poor, 1640-1840* (London, 1997); Green, 'Heartless', p. 86.

[136] See Chapter 8 for discussion of rising real wages amongst Newcastle keelmen.

complex relationship between the occupational tags given on baptisms and burials and the wealth or status that individual could expect to attain. Except at the very extremes of the urban hierarchy – members of the Merchant Adventurers' Company and the poorest keelmen or labourers – occupation was not a particularly good predictor of wealth in the individual case. The status of merchants in Newcastle was unquestionably higher than other occupations. Partly, this was cemented by the town's medieval legacy as an increasingly important regional distribution centre from the fifteenth century. Below merchants, we can make few assumptions about someone's social or economic position based on occupation alone. Even at these extremes, there are no neat boundaries, in terms of wealth, to be drawn between the richest tradesmen and merchants in Newcastle; nor is it possible to draw a clear line between the poorer tradesmen and wealthier labourers. As we have seen, the poorer households from virtually all trades tended to congregate outside the walls, particularly in Sandgate, even when they retained a strong affiliation with the guilds. How such developments compare with other towns in England and north-western Europe remains an open question: considerable work still needs to be done in making varying source material comparable in England and internationally, as the evidence from Warwickshire and Leicester has demonstrated.

At an individual level, being a wealthy person in Newcastle meant living in a fairly large house, of between five and ten hearths, with an extensive inventory: to return to Figure 6.1, the five-hearth cut-off between the mass of respectable tradesmen and a genteel élite is immediately clear, although this was not based principally on occupation. These wealthy men included a cordwainer, a tailor, a barber surgeon and a shipwright amongst them, as well as merchants, but these men very clearly had a high level of wealth. They invested capital heavily in shipping, as we might expect from a port town, in housing for Newcastle's migrant workforce, and in decorating their homes increasingly lavishly as the century progressed. Mariners and merchants frequently had the highest levels of consumption, but genteel tradesmen of the manufacturing guilds participated too. Conversely, there was no easily identifiable floor to the market for key household goods in Newcastle – or, to be more precise, the floor was set below the level at which probate inventories were generated. Even those with inventory values well under £10 had access to looking glasses, salt cellars, beds, bedding, candlesticks, and pewter. By the last decades of the seventeenth century, keelmen and labourers owned more of these types of items; they could enrich a basic existence with a few items of comfort that were in reach. It is important, in reconsidering the urban hierarchy in Newcastle, to emphasise the extent to which it was characterised by social overlap rather than economic polarisation. The industrial workers could sometimes shape the economic

changes of the century in their favour, rather than simply suffer the consequences. The ability of households to allocate work and income within their amorphous units would be crucial in this.

Table 6.4 – Linked hearth tax summary

	n	mean hths	st dev	n.p.	%	paying	%	0	1	2	3	4	5	6	7+
merchant	13	5.38	3.04	0	0	13	100		2	1		1	3	2	4
coal merchant	10	5.00	1.49	0	0	11	110				1	4	1	3	1
gentleman	11	3.91	2.88	1	9	10	91		3	2	1		2	1	2
cooper	6	3.50	2.07	0	0	6	100		1	1	2			2	
food production	49	3.43	2.05	3	6	46	94		8	10	12	3	10	5	1
tailor	22	2.86	2.01	2	9	20	91		9	2	3	3	3		2
medical	11	2.82	1.83	0	0	11	100	1	2	2	2	2	1	1	
transport	103	2.69	1.86	12	12	91	88		38	21	15	11	7	5	6
shipbuilding	44	2.50	1.65	6	14	38	86		17	9	8	3	3	4	
textile	9	2.44	1.88	2	22	7	78		3	3	2				1
leatherwork	13	2.38	2.75	5	38	8	62		7	3	1	1			1
yeoman	17	1.94	1.71	8	47	9	53		11	2	2		1		1
glass	10	1.90	0.99	0	0	10	100		4	4	1	1			
smith	19	1.89	1.29	3	16	16	84		10	5	2		2		
food ingredients	17	1.71	1.16	4	24	13	76	1	9	3	2	2			
building	7	1.57	0.98	1	14	6	86		5		2				
carpentry	8	1.50	0.53	2	25	6	75		4	4					
manual labour	15	1.27	0.59	6	40	9	60		12	2	1				
coal transport	197	1.20	0.96	128	65	69	35	1	179	9	4	1		1	2
Totals	1196	2.13	1.94	367	31	831	69	3	324	83	61	32	33	24	21

Source: PRD/Qwealthstat

Chapter 7. The family economy

Disproportionate attention has been paid so far to the employment of male householders in Newcastle's economy, and with good reason: employed family men were the most regularly recorded in all manner of historical documents, and therefore the only category that could realistically be linked between Newcastle's records in any great numbers.[1] That married male householders were considered Newcastle's most important inhabitants by the town's clerks and officials means that they can be studied in better detail, but households could not have stayed afloat without contributions from their other members. This is particularly true in the period at the end of the sixteenth and beginning of the seventeenth centuries when stagnating wages and inflating food prices dropped real wages by nearly half and squeezed the standard of living hard.[2] Using food prices from Trinity House in Hull, Donald Woodward demonstrated that the cost of feeding an adult male rose from about 1d per day in the mid-sixteenth century to nearly 3d in the 1630s, during which time the wage rates for both craftsmen and labourers less than doubled; by the 1630s, a Hull labourer with a family of four would have had to work an impossible 397 days a year to cover food alone.[3] The earnings of that family were absolutely crucial to its survival. With under-employment always a question mark, the other household member's earnings would have been likely in combination to outweigh the contribution from the household's head.[4] In a touching deathbed acknowledgement of this fact, keelman Richard Pearson recognised his wife Alice 'by and through whose care and industry he had been enabled to purchase, and therefore had actually purchased in his own right,' two Sandgate properties.[5] Addressing Alice directly, he said 'Take thou...all the Estate I have, for I will never make another will after this; do w[i]th

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[1] Amy Erickson suggests that it could be possible to link employed women in guild records with parish registration for London: Amy Louise Erickson, 'Married Women's Occupations in Eighteenth-century London', *C&C*, Vol. 23 (2008), pp. 293-4.

[2] E.H. Phelps Brown, and Sheila Hopkins, 'Seven centuries of the prices of consumables, compared with builders' wage rates', *Economica*, Vol. 23, 92 (1956), pp. 296-314.; Gregory Clark, 'The long march of history: Farm wages, population, and economic growth, England 1209-1689', *EcHR*, Vol. 60 (2007), pp. 97-135.

[3] Woodward, *Men at Work*, pp. 214-17; Rappaport, *Worlds*, pp. 401-7, argues that wholesale (rather than retail) prices exaggerate the magnitude of this inflation. See Chapter 8 for a calculation of keelmen's real wages.

[4] Woodward, *Men at Work*, pp. 214-17; for agricultural labourers see Muldrew, *Food, Energy*, pp. 258-9.

[5] Nuncupative will of Richard Pearson, DPRI/1/1688/P10/1. The parish clerk recorded him as 'waterman', his will as 'skipper': PRD ASBur 21702. No record of their marriage, if it was in Newcastle, survives.

it what thou wilt'. The Pearsons were by no means wealthy – they were exempted from the 1666 hearth tax, and Richard's inventory suggests a compact though comfortable living – but their combined property and Alice's continued industry served her well: she survived another decade and never remarried.[6]

The model of the household working together towards economic self-sufficiency had deep roots. The modern notion of the economy draws its origins from the Greek for 'household' or the 'management of household affairs'.[7] Within this unit were a number of separate factions that worked in partnership, albeit with the man at the head. The form of this relationship was continually reinforced by the symbiotic messages of religion, literary culture and music, which all emphasised that individuals' roles and duties contributed to the larger whole.[8] According to Gervase Markham's influential 1625 guide, men were responsible for much of the outdoor work and for the general management of a farm. Women's lists were just as long and emphasised the lighter and indoor jobs: 'The office of the English Houswife [is] in Physicke, Surgerie, Extraction of Oyles, Banqueting stuffe,…Distillations, perfumes, ordering of woll, Hempe, Flax, Dying, use of Dayries, Malting Brewing, Baking and the profit of Oates'.[9] This did not necessarily mean that men's work was considered more difficult. A number of ballads featured role reversal to illustrate the delicate gendered balance of the household.[10] In one, a husbandman complains that he works much harder than his wife, so they switch places. Inevitably, he 'burnt the Bread as black as a stock', tipped the baby onto the floor, approached a 'skittish cow' on the wrong side for milking, scaring her such that 'she kict and spilt it every jot'. The moral:

> Take heed of this you husband-men,
> Let wives alone to grope the hen,
> […]
> So shall you live contented lives,
> And take sweet pleasure in your wives.[11]

Without the woman working alongside him on the farm, the early modern man was lost, at least according to contemporary moralisers, since he simply could not perform her roles.

Richard and Alice Pearson's only child, George, had died in 1668 at the age of two, but in many other families the contribution of children was just as important as that of their

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[6] The inventory records Richard living in 'Roomes', though he did have eight pairs of sheets and six pictures. Hearth tax and probate summarised in PRD Qwlthstat [ProbateID] 2496; Alice's burial is PRD ASBur 25099.
[7] William Booth, 'Household and Market: on the origins of moral economic philosophy', *The Review of Politics*, Vol. 56 (1994), pp. 207-35; Wrightson, *Earthly Necessities*, p. 30.
[8] Waddell, *God, Duty*, pp. 90-3.
[9] Gervase Markham, *A way to get wealth, by approved rules of practice in good husbandrye and huswifrie* (London, 1625), title page.
[10] Waddell, *God, Duty*, p. 93.
[11] 'The Woman to the Plow and The Man to the Hen-Roost' (1681-4), *Pepys Ballads,* IV, p. 100.

parents, albeit less productive.[12] In another ballad, a wife reassures her husband that, by pulling like 'Oxen in one Yoak together', they will be able to keep their family afloat:

> though children be young they must bite no[t] the bridle
> I'le teach them to work, for they shall not live idle:
> [...]
> I'le teach my Son Thomas if God give him grace
> To work at our Trade in a very short space.
> I'le teach pritty Nanny to Card and to Spin,
> Though she do but little, some gain will come in...[13]

That both wives and children would contribute to a family's upkeep was assumed, within the bounds of their limited abilities. The economic and social structures of towns were different but the same principles applied, and patriarchal structures were organised through magistrates, councillors and guild brethren. Hierarchical loyalties within a household remained as strong in towns as they did in the countryside, with apprentices and live-in journeymen owing the same duties as children; and masters likewise owing board and security in return. In return this extended family, which included apprentices and servants, whom Naomi Tadmor has termed 'fictive kin', was expected to work untiringly towards the support of the household.[14] Wives worked alongside husbands and children, apprentices and servants contributed willingly to the household.

According to many accounts, this idealised system was changing. Alice Clark and Ivy Pinchbeck influentially argued nearly a century ago that the coming of industry sharpened social differentiations between the sexes, separating them into what have been described as 'separate spheres'.[15] The model is simple: a sixteenth-century system of collaborative, household-based production involving all members was replaced by a household where individuals each earned wages in distinctly gendered activities, and women were paid less, and had an occupational status vastly below that of their husbands. Eventually, in the nineteenth century, the 'breadwinner' husband earned the household's keep by himself.

Although Clark and Pinchbeck disagreed about the timing of this change, it is clear that the beginning of the seventeenth century should have been the 'golden age' of men and women working together. It has been widely discussed that women could have the opportunity to take over their husband's business in the event of his death, indicating that she had acquired near-equivalent trade skills over their lifetime together, and Keith Thomas

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[12] PRD ASBap 15429, ASBur 15277. It is possible that other children were not registered with the parish, either at their baptism or burial.

[13] 'The Poor Man's Comfort' (c.1684-1686), *Pepys Ballads,* IV, p. 92.

[14] Naomi Tadmor, *Family and Friends in Eighteenth-Century England: Household, Kinship and Patronage* (Cambridge, 2001), Chapter 1.

[15] Alice Clark, *Working Life of Women in the Seventeenth Century* (London, 1919); Ivy Pinchbeck, *Women Workers and the Industrial Revolution, 1750-1850* (London, 1930); Leonore Davidoff, and Catherine Hall, *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* (Chicago, 1987).

identifies this as the source of 'a new independence' for widows.[16] Rules differed from town to town. In Chester, at least one in five eligible widows of master joiners continued the work for at least some time after the husbands' death, a number that was highest in workshop-based joinery and lower in outdoor building.[17] In Coventry, widows could temporarily keep a business until their son was of age, but 'there was no question that widows might perpetuate the business by training up apprentices on their own account'.[18] In Newcastle, this was theoretically possible, but their husband's name was added to the indenture anyway, and the customs of the town were such that if she remarried, the widow would lose the rights her husband had possessed.[19] Widows could never be fully admitted to guild meetings, and made little mark on the records, although Jean-François Ruggiu identifies a handful of occasions in eighteenth-century Newcastle when apprentices were transferred 'with the consent of his mistress', implying a female proprietor.[20] We can assume that some widows acted as 'tradesmen' in their own right, but it is simply impossible to estimate numbers on this evidence.

While such co-working certainly took places in towns, studies that have quantified women's work have usually shown a 'golden age' to be non-existent. In particular, married women rarely worked with their husbands. Pam Sharpe demonstrates that worsted spinners in Yorkshire and lace makers in Devon were 'literally spinsters', and that their work was not in tandem with that of their husbands.[21] Peter Earle's survey of the evidence from London church court depositions of around 1700 has shown that few women who worked did so in the same type of work as their husbands, let alone in the same business.[22] While this conclusion has been qualified by Amy Erickson's use of hospital apprenticeship records – showing that around half of wives of master craftsmen recorded in that source did work in the same business, and half worked elsewhere[23] – the consensus remains that townswomen

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[16] Clark, *Working*, pp. 39-41; Ruggiu, *L'individu*, pp. 274-280; Richard Grassby, *Kinship and Capitalism: Marriage, Family and Business in the English-speaking World, 1580 -1740* (Cambridge, 2001), pp. 327-31; Keith Thomas, 'Age and Authority in Early Modern England', *Proceedings of the British Academy* 62 (1976) pp. 235-6.

[17] Woodward, *Men at Work*, p. 277.

[18] Phythian-Adams, *Desolation*, pp. 91-2.

[19] Charlton, *Newcastle*, p. 422; Bateson, *Borough Customs*, II, p. cxiv. This custom was occasionally set out in Newcastle wills (see DPRI/1/1633/R2/1, 1609/B2/1, 1698/M5/1, 1637/H15/1) although it was much more common for wills *not* to explicitly reallocate property after the widow remarried (see DPRI/1/1684/B2/1, 1699/G7/1, 1666/M7/1, 1672/T11/1, 1690/R11/1, 1614/H5/1, 1615/Y4/1, 1634/C9/1, 1666/B5/1, 1669/H1/1, 1627/M8/1, 1667/F5/1, 1665/C8/1, 1685/N2/1, 1667/C11/1, 1676/R26/1, 1608/E2/1, 1611/H23/1, 1639/K1/1, 1636/G8/1, 1641/T3/1, 1694/H3/1, 1675/N7/1, 1675/M8/1, 1639/C4/1, 1641/B2/1, 1661/L5/1, 1697/W6/1, 1626/C7/1, 1633/K2/1). Erickson estimates this proportion nationally as smaller than 10 per cent: see *Women and Property*, p. 167.

[20] Ruggiu, *L'individu*, pp. 276-9.

[21] Sharpe, 'Literally Spinsters', pp. 46-65.

[22] Earle, 'Female Labour', pp. 328-53.

[23] Erickson, 'Married Women', pp. 267-307.

of all levels of wealth did not as a rule work with their husbands. As Robert Shoemaker puts it, the golden age to separate spheres argument 'could be applied to almost any century or any culture' with the right twist of the evidence; Ad Knotter confirms, in a survey of pan-European evidence, that women's work was just as limited in the middle ages as it was in the early modern or modern industrial age.[24] It is increasingly clear that there was no golden age from which women's work fell.

This does not preclude any change at all, and by the seventeenth century many or most women and children were economically active outside the household, earning wages and the spending power suggested by de Vries's 'industrious revolution'.[25] Unfortunately, the available primary sources for seventeenth-century women and children's work in England are poor, to say the least: at best they could hope for an exceptional mention in the freemen's registers, an appearance under their husband's 'masculine profession' on the tax rolls, or an appearance in court; in contrast to French documents, women's work was 'rarely mentioned in [English] wills'.[26] Nonetheless, we can infer some important information from probate inventories, because they allow a single end-of-life glimpse at production as well as consumption within households.[27]

Principally using wills and inventories, this chapter considers the basis on which the Newcastle family unit operated economically, confirming an ongoing process of commercialisation in this industrialising town. Corroborating parish register evidence from Chapter 4, these inventories indicate that an increasingly smaller proportion of work was taking place in the 'workshop-households' implied by contemporary models. More household heads were working outside the house for wages, and they were joined by other household members, although the evidence here is more conjectural. While it is possible – such as in Donald Woodward's painstaking analysis of town council accounts, including those of Newcastle – to envision the scope and availability of additional work outside the household, it is much more difficult to quantify, and regrettably this has been impossible using the evidence presented here. Moreover, I make no claim to have found the golden age: work in Newcastle had *never* been sited almost entirely within these workshop-households. Where we can be more confident is in detecting households which were collective producers of goods for the market that were outside the primary line of work of their heads – in other

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[24] Ad Knotter, 'Problemen van de "family economy". Gezinsarbeid en arbeidsmarkt in pre-industriëel Europa', in Baud and Engelen (eds.), *Samen wonen, samen werken? Vijf essays over de geschiedenis van arbeid en gezin* (Hilversum, 1995), pp. 35-71; Amanda Vickery, 'Golden Age to Separate Spheres? A review of the categories and chronology of English women's history', *Historical Journal*, Vol. 36 (1993), pp. 383-414.
[25] See Introduction.
[26] Ruggiu, *L'individu*, pp. 253-4.
[27] See Chapters 6 and 5.

words, by-employments. Already by the seventeenth century, these were commoner than the sixteenth, and they again indicate a desire to diversify and increase household income. Newcastle households, as we will see, were frequently – and increasingly – entrepreneurial.

Productive households

We begin the search for these entrepreneurial households in the home itself with an analysis, using probate inventories, of households whose members engaged in by-employment-type production. There are two distinct types of home production to consider here. Firstly, those households that engaged in a secondary by-employment in order to sell more goods in the marketplace and boost family income. This was not particularly common in Newcastle, but there were a number of examples of households that entrepreneurially seized the growth of population as an opportunity to make money through selling food or other goods. There was also a substantial and growing minority of households involved in spinning work, which was one of the fastest-growing sectors of the seventeenth-century economy. The second type of household is those that did not *sell* the results of a secondary type of production in their household, but rather used it to support their livelihood – this usually took the form of either a small brewhouse or a smallholding of livestock. These, as we will see, were rare amongst Newcastle households, although most did cook their own food at home. The distinction in scale between production for sale and for home use can be very fine, and will be defined in each section.

Livestock and farming

By contemporary standards Newcastle was a big town. Although its inhabitants were never far from the land, even wealthier families rarely kept livestock or farmed. On average, livestock was only present in one in five inventories across the century, and the proportion was falling. In Heley's sample from 1545 to 1642, 58 per cent of tradesmen's inventories had livestock. This had already dropped to a third by the first half of my sample, and fell even further to barely 15 per cent by the second half of the seventeenth century.[28] The trend was the same for arable agricultural goods. The inventories of five tradesmen (amounting to 11 per cent) recorded a farm that was growing wheat or oats in the first half of the century, but this dropped to only one of the sixty inventories from the second half. This suggests that Newcastle's residents were pulling out from owning land and producing the raw ingredients for food (animals and grain, for example), focusing their energies instead on processing and selling food to a growing population, or other commercial activities. Even where animals

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[28] Heley, *Material Culture*, p. 91.

were owned, they tended to be fairly low value, and certainly not indicative of true by-employment in agriculture. William Dun[n]e, a pulleymaker (1621), simply had 'one cow' at 20s listed, and no other animals. This would presumably have been used purely for small-scale dairy production to help support his family. Only a single keelman owned any livestock (others, as we have seen, had land): Gilbart Hunter (1611) had two cows and three sheep in his smallholding in Tynedale, which were worth about £4.[29] This was unusual by the end of the century: more commonly, Thomas Roper, a labourer (1691) was not poor by any means, but could only bequeath a ruinous lease.[30] Evidently his family had once worked the land in County Durham, but now he made his living purely in the town.

Truly commercially proportioned farms were rarer still. Even in the sixteenth century, fewer than 10 per cent of inventories fitted Overton's category of more than ten sheep or two cows for commercial farming.[31] Edward Anderson, a tailor, owned at least 2 cows, 10 pigs and 24 sheep at his mother's farm near Ridsdale in Northumberland, as well as his brother's house there; his father and brother had presumably died fairly recently.[32] Exceptional family circumstances – he inherited land and livestock but certainly did not work it directly – made Anderson the only truly commercial farmer in this Newcastle sample. Even the butchers seem to have been buying more than rearing animals by the end of the seventeenth century. While Heley's sample showed that more than 80 per cent of them owned animals 1560-1640, and many had very substantial farming interests, this was much diminished by the 1690s.[33] In 1606 Christofor Prierman owed more than £11 'for one whole yeares rent to the towne of Newcastle for gateside south broad meadowes' – this was a paddock for livestock.[34] In contrast, although John Davison (1690) undoubtedly butchered in his 'shopp' – which contained 'one hand Ax, one Lamb knife, one dressing Crooke…and the rest of the worke-geere' – the only animal recorded was a working horse.[35]

In all, by the end of the seventeenth century, barely 10 per cent of Newcastle residents had any cows or sheep at all. This was, fundamentally, an urban economy which imported food from those living outside the town. There was a major structural change in the agricultural economy of County Durham in particular. With the opening of sea-sale collieries on the Wear as well as the Tyne, the industrial population in County Durham continued to grow quickly across the seventeenth century, producing a constantly expanding

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[29] DPRI/1/1611/H23/1-4
[30] DPRI/1/1691/R14/1
[31] Heley, *Material Culture*, p. 91.
[32] DPRI/1/1620/A3/1-3
[33] Heley, *Material Culture*, p. 90.
[34] DPRI/1/1606/P7/1-4.
[35] DPRI/1/1690/D3/1

demand for food. As a result, Robert Hodgson identified a distinctive peak in enclosure between 1630 and 1680, amounting to considerably more than 12 per cent of the county's area. Official enclosure usually followed behind the unofficial concentration of land, such as in Grange Close in Darlington, where the pasture was enclosed six years after the Bishops' tenants had already 'turned it into tillage and reaped many valuable crops'.[36] This trend was illustrated in Whickham, where the land was progressively concentrated in fewer and fewer hands from the 1640s, and eventually enclosed in 1678, with the blessing of Newcastle's hostmen, who controlled trade out of the area and were keen to cement food supplies for the industrial workers.[37] The national context provided by Carole Shammas also indicates that urban residents owned a decreasing share of livestock across the seventeenth century, something she puts down to the diminishing supply of land and rising livestock prices.[38]

In this national and regional context, Newcastle's tradesmen and labourers lost the financial interest they had in land outside the city, although the continuing numbers of gardeners reminds us that Newcastle was still quite green inside and outside the walls. While Durham's farmers engrossed into larger, commercial and specialised farms, the smallholders, including those in Newcastle, fell in number. Mark Overton and colleagues observed a similar trend in inventories in Kent, where small-holding farmers with only a handful of livestock decreased in number between 1600 and 1700, whereas larger farms grew slightly in proportion.[39] Newcastle residents increasingly did not farm or own livestock, even in small numbers: the numbers that owned cows, sheep and pigs declined considerably across the seventeenth century. In some cases, this could have been detrimental to the family economy: a family that could not rely on its own supply of milk lost an opportunity to be self-provisioning and insulated against commodity price rises. For others, it freed household time and energy for other productive activities.

Food and drink

Even as Newcastle families were gradually relying less on smallholdings for their survival, they retained control of cooking; the home production of food was virtually ubiquitous in households that generated probate records. This is notably different from the experience of population growth in seventeenth-century London. There, labourers frequently lodged in larger households where 'the use of communal spaces – hallways, landings, but above all, the kitchen – could lead to confrontations which made eating out

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[36] Hodgson, 'Enclosure', pp. 83-102.
[37] Levine and Wrightson, *Whickham*, pp. 142-9.
[38] Shammas, *Pre-industrial*, pp. 29-33; Heley, *Material Culture*, pp. 91-2.
[39] Overton, *Production*, pp. 40-7.

easier, if not the preferable option'.[40] Only seven of fourteen Southwark houses that have been excavated by archaeologists possessed a kitchen and many 'lacked basic social amenities', and Peter Earle concludes that few people in early modern London had 'the space or equipment to do much cooking for themselves'.[41] Three Newcastle men from this sample fell into that category: the scrivener Thomas Ainsley clearly lodged with family and had no cooking-ware in his single-roomed apartment. Similarly, the schoolmaster Edward Mulcaster's accommodation consisted of a room and a separate schoolroom. Although he did have a table two pewter plates and 12 spoons he apparently did not cook.[42] Finally, John Bee, a master and mariner who died in 1660 had a very similar domestic setup with some items to eat with but nothing to cook with.[43] Clearly these three Newcastle men either ate out of the house frequently, brought pies and prepared meals in from victuallers and cooks, or had board provided with their rent.

These examples are highly exceptional, though: more than 90 per cent of Newcastle inventories listed some kind of iron or brass cooking goods – and five of those that did not are obviously incomplete inventories. Virtually all houses had separate iron chimneys in a design that had a strong draught to accommodate the toxic fumes of coal. Most also had the basic cooking equipment of seventeenth-century England, in particular spits, racks and 'flesh' hooks around the hearth. Lawrence Thompson's hearth was, typically, surrounded by: 'one Iron chymney a paire of little rackes a speete a paire of tonges a paire of fl[esh] crokes and a rackencrooke'.[44] This simple technology was frequently supplemented by dripping pans or frying pans, chaffing dishes and warming dishes, pots and pot clips to hang them over the fire, and occasionally a 'fish skummer', reflecting the coastal diet. Saucepans gradually became more common throughout the century, although they were the preserve of those with inventories worth at least £40 or more. Spice boxes and mustard pots were usually also for the wealthy, but households of all ranks had access to a mortar and pestle and a salt cellar. Food cooked at home could be richly flavoured, then, and it was always cheaper than to eat out. An edict from York in 1561 ordered innkeepers to cap the price of a working man's meal at 4d 'and the fare was to include bread, drink, herring, and salt fish with some kind of pottage', whereas wealthy men who demanded 'extra dishes' could pay

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[40] Sara Pennell, '"Great quantities of gooseberry pye and great clod of beef"', in Paul Griffiths and Mark Jenner (eds.), *Londinopolis* (Manchester, 2000), p. 230.
[41] Boulton, *Neighbourhood*, pp. 194-5; Pennel, 'Great quantities', p. 230; Heley, *Material Culture*, p. 75.
[42] See Chapter 6 for discussion of lodgings.
[43] DPRI/1/1660/B1/1
[44] DPRI/1/1609/T2/3

6d.[45] In the same period, they allocated 1½d per day for a poor man to feed himself, implying that it could cost more than double to eat outside the home.

The increase in the occupational share enjoyed by food producers, which amounted to something like a quadrupling in absolute numbers, showed that their services were in demand, even if they did not replace food cooked at home. Bakers and brewers, butchers, and millers were consistently the three dominant groups, usually in that order (see Table 7.1). There were no innkeepers recorded at all and only 5 cooks across the entire century. These totals are of course only primary occupations and certainly underestimate the population of Newcastle involved in some form of food production, as Chapter 4 demonstrated is the case for all forms of service. Previously, we met the confectionary production of Robert Plumpton, but some of the general merchants also seem to have specialised in luxury food and drink. For instance, the shop of Michaell Shaw, a master and mariner (1666), gives an idea of some more of the new goods that tantalised wealthy consumers from the middle portion of the seventeenth century. It included a hogshead of vinegar worth 15s, brandy worth £10 10s, more unidentified 'strong waters', and four stone of tobacco, worth 32s.[46] Between Plumpton's sweetmeats and Shaw's offer of tobacco and alcohol, Newcastle's high-end consumers could supplement the food they cooked at home with specialities. In another instance, James Yonger (1614) was listed as a cutler on his will, and had been admitted to the freedom as such in 1600, but there were no goods or tools listed on his inventory linked with this trade other than a single 'scottish sworde'.[47] In the will he listed his three sons as minors and bequeathed them £180 to be shared, so it is unlikely the business had already passed on. Instead, he had more than 800 individual salted fish in his cellar and loft, including cod, 'cusks', 'lings', 'Colefish', and '48 barrels of white herings'; plus a large quantity of rye and malt and two milk cows. He had over £66 invested in fish alone, and an extensive debt network for sales (some specifically identified) amounting to nearly £50, as well as a separate 'herrings booke' and 'corne book' which between them had £40 debts recorded. He also had nearly £70 to hand in 'reddie money', an unusually large total. In all, this was the perhaps the biggest food business that appeared in this probate sample, despite the fact that Yonger was ostensibly a cutler. Clearly, there was a great deal of money to be made running by-employment food businesses.

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[45] Woodward, *Men at Work*, p. 216.
[46] DPRI/1/1666/S7/1
[47] DPRI/1/1615/Y4/2-3.

Table 7.1 – Number and percentages of different occupations in 'food production' category from All Saints' baptisms by decade

number	1601-10	1611-20	1621-30	1631-40	1641-50	1651-60	1661-70	1671-80	1681-90	1691-1700	1601-1700
baker/brewer	14	45	119	110	86	90	88	90	78	49	769
butcher	27	39	48	45	42	81	111	106	97	71	667
miller	29	18	49	68	48	73	81	66	53	86	571
maltster				2	2	1	6	15	16	32	74
confectioner				1	2	5	5	12	16	32	73
salter			1	1		1					3
butterman			1								1
total	70	102	218	227	180	251	291	289	260	270	2158
% share											
baker/brewer	20	44	55	48	48	36	30	31	30	18	36
butcher	39	38	22	20	23	32	38	37	37	26	31
miller	41	18	22	30	27	29	28	23	20	32	26
maltster				1	1		2	5	6	12	3
confectioner					1	2	2	4	6	12	3

Source: PRD/ASBapt

Table 7.1 also reminds us that bakers and brewers, terms which in Newcastle were almost always used together, remained the largest group of food producers for much of the century. Baking is extremely difficult to track in inventories since ovens were a material part of the building and therefore excluded.[48] Brewing is easier to trace, and it was big business in Newcastle. Beer was a staple of the early modern English diet, and home brewing was also fairly prevalent in households across the country. However, it was by no means ubiquitous in Newcastle, where fewer than one in five households showed obvious signs of brewing ale or beer. This is liable to be an underestimate, since to be counted in this category, a household had to have tools specifically designated for the job such as 'brewing vessels' or 'mashing tubs', whereas ale could potentially be brewed in any tubs. Ale (essentially fermented malt liquor) could be produced quickly and cheaply in the house but, because it was unhopped, it did not keep for long and therefore could not be made in large quantities.[49] Ale was therefore chiefly a domestic good; beer could be made for sale in larger production units. There is evidence of both domestic and commercial brewing in Newcastle inventories, though it is difficult to identify the point at which a small amount of brewing within the household became commercial. The largest commercial breweries are not difficult to spot, both because the householders were often listed as brewers and because of the types of items included. So John Bell's £8 of equipment – including a furnace, six hogsheads and 'aboute thirtie t[u]nns of small bere' – identify him as a large-scale brewer.[50]

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[48] Overton, *Production*, p. 183.
[49] Peter Mathias, *The Brewing Industry in England, 1700-1830* (Cambridge, 1959), pp. 3-11.
[50] DPRI/1/1666/B5/1.

Timothy Collingwood (1667), ostensibly a cordwainer, had a considerable investment in brewing, including more than £16-worth of malt and 'five Butts and fower hoggsheeds of Beare [worth] £14' as well as 'one wort Tunn, one mas[h]ing tubb', all in his separate brewing house with malt loft.[51] His household was enormous – it ran over ten rooms and at least twelve beds – but it is inconceivable that the nine barrels of beer (more than 800 gallons by the standard measures) were for the consumption of the household alone.[52] Plenty of brewers occupied this semi-commercial position. Likewise, a separate brew house was certainly an indication of a large and well-appointed house, but not necessarily of commercial brewing: a handful of the larger trade households had separate brew houses, but only a modest scale of equipment.

Beer was frequently bought and sold from alehouses and brewers, but it also entered the market in less straightforwardly simple transactions. Employers frequently provided beer for their employees as part of a customary wage packet, or in an attempt to boost productivity.[53] The household of glassmaker Joseph Henzell invested in three or more brewing vessels including a 'copper', which implies a larger scale of production. It is possible that he supplied his workers as well as his family with beer from his copper.[54] A similar case could be made for the merchant Francis Bainbridge who had a separate brew house which included a 'kilne chimney'.[55] Overton notes that furnaces indicate the brewing of beer not ale; the moderate scale of Bainbridge's equipment suggests it was at most semi-commercial.[56] This is equally true of Newcastle's mariners, who were amongst the most likely – at 45 per cent – to possess beer-brewing facilities. William Crawfoot (1610) had a separate malt loft, including thirty bowls of malt, worth more than £10.[57] George Arrowsmith's separate brew house (1688) included coolers and trays, another sign of commercial beer brewing.[58] He also had beer in his cellar, albeit in smaller quantities than Collingwood, just 'one but of beer & one hogshead of beere £5' and 'two casks a broach of Ale & beere 15s'. Mariners' households were apparently more likely to brew beer and not ale because they used it to provision their ships, in the same way that other large-scale manufacturers like Henzell perhaps provisioned for their workers. Henry Bourne, as we have seen, put the large number of commercial brewers at the Quayside down to the

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[51] DPRI/1/1667/C15/3-5
[52] See 'William and Mary, 1688:…Additionall Duty…upon Beere Ale and other Liquors', chap. XXIV, s. 4.
[53] See Chapter 8.
[54] DPRI/1/1669/H12/3
[55] DPRI/1/1641/B2/5
[56] Overton, *Production*, pp. 59-60.
[57] DPRI/1/1610/C12/2-3
[58] DPRI/1/1688/A10/1

provisioning of ships, and it is feasible that mariners would provide some of this.[59] It could also be a question of quality: George Arrowsmith, as well as barrels and casks, had an unusually large quantity of glass and earthen bottles – amounting to a small and two larger cases.[60] These might have been used for small quantities of beer to take with him on a voyage. It is also possible that women ran the semi-commercial breweries while the mariners were away – a true by-employment to make up for lost wages whiles he was at sea. It is noticeable that Crawfoot and Arrowsmith were two of the poorer mariners in the sample: Arrowsmith's £6 in beer made up well over a quarter of his inventory value, while Crawfoot's £10 was about one-ninth. Brewing for domestic purposes within the household was certainly still within a female sphere of activity that encompassed a wide section of work including 'all things belonging to an Household' according to Markham.[61] Brewing as part of a semi-commercial by-employment activity in mariners' households could equally have been practiced by the women and children or servants, of the house.

Thus Newcastle households brewed on different scales. In all, just over a third of Newcastle householders who had any brewing equipment seem to have been brewing on a large scale; the rest were brewing mostly for domestic consumption. Matthew Milborne, a weaver (1627), had 'a brew vessel' recorded amongst pots, pans and a kettle in his kitchen, all grouped together into a single item worth £5, but his large quantities of linen and pewter and silvers suggest his wealth.[62] The situation is similar for the fisherman Michaell Newcombe (1606) and the shipwright Robert Davison (1680) whose fairly small household inventory amounted to two rooms, two adjoining 'little' rooms, and a brewhouse with a small amount of equipment.[63] These households of these men, from a variety of trades, were probably just brewing for the consumption of the family and any apprentices and servants.

The total proportion in possession of brewing equipment stayed roughly constant across the century, but the scale was changing. A declining group had a very small amount of equipment and were just making ale for consumption at home, and a growing group had invested in the additional equipment required to brew hopped beer. This is a reflection of the economics of the brewing business as it operated in this local market. The equipment to brew beer was expensive, and the drink itself was relatively cheap, and indeed the price seems to have been declining in real terms. The price of beer in Timothy Collingwood's cellar works out at just over 4d per gallon and George Arrowsmith's beer is just over 5½d –

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[59] See Chapter 4.
[60] DPRI/1/1688/A10/1
[61] Weatherill, *Consumer Behaviour*, p. 138.
[62] DPRI/1/1627/M8/2-4
[63] DPRI/1/1680/D4/1; DPRI/1/1606/N2/1

both lower than the price of about 6d for the 1660s given by Donald Woodward, and cheaper than the imported 'London beer' that was already 6d in the 1591.[64] The overlapping descriptions make it difficult to tell one from the other but it seems the price of beer rose considerably less than other foodstuffs over the late sixteenth and seventeenth centuries. Buying beer outside the house remained within the reach of most households as breweries enlarged and could make use of the economies of scale afforded by hopped beer that did not go off. Some working men, of course, were known to over-indulge at the expense of their families' nutrition, but for most it remained an affordable necessity in the seventeenth century.[65]

The evidence from probate indicates that individual Newcastle households were gradually withdrawing from home brewing across the seventeenth century because the economies of scale afforded to the larger breweries made beer an affordable commodity for families – and labouring men themselves would often be given beer as part of their wage packet. Conversely, most families prepared food at home rather than eating meals out, although some of this manufacture was done outside the house. Households would probably buy beer, bread and butchered meat, and wealthier families could afford the luxuries appearing in some of Newcastle's shops. Again, households could save time for labour and other productive work by buying in, but it is also clear there was not the scale of victualling found in London by Pennell, Boulton and others. Nonetheless, the growing market *did* provide opportunities for some of Newcastle's craftsmen to maintain a by-trade in, for example, the preservation of fish.

Textiles and household goods

Spinning could make a great contribution to the household economies of both poor and more comfortably-off families. Very little recorded documentation survives from spinning, despite the complexities of the business, making general estimates necessarily speculative. Business was often put out from central merchants and included a number of different types and qualities of yarn that had substantially different value. It was also depicted as the type of work a woman could do in partnership with her household duties such as raising children. A playing card from 1700 showed a woman spinning with a distaff (a tool used to hold fibres that would then by spun by a spindle) and rearing her child at the same time, with the caption 'Thy hand at the distaff, and thy foot on the Cradle and soe

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[64] Woodward, *Men at Work*, Appendix 3, pp. 286-7; for the London export trade see Mathias, *Brewing Industry*, Chapter 1.
[65] See Chapter 8.

bring up thy daughter'.[66] Craig Muldrew estimates that a wife's spinning could have added anywhere between a quarter and a third on top of a husband's agricultural labouring wages, and that this could have been crucially important.[67]

How much spinning work there was available in Newcastle is debatable. Demand for spun yarn skyrocketed across the early modern period thanks to both a growing export market in new draperies and the expansion in home demand, termed 'the great reclothing of rural England' by Margaret Spufford.[68] Recent work by Muldrew, using standardised assessments for individual productivity and other factors, has estimated that the potential employment for spinners to have grown sevenfold between 1590 and 1770, while the population only increased by two-thirds. This implies that, by the mid-eighteenth century, around 1.6 million people could have been employed in hand-spinning and knitting, or three-quarters of the female population over fourteen.[69] Work on the Dutch spinning industry also suggests that, contrary to expectation, men were frequently paid to spin as well as women – particularly in the higher-paid woollen sector.[70] Despite this growth, spinning was not as widespread in the north of England, and particularly in Newcastle. It can be difficult to detect whether spinning was taking place in a household: the smallness and cheapness of distaffs and spindles would mean they were likely to escape individual valuation in inventories, resulting in an underestimation of the total presence of spinning. If we measure such activity in a household by the presence or absence of spinning wheels, then it was not common in Newcastle, but it was increasing. Wheels were present in only 13 per cent of households, increasing across the century, starting with 7 per cent and ending with nearly 17. This figure is consistent with Judith Welford's comparisons between Newcastle and other urban and non-urban areas of Durham and Northumberland.[71] It is also confirmed by Shammas, who found spinning wheels in fewer than a fifth of north-east houses and Green, who comments that paupers in Durham rarely had spinning wheels, in contrast with those from Norfolk.[72] Growth over the century was also witnessed in in Whickham, where spinning wheels only appeared in numbers from the late seventeenth century.[73] These figures compare with spinning wheels in between 20 and 45 per cent of

[66] Waddell, *God, Duty*, pp. 90-1.
[67] Muldrew, *Food, Energy*, Tables 5.4, 5.19.
[68] Margaret Spufford *The Great Reclothing of Rural England: Petty Chapmen and their Wares in the Seventeenth Century* (London, 1984), pp. 3-22.
[69] Muldrew, '"Th'ancient Distaff"', pp. 519-20.
[70] Elise Van der Nederveen Meerkerk, *De draad in eigen handen: vrouwen en loonarbeid in de Nederlandse textielnijverheid, 1581-1810* (Amsterdam, 2007), pp. 104-28.
[71] Welford, 'Functional Goods', p. 271.
[72] Shammas, *Pre-Industrial*; Green, 'Dwellings', p. 86.
[73] Levine and Wrightson, *Whickham*, p. 318.

households in Kent and Cornwall, for instance, and between 20 and 38 per cent in Yorkshire.[74]

The presence or absence of spinning wheels seems to have been little affected by the occupation of the male householder; the figure was roughly consistent across all the different groups. It did, of course, require a degree of investment to begin spinning, although the wheels themselves were relatively inexpensive, averaging little more than a shilling.[75] For large and wealthy households, the investment in a single spinning wheel probably meant very little outlay; and for some, the level of production could have been very small indeed. The two shipwrights who owned wheels had them appraised alongside tubs and tables: neither was worth much money, and there is no indication of quantities of yarn nearby.[76] In other households the scale of production seems to have been much bigger. Thomas Hall (1694), as we have seen, left everything to his wife and daughter, including 'one lint wheel, one jersey wheel, one woolen wheel, one old wanded chair and two other old chairs' – three wheels and three chairs suggests three spinners and a mixture of yarns and cloths.[77] The porter James Bell (1690) also had separate linen and woollen wheels, and the keelman Thomas Dod (1636) had a wheel as well as 'lyn & harden yearne' worth 5s.[78] These were by-employments, presumably practiced by the wives and children of the household. The very gradual expansion of spinning wheels into all sorts of Newcastle households across the century does suggest – though there is scarcely the evidence for it from these 102 inventories – that the growing national market for textiles had penetrated Newcastle, if only into a small proportion of parlours and chambers.

Spinning was not the only textile-related by-employment that was available for Newcastle householders. The labourer, John Wilson (1665), had seven spindles of linen yarn, worth £1, and 60 yards of linen cloth in his inventory, which suggests that he or someone in his household could have been weaving, although there is no evidence of a loom.[79] Linen, along with woollen, cloth had seen a significant rise in demand over the seventeenth century, partly for household goods but also for industries such as sailmaking, which was also in evidence in Newcastle – although Wilson is the only person in this sample who appeared to be weaving as a by-employment.[80] Meanwhile David Lee (1642), identified as a labourer by the appraisers of his inventory, had a fairly ordinary collection of

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[74] Overton, *Production*, p. 47; Heley, *Material Culture*, p. 90.
[75] Heley, *Material Culture*, Table 5.9a.
[76] DPRI/1/1680/D4/1; DPRI/1/1688/A13/1
[77] DPRI/1/1694/H3/3
[78] DPRI/1/1690/B2/1;
[79] DPRI/1/1665/W17/1; DPRI/1/1636/D3/
[80] Overton, *Production*, p. 109; Muldrew, '"Th'ancient distaff"', online supplement.

household objects, but also, more unusually for Newcastle, 'a smootheing iron'.[81] The latter points to the major by-employment of the household: in the loft, alongside £4 of the 'testator's apparel' were 140 yards of 'coarse lyninge cloth' valued at £6 and 60 yards of 'coarse harden'. The quantities and values suggest a commercial textiles or tailoring operation, comprising one or all of the household members; the iron might also suggest a laundry as a by-employment. When David died, his wife Jane and her brother Robert Marshall, a tanner, remained in the house, which was clearly widely productive in a number of areas outside his main occupation

Households diversified towards the manufacture of other popular goods. Barber-surgeon Thomas Palfrey (1635) had in his hall 'nine purses, six other purses unmade … six purse buttons, two clo[a]ck neck buttons, and two ounces of silke' valued at £2.[82] In the loft were 'one dozen & a halfe of great shopclothes, one dozen & half of towells & workclothes...' as well as 'two brasse baysons, seaven hanging baisons … one caise with shopp ra[z]ers and cissers, seaven brushes three shopp candlesticks … one Plaister box' valued at just under £2 in total. Such a quantity and value of purses imply that they were manufactured in the household, with needles too cheap to be valued individually on the inventory. The goods in the loft, probably including the brass basins and the linen and towels, were for Palfrey's barber-surgery – perhaps he shaved and cut people's hair in the loft itself by candlelight, or the hall transformed into a shop during the day to perform his job. We know Palfrey had a daughter, Rebecca, who would have been four years old at his death if she survived infancy, but no other records of his remain, so we can only speculate that it might have been his wife or elder chidlren involved in the purse-making side business.[83] William Clay's household (1667) was equally dedicated to surgery and candle-making.[84] This is an unsurprising combination, since the two trades shared a guild in Newcastle, but it is possible that the candle makers were William's wife Margaret and any or all of their three daughters, all of whom were unmarried and under 21 years old. Similarly, the household of roper Thomas Robson (1690) apparently diversified his business by tying uncoiled rope onto the end of sticks to create mops. His shop contained, amongst other items: 'two coiles of twice layed stuff 3 st[one] 1s 6d'; 'one pair of tryangles'; and 'two doz[en] of mapps 6s'.[85] He also had 'three & thirty Mapps more' valued at 7s 9d, demonstrating a substantial sideline from the manufacture of ropes for shipping and freight.

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[81] DPRI/1/1642/L1/1-4
[82] DPRI/1/1635/P2/1-3
[83] PRD/ASBapt/6160.
[84] DPRI/1/1667/C11/2
[85] DPRI/1/1690/R13/1-2

Spinning and other textile and domestic consumable items provided an important and growing by-employment for a number of Newcastle's households from all groups of occupations. A wheel was only a small start-up investment and the demand for yarn expanded drastically in the seventeenth century. Other consumption items, including purses, clothing and candles adorned the increasingly lavish houses of Newcastle's wealthy and middling sorts, and the more comfortable homes of the poorer, as we saw in Chapter 6. Such demand was evidently met in part by Newcastle's entrepreneurial householders, who diversified their main trades in producing other items for the market; they formed one strand of a localised 'circular system which tied the culture of production to the culture of consumption'.[86]

Dual businesses

Relatively few householders had the security of a cow or two or a few sheep to tide them through if work was low; there were a handful of commercial brewers who seem to have sold their beer alongside their main trade; some manufactured other goods; more were involved in spinning alongside other work. In all, between 16 and 25 per cent of the householders in this sample had some kind of commercial by-employment activity, depending on whether the marginal cases are included or not. Thus a wide range and sizeable minority of Newcastle households kept a primary trade and a by-employment. Most Newcastle by-employments would seem to fit into particular patterns of work. Mark Overton found that households headed by married men were comfortably the most likely to participate in spinning or dairying or small-scale brewing, all amongst the types of activities that could be identified as 'feminine' by a guide such as Markham.[87]

These were not necessarily female jobs, however; most could equally be done by men and we should not assume the internal division of labour on gendered lines. This complex process of division has been identified as *pluriactivité* by François-Joseph Ruggiu, in a study that includes eighteenth-century Newcastle. Ruggiu emphasises the not-exclusively gendered nature of by-employment: while 'an individual could have two occupations at the same time', by-employments would often be delegated to wives.[88] Nonetheless, it is highly significant that early-modern *pluriactivité* involved women redirecting their work away from caring for the household and towards producing goods for sale on the market. Amy Erickson emphasises that retailing was a common married women's occupation that was

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[86] Welford, 'Functional', p. 306.
[87] Overton, *Production*, p. 78.
[88] Ruggiu, *L'Individu*, p. 311ff. 'Pluriactivity' is a term used by modern development economists: see e.g. Robertson, Perkins and Taylor, 'Multiple Job Holding: Interpreting Economic, Labour Market and Social Change in Rural Communities', *Sociologia Ruralis*, Vol. 48 (2008), pp. 331-350.

Table 7.2 – Married women's occupations from 18th century London courts.

	Church courts, 1695-1725		Criminal courts, 1725-1800	
	n	%	n	%
Domestic service	14	5	-	-
Charring/laundry	43	17	9	8
Nursing/medicine	26	10	1	1
Textile manufacture	15	6	6	6
Making/mending clothes	60	23	19	18
Hawking/carrying	28	11	23	21
Shopkeeping	19	7	26	24
Catering/victualling	32	13	11	10
Misc. services	8	3	7	6
Misc. manufacture	6	2	6	6
Hard labour	5	2	-	-
Total	256	100	108	100

Sources: Earle, 'Female labour market', p. 339; Erickson, 'Married Women', p. 277.

missed in Peter Earle's sample from Church courts; the occupation surfaced more frequently in criminal cases, in part because of theft (Table 7.2).[89] This type of household was relatively common in the papers of the Old Bailey, though the lack of an equivalent evidence-base for Newcastle makes any comparison speculative. In Newcastle, the focus of retail was gradually shifting from the markets, which had been so prominent in Gray's *Chorographia*, and towards shops. By the time Bourne wrote his account (which was heavily derivative of Gray) in 1736, the markets had noticeably lost their prominence. Although he still mentioned the market days, Bourne noted 'the shops' in the Flesh Market and that 'the Houses [were] either chiefly Coffee-houses or Taverns, or Ale-houses'; likewise, that Middle Street was 'where all Sorts of Artificers have Shops'; and similarly, the Castle Garth which had been almost deserted in 1649 now had 'a good many Shops and Houses belonging to it, in and about it'.[90] Newcastle's shops also attracted the eye of Celia Fiennes, who noted that they are 'are good and are of distinct trades, not selling many things in one shop as is the custom in most country towns and cittys'.[91] Overton noted a similar concentration of retailing in Cornwall and the more prosperous Kent.[92]

In Chapter 4 we met a number of widow-shopkeepers, but some were not widows. In 1654, the town paid 'Mrs. Susanna Lomax for Renish wine and a sugar loaf…28s 11d'; she was probably the wife of Ralphe Lomax, a vintner, who would not die until 1662.[93] Susanna

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[89] Erickson, 'Married Women', pp. 270, 275-7.
[90] Bourne, *History*, pp. 54-5, 121.
[91] Fiennes, *Through England*.
[92] Hoh-cheung Mui and Lorna H. Mui, *Shops and Shopkeeping in Eighteenth-Century England* (London, 1989), pp. 29-45; Overton, *Production*, p. 83.
[93] Richardson, *Reprints*, p. 52; PRD/Fathers/lomax.ralph, ASBur/13597

Table 7.3 – Median values of inventories with selected production goods.

	Freq.	Median value (£)
brewing	15	110
commercial brewing	7	162
spinning wheel	6	162
livestock	16	77
full sample	64	35

Source: PRD/QProbatesample

was evidently working in the same business as her husband, but other evidence suggests it was more common for women to work in a different business entirely. Studies of London suggest that only a small proportion (between 10 and 16 per cent) of married couples truly worked together in a single business; other couples formed what Erickson calls 'double business households' – for instance, a plumber wife and chandler husband, or a journeywoman sharing a shop with her shoemaker husband.[94] Guilds were, in fact, surprisingly supportive of such activity, seeing it perhaps as an opportunity to fill their own coffers rather than to fight a losing battle against competition to own master craftsmen. Indeed, in eighteenth century Canterbury dual-businesses were encouraged by loopholes. Thomas Roch complained bitterly of the cost involved: 'if a Carpenter, who has paid to that Company, puts his wife in a little way of dealing in chandlery ware, with the addition of thread, tape, buckles, buttons…he must pay four pounds [and]…quarterly payments to each of the fraternities…'.[95]

Even where it was allowed under town regulations, the capital cost of starting up was clearly a key factor in the ability to sustain two semi-independent businesses within a household. By-employments were not limited to particular occupation groups but there were some important trends. Manufacturers in Newcastle's guild-based occupations tended to have slightly more evidence of by-employment on their inventories; keelmen and labourers tended to have less evidence, suggesting they were inaccessible to the poorest amongst this group. Table 7.3 illustrates the median total values of inventories where particular items are present; those households with by-employments had values between two and five times the sample medians. Although, of course, the items themselves push up the inventory values, it is clear that a high degree material wealth was required to maintain by-employments in most cases. These second retailing businesses were well out of reach of Newcastle's poorer households, just as they were for the poorer widows who turned to nursing or relief.

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[94] Erickson, 'Married Women', p. 276.
[95] Ruggiu, *L'individu*, p. 263*n*.

Realistically, it is impossible to estimate the contribution that such a second business could make to the family economies of Newcastle's middling sorts, although the amount invested in some cases suggests it could have been very important. So William Clay's £47 in tallow, £5 copper vessel, and £29 in other candle-making equipment dwarfed the 53s he had in tools for barber-surgery: the former must surely have brought in a royal share of the household's income. The same was true of James Yonger's preserved fish. In most other households, though, the second business was smaller. Thomas Robson's 57 mops at 3d each paled into insignificance beside his nearly 4,000 'quarters of ropes and new yarn' worth £40. The addition of a single cow or spinning wheel could scarcely have brought in much cash, but the difference might have been imperative, particularly in years where food costs were high, or income from other sectors low. The diversification of production in a household could also have hedged against market dips in any particular sector. The motivation to do so must have been a combination of hedged bets and opportunities to make serious money; the risks and rewards could both be very high.

Wage-earning households

Across the country, the lion's share of work took place in the household: as Overton and colleagues remarked, 'for the majority of the population…"going to work" meant staying at home'.[96] This was certainly true in the countryside, and also for many of Newcastle's workers – but not a majority. This fact has a significant bearing on the way that we view work in the city. Because of the scale and quality of records left behind by the early modern guilds that usually dominated the governance of towns, it is easy to assume that they were equally dominant in economic terms, and that the local economy consisted principally of small self-contained units of artisanal production.[97] But this is an overly simplistic assumption. Derek Keene notes that even in fourteenth-century Winchester, 'units of production ranged from those which seem to have focused on a single artisan household, to complex entrepreneurial networks'; and similarly that our interpretation of work in medieval London was shaken by the archaeological discovery of a large twelfth-century dyeing complex that dwarfed traditional interpretations of the 'workshop'.[98] The scale and organisation of production, and therefore the proportions of workers 'going to work' and 'staying at home' are important considerations. While a relatively small sample of probate inventories cannot give a definitive answer to this question, it is highly indicative.

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[96] Overton, *Production*, p. 33.
[97] Beier, 'Engines'.
[98] Keene, 'Introduction', p. 3.

The sample of inventories suggests that just over half of testators possessed work goods that were directly related to their occupation. Moreover, the numbers fell across the century: for 1600-40, 70 per cent of inventories from tradesmen and professionals (specifically not watermen or merchants, in order to avoid distortion from these groups) contained 'work gear', defined as any items clearly directly related to their primary employment. From 1660-1700, this proportion was under a half. It also contrasts strongly with Gwendolynn Heley's comment that, in the later sixteenth century, 'most tradesmen could apparently afford to buy their basic tools of the trade'.[99] This finding is, of course, closely related to the changing occupational structure of Newcastle outlined in Chapter 4, and in particular the growth of the river trades, shipbuilding and glass making. Mariners obviously worked outside the home, and they very rarely owned goods which can be identified specifically with their occupation. But it was also a feature of urban economies across the country. For instance, Coventry's households were numbered at 35 per cent independent tradesmen, 32 per cent journeymen and 27 per cent 'poor' in 1520, but as the period progressed the distance between progressively smaller groups of masters and their journeymen grew, and by the late seventeenth century the numbers of 'unenfranchised wage-earners' had grown considerably, in Coventry and elsewhere like Bristol and London.[100] A shift towards wage labour was an important aspect of seventeenth-century economic developments.

One feature of this shift was the growing scale of units of production, which required larger staffs to run. Breweries have been identified as particularly large units of work in early modern towns: Steve Rappaport finds that, in the sixteenth century, nearly three-quarters of men associated with the London brewing guild were journeymen, as compared to less than half among butchers or coopers.[101] In Newcastle, two of the five inventories of bakers and brewers analysed in this sample contained no brewing goods at all (even for home consumption), suggesting that they probably worked in larger breweries. Francis Hall had a house inherited from his 'dear and loving mother' on Hornsby Chare by the Quayside (marked as 7 on Map C), which was a well-furnished house including glass and pictures but no brewing equipment.[102] Three did have commercial-sized breweries. One larger brewery was that of John Bell (1669), who had a separate brew house with 'cellars' containing:

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[99] Heley, *Material Culture*, p. 104.
[100] Wrightson, *Earthly Necessities*, pp. 39,
[101] Rappaport, *Worlds*, p. 243.
[102] DPRI/1/1669/H1/1-2

> one mash fat, one sweete worte tubb, two little goates one kilne chimney & haire cloth, two coolers, one Guile fatt, one dozin of Trayes, two dozin of halfe barrells, one dozin of firkins, 6 hogsheads and six barrells, four soes, 3 buckets, 6 washing tubbs[103]

The presence of a kiln, as well as a large number of barrels of different sizes, points us to the fact that this was a sizeable commercial outfit, and indeed Bell retained for sale 'aboute thirtie tonns [tuns] of small bere'. Again, this re-emphasises the growing scale of breweries suggested in the analysis above, mirroring what had happened in London during the population boom.

Glassmaking was also concentrated in larger workshops based in the area of the town known as the 'glasshouses'. The growth identified in Chapter 4 was still concentrated in the hands of a small number of wealthy owners, including Huguenot immigrant families. Thus Joseph Henzell, broadglass maker (1669), left to his sister:

> All that my Mesuage Burgage or Tenement, Garden, Brewhouse & Celler,...situated at the Glasshouses... and also one full third part (the whole in three parts to be equally devided) of the Glasshouses wich I hold by Lease…And also one full third part of all the pottes Ashes Clay & tooles and all other materials belonging to the same Glasshouses[104]

Undoubtedly, the potash, clay and tools belonged to the glasshouses which Henzell owned, and not within his house, which instead contained a very large quantity of linen (including seven score napkins and sixteen pairs of bedsheets) and other modest comforts such as a leather chair and £20 in apparel and books. Precisely why there was no inventory taken at the glasshouses is unclear, since they normally were in the workshops and farms of tradesmen, even if the shops or farms were in a different location, and even if they were bequeathed in the will. Nonetheless, a business of substantial scale is implied. We can assume that most of the other men identified as 'glassmaker' or 'at the glasshouses' in the parish registers (who do not feature in probate) were employees in Mansell's large-scale glasshouses, and not self-employed craftsmen.

While it was Henzell's workshop that escaped inventory, it was joiner Thomas Bell's household that did. All that remains of his probate documents is an extraordinarily detailed inventory of his workshop, which included an individually described set of tools:

> Item one hand saw, one tenent saw, 2 small saws, 2 long plaines, one fore plaine, one Hoik block One Askue plaine 4 smoutheing plaines one butt seall one paresell Braise 8 parsell bitts, 2 senter bitts, nine Firmers, 8 Gonges, 3 Chistells, 3 Mortis chisells, 5 Hammers, 3 paire of Compasses 2 paire of pinchers & one hold fast[105]

It also provided a list of wood described at the level of individual planks:

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[103] DPRI/1/1666/B5/3
[104] DPRI/1/1669/H12/1.
[105] DPRI/1/1686/B10/1. Randall Holmes's *The Academy of Armory, or, A Storehouse of Armory and Blazon* Book III, Chapter IX, provides a useful list of carpentry tools containing most of these.

> Item 60 five foote clapbord plank, 21 fower foote clapboord planke, 9 planks 4 inch thick, 5 foote long, 23 slitt dailes, 2 dales, one thick daile, 2 wainescottbords & a halfe 2 fower foote plank, 5 peices of Inch planke, One fraime for a Case of drawers

Again, such a large collection of tools and types of woodcut would be unusual just for the use of one man and an apprentice. Most joiners' tools were listed in much less detail: the appraisers merely noted Raphe Ellyson 'his workgeare 10s'; Thomas Mayne had no gear listed at all.[106] It is fairly clear that neither Ellyson nor Mayne owned any substantial stocks of wood, so they did not have had a workshop in their house; neither were freemen.[107] Housebuilding was an occupation that would by definition take place outside the builder's home, and the same is true of men listed as housecarpenters, such as Lawrence Thompson (1609), whose 'workgear' amounted to 10s, and Robert Robson (1690).[108] There was a divergence in the scale of the workshops of different carpenters and joiners, although nearly all did at least have a general tag suggesting they owned some tools for their trade.

The same could be said for Newcastle's shipbuilders, which Chapter 4 showed to be a burgeoning industry. Of eight shipwrights selected at random in this sample, four had very little working gear recorded – either a single mention or none at all. They clearly were not building boats within their own household. On the other hand, four did have a substantial amount of working gear, including timber, recorded on their inventories, such as William Reasley's (1633) 'certen oken tymber and plancks £29 15s'.[109] Similarly the workshop of George Nicholson (1685) had more than 3.5 tons of oak alongside a toolbox containing:

> …tenn ring bolts, two set bolts, one two hand saw, one whipp saw, one Crow of Iron, one Hakle, one pair of [g]reat Scrues one pair of small Scrues, three axes one adge, one mall…one mellett and Irons, one pitchladle, one fir forke, two hundred of tre nailes…[110]

The sheer number and expense of the tools listed in the inventories, along with the large quantity of wood, suggests a more focused system of work. This discrepancy between those testators who owned very little timber or tools and those who owned much more might also be down to shipwrights' dual role as shipbuilders and repairers; the former would require a large stock of wood and a number of half-built boats but the repair of ships required only a small collection of tools. Thus Thomas Cliffe also challenged the monopoly of Tyne trade on the basis that it prevented the efficient repair of ships. He was presented to the River Court in Newcastle for 'in April 1646 having got a Ship of the Rocks by the helpe of his owne Servants', a trade he had learned in an Ipswich apprenticeship.[111] We can speculate

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[106] DPRI/1/1620/E1/1-2, DPRI/1/1666/M7/2

[107] Dodds, *Freemen.*

[108] DPRI/1/1609/T2/3, DPRI/1/1690/R11/2

[109] DPRI/1/1633/R2/2

[110] DPRI/1/1685/N2/3

[111] TWA NCX/DM/1/18, NCX/DM/1/18; Howell, *Monopoly*, pp. 49-51.

that Thomas Atkinson's tools – 'Severell carpinters tooles & chist' worth just over £3 – indicate that he either worked in someone else's yard, or was engaged in repairing rather than building ships.[112]

Thus a falling proportion of workers owning their own capital goods was largely down to the increasing size of some of Newcastle's production sites – particularly breweries, the glassworks, and shipbuilding – although it is also a reflection of some craftsmen working outside their home. It is an important consideration in the family economy that it appears a declining number of Newcastle's tradesmen owned work tools or worked from home. In these households wives likely did not work with their husbands, and families instead relied on combined wages for the upkeep of households. Their only option was to sell their labour outside the household, often casually and for fairly low wages, although it could make a crucial contribution to their family economies, and as we have seen, some labouring families did not suffer as terribly as others under this apparent imposition. In this context, 'work' was seen as something external to the household, a function of the time given over to it, and the monetary return. It is therefore important to give consideration to these other elements of an industrious household, even where it proves impossible to quantify effectively.

Despite rarely being included in official documents, labouring children have left some traces in documentary history, usually tangentially in references to other matters. It is doubtful how commonly urban children laboured in this period. Although there has frequently been an assumption that poor children were put to work by default, in fact much of the evidence, according to Hugh Cunningham, 'points in the opposite direction'; much contemporary economic literature welcomed the principle of child labour, and it was the idleness that resulted from unemployment that commentators resented.[113] A nineteenth-century politician praised the factory system for providing employment for children, since 'boys are of little use, girls of still less, in agricultural countries, before the age of 18'.[114] We have already seen that 'boys' were involved in the coal trade. According to some wage assessments, the term 'boy' applied to age 24: they were less physically able and skilful, and were paid accordingly. In Hull, work was available for boys in nearly half the years between 1618 and 1640, at half the adult wage rate or less.[115]

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[112] Note that Thomas Atkinson was not a free shipwright: Dodds, *Freemen*.
[113] Hugh Cunningham, 'The Employment and unemployment of children in England c. 1680-1851', *P&P*, No. 126 (1990), pp. 115-50, 148.
[114] R.H. Greg (1837), in ibid., p. 146.
[115] Woodward, *Men at Work*, p. 114.

This division of labour applied equally to women. As Chapter 4 showed, widows in Newcastle could frequently involve themselves in shopkeeping and nursing, often characterised as 'feminine' roles. The eighteenth-century historian John Brand recorded similar cleaning work for Sandgate women and children: 'the wives and daughters...who sweep the keels, and have the sweepings for their pains, are called Keeldeeters'; 'to deet', Brand explains, 'signifies to wipe or make clean'.[116] Jenette Dunne was employed for at least the last two decades of the sixteenth century as a street cleaner at 4d a week, plus a coat each year; a few decades later, Margaret Chamber was employed 'for looking to the town court' at 26s a quarter; in 1674 an unnamed woman was paid by the shipwrights for sweeping their meeting hall.[117] Another apparently female-led activity was moss-gathering: at Durham in the summer of 1555, gangs of on average 68 women and around 13 children were employed to gather moss and gravel for a new weir dam.[118] On occasion some men were employed alongside the women, foreshadowing Arthur Young's comments that employers were wise to insert a few men into a gang of working women to inhibit gossip.[119]

'Women's work', some of it may have been, but it was certainly very hard work. Women were frequently recorded as doing amongst the heaviest tasks on early modern building sites in particular carrying lime, gravel, or water – though it is difficult to say, for instance, how the weight of a bucket of lime varied depending who was carrying it.[120] Newcastle women, particularly those living in Sandgate, were available for stern manual work, as William Gray confirmed in 1649:

> Below east [through the Sandgate], is the Ballist Hill, where women upon their heads carried ballist, which was taken forth of small ships which came empty for coales; which place was the first ballist shoare out of the towne: since which time, the trade in coales increasing, there is many ballist shoares made below the water, on both sides of the river...[and slightly further out] the Ballist hills, for the drying of cloths[121]

The excess of ballast being dumped in the river was a persistent problem for the town, and the poor were paid routinely by the Corporation for such menial physical labour to convey 'ballast at four or five pence a ton to the ballast hills below Sandgate'.[122]

However hard they seem to have worked, both women and children were paid considerably less than adults across the period. Women usually earned around half the male wage rate in agricultural communities in the eighteenth century for example.[123] It seems

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[116] Brand, *Newcastle*, I, pp. 261-2*n*.

[117] TWA 543/16,543/36; Woodward, *Men at Work*, p. 111; *Shipwrights*, p. 86.

[118] Woodward, *Men at Work*, p. 109.

[119] Arthur Young, *Travels in France and Italy...* (ed. 1915), p. 10.

[120] Woodward, *Men at Work*¸ pp. 110-11.

[121] Gray, p. 95.

[122] TWA 543/26, fos. 139v, 140v, 142v; Wrightson, *Ralph Tailor*, p. 45.

[123] Muldrew, *Food, Energy*, pp. 238-9.

they fared slightly better in towns, earning up to two-thirds of the male rate – a differential with biblical authority from Leviticus – although anywhere between half and five-sixths of the male rate was found in Newcastle.[124] This might have been down to simple gendered discrimination but Joyce Burnette has argued that in many cases it was because women in fact did less work because they were responsible for so many other household tasks.[125] The situation is similar or worse for children: Woodward finds that, in building sites, 'when they do appear in the accounts boy labourers were paid at rates substantially lower than those of men'. In Newcastle in 1651, boys were paid 6d a day for 'carrying lime, stones and rubbish and helping to make clean the chapel and court' – a rate less than women could earn and half of an adult male.[126] This lower rate seems to reflect an understanding that boys could do less work – or equally a cultural perception that theirs was a supplementary and therefore less important wage.

This cultural understanding is also reflected in the fact that recorded instances of female manual or wage labour are extremely rare, in comparison with the recording of men's work. Five of the women in married couples from Peter Earle's London church court sample were labourers of 'day workers' of different kinds – just under 2 per cent – and no female labourers at all featured in Erickson's sample from the Old Bailey (see above, Table 7.2). Considering the data from the side of the employer, women worked 3 per cent of the labouring days in Hull in 1635, which Woodward identifies as a particularly strong year for female labour; 'they did not feature at all in the next four years, and accounted for only 1 per cent of the labouring work during the five-year period'.[127]

Other types of work did not make it into records at all. It is a curiosity of Earle's sample that the second largest group of women that claim to have been 'unemployed' – that is, they stated when interrogated that they were supported entirely by their husbands – was the wives of sailors.[128] Although the wives of gentlemen (the top group) could have afforded to live without working themselves, wives of sailors would surely have needed to work. Why did they say that they were supported by their husbands, then? Amy Erickson suggests that it was in the nature of the church court interrogatory for women to mask an income source 'of dubious legality' or something they considered shameful. A few women refused to answer outright but we can perhaps read a tacit refusal in the general statement 'I am a married woman and my husband supports me' because the courts rarely followed up such an

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[124] Woodward, *Men at Work*, pp. 112-13.
[125] Joyce Burnette, 'The wages and employment of female day-labourers in English agriculture', *EcHR*, Vol. 57 (2004), pp. 664-90.
[126] Woodward, *Men at Work*, p. 114.
[127] Ibid., p. 109.
[128] Earle, 'Female Labour', pp. 353-4.

answer.[129] Perhaps women were ashamed of being forced into particular types of labouring work, and that to be known as a moss-gatherer would have been an answer implying considerably less 'worth' in the eyes of the court than the one they gave.[130] Perhaps ballast-carrying was seen only as an emergency expedient they would prefer not to declare. Otherwise, work of dubious legality could also have included prostitution, as discussed in Chapter 4, or the thieving or the handling of stolen goods, which women were frequently involved in, although they seem to have been prosecuted less regularly than men.[131]

Such source analysis challenges make it unfeasible, at least in the present study, to satisfactorily quantify the prevalence of women and children's work in Newcastle. It was at least possible for them to labour in the same types of manual jobs as Newcastle men; but as far as can be told, it was not that common: men seem to have been preferred for most work, and were usually given a much higher wage. Yet the availability of work outside the home grew in importance for households over the century, and finding work must have been a central preoccupation of day-to-day life. It might have meant keeping hunger at bay in a difficult winter, but in a good summer it also freed money up for the consumption of household goods, which as we have seen, became much more common in all ranks of Newcastle's households over the seventeenth century. Chapter 8 further establishes that this easing of the pressure to feed a family was down (at least in the case of the keelmen) to the interaction between wages and food prices, but the additional income of a family's other earners was equally important this development. Although Newcastle's labouring households may have 'unproductive' according to the capital goods recorded on inventories, their members were frequently industrious outside the household.

Conclusion

Work in Newcastle was not neatly sited within workshop-households, as the traditional guild model would prescribe; nor was it practised by household-families of master craftsmen with the assistance of willing wives and children. Newcastle's inhabitants were certainly entrepreneurial and seem to have been willing to seize any commercial opportunity that came their way. Only rarely was this *instead* of the householder's stated primary occupation; more often the two were practised in tandem. Richer households had opportunities to exploit Newcastle's growing markets: they manufactured purses or sold fish or brewed beer. On a more modest capital outlay, they could spin into the enormous growth

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[129] Erickson, 'Married Women', p. 274.
[130] See Chapter 8 for more discussion of work and 'worth'.
[131] Garthine Walker, 'Women, theft and the world of stolen goods', in Jenny Kermode and Garthine Walker (eds.), *Women, crime and the courts in early modern England* (London, 1994), pp. 81-112.

in national textile production. Given the increasing commercial production in the house, as well as the many women of the poorer and middling sorts who laboured outside the household, there was of course less time for the domestic chores beloved of seventeenth-century commentators. Despite the proximity of land all around, very few Newcastle residents grew their own food or kept livestock, and the proportion was falling over the seventeenth century. A larger proportion produced beer within their houses, although the larger commercial-scale breweries grew in number over the century, and this drastically cut into the numbers brewing at home. For wealthier households, the economic development of seventeenth-century Newcastle was marked by increasing interactions with the market. They benefited from the cheap prices of beer, and by end of the century, were less likely to be brewing their own; gradually, they gave up keeping their own livestock around Newcastle; in return they gave their time over to the profitable activities of spinning, or the manufacture or retail of other goods. In de Vries's industrious revolution, towns were already far ahead of the countryside, and in Newcastle we can see a process of commercialisation, reaching right into households, that was already underway and progressing quickly during the seventeenth century.[132]

For groups that could afford to diversify their family economies, or were at the very top of their occupational pyramids, the result by the end of the seventeenth century was that they bought into the trend of growing material abundance that we saw in the Chapter 6. For poor households, this move towards market-reliance was even more marked, though for some it was forced and not chosen. They usually did not have the capital to begin production at home but they did go out to work. In Newcastle's increasingly industrial economy more and more men worked only for wages, owning little capital for their own, and it seems they were joined by other family members. Despite a relative paucity of evidence, we can have little doubt that women and children *did* work in seventeenth-century Newcastle: there are enough individual examples to confirm this. Besides, they had to work to cover rent and food. Returning to the calculations which opened this chapter, if a Newcastle building labourer earned roughly 9d per day by the middle of the seventeenth century he would have been considerably short of providing for a full family, even if (improbably) he could work 250 days of the year or more. Depending on their occupations, wives earned anything from 3d per day to 2s a week, which could have been the difference between moderate and extreme poverty, between 'making shift' and going under.[133] Yet

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[132] De Vries, *Industrious*, pp. 48-9.

[133] Steven King and Alannah Tomkins (eds.), *The Poor in England 1700-1850: An Economy of Makeshifts* (Manchester, 2003).

desperate poverty was not the only story in Newcastle; some of these wage-labourers managed to build a substantial stock of property by their deaths. The final chapter is dedicated to disentangling the conflicting experiences of an economy so dominated by wage labour.

Chapter 8. 'What must become of the poor keelmen?' Understanding seventeenth-century wage labour

Labour occupied a paradoxical position in seventeenth-century England: it was at once immensely valued and viciously degraded. Labourers could on occasion be glorified, they could be despised, and they could be pitied – sometimes simultaneously. Manual labour was described as 'honourable', 'industrious', and frequently 'honest', but the labourers themselves were almost universally seen as idle.[1] The collective value of England's labour to the nation's wealth was equally well understood, and perhaps best expressed by John Locke in in 1689:

> the property of labour should be able to over-balance the community of land: for it is labour indeed that puts the difference of value on everything; and let anyone consider what the difference is between an acre of land planted with tobacco or sugar, sown with wheat or barley, and an acre of the same land lying in common, without any husbandry upon it, and he will find, that the improvement of labour makes the far greater part of the value.[2]

While work's collective value was not denied, there was often an assumption that people didn't *want* to work; they had to be forced or induced to, in one way or another. We need to consider, therefore, what was meant by 'work', and what the attitude of labourers themselves was towards work, as well as the attitudes of those who are better represented in the written record. Did the growing population of wage labourers go to work in order to barely scrape their living, were they prompted by the tantalising prospect of consumer goods; did they, autonomously, become more industrious over the seventeenth and eighteenth centuries, as Jan de Vries argues?[3]

The question 'what is work?' still provokes a great deal of discussion among social scientists. Many definitions include the exchange of money or other direct compensation for

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[1] Craig Muldrew, *Food, Energy and the Creation of Industriousness: Work and Material Culture in Agrarian England* (Cambridge, 2011), p. 299; Thomas, *Ends*, p. 79; Wrightson, *Earthly Necessities*, pp. 320-30.
[2] John Locke, *Two Treatises of Government*, 2nd Treatise (1689, 1764 edition).
[3] De Vries, *Industrious*, pp. 1-20.

labour – 'time given to a job for which one is paid'[4] – but this seems limited, excluding as it does any unpaid work. A broader definition might be 'the purposive production of useful objects or services', which suggests that the activity has ends outside of itself (that it is not 'self-rewarding').[5] In the absence of this motive people have to be induced to work. In Marcel van der Linden's model, the incentives take three forms: coercion, which 'includes threats with or without the application of force'; commitment, which 'is based on persuasion and sometimes joy, on workers being convinced that what they are doing is useful, important and honorific'; and compensation, which 'encompasses all material and non-material rewards, including wages and food rations'.[6] Of course, these three incentives never occurred in isolation, and it can be unhelpful to separate monetary from non-monetary rewards.

This chapter offers an estimate of the shifting patterns of income (considered in all forms) in the seventeenth century, using a number of different sources. Such analysis is focused on a single highly important group, Newcastle's keelmen, because their annual workload can be roughly estimated from the coal exports recorded by the chamberlains and customs officers for tax purposes – although some of the conclusions could be more broadly applied. Chapter 6's inventories have already demonstrated that a proportion of keelmen managed to accumulate household items; this was made possible because, on average, their incomes rose considerably by the last decades of the seventeenth century. Stagnation in the coal industry and the level of inward migration may have been bad news for the hostmen of Newcastle, whose profits suffered through competition with Sunderland and Scotland, but for the keelmen it meant relative prosperity. This was a precarious prosperity indeed: any sudden contraction in trade, or even just the seasonal drop across the winter, could cause household economies to return to crisis and temporary poverty. Dearth of work could be very damaging, and must be built into our understanding of economic life.

Work and leisure

That work was not done for its own rewards was well understood by contemporary writers: to be rich enough not to have to work was a privilege entitled to only a few. Henry Fielding wrote in 1751 that laws should be made for the 'lower Sort of People', to ensure that they do not attempt to stretch their boundaries too far: 'to be born for no other purpose than to consume the fruits of the Earth is the privilege…of very few. The greater part of mankind must

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[4] Nels Anderson, *Work and Leisure* (London, 1961), p. 1.
[5] Marcel van der Linden, 'Studying Attitudes to Work Worldwide, 1500-1650: Concepts, Sources and Problems of Interpretation', *IRSH*, Vol. 56 (2011), p. 27.
[6] Ibid., pp. 28-9.

sweat hard to produce them'.[7] The wealthy would not work because they were privileged; equally the poor would not work if they could get away with it, but they had no such luxury. The pessimists had their prejudices confirmed by reading the reports written by European explorers who had travelled east and west and described the people they encountered. Travellers tended to be 'unphilosophical', 'describ[ing] without reflecting much on the significance of what they see', and at the same time projecting whatever prejudices they held from their own understanding of how work in Europe was conducted.[8] This reinforced what the English mercantile class already knew about labourers: without the appropriate inducement, they simply would not work.

Labourers had to be provided with incentives to work, and a favoured method of political writers in seventeenth-century England was coercion. Sometimes it could be generated by the law, such as the system of binding poor apprentices to labour.[9] More often, though, economic coercion was the weapon of choice, not least because it also saved masters money. While it was becoming more widely accepted that 'England's happiness' relied on extravagance by the wealthy and the middling sorts, conventional wisdom knew that national wealth did not require greater consumption by the poor.[10] It relied not on higher wages but on greater poverty, since only in hunger would labourers be inclined to work, a motif that ran through well into the eighteenth century. Daniel Defoe complained in 1704 that 'there's nothing more frequent than for an Englishman to work till he has got his pocket full of money, and then go and be idle, or perhaps drunk, till 'tis all gone.'[11] Twenty-five years earlier, Sir Roger North offered a neat summary of this widely-held view: 'The price of labour is such as [labourers] can make a good living of two or three days' work in a week. "And why more?", say they. "This provides bread, food, and ale; if we are sick and old, &c, the parish must provide for us".'[12] This was the notorious absentee 'Saint Monday' – a common complaint amongst seventeenth-century writers – when labourers and craftsmen were not yet hungry enough to drive them to work.[13]

Such complaints were sometimes driven by an explicitly religious motivation, although a full analysis of this broad field of literature goes beyond the scope of this chapter.[14] In the

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[7] Henry Fielding, *An Enquiry into the Causes of the Late Increase of Robbers* (1751).

[8] Ter Ellingson, *The Myth of the Noble Savage* (Berkeley, 2001), p. 47.

[9] David Eltis, 'Labour and Coercion in the English Atlantic World from the Seventeenth to the Early Twentieth Century', in Gad Heuman and James Walvin (eds.), *The Slavery Reader* (London, 2003), pp. 58-73.

[10] Paul Slack, 'The Politics of Consumption and England's Happiness in the Later Seventeenth Century', *EcHR*, Vol. 122 (2007), pp. 609-31.

[11] Daniel Defoe, *Giving Alms to Charity* (1704), p. 27.

[12] Sir Roger North, *Discourse of the Poor* (1753), p. 60.

[13] Thompson, 'Time, work-discipline', pp. 72-5. Empirical evidence is fairly thin on the ground for St Monday, however: see recently Steve Hindle, 'Work, Reward and Labour Discipline in Late Seventeenth-Century England', in Steve Hindle, Alexandra Shepard and John Walter (eds.), *Remaking English Society: Social relations and social change in early modern England* (Woodbridge, 2013), p. 270.

[14] See Thomas, *Ends,* pp. 85-7 for a brief introduction.

1780s Thomas Pennant chirped in that until 'famine pinches [labourers] will not bestir themselves', echoing the scriptural message from Proverbs that 'Hee that laboureth laboureth for himselfe; for his mouth craveth it of him'.[15] In Puritan 1650s Newcastle, the administration of Mrs Frankland's charity (which we met in Chapter 4) caused some consternation in the town council, whose coffers were matching, and sometimes doubling, the value of her original bequest:

> Whereas in former tyme it was the practise to bestow the…contribucion in thicke gray Russetts as the most sutable and warme kinde of weareing for the poore, yet notwithstandinge some partes of the money…hath of late beene laide out in thin prest Carsey for the pleasuringe of some sorte of poore not soe needefull, it beinge a more hansume weare and not carrieinge such a Badge of Poverty with it…[16]

The 'badge of poverty', felt the Common Council, was a necessary condition of charity to deter wasters and scroungers from claiming. Poor people should be identifiable from their outfits, and besides, donated clothing should not be easily saleable, lest the poor should use the proceeds for drink. Bernard Mandeville (perhaps satirically) placed the blame for such idleness on religious institutions themselves: 'Charity-Schools, and everything else that promotes idleness, and keeps the poor from working are more accessory to the growth of villainy than the want of reading or writing'.[17] Charity and comfort were both seen as inducements to leisure in place of work.

Idleness could also take the form of reducing the hours of work in a day, or equally in keeping back from a full effort. A complaint frequently aired about building workers was that they 'waste much part of the day…in late coming unto their work, early departing therefrom, long sitting at their breakfast, at their dinner and noon-meat and long-time of sleeping in the afternoon'.[18] James Pilkington, a Puritan Bishop of Durham in the 1560s, grumbled that 'the labouring man will take his rest long in the morning; … then must he have his breakfast, though he have not earned it, at his accustomed hour, or else there is grudging and murmuring'. This was compounded by a lack of attention at work:

> when the clock smiteth, [the labourer] will cast down his burden in the midway, and, whatsoever he is in hand with, he will leave it as it is, though many times it is marred afore he come again; he may not lose his meat, what danger soever the work is in. At noon he must have his sleeping time, then his bever [drink break] in the afternoon, which spandeth a great part of the day; and when his hour cometh at night, at the first stroke of the clock he casteth down his tools, leaveth his work, in what need or case soever his work standeth.[19]

For Pilkington, it was rest that ruled the labourer's day: a refreshment break was immovable irrespective of the condition of the work. And when they were in a position of relatively high demand, labourers were said to abuse their employers by withholding their labour and

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[15] Pennant quoted in de Vries, *Industrious Revolution*, p. 77; King James' *Bible* (1611), Proverbs 16:26.
[16] *CCM*, pp. 130-1.
[17] Bernard Mandeville, *The Fable of the Bees*, 5th ed. (1714; 1728), p. 306.
[18] D. Knoop and G.P. Jones, *The Medieval Mason* (Manchester, 1933), p. 117.
[19] Quoted in Thomas, *Ends*, p. 83.

demanding extra food. Workers, Sir Roger North alleged, were in a golden period of high wages in the late seventeenth century which allowed them to take advantage of their employers:

> the Enhancing of Labour is one of the greatest Burthens the landed Interest of *England* hath groaned under, [… workers] find themselves so necessary, that they fall to imposing in Wages and Diet, as well as lazy Working, that nothing shall content them: and their Insolence, as well as their Knavery, is intolerable to a poor Farmer.[20]

These views continued into the beginning of the eighteenth century, even as real wages gradually eased back. In 1711, the *Spectator's* comedy Tory Sir Andrew condemned merchants giving money to beggars, partly because 'our Healths will be drunk at the next Ale-House', but also because, if the beggars were set to work instead, it would 'reduce the Prices of all our Manufactures'.[21] While the *Spectator* was satirising hypocritical observers, it is clear that commentators from the mid-seventeenth century onwards felt that the prevailing economic conditions were allowing labourers to take advantage of them. High demand for labour meant high wages – and high costs for the manufacturer.

Authors frequently contrasted this sorry state of affairs with a golden period for the landowner and employer in the early seventeenth century. Then, demographic growth had been high, and food short – a period of high prices and low costs for the farmer. As a result, when labour was in abundance and wages low, labourers were thought to be obliging and obedient. Defoe, recounting his travels in 1722, wrote that he came across an ancient man, who said that in about 1635 'the common People were plain, fair-dealing, sober, open-hearted, courteous, humble; … that the Servants were modest, humble, mannerly, and … laborious, and work'd hard for their Masters Benefit, having their Eyes at the Time'.[22] Joseph Barlow, the son of a husbandman in the early 1650s, recounted that 'I was forced to go to work with our neighbours sometimes when they had any need of me as in harvest or making hay and suchlike work, and sometimes going to the coalpits, for we have many of them in our country and coal are very cheap'.[23] Recent work by Emma Griffin on autobiographies suggests the continuation of this trend in the late eighteenth and nineteenth centuries as well. When work was abundant, workers were picky and reported being proud of their insolence towards overbearing employers. But work-starved men were more grateful for any income, and even willing to tolerate abusive masters.[24] The extent to which workers favoured leisure over work was closely linked to the prevailing economic conditions, and complaints about indolence amongst

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[20] North, *Discourse*, quoted in Muldrew, *Food, Energy*, p. 309. See also Joyce O. Appleby, *Economic Thought and Ideology in Seventeenth Century England* (Princeton, 1978), pp. 145-7.

[21] *Spectator*, No. 232.

[22] Daniel Defoe, *The Great Law of Subordination Consider'd…* (London, 1724). pp. 69-75

[23] Muldrew, *Food, Energy…*, p. 314.

[24] Griffin, *Liberty's Dawn*, Chapter 3.

labourers reached their shrillest crescendo at times of relatively higher wages, like the later seventeenth century.

Only progressively during the eighteenth century was mercantilist literature condemning the 'leisure preference' among labourers replaced by a less prejudicial school, including Edinburgh's political economists. In 1752, David Hume thought it 'impracticable' to force labourers to work, arguing instead that he should be tempted 'with manufactures and commodities, and he will do it of himself', and 'afterwards you will find it easy to seize some part of his superfluous labour, and employ it in the public service'.[25] Adam Smith refined this view with characteristic clarity: 'where wages are high, accordingly, we shall always find the workmen more active, diligent and expeditious, than where they are low'; by contrast 'our ancestors were idle for want of a sufficient encouragement to industry'.[26] Thinkers across Britain were coming to agree. In 1778, Arthur Young speculated about a thoroughly hard-working high-wage utopia:

> Two shillings and sixpence a day, will undoubtedly tempt some to work, who would not touch a tool for one shilling.… In a word, idle people are converted by degrees into industrious hands; youths are brought forward to work; even boys perform their share, and women at the prospect of great wages clap their hands with cheerfulness, and fly to the sickle. Thus a new race of the industrious is by degrees created...[27]

'Industriousness' was becoming the maxim for economic progress in the eighteenth century and the way to create it, degree by degree, was to increase wages and 'tempt' people to work. By the end of the eighteenth century, the decline of mercantilism was nearly complete, and very few people were still talking about the 'utility of poverty'. The shift in the economic prescription from a low-wage to a high-wage economy was striking.

Whether this represented a change in economic reality as well as theory has yet to be fully understood. It is tempting to dismiss the earlier mercantilist literature as works of pure fiction: Eli Hekscher believes that the 'leisure preference' was merely a justification for 'keeping down the mass of the people by poverty in order to make them better beasts of burden for the few'.[28] De Vries writes that those commentaries that argued the labouring classes were prone to leisure 'were almost never based on disinterested observations of actual behaviour. Rather, they functioned as part of an ideology that defined the otherness of the working population.' Furthermore, 'the cultivation of this trope had the practical benefit … of excusing the payment of low wages.'[29] Peter Mathias believes they were short-sighted, and their 'observations which were factual for the short run were then taken up and incorporated into a

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[25] David Hume, 'Of Commerce', in his *Essays Moral, Political and Literary* (1742, 1987 ed.), online at: http://www.econlib.org/library/LFBooks/Hume/hmMPL.html
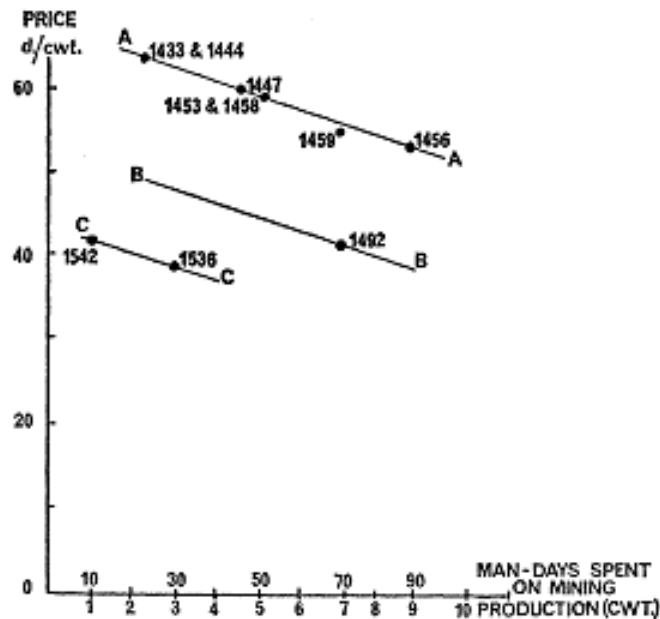[26] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* [1776], eds. Campbell and Skinner (Oxford, 1976), p. 335.
[27] Arthur Young, *A Six Month Tour through the North of England* (London, 1771), I, pp. 175-6.
[28] Eli Hekscher, *Mercantilism* (1935; London, 1955 ed.).
[29] De Vries, *Industrious Revolution*, p. 116.

Figure 8.1 – Labour supply curves for miners, 1400-1600.

Source: Blanchard, 'Work psychology', p. 20

theory of universal human behaviour.'[30] All this is partly true: early political economists were never disinterested. On the other hand, they did mostly write based on fastidious observation and are often considered alongside pioneering empiricists of the Baconian school of the seventeenth century. William Petty was one of the first exponents of quantitative analysis as a rhetorical tool in pamphlets, and helped to devise the hearth tax that informed Gregory King's enduring study of social structure.[31] On this basis, John Hatcher argues that 'it is possible to untangle a stronger thread of consistent and coherent analysis from among the welter of prejudice and moralizing'.[32]

With a few exceptions, it is only fairly recently that economic historians have begun to study this more systematically and quantitatively. Economists identify leisure preference as a 'backward-bending supply curve of labour', a topic that has attracted a heated academic literature.[33] In order to trace a supply curve, wages (or a proxy) need to be plotted against time worked (or a proxy) in a variety of different demand conditions. Ian Blanchard's work on miners from Cornwall, Derbyshire and Weardale between 1400 and 1600 offers evidence of the existence of a backward-bending supply curve. His graph, reproduced in Figure 8.1, of days spent at work against the going piece-rate for mining traces the top (backward-bending) portions of three separate supply curves, which shifted (from A to B to C) with changing

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[30] Peter Mathias, 'Leisure and Wages in Theory and Practice', in his *The Transformation of England: Essays in the Economic and Social History of England* (London, 1979), pp. 153, 164.
[31] See Chapter 6.
[32] John Hatcher, 'Labour, Leisure and Economic Thought before the Nineteenth Century', *P&P*, No. 160 (1998), pp. 64-115.
[33] E.g. Harold G. Vatter, 'On the folklore of the backward-sloping supply curve', *Industrial and Labor Relations Review*, Vol. 14, No. 4 (1961), pp. 578-586.

working conditions.[34] Miners, he argues, had a solid grasp of how much real income they needed (taking into account the price of grain), and roughly maintained it by working more or fewer days as required. Similarly, John Hatcher has amassed evidence for the end of the seventeenth century that suggests mine labourers of different types were not working harder than those described by Blanchard. Hatcher shows that, in a colliery in Northumberland, hewers were the coal workers most in demand and therefore the highest paid, and they consistently worked the least – up to 30 per cent less than worse-off workers.[35] Donald Woodward can make no firm conclusions on how industrious his building labourers were, or whether this changed over the sixteenth to eighteenth centuries. He does note that seventeenth-century bricklayers worked at half the speed of twentieth-century specialists – although this must be at least in part due to the misshapen bricks and rougher cement.[36]

Some case studies have therefore shown the existence of a leisure preference in England but the evidence remains mixed: Levine and Wrightson found no evidence of such behaviour in Whickham, and the work on keelmen presented below is similarly inconclusive.[37] Hatcher points out that the presence or not of a leisure preference depended on the local vagaries of prices and wages: 'It is much more likely that favourable movements in wage rates and prices would lead to an increase in both leisure and consumption'.[38] Each individual worker had differing wants, and a different supply curve of labour. Mathias explains that 'one man's leisure preference might prove to be another man's employment opportunity'; in other words the wage level which tempts one worker into the market will tempt another into leisure.[39] Thus we see patterns of some workers in some areas displaying increasing market awareness and economic 'rationality' (in the strict sense of maximising utility) in the seventeenth century, and others maintaining a backward-bending labour supply curve, at relatively low wages, well into the nineteenth century. Local and time-sensitive movements in demand, affecting wage levels and food prices, had a substantial impact on the work patterns of labourers. It is unlikely that the evidence to prove or disprove leisure preference will ever be entirely complete, but it is worth speculating nonetheless, because attitudes and incentives to work formed a crucial part of early modern people's interaction with the commercialising world.

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[34] Ian Blanchard, 'Labour Productivity and Work Psychology in the English Mining Industry, 1400-1600', *EcHR*, New Series, Vol. 31, No. 1 (1978), pp. 1-24.
[35] Hatcher, 'Labour', p. 89.
[36] Woodward, *Men at Work*, pp. 129-30.
[37] Levine and Wrightson, *Whickham*, p. 260.
[38] Hatcher, 'Labour' p. 84.
[39] Ibid., p. 164.

The rewards of work

Any such understanding must be based on a firm knowledge of how much workers were paid, and how much they worked. Blanchard's records from mining districts are almost unique in the detail about working hours, and we cannot hope to perform a similarly close analysis for Newcastle keelmen. But this section presents a monthly aggregation of hours worked, wages earned and income, based on the records of the hostmen, estimates of the number of keelmen working in Newcastle from Chapters 3 and 4, and the quantity of coal shipped from the Tyne. It also gives consideration to non-monetary reward.

The keelmen's wages were, in themselves, a complex and vehemently negotiated matter. The varying position of ships on the Tyne meant changeable hours and difficulty of work. Whereas a trip to Shields took more than twelve hours and could put a crew in peril at the mouth of the river, a ship moored near the Quayside or only at the mouth of the Ouseburn, just east of Sandgate, would require a third of the time and a fraction of the danger.[40] The standard rates of pay varied accordingly, and the hostmen seem to have passed the additional costs directly on to shipmasters. Rates were set out most clearly in an unsuccessful petition for a pay-rise by the keelmen to the Newcastle Quarter Sessions of September 1676:

> Every keel of coales cast aboard of any vessel above the [Ouse]Bournes mouth, 6s 4d
> Betwixt the Bournes mouth and lower end of Byker Shoare 7s 4d
> In Dent's Hole, 7s 10d
> From thence to the lower end of the Bill Ratch, 8s 4d.
> For every keel laid aboard of any ship casting ballast at any of the shoares below the Pace 13s 4d., and onely for ships casting their ballast on any of the shores above the Pace 10s 4d.[41]

There is no evidence as to the true nature of the division of pay amongst the normal crew of four. Hypothetically, if we assume that the two 'ordinary' watermen took a share twice as big as that of the boy (which is in line with wages amongst building labourers), and that the skipper took half as much again, this represents a substantial wage for a single day's work. For the long, arduous journeys, a waterman received twice as much as a Newcastle building craftsman (who was himself fairly well paid by the standards of northern towns) and more than three times the wage of a building labourer – 35d as against 18d or 10d per day respectively.[42] It was also roughly equivalent to the 3s that skilled shipwrights were paid for their 'tidework' (working on board ships) at Shields.[43]

This settlement had not been reached amicably; it had to be 'negotiated' forcefully. The reputation of Newcastle keelmen for being strike-happy was long-established by the eighteenth

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[40] Fewster, *Keelmen*, pp. 2-5.
[41] TWA 394/57, Feb 1677/8; see Fewster, Keelmen, p. 8. The Bill Shore and Pace Sand are marked as 'D' and 'E' on Map B.
[42] Cf. Woodward, *Men at Work*, p. 271.
[43] E.g. Rowe, *Shipwrights*, pp. 20-1.

century, and the history of this action has been covered in meticulous detail elsewhere.[44] The payments cited by the keelmen in 1678 seem to have originated in the wage disputes of the 1650s when they objected to being compelled to load, for no additional fee, an extra seven chaldrons per twenty sold – in other words, a third extra free. The episode escaped the notice of most of the town's records but it was reported in London: 'we have had a great stop of Trade by our Keel-mens pretence of too small wages from their Masters; they all as one man stood together and would neither worke themselves, nor suffer others'.[45] A 'Company of foot, and a Troop of Horse' were called in, but the magistrates managed to settle the matter with an additional 3s per keel above the 10s 4d fee for a long tide. Again in 1660 keelmen blocked the river by mooring their keels across the arches of the Tyne Bridge, protesting at 'some new orders lately made by the coal owners', and they had to be broken up by the military. In 1671 news of a 'tumultuous assembling' of keelmen reached London, and again the militia was called in to break them up. The motives and results of each individual action are somewhat murky, but the result was that by 1670 a deal had been struck that would largely remain in place until 1801.[46]

Despite the careful efforts of Fewster, it is still somewhat unclear how such sophisticated and co-ordinated action came about. It has frequently been ascribed to an unusual ethnic and cultural homogeneity amongst the workers: they lived together in a segregated community; 'generally intermarried and many of their sons followed their fathers' occupation'; they 'very often shared a Scottish origin'; and according to Robert Harley, they 'ha[d] a peculiar manner of giving a pledge for their standing by one another on any occasion, which is spitting on a stone'.[47] These assertions hold some truth, but have been shown in previous chapters of this study to be rather exaggerated. Undoubtedly the success of these strikes relied on widespread participation, which was facilitated by the heavy geographical concentration, but strikes did not happen particularly spontaneously. There was some centralised organisation amongst the keelmen during the early growth of the trade. In 1607, Raphe Shotton appeared in front of the hostmen 'by the presentment of the Company of Kelemen and the said Shottons own confession', charged with illegally selling coal.[48] This 'company' was first mentioned as one of Newcastle's by-trades in a decree of 1516 but was not then listed in the town's charter in 1604; no formal company ever sought official incorporation, nor did it ever maintain its own

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[44] Fewster, *Keelmen.*
[45] *Mercurius Politicus*, 22-31 August 1654, quoted in Fewster, *Keelmen*, p. 14.
[46] Fewster, *Keelmen*, pp. 15-18.
[47] *Historical MSS Comm., Portland MSS.*, vi, p. 105 and widely repeated: e.g. Ashton and Sykes, *The Coal Industry of the Eighteenth Century* (Manchester, 1929), p. 197; Fewster, 'Keelmen', p. 25; Levine and Wrightson, *Whickham*, p. 392; Ellis, 'dynamic society', p. 211; Waddell, *God, Duty*, p. 195.
[48] *Hostmen*, p. 57.

records.[49] During the protracted dispute over the building of the Keelmen's Hospital, a select group of skippers were identified by the hostmen as ringleaders in 1707, for commissioning an 'instrument [that] tends to create tumults and disorders'.[50] The individuals identified as organisers of this tumult were fined and banned from carrying Newcastle coal.

Conversely, the hostmen also realised that they could use the most influential skippers to help control the wider working community. They appointed 'the Stewards of Overseers of the said Keilmen' from 1701; again in 1709 the fitters were asked to nominate one of their skippers towards 'the number of twenty men usually chosen every yeare for the better ordereing and governing the keilmen'.[51] How long this practice had been going in is unclear, but the men evidently met regularly even if they left no record. It is clear that Newcastle's keelmen retained an informal centralised organisation in the spirit of one of the town's by-trades. The men who commissioned the 'instrument', and those selected by the fitters for stewardship, were probably the wealthier sort of skippers that we met in Chapter 6. These men had managed to accumulate (or had inherited) a degree of money or property, and they seem to have also occupied an elevated position within their own informal 'company'. The level of organisation, and in particular the ability to mobilise a large proportion of the workforce against the fitters in what was a nationally important industry, brought some success. Partly as a result of this action, the fee for an entire boat rose considerably across the century, from barely 6s between 1600 and 1640 to more than 10s from the 1670s, plus additional supplement for some work. Through an arduous process of negotiation, petitioning and occasional strikes, Newcastle's skippers had managed to obtain an apparently quite generous daily wage for themselves and their keelman-colleagues.

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[49] Welford, *Newcastle*, II, p. 46; Middlebrook, *Newcastle*, p. 62.
[50] *Hostmen*, p. 172.
[51] Ibid., pp. 157, 178.

Table 8.1 – Estimates of available work and income for a keelmen and a boy, feeding a family of 5.

1	2	3	4	5	6	7	8	9
years	coal (tons)	keel 'tides'	keels	tides per man	Wage per tide (d)	annual income (d)	cost of food (d)	income as % of food price
1605-10	300,232	14,297	180	60	29	1,698	2,219	77
1610-15	286,407	13,638	180	57	29	1,620	2,219	73
1615-20	296,636	14,126	180	59	29	1,677	3,395	49
1620-5	379,499	18,071	180	75	29	2,146	2,997	72
1625-30	349,935	16,664	250	50	29	1,425	2,997	48
1655-60	459,216	21,867	300	51	41	2,105	3,862	55
1660-5	484,447	23,069	320	50	41	2,082	3,245	64
1665-70	401,239	19,107	320	42	41	1,724	3,245	53
1670-5	439,563	20,932	320	46	41	1,889	2,832	67
1675-80	570,717	27,177	320	59	53	3,121	2,832	110
1680-5	599,650	28,555	400	62	53	3,279	2,683	122
1685-90	510,162	24,293	400	53	53	2,790	2,683	104
1690-5	457,281	21,775	400	48	53	2,501	3,011	83
1695-99	518,483	24,690	400	54	53	2,835	3,011	94
Average	432,391	20,590	296	55	41	2,207	2,945	76

Sources: Table 3.3, p. 64; Hatcher, *Coal*, pp. 466-7, 487-94; Nef, *Coal* , I, p. 389n.; TNA SP 16/408; Gardiner, *England's grievance*, p. 41; Woodward, *Men at Work*, Appendix 2. Wages are calculated are calculated according to the payment for a full keel on a 'long tide' (without any additional supplements), as recorded in the hostmen's minutes, and divided amongst the crew along the hypothetical lines suggested above, such that a skipper or a man and boy earned 37.5 per cent of the total.

Yet this seemingly high wage was irregular and seasonal, reflecting the numbers of colliers in the river as well as the rate at which coals arrived by waggon. Work dropped off dramatically in the winter and in bad weather at any time of year. It is an important task, therefore, to determine how many journeys or 'tides' a keelman would have made per month and per year. Only then can we attempt to, however tentatively, reconstruct their earned income over a longer period. This task is only really possible for two specific periods, around 1655 and around 1690-1710, when a number of related sources can be compiled. A tentative series including other dates is extrapolated from these in Table 8.1. Estimates from contemporaries of the number of keels in operation can be used in conjunction with figures of coal exports from the chamberlains' and customs accounts to attempt a reconstruction of the use of each keel. The total quantity of coal is divided by the estimated numbers of keels in operation to produce the number of keel tides in any given month. The coastal coal trade alone required between 14,000 and 28,000 individual tides per year to load the ships. If we accept the contemporary estimates of between 300 and 400 keels in operation, then this implies an average of between 40 and 70 tides per boat, a figure which has been slightly deflated to account for the estimates of the numbers of keelmen, which slightly exceed those than would have been required to man the boats. This figure garners some support from the hostmen's own

calculations. An order of 1605 declared that each keel an individual hostman could furnish would guarantee them a vend of at least 'three score Tens' (60 full keel-tides, 1260 tons) of coal, the residue to be 'euqallie proportioned' between them.[52] In sum, pay from the coastal coal trade alone garnered anywhere between £9 and £15 for the skipper of a boat, or for a waterman and his son.

Any attempt to relate these wages with prices runs into further difficulty because Newcastle's municipal records offer little hope of constructing a price series for the seventeenth century. In particular, the chamberlain's accounts only exist in summary and were no longer itemised from 1604, which means individual food items did not appear.[53] Instead, we can use Woodward's price series for Hull. There is no clear indication that this would differ substantially from Newcastle: beef and beer prices, where records have been obtained from around 1600 and 1700, were within 10 per cent of those recorded at Hull, meaning at the very least the broad trend was similar.[54] For the price series, a standard family diet assumes 2,850 calories of bread, cheese, beef, oats, peas and other essentials. The wife and first and second children are assumed to consume 75 per cent of the diet, and further children are assumed to consume half.[55] Needless to say, these are heroic assumptions, since keelmen would surely have required a much higher calorie intake on work-days; the rest of the family would have adjusted their own food intake according to the father's needs and their own level of activity.[56] It is also doubtful how far the wholesale prices used reflected those actually charged in markets and shops; certainly in London, Steve Rappaport found that slowly-rising retail prices 'deflated' the inflation of the sixteenth century, and Jeremy Boulton suggests the reverse was true in the seventeenth century.[57] A 'standard of living calculation' based on wholesale prices is therefore imperfect, but it does at least provide a broad guide to the changing pressures placed on wages across the century.

The cost of feeding a Hull or Newcastle family comprising a husband and wife and three children is presented in column 7 of the table: it follows an upward national trend through the early part of the seventeenth century, easing somewhat towards the end. This pattern runs directly counter to the rising income earned by keelmen that we have seen. Taken together, this means a substantial hike in real incomes between the beginning and end of the seventeenth century. At the lowest point, earnings of a fully-employed father and son would have covered

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[52] Dendy, *Hostmen*, p. 54; for 'Ten' weight, see ibid., p. 44*n*.
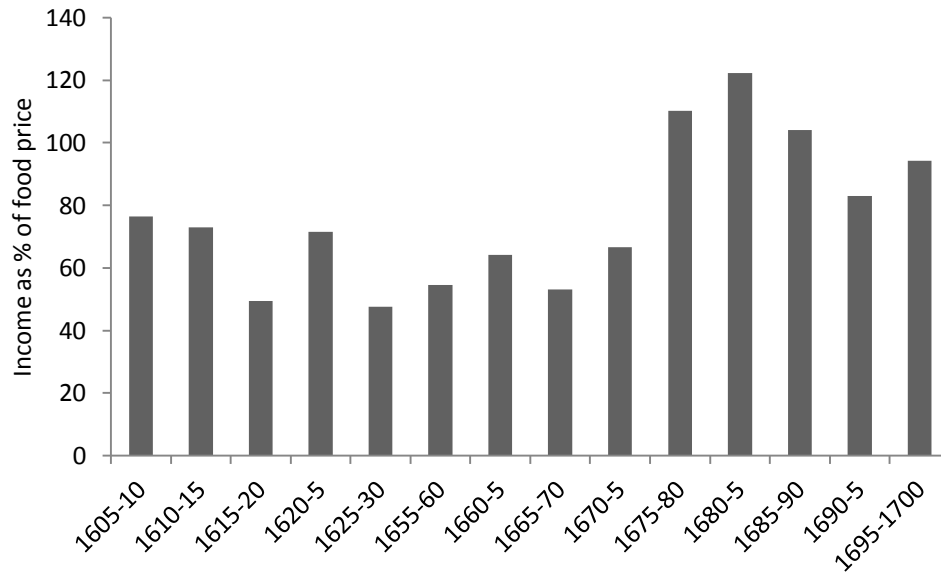[53] TWA 543.
[54] Woodward, *Men at Work*, Appendix 2.
[55] Ibid., pp. 268-70.
[56] Muldrew, *Food, Energy*, pp. 12-15.
[57] Rappaport, *Worlds*, p. 160; Jeremy Boulton, 'Food Prices and the Standard of Living in London in the "Century of Revolution", 1580-1700', *EcHR*, Vol. 53 (2000), p. 478.

Figure 8.2 – Estimated real income of father and son watermen with a family of 5

Sources: see text and Table 8.1.

between a half and two-thirds of the food bill for the family. Costs were considerably lower for a single man who worked on the keels, who barely ever earned too little to cover their own food. The second half of the century was much easier for both groups. The cost of food fell by nearly a quarter by the 1680s, but more significantly the work available grew considerably as the seventeenth-century coastal coal trade hit its peak in the same decade. More tides worked meant the doubling of income. The result was that the work of a skipper or a father and son could now sustain a family with a small cushion left over, or by the 1690s the wages could just about cover food costs (Figure 8.2). This was a much more comfortable situation than half a century before, and it permitted both the settlement of the population identified in Chapter 3 and the increase in material goods of humble Newcastle workers shown in Chapter 6.

The early-seventeenth-century squeeze on real wages, followed by a late-century slackening, seems to have been true for Newcastle's other wage labourers as well. The lack of any evidence for how many days in each month or year they could expect to work makes any discussion of their living standards more imprecise. Woodward has compiled a matrix of hypothetical real wages for Hull, structured around the question: how many days per year would a Hull labourer have had to work to cover food costs for his family? Again, despite fairly thin evidence on wages for Newcastle, we can conclude that labourers employed by Trinity House were paid similar but slightly higher than their contemporaries in Hull.[58] Wages rose from about 6-8d a day at the start of the seventeenth century to 10d in the 1630s, 12d in the 1650s through to the end of the century. The equivalent workers in Hull were paid about 6d

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[58] Woodward, *Men at Work*, pp. 270-1; TWA GU.TH/21/10-14.

in 1600, 7-8d in the 1630s, 10d in the 1650s and 12d by the end of the century.[59] The shipwrights were likewise repeatedly accused of demanding 'excessive wages'. A complaint was made against them in 1674 by two Ipswich shipmasters 'toucheing their wages and allowance in working abroad of shipps and vessels in the river of Tine', and they ran into trouble again for high and rising wages with the hostmen in 1705.[60] These workers would equally have felt the benefit of falling food costs, and therefore a modest but meaningful rise in real income at the end of the seventeenth century. A portion of 'England's Happiness' was allotted even to some of her humbler labourers.[61]

Income came not only in the form of a wage: early modern labourers could also expect non-monetary benefits in the form of food and drink and other perquisites. Money wages formed part of a suite of 'exchange entitlements' which could boost a basic wage up to a more comfortable level.[62] In towns this seems to have been most frequently in the form of 'surplus' raw material which could be taken home by workmen or sold. Thus the Woolwich dockworkers and shipwrights struck in 1665 to protect 'their privilege of chips', which extended to all the royal docks; miners were normally given coal free of charge; tailors could keep waste cloth; and weavers accumulated 'thrums'.[63]

Some of this acquisition was legally sanctioned; some was shadier. In 1601 the 'fifteenth act' of the newly-formed Newcastle Company of Hostmen in Newcastle limited the extent to which keelmen could collect from the coal they transported:

> From henceforth there shall no Coles att all be brought from aborde of any Shipp, Hoie, or other vessel in any Keele or Lighter whatsoever, except that be the sweepings, and that not to exceed in any one Keell or Lighter above two smale maunds or pannyers full, holding two or three pecks apiece...[64]

Despite an adjacent order against 'delyver[ing] or sell[ing] Coles, either greate or smale, to any person…' the practice of illicit coal sales seems to have continued. The temptation must have been very strong, especially for the wealthier and more powerful skippers, to 'fit' boats themselves – that is, to deal directly with the shipmasters, cutting the hostmen out of the bargain. The Company sought to reassert its rules against individually errant fitters and keelmen on numerous occasions and in 1658 reissued its order, appointing a Beadle to confiscate any coal 'over and above the quantities and measures allowed in the Fifteenth Act'.[65] The number of men presented for breaking company rules must only be the apex of a

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[59] Ibid., Appendix 2.
[60] *Shipwrights*, pp. 20-1; *Hostmen*, p. 167.
[61] Slack, 'Consumption'.
[62] Leonard Schwarz, 'Custom, wages and workload in England during industrialization', *P&P*, no. 197 (2007), pp. 171-4.
[63] Waddell, *God, Duty*, p. 206; *VCH Kent*, II, pp. 347, 358, 386; Levine and Wrightson, *Whickham*, pp. 270-1; Woodward, *Men at Work*, p. 143.
[64] 'The 15 Acte' in *Hostmen*, pp. 36-7.
[65] *Hostmen*, p. 116; 41, 61, 97, 121, 189-90.

larger mass of illicit sales, which are pointed to in probate. Only two men had stocks of coal large enough to attract the attention of their inventories' appraisers, and they were both keelmen. Gylbert Errington had a relatively modest stock valued at 2s of coals; Thomas Dods had a good deal more: 'a parcell of Coles' valued at £3, which could have been as much as 5 tons.[66] He must have been trading it – perhaps illicitly in Sandgate or, even worse, with visiting shipmasters in combination with a corrupt fitter – but he never featured in the hostmen's records.

For the families of law-abiding keelmen, 'sweepings' of coal were a highly valuable supplement to household income. The hostmen must have been aware that the upper limit set by the fifteenth act would become self-fulfilling, that two panniers of 'sweepings' would be lost from virtually every keel. This was true at Lincoln Cathedral, where the Master of Fabric concluded in the 1660s that defining the size of 'chips' meant that a carpenter 'may cut what wood he pleaseth to that shortness, and then take it for his fee'.[67] Lincoln forbade the practice but there is no indication in the hostmen's records that they did the same. There was certainly a practical reason why the hostmen allowed 'sweepings': broken, small and poor quality coal was worth little and it would have taken inordinate time and effort on a rocking keel boat to remove the final coals from the hull and shovel them on to a collier. This was a job to be done by the 'keel-deeters' – keelmen's wives and daughters – back in Newcastle.[68] Such a perk also compared with the free coal that Newcastle's coalowners gave to pitmen across the Tyne and Wearside coal fields.[69] Quite how 'sweepings' were divided amongst the crew of a boat can never be known. But even if the skipper retained a captain's share, the proceeds from fifty or sixty annual tides could still have been substantial, particularly if keelmen could store the small coals effectively between the coal trade's summer rush and the winter slowdown. It was, of course, another form of income that depended on a full year's work. Fewer tides for a keelmen brought in lower wages, but it also meant fewer 'sweepings' – and a poorer, colder, hungrier winter.

The extent that similar perquisites existed in Newcastle's other trades is more doubtful. There is no indication that the shipwrights or carpenters enjoyed a perk in line with 'chips' at the naval dockyards; nor do other records suggest that building workers who maintained municipal buildings and Trinity House had such customary rights.[70] We could either interpret the absence of documentation as tacit acceptance of fairly widespread practice, following Leonard Schwarz, or as an indication that the reality of perks has been considerably

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[66] DPRI/1/1608/E2/2; DPRI/1/1636/D3/3; *Hostmen*, p. xlvii.
[67] Woodward, *Men at Work*, p. 144.
[68] See Chapter 7.
[69] Levine and Wrightson, *Whickham*, pp. 270-1.
[70] *Shipwrights*, introduction and passim; TWA 543, passim.

exaggerated by historians, in line with Donald Woodward.[71] Non-food-and-drink perks were not a feature of the discourse of work and wages in Newcastle in the seventeenth century, in contrast with the dockyard strikes in the 1660s or the case of Henry Mansford at Lincoln.

On the other hand, perks of food and drink were still quite common, particularly until the middle of the seventeenth century. When an extraordinary effort was required, it would often be compensated in liquid form: in 1574, half a barrel of beer was given by the Newcastle mayor 'to those that were helping the ship that was sunk'.[72] The hostmen's accounts, in the middle of a building project in 1612, record 'for drinke and candells to the workmen 22d' – surely light and reward for evening work.[73] But by the end of the century, workers were more likely to be given a drink allowance in cash rather than beer, something consistent across the northern towns of Woodward's study.[74] Thus in 1674, in response to a complaint from customers, the shipwrights' company limited their wage demands for 'tidework' at South Shields to 3s, plus 'sixpence more in moneys in lieu of their drinke and for whirrey hire in comeing down foure pence'.[75] This was a clarification of an order of ten years before that shipwrights on tidework 'shall have their charges of goeing to and from the worke … paid and victuals found by the owner of the worke who doth or shall employ them and also the usuall wages'.[76]

While demands for the provision of food were dropped, drink, or more commonly money to buy it, was still seen as an integral part of the pay packet for urban workers. Steps had to be taken so that this provision could not be used to circumvent wage controls. The shipwrights regulated their demand for victuals and drink, and the hostmen's original orders specifically limited the amount to be given in 'drinkinge money or by benevolence' to tuppence; likewise during the wage disputes of the 1650s, the magistrates described the 10s 4d per keel as (altogether) 'for their wages, dues, mete, drinking money…'.[77] The fitters preferred to give drink to the keelmen in kind and not in cash, delivering it through their own 'can houses' scattered through Sandgate.[78] The keelmen were under no illusions as to the miserly motivations for this. A complaint from 1750 illustrated the poor service and quality this arrangement entailed:

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[71] Leonard Schwarz, 'Custom, wages and workload in England during industrialization', *P&P*, no. 197 (2007), pp. 161-4; Woodward, *Men at Work*, pp. 141-3.
[72] Quoted in Woodward, *Men at Work*, p. 149.
[73] *Hostmen*, p. 247.
[74] Woodward, *Men at Work*, p. 168.
[75] *Shipwrights*, pp. 20-1.
[76] Ibid., p. 14.
[77] *Hostmen*, p. 37; Fewster, *Keelmen*, p. 14.
[78] Wright, 'Water trades', pp. 180-1.

> if we refuse to wait or slow in drinking we are abus'd and threatened by the can-house keepers who are all the fitter's servants, to be turned out of our keels, and as this rank of our masters (for we have many degrees of masters) as we are informed have no other wages but the benefit of these can-houses they make it as considerable a perquisite as possible, for which reason we have not the same liquor as the other customers but a certain other liquor is brew'd for us which they call savage beer, or beer for savages, at the same time doing us the honour to take the gentleman's price for it.[79]

Parsimonious fitters preferred to control the keelmen's drinking money, and the implication was that they made some of the money back by providing poor-quality beer. Doubtless Francis Bainbridge's commercially-scaled brewhouse was intended for this purpose, and similarly the kettles and 'beer casks' in the cellar of the fitter Gilbart Liddell's house on the Quayside.[80] Perks in seventeenth-century Newcastle were not universally seen as positive, then. Drinking money was an expectation as part of many wage packets, but in the case of the fitters it was also an excuse to save on the cost of labour.

Perks therefore remained a part of Newcastle's working life throughout the century, and could certainly assist in making ends meet. But the wage itself, especially as the century progressed, was without doubt the most valuable part of all work-related income: the wage was at the heart of petitions, and most commonly the cause of collective action.[81] When both wages and the time worked are taken into account, along with an indication of changing food prices, we can conclude that real income for keelmen at the end of the seventeenth century was double the level of the 1610s. This is not to say that Newcastle's keelmen had such a valuable wage handed to them on a plate. Far from it: each of these individual victories had to be explained, petitioned, discussed, and sometimes wrestled from the hostmen.

Surviving the winter

That Newcastle's keelmen, and other manual labourers, enjoyed rising real incomes in the final third of the seventeenth century, should not be taken as an indication of a suddenly easy life. Certain structural problems remained: the winter, when work was thin, was always very difficult for Newcastle families to survive. The hostmen, ventriloquising their employees, put the blame squarely on the keelmen themselves:

> the skippers and keelmen imployed in the keels…in the River of Tine have for many yeares by sad experience found that their great miseries and wants suffered and endured by them and their poor families have been occasioned by their improvidence in not laying up and making provision out of what they earn and get by their labours in sumer time to subsist themselves in winter…[82]

This problem was exacerbated in years where the weather, enemy action, or a hiatus in London demand caused a slow-down in trade. In these years, the problems of Sandgate poverty and
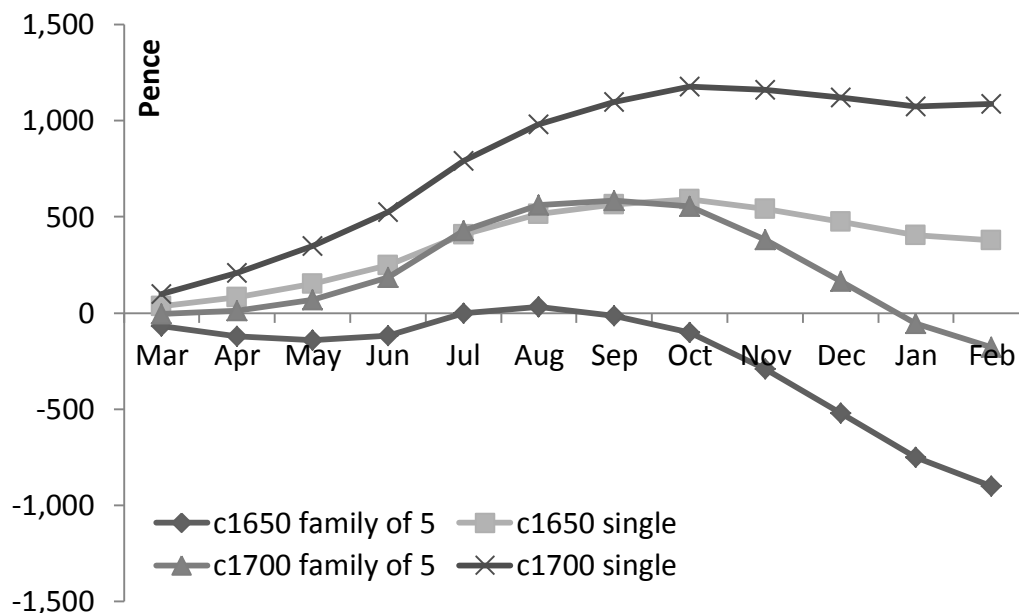
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[79] Quoted in Fewster 'Keelmen', p. 29.
[80] DPRI/1/1641/B2/5; DPRI/1/1661/L5/3-5.
[81] Schwarz, 'Custom, wages', pp. 170-4.
[82] *Hostmen*, p. 154.

Figure 8.3 – Cumulative wage surplus for a waterman and boy after feeding a family of 5 and for a single waterman after feeding himself, c. 1650 and c. 1700.

Sources: See Table 8.1 for income. Prices: Woodward, *Men at Work*, Appendix 2

hunger were extraordinarily severe, and petitions from the keelmen to the town's authorities, and from the hostmen to the Crown or Parliament, grew in intensity.

For the normal years, information on the seasonality of the coastal coal trade (that is, the quantity of exports per month), in combination with the figures already estimated for the real income of keelmen, allows a further estimate of how this annual variation impacted on household economies. For the sake of simplicity in this analysis, and in the absence of clear counter-evidence, food costs are assumed not to have varied across the year.[83] It is also assumed that all keelmen stayed in Newcastle for the entire year, and that they shared work equally amongst them, ignoring any seasonal migration.[84] The scale of the annual winter crisis is immediately clear in Figure 8.3, which plots cumulative monthly surplus income, after food costs. Although single men would probably have had the resources to feed themselves at any point, the situation was bleaker for families. Even in around 1700, when real incomes were close to their highest in the century, the winter caused financial difficulties for families that principally relied on the father's wage: after a long summer of work, by about September, the family enjoyed a cash surplus of perhaps £2, but as the winter arrived, work dried up and the surplus was whittled away; the process then started again with the new coal trading season from March. During the 1650s, when real incomes were generally lower, the only month in which the family was in overall surplus for the year was in August, and the picture for the winter appears rather bleak.

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[83] Boulton identifies a few seasonal foods in London, but the pattern is unclear. Boulton, 'Food prices', p. 240.
[84] See Chapter 3.

The threat of under-employment was by no means confined to the keelmen. Labour in early modern Newcastle was casual. Even if we cannot be certain about the quantity or frequency of work available, the Council's accounts of around 1590-1600 demonstrate a range of *ad hoc* jobs that implies a large and available workforce of labour. Miscellaneous references in Chapters 4 and 7 included the men, women and children who were employed from time to time to keep watch at the prison, to drain the mines, or to clean. A large amount of work could suddenly be made available by a particular event, such as the two spectacularly grisly religious executions in the 1590s. The second racked up an especially expensive wage bill, requiring payments amongst others:

> To 2 labourers for making a rome for the making of the fier, 12d;…paide for a boie goinge of an errand, 2d;…Paide 3 labourers for carrying home of the gear, 3d;…paide 1 labourer for hjinginge up the 3 quarters and head of the preiste, 9d
>
> Paide to Sandrs. Cheisman's man [a mason] for putting the pinicle for hinging the preists head of[f] the bridge 6s
>
> Paide for a catt-bande and a staple for the dore that the preiste brunte in prison, 6d…[85]

The threat of the plague offered other macabre vacancies, which were handsomely paid, presumably because of the risk of infection involved: two men were paid 8d in July 1597 'for going 4 hours aboute the towne to cause all new comers into the towne latelie, to avoide'. Three years earlier, there was no sign of disease in Newcastle, but the concerned council paid James Redheed 12d 'for goinge aborde of a ship for searching of a man that died, for fere of the plague'. Citizens could also be hired for pest control. In January 1596, George Hindmers, a butcher was paid by the piece 'for the killing of 5 swine, 24 dogges, and 16 du[c]kes, which founde in the street after warning was given'.[86] At the other extreme, piecework could be extremely mundane: in 1655, Trinity House hired two labourers for 'a day counting bricks and piling them'.[87] Others, including women, swept and cleaned the municipal buildings; others worked in the sewers.[88]

Only a few employees can be directly identified as regulars. A group of men worked in three shifts around the clock, every day of the year, to drain the town's colliery.[89] There was also the 'bellman', or Mr Rosse who 'ke[pt] a Frenshe schoole' in Westgate.[90] But most labourers were not even named in the accounts: for most men and women, work could only be found at the last minute and was highly uncertain. Hull's more detailed records allow for a fuller reconstruction of labouring work in the middle decades of the seventeenth century, and the policy of 'using a central core of more regular labourers' that were supplemented in high

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[85] 'Accounts', pp. 30-1.
[86] Ibid., p. 45.
[87] TWA 659/449; Woodward, *Men at Work*, p. 94.
[88] 'Municipal accounts', *passim.*
[89] See e.g. TWA 543/14 f. 143r, 141v.; Woodward, *Men at Work*, pp. 128, 132.
[90] 'Accounts', p. 45.

seasons grew over the late sixteenth and seventeenth centuries. Between January and September 1640, 65 per cent of all the labouring work recorded on council accounts was done by just four men, the 'trusted regulars'; the rest were unnamed, which seems to imply their casual status. Similarly in 1677, 1,530 days' work were done by just six men including Patrick Lidgert, who worked for at least 27 years, clocking up an average of 145 days per year, or nearly 200 days at his peak, before his work tailed off in later life.[91] This led Donald Woodward to conclude that 'the great majority of labourers neither worked as personal assistants to building craftsmen nor belonged to specialist groups licensed by the civic authorities. Rather, they were hired by the day to perform a kaleidoscopic range of heavy tasks which required a modicum of common sense, a fair amount of brawn, but little specialist knowledge'.[92]

Some of this casual work was commissioned as part of a consciously-formulated work scheme for seasonally under-employed labourers and keelmen. In regard to poverty, the interests of the town government aligned closely with those of the hostmen, not least because so many of the personnel were the same. A complaint from the Mayor and Burgesses to the newly minted Hostmen's Company in 1604 accused the hostmen of combining to 'agree at what rate poore Collyers, Cariagemen, and keele men shall worke and Carry Cole: And have abridged their wages to their extreame impoverishment and excessive charge of the Towne', a charge which they later denied.[93] The Mayor, Thomas Riddell, was a hostman himself and one of the initial sheriffs of the Company, so this is a clear attempt to set out the respective boundaries of the Company and the Town in terms of the responsibility for Newcastle's poorer workers; such concerns ran throughout the Company's records.[94]

A preferred solution to this problem of unemployment was to provide additional work directly. Such jobs had to be possible to carry out in winter, such as clearing the Tyne, something that was helped by the slowdown in other river traffic over the cold months. This burgeoning traffic had generated both an excess of sand ballast and, not coincidentally, a number of shipwrecks. Certainly in the 1650s, but possibly at other unrecorded times as well, the town 'pressed' a number of keels into service to remove this wreckage in the winter months, which must also have involved the employment of the crews as well.[95] The hostmen, concerned about the damage to their keels, imposed a charge on the municipal coffers, but otherwise put up little resistance.[96] The town also offered low-paid work in shifting ballast onto

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[91] Woodward, *Men at Work*, pp. 102-4.
[92] Ibid., p. 96.
[93] *Hostmen*, p. 20.
[94] Bourne, *History*, p. 297.
[95] Hughes, *North Country Life*, p. 251.
[96] *Hostmen*, pp. 107, 108, 112.

the Ballast Hills, both to improve the navigation of the River and to provide employment in the off-season.

In a related measure taken by the Hostmen's Company, the 'bonds' by which keelmen signed up to work for their fitters provided a clause for a winter loan to keep the men's families solvent until the summer. According to the only original surviving bond from 1787, the fitter Anthony Hood:

> has given them the said skippers…[the] sum of twenty shillings apiece for the binding of them and their said men to the said service, and has lent unto the said skippers…[the] sum of twenty shillings. If therefore the said skippers...on or before the eleventh day of June next ensuing will truly pay or cause to be paid...the sum of twenty shillings so lent.[97]

How far this practice went back into the seventeenth century is uncertain, since the hostmen's records provide no evidence of the type of contracts that existed between fitters and keelmen. It certainly went back to the 1720s, when the hostman George Liddell described how the keelmen 'live upon credit and a little labouring work till they get their binding money at Christmas…and they borrow of their fitters'.[98] Such an arrangement was no accident: the hostmen and the town had constructed a system whereby keelmen, in a normal trading year, had enough money or access to credit to survive the low period in work.

A charitable observer might have ascribed this complex arrangement to benevolence on the part of the hostmen. In reality, the provision of winter work or the advancing of loans were motivated by more than the paternalistic instincts of Newcastle's élites. We return to the themes of Chapters 3 and 4: the Newcastle-controlled coalfields of Tyneside, in order to be their most profitable, had to be rapidly responsive to the demand for coal in other ports, principally London. Sometimes this meant needing a number of operational keels on the Tyne in the middle of winter. Organised, convoyed winter sailings, such as the 400 ships that arrived in 1673, were a recurrent if irregular event, particularly if war or external circumstances had caused pressure on the supply – and therefore a price hike – of coal in London.[99] In the crisis occasioned by the Second Anglo-Dutch War and the London plague in 1665, numerous attempts were made to launch a convoy of ships up to Newcastle, despite the shipmasters' misgivings. In the end it took a personal threat from Charles II for a convoy to leave Ipswich for Newcastle in November 1665.[100] In the meantime, Newcastle's fitters had to be on hand, with a workforce ready to load the ships. Speed, efficiency and experience were all necessary to make money from this sort of job. In comparison to losing further ground to Newcastle's

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[97] Wright, 'water trades', p. 55; NLS L942.8, T987B, f. 211.
[98] Below, p. 264.
[99] Hatcher, *Coal*, p. 478.
[100] *CSPD* 1665-1666, p. 57, *CSPD* 1666-1667, pp. 26, 150, 266.

competitors in the metropolitan coal trade, the cost of bridging loans or the provision of winter labour appeared relatively slight.

This particular brand of economically rational charity was in evidence elsewhere in commercialising England, although it has not always been fully recognised. In arguing for the continuation of a non-rational economic morality into the Restoration period and beyond, Brodie Waddell uses Daniel Defoe's *Journal of the Plague Year* to emphasise the continuing prevalence of a paternalistic attitude towards apprentices in London and other towns. But such a reading is to take the quotation out of the context of Defoe's broader economic analysis of the plague year (Waddell's quotation is in italics):

> All kinds of handicrafts in the city, &c., tradesmen and mechanics, were, as I have said before, out of employ; and this occasioned the putting-off and dismissing an innumerable number of journeymen and workmen of all sorts, seeing nothing was done relating to such trades but what might be said to be absolutely necessary.
>
> This caused the multitude of single people in London to be unprovided for, as also families whose living depended upon the labour of the heads of those families […]
>
> *This stagnation of our manufacturing trade in the country would have put the people there to much greater difficulties, but that the master-workmen, clothiers and others, to the uttermost of their stocks and strength, kept on making their goods to keep the poor at work*, believing that soon as the sickness should abate they would have a quick demand in proportion to the decay of their trade at that time. But as none but those masters that were rich could do thus, and that many were poor and not able, the manufacturing trade in England suffered greatly, and the poor were pinched all over England by the calamity of the city of London only.[101]

Masters, we learn, *did not* by and large keep their servants and apprentices on – they dismissed an 'innumerable' number. Only wealthy craftsmen could keep workers on, which they did because they knew that if they could survive the trade depression brought about by plague, they would be in a stronger economic position when demand picked up again.

A similar economic awareness presumably underpinned the lenient terms of credit offered by the tradesmen of Newcastle to their keelmen neighbours over the winter. Small-time credit was certainly to be found with local tradesmen, although the full extent is somewhat unclear. We have no reason to believe that Newcastle contravened national trends in economic culture of towns like the eastern port of King's Lynn, the principal subject of Craig Muldrew's *Economy of Obligation*. The majority of plaintiffs in cases of debt in King's Lynn were from relatively humble backgrounds, frequently modest urban traders, and they sued people from across the social spectrum.[102] The probate inventories that record debts in Newcastle suggest a pattern that was not dissimilar. Amongst the butcher Christofor Prierman's extensive collection of debts – which reached King's Lynn and Colchester and encompassed the spectrum of Newcastle's tradesmen and merchants – were a number of keelmen and also one 'John Bolton

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[101] Defoe, *Journal*, part IV.
[102] Muldrew, *Obligation*, esp. pp. 242-55.

Koleman'.[103] The keelmen and collier's debts ranged between a few pence and a few shillings, so were likely incurred through the provision of food.

Muldrew notes that in King's Lynn the poorest defaulters – widows or labourers – were sued less frequently than their wealthier neighbours, which he attributes to the social virtue 'quality of mercy' as against the strictness of the common law.[104] For Newcastle, we can suggest a further reason for traders to let debts slide for longer: tradesmen knew that they could not realistically recoup their debt in the winter. Moreover, to attempt such an unlikely debt collection was risk the renowned collective displeasure of Sandgate's consumers. The keelmen together made up the chief portion of demand in the area, so over the entire year would have made the difference between a successful and a failed business. When the keelmen fully exerted their collective buying power the damage could be severe. In a case reported by Harley, the men took action:

> because of affront given to one of them by a person who kept a public house… The keelmen that was injured went and spit upon a stone near the house and renounced any further connection with it, and the rest that were of his mind performed the same ceremony. And they kept religiously to their vow that the people were obliged to quit their house for want of business.[105]

Of course, the keelmen saw their own buying power in much less potent terms, petitioning in 1696 'that caire may be taken of our markets', but the large number of additional buyers that the coal trade brought to Newcastle's markets made their custom irreplaceable.[106] Despite their relatively low income, most of the keelmen could apparently rely on credit from tradesmen to assist over the winter.

This was supplemented from 1699 by the 'keelmen's groats', a voluntary tax of 4d on each tide agreed amongst the men, or at least the same leading skippers that were involved in the negotiation of wages. The hostmen's records claimed the keelmen were 'sensible of their own misgovernment of what they got by their hard labours' and that the money would be held in 'a publick fund or bank for the reliefe of themselves, their widows and children and also aged skippers'. In other words, as well as the usual allowance for 'deserving' widows and the elderly, the keelmen's fund was to make allowance for working individuals who fell on hard times. The fund, bolstered by donations from Newcastle merchants including Sir William Blackett, built the keelmen's hospital just outside and above the Sandgate. Unfortunately for the keelmen, the success of the charity was ultimately scuppered by the improvidence of the managing hostmen, and in particular Mr Timothy Tully, who was accused of embezzling or misusing funds from the charity. An investigation of his accounts remarked that 'among other

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[103] DPRI/1/1606/P7/1-4
[104] Muldrew, *Obligation*, pp. 260-1.
[105] *Portland MSS.*, vi, 105.
[106] TWA 394/1; Fewster, *Keelmen*, p. 19.

sums yet unsatisfied they find a note due to John Bell, ale-house keeper, amounting to the sum of £26 6s', an oversight Tully blamed on wasteful skippers.[107] He may have been right, but the keelmen themselves cannot have failed to observe the irony that their funds were being frittered in the alehouse by their employers – and not by themselves, as was so often accused.

When charity or credit ran dry, there was the expanding system of parochial relief, which grew in size and economic importance across England from the end of the sixteenth century.[108] Unfortunately, the historian's view of poor relief in Newcastle is undermined by the lack of records for the entire century. We cannot be certain how far keelmen could rely on parish relief, but other individual sources are suggestive: already in 1591, the Council ordered the 'making [of] 137 badges, and for canvas to make them upon, for the poore folke which shall be allowed to goe in the towne to aske almes', indicating that they were keen to control the threat of vagrancy and illegitimate claims to their relief.[109] The 1662 Settlement Act further narrowed the terms on which more mobile members of the population could claim relief outside their home parish, crystallising the need for claimants to demonstrate industry, sobriety and settlement in the parish.[110] Similar restrictions applied to individually-funded charities such as that of Mrs Frankland, encountered above, or the money given by Richard Hudleston in his 1707 will 'to be distributed amongst the poor and indigent house-keepers and not amongst the common vagrant Beggars' of St Nicholas'.[111] Access to charity and poor relief was, according to Phil Withington, a 'badge of communal belonging' to the poor, as much as citizenship was to the freemen.[112]

Being a householder was a familiar and necessary condition for both charity and parish relief. The least settled of the keelmen – those who were dissenting migrants, those in lodgings, those with no families – would certainly have struggled to persuade any overseers of their worthiness for relief. But these were the men identified by Defoe and others as those that 'wintered at home'. For the population that did have families, despite stringent restrictions, it is clear that many keelmen could avail themselves of such relief. Certainly by the end of the eighteenth century, parish poor relief was worth sums of £3,000 and upwards, and one-twentieth of the parish residents received permanent poor relief.[113] And while keelmen frequently protested that they struggled to be relieved in the parish, a key motivation for registering in the church, which thousands of keelman families across the century did, was

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[107] Order of 26 May 1710, *Hostmen*, p. 180; Fewster, *Keelmen*, p. 27.
[108] See Hindle, *On the Parish?* and Slack, *Poverty and Policy*, which is stronger for towns.
[109] 'Accounts', p. 22.
[110] Slack, *Poverty and Policy*, pp. 194-5; Waddell, *God, Duty*, pp. 181-4; Hindle, *On the Parish?*, pp., 379-98.
[111] TWA MF263, St Nicholas' register, 1707.
[112] Withington, *Politics*, p. 186.
[113] Graham Butler, 'Disease, Medicine and the Urban Poor in Newcastle-upon-Tyne, c. 1750-1850', unpublished PhD thesis (Newcastle University, 2012), pp. 108-120.

surely the availability of some relief of poverty. One of the concerns raised by the first of Defoe's 1712 pamphlets was that the families of skippers and keelmen 'and were exceedingly burthensome to the parishes where they lived, for the support of their poor'.[114] Again in 1758, a committee consisting of hostmen and burgesses was formed 'to inquire into the great increase of the Poor Rate in All Saints' Parish, occasioned as said by the great number of poor people in Sandgate imployed as Keelmen'. They put the increase down to the halting of the keelmen's groats, and suggested that it should be reinstated 'with the Skippers' and Keelmens' own consent'.[115] The hostmen and town authorities were aware at all times of the cost and necessity of providing relief. It was a religious and civic duty, but it was also economically necessary to maintain their keelmen housed around Newcastle.

Thus in most years, most families (though not all of their constituent members) did survive the winter through a combination of their own ingenuity and the structural protections in place. Chapter 3 demonstrated that mortality in Newcastle was only rarely catastrophically high. On those occasions, households were thrown by the external factors that conspired to worsen the annual and seasonal crisis in a keelmen's household economy. But the town's authorities also offered some additional relief in times of particular crisis: during a minor plague outbreak in 1606 the council paid more than 50s in total towards food, drink and fuel for 'the infected folks for 3 weekes'.[116] And during the 1636 plague, the magistrates made unspecified provision for 'the reliefe of the poorer sort, of such as are infected or so suspected and the like'.[117] But such efforts were little more than a desperate stop-gap. In 1638, a petition from (probably) the hostmen to the Privy Council threatened disorder from the Scottish and Borderers in and around Newcastle, who had put out of work by the cross-winds and Dunkirk pirates lurking off Tynemouth. The solution proposed was to press shipmasters into service, thereby creating work for colliers and keelmen:

> And unlesse there may be some course taken to incourage the shipmaisters that they may goe into Newcastle againe this winter both these, and other labourers, being at least 3000, besides theire wives and children, must suffer greatly through their necessities, to the great hurt and damage of the Towne, and of all the Country therabout…[118]

In 1665 and 66, the threat was a combination of the Second Dutch War, which led to Dutch Men-of-War patrolling the coast, and the Plague and Fire in London. In response, in order to maintain the price and to conserve capital, the coal-owners cut their production dramatically. The result was that by December 1666 the keelmen and colliers were largely out of work and 'there is many of them alreddy goinge abagine [begging]' and that they drove 'the Colleckters

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[114] Defoe, *Case of the Poor Skippers*. See above, Chapter 3.
[115] *Hostmen*, pp. 205-6.
[116] 'Accounts', p. 47.
[117] Wrightson, *Ralph Tailor*, pp. 43-53.
[118] TNA SP 16/408 f. 96.

of the ha[r]th money out of Sandgate' on two separate occasions.[119] The winter conspired with exogenous shocks on trade to leave the workforce hungry. Finally on 28 December, the fleet was able to sail, and the problem began to ease.[120] The only longer-term solution to Newcastle's problem of seasonal poverty was work.

Despite attempts by the town to ameliorate the impact of seasonal, or unpredictable, unemployment on the lives of early modern labourers and keelmen, the problem remained severe when work was low. Again, the 1720s saw an extended, three-part dispute between the London Lightermen (the monopsony buyers of Newcastle coal), the hostmen, and the shipmasters, which led to the latter insisting on a delay two-month to the start of the coal-trade season.[121] The hostmen, of course, objected on the grounds that a delay in trade would relieve them of profits. But George Liddell, one of the Company's governors, had a more compassionate objection, unusually siding with his employees. He neatly summarised their precarious, multifarious household economies, albeit in a rather back-handed way:

> What must become of the poor keelmen? They are a sort of unthinking people that spend their money as fast, nay generally before they get it. They give over work the beginning of November and many of them had not then a shilling before hand. They live upon credit and a little labouring work till they get their binding money at Christmas. That money goes to their creditors and they borrow of their fitters to buy provisions and have credit with the runners for a little drink, and so they put off until about Candlemas [2 February, the normal beginning of trade]. Now if they are not to begin until about Ladyday [25 March], half of them will be starved, for as their time of working will be so much shorter trades people will not trust them their being no prospect of being repaid.[122]

As Liddell's statement outlines, this was life on a knife-edge, where a few weeks' difference at the start of the season, or a continual cross-wind, or war and the plague in London, could make the difference between hunger and cold, and relative comfort, between the shopkeepers' wary welcome – and credit – or a slammed door.

In normal years there was a matrix of relief in operation to keep manual labourers and keelmen alive, and available, in Newcastle throughout the year. There was the combination of extra provision of work, which came from the town council and the hostmen; the provision of poor relief from All Saints' parish, in which the principal ratepayers would have been the wealthiest fitters, hostmen and shipwrights themselves; and the flexible extension of credit from shopkeepers and tradesmen who, again, had an overriding commercial interest in the coal trade. This might be ascribed to a paternal and kindly instinct towards the town's eastern suburb – and indeed Christian virtue and charity must have played some role – but it was also fundamentally in the economic interests of the powerful to maintain this flexible workforce. The hostmen's instincts that protected the keelmen from impressment, that appeased their

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[119] TNA SP 29/180 f.169; 18/220 f.35.
[120] Fewster, *Keelmen*, p. 16.
[121] Fewster, *Keelmen*, p. 78.
[122] TWA Ellison Papers A/32/21, George Liddell to Henry Ellison, 14 January 1729; Fewster, *Keelmen*, p. 79.

demands for higher wages and the expulsion of the 'chimney men', and that built and maintained their hospital (albeit with a portion of corruption) were the same instincts that knew where the profit lay in coal: they needed a large and flexible workforce almost as much as the keelmen themselves needed the work.

Godliness, honesty and company

The money that could be earned in seventeenth-century Newcastle – whether barely scraping a living or purchasing additional comfort in the form curtains, cushions and seeing glasses – was evidently the chief motivation for difficult and dangerous work. Nonetheless, there was more to work than a pay packet and poor-quality beer. We need to study much more closely what labourers felt about the work they did, what meanings it had, and what motivated it – although a lack of source material will always make this task challenging: a full analysis including, for instance, depositional material, goes beyond what could be done for this thesis. Nonetheless, such inquiries have a long history of their own.

In tackling what he saw as the glaring difference between high-performing North-West European countries and the sluggish Mediterranean, Max Weber reformulated two centuries of festering religious prejudice into a plausible thesis about the birth of capitalism, albeit one that has generated substantial criticism.[123] The 'Protestant ethic' describes the way in which Protestant Reformation thinkers reconceptualised work as a sacred duty, how worldly activity was ascribed heavenly grace. Amongst its problems is that its high-minded approach takes very little account of the impact ecclesiastical writings had 'on the ground', and even where real economic actors are discussed, they tended to be entrepreneurs rather than workers.[124] More fundamentally, it cherry-picks Protestant tracts for displaying particular features which they held in common with many Catholic writings.[125] A number of prominent theologians since at least the twelfth century had preached that labour was godly: sometimes this 'reflected the patristic idea of labour as penance' but more frequently they preached that work was a duty to God and a 'social good'.[126] This notion increasingly seeped down from high theological argument into the churches and out into the fields: a hymn published in 1641 promoted spiritual enjoyment – and not just abstract fulfilment – from working hard.

> For labour yields me true content,
> (Though few the same do see)
> And, when my toiling hours are spent,
> My sleeps the sweeter be.
> Though labour was enjoin'd at first,

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[123] Robert Green (ed.), *Protestantism and Capitalism: The Weber Thesis and Its Critics* (Boston, 1959).
[124] Van der Linden, 'Studying Attitudes', p. 26.
[125] Thomas, *Ends*, p. 86*n*.
[126] Ibid., p. 85.

> To be a curse for sin,
> Yet man, by being so accurst,
> May screw a blessing in.[127]

Pieter Plockhoy, a seventeenth-century tradesman, was heavily motivated by his Puritan faith in the way that he conducted his work: he moved to London after being persecuted for his heterodox faith and designed a utopia where work was important, along with other 'more elevated activities'.[128] There was clearly more to work than earning money, and spiritual satisfaction was only part of the additional rewards available for their labour.

Godliness may have been a motivation for some, but the rare self-identifications that survive in the historical record are usually more prosaic. Some labourers laid claim to levels of skill in their work, and not just brute force. Craig Muldrew is keen to disentangle the words 'unskilled', 'labourer' and 'poor', arguing that they usually did not overlap for seventeenth and eighteenth-century people in the way they often have for historians. Labourers were included in the 1563 'Statute of Artificers, Labourers and Servants in Husbandry', demanding a particular wage level and, in his 1577 *Description of England*, William Harrison included day-labourers with 'poor husbandmen, and some retailers[…], copyholders, and all artificers…'.[129] The term 'poor' was only usually used in reference to economic crises which affected labourers severely, in the sense of 'labouring persons temporarily not able to live off their labour'.[130] Similarly, groups of labours, especially when they combined, were keen to emphasise their level of skill. William Yarrow caused uproar at Newcastle's bricklayers' guild in 1749 'for saying he had wrought at London with labourers as good as any bricklayers in the company'.[131] Nearly 200 years earlier, the sixteenth-century Derbyshire lead miners of Andy Wood's study expressed their collective identity as 'ancient and skilful miners' in contrast to 'women, children and unskilful folk' who surrounded them.[132]

There were other forms of work-related status than skill. Ballads offer a chance to view occupational identities of the poorest workers through the prism of the alehouse. It was, as we have seen, a frequent, and not altogether incorrect, assumption that excess income would be spent on beer. For many contemporary writers and most historians the alehouse was an uncomplicated society based purely on the ability to pay. For Lawrence Stone, drunkenness had no purpose but as 'a common recourse to induce temporary forgetfulness of the bitter realities of life'.[133] Recently, Phil Withington and Mark Hailwood see alehouse 'company' in a

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[127] Quoted in Thomas, *Ends*, p. 93.
[128] Henk Looijesteijn, 'Between Sin and Salvation: The Seventeenth-Century Dutch Artisan Pieter Plockhoy and His Ethics of Work', *IRSH*, Vol 56, Special Issue (2011), pp. 69-88.
[129] Muldrew, *Food, Energy*, p. 19.
[130] Slack, *Poverty*, pp. 27-9.
[131] Woodward, *Men at Work*, p. 94.
[132] Andy Wood, *Politics of Social Conflict: The Peak Country, 1520-1770* (Cambridge, 1999), pp. 24, 174.
[133] Stone, *Family, Sex*, p. 393.

more nuanced, positive light. To belong to a particular 'company' meant to share some values with the group, and to eschew others.[134] The ethics of labour and sociability operated in tandem: a man who did not work hard was considered an inappropriate drinking companion, not least because he could not pay his 'shot'. In a 1630 ballad, the porter-narrator disdains the work-shy, because:

> They'l sit i'th alehouse all the day
> And eat and drink and nothing pay […]
> Such men as these I hold in scorne,
> I'le rather rise at four I'th morn
> And labour hard til nine at night
> Ere I in shirking take delight, […]
> No man shall say he paid my shot.[135]

Vagrants and work-shy labourers, so often the target of parish and corporation authorities because of the danger they presented to local economic stability, were not welcome amongst the singing alehouse company either. Nor were the wealthy, who were also seen to shirk labour: they merely 'sell their land' as opposed to 'our livings [which] we get by our hands'.[136] Another ballad remarked disdainfully how 'landed men may flourish/ sleeping of waking their bags they fill'.[137] 'Respectability' in the terms of the alehouse was formulated by drinking hard (just about within your limits), but also through working just as hard. Another ballad expressed these twin priorities in one line: 'Since we are here good fellows all/ drinke we must and worke we shall'.[138] Access to such company was predicated on working hard. In such circumstances sociability, and not just money, were closely tied to labour.

The other main occasion for workers' expressions of their own identities to be recorded – and conserved – was through court depositions, in which witnesses were required to give some detail about themselves and their circumstances in order for the court to adjudge if they were susceptible to be corrupted.[139] Witnesses' judgements of self-worth usually involved their 'honesty'. The only assured way of being seen as 'honest' was to have accumulated a substantial stock of agricultural and household objects, which were taken to imply the owner's hard work and thrift, but a third of witnesses could not make this claim.[140] Instead, these people asserted their 'honesty' by emphasising how hard they worked for their pay. A Wiltshire man in 1674 'thank[ed] God that he never yet received releife from the parish, & so long as he is

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[134] Phil Withington, 'Company and Sociability in Early Modern England', *Social History*, Vol. 32, No. 3 (2007), pp. 291-307.
[135] Quoted in Mark Hailwood, 'Sociability, Work and Labouring Identity in Seventeenth-Century England', *Cultural and Social History*, Vol. 8, No. 1 (2011), p. 14.
[136] Ibid., p. 22.
[137] Quoted in Waddell, *God, Duty*, p. 97.
[138] Hailwood, 'Sociability', p. 22.
[139] Alexandra Shepard, 'Poverty, Labour and the Language of Social Description', *P&P*, Vol. 201 (2008), pp. 51-95; Muldrew, *Obligation*, pp. 303-8.
[140] Alexandra Shepard and Judith Spicksley, 'Worth, age, and social status in early modern England', *EcHR*, Vol. 64, No. 2 (2011), pp. 493-530. See Table 12.

able to work at his trade he hopes he shall not…'.[141] Just as the heroes of the alehouse ballad would not deign to be in debt, the hard-working witnesses at the church courts would never allow their word to being bought; their hard work would insulate them from the damaging social status of being a draw on society. Yet the defensive ways that labourers framed this identity show that poor labourers were aware of the negative associations laid on them from above. As we have seen, Newcastle's labourers and keelmen frequently termed themselves 'yeomen' in wills. In Sussex, the labourer Edmund Powell was described by another witness in 1620 as 'a poore needy fellow' who had 'nothing to live uppon but his labour'.[142] The phrase 'nothing but [his or her] labour' was a recurrent one, and it drew defensive responses from poor witnesses. Mary Drover from Stepney replied in 1697 that she although was 'not worth anything her debts p[aid] but never did begg, or ask the Charity of strangers by her'.[143] She, and hundreds of other deponents like her, understood that being purely reliant on wages was not seen in the court as a good thing, but they asserted the value of working by their hands. Labourers could mostly emphasise their honesty and good character through hard work, even if material wealth and skilled status eluded them. They saw honour in working with their hands.

There were certainly rewards to labour, beyond monetary compensation, which assisted in labourers' spiritual well-being or status. Could they also have enjoyed work? When Hatcher dismisses this notion for miners 'who hired themselves out to toil underground', it is difficult to disagree.[144] Yet there are indications that work could sometimes be fun. Keith Thomas has collected a formidable anecdotal compendium to demonstrate that 'there was a great deal more to work than work'.[145] It is likely, for instance, that many labourers sang at work, such as in a 1411 poem by Thomas Hoccleve about the raucous pleasure of the 'artificers' outside his window, who 'Talken and singe and make game and play/ And forth [t]hyr labour passyth with gladnesse'.[146] Partly the songs encouraged 'synchronization of activity', but they also broke the monotony of repetitive tasks and formed part of a shared identity enjoyed by the labourers.[147] Music might have provided a link between the occupational camaraderie at work and the alehouse-defined company. Arthur Young wrote in the 1780s that women were prone to gossiping so much while haymaking it was advisable to put a man among the company; while a familiar proverb ran that 'one boy equalled one day's work, two boys equalled half a day's

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[141] Shepard, 'Poverty', p. 58.
[142] Ibid., p. 65.
[143] Ibid., p. 58.
[144] Hatcher, *Coal*, p. 322.
[145] Thomas, *Ends*, p. 100; Keith Thomas, *Oxford Book of Work* (Oxford, 1999).
[146] Quoted in Thomas, *Ends*, p. 97.
[147] Marek Korczynski, 'Music at Work: Towards a Historical Overview', *Folk Music Journal*, Vol. 8 (2003), pp. 314-334.

work, and three boys equalled no work at all'.[148] This seems about right for the printing houses described by Joseph Moxon, where the errand boys 'commonly black and Dawb themselves; whence the Workmen do Jocosely call them *Devils* and sometimes *Spirits* and sometimes *Flies*'.[149] The insistence of the building labourers in Bishop Pilkington's account above on their customary meal and drink breaks reflects the sociability ingrained into working practice, which spilled out into the alehouse. The reality that labour was strenuous or tedious, or sometimes both, does not mean that certain aspects of it were not enjoyable.

Conclusion: 'a hardy and laborious race of men'?

The work of Newcastle's labourers and keelmen was arduous and tough, but it was not unremitting, and we should remember that work could be enjoyed for the sociability that it brought. For every complaint about the beer quality in Newcastle's can-houses, there were presumably thousands of hours spent in more peaceable company. While Hatcher and others have compiled considerable evidence of a persistent leisure preference across the seventeenth and eighteenth century, much of it is still the evidence of contemporary commentators. The literate middling sorts who wrote tracts on political economy clearly wrote some truth on this matter, but their moralising is often distasteful. Daniel Defoe's alarmism even seems absurd in hindsight: 'The miserable Circumstance of this Country is now such, that, in short, if it goes on, the Poor will be Rulers over the Rich, and the Servants be Governours of their Masters, the *Plebeij* have almost mobb'd the *Patricij*'.[150]

This study of Newcastle's keelmen offers, if anything, support for the opposite view. As John Baillie put it in 1801, Sandgate was populated by 'a hardy and laborious race of men' who 'live almost entirely upon flesh-meat and flour, of the best kinds, which the strong exertions in their employment require'.[151] The same could have been said 130 years before: Newcastle's keelmen were, in fact, fairly well paid by early modern standards, particularly in the second half of the century, when they enjoyed rising real wages and could comfortably afford to support a family on just the man's primary income. There is no evidence to suggest that, in this later period, keelmen chose to work any less than they had in the first part of the century when family budgets were much tighter. Quite the reverse: they seem to have worked even harder, keeping a roughly consistent number of tides across the century despite the increased distance of more journeys to Shields – 'laborious' or 'industrious' men indeed.[152]

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[148] Thomas, *Ends*, p. 99.
[149] Joseph Moxon, *Moxon's Mechanick Exercises; Or The Doctrine of Handy-works Applied to the Art of Printing*, II, p. 373.
[150] Defoe, *Great Law of Subordination*, p. 17.
[151] Baillie, *Impartial History*, p. 142.
[152] See *Hostmen*, *passim*.

Small increases in wages and working hours allowed John Hughson and his wife their £4 suits and cloaks, Thomas Hall his silver, pewter and glass, and Thomas Roper his glass chamber pot.[153]

Yet we should not forget that the relative prosperity of the end of the seventeenth century was still a precarious one. Labouring lives in Newcastle too frequently lacked constancy; their problem was how many tides they could secure in any week or month. In the summer months they were comparatively flush, but incomes quickly froze in winter and by December they were driven to borrowing money from their employers to pay off their creditors, and to rely on what little parochial relief was available. This made living from week to week and year to year a fundamentally uncomfortable experience. Newcastle's poorer keelmen would have struggled to save any money through the year, instead relying on the matrix of credit and relief available to them to survive through the winter. For these households, life was a struggle to make shift, supplementing income where necessary with poor relief and private charity, where it was available. The most desperate survival strategies included 'selective child abandonment, resort to available (and 'able') kin, reliance on credit and pawnbrokers, tactical changes in diet to cheaper foodstuffs, theft, prostitution, begging and the perks available at some (but not all) workplaces.'[154] Simply sustaining a living in early modern England has been described as 'a Herculean task', and it surely was the main reason that people did work.[155]

Such an analysis might seem unremittingly depressing. But labourers could also have fun at the alehouse, with their work mates and sometimes at work as well, and the nature of these interactions is largely lost to history. The sphere in which we know that Newcastle's keelmen worked together was the remarkably successful one of co-ordinated wage bargaining, in which they used their unique geographical and economic position to good effect. As with much in early modern local politics, the position of a labourer was a constant, arduous negotiation – a transaction on 'the terms of subordination', carried out under constrained conditions.[156] These sorts of interactions, recorded dutifully by legal and administrative documents, in reality represented only a small proportion of the lived experience of the thousands of men that laboured on the keels and off across the entire century. Historians should not condescend to assume that these men's lives were merely defined by their interactions with their more literate 'masters', which is, in the end, almost all that remains for us to read.

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[153] See Chapter 6.

[154] Jeremy Boulton, '"Turned into the Street with My Children Destitute of Every Thing"; the payment of rent and the London poor, 1600-1850', in McEwan and Sharpe, *Accommodating Poverty*, p. 25.

[155] Shepard, 'Poverty, Labour', p. 95.

[156] Wrightson, 'Politics of the Parish', pp.10-46.

Chapter 9. Conclusion: England's industrial 'Indies'

Seventeenth-century Newcastle upon Tyne was in the midst of a transformation with implications that stretched far beyond the limits of its modest town walls and parish boundaries, beyond even the liberty of the Tyne and its sub-ports. The influence of Newcastle's port reached into every small harbour up and down Britain's eastern coast, across the North Sea and further. But most significant of all was the town's uniquely close relationship with the capital. When Newcastle coal was too expensive, London stepped in to regulate. When a fleet of colliers refused to leave Ipswich for fear of prosecution, the King intervened directly. And when the keelmen that shifted coal were discontentedly 'turbulent', the Crown had no qualms about lending its own opinion and arms. Local disputes expanded to a matter national interest; work in Newcastle had much more than local importance. Yet the town has been neglected by all but local and regional historians in favour of other urban centres that boast better-surviving municipal archives. The wholesale destruction of Newcastle's town records – partly by fire, partly by Scots marauders – has inhibited the writing of a typical 'urban history'. This has been no disadvantage: rather than the story of the town, this study set out to record the social history of Newcastle's workers. It has related the history of the town's individuals and communities, not its institutions.

In doing so, we picked up an important social narrative partway through. During the period between the late-fifteenth and early-nineteenth centuries, economy and society at a national scale were undergoing a series of related changes that laid the groundwork for, and in some cases foreshadowed, the industrial revolution proper. This was, in the words of Keith Wrightson, a process of commercialisation in which 'a patchwork of loosely articulated, primarily agrarian, regional economies' – albeit with some commercial development – made way for 'an integrated economic system in which market relationships were the mainspring of economic life, a capitalist market…that retained more traditional elements'.[1] In Newcastle and the coal belt around the Tyne, these changes accelerated more quickly than anywhere else. Already by 1600, when the hostmen formed their separate Company, Newcastle's merchants had consolidated their gains from the Grand Lease and

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[1] Wrightson, *Earthly Necessities*, p. 331.

controlled a highly lucrative Tyneside coal industry from their urban base. In the same year, All Saints' parish began to record baptisms and burials, and already keelmen made up around a quarter of Newcastle's population. A coal boom and the industrialisation of the entire coalfield were well underway, then, but I make no apology for the chronology that has featured here. The parish registers of All Saints' have been at the heart of this study. Used in combination with other records, they present an – at times – intricately detailed document of tens of thousands of lives in Newcastle's east end. Without the detailed parish register, it would have been impossible to write a study of this type.

The seventeenth century was a critical transformational phase in this transition towards commercial, industrial society. The value of a social study crossing the historiographical chasm of the 1640s and 50s should be evident. Too often, a long sixteenth century has ended in 1640, and a long eighteenth century has started in around 1660, with the period in between left open to speculation. There was continuity as well as change, as Phil Withington, Rebecca King and others have pointed out, many aspects of Newcastle's social and economic structure survived the turmoil of the mid-seventeenth century.[2] The town had been a powerful medieval trade centre, and it continued to be, boasting a new and more lucrative primary export. The medieval guilds were numerically stronger after the Restoration than before, and they took on a newly flexible role in sociability.[3] These continuities were undoubtedly real, but this study has demonstrated that the mid-seventeenth century saw the tipping of the economic and social balance in a number of important, if less well-documented ways. This was particularly true for poorer workers, and those who were not associated with the town's guilds. The Newcastle that was inherited by Mary and Joseph Ridley, twins baptised to a Newcastle waterman on Christmas Day in 1700, was very different from the town of, say, Richard Manwell, baptised exactly a century before, or even John Steel, halfway between the two.[4]

Between about 1570 and 1630, Newcastle was a real boom town. Owing to the insatiable fuel demands of London's growth, there was a 'seemingly effortless acceleration of output' up to the 1630s.[5] As a result, the town's élite coal owners could make an awful lot of money very quickly. This period coincided with high unemployment across England and Scotland, and the result was a flexible, apparently inexhaustible, stream of short-term labour migration into Newcastle. Thus the level of trade recovered astonishingly quickly from the impact of plague in 1611 and 1636, and it was kick-started with impressive

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[2] Withington, *Politics*, Ch. 6.
[3] King, 'Aspects', *passim.*
[4] PRD/ASBap/27492, 27493, 10, 11130.
[5] Hatcher, *Coal*, p. 88.

efficiency after the siege and occupations of the Bishops' Wars and Civil Wars of the 1640s. This growth was conceivable only through inward migration. Although it has not been feasible to fully analyse the origin of the migratory workforce, it is clear that many of the labourers were local in origin, from Northumberland and County Durham. A proportion was certainly Scottish, and these Scottish migrants were more likely to be keelmen than other groups. Whether that proportion was small, or a quarter, or half, or more, as has sometimes been suggested, will probably never be known. This was a period when the hostmen, and a few of the wealthiest tradesmen who could capitalise on the growing population, made pots of money, but most of the town struggled to get by. At times the number of keelmen – who were also pushed inwards by agrarian crises in Scotland and enclosure in County Durham – verged on over-supply, and their labour could be bought cheaply. Food costs were high and wages stayed low.

The 1600s was a century of two distinct halves. Following the disruption of the Civil War and aftermath, the hostmen had lost some ground in the coal trade, but living standards improved for many workers. By the 1680s, the growing demand for Newcastle coal had settled under competition from Sunderland (which itself had benefited from the Civil War) and Scotland. The hostmen could no longer rely on London's inexhaustible need for coal, particularly after the plague and the Great Fire. What was required in Newcastle in this era of competition and diminished demand was not the endless, itinerant, disposable working mass of the early seventeenth-century, but a settled and skilled group of men who knew the work and could be available at short notice throughout the year. This change is reflected strongly in the patterns of Newcastle's demography. The turbulence of mass inward migration, then of plague and war, was replaced by a more settled community of families that apparently had more children and stayed in the town for longer. Partly, the pressure of national demographic growth had eased, and fewer desperate labourers were driven into the town, but this stability also reflected changes in the balance of the local economy. While the hostmen lost profits to their competitors, this was good news for the keelmen. A series of strongly negotiated pay rises enhanced the national trend of falling food prices to generate a period of relative prosperity from the 1670s.

Yet, despite this apparent stability, work still remained rather unsure from month to month, and the winter could be particularly hard for Newcastle's working poor. And while some keelmen had managed to afford a comfortable home and life, it remained perilously difficult for many. Such concerns regarding the stability of income are shared by labourers of the modern developing world, yet they are still poorly understood by the classical economics on which much of economic history – as well as the modern science – is based.

In a recent survey in Udaipur in India, for example, between a third and half of parents said they would prefer their children to take government over private-sector work.[6] These jobs are only moderately well paid, but what really appeals to the parents is their security: a wage comes regularly, and an absence of work is unlikely. In one village, the sudden provision of steady, reliable work had a transformational impact on houses and families: 'an iron roof, two motorcycles in a courtyard, a neatly combed teenager in a starched school uniform'.[7] So it was in seventeenth-century Newcastle: in the absence of any reliable mechanism to save money, the keelmen struggled to get by in low-work years. It was a lack of regular work, and not particularly low wages, that could cause devastation to the economy of Sandgate.

While economic development was undoubtedly driven by coal, the hallmarks of a commercialising economy are stamped across seventeenth-century Newcastle. The town saw concentration in the production and sale of 'functional goods and fancies', as Judith Welford decribes it, not least the Quaker-led glass industry, as well as beer, purses, confectionary and other products.[8] The knock-on effects of these combined developments were profound. The share of wage labourers in the occupational structure shot up from less than a third to nearly half of all fathers. Moreover, the proportion of households manufacturing their own beer at home dropped and fewer households kept livestock to top up the food they bought. Instead, Newcastle's workers of all occupations placed themselves increasingly at the mercy of the market; by the end of the seventeenth century, they were more likely to spin wool or linen yarn, and some households had even developed extensive and entrepreneurial by-employment businesses in the production of food or household items. This market orientation meant that demand fluctuations could have been devastating, but for the most part they were not, and after the 1660s Newcastle's households (again, from all occupations) were, on average, notably more prosperous than they had been before the 1640s. The demand, or at least the availability and ownership, of a widening range of household items increased and spread far below the higher reaches of Newcastle society.

Work was, of course, central to so much of this process: the generation of a reliable source of disposable income underlay any access to credit networks, to the capital required to set up a by-employment business and the time to run it, or indeed to a decent quality of housing. It is surprising, therefore, that occupation has proved to be such a poor predictor of any of these social experiences for individual workers and households. While Chapter 5 did determine some occupational neighbourhoods in Newcastle, these were few in number and

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[6] Abhijit Banerjee and Esther Duflo, *Poor Economics* (London, 2011), p. 227.
[7] Ibid., pp. 227-8.
[8] Welford, 'Functional'; see above, Chapter 7.

far from exclusive. In any area of the city, whether the centre or the suburbs, interaction with one's neighbours took in a wide range of families practising different occupations. Indeed, Sandgate, the area so often known to local historians as a keelman's ghetto, was far from uni-occupational. Although its economy was tightly focused on river trades, it also boasted members of virtually all occupation groups, and in particular a vibrant service sector that supplied the quickly-growing population. It absorbed poorer members of all of Newcastle's trades who were unable to find affordable accommodation within the walls. In this way, households *were* stratified broadly along the lines of house size, given by the number of hearths, and presumably also the ability to pay higher rents.

It follows, therefore, that an occupational tag also proved poor at predicting the wealth of individuals. Some broad trends in wealth and status were sketched in Chapter 6: Newcastle merchants dominated in terms of income, assets and social capital; keelmen and labourers were consistently the poorest; the middling tradesmen were jumbled in between. Occupations could also be divided into a hierarchy based on averages, but in reality such statistics have shown more overlap than separation. The very wealthiest men in Newcastle included a cordwainer, a tailor, a barber surgeon and a shipwright amongst them, as well as merchants. Conversely, single-hearth exempt dwellings were inhabited by members of all the manufacturing trades as well as manual labourers. Moreover, even families who were, on the face of it, extremely poor maintained some control over their income and spending, and could often afford some basic luxuries. Houses with a single hearth or exempt from tax, and households with inventories of barely £5, could still frequently own looking glasses, salt cellars, feather beds and bedding, and light their houses with candlesticks and candles.

This is not the classic story of the impact of the development of industrial commerce on labour, then. Far from the 'misery which came upon large sections of the working people' identified by Toynbee, the industrialisation of Newcastle could be spun in a much more positive light for its workers. Both the suspicious writings of Newcastle's literate élites and the petitions of the keelmen themselves, which stressed their desperate poverty in order to extract an improvement in pay or conditions, have too frequently been taken literally. This trope has been cultivated since at least the eighteenth century, for instance in the 1742 visit of John Wesley recorded in his journal. Joseph Fewster takes Wesley's comments as an indictment of Sandgate in relation to the rest of the town, but this is reading too much into them. Wesley's surprise (but not 'shock') at the 'drunkenness cursing and swearing' was expressed not in Sandgate but the central part of the town when he first arrived. And while Sandgate *was* described as the 'poorest and most contemptible' part of

town, this was mostly to set up a great success for Wesley himself.[9] He claimed that he started singing a psalm to only three or four people 'who soon increased to four or five hundred' and then to 'twelve to fifteen hundred before I had done preaching'. By the evening the crowd was so large that 'the poor people were ready to tread me under-foot, out of pure love and kindness'.[10] Sixty years later the Presbyterian minister John Baillie similarly set up a fictional Sandgate, where fist-fights and blood-duels on the Sabbath were the norm, to exhort the success of Methodism in cleaning it up.[11]

The houses of Newcastle's seventeenth-century keelmen and labourers were not 'models of comfort and cleanliness' with plenty of sturdy furniture and 'well-stocked larders', as R.J. Charleton wrote – perhaps a little fancifully – of the nineteenth century.[12] But thanks to a small increase in nominal wages and a slightly larger increase in real wages between 1655 and 1700, real income does seem to have grown. Men who could work enough tides or days, depending on their pay, as it seems likely that many could by the last third of the seventeenth century, could earn enough to survive and keep their family afloat. Thus we cannot reliably say what a Newcastle 'keelman's household' was like; nor can we generalise on the cordwainers, shopkeepers or brewers without misrepresenting so much of the spectrum of individual households that came under the occupational tag of a single household head. It also reminds us of the extent to which working men relied on their wives and children to prop up household earnings, or in some cases to earn the major share. Households were complex institutions, and while inventories have given us a glimpse of how poorer households operated economically, much will unfortunately remain hidden. Record linkage through the parish register database has revealed more detailed information about a greater number of the town's inhabitants than would otherwise have been possible. It has, for instance, turned up many of the testators we met in Chapter 6 who no longer described themselves as keelmen, but appear in the parish registers under that description. It has given more texture to the often-used hearth tax data by adding an occupational dimension, and more context to probate documents by adding more family details than would normally appear even in a will.

All this has, I hope, underscored the fruitfulness of maintaining focus on a carefully-defined location in order to elucidate broader questions of social change and continuity in the national economy. Place, as well as time, needs to remain at the heart of how we interpret the social history of work. To make generalised assumptions about how individuals

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[9] See above, Chapter 5.
[10] Cullock, *Wesley*, iii, pp. 13-14.
[11] Baillie, *Impartial*, p. 143.
[12] Charleton, *History*, p. 353; Fewster, *Keelmen*, p. 5.

across England, Britain or Europe behaved on the basis of a single occupational tag risks not only oversimplification but serious error. A better understanding of the development of Newcastle illuminates one path to development that was followed in early industrial England. Along with the surrounding coalfields, Newcastle saw the *first* path to industrial development; but it was not the *only* path, nor was it a template for others to follow directly. The unique growth of Newcastle was shaped by a medieval inheritance that sometimes seemed to hold it back, and occasionally pushed it on. The later industrial capitals of Liverpool, Manchester or Birmingham had no such inheritance. In trumpeting the discovery of England's 'Indies', the poet John Cleveland identified with a national current of curiosity about what was happening in Newcastle; and despite countless books and articles on the nineteenth-century workforces and communities of the Lancashire cotton mills or Victorian London, we have moved only a small distance in understanding this northern industrial city.[13] It is for this reason that the present study offers no overarching 'model', based on what has been found in Newcastle, that seeks to explain all industrialisation in all places. Rather, the best work to come will be in putting together the patchwork of different experiences in a variety of towns and communities. These can only be revealed by empirical studies of the people who lived in them.

Thanks to an abundance of source material, as well as its centrality to the expansion of Britain's economy, the study of London's society remains streets ahead of any other place in the country. Newcastle, as this study has shown, had similarities and overlaps with areas of London and other English and north-western European towns; a rich vein of work reveals such similarities within individual countries and economies, and across international borders.[14] It is worth remembering at a time when 'Atlantic history' history is in vogue, and commonalities and connections with the American colonies are emphasised, that for many British people – including those of Newcastle upon Tyne – the fortune to be made overseas was in the Baltic rather than in Boston. This connection was all too real for the Dutch and German traders who wound up in All Saints' graveyard, and equally for Newcastle's merchants who lived and died in foreign ports. The opportunity to earn a living drove all ranks of early modern people to travel astonishing distances and to place themselves in financial and physical peril. It is only right that work should remain central to the way we conceive of early modern society.

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[13] See Chapter 2.
[14] See in particular the work of the Leicester University Centre for Urban History <http://www2.le.ac.uk/departments/urbanhistory> and the University of Antwerp *Centrum Statelijke Geschiedenis* <http://www.ua.ac.be/main.aspx?c=.CSG>

Appendix I: Newcastle parish register database

This project has been constructed around a database of a number of documents relating to the population of Newcastle, and particularly of All Saints' parish. At the heart of this are the parish registers, which ideally give a record for the baptism of each child in All Saints' over the century, and the occupation of their father at the time. The data are presented as a Microsoft Access (2010) relational database (.accdb) on the CD attached. The Newcastle parish register database is referenced throughout as 'PRD' along with the table or query which offers the simplest way to access the data. Individual 'records' – i.e. rows in a table, most frequently the record of an individual baptism, father, or hearth tax entry, depending on the table – have their own identifiers and these are referenced as well.

The tables are as follows:

Tables	Contents	Sources
ASBap	All Saints' baptism register, 1600-1720	TWA MF 249-50
ASBur	All Saints' burial register, 1600-1700	TWA MF 249-50
Fathers	Linked fathers from All Saints' baptisms	ASBap
HTaxAS, HTaxNcl	1666 Hearth Tax data, All Saints' and all 4 parishes	TNA E 179/158/104
LifeCyc	Sample of 200 fathers for life cycle analysis	ASBap, ASBur
PRaddr	Addresses and occupations from all 4 parish registers, 1700-5	TWA MF 249-50, 263, 279, 258
Prob	Newcastle probate, linked with ASBur	Durham Inheritance Database
ProbSample	Probate sample including presence of selected goods	Prob, DPRI/1/
SNSample	Same name analysis sample (see ch. 3)	ASBap, ASBur

Within each table are a number of 'fields' (columns) and 'records' (rows). The fields have been defined to capture as much information from each record as possible, and they have been given self-explanatory names. There are a number of important relationships between these tables, which allow data to be searched across more than one table. The usual procedure was to take the 'key field' (or 'unique identifier') from one table and copy it into another, in order to create a relationship between the two tables that can call on a single record from the first table. Tables containing record linkage (chiefly HTaxAS and Prob) include the key from another table and a 'notes' column that indicates where the links are more or less uncertain, sometimes with a short note explaining the reasoning. The various

database queries are all based on the relationships between these tables. Qwealthstat (wealth and status) links the probate and hearth tax elements with occupations from baptisms and burials – analysis in Chapter 6. Others are 'total' queries, which provide totals and averages for different groups of variables. Other calculations were made by exporting the data from queries to SPSS (IBM's Statistical Package for the Social Sciences) which is considerably more flexible and powerful.

Appendix II: Occupation codes

The sources and rationale for this coding are outlined in Chapter 3, section 1.

Code	Main groups	Subgroups	Occupations
1000	*Primary*		
1101		extractive	collier, overman, pitman, quarryman, sinker
1102		agriculture	farmer, husbandman
1103		fishing	
1104		pastoral	connyman, herdman
2000	*Manufacturing, labour & transport*		
2100	manufacturing		
2111	generic	generic	apprentice, journeyman, wright
2121	wood	carpentry	blockmaker, cabinet maker, carpenter, carver, joiner, pulleymaker, turner, wheelmaker, wheelwright
2122		cooper	cooper, wine cooper, corkmaker
2131	building	building	bricklayer, brickmaker, housecarpenter, housewright, locksmith, mason, painter, paver, plasterer, slater, slater & bricklayer, tilemaker, waller, wright
2132		glass	broadglass maker, glassfounder, glass gatherer, glassmaker, glassworker, worker at the glassworks, glazier
2141	metal	metalwork	armourer, buttonmaker, cutler, cutler of swords, pewterer, plumber, sinker, tinker
2142		smith	blacksmith, farrier, locksmith, smith, whitesmith
2143		precious	goldsmith, silversmith
2151	food	food ingredients	miller, mealmaker, maltster, maltman, salter
2152		final product	baker, baker & brewer, brewer, butcher, butterman, cheesemonger, distiller, fishmonger, innkeeper, salter, stiller
2153		specialist	confectioner, sugar baker
2161	textiles	textile & cloth	clothmaker, dyer, feltmaker, fuller, knitter, silkweaver, teaser, weaver, whitener, yarn worker
2162		clothing	buttonmaker, bodymaker, tailor, clothier, embrodierer, hatter, haberdasher, hosier, upholsterer, wigmaker
2171	leatherwork	leather	corver, currier, glover, skinner, skinner & glover, tanner
2172		final product	cobbler, cordwainer, shoemaker, translator
2181	shipbuilding	shipbuilding	anchorsmith, blockmaker, boatmaker, boatwright, pulleymaker, roper, sailmaker, shipbuilder, shipcarpenter, shipwright
2191	misc	household	basketmaker, bolsterer, bookmaker, chandler, clockmaker, corver, gluemaker, jackmaker, pipemaker, piper, potter, saddler, tallow chandler
2192		medical	apothecary, barber, barber surgeon
2200	transport		
2201		coal transport	boatman, keelman, shovelman, skipper of a keel, skipper, staithman, waterman

Code	Main groups	Subgroups	Occupations
2202		other transport	barge steerer, bearer, carriageman, carrier, carter, cartman, mariner, master & mariner, marshal, porter, sailor, water carrier, wherryman
2300	labour		
2301		manual labour	labourer, workman
3000	*Retail/professional/service*		
3100	merchant		
3101		coal merchant	fitter, hostman
3102		merchant	boothman, draper, merchant, merchant adventurer
3200	other		
3201		law	attorney, attorney at law, barrister-at-law, beadle, counsellor, lawyer, notary public, scrivener, sheriff bailiff
3202		retail	bookbinder/seller, chapman, cheesemonger, coffeeman, innkeeper, ironmonger, pedlar, stationer, smoke seller, tobacco, vintner
3203		customs	customs officer, customer, excise man, gauger, landwaiter, metter, searcher, tidesman, water bailiff
3204		administrative	alderman, bellman, clerk, parish clerk, scribe, surveyor, sword-bearer, town clerk
3205		physician	doctor of physic, physician
3206		household service	cook, gardener, servant, steward
3207		military	king's service, lieutenant, sergeant, sea soldier, soldier
3208		music	dancing master, drummer, fiddler, minstrel, music teacher, musician, trumpeter
3209		religion & education	buckle beggar, gravemaker, limner, minister, pastor, pedagogue, preacher, schoolmaster, Artist in Arethmat
4000	*Other*		
4001		status	baronet, esquire, gentleman, knight, master, yeoman
4002		cottager	cottager, coteman
4003		female	singlewoman, spinster, widow
4004		poor	alms/beggar/poor, blind, mendicant, pensioner
4006		illegible	
4007		unknown	
4008		blank	

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