



University of HUDDERSFIELD

University of Huddersfield Repository

Atkinson, Paul David

Cultural Causes of the Nineteenth-Century Fertility Decline: A Study of Three Yorkshire Towns

Original Citation

Atkinson, Paul David (2010) Cultural Causes of the Nineteenth-Century Fertility Decline: A Study of Three Yorkshire Towns. Doctoral thesis, University of Leeds.

This version is available at <http://eprints.hud.ac.uk/10290/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

<http://eprints.hud.ac.uk/>

Cultural Causes of the Nineteenth-Century Fertility Decline: A Study of Three Yorkshire Towns

Paul Atkinson

Submitted in accordance with the requirements for the degree of Doctor of Philosophy

The University of Leeds

School of History

July 2010

The candidate confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others.

This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

Acknowledgements

I am grateful to the researchers, archivists and librarians who have been generous with their time and advice during this study. Among them I include my fellow-students. It would be unfair to single some out for special mention, with the exception of my supervisors. Katrina Honeyman, despite serious illness in the last few months of the study, and John Chartres, have been dependable sources of insight, challenge and good-humoured support. My family, particularly Susan, David and Laura, also deserve my thanks for their support and encouragement.

Abstract

Statistical methods have provided insight into the post-1860 fertility decline, but the deeper explanations lie in the choices of individuals, shaped by the cultures of local communities. This thesis combines the use of statistical and qualitative information, each form of enquiry guiding the other. It gains analytical strength by comparing three differing towns, Bradford, Leeds and Middlesbrough. Relationships between culture, employment, and fertility are examined by studying differences in local cultures and local labour markets, including female and child employment. The main argument of the thesis is for the impact of rising expectations about how a working-class family should live, underestimated by existing accounts. Working-class parents pursued higher living standards, not to emulate the better-off but, for example, to give their children better lives than they had experienced. To make these goals achievable, they chose to have fewer children, allowing more resources and attention for each family member. Such an explanation places a new stress on the nature of rising working-class consumption.

In all three towns, evidence is put forward for a strong growth in expectations about standards. This is demonstrated in relation to diet, housing, clothing, and leisure: the impacts of compulsory education and changing views of family life are also shown. The thesis shows that mothers and fathers came to see family limitation as a necessary part of pursuing these standards. Differences between the towns mainly reflect the varying frequency of female full-time work. Expectations of rising living standards placed the greatest pressures on working mothers, who had to pursue them by both wage labour and domestic labour. This made them the most susceptible to the appeal of family limitation. The study also shows, however, that fathers too had incentives to family limitation, which previous studies have underestimated.

For sources, qualitative evidence comes from cheap local newspapers with a substantial working-class readership. These new sources make evidence available which has never previously been used in research into the fertility decline. This is also true of the Bradford and Middlesbrough oral history collections used here. Materials in the Burnett Archive of Working-Class Autobiographies at Brunel University are also utilised. Use is made, too, of advice literature directed at the working class of the three towns, and reports of social conditions by, for example, doctors and social reformers. These materials are combined with quantitative evidence from the registration of births, Census Reports, Parliamentary Papers, and the Census Enumerators' Books.

This thesis is significant because it is one of a surprisingly small number of studies which investigate the cultural causes of the fertility decline, a need identified by leading researchers. By placing attention, as it should, on the behaviour of the majority rather than better-researched elites, the thesis brings new sources such as cheap newspapers into the study of the fertility decline. Above all, its description of rising expectations about consumption and their impact sheds new light on the causes of the fertility decline, drawing attention to the adoption by working-class people of more demanding goals for the quality of family life, which they met with a shift to smaller families.

Contents

Abstract	3
List of abbreviations	6
1. Introduction	8
2. Thinking about fertility and culture	13
3. Bradford, Leeds and Middlesbrough: fertility and society	54
Appendix 1: Description of the analytical work on the 1881 CEBs	107
Appendix 2: Preparation of the Cost of Living Series	115
4. Consumption aspirations and their impact on fertility	118
5. Perceptions of education and their impact on fertility	179
6. Changing identities, personal relationships and fertility	203
7. Conclusions	228
Bibliography	273

List of abbreviations

AHRC	Arts and Humanities Research Council
AWN	<i>Armley and Wortley News</i>
BA	Bradford Archives
BAWCA	Burnett Archive of Working-Class Autobiographies
BCL	Bradford Central Library
BDT	<i>Bradford Daily Telegraph</i>
BO	<i>Bradford Observer</i>
BHRU	Bradford Heritage Recording Unit
BL	British Library
CBR	Crude Birth Rate
CEB	Census Enumerator's Book
CFU	Conjugal Family Unit
DG	(Middlesbrough) <i>Daily Gazette</i>
EG	(Middlesbrough) <i>Evening Gazette</i>
ESRC	Economic and Social Research Council
FM	Fertility Monitor
GIS	Geographical Information System
GRO	General Register Office
GRR	Gross Reproduction Rate
HMSO	Her Majesty's Stationery Office
INED	Institut National d'Études Démographiques
IUSSP	International Union for the Scientific Study of Population
IZA	Institut zur Zukunft der Arbeit
LA	Leeds Archives
LBN	<i>Laisterdyke and Bowling News</i>
LCL	Leeds Central Library
LE	<i>Leeds Express</i>
LEE	<i>Leeds Evening Express</i>
LI	<i>Leeds Intelligencer</i>
LM	<i>Leeds Mercury</i>
LUL	Leeds University Library
LWE	<i>Leeds Weekly Express</i>
LWRE	<i>Leeds and West Riding Express</i>
MCL	Middlesbrough Central Library
MOH	Medical Officer of Health
MS	manuscript
MWN	<i>Middlesbrough Weekly News</i>
NEDG	<i>North Eastern Daily Gazette</i>
NEWG	<i>North Eastern Weekly Gazette</i>
NSPCC	National Society for the Prevention of Cruelty to Children
NWG	<i>Northern Weekly Gazette</i>
OPCS	Office of Population Censuses and Surveys

RD	Registration District
RM	(Middlesbrough) Recorded Memories
SD	(Registration) Sub-District
SOAS	School of Oriental and African Studies
TA	Teesside Archives
TPFR	Total Period Fertility Rate
TS	typescript
WG	(Middlesbrough/North Eastern) <i>Weekly Gazette</i>
WYAS	West Yorkshire Archive Service
<i>YEP</i>	<i>Yorkshire Evening Post</i>
<i>YP</i>	<i>Yorkshire Post</i>

Introduction

Between 1860 and 1920, fertility and family size in England declined in a momentous way. While families reaching completion in the 1860s typically had about five children (of whom an average of 3.5 survived long enough to start their own families), completed families in 1910 averaged 2.5 children, nearly all of whom survived.[1] These changes reversed the historically high fertility rates of the late eighteenth and early nineteenth centuries and began a fall in birth rates which continued until the nineteen-thirties. They were a phenomenon with important social consequences. The proportion of the population under the age of fourteen fell from thirty-five per cent to twenty-five, so that there were fewer dependent children for each economically active adult, and more resources to go round.[2] This appears to have been one of the main reasons why children's health and welfare improved so notably in this period: adults also benefited from the reduced pressure on resources.[3] Experiences of family life became more homogeneous as a much larger proportion of children grew up with only a small number of siblings, whereas in the 1870s, for example families with eleven or more children contained a quarter of all children born.[4] In place of this mid-Victorian diversity, by 1920 most young adults were reaching maturity with similar expectations of what family life would, and should, be like.

Attention has been given to the reasons for this fertility decline ever since it was first observed by contemporary writers. Most modern scholars agree that there was no simple explanation, and the search for answers continues. This has not prevented some general histories of the later nineteenth century from taking a rather mechanistic approach to the fertility decline which relies on models already discarded by the demographic historians, or else simply neglecting its importance for social and cultural history. The present study came to the subject of fertility by a slightly roundabout route: beginning with an interest in working-class experiences of health care, it then focussed on the changing experience and social meanings of childbirth, which led to the oral history sources now used. At the same time as the absence of a compelling research question in this field was becoming problematic, two discoveries led to the focus on fertility and to the study's main hypothesis. The first was De Vries' well-argued but provocative claim that 'breadwinner-homemaker households' were best for family welfare in the late nineteenth century, with its focus on the meanings of consumption.[5] The second was attendance at a conference of the Local Population Studies Society which showed the potential power of both Census and newspaper sources for investigating local cultures. Taken together, these experiences provided a new way to look at the fertility decline and a set of techniques for testing its validity.

The value and relevance of this study lie in four areas. First, it is an exploration of the changes in cultures which led growing numbers of women and men deliberately to limit their fertility within marriage. Previous research has shown that statistical aggregates can only tell so much: ultimately, demography happens at the level of individual decisions about sexual behaviour and fertility, and these are the results of individual perceptions which are shaped by prevailing cultures. Recent writers have emphasised the need to give centre stage to culture, rather than ever more sophisticated statistical analysis of demographic data, in order to examine the most

interesting problems about the origins of the fertility decline. In the words of one, scholars must 'think beyond the bounds set by disciplines back into the minds of their ... Victorian ancestors.'^[6] For example, demographers have begun to see changes in fertility as at least partially produced by changes in the socially constructed meanings of sexual behaviour.^[7] There have been surprisingly few studies which attempt such an interdisciplinary approach, however.

Second, the study focuses on the cultures of the working-class majority rather than on elites. It is important to get back to writing the history of the lives of the majority. Developments in historiography since about 1980 have had a tendency to move away from this, for example because the 'linguistic turn' led to concentration on the people who left the most written records available for textual analysis. If history is about 'how we got here', then it needs a focus on the lived experiences of the majority as well as on public affairs and elites. Most people in this period described themselves as 'working-class', so understanding whole population aggregates involves understanding trends in the working class. To write history in this way is also to affirm the agency – and historical importance – of 'ordinary' individuals, against the tendency to regard them as passive recipients of whatever came their way.

Third, this thesis presents significant new findings which call for some reinterpretation of the causes of the fertility decline. Alongside existing explanations such as the rising net cost of childrearing resulting from mass education and delayed entry into the labour market, it offers the new insight that the rising expectations about how a working-class family ought to live, largely fuelled by growing working-class self-confidence and assertiveness, were a major factor in the fertility decline. These expectations would have been unachievable with the large families of the early nineteenth century. The study shows how men and women responded to this increase in the perceived costs of childrearing by deciding to have smaller families in which each member could have more resources and attention.

Fourth and last, the study makes use of new sources which have hardly ever been previously exploited for research, in particular a group of cheap local newspapers, much less well-known to historians than the *Leeds Mercury* or the *Bradford Observer*, which were read by, and targeted at, the working class or at least a substantial element of it. These new sources make evidence available which has never previously been used in research into the fertility decline. The same point can be made of the study's use of Bradford and Middlesbrough collections of oral history testimony made in the 1980s.

The study is a comparison of three northern towns, Bradford, Leeds and Middlesbrough.^[8] These were selected because they were large centres of population, meaning that their characteristics would have a significant impact on aggregate fertility at a higher, even national, level. (Leeds and Bradford were both among the ten largest towns in England and Wales at this period.) While it is not possible to claim that they were representative of the whole country, they stand for one important segment of its population. Secondly, the three towns were quite diverse in their economic, social and cultural characteristics, and in their fertility experience, as chapter three will show. Their selection therefore allowed useful comparisons to be drawn, helping to identify factors which were major influences on fertility. The diversity of the three towns also meant that findings which were common to all three were more likely to be generalisable to other English towns.

The study begins in 1860 because the 1860s were the last decade before local aggregate birth rates started to decline, before legislation on universal education, and before the key economic changes began which John Clapham described as the ‘gigantic hinge’, shifting the distribution of employment and wealth in England from northern industry to southern international commerce and banking.[9] The 1860s are therefore the last decade before important changes set in. The arguments for closing in 1920 are less strong, since the fertility trend resumed its downward trajectory after this. 1920 has been selected to exclude the period of the postwar collapse of staple industries, which brought new social changes.

The study represents a dialogue between the quantitative study of information about birth rates, employment, and real wages, and the qualitative study of cultural phenomena such as diets, clothing, and attitudes to childrearing. Carus and Ogilvie have recently described this approach as the micro-exemplary method.[10] The approach is dialectical, in the sense that examination of one type of evidence raises questions which need to be answered by examination of the other type, in an iterative process. In this study, quantitative evidence came principally from national records of the registration of births, from the Census Reports of 1861 to 1921, from Parliamentary Papers, particularly of labour statistics including wages, and from the (digitised) local Census Enumerators’ Books (CEBs) for 1881. Qualitative evidence came from the newspaper and oral history sources already mentioned, working-class autobiography, advice literature directed at the working class of the three towns and reports of social conditions by, for example, doctors and social reformers. The merits of each kind of source and the use made of it are discussed in chapters three (for the quantitative material) and four (for the qualitative).

The thesis is structured as follows. Chapter two introduces the concepts necessary in this study. It reviews the literature on the fertility decline, and sets out some new interpretations of its causes, introducing the central idea of rising expectations about living standards, and discussing the literature on the history of consumption which contributes to this insight. Chapter three highlights relevant features of the local economy, society and culture in each place, before moving into the detailed exposition of quantitative material which sets out the contours of the fertility decline in the three towns selected for study, reporting on the calculation of local birth rates, and then on investigations into male, female and child employment, wages and the discovery of local trends in real wages. Chapter four presents qualitative evidence for rising expectations about how a working-class family ought to live, in the fields of material living standards and leisure. Chapters five and six develop this theme further with special reference to the perceived needs of children. Chapter five concentrates on the impact of the extension of education, and also discusses the effects of the waning of child labour. Chapter six widens the discussion to take in the impact on fertility of changing ideas about the nature of childhood and family life, which made bringing up a family more demanding. Chapter seven draws together the findings of this study and discusses their implications, considering in turn how different the towns’ fertility experiences were, the relative importance of economic and other underlying causes, chronology, including the time-lags with which different processes produced a decline in fertility, methodological lessons learned from this study, and directions for further research.

Thinking about fertility and culture

This chapter introduces the concepts necessary in this study. The study bridges the gap between two fields, demographic history and cultural history. In this chapter, the literature of each is examined in turn for its relevance to the late nineteenth-century fertility decline, and more particularly its manifestation in urban northern England. This survey demonstrates what the current literature can explain, some of its limitations, and the opportunity which these create: an opportunity to add to the understanding of the fertility decline by exploring its cultural origins. This chapter is more than a literature review in the strict sense: it both reviews the literature relevant to cultural explanations of the fertility decline, and proposes some new interpretations of its causes for subsequent testing. Specifically, the chapter introduces the role of rising working-class expectations about living standards, which play a central part in the study.

The demographic literature demonstrates how the ever greater refinement of statistical methods always falls short of its goal of explaining the fertility decline. A good example is Minoru Yasumoto's demographic study of Leeds in the earlier nineteenth century, which proceeds entirely by the statistical analysis of vital events and address data, and can offer only the most limited explanations for the trends which it finds.[11] Meanwhile, the cultural history literature has almost completely overlooked the connection between rising working-class expectations about living standards and family limitation. The need is for studies which combine the demographic and cultural approaches in a dialectic fashion.[12] It is true that there have been many of these since Peter Laslett and John Harrison wrote about population and family in Clayworth and Cogenhoe in 1963.[13] However, as the survey in this chapter will show, there is no study of the later nineteenth-century fertility decline which adequately addresses the impact of rising expectations. The present work steps into this gap.

I

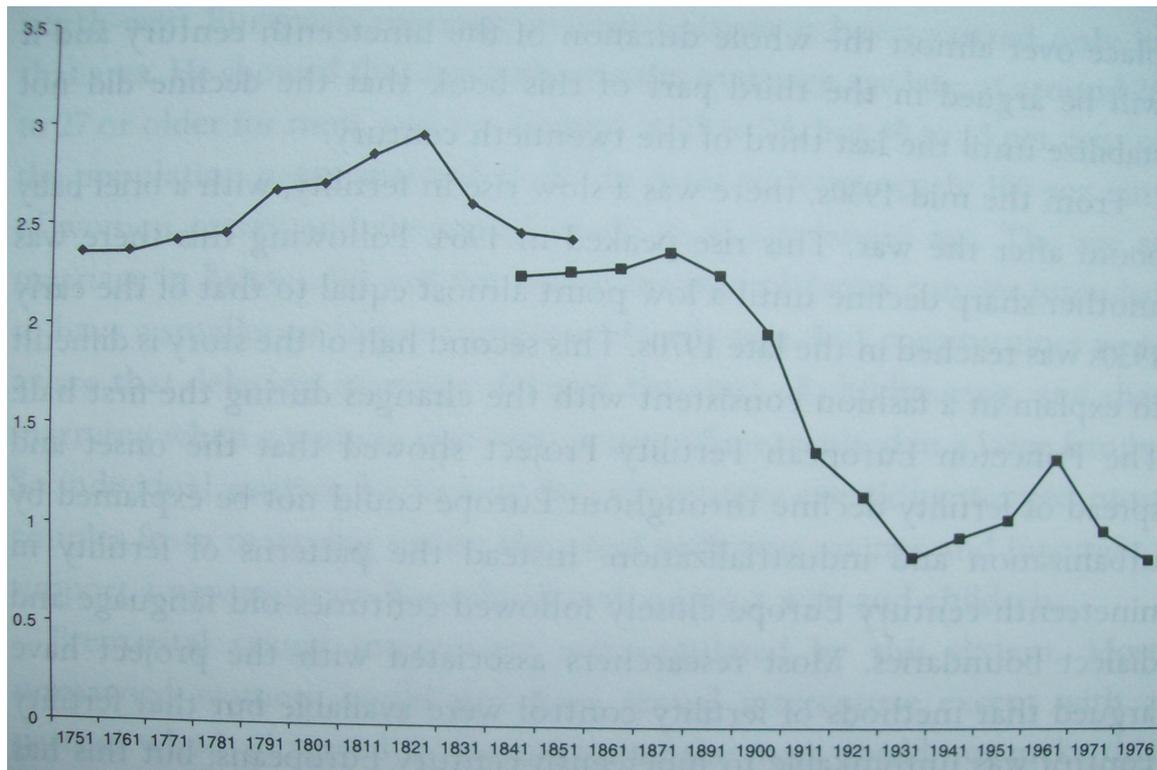
There is a large literature about the demographic history of England in the nineteenth and early twentieth centuries: the secular decline in fertility was so striking that it attracted attention even while it was still taking place.[14] Those with a mainly statistical approach have been eager to establish exactly what the trends in births, deaths and marriages were ('vital events in the demographers' terminology); historians more interested in interpretation have discussed both *how* couples could have reduced their marital fertility and *why* they did so when they did. The second question is proving particularly difficult to resolve. As Bob Woods observed in 1992, 'hypotheses abound, but the evidence remains tantalising in its vagueness and insecurity.' [15] In 1971, John Habakkuk could write that we knew little of the chronology of the 'small planned family...the methods by which it was effected, and about its fundamental causes.' [16] The survey of demographic history sources with which this chapter begins will adopt his threefold division, starting with the chronology. It will then look at fundamental causes because these are logically prior to methods. Some of the historiography has unhelpfully concentrated on methods and fallen into an assumption that women and men must always have wanted smaller families. Nevertheless, for an underlying motive, once established, to turn into actual family limitation, an effective

method must be available, so the discussion of demographic sources will conclude by confirming what is known about the availability and acceptability of means of family limitation.

Substantial progress is being made in the reconstruction of a chronology of fertility, and this helps the sifting of different explanations by winnowing out those producing different fertility patterns from the ones now reconstructed. Before the modern rise of computing in historical research, the use of record linking to reconstitute the vital events of past families ('family reconstitution') was almost prohibitively time-consuming, and in 1984 Michael Teitelbaum was pessimistic about the prospect of being able to study vital events at a level below the aggregated tables produced for counties by the Registrars General.[17] Today, however, researchers can have considerable confidence about the chronology of the English fertility decline, if not about the answers to Habakkuk's two deeper questions. The use of computers has permitted the linking of birth registrations to particulars of the mother and father held on other documents, at a scale which allows powerful analytical methods including family reconstitution to be employed on a scale which offers insight into entire communities of substantial size, rather than, as in the 1960s, Laslett's small settlements of Clayworth and Cogenhoe. The leading role in this kind of study has been played by the ESRC Cambridge Group for the History of Population and Social Structure.[18]

This research indicates that fertility in England and Wales peaked around 1815-1820, declined sharply in the 1820s and 1830s before slowing up and then rising gently until the 1860s or 1870s. After this it fell to levels never before seen, reaching a minimum in the 1930s. Figure one illustrates this long-term trend by showing the gross reproduction rate (the number of daughters born per woman). Thus the aggregate fertility decline can be dated, according to preference, from about 1820 or about 1875, but both are genuine turning points in the long-term trend. As will be discussed below, however, the England and Wales aggregate masks a fractured and complex picture once it is broken down either geographically or occupationally.

Figure one: Gross Reproduction Rate, England and Wales, 1751-1976



Source: Hera Cook, *The Long Sexual Revolution: English Women, Sex and Contraception 1800-1975* (Oxford: Oxford University Press, 2004), p. 15.

II

Leaving aside for the moment Habakkuk's second question, of 'the methods by which [the] small planned family.... was effected', what is known about his third: *why* fertility declined when it did?[19] This is the hardest of the three questions, and some remain pessimistic about answering it. According to Woods, 'we lack ways of investigating motivation', which will of course have varied between individuals: Roderick Floud noted 'the difficulty of establishing the reasons for a myriad decisions'.[20] The approaches which historians have taken to resolving these difficulties can be categorised as demographic, economic and cultural.

In the face of the current problem, however, there is a general recognition, even from accomplished users of demographic methods such as Teitelbaum, Woods and Simon Szreter, that a cultural approach is needed as well.[21] The method described by Carus and Ogilvie in the article already cited as 'micro-exemplary' is particularly suitable, and examples will be encountered later in this chapter. The approach involves bridging the gap between 'materialism', in which the past is mined for data to be interpreted using modern concepts, and 'historicism', in which the words of the actors of the past are interpreted using ideas with which they were familiar. In the micro-exemplary approach, the definitions of terms used in quantitative analysis are chosen to be as close to contemporary meanings as possible, so that the analysis can inform, and be informed by, the study of as much qualitative information about the social unit being

studied as possible.[22] The present study is too large-scale to be truly a micro-exemplary one, in which much more detail about smaller communities would be used, but it brings together quantitative and qualitative material in the same spirit, allowing the quantitative material to raise issues (such as the different rates of decline in birth rate in different towns, and the very high proportion of married couples moving out of parental homes immediately), which the qualitative data alone would never have revealed.[23]

As already observed, getting a better picture of demographic trends aids their interpretation by sifting out some hypotheses and supporting others. One of the most useful tools here has been to establish logical and numerical relationships between different components of the fertility decline: a 'systems model'. Figure two summarises a widely accepted approach. The figure follows Malthus in proposing that in addition to 'positive checks' on population growth (rising mortality resulting from starvation), 'preventive checks' may also operate through the impact of falling real wages on marriage rates and fertility.[24] The causal pathway for these preventive checks is marked in bold. A plus sign indicates a positive effect (for example rising population leads to rising food prices, because of increased demand), and a minus sign a negative effect (for example rising food prices lead to falling real wages). The figure is not a closed system, and arrows suggest the importance of external influences on, for instance, marital fertility. Marital fertility is defined as the ratio of live births to married women divided by the number of married women. Nuptiality is the proportion of women who are married. This systems model provides a logical structure for examining how different components will behave in response to an external stimulus. The three components of most interest for the study of England between 1860 and 1920, nuptiality, marital fertility and overall fertility, are highlighted in bold.

Figure two: A model of a demographic system

After Woods, 'Population of Britain' and Wrigley, 'Malthus' Model of a Pre-Industrial Economy' in Jacques Dupâquier, Antoinette Fauve-Chamoux and Eugène Grebenik, eds, *Malthus Past and Present* (Academic, 1983)

For England and Wales, it is possible to simplify the model by excluding extramarital fertility in

this period, when illegitimate births were never more than 6.4 per cent of total births, and the fall in total births was many times greater than the total number of illegitimate births.[25] Changes in overall fertility were therefore the result of changes in either nuptiality or marital fertility.

Which of these was more influential? Commentators think that any change in nuptiality was relatively unimportant between 1860 and 1920 (though it may have been the dominant influence on England's population history at most earlier dates). If the years affected by the First World War are excluded, the Crude Marriage Rate (CMR) for England and Wales varied only within the range of 14.5 to 17.5, and it is higher between 1895 and 1914 than throughout the 1880s, while the crude birth rate is lower. If nuptiality affected total fertility, its effect must have been both small and complex. It follows changes in marital fertility were the main cause of the fertility decline.

Discussion should therefore turn to possible reasons why couples might have chosen to limit the size of their families. The standard account of a 'demographic transition' finds little favour among recent writers. It is essentially an idealised description of a so-called, in which there are three phases. This proposed a move from a situation of high birth and death rates to one where both rates are much lower, with prior reductions in death rate due to better living standards removing the necessity for so many children in order to sustain family survival.[26] By the 1980s, demographers were setting the demographic transition model aside, at least in its simpler forms, and commentators have rejected this account as far as England is concerned because fertility decline set in before the largest fall in child mortality, and before *any* fall in infant mortality.[27]

As an example of a newer approach, David Levine very much adopted the micro-exemplary method in his studies of family formation and social change in the villages of Terling and Whickham, published between 1977 and 1991.[28] Levine's work, summed up in his *Reproducing Families*, emphasises the autonomy of working-class parents' decisions to limit their families. For Levine, these parents were seeking to manage their relationship with a changing (and for him, more threatening) economic environment, in ways which would maintain respectability and prevent family breakup. Levine's contribution in redefining respectability as something autonomously generated, rather than the mere desire for middle-class or official approval, is an important starting point for the present study. This search for respectability fitted well into the broader picture, being painted at the time by labour historians such as Eric Hobsbawm and Standish Meacham, of a 'remaking of the English working class' from the 1870s onwards.[29]

One problem with the Levine approach, however, is its continued reliance on one overarching cause for the fertility decline wherever it was witnessed – this despite the sophistication of his analysis of local conditions. Wally Seccombe, a colleague of Levine's, placed a similar stress on respectability, but was more willing to regard it as generated by imitating those higher in the social scale. Placing his emphasis on women's motivation to limit family size, with some stress on their growing fear of the health consequences of repeated pregnancy, Seccombe argued that the critical point in declining fertility came when husbands began, late in the nineteenth century, to comply with wives' wishes.[30] These arguments of Levine and Seccombe are used, somewhat uncritically, by Karl Ittman in his work on the fertility decline in Bradford which is discussed in chapter three.

Most recently, researchers such as Eilidh Garrett, Dennis Mills, Barry Reay and Kevin Schürer have taken the extraction of information from Census returns and birth registration further.[31] Many of these studies have adopted the micro-exemplary method described by Carus and Ogilvie. This has allowed them to produce important new work, such as Reay's move beyond family reconstitution by the use of court, school, tithe, newspaper, poor relief, probate and Census records, injecting some 'class analysis and cultural context' into his picture.[32] He also used oral history. The use of the Census as a tool for research, which had gone into something of a decline since the 1980s, is now making a recovery, thanks in part to the efforts of the Local Population Studies Society, documented in their journal *Local Population Studies*. The Society also publishes collections of essays periodically: Dennis Mills and Kevin Schürer have published one such volume which contains good examples of use of the Census in this way.[33]

Demographic history, then, has begun to move beyond the demographic transition model of fertility decline, which treated 'modernisation' as a single and sufficient cause. It has been more difficult, but just as important, to leave behind condescending 'diffusion' theories of fertility decline. Most early descriptions of the working-class part in the fertility decline were diffusionist, taking it for granted that they would emulate the behaviour of their superiors. Commentators noted that the fertility of the upper classes was declining, then noticed a fall in working-class fertility, and finally assumed not only that this had come later, but also that it was a result of emulation, also described as diffusion.

Stevenson's *Fertility of Marriage* survey, commissioned as part of the 1911 Census in response to anxieties about the falling birth rate, is a key document for this point of view, although its division of society into a particular 'professional' classification (also used from 1911 onwards in other official statistics), and its ideas about the relationship between class and fertility, were not new.[34] On the contrary, they dated back at least to the 1870s and the work of Francis Galton and Charles Roberts.[35] Critically, Stevenson's work created – or at least helped to reify – the assumption that social class rested on male occupation and thus that any potential correlate of social class, for example fertility, also rested on male occupation. Szreter dismisses these views as a 'banal combination of unexamined, conventional social presumptions [which] the liberal, classically educated upper middle class had since mid-Victorian times found so congenial. [These were] insidiously reified into a naturalistic theory of British society's essential structure.' [36] Stevenson nevertheless made an enormous contribution to the understanding of links between occupation and fertility.[37]

Most demographic historians since Stevenson's time have been content to share his interpretation that family limiting behaviour was diffusing downwards across boundaries of social class. For example in 1936 the American medical sociologist N. E. Himes stated that diffusion was 'what one would expect. The upper classes are, on the whole, more intelligent. They have more foresight and probably more personal ambition. As with mechanical improvements newly placed on the market, the lower classes ape the upper classes. In the masses, strongholds of the mores, there are more impediments to the prompt adoption of improved contraceptive methods.' [38] Chapters three and seven, however, will show how these assumptions, both as to chronology and to causation, were wrong, at least in the case of the places and period studied here.

The emulation or diffusion hypothesis was hugely influential and is often quoted today by non-

experts as a kind of self-evident wisdom. Diffusion became incorporated into demographic transition theory, although F. W. Notestein, the theory's leading proponent, avoided suggesting that it was merely the knowledge of contraceptive practices which had to diffuse. Recognising that a great deal of such knowledge already existed worldwide, Notestein's account concentrated more on the diffusion of new ways of thinking, which provided new motives for family limitation. This led the way to theories of diffusion in the 1940s and after which took a more multi-causal approach in place of the earlier focus on contraceptive knowledge.[39] This recognition of prior knowledge about *how* to limit family size, and the corresponding switch to an emphasis on *why*, is an insight whose value continues.

In Britain, the work of Joseph and Olive Banks has been a particularly influential source of diffusionist ideas. The Banks worked on the middle classes and developed a sophisticated account of their limitation of family size, which argued that their competitive consumption and ever-higher aspirations, coupled with challenges to their incomes in the so-called 'Great Depression' of the 1870s, made them see large numbers of children as too expensive. The suggestion was then that working-class women and men emulated this behaviour.[40] The demographic evidence now suggests the opposite. Evidence that the fertility of some working-class groups was declining as early as that of the middle classes shows that it had independent causes rather than following a model set by others.[41]

One of Szreter's most important contributions has been to challenge this diffusion consensus, using a re-analysis of Stevenson's data with better statistical techniques.[42] Stevenson argued that his data showed the spread of the use of barrier contraception, because they demonstrated the spread of 'stopping' behaviour, which he saw as evidence for the use of contraceptives. Szreter shows instead that Stevenson's data actually illustrate (at least, in the subset which can be interrogated in the necessary way – those for women under forty-five) 'spacing' behaviour. Pointing out that spacing correlates in the 1911 Census with late marriage, he concludes that it was produced by a wider set of beliefs promoting sexual continence or abstinence, discussed later in this chapter. Such beliefs promoted restraint at all stages of a marriage, not only stopping after the birth of, say, two or three children.[43] These beliefs were widely held by people of all classes, and following them to limit family size by abstinence or withdrawal did not require knowledge of, or access to, contraceptives. There was nothing which had to diffuse before working-class fertility could fall.

This leaves Szreter in need of a different explanation for the occupational variations in fertility, and he provides this in the form of variations between occupations in the ability or willingness of husbands to take account, in their sexual behaviour, of their wives' points of view. Szreter's argument is that different communities – 'communication communities' in his terms – varied in the extent to which men and women communicated with each other and shared the language and common assumptions which made this easier. Where men did heavy, dangerous work, regarded it with considerable machismo, producing a self-image of the strong, brave and hardworking provider, and spent the working day in an all-male environment, they were most likely to lack the linguistic and conceptual resources for communication with their wives. Szreter finds support for this view in the work of Patrick Joyce, who has said that language was central to class identity not only through the formal channels of politics and trade unions but also in the 'often assumed and unspoken ways in which the social world is given form by people.'[44] Szreter's account of the

impact which this varying communication capacity had on the fertility of different occupations rests on the assumption that women wanted family limitation most: it would then follow that men responded to varying degrees depending on their ability to take this point of view on board. His argument is that male occupation was the main factor explaining the differences between these communities, and adds that where one occupation was locally dominant, its effect on the community was magnified because it became the main source of cultural norms for the whole community.

This account has its weaknesses. The present study asks how true it is that the initiative for family limitation must always have come from women. Another issue is that while Szreter can account for occupational differences in fertility at a point in time, it was beyond the scope of *Fertility, Class and Gender* to explain why fertility began to decline when it did in any particular location. Instead he declares the inadequacy of generalised (for instance, nationwide) accounts, and calls for local explanations based on 'the economic relationships involved, properly culturally contextualised in all their local variety [and recognised as] primarily determined by highly negotiated socio-political and ideological forces.'^[45] A third problem is that, for all his elegant dissection of Stevenson's errors, there are times when Szreter, too, writes as though male occupation was almost the only determinant of fertility, overlooking the role of female occupation and the independent contributions of other factors such as religion, migration and other aspects of local town cultures. These three problems are discussed, and new interpretations put forward, in chapter three. One enduring attraction of the 'communication communities' model, however, is that it moves attention away from a search for a monocausal explanation of fertility decline and directs it towards the particularities of different groups.

To make more progress, then, in understanding the fertility decline, it is essential to describe the motives of individuals. Demographic methods, for all their power, can only be applied to information which can be quantified. Another problem is that they operate at a high level of aggregation. The need for enough events to achieve statistical significance forces demographers to seek large groups for study. This hinders the use of the kinds of source which shed most light on individual motivations. Such sources, for example autobiographical writings or newspaper evidence for social conditions, are familiar and valuable to the social and cultural historian but impossible to integrate fully into pure statistical analysis. Much demographic history has therefore operated at a high level of abstraction, which has failed to tell the whole story of individual motivation. It was, indeed, possible as recently as 2005 for Angelique Janssens to organise a conference titled 'Were Women Present at the Demographic Transition?', although in truth the underlying problem is the absence of any individuals.^[46] Demographic historians such as Garrett and Woods acknowledged this deficit of discussion about individual motives by taking the kind of integrating approach to quantitative and qualitative data described by Carus and Ogilvie.^[47]

The issue is how individuals came to be able to change their behaviour, and before that their beliefs – the problem of agency. Carlsson described the fertility decline as 'an instance of highly significant social change through individual or at least decentralized decision.'^[48] He might have added that it was a particularly stark illustration of this much wider principle – that large-scale trends are made up of many individual decisions to change something: demography happens at the level of the individual, who marries, has sex, tries to conceive a child, or not, and does these things with a specific partner (or partners) at a particular stage in their lifecourse. The individual

either decides on some or all of these steps, or else does not actively decide, but takes these steps (or avoids them) without giving thought to the matter. Either way, all of these steps are taken by individuals. Just what individuals actually did do, and why, is essential to the understanding of demographic history, and no amount of aggregate analysis sheds enough light on this.

To adopt such a stress on individual agency and escape from the top-down, diffusionist, approach to social change, it is necessary to overcome an important objection. Cultures lay down powerful patterns for behaviour, and emphasis is often placed on the difficulty for an individual in beginning to behave in a new way. Bourdieu, for example, wrote of the 'habitus' of ideas, ways of speaking and of acting which surrounds an individual, shaping the choices it is possible for him to make.[49] Living within a particular local working-class culture, defined as the complete, orderly system of meanings that accounted for the shared life of a working-class community, how much freedom did individuals have to alter their fertility behaviour? The problem of agency, and how much it is confined by structure (in effect, culture) has received recent attention and William H. Sewell is a useful guide to this work.[50] Sewell used the work of the anthropologist Clifford Geertz to refine the idea of culture and how it provided models for life, and of another anthropologist, Marshall Sahlins, who added a historical dimension to the anthropological study of societies to provide an account of social change. Sewell also has a debt to the sociologist Anthony Giddens, for his description of how structures can be adapted by individual agency and transformed over time.[51]

The result was an account which acknowledged just how strong were the patterns which a culture laid down for its individual members, while avoiding the kind of stasis which Bourdieu feared this would create, in which the only possibility of change came from external agency of one kind or another. This is a particular risk when looking at socially subordinate groups, such as the working class, and leads too easily to the conclusion that all changes must have been worked by external forces. Structures are made up of resources and their meanings, each shaping the other. Individuals can, however, modify the structures within which they grow up and which shape their outlook, for example by changing the meanings of some of their components so that the culture of the past does not merely reproduce itself unchanged. The individual with a good understanding of the resources their social position offers and their current meanings, and the desire to innovate, has a degree of scope to do this, a scope opened up by factors such as the intersection of different structures which might contradict, and the ability to transfer meanings from one context to another. Naturally, an individual's freedom to innovate is a function of those same structures within which they live, which determine their access to resources, whether physical or, as in the case of education, human.[52] Applied to fertility change, this account suggests that a woman or a man could influence their own fertility, for example by altering the meaning of childrearing by adopting higher expectations about the physical or emotional circumstances which should surround it.

It is essential that any discussion of individual agency focusses on the working class in order to provide adequate explanations for demographic change. Since three quarters of the population were (in their own estimation) working-class, it is necessary to know about their fertility behaviour and the influences on it to make sense of population-level trends.[53] This emphasis on bringing the everyday lives of the majority back to the centre of attention calls for a narrative which interprets their lives and struggles as they themselves saw them, rather than from the

viewpoint of contemporary elites, whether sympathetic philanthropists, critical commentators or authority figures.[54]

This study therefore positions demographic events against a social and political backdrop on which the majority, who called themselves ‘the working class’, sought to negotiate a social space in which they and their families could thrive and, importantly, *advance* their living standards. The worlds of consumption, leisure, school, relationships, and employment will be discussed with reference to some of these negotiations and some working-class institutions which served to help create the desired social space: Trades Unions; Friendly Societies; the Co-operative movement and its shops; hard-won badges of respectability of all kinds; identities based on the street, the home, and the defence of the family; and the avoidance, instrumental use, mockery, or emulation of middle-class protagonists such as philanthropic visitors and health lecturers. The changing urban landscape of the late nineteenth and early twentieth century was full of both resources and dangers: the important thing in the present study is to reconstruct how working people created meanings in this landscape – bending to its demands when they were tolerable or even reasonable, as when they sent their children to school; defying its demands when they were most hateful, as when they refused to buy obviously adulterated foods or went on strike against wage cuts in the 1880s; and simply evading its demands when they were merely inconvenient, as when they ignored the ‘hard and unreal advice’ administered to them by philanthropists.[55] Kathleen Callanan Martin dissects the thinking which underlay the hard and unreal advice given to ‘the poor’ with considerable verve, but her work is an intellectual history of what the experts thought of the poor: she has relatively little on what the poor thought of the experts. The emphasis here is on this end of the relationship.

The problem arises of why there have not been more studies of this type since those by writers like Woods and Garrett in the 1970s and early 1980s. The answer must lie mainly in the turn which cultural history took at that moment, into an assumption that identities were constructed more by the language people used than by economic and social conditions, as earlier, Marxian, social historians had believed. Unfortunately, while this ‘linguistic turn’, along with the new interest in consumption and a ‘*World of Goods*’, has done the study of history many favours, it has too often directed attention away from the many towards the elite, who have left far more texts, consumed far more, and thus are altogether simply easier to study.[56] The value of the ‘linguistic turn’ to the present study is illustrated by the emphasis placed by Patrick Joyce and by Gareth Stedman Jones on the importance of language in shaping the working class rather than merely reflecting divisions already created by economic structures.[57] Similarly, de Vries’ account of consumption, discussed further below, is valuable for retaining an emphasis on the consumption of the majority rather than concentrating on the elite, while Mary Douglas and Baron Isherwood’s ‘*World of Goods*’ was a formative work for the study of consumption by proposing that it should be viewed as a way of creating meanings.[58] However, too much recent historiography has, in the trenchant verdict of Tim Hitchcock on Thomas Laqueur, ‘simply ignored the lived experience of working people.’[59]

Naturally, this historiographical direction was not welcome to all, and a number of historians such as Anna Davin, Tim Hitchcock, Jane Humphries, Leonard Schwarz and Robert Shoemaker tried to turn the tide back towards the study of ‘social history’, while taking on board what the new direction has had to offer.[60] Since the start of the new century, they have had considerable

success: Patrick Joyce was premature to write in 1995 of the 'Death of Social History'. [61] Joyce was influenced too much by the postmodernist emphasis on language, text and discourse, and exaggerated the importance of this 'ideational' world at the expense of the social and economic. Nevertheless, these recent writers of social history, while in some cases interested in demography (Humphries, for example), have tended to concentrate on earlier periods than the one studied here. They have therefore had little to say about rising working-class expectations: for example in the period 1780-1830 which is the focus of much of Humphries' work, the working class was at best realising very tentatively that it had entered a dynamic world of continual economic and social change, where one could aspire to higher living standards than one's parents. Many of the aspirations of the early industrial generations actually harked back to real or imagined lost worlds. [62] This lack of research on the later nineteenth century means that this study has the opportunity to explore an area which others have not examined, the impact of rising working-class expectations on fertility.

The present study benefits from these recent attempts to take a more open view of historical change, in which culture, 'the social', and 'the economic', interact with each other in more fluid ways, in contrast both to the old Marxian determinism (the economy produces society and culture) and to the new postmodern one (language produces society and the economy). [63] It assumes that, in the study of the fertility decline, the different patterns of historical change interact in complex rather than simple ways: economic patterns such as the widening of consumption choices and the growth in real wages, social patterns such as the evolution of new class differences in education and fertility, and cultural patterns such as the working-class search for respectability and the beginnings of disapproval of large families. For example, when the impact of consumption on family size is considered, more was going on than a growth in the range of goods on offer, opening up new consumption opportunities while calling for new expenditures. In addition to this simple model, changing cultural expectations about family life and child rearing should be acknowledged. Some of these were a good fit with the new opportunities the market offered, such as the wish for better clothes, which coincided with the availability of cheaper cotton goods, or the ever sweeter English tooth, which the market tempted with cheaper jam and golden syrup. Others fitted badly, such as the desire for a comfortable home – given the overcrowded urban housing market discussed in chapter four.

In short, goods for consumption were being given new socially constructed meanings, whether by their vendors or their consumers, whose ideas could vary by class. The work of Ben Fine and his collaborators in refining the way to study consumption has been particularly valuable in shaping this analysis. [64] They stress, for example, the importance of the particularity of different products, and different groups of consumers. Fine has cautioned that it is necessary to study any general concept such as the gendering of consumption, or the effects of advertising, in relation to specific commodities and the cultural systems to which they are attached: to think of 'systems of provision and culture and their interaction around particular commodities', and in other words to reject universalising accounts which assume – for example – that the impact of gender, or of advertising, was always similar. [65]

This part of the chapter has reviewed the reasons why women and men deliberately limited their family size, and concluded that the existing literature is not convincing enough: too often it has taken a monocausal approach, implausible in itself and in its selection of modernisation and

diffusion as key theories. This chapter has already proposed adding a new explanation based on rising working-class expectations about how a family ought to live, only achievable by reducing family size. The rest of the study will develop this theory and bring forward evidence in its support. It presents a strong case for adopting this view of the reasons why working-class families became smaller after 1875, but a certain balance is still necessary. Sex and fertility are so central to human experience that they are likely to be governed by many influences, not ruled by one alone. The weakest theories reviewed here, notably that of demographic transition, have failed to acknowledge this. The present study will avoid this mistake, and accept, like Joseph Banks, Diana Gittins and Elizabeth Roberts, that multiple factors contributed to the fertility decline.[66]

Roberts' recent contribution is particularly important, offering first-hand oral accounts of the attitudes of women in Lancashire (from Barrow, Lancaster and Preston), and a thoughtful analysis of their meaning. It is significant that this leads her to stress the emphasis placed by family-limiting couples on achieving more comfortable living standards, a conclusion similar to that of the present study. Roberts' contributions will be discussed further in the later parts of this chapter. Sally Alexander, while generally in agreement, suggests that Roberts' account of working-class custom is too static, and neglects the way education, the cinema and state interference 'broke the back of working-class custom'. Alexander is surely mistaken, though, to place this breakdown as late as the interwar years. While there was much that was static or nearly so, such as the attitudes of many men to gender relationships, there were also significant elements of dynamism such as the desire for better diets and homes, as early as the 1870s.[67] Reviewing the motives for family limitation as this section has done, then, shows that to explain demographic change it is essential to study the cultures of the working class, and to do this in ways which reveal how much agency individuals could exercise, in what ways, and with what effects.

III

It is then necessary to be sure that people could act on the motives identified: that suitable means of family limitation were available to them. Of Habakkuk's three questions about the fertility decline, the one left until last for discussion here was 'the methods by which [the] small planned family.... was effected'. [68] There is no point in constructing cultural theories about motives for family limitation if it was not a practical option. Men and women needed to have a means as well as a motive. The next section therefore considers the latest evidence about women's and men's ability to limit their fertility where they chose to do so.

In this field, as with the theories of fertility decline already discussed, there is a received wisdom which needs to be set aside. This account says that, at some point in the later nineteenth century, married couples moved directly from religious fatalism about family size to the idea of the 'small planned family'; that this strongly influenced their sexual behaviour; and that this influence took the form of the adoption of barrier methods of contraception, while the frequency of coitus remained unchanged, continuing to be governed by sexual desire alone (in some accounts, mainly male, in others, both male and female). As recent specialists in the field have shown, there is much in this account which is ahistorical, reading modern sexual preferences and attitudes to family life back into cultures which did not share them. The following discussion will review and revise this account in the light of recent scholarship.

To begin with religious fatalism, it is not necessarily true in any case that religious faith had put family limitation beyond what Coale described as the ‘calculus of conscious choice’ in earlier periods.[69] Angus McLaren has argued that attempts to control fertility have been made since ancient times, and were in fact widespread in early modern England, for example by the use of abortifacients.[70] The problem with the Coale (or, more generally, Princeton) view was that it equated birth control with the specific practices of couples in western countries since 1945, for example setting the goal of a target family size and the use of barrier methods of contraception. Defining birth control/family limitation in this very narrow way, researchers looked for it in vain before around the 1870s and concluded that it was absent.

What was true is that the churches taught that children were a gift from God, who would bestow as many or few as He chose, and therefore condemned barrier methods of contraception (the Church of England relenting in the inter-war period). It also seems likely that the influence of religious teaching over the working class was declining.[71] The 1851 religious Census showed that about forty per cent of the population had recently attended a church service, the proportion being lowest in larger towns and among the less well-off.[72] Most commentators, though, agree with Michael Mason that religious belief continued to influence morality strongly among the large numbers of people who were not the adherents of any church.[73] Richard Hoggart was surely right to think that religion survived among non-churchgoers, and did so primarily as ethics, and this makes it hard to see why a decline in church attendance should have affected people’s beliefs enough to cause such a major change as the beginning of family limitation within marriage.[74]

Another problem with viewing the decline of religious affiliation as the key which unlocked working-class minds to think previously unthinkable thoughts about family limitation is the assumption that all ethics came from religion. Against such a view, Mason (following Francis Place) argues for the independent origin of an anti-sensualist ethic of respectability in the working class, beginning in the generation following the French Revolution.[75] A working-class ethic of self-control, self-respect, decorum, orderliness and the preference for self-improvement over sensual enjoyment was being promoted by advocates as different as Samuel Smiles and William Lovett.[76] This ethic was linked to working-class political radicalism, and, more generally, formed part of a growing working-class confidence in the possibility of progress, however defined. It has already been noted that this confidence released material aspirations which contributed to a desire for smaller families: the point now is that working-class sexual behaviour may have been governed as much or more by this world view as by a religious one. Evidence is of course scarce, but can be seen, however, in essays which working-class writers submitted to a National Association for the Promotion of Social Science competition in 1861. Essays on ‘the dangers of the proletarian bath night for childhood morals’ or ‘the need to induce “remorse and shame” in a fallen daughter’ made strikingly little appeal to religion.[77]

If a non-religious ethic such as this was already widespread in the working class by 1860, it is unnecessary to examine the world of religious belief for possible triggers to the fertility decline, such as a reduction in respect for the prohibition on using barrier methods of contraception. On the other hand, it is possible that the ethic Mason describes was held by pioneers of working-class self-education and freethinking rather than by the majority, but there is no more reason to assume this than to assume that the majority ethic was shaped primarily by religion. This is an area where more research is needed.

The next assumption to question was that only two attitudes to family size are possible: fatalism and the desire for a 'small planned family'. Taking this line required the belief that people started in the late nineteenth century to aim for a target family size. Kate Fisher's work, based on oral history evidence taken from people marrying somewhat later (between 1918 and 1953, and mainly between 1930 and 1940), challenges this view. Fisher's working-class respondents, from Oxford, South Wales, Blackburn and Hertfordshire, usually emphasised their desire for spontaneity in their sex lives rather than planning, and 'a general preference for a "smallish" family' rather than 'a cold, calculating approach to the family.' [78] This was well expressed by the respondent who told her that, rather than aiming for a particular number of children, they simply didn't want 'a football team'. [79]

Fisher's finding of an approximate rather than calculating approach to family size is endorsed by one of this study's own autobiographical sources, the Bradford midwife Nellie Whiteley, who told her interviewer that 'it wasn't that they didn't want any children [in the 1920s], they wanted children but they only wanted one or two, maybe three, but they didn't want great big families, you see. They would say to me: "my mother had fourteen children, and there's only two of us lived."' [80] These Bradford mothers not only confirm Fisher's hypothesis: they also introduce the important theme, developed in chapter four, of parents wanting a better experience of fertility and family life than the previous generation.

The received wisdom being questioned here then went on to claim that, wanting small planned families, men and women began using barrier methods of contraception in large numbers during the late nineteenth century. Part of this mythology is a claim that the Bradlaugh and Besant trial of 1877 made large numbers of people aware of the use of the sheath or condom for the first time, and that the use of barrier methods of contraception increased rapidly after this. [81] The fertility decline was not caused, however, by the arrival of new knowledge about, or methods for, preventing conception. Women's testimony about how ignorant they were, frequently quoted as it often is, should not mislead here. They may well have been ignorant of barrier methods of contraception, and the 1877 trial may have reversed this, but they had other ways of limiting fertility: the early surveys of birth control which show the popularity of abstinence and withdrawal give the lie to the notion that most young women before the 1870s were ignorant that conception could be avoided by avoiding coitus, or the completion of coitus. [82] As Fisher comments, what was really happening in these professions of ignorance was often the acting out of a desirable female role which allowed the male to dominate a sexual relationship.

It is true that mail-order advertisements, both for contraceptive advice literature and appliances themselves, become more frequent after the trial. One from the *Leeds Express* in 1890 is typical, urging that 'Those About to Marry should send for the New Medical Work, just out, post free, three stamps, from Medicus, 7 Tavistock Street, Bedford Square, London WC.' [83] A survey of Leeds via the archives of the Thackray Medical Museum revealed that of thirty pre-1954 mail order contraceptive catalogues in the collection, one was from 1870, one from 1880 and six from 1890-1900. [84] It is also true that working-class writers including Francis Place had been advocating the use of the sheath since the early nineteenth century, and that it became more readily available in the 1880s following the invention of the 'cement' process of manufacture, but the growing use of barrier methods was a consequence, not a cause, of the increasing wish to limit family size, and did not become the primary means of birth control until long after the main

fertility decline. Although quite a high-level summary, lacking archival detail, John Peel's 1963 article remains the best account of developments in the manufacture and supply of contraceptives during this period.[85]

However, there is in fact no reason to suppose that use of the sheath increased significantly before the British Army issued them to men in large quantities during the First World War, or even immediately after this. For one thing, the sheath was simply too expensive for regular working-class use at around three shillings for a dozen (threepence each).[86] For another, putting on the kind of sheath available before the introduction of latex in around 1930 interfered with the spontaneity in the bedroom valued by Fisher's respondents, and this kind of appliance could easily be rejected on aesthetic grounds too, while another oral history survey, in Cleveland, suggests that embarrassment at the point of purchase was also a factor.[87] Econometric studies by Nick Crafts add weight to the view that greater use of contraceptives was not the main contributor to declining fertility. He argues that the falling cost and improving effectiveness of contraceptives could not explain more than half the drop in marital fertility between 1895 and 1938.[88]

Some writers have suggested that abortion was a major means of family limitation, and conceptually it has the attraction of offering a way in which women could avoid unwanted births despite their lack of control over the frequency of coitus. Angus McLaren has argued that abortion was a significant factor, at least amongst the most needy, adopted mainly in situations of desperation, and described 'a working-class female model of [fertility] control through abortion'.[89] Diana Gittins has gone further and suggested that working-class family limitation 'often' took the form of abortion.[90] Szreter objected to these interpretations on statistical grounds, arguing that even the highest contemporary estimates of abortion rates (which put abortions at 15-20% of live births in the 1930s) could not account for more than around a tenth of the shortfall in live births produced by the fertility decline.[91] Even this would assume that there had been no abortions before the fertility decline, when in fact the knowledge and use of natural abortifacients was very ancient.

Tania McIntosh, in a PhD thesis on Sheffield, noted that this town's apparently very high abortion rate may have been a reflection of a relatively patriarchal society in which women had less influence over sexual behaviour than in some other local cultures.[92] This may also apply to Middlesbrough, another relatively male-dominated society. That town's Medical Officer of Health (MOH) certainly thought in 1904 that local women were trying to 'procure stillbirth', adding: 'It is well-known that the use of certain drugs which are widely advertised is very common.'[93] But if Middlesbrough's abortion rate really was high, then this signally failed to produce a low birth rate, as chapter three will show. While abortion is an important clue to aspects of local cultures, it is very unlikely to have been the most significant means by which the fertility decline was brought about.

Where does this discussion leave the earlier claim that husbands and wives had adequate means of contraception at their disposal? The major family limitation options not yet discussed were sexual abstinence and withdrawal. The historiography of these topics has to grapple with the massive self-censorship of working-class writers (and of writers generally), and much of what has been written is of necessity somewhat speculative. Wally Seccombe's important 1990 article 'Starting to Stop'

wisely avoided trying to distinguish between abstinence and withdrawal, concluding instead that before the First World War some combination of the two had been sufficient to produce the observed decline in fertility.[94] More adventurously, Hera Cook felt that although 'ignorance about withdrawal had been dispelled by the late 1870s, only gradually did men accept the resulting discipline and loss of pleasure.'[95] She therefore put her main stress on abstinence.

Collectors of oral history have uncovered evidence for withdrawal in the euphemism 'getting off [the bus] at Loftus' or, in a Lancashire version, 'getting off at South Shore', the allusion being to ending the journey before the main destination (Middlesbrough or Blackpool) had been reached.[96] These recollections date from after the First World War and are consistent with Cook's proposed chronology. She may well be right to argue that there was a transition from abstinence to withdrawal. Certainly there is post-First World War evidence that withdrawal was very widespread. In 1947 the Royal Commission on Population found that forty-three per cent of recently married couples used it as their sole method of birth control, a figure rising to sixty-one per cent in social class V.[97]

Abstinence and withdrawal between them provided sufficient means to account for the pre-1918 fertility decline, then, and so any difficulty about people's means of family limitation disappears. These methods avoided the difficulties of cost, embarrassment or indeed knowledge which stood in the way of barrier methods of contraception. Nor (in the case of abstinence at least) were there religious objections. Two relatively small objections do need to be cleared away. First, family planning advocates have frequently argued that withdrawal is an unreliable means of contraception. In relation to a typical modern couple's goal of completely avoiding unplanned conceptions, this is true, modern data suggesting a failure rate of about twenty per cent.[98] However, it was noted earlier that men and women in the period being studied were not aiming for total control but only for smaller families than before. Any method which succeeded four fifths of the time would deliver this. The other possible objection to this explanation, this time relating to abstinence, is the silence of the sources. Szreter disposes of this problem with a persuasive discussion which demonstrates that many respondents who told investigators that they had not used any kind of contraception before 1914 simply did not regard abstinence as a form of contraception at all – quite reasonably.[99] This illustrates the importance of language, and of asking the right question when collecting oral history.

When people began to want smaller families, then, they used the methods of abstinence and withdrawal. It is also significant that they used them to 'space' conceptions (deliberately delaying them throughout the fertile period) rather than to 'stop' them once a target family size had been reached, though there is no need to doubt that 'stopping' also occurred. Szreter's arguments in favour of spacing are to be preferred on this issue to Wally Seccombe's conclusions in his 1990 article 'Starting to Stop'.[100] There are two main reasons for concluding in favour of spacing. One is the inferences Szreter draws from the statistics in the 1911 *Fertility of Marriage* report.[101] The other reason is that spacing represents 'a more gradual process of change, perhaps merely an intensification of practices, habits of calculation and motives long in evidence already', [102] because it was a small step on from older habits of sexual continence or abstinence, such as avoiding coitus before engagement, or marriage, and also only a small step away from avoiding conception for a range of prudential reasons such as poverty, bad harvests, epidemics, and poor maternal health.

‘Starting to stop’, however, would have involved a ‘*Révolution démographique*’, in the words of Adolphe Landry[103], because it would have introduced the innovative cultural practice of taking a decision after a certain family size had been reached to seek actively to avoid further children. An explanation which requires only an adjustment, rather than an innovation, is to be preferred since adjustment is easier to bring about than innovation, given the inertia of nearly all cultural practices. Having rehearsed the distinctions between the analytically distinct concepts of ‘spacing’ or ‘stopping’, however, it is necessary to acknowledge that these need not have been nearly so distinct in the minds of contemporary actors.[104] If spacing became more attractive as the family grew and perceptions of the cost of childrearing increased, there need not have been one particular moment when a woman or man decided that the family was now large enough and further conceptions should be completely avoided. Autobiographical evidence is not likely to indicate clearly one practice rather than the other. Finding that couples were more often ‘spacing’ than ‘stopping’, in conclusion, is significant for the present study. It indicates an interest in limiting family size throughout the fertile period, which is more consistent with the motive of seeking better living standards put forward here than ‘stopping’ behaviour would be. Stopping would be most obviously associated with motives linked to maternal health concerns, and could only be readily linked to the pursuit of living standards by assuming the sort of deliberate planning of a target family size which has been rejected for this period.

Identifying spacing by means of withdrawal and abstinence also raises an issue about gender relationships which again strengthens the argument for living standards as a motive. The literature has assumed that family limitation was a goal advocated primarily by women, and ran into conflict with men’s sense of entitlement to sex.[105] Seccombe argued that the desire to limit family size arose first and most strongly in women.[106] If this view is correct, it must have produced tension between the sexes about the frequency of coitus. This tension would have been all the greater because withdrawal and abstinence depended on male self-control. In an era before the contraceptive pill, it appears that women had the motive but only men had the means. (Female contraceptive appliances such as the cap only came into widespread use after the First World War when there were clinics to promote and fit them.[107]) Hera Cook describes this era as ‘a century of simmering tension’.[108] Clearly, there is primary evidence for tension between men who wanted sex and women who did not, and this interpretation must be part of the picture. However, on its own it is an over-simplified description and its crude assumption that all men were the same should be questioned. For example, Ross reports the assessments a group of women made about twenty-one husbands, which judged two of them ‘really bad’, four middling, eight ‘quite harmless’ and seven good.[109]

Kate Fisher’s work provides more insight into gender roles in the bedroom. Recognising that the cultural norm was for the male to be dominant in decisions about sexual behaviour, and for the female to adopt a ‘passive and naive sexual persona’, Fisher shows how this culture could nevertheless regularly lead men to choose family limitation.[110] She attributes the popularity of withdrawal to the way that it reserved the decision-making role to the male, noting that women used male sexual behaviour as one of the criteria for categorising good husbands. As she says, men cannot have been indifferent to these assessments.[111] What emerges is a nuanced picture in which, at the least, some men could realise that complying with their wives’ wishes and limiting family size was a good idea. As a minimum, Fisher offers a more convincing explanation than Seccombe and Cook of how women may have played the key role. She suggests that ‘detailed

discussion might have been avoided, but jokes and asides in odd moments would have had an effect without prompting conversation and without either side acknowledging that pressure was being exerted.’[112] The present study, however, goes further by suggesting a new set of motives for men to limit family size. They, like women, could see that a smaller family meant more resources each, benefiting their children and themselves. If this is correct, it becomes easier to see how fertility declined as fast as it did in the culture of male dominance described by Fisher and others.

This discussion of the history of contraception has established that there were no significant mental or practical obstacles in the way of men and women in this period who wished to limit their family size. Abstinence and withdrawal were widely approved and widely practised, and for some women abortion provided a further option. In seeking to explain the fertility decline, attention should focus on the motives of the men and women who chose to limit the size of their families.

IV

The remainder of this chapter discusses the contribution which studies in cultural history can make to the present enquiry. Literatures on the working class and consumption are the most relevant. Given its importance to the argument presented here, the working class' perception of itself – class consciousness, to use an older phrase – is a good place to start. Social historians influenced by Marx and the materialist conception of history, writing before the challenges posed by postmodernism to this way of understanding the world, generally saw the working class as a fairly unproblematic concept. It was viewed as an objective phenomenon, created by industrialisation and urbanisation, and composed of those with nothing to sell but their labour: in essence, Marx's 'proletariat'. The working class was, in other words, defined by its relationship to production. The consciousness attributed to this class was marked by a sense of economic exploitation and political subjection, though many writers explored other areas of working-class experience too.

This way of conceptualising the working class had its strengths, including an attractive simplicity, and plenty of evidence could be found for the existence of large groups of people in nineteenth-century industrial towns whom the concept seemed to describe reasonably well. But defining a class entirely by its relationship to production had some serious problems too. It made the study of consumption appear irrelevant or uninteresting, an attitude which becomes harder to justify in the later nineteenth century and after, as real wages rose and workers and their families had increasing opportunities to consume. Whatever the merits of Marxist accounts of proletarian misery as a description of the 1840s, a more nuanced way was needed to describe the 1890s.

Secondly, the stress on production had a tendency to remove women and children from the picture as their contribution to production waned with the rise of the male breadwinner economy. There was a danger of seeing women and children only as dependants and not as agents in their own right. The category of class was defined so rigidly as to leave little scope for the study of gender. A third problem with the materialist conception of the working class was its determinism, intellectually unappealing to most in any case, but also an obstacle to understanding the life choices of individuals, since it appeared to deny that these were real or significant. It is noteworthy how Marx himself did not always see 'culture' as rigidly determined by the economic 'basis': the often-cited passage in his *Eighteenth Brumaire of Louis Bonaparte*, which claimed that 'Men make their own history, but they do not make it as they please; they make it under circumstances transmitted from the past', went on to specify these circumstances as cultural, not economic: the 'tradition of all dead generations names, battle slogans, and costumes'. [113] The determinist view of 'vulgar Marxist' accounts, however, tended to view individuals' lives as fully determined and so of little interest. It therefore saw them as members of monolithic groups. While not necessarily going so far as to assume that the entire working class had similar experiences and a similar consciousness, this school was too ready to generalise about large groups on the basis of their relationship to production.

Social historians writing in this era, which closed only in the 1970s and 1980s, produced a good deal which remains valuable to a study such as the present one in spite of these constraints. Writers who were prepared to modify the theoretical approach to fit new evidence, such as John Benson, John Burnett, Anna Clark, Eric Hopkins or Standish Meacham, have produced

descriptions of social conditions which continue to be useful.[114] (Burnett, with his collaborators David Vincent and David Mayall, also left a rich library of primary sources in the Burnett Archive of Working-Class Autobiographies (BAWCA) at Brunel University, which proved valuable for the present study.[115]) The contributions of Stedman Jones and Joyce, challenging the orthodoxy, have already been mentioned.

A number of the studies already mentioned contribute to the understanding of the working class' perception of itself which is adopted here – one of growing confidence and assertiveness as the nineteenth century developed. Matthew Arnold commented on it in 1869 when he referred in *Culture and Anarchy* to the 'Populace' as 'raw and half-developed [having] long lain half-hidden amidst its poverty and squalor now issuing from its hiding-place to assert an Englishman's heaven-born privilege of doing what he likes.'[116] Arnold's language captures the new assertiveness vividly. For the present study, the most important facet of this was a belief that individuals, families and communities could improve their living conditions. As chapter four will show, this often took the form of a determination by parents that their children should grow up in better conditions than they had experienced, a point made by Humphries from reference to working-class autobiographies.[117] This rise in expectations could also be charted in studies of political radicalism or trade unionism. Even a topic as apparently unrelated as working-class reading habits can provide evidence for a belief in the possibility of self-improvement.[118] (It should not, however, be assumed that the self-confidence of the working class rose steadily, without setbacks, that confidence grew in all dimensions simultaneously, or that all working-class groups experienced it equally.) Where in the past, described by the model in figure two of this chapter, rising income had led to rising fertility, the power of these rising expectations now meant that fertility could fall even while incomes were rising.

Other aspects of working-class cultures had some bearing on the fertility decline as well. The key is to study local cultures, as the following chapters do, but a few generalisations are possible. One important strand of this theme of rising self-confidence was independence from the better-off and their paternalistic philanthropy, which was in decline in any case. Rather than copying middle-class modes of thinking and behaviour, working-class people often invented their own, as already seen in relation to the ethic of self-control. Working-class culture included a strong strain of self-help, though this must not be understood in an individualistic sense. On the contrary, one of the differences between working-class and middle-class society was the amount of collectivist emphasis on mutual aid of different kinds, including friendly societies, trade unions, consumer co-operatives and clubs.[119] Chapters four to six will explore the extent to which working-class attitudes and behaviours affecting fertility were home-grown rather than borrowed from the middle classes. The working-class emphasis on mutual support was relevant to the fertility decline, because it fostered a culture in which people shared problems and sought help, for example through gossip.[120] This in turn promoted compliance with group norms of behaviour, so it was a conservative influence at first – Roberts viewed the mores of the women in the communities she studied as 'disciplined, inhibited, conforming': Meacham, too, spoke of the 'fatalism and conservatism' of the working class – but it also allowed new ways of thinking and behaviour to spread rapidly through a community once a tipping-point had been reached.[121] Family limitation within marriage was one behaviour which benefited from this characteristic of working-class culture.

While gossip and the close-knit nature of working-class societies might promote welfare by spreading information, it also promoted compliance with group norms in less favourable ways. Tebbutt notes, for example, how gossips could police respectability by, for example, commenting on standards of cleanliness.[122] The concept of respectability was of great importance to most of the working class in this period and drove their consumption to a significant degree. Sonya Rose regarded respectability as a good example of Bourdieu's 'habitus': a culture so strong that it tended to shape the people who lived in it rather than the other way round, providing a set of distinctions separating 'us' from 'them'. [123] Respectability will be discussed further in chapter four in relation to the ways in which working-class consumption developed during the period.

The structures of mutual support were created by, and most benefited, the better-off, more skilled working class. Not all were in a position to benefit, and there was a 'residuum' of the truly poor who became more visible once their children had to attend school with the rest. As the Royal Commission on Labour noted in 1892, this group led 'wretchedly poor lives, and are seldom far removed from the level of starvation.' [124] While the Royal Commission guessed that the proportion, and perhaps the absolute number, in this state was decreasing, Rowntree's famous 1900 study of poverty in York came to the conclusion that no less than thirty percent of the population lived in 'primary poverty', unable to afford enough to remain healthy however efficiently they used their resources. [125]

V

Studying the development of consumption in the nineteenth century helps to give shape to the idea that rising expectations led to family limitation. The recent literature on consumption makes important contributions to the understanding of the fertility decline, although its authors have not made this connection themselves. People wanted fewer children, the better to afford new forms of consumption. This is on the face of it a surprising claim: what was so new about consumption in the second half of the nineteenth century?

The work of Jan De Vries on the 'industrious revolution', in which the availability of new goods persuaded households to offer more labour to the market in order to earn more to fund new kinds of consumption, is useful at this point: especially his discussion of its later stages, marked (for him) by the rise of the 'breadwinner-homemaker household'. [126] In De Vries' account, this type of household flourished in Britain between the early nineteenth century and the mid-twentieth, making it the leading form of working-class household during this period. It was characterised by the husband specialising in wage labour and the wife in domestic labour. De Vries argues that women and men found that this form of household met their needs best in the prevailing economic conditions, particularly because of the nature of demand and supply at this period.

In relation to demand, according to De Vries there were important changes after 1850 in the 'consumption *aspirations* of the family' (emphasis added). [127] He describes a marked shift towards aspirations for better health, nutrition and housing. Nineteenth century economic growth was important in itself, but growth had not always produced better health, for example. [128] De Vries explores the possible causes of these new aspirations to some extent, but only as far as the diffusion of new knowledge about the best ways to promote health and comfort, noting that the creation of new knowledge was matched by an impressive tendency among the masses to take up

its findings. This is best explained by the rising expectations of the working class. In this new climate of belief that living conditions could be permanently improved, the prescriptions of experts about how to do so felt much more relevant. Chapter four shows how these expectations, for example, made women willing to attend lectures on food preparation.

On the supply side, De Vries argues that markets were not providing a mix of goods which fully satisfied families' wants for welfare and comfort. He concludes that, within the available labour time, welfare was therefore maximised when wives spent their time in domestic labour transforming market purchases into 'final commodities' such as a clean home or a nourishing meal. A combination of two factors then decided that it was normally the wife doing the domestic labour and the husband providing the money income: gendered labour markets which paid men more, and the benefits of specialisation in domestic labour, which rewarded one individual taking time to acquire a high level of 'consumption capital' in the form of knowledge and skills for purchasing and transforming different products and allocating them to different members of the household.[129]

The special contribution of De Vries is to apply some of the ideas of the 'new household economics', associated with Gary Becker and others at the University of Chicago.[130] This has provided economic understandings of consumption which classical economics had failed to do, with its tendency to avoid examining why tastes took the form they did. The new household economics considers how households allocate the time of their members to a mixture of market labour to earn money for buying goods, domestic labour transforming those goods into what is ultimately consumed (such as a meal, or the comfort of a room), investment in improving skills – 'consumption capital' – for either of these functions, and leisure for enjoying the results.

This taxonomy is important to De Vries' analysis of the nineteenth-century breadwinner-homemaker household, which will be utilised in chapter four. It also appears in some accounts of the twentieth century, such as Judy Giles' *The Parlour and the Suburb*, in which *the description of the home as increasingly something to be produced by female-controlled consumption is surely placed at too late a period: De Vries' account convincingly suggests that this was already going on by the mid-nineteenth century.*[131] *More persuasively, however, Giles argues that by mid-twentieth century, in contrast to the picture of the nineteenth century painted by De Vries, commodities were coming onto the market which required little domestic labour to produce the desired final commodities such as a clean home. It is a convincing part of De Vries' account that the breadwinner-homemaker household dominated household structure when it did partly because of the absence of such market products, placing a premium on domestic labour. Following Joanna Bourke, De Vries argues that once total household income reached a threshold, apparently of around twenty-one to thirty shillings per week, the household's (overall) utility was maximised by deploying female labour, especially that of the wife, away from market employment and towards domestic production.*[132]

In a world which now had rising expectations for the standard of living, two further changes in consumption patterns came into play. One was the nineteenth-century rise of the 'exploring consumer, seeking novelty', quite different from the static consumer, maximising welfare by scanning an existing range of goods and services, posited by classical economics.[133] The new kind of aspiring consumer, yearning both for sufficient respectability and for a flow of novelties to

keep their hedonism satisfied, was likely always to be vaguely dissatisfied, and this very dissatisfaction drove economic growth on, in a non-equilibrium way, as long as resources allowed.

The other phenomenon, responding to this kind of consumption, was a strengthening of 'defensive' consumption. De Vries distinguishes between 'aggressive' consumption, taking the initiative in sending signals about one's own status, and 'defensive', undertaken as a protective reaction to the social consequences of others' consumption. The nineteenth century need to maintain respectability by the right kinds of consumption would be an example of the latter.[134] In practice, though this distinction is a hard one to maintain: many acts of consumption which felt 'defensive' to the actors would seem 'aggressive' to some observers who would feel the need to imitate them. As the standard of respectability was raised by those working-class households most able to influence tastes, by virtue of incomes, education and access to information about products, this promoted a defensive need to keep up. Importantly, this meant that the rising expectations of some could have a negative effect on the fertility of all: those who were confident reduced family size in order to provide more welfare for each family member, while those who had to view the future with anxiety, notably this fear of being left behind, reduced family size to make keeping up a little more affordable.

De Vries' account, following Becker's economics, is couched in terms of positivism, or in the terms Carus and Ogilvie used, materialism: it is interested in what it regards as objective phenomena, and uses them to explain all the human behaviour observed. Two important criticisms have been made of this approach. Fine regards it as 'depend[ing] upon an assumption of pre-ordained human rationality, translated into biologically determined human preferences'. [135] The new household economics assumes economic rationality produces specific human cultures, when in fact it is the other way round. It is also ahistorical, overlooking the need to consider the specific nature of consumption and household relationships in particular times and cultures: it pays too much attention to the maximisation of utility because it pays too little attention to anthropology.

A related issue is raised by Lourdes Beneria, who points out that its dependence on neoclassical economics leaves it unable to address problems of conflicting interests within the household. It is all very well if total household utility was maximised by the switch from market to domestic labour, but what of the woman's personal interests, whether of 'utility' or of self-esteem? Beneria dismisses the new household economics' account of the sexual division of labour as 'essentially sociobiological', that is, one which proposes that this division of labour is a more or less inescapable result of human biology.[136] This is an area in which De Vries improves on Becker, looking at the potentially conflicting interests of male breadwinners and the rest of the family, and suggesting that the breadwinner-homemaker household brought a more equal distribution of household resources, on the evidence of an increase in girls' height and a decline in their mortality relative to those of males, and also of a reduction in men's consumption of alcohol.[137] This analysis needs to be taken much further however.

With these limitations in mind, the value of the De Vries approach remains considerable. His *Industrious Revolution* was an important contribution to the literature on family and household formation, which makes it the more surprising that the book did not mention family size: presumably De Vries wanted to keep his subject matter within reasonable bounds, but in doing so,

missed an opportunity to explore the impact of changes in consumption on fertility: writers have not so far shown much inclination to explore the relationships between consumption patterns and fertility, as the present study does.

The new household economics cannot provide a complete model of the household economy, but it still provides a useful way of thinking about the activities of different members of households, including wives and children, and for examining how different kinds of labour market produced different challenges to family welfare. In particular, it suggests economic motives for historically observed mixes of consumption and household production such as a reliance on home cooking or the 'textile diet' with greater use of already-processed foods such as pies or fish and chips. These rational, utilitarian motives should, however, be weighed against other possible explanations. Motives other than utilitarian ones may have been the strongest ones in many consumption decisions. Nor is it essential to agree with the assumption of rationality and accept the argument that women were voluntarily withdrawing from the labour market, which De Vries does not establish very convincingly.[138] However it seems true that consumption generated family welfare more efficiently (making larger families viable) if more domestic labour was available to transform purchases into the things the family finally consumed. To sum up, the De Vries approach draws attention to families' rising expectations for more health and comfort, and also to the special hardships of working mothers, subjects explored in chapters three and four. Its materialist ways of thinking about these subjects take the argument further forward but cannot provide the whole picture.

Before closing this review of the relevant literature, one further useful feature of the recent historiography should be noted: this time, a conceptual framework for considering and combining the different cultural influences on fertility, usually described as the 'perceived relative costs of childrearing'. [139] This approach, again borrowed from economics, maintains that fertility behaviour is rational, and results from the perceptions which potential parents hold about the costs, and the benefits, of childrearing. Costs and benefits are not defined in narrowly economic terms, but might also be emotional, for example, or measured in impact on parents' status. 'Childrearing' can include everything up to the point where children become independent adults, so, for example, what they draw from or contribute to the family budget at any age up to that point is relevant. Since what affects fertility directly is the reproductive choices of a woman and a man, it is their *perceptions* of costs and benefits, rather than some attempt to measure these, which is decisive.

This approach has a number of strengths. It allows the researcher to bring order to the otherwise disparate and potentially confusing range of possible influences on fertility behaviour. It is sufficiently widely drawn to include anything under the headings of costs or benefits, and it stresses that perceptions, not objective circumstances, are what affect people's decisions. There are pitfalls, however. Most importantly, much fertility behaviour is not rational: many conceptions and births, for example, result from decisions to have sex in which thought about family size played no part. As with the household economics, reliance on rationality will not account for all human behaviour. On the other hand, it is not necessary to assume that all fertility behaviour was rational: the fertility decline could have been produced merely by changes in that part of fertility behaviour which was. A subtler problem is the implication that individuals (or, even less likely, couples together) carefully thought out a set of costs and benefits and weighed them against each other before arriving at a decision for or against trying to have a child. This calculating approach

is so different from the one described, for example, by Fisher's respondents, that it was probably very unusual, despite Ross' claim, contradicted elsewhere in her work, that London working-class mothers 'unsentimentally viewed their children in terms of the resources they required or contributed.' [140]

Another potential pitfall is that the use of the word 'relative' in the phrase 'perceived relative costs of childrearing' may be a distraction if it suggests a deliberate weighing up of costs and benefits, which in fact seems rarely to have been a conscious process. Rather than consciously doing this, it is more likely that people were thinking about the costs and benefits of childrearing against the background of a cultural presumption in favour of couples having children which was not itself governed by rationality. But a weaker version of the perceived relative costs approach remains valid however. This merely proposes that people used this type of thinking some of the time, in relation to some of the costs and benefits of childrearing.

A further problem is that the stress on *perceived* costs and benefits, while helpfully pointing to the mental world rather than the objective one, can mislead by placing all the attention on factors of which people were aware, to the exclusion of those imperceptible changes which nevertheless shaped their outlook.[141] For example, very few people would have been conscious of the steady rise in the real incomes of the working class between 1860 and 1900, but that is no reason to doubt that it affected their attitudes to consumption, as discussed in chapter four.

The present study's proposal that fertility began to be strongly affected by people's aspirations to a better life is entirely consistent with the perceived relative costs approach. The argument is simply that rising expectations and the need to keep up respectability in a world of rising standards made the perceived costs of childrearing higher. There is a hint of this in John Burnett's observation that desired family size fell at the end of the nineteenth century 'when the demands of conspicuous consumption began to have effect', but in general the literature says little about the impact of rising aspirations.[142]

VI

This chapter has reviewed the growing understanding developed by demographic historians about the chronology and contours of the fertility decline. Much larger numbers of women and men began to limit the size of their families, starting from the generation marrying in the 1860s and 1870s. It has emerged that family limitation was a practical possibility, and indeed always had been, by means of abstinence and, less clearly, withdrawal. Since the means of family limitation were unproblematic, the explanation for this change in behaviour is to be sought in the emergence of new motives. Only the study of cultures can uncover the motives of individuals – no amount of statistical analysis of vital events registration can give more than very indirect inferences about motives. It is true, of course, that statistical analysis of other sources such as the Census can reveal cultures and, possibly, motives, for example in the patterns of the age at which married women left work, or returned to it after childbearing. It is the dialectic between statistical study of vital events and the study of cultures – Carus and Ogilvie's so-called 'micro-exemplary' method – which helps most in resolving questions of motive.

Study of the existing cultural history literature suggests an important role for rising working-class expectations about how their families ought to live. A more assertive mid-century working class wanted better housing and better diets, often as a correction to the privations of previous generations. Humphries has noted how young adults recalled the poverty of their own childhoods in large families and wanted fewer children as a result, but so far there has been little discussion of this kind. What remains is to test this model against primary sources which disclose how different expectations increased, why, and how this affected views about family size. Excitingly, this large area remains mostly unexplored.

Bradford, Leeds and Middlesbrough: Fertility and Society

I

Later Victorian Bradford was a large, mature, industrial town which had grown rapidly in the first half of the century through the expansion of the woollen worsted industry. Generalisations about the history of 'mill towns' are only of limited use: in Bradford's case the geographical specialisation of woollen manufacture in the nineteenth century made the town pre-eminent in the worsted trade, which differs from other woollen industries in using a yarn made from long, parallel, wool fibres instead of the usual shorter, twisted, ones. By the later nineteenth century, Bradford was the world leader, confidently calling itself 'Worstedopolis'.^[143] Its early growth took the town population to nearly 100,000 in 1861, but had come so rapidly and with such little attention to housing and health that, like Manchester, Bradford became a byword among commentators for poor living conditions.^[144] These improved only slowly during the second half of the century and the years up to 1914, caught in an enduring political struggle between the principles of economy and reform.

Another feature of Bradford politics in this period was the unusually early rise to prominence of independent labour and socialist movements in the 1880s and 1890s, in which both male and female activists (such as Fred Jowett and Margaret McMillan) became influential in local government, especially in education, health and child welfare – both were elected members of the School Board in the 1890s, and instrumental in Bradford becoming the first local authority in Britain to provide free school meals in 1904, and Jowett chaired the Sanitary Committee.^[145] Keith Laybourn's account of the early ILP in Bradford nonetheless suggests missed opportunities, arguing that for all its idealism the party achieved little there before the First World War for anyone, let alone for women and children. Political attention to social welfare was on the increase nationwide by the turn of the twentieth century: in Bradford, the popular, grassroots, element of this attention was unusually assertive, questioning dominant discourses about family welfare.^[146] This study will ask whether an unusual openness to family limitation was another facet of this culture.

Bradford's manufacturing was exposed to increasing international competition, which saw the decline of cloth manufacture and dyeing. Ittman's pessimistic account of working-class Bradford life in this period has the workers driven from pillar to post by the managerial responses to this competition, with the drive for cost reduction leading to the casualisation of combing and sorting and the displacement of adult males by women and children.^[147] There is no need to deny that firms put profit first and sought to reduce labour costs, but Ittman's account seems exaggerated even for the worst period, approximately the mid-1870s to the early 1880s. Even on his own evidence, real wages fell in this period by less (ten per cent) than they had risen in the previous twenty years. While the evidence presented here does confirm Ittman's ten per cent fall in money wages in the seventies to eighties, it shows those losses being more than made good in the

following twenty years. Bradford firms responded to the loss of easy markets for simple goods by specialisation in other fields: dealing, worsted weaving, and the making of 'tops' (the separated long fibres of the wool, packed in bales) by woolcombing firms.[148] Diversification into other industries was limited. However, despite the anxieties, the worsted industry continued to have good years as well as bad, for example the 1880s and the years after 1911 (including a wartime boom from demand for uniforms and blankets).[149] Growing population and real wages were further signs of at least fragile health. As Sigsworth noted, although falling profit margins made the 1880s and 1890s a time of pessimism for the mill owners, rising output and rising real wages protected the position of the employees.[150] Ittman appears to view the period with hindsight and read the hard times of the nineteen-twenties and after back into mid-Victorian years where they do not belong.

Leeds, only nine miles to the east, was a town of twice Bradford's size, and England's fourth largest, with a markedly different economy. The long-term financial and commercial hub of the West Yorkshire wool trade, by the beginning of the nineteenth century it had already become a magnet for both manufacturing and commercial activity. During the period, the town's economy and employment became ever more diverse. While the early coal mining industry moved away eastwards, and the flax mills closed, new or growing industries included a very wide range of engineering such as foundries, boilermakers and railway locomotive manufacture. Leather and footwear were also important, and the presence of the woollen weaving industry encouraged the rise of garment manufacture. By the end of the century Leeds was one of the most important centres of the tailoring industry, pioneering the use of mechanised methods in large factories alongside the older workshops and homeworking sectors.

Leeds had a particularly strong middle class, even compared to Bradford where the managerial tier of the worsted industry was a powerful presence, and certainly compared to Middlesbrough, where the owners and managers of the dominant industries were only a small group. Leeds also succeeded in retaining most of its middle class within the town boundaries, whereas the middle classes of the other two towns developed a stronger preference during this period for living outside the central urban area and commuting back in. Leeds' commercial, financial and political importance promoted its highly diverse occupational structure, creating employment in the white collar sectors of commerce, retail, banking, law, medicine and education, as well as in supporting occupations such as printing.

Labour politics in Leeds never witnessed quite the display of occupation-based solidarity which Bradford and Middlesbrough did, with their single dominant industries. Leeds workers were more diverse, and although there were also very large employers such as the Leeds Forge Company and tailoring concerns such as John Barran's, or, after 1908, Montague Burton's, more people worked in small enterprises where the owner was a daily presence.[151] As a result, it was no accident (to take a typical example) that a worker like John Gawthorpe, who followed his father into employment in a north Leeds leather works while still a boy in the 1860s, grew up a pillar of the established Church and the Conservative Party, which was always a strong political presence in the town.[152] This fragmentation and disunity of the working class may help to explain why Leeds trades unionism suffered some significant reverses in the early 1900s, with the result that the energies of labour politics were channelled more into socialism and less into trade unionism after the 1890s. The lack of working-class unity may also explain why Labour did not achieve the

electoral breakthroughs during this period which it did in Bradford and other Yorkshire towns.[153] In contrast to Bradford labour politics, then, Leeds labour politics presents a picture of disagreement and hesitancy. It did not offer the same lead to working-class voters in questioning established ways of thinking which was available in Bradford.

In contrast to Bradford's and Leeds' economic and social maturity, Middlesbrough was a newcomer. On an estuary shore with less convenient landward communications than the other towns, it was nevertheless the fastest-growing of all Britain's large towns between 1861 and 1911, its population rising from 19,000 to just over 100,000.[154] Growth was powered by the town's dominant industries: iron production from the 1840s to the 1870s (expanding with great vigour after the discovery of iron ore in the neighbourhood in the early fifties); steel from the 1880s, and iron ships, whose production here began in the 1870s.[155] The last quarter of the nineteenth century was a period of industrial maturity, compared to the earlier tumultuous growth, but even so, exports of manufactured iron and steel quadrupled between 1870 and 1910, and the tonnage of ships launched in the town did not peak until 1920, later than other northeast shipyards.[156] Along with output, real wages also grew and there were more and better foods and other goods in the shops.[157] The demands of war boosted industrial employment, as in Bradford, and, immediately afterwards, there were deferred civilian shipping orders to be fulfilled. [158] 1920 was the last good year before growing weaknesses in the face of international competition caught up with Middlesbrough's staple industries.

Middlesbrough politics was dominated by labour solidarity based on the trades unions. This meant that working-class support for the Liberal interest, and for 'Lib-Lab' candidates, remained strong, long after the ILP and the Labour Party had undermined it in the other towns. Indeed, even between the world wars Labour never held more than a third of the seats on the town council.[159] In Middlesbrough, the leading figures in labour politics normally favoured mutualism and self-help, not socialism, and their concerns were for the (male) trades union agenda. Though they did show concern for living conditions and family welfare questions, compared to Bradford they were a lot more likely to see these through the eyes of the wage-earning husband, not the wife or child.

Middlesbrough's rapid growth in the earlier part of the period was supplied by migration much more than by the natural increase in population. The town took on a 'frontier' character which reminded contemporaries and later writers of other places which had been built rapidly on mineral discoveries. E.G. Ravenstein noted in 1885 that Middlesbrough, through its 'rapid growth, the heterogeneous composition of its population and the preponderance of the male sex, recalls features generally credited only to the towns of the American west.' [160] Asa Briggs switched the comparison to the Australian goldfield, labelling Middlesbrough 'the British Ballarat'. [161] While David Taylor has questioned just how far Middlesbrough can helpfully be described in 'frontier' terms, he concedes that it was a 'new town, built in an almost uninhabited district from 1830 onwards, with no prior institutions of formal or informal governance'. [162]

II

With these pen pictures of the three towns in mind, the first research findings to be presented here describe fertility in the three towns. The first intention was to test whether, in the light of known

variations in fertility by occupation, the towns' different occupational structures produced different fertility rates. Table one presents data on birth rates. The birth rate is a simple measure of fertility which has the merits of requiring only data which are readily available from the period, and of comparability to data for many other times and places. The birth rate is the number of live births in a place and year, per thousand resident population. As discussed later, crude birth rates take no account of the impact on fertility of differing age and sex structures of the populations, and even estimating resident population was an issue. Nevertheless, the birth rate is a valuable indicator of how rapidly families were being formed and is worthy of study.

Table one: Annual birth rates, Bradford, Leeds and Middlesbrough, 1861-1921

1a: Data by Registration District (RD), 1861-1901

	1861	1871	1881	1891	1901
Bradford	37.3	41.0	32.8	27.6	23.1
Leeds	38.9	39.1	35.8	33.1	28.4
Middlesbrough			41.4	38.9	36.5
England	34.6	35.1	33.9	31.4	28.5

1b: Data by County Borough, 1911-1921

	1911	1921
Bradford	19.0	19.6
Leeds	23.7	21.8
Middlesbrough	30.9	31.6
England	24.2	22.4*

*England and Wales.

Sources: see text.

The data used were extracted from the annual reports of the Registrar-General of Births, Deaths and Marriages, compiled by the General Register Office (GRO) since the introduction of civil registration in 1837.[163] Edward Higgs' history of the GRO describes the development of these reports, noting how they were influenced both by intellectual currents such as the emphasis on public health and by the development of public administration, which restricted the GRO's early freedom of action and, in the twentieth century, made it serve as a source of intelligence for a service-providing state. He notes the high quality of the registration data compared to that in some neighbouring countries.[164] Higgs also describes an 'Edwardian mathematical revolution', which greatly raised the sophistication of the statistical insights being used in reports, both to guard against errors and to provide interpretations.[165] This can be discerned in the development of the use of population estimates to calculate birth rates, discussed below.

Nearly all of the annual reports were published as Parliamentary Papers, which means that they are now accessible to researchers via the Chadwyck-Healey online database *House of Commons Parliamentary Papers*. [166] This practice ended with the 1919 report. Locating later ones was greatly helped by the appendix which Higgs provides, listing the GRO's publications.[167] In some cases the Reports calculate birth rates themselves: in the others, these were calculated using the appropriate populations provided in the Reports.

A number of methodological problems had to be solved to arrive at these data. These relate to the choice of date and the choice of place. Regarding the years used, while there was a report every year, and the quality of birth registration appears to have been uniformly high by this period, not every annual report could use equally good population estimates to produce birth rates.[168] Between Census years, the Registrar-General had to produce a population estimate to use as the denominator. Early in this period, he merely used the latest Census. Later, he produced estimates by using the most recent rates of growth available from Censuses, applying these rates to the last Census totals. This means that estimates became increasingly unreliable as the time from the last Census increased, especially in the early period. The last Census figure would usually be lower than the present population, producing inflated birth (and marriage and death) rates. Even when growth was estimated, actual growth might differ from estimated growth, introducing similar, if usually smaller, errors. It is possible to avoid this problem by selecting Census years to illustrate the long-term trend. This is possible because the Registrar-General published his annual report one to two years after the event, so by the time he reported on a Census year he was able to use Census data. Reports of births in Census years have therefore been preferred here to illustrate long-term trends.

Another pitfall to avoid in the selection of years is the inclusion of a year when the birth rate was very different from surrounding years, giving a skewed impression of the longer-term trend. Examination of the text of the Registrar-General's reports confirms that for most of the period there were no events which caused a major disturbance of the birth rate, which followed a secular downward trend and showed small annual fluctuations. The exception is the First World War, when mobilisation of very large numbers of young men produced a deep dip in the rates of marriage and birth. Demobilisation (which was completed in 1920) led to a boom in both, representing a catching-up effect. However, the pre-war downward trend in fertility had been re-established by the mid-1920s.[169] This means that persisting with the rule of selecting Census years and using 1921 avoids nearly all of the wartime and immediate postwar effects and gives a fair view of the underlying trend. To check this, the Registrar-General's Statistical Reviews for 1922 and 1923 were also examined.[170] Table two shows the data for the three towns. These support the Registrar-General's comment in 1921 that 'the direction of the forces so long operating towards the diminishing of the size of families has not been deflected.' [171]

Table two: Annual birth rates, Bradford, Leeds and Middlesbrough, 1921-1923

	1921	1922	1923
	Pop.	Births	Birth rate
Bradford	12.1	29.6	5.8
Leeds	8.0	20.7	16.5
Middlesbrough	n.a.	11.8	9.4
England	2.0	15.9	14.9

Sources: tables 1 and 2.

Before 1881 the decline was steepest in Bradford, with a reduction of twelve per cent in twenty years, though the eight per cent reduction in Leeds was also a significant one when compared with the almost flat national trend. While Bradford and Leeds aggregates did turn downward in the same decade as the national trend (the 1870s), they did so much more strongly. This is best interpreted as a subset of the population beginning to decline in fertility earlier than the rest, this group being represented in Bradford and Leeds in larger proportions than nationally. The occupational differences in fertility which were discussed in chapter two are the most likely explanation, with the fertility of textile workers in this period known to be among the lowest. Textile workers were always an important group in Bradford during the period, and were significant in Leeds at these dates though less so later. In all the discussion of aggregates such as town-level birth rates, it is important to avoid the ecological fallacy and to remember that there were probably leading sectors of fertility reduction (of whom textile workers may have been one here) who could have started to reduce their fertility sooner. This would only have affected the aggregate rate, or become detectable over the background 'noise' of annual fluctuation, once their fertility reduction became large enough, or spread to a large enough segment of the town population.

In the period 1881 – 1901, the fertility decline gained its greatest momentum within each of the

three towns: it is likely, though the 1908 break in data continuity makes it hard to show locally, that these rates of decline continued up to the First World War, as they did at national level (where they even accelerated). In the two decades up to 1901, Bradford's birth rate declined the most of the three towns, by almost thirty per cent, while the decline in Leeds was twenty per cent. The trend of these two towns over the forty years from 1861 is a very similar shape, but more pronounced in Bradford. Middlesbrough enters the table at this point, and its strikingly high 1881 birth rate of forty-one per thousand, compared to the national average of thirty-four, shows that special demographic circumstances had prevailed in the town in the preceding years. Later discussion will suggest that this high fertility was the product of high migration, a young population and a concentration of workers in high-fertility occupations. These factors did not, however, prevent the town's birth rate from dropping by twelve per cent in the two decades up to 1901. One question for the remainder of this study is whether some common influence on these diverse towns produced this shared decline, and if so why it was smaller in Middlesbrough than elsewhere. A final observation about these twenty years is that the different rates of decline in different towns make Bradford much more of an outlier in 1901 than it had been in 1881, showing again how Bradford's decline developed faster.

The examination of the years 1911-1922 confirms that Bradford's fertility had declined earlier than that in other places. By this decade, Bradford's fertility had fallen to a plateau, with little space for further reduction within the constraints set by prevailing influences on fertility. There was little deceleration in the fertility decline in Leeds or nationally, so fertility levels in Leeds, and England and Wales, came close to catching up with Bradford's precocious reduction. In Middlesbrough, too, no substantial slowing in the decline was yet apparent. Here fertility was becoming more of an outlier as the slower reduction left levels ever higher above those recorded elsewhere. This picture of sixty years can best be simplified in the image of a decline first in Bradford, where it was fastest in the 1870s and 1880s, then in Leeds, where it was fastest in the 1890s and 1900s, and last in Middlesbrough, where it was fastest in the 1900s.

It has already been noted that one explanation of variations in fertility can lie in variations in the age structure of the population. A population with a higher proportion of women of childbearing age will have more children even if women of any given age have the same fertility, simply because the most fertile age ranges are more strongly represented in the population. What difference, then, did age structure make to the patterns of fertility described here? Table four shows data about the age structure of town populations in 1871 and 1911.

Table four: Proportion of women aged 15-45 in the population, 1871 and 1911

	Percentage of female population aged 15-45	
	1871	1911
Bradford	50.6	52.2
Leeds	47.2	50.4
Middlesbrough	45.3	48.2

Sources: *Census of England and Wales, 1871: Population abstracts: Ages, civil condition, occupations, and birth-places of the people: Vol. III*, Parliamentary Papers (1873), LXXI (hereafter '*Census, 1871*'), p. 458; *Census, 1911*, pp. 650, 662 and 674.

The table contains a number of surprises, both about the age structures themselves and about their relation to fertility. Beginning with the facts of age structure, even though Middlesbrough was the fastest-growing town, with the most inward migration (dominated by people of working age, as discussed below), it actually had the smallest proportion of females in the fifteen to forty-five age group. This probably reflects Bradford's and Leeds' greater attractions for young female migrants, in view of the opportunities for mill work, and later also tailoring in Leeds. Middlesbrough's job market, by contrast, was very skewed towards males. In other words, there was a gender imbalance in migration between the three towns, with fewer women and more men going to Middlesbrough. This is considered further in the discussion of migration below.

A further surprise about the age structures observed is their development over time. Since adult mortality rates were gradually falling, boosting the proportion of over-forty-fives, this would, other things being equal, have reduced the proportion of fifteen to forty-fives. The table, however, shows an increase over time in the proportion of women of childbearing age. Examining the age distribution of the female population more closely reveals the explanation: although the proportion of over-forty-fives did rise slightly, for example in Leeds from seventeen to twenty per cent, this effect was more than offset by the fall in the proportion of girls under the age of fifteen, in the case of Leeds from thirty-six per cent in 1871 to twenty-nine in 1911.

If the pattern of age structures is surprising, its relationship to fertility is more so. Again, there is a spatial component to the relationship and a temporal one. Since a higher proportion of women of childbearing age predisposes a population to higher fertility, Bradford, with lowest fertility, would be expected to have the least favourable age structure, and Middlesbrough, with the highest fertility, to have the most favourable age structure. The data, on the contrary, show that Bradford had a higher proportion of females of childbearing age than the other towns, again because of its labour market. Similarly, in a temporal comparison, knowing that fertility was declining, age structure would be expected to become less favourable to fertility: in fact it moved the other way.

These paradoxes lead to an important conclusion. Something was having a stronger effect on fertility than age structure did, and was working in the opposite direction, to produce lower fertility in Bradford than Middlesbrough, and declining fertility everywhere over time. The spatial and temporal variations in fertility described above were the results not of age structure but of more complex causes.

To look for these causes, in particular for signs of family limitation within marriage, a good first step is to ask whether, when comparing groups of the same ages, women in Bradford, Leeds and Middlesbrough had the same number of children. Demographers present this information for an entire population by calculating standardised birth rates, which describe how many births there would be in a location if its women experienced the same age-specific fertility rates as a standard population, such as that of the whole country. This cannot be readily calculated for this period, because birth registration did not record the mother's age. A statistical technique can be used to infer it from the information in Census Enumeration Books (CEBs) if certain assumptions are made, but the data collection is time-consuming and the calculations very complex.[181] Answering the question about family limitation within marriage would also require standardising the populations for age at marriage. There is, however, an alternative to inferring the necessary information from the CEBs, using a source which does perform a standardisation for age at

marriage.

This is the 1911 Census Report, which included a survey of the fertility of marriage, reporting on the answers to questions which looked back over the whole of the respondents' period of family formation.[182] This survey, the work of the GRO's Superintendent of Statistics, T. H. C. Stevenson, was discussed in chapter two. Stevenson produced retrospective estimates of standardised fertility. Since his data were in a different form from annual birth registrations, the variables for which he had to standardise his populations were age at marriage and duration of marriage, making the results show, in his words, 'the tendency to reproduction of any married community.' [183] A certain amount of caution is necessary: the population of mothers Stevenson chose were those under forty-five, so this is a composite picture of fertility over married lives spanning approximately 1881-1911: it does not show whether family limitation within marriage had begun earlier than that, or describe change over time during these years. Table five summarises Stevenson's results for the three towns.

Table five: Standardised Fertility Rates according to the 1911 Survey

1	2	3	4
	Standardised births per couple	Col. 2 as percentage of the value for England and Wales as a whole	Rank order of col. 2 among 102 English and Welsh towns
Bradford	2.31	82	99
Leeds	2.68	95	55
Middlesbrough	3.07	109	21

Source: *Fertility of Marriage*, pp. cxxiii and cxxx-cxxxii

Stevenson's results show a clear difference in standardised fertility between the three towns, varying in the same way as the crude birth rates: Middlesbrough highest at more than three births per couple, then Leeds, then Bradford with only 2.3. This reveals the strength with which some factor (or factors) other than age structure was influencing the three towns' fertility. Column three allows a comparison with the national average, showing how, just as when measured by crude birth rates, Leeds' fertility rate was close to that of the whole country, Bradford's significantly lower by the late nineteenth century and Middlesbrough's distinctly higher. In column four of the table, the rank order is given for standardised total fertility in a list of all England and Wales' 102 towns with over 50,000 inhabitants. This reveals Bradford's outlier status at ninety-ninth position. Stevenson also gave crude fertility rates, and rank orders for these (not reproduced here): the fact that there is a difference of no more than two positions for any of the towns between the rank order of crude and standardised rates shows that standardisation made little difference to the results. This in turn shows that differences in age at marriage and duration of marriage between the towns (the variables on which he standardised) were only small influences on differences in their fertility, and that the main cause of these differences lay elsewhere. This confirms the importance of family limitation within marriage, the motives for which form the main focus of the following chapters.

Migration is relevant to this discussion of population age structure and marriage patterns, and therefore needs to be considered here. All three towns experienced significant inward migration, although in Leeds and Bradford this was at its greatest before 1861.[184] In the period studied, Bradford and Leeds grew mainly by natural increase, while Middlesbrough continued to attract large numbers of migrants until the first decade of the twentieth century, as table six shows. By 1910-1920, migration was unimportant for these towns and there was slight net outward migration.[185]

Table six: Migration to Middlesbrough, 1861-1911

	1861	1871	1881	1891	1901	1911	1921
Male in-migration in previous decade			4000	5000	2900	2300	
% of population born in Yorkshire	73	50	55	60	64	68	
% of population born in Ireland	2	9	7	4	3	2	2

Sources: David Watson, 'The Effect of the Growth of Middlesbrough on the Surrounding Rural Economy, 1830-1914', unpublished MPhil thesis, University of Leeds, 1993, pp. 102ff, Ravenstein, pp. 214-217; *Census, 1921*, p. 301.

Did inward migration raise the birth rate in the host towns? Since adults of working age were over-represented among migrants moving to seek employment, this migration produced a potentially more fertile age structure. In addition, Middlesbrough was particularly likely to attract single young men, given the gendered nature of employment in the iron industry discussed later in this chapter, whereas Bradford was just as, or more, attractive to single young women, seeking mill work. In both places, but especially Middlesbrough, this meant that at times there was a strong gender imbalance in the population of marrying age: Middlesbrough had 142 males aged from fifteen to forty-five for every 100 females of those ages in 1871, whereas in Bradford there were only eighty-five and in Leeds ninety-four.[186] The surplus of males promoted early marriage: commenting on Middlesbrough in 1907, Lady Bell observed that with more men per woman than the average town, each woman was more likely to marry and start a family, and in particular more likely to marry younger, than in a town where there was more competition between young women for husbands.[187] By 1921 Middlesbrough's ratio had dropped to ninety-nine men per hundred women, raising the age at marriage.[188]

The pattern of women marrying earlier in Middlesbrough than elsewhere at the height of the migration period can be demonstrated by calculating age-specific marriage rates from the 1881 CEBs, which are available in a digital form.[189] Appendix one to this chapter describes this very valuable resource and the use made of it here, with details of the methods used for the extraction of data and its analysis, including the calculation of singulate mean age at marriage. This method of estimating mean age at marriage from census data indicates that in 1881, married women in Middlesbrough had married at a mean age of 22.9 years, compared to 25.0 years in Leeds and 25.9 years in Bradford. Middlesbrough couples were thus married for three years longer, and these years fell within the most fertile period of a woman's life, so age at marriage was a factor which raised fertility in Middlesbrough compared to the other towns.[190] More generally, this analysis confirms the relevance of migration as a factor boosting fertility in host towns. It provides part of the reason why fertility was higher in Middlesbrough than elsewhere, and it also helps to explain declining fertility, since, as table seven shows, mean age at marriage rose as migration declined over the period. As the table shows, age at marriage in Leeds overtook that in Bradford, which rose more slowly, while in Middlesbrough the increase in age at marriage was, at 1.4 years, just a little slower than Leeds'. Too much should not be made, however, of these trends in nuptiality: they were relevant but not decisive, since, as previously observed, once family limitation within marriage became widespread, couples could overcome the effect of age at marriage on fertility by

speeding up or slowing down family formation later.

Table seven: singulate mean age at marriage, 1881 and 1921 (years of age)

	1881	1921
Bradford	25.9	26.5
Leeds	25.0	26.6
Middlesbrough	22.9	24.3

Sources: calculated from the 1881 CEBs and from *Census 1921*.

Migration, when and where it occurred, had a positive effect on fertility by making the local age structure more favourable to fertility, with a higher proportion of women of childbearing age. This impact needs to be fitted into the broader picture of age structure which was given in the discussion of table four earlier. There, it was found, looking first at spatial comparisons, that Middlesbrough had a less favourable age structure than Leeds and Bradford. However, it experienced more migration. The two findings are reconciled by concluding that the impact of migration reduced the differences in age structure between Middlesbrough and the other towns, but was not great enough to reverse them. Turning to the temporal comparisons, it was noted earlier that the age structure everywhere became more favourable to fertility. However, migration was declining. This paradox is resolved in a similar way to the first. The reduction in migration reduced the magnitude of the fertility-promoting change in age structure. If migration had stayed at the levels of the 1860s, there would have been more women of childbearing age in these towns' populations and upward pressure on fertility would have been stronger. Declining migration was a contributing factor in the fertility decline, but on its own it was not strong enough to overcome changes in age structure which were pushing fertility in the other direction. Again, family limitation within marriage emerges as decisive.

Moving on from the simple counting of migrants, did it matter where the migrants came from? The answer to this question is in two parts. On one hand, different migrant communities do seem to have had different demographies. On the other, the distinctively different groups who attracted most contemporary comment, the Irish, and the eastern European Jews in Leeds after 1881, were in fact relatively small in number, which limited their impact on the overall demography of their towns.

Contemporaries thought that both the Irish and the eastern European Jews had larger families than the host population. Recognisable communities of Irish and Jewish heritage remained after the first-generation migrants, so the impact of the original migration on fertility could have lasted more than one generation. While it is not easy to identify second-generation communities from Census data, first-generation migrants present no such problem, since the Census recorded country of birth. This makes it possible to compare the birth rates of, for example, Irish and English-born mothers, while controlling for father's occupation, using the 1881 CEBs. This exercise shows that in Middlesbrough, Irish-born women married to iron and shipbuilding workers (n=462) had 4.00 co-resident offspring, while the English-born wives of men in those occupations (n=2050) had 3.31.[191] It is also necessary to examine the fertility of Irish-born mill

workers in Bradford. If Irish heritage was the decisive factor, these families should be of similar size, whereas if occupational factors mattered most, Irish-born mill workers will have had smaller families, similar in size to those of English-born mill workers. Among the families of male Bradford millworkers, Irish-born wives (n=162) had an average of 3.52 children, English-born wives (n=2928) 3.03.[192] The Irish who worked in Bradford mills had smaller families than those who worked in Middlesbrough ironworks, but not as small as their English counterparts: both country of origin and occupation played a part in fertility.

Irish families were, then, a little larger than other families in 1881, but only by about fifteen to twenty per cent, and they were open to the same occupational influences on their family size as other parents, making their families smaller if the father worked in a mill than if he worked at a blast furnace. The timing and distribution of Irish migration had an influence on fertility trends, but not a large one. In a similar way, the arrival of the eastern European Jewish community in Leeds raised the overall fertility of the town in the 1890s and 1900s, but only by enough to have a slight slowing influence on the wider fertility decline.

Most migrants were from within England, especially Yorkshire and neighbouring counties. Table six showed how the proportion of Irish-born residents never rose above nine per cent in Middlesbrough. In Bradford it also peaked at nine per cent, in 1851, falling to six per cent by 1861, while in Leeds five per cent of the population were Irish-born in both years.[193] Leeds' Jewish community probably peaked at about 20,000 (about five per cent of the population) in 1910.[194] The contribution of migration within England, notably the movement of people from rural Yorkshire and from depressed agricultural counties like Lincolnshire and Norfolk, made a much larger impact on population numbers in the three towns.[195] The movement of skilled industrial workers within Britain was also significant, especially as a source of Middlesbrough's growth. For example, when Alexander Brodie Cochrane opened the Ormesby Ironworks in 1854, he brought with him 'key men' from his Woodside Works in Dudley, Staffordshire.[196] In 1861, forty-two per cent of the town's skilled ironworkers were Welsh.[197] This analysis shows that contemporaries were misled by the visible cultural differences of the Irish and eastern European Jews and overestimated their importance for the demography of their host communities. The scale and timing of migration mattered much more than its source.

Migration had other effects as well as promoting earlier marriage. By breaking social bonds, it altered local cultures. The large numbers of migrating young men in Middlesbrough, detached from the steadying influences of their parental homes (and often from any family, though some joined relatives), led to a culture in which social inhibitions were less strongly felt than in more settled environments.[198] For example, unrestrained alcohol consumption was more frequent: arrests for drunkenness in the town around 1860 ran at almost five times the national average.[199] This cultural mix, with its implications of disinhibited male sexual behaviour, contributed to a higher conception rate and higher fertility (largely within rather than outside marriage).

This examination of local birth rates has given strong evidence for a fertility decline in all three towns, and for differences in its contours between Bradford, Leeds and Middlesbrough. A fertility decline began in Bradford first, then in Leeds and only later in Middlesbrough. This discussion has shown too that fertility declined even while the age structures of the populations were moving

in a direction which would have raised fertility if no other factors had been at work. Migration has emerged as a factor, its decline partly offsetting these movements in age structure. The gender imbalance which it caused in nineteenth-century Middlesbrough helped produce behaviours including earlier marriage which raised fertility, though this was only one cultural influence among many.

III

Next, a better understanding is required of how the local economies described at the start of this chapter affected family life, through the availability of employment and by the levels of income it could offer to different groups. Employment is of interest to a discussion about fertility because of the link between occupations and fertility levels. This section sets out what is known about the distribution of occupations in these towns and how it changed over time, before examining how much this helps explain the different patterns of fertility decline in the three towns.

The main source used was the decennial Census reports.[200] These have both strengths and weaknesses. The GRO's interest in occupation, which ensured that it was covered in every Census of this period, stemmed largely from its health focus and thus a concern for occupational disease.[201] This dictated that the Census would look at what people did (occupational classification) rather than what industries they were employed in and what they produced (industrial classification), until this began to be of interest to government from the 1911 Census onwards.[202] The Census would record a person, for example, as a carpenter or engineer, rather than noting whether they worked in building, manufacture or transport. This imposes one particular framework of analysis, but since meaningful connections can be found between occupation and fertility, it allows worthwhile investigations.

Issues about the validity and usefulness of different Censuses arise. Middlesbrough made its first appearance in the tables of 'Principal Towns' in the Report of the 1871 Census, ruling out use of the 1861 Census for comparisons between the three towns. The 1871 occupation tables for Principal Towns did not cover workers under the age of twenty, although this analysis was provided for larger areas: this omitted just over a quarter of all people recorded with an occupation in the Industrial class.[203] Since few people aged under twenty were starting families, the impact of this omission on a study of fertility is not great, but comparison over time dictated that the under-twenties be omitted throughout. The selection of the over-twenties has the benefit of excluding the effects of the restriction of child labour, whose wider impact on fertility is discussed in chapter five.

The choice of place to be studied raised further issues. Analyses by counties (too large an area for use in this study), and by large towns, based on borough boundaries, were available in each Report. Analyses by Registration Districts (labelled Enumeration Districts for Census purposes) were offered in 1861 and 1871, but then disappeared.[204] The best way to present approximately comparable data over the period studied is therefore to do so by town. In doing this it is necessary, as with birth data, to be aware of boundary changes. These changes cannot be tracked using the *Vision of Britain Through Time* website, which overlooks changes in borough boundaries of these towns before the nineteen-thirties. There were a number of these, but since their effect was broadly to preserve a match between urban area and geographical extent, their impact on the

social characteristics of the areas defined was limited.

Comparison between Censuses also poses the problem of selecting occupations for study, because the definitions of occupations, and the larger sets into which they were grouped, changed constantly. A solution to this problem was set out by W.G. Rimmer and, separately, by Alan Armstrong, and has been adopted here.[205] As Rimmer concedes, too much should not be claimed for this process. What was involved was to begin with the 1911 classification of occupations and their grouping into Orders: this year was preferred because later Censuses went into detail which had not been recorded for the Victorian period and could not be used in a comparative study. The 1911 Census Report provided a reconciliation of occupational categories back to 1891.[206] With the help of this aid, which gives a good idea of how 1891 occupations would map into 1911 groupings, it was possible to arrive at the best grouping of 1871 occupations to match the 1911 groups selected. These are set out in table eight.

The 1911 selections were made following two rules. Since the aim was to see whether there had been large-scale change in the nature of employment available to men and women, the groups chosen were those employing the largest numbers, of men and, separately, of women. This was compared with the 1871 picture to check that no large group of 1871 employees had faded out of the picture by 1911. The second rule was to aim for simplicity, in order to reduce the scope for definitional change, by using either whole Orders or large continuous extracts from them. The resulting selection of categories is shown in tables eight, nine and ten. Table eight describes the details of the 1911 selection of occupations, and the selection of 1871 occupations which had to be made to map onto this as well as possible. Tables nine and ten, which follow this discussion of the methods used in their preparation, present results for men and women respectively.

Table eight: Definition of Census occupations selected for study, 1871 and 1911

Short name	1911		1871	
	nos.	names	nos.	names
Engineering	X	Metals, machines, implements and conveyances	10.10	Engine and machine maker etc.
			10.11	Coachmaker, wheelwright etc.
			10.12	Saddler etc.
				Shipbuilder etc.
			10.13	Copper manufacture
				Tin manufacture
			15.9	Zinc manufacture
			15.10	Lead manufacture
				Brass manufacture
			15.11	Iron manufacture
			15.12	
			15.13	
			15.14	
Textiles	XVIII	Textile fabrics	11.1	Wool, woollen cloth, stuff
			11.2	etc
			11.3	Silk and ribbon

			11.4	Flax, cotton etc. Weavers, drapers etc.
Dress	XIX	Dress	11.5	Tailor, shoemaker, bootmaker etc.
Food and lodging	XX	Food, tobacco, drink and lodging	5.1 12*	Inn, hotel, lodging-house etc. Milk, cheese, butcher, etc. Miller, baker, greengrocer etc. Brewing, grocers, tea, tobacco etc.
Building	XII	Building and works of construction	10.14	Carpenter, joiner, bricklayer, mason , plasterer, plumber, painter etc.
Transport	VI	Conveyance of men, goods and messages	7*	Railways Inland navigation Ships and docks Warehousemen Messengers
Service	IV	Domestic offices or services	5.2	Domestic servant, nurse, charwoman etc.

*the whole of this Order included

Sources: *Census 1871*, pp. 482-489; *Census 1911*, pp. 650-652.

The greatest issue with the census occupation data is the incompleteness of their coverage of the work of women. This point has been examined by a number of writers since around 1990. Sara Horrell and Jane Humphries are fairly pessimistic, while Leigh Shaw-Taylor and Tony Wrigley (following Michael Anderson) are readier to accept that the 1851 Census figures which they discuss bear a reasonable relation to actual levels of paid employment.[207] Ellen Jordan suggests convincingly that while census data may capture full-time work reasonably, they are highly unlikely to record all the paid occupations of women who had more than one.[208] Higgs adds the reminder that householders, enumerators and Census clerks held a range of conceptions about what constituted work. It cannot be assumed that they always defined it as paid employment outside the home.[209] Eilidh Garrett's illustrates this point with her observation that the early twentieth-century decline in the reporting of married women's work probably reflected changing interpretations of what 'work' was more than changes in women's occupation. As work was viewed more and more as something full-time, carried out away from the home, women working at home became less likely to report this as work in the Census.[210]

In the many cases where women worked partly or entirely in the home, whether in business, housework or some combination, this introduces frequent problems in knowing what the data mean, for example whether a woman enumerated as a servant was really engaged in housework for her kin. Nor is it clear whether someone enumerated with no occupation was in fact fully occupied in market labour, for example in 'penny capitalism' activities such as taking in washing, childminding or even acting as an (unqualified) midwife. Even the demarcation between market and domestic labour might be fluid, as with the taking in of lodgers, an activity occupying some twelve to fifteen per cent of married women, which received equally varied coverage in the

Census report on occupation.[211] The problems with Census data about female employment vary in nature and severity from one Census to the next. Hill notes, importantly, that in 1881 and 1891 enumerators were told to place married women in the 'unoccupied' category, making these two Censuses highly unsuitable for the present task.[212] Avoiding these two years, however, Census data on female occupation remain worthwhile. Since they were most likely to capture occupation when a woman worked full-time outside the home, and this kind of work had (as discussed here) the greatest impact on a woman's fertility, their partial picture of female economic activity remains relevant, as do their data about male occupation. The following section will present the most useful of these.

Table nine sets out how the distribution of male employment differed in the local workforces of the three towns, and how it altered between 1871 and 1911. This is of interest to the study of fertility because of the clear correlation between fertility and father's occupation. Simon Szreter, whose work on this subject was introduced in chapter two, estimated that the mean completed fertility for people marrying in the early 1880s was, for example, about 6.5 if the father worked in engineering compared to about 4.5 in the case of woollen textiles.[213] Examining the findings in the table, this variation in male occupational fertility seems to offer a convincing explanation for the fertility differences between the three towns. Middlesbrough, with the highest fertility, has a much larger concentration of the 'engineering' group, while Bradford, with the lowest fertility, has much the largest textile sector. Examining occupational fertility in more detail, the link becomes stronger: within engineering, men working in iron and steel manufacture had the highest fertility, and this was the largest part of Middlesbrough's engineering sector.

Table nine: Share of total male employment in different occupations (%), 1871 and 1911

		Bradford	
	All women over 20	All women over 20	Married women
Bradford	50	40	19
Leeds	33	31	13
Middlesbrough	16	19	4

Persons over twenty only.

Sources: *Census, 1871*, p. 486-489; *Census 1911*, pp. 650, 662 and 674.

These figures indicate that a larger proportion of women could find work in Bradford than in Leeds, with the proportion much smaller again in Middlesbrough. Data on married women, first available in 1901, need to be treated with the most caution of all, given the social assumptions already discussed which made occupied married women likely to be recorded as unoccupied. They show that women's differential access to the labour market across the three towns was even more marked after marriage, with a married Bradford woman five times as likely as one from Middlesbrough to record an occupation. Census data is not reliable enough to confirm trends over time, as discussed: although contemporaries thought that women's work was on the increase, it was probably merely becoming more visible to elite commentators as the balance of female workers swung gently from factories to shops and offices.[216]

These data and Jordan's, just cited, all paint a similar picture of work being much harder for women to find in Middlesbrough, and much easier in the other towns. This made it more attractive to women in Leeds and Bradford to delay marriage, and, independently of age at marriage, to delay the birth of their first child. (There is no reason to assume a regime of so-called 'natural fertility', in which women always conceived for the first time very soon after marriage. 'Spacing' may have begun on the wedding night for some.) Whatever the occupational variations in spacing behaviour though, differences in access to any kind of employment were a major influence on fertility in the three towns.

The distribution of women's recorded occupations should now be considered. This is of interest because it would be a reasonable hypothesis that kinds of employment which provided women with higher status, including higher earnings, would tend to reduce fertility by making work more attractive and childrearing less so. Table eleven presents information on female occupation in the same form as table nine did for males.

Table eleven: Share of total female employment in different occupations (%), 1871 and 1911

		Bradford
Bradford male woollen workers	BROCFA2	3.06
Bradford female woollen workers	BROCMO2	2.28
All Bradford families	BRCOMP	3.10
Leeds male engineering workers	LDSOCFA3	3.25
Leeds tailoresses and female dressmakers	LDSOCMO2	2.74

All Leeds families	LDSCOMP	3.13	
Middlesbrough male iron and shipbuilding workers	MIDOCFA2	3.47	
All Middlesbrough families	MIDCOMP	3.33	

Source: 1881 CEBs. (For dataset definitions, see appendix one to this chapter.)

The data confirm the difference in fertility between male occupations, from mill workers with 3.06 children present, through engineers with 3.25 to iron and shipbuilding workers with 3.47. Fertility varied by male occupation as predicted by Szreter's national aggregate fertility rates. This was one important reason for the overall fertility differences between the three towns in 1881, since the occupations listed here were, as discussed earlier in the chapter, large sections of the male population in each town, so their fertility had a material effect on the aggregate fertility of the whole population.

What, then, of the impact of female occupation? Table twelve provides striking evidence of the importance of female occupation for fertility. This is again considered in two stages, first the impact of having any occupation, and then that of the differences in occupation. Families containing a working mother were smaller than the average, in the case of Bradford those with a mother at the mill having 2.28 children compared to the town average of 3.1, and in Leeds those with a tailoress mother having 2.74 against a town average of 3.13. This result prompted consideration of the average family size of all working women, which was analysed by looking at all the wives of the male occupational groups selected. Taking this approach controlled for interactions between male and female occupational fertility: for example, if the difference in fertility between married tailoresses and servants was due to the greater propensity of the former to marry (relatively fertile) engineers, then this would not have shown up when considering all working women regardless of husband's occupation. Table thirteen presents the results of this analysis.

Table thirteen: Mean number of children for male occupational groups by wife's occupational status in census, 1881.

Husband's occupation	Wife with any occupation	Wife with no occupation	Difference (%)
Bradford millworkers	2.36	3.33	+41
Leeds engineers	2.97	3.29	+11
Middlesbrough iron and shipbuilding	3.68*	3.47	- 6

* a small sample compared to the other groups in the table (n=80)

Source: 1881 CEBs.

On these data, whether or not the wife worked in a recorded occupation could have more effect on fertility than what the father did for a living – in Bradford, much more. When a male Bradford mill worker was married to a woman who was not employed at the time of the Census, his family

was forty-one per cent larger. Meanwhile, table twelve showed that the difference in family size between him and his fellow-men in other occupations was much smaller – 3.06 for him, 3.1 for all Bradford families, and so (since male mill-workers headed around thirty per cent of Bradford families) an average family size of 3.12 for men in other occupations. Type of male occupation, then, only produced a difference in family size of about two per cent between mill workers and the rest of Bradford's fathers, while the fact of female occupation was linked to a forty per cent difference (at least within the subset of male mill worker families). In the words of Stevenson, 'where the wife works little ... the husband's occupation alone can influence fertility, but where the wife works much, as in textile production, it may be that her work largely or even mainly governs the situation.'^[224]

Consideration of Leeds and Middlesbrough bears out Stevenson's interpretation. In Leeds, where a smaller proportion of women worked, table thirteen suggests that the fact of female occupation had less impact on family size than in Bradford, while in Middlesbrough, with fewer women in employment still, it had even less impact, the data suggesting if anything a weak positive correlation between having a job and family size, the opposite effect to the one seen elsewhere, although with a sample size of only eighty this may not have been statistically significant.

The data presented here also demonstrate occupational differences in fertility between women. Tailoresses had more children than woollen workers, as table twelve showed. Caution is necessary, however, on two levels. First, these data are not standardised between occupations for age (or other variables such as husband's occupation or age at marriage), and so could be reflecting differences in (for example) the age distribution of female occupations rather than true occupational fertility differences. The calculation of age-specific fertility rates by occupation would be the gold standard method for overcoming this difficulty. And second, before too much weight is placed on female occupational fertility differences, it must be recalled that less than a fifth of married women recorded any occupation. This is therefore a discussion affecting only a minority of the women likely to conceive, unlike the question of whether they had an occupation at all. Among all female influences on fertility, then, what mattered most was the fact of having any occupation, whereas for men the type of occupation counted more. Working mothers had smaller families, and this explains much of the fertility difference between Bradford, Leeds and Middlesbrough.

It needs to be borne in mind, of course, that causation could run in both directions: some women had smaller families because they worked, while others worked because they had smaller families, sometimes returning to work because infant or child mortality had robbed them of their chief reason to stay at home.^[225] Some of the data here therefore exhibits selection effects: for example some women were placed by the Census in the unoccupied category mainly because of the stage of their life-course which they had reached. A Bradford or Leeds girl born in 1860 might start work at ten, marry in her twenties, leave work in her forties when she had two or three children and return when the youngest reached sufficient maturity. The autobiographical data is rich with illustrations of such lives. Elizabeth Rignall's mother had started as a half-timer in a mill near Bradford aged seven, probably in the early eighteen-seventies, but by 1894 was out of the labour market when her second child was on the way, and apparently did not return.^[226] Annie Gawthorpe, the daughter of Leeds cloth dressers, also began mill work young, by about 1870, switched to homeworking as a dressmaker as soon as the family could afford the drop in earnings,

and gave this up at her marriage: she believed a father should support his family and 'it would never have occurred to her', according to her daughter, 'to develop a business as enterprising mothers were known to do.' She remembered her time at the mill, driven there by her parent's poverty, with bitterness, giving her further arguments against going out to work.[227] With women's working lives' so typically interrupted in this way, it is important when using a Census occupation, such as mill work or domestic service, as a shorthand description of a woman, not to imagine that it defined her for all of her adult life (in the way that occupations did, much more often, define men).

The communication communities model of occupational determinants of fertility, then, needs to be refined by taking on board patterns of female as well as male occupation, a task to be taken up in chapter seven. The model's proposed mechanism, it will be recalled, was that occupation influenced the ease of communication between a husband and wife, which then influenced the wife's ability to persuade the husband to agree to a smaller family. Certainly a working mother had more status in the household and more of the shared language and mental world which facilitated communication with her husband: the model seems capable of incorporating female occupation. But when the wife had a job, this also had a more direct impact on fertility. As chapter four will show, the additional pressures of paid employment, poorly compensated by relatively low pay, made the costs of childrearing higher for couples where the wife had full-time work. The combined effort and stress of earning a full-time wage and continuing to perform nearly all household tasks, including those of childrearing, imposed such unmistakable costs on working mothers that it is surprising how many historians have not discussed this obvious incentive to have fewer children. Chapter four discusses how far this more direct 'working mother' effect might explain changes over time as well as the spatial differences discussed here.

The use of the 1881 CEBs has allowed analysis of the family size of occupational groups. Ultimately, however, any Census is only a snapshot in time. Having noted the importance of a woman's life-course to her decisions about family limitation at different times, it would be valuable to follow some individuals from one Census to the next to see the interplay between the growth of their families and the occupations they followed at different ages. And, although male life-courses were often occupationally simpler, they too are of interest in exploring the influences on fertility.

IV

The picture of employment patterns now needs to be fleshed out with evidence about the earnings which this employment provided for typical workers in the three towns. Earnings are relevant to fertility because in a wage labour economy they provided all the resources available for childrearing. In the demographic system which existed before the late nineteenth century, couples who felt better off married younger, allowing more time to have larger families.[228] The discussion here will look first at actual earnings at current prices, and then at movements in real wages, taking account of changes in the cost of living. Both are important: money rates affected perceptions most directly, but real wages also mattered because falling prices meant a significant rise in spending power in the long term. As Wrigley and Schofield discussed in relation to the pre-1871 period, the length of time which it took for people to become aware of these changes in real income also needs to be considered. Their view of the earlier period was that there was a delay of

about forty years before long-term changes in real incomes had an impact on fertility.[229]

The main sources for the money wages used here were the official reports prepared by the Labour Department of the Board of Trade and its successors. *British Labour Statistics: Historical Abstracts 1868-1968* provided a useful introduction to the more detailed sources.[230] In general, the official reports provided directly useable estimates of wages of particular trades in particular towns, but at times they only gave the percentage increase on an earlier year. For Middlesbrough, the official data were augmented with figures from the archives of one of the larger firms, Cochrane's Ormesby Ironworks.[231] A typescript history by the founder's grandson written in 1953 gives wage rates and hours for various trades in 1888: fuller information for 1912-1918 is available in the only surviving 'Register Book' from the works. Company records also survive from the worsted industry, effectively catalogued by Pat Hudson, and research in these would strengthen the discussion of Bradford wages given here, although wage records have survived less well than other company documents.[232]

How reliable are the money wage series used here? The question is especially significant because the account here is a more optimistic one (in relation to Bradford) than Karl Ittman's. The Labour Department created its tables on the basis of reports from local employers in the main, but was willing to report the statements of trade unions and groups of workpeople in an apparent attempt at even-handedness.[233] In general, twentieth-century statistics distinguish between wages (the basic weekly or daily rate of pay) and earnings (what an employee took home, consisting of wages plus overtime pay). In the nineteenth century, hours were longer and overtime less common, and the statisticians mainly referred simply to 'wages'. The data used here represent average weekly wages in particular towns. This combines the rates paid by different employers, which could vary, even in trades with a national wage agreement or (after 1909) a Trade Board minimum wage. Some employers might pay a higher rate, or possibly a lower one.[234] Some of the original data were daily or hourly rates: these have been converted to weekly ones using weekly hours data provided in the same tables. Taking these considerations into account, the official data are a credible guide to employees' actual earnings. They do not show a continuous rate of earnings, but as a snapshot of a fluctuating level, a point discussed below.

The question of representativeness also needs discussion. Five broad industries are considered here: worsted, engineering, tailoring, iron and steel and shipbuilding. Are the trades for which wage rates are available a good sample of these entire industries? An effort was made to select trades containing a significant proportion of all the workers in their industry: this was assisted by the Board of Trade's attempts to note how many workers per hundred fell into the different trades reported on.[235] For example, in 1906 the Bradford woolcombers reported on here formed just over a tenth of all males at work in the worsted industry; the female weavers were nearly forty per cent of the female workforce.[236] Ittman, ultimately following Arthur Bowley, sketched a three-tiered hierarchy of overlookers and so-called 'skilled' men, women and children spinning and weaving (the largest group), and a pool of unskilled adult male labour such as woolcombers: seen here are examples of the last two categories.[237]

When, as with worsted weaving, a category used in the wages reports matches one used in the Census, the latter can be used to verify the importance of the trade as a proportion of the whole industry. The references in the Leeds and Middlesbrough figures to 'labourers' refer to labourers

within the engineering and the iron and steel industries respectively, not to general labourers of all kinds in the town. It follows that the trades for which earnings are illustrated here are not only the most representative ones for which long data series can be found in the official statistics: they are also sufficiently representative to give an indication of wider movements in wages within their industries in the three towns.

Tables fourteen to sixteen present money wages series for Bradford, Leeds and Middlesbrough respectively. These are a series of snapshots: the importance of shorter-term fluctuations emerges clearly from examining the series for Bradford woolcombers or Middlesbrough furnace keepers. When employers felt that their firms were in a difficult trading position they were able to secure wage cuts: in Middlesbrough, for example, a large number of the rates of pay negotiated between firms and unions were on 'sliding scales' which linked the size of the wage-packet to the trade price of iron.[238] Analysis of wages and earnings on Teesside by Anthea Hall demonstrates that 'improvements in money incomes were far more irregular and sporadic than the wage data imply.'[239] Earnings varied more than wage rates because workers might be paid piece rates, be subject to short-time or overtime working, or even unemployed. Hall's more realistic estimates show that, although earnings (and real earnings) followed a secular upward trend between 1870 and 1914, it was weaker than that in wage rates, and, more importantly, workers' lived experience would have been coloured more by large short-term fluctuations than by this weak secular trend. Barry Doyle echoes Hall's account, referring to Middlesbrough's 'highly masculine occupations where wages were good but risks were high'.[240]

Did the other two towns experience similar levels of uncertainty? It was worse in Middlesbrough because of the town's dependence on the volatile market for capital goods. But in Bradford, too, uncertainty was evident. For example the Board of Trade noted that in 1900 only seventy-two per cent of women in the woollen industry were employed by mills that were in a position to provide employment to all their hands full-time, compared with ninety per cent the previous year.[241] Laying off all the workers for a few weeks, for example extending the summer holiday closure, or requiring them to move to short-time working, were frequent mill responses to slack demand. The assertive labour movement of Bradford was also quite prepared to mount significant strikes, such as the famous strike at Lister's Manningham Mill of 1890-1891, and the workers dispute with the Bradford Dyers' Association which overshadowed the birth of oral history informant Joseph Marshall in 1913.[242] These and other mill strikes were contests of endurance, whose side-effects for strikers' children and spouses, living below the breadline for months on end, might be grave.

The long-term rise in real earnings, then, did nothing to overcome anxiety about short-term fluctuations including unemployment, and this anxiety affected fertility. According to the *Bradford Daily Telegraph* (though some caution is needed: it was opposed to the strike) Joseph Marshall's mother told a journalist, as she turned to place baby Joseph more comfortably in bed, the day after his birth: 'I do hope this strike won't last long, if it does it will make a hash of such as me.'[243] It is tempting to speculate that uncertainties like this were the reason the Marshalls stopped their family at Clifford and Joseph, although their low household income would have been a sufficient explanation. Father earned less as a labourer at a Bradford wool dyer's than mother did as a spinner.[244]

The underlying upward trend in money wages is still, nevertheless, visible, and despite her downward revisions in its size, Hall's studies confirm this. In the data presented here, twentieth century wages are all, with one exception, higher than any in the nineteenth century.

Table fourteen: money wages in Bradford, 1860-1906

	Woolcombers (men)	Weavers (women)	Spinners (girls: full time)
1860	0.52	0.55	0.11
1863	0.56	0.63	0.11
1866	0.70	0.60	0.16
1874	0.82	0.85	
1877	0.82	0.77	
1883	0.75	0.72	0.42
1886		0.69	0.41
1906	0.99	0.69	0.47

Wages in pounds per week, converted to decimal currency.

Table fifteen: money wages in Leeds, 1860-1926

	Fitters	Moulders	Labourers	Tailoresses
1860	1.30	1.40	0.85	
1885	1.36	1.36	0.94	
1886				0.76
1914	1.85	2.10	1.14	
1920	4.28	4.71	3.54	
1926				1.40

Wages in pounds per week, converted to decimal currency.

Table sixteen: money wages in Middlesbrough, 1871-1914

	Furnace keepers	Slaggers	Labourers	Riveters
1871				1.72
1877	2.66	1.69	0.95	
1885				1.86
1886	2.18	1.41	0.88	
1888	1.63		0.90	
1905	3.00	1.85	0.95	
1906				2.78
1912			1.10	
1914				1.85
1919				3.68

Wages in pounds per week, converted to decimal currency.

This visible growth in earnings coincided with the marked decline in fertility discussed earlier in the chapter: the older positive link between income and fertility had been broken by the later nineteenth century in these towns. Comparison of trades tells the same story: although earnings grew faster for Bradford woolcombers than for Middlesbrough iron works labourers, woolcombers' fertility declined much faster than iron workers'.

This breaking of the link between income and fertility was not caused by income trends becoming less visible: Crafts and Mills' long data series show money wages growing steadily through the nineteenth century.[245] As in earlier periods, people could, despite fluctuation and uncertainty, see that their wages were higher than they had been a few years before. The amount of annual, or even monthly and weekly, fluctuation disguised the underlying trend for some time, but workers realised in time that wage rates had moved more permanently upwards: for example, that a newly started fitter was receiving more than his established colleagues had done at that stage in their own working lives. Fathers might compare wage rates with sons, and mothers with daughters, noting in a similar way that the same work paid better a generation later. Wrigley and Schofield argued in this way that one generation was the approximate time-lag with which fertility responded to income before the 1870s. In the period now examined, however, the way fertility responded to this realisation of rising income had changed: when once the reaction was to marry sooner because it was now more affordable, now there seemed to be no connection between income and marriage rates or fertility.[246]

The data presented here can be used for spatial as well as temporal comparisons. It is legitimate to use the data in tables fourteen to sixteen as a rough proxy for working-class earnings in each town, as discussed, since these are rates for important trades within each town's most important industries. The picture of Middlesbrough should not be coloured too much by the very high earnings of the furnace keepers, who were a small elite group as their name implies, but even so iron and steel manufacture there paid some relatively high wages, probably just a little above those in the Leeds engineering industry. When shipbuilding emerged on the Middlesbrough scene too, from the 1870s, this pulled average wages in the town upwards, as the rates for riveters in table sixteen show. Women, however, could normally find only very low-paid employment in the town. The typical Middlesbrough household at any point in this period, then, was one where a

husband earned far more than his wife, if she had any paid employment at all. This differential was a larger one than in Leeds, where in addition to work as a tailoress, shown in table fifteen, there was also evidence of female employment in woollen mills and the beginnings of white collar work. Status differences between husbands and wives were lower than in Middlesbrough, and fertility declined faster.

Bradford gives more evidence of this association between status differences and fertility. As table fourteen shows, the town had much lower male wages, placing them a lot closer to female ones, with female weavers earning very much the same as male woolcombers until the 1880s. The table slightly underestimates average male wages in the earlier part of the period, because the woolcombers' wages given here were about twenty per cent below woollsorters or male weavers in the 1860s, catching up with them by the 1900s, as a result of the growing Bradford specialisation in woolcombing. In all these Bradford trades, however, men were earning only about half to two-thirds of what a Middlesbrough slagger or a Leeds fitter was. Women at work in Bradford earned about the same as the Leeds tailoresses. This made the woman's earnings a more substantial proportion of the total coming into an average household than in the other towns.

The high rate of continuing child employment in textiles (accommodated by half-time working once children also had to attend school, as discussed in chapter five) also diminished the economic status of the husband by further reducing the share of the budget which he was contributing. The last column of table fourteen illustrates this with rates for girls working full time, the measure of juvenile earnings least affected by the restraint of child labour. (In Bradford mills, boys' rates were nearly identical.) The picture of the typical Bradford household, then, shows the husband bringing in a far smaller proportion of total income than in Middlesbrough and a distinctly smaller one than in Leeds. The causal link between this and Bradford's exceptionally low fertility is brought out further in chapter seven.

Money wages were the measure of income which meant most to contemporary workers and did most to shape their impressions of their spending power. However, the period was notable for spells of falling prices, and later for sharp inflation during the First World War, so that trends in money wages do not give the whole picture. Real wages series were therefore prepared for the selected occupational groups in the three towns. To do this, the money wages already discussed were converted to real wages using a specially prepared cost of living index based on the work of Nick Crafts and Terence Mills. That work combined the existing cost of living indices which Crafts and Mills judged most reliable to produce an annual series for 1851-1913.[247] Details of how their series was combined with the government indices, which began in 1914, to produce a consistent 1855-1925 series are given in appendix two to this chapter.

The merit of any cost of living index depends on its ability to capture movements in the prices of those goods and services which form the key expenditures of the population being studied: this 'basket of goods' must be selected and weighted in a representative way. Crafts and Mills are confident that the 1855-1913 indices used here are suitable for measuring working-class living standards.[248] The later indices, too, were prepared with working-class expenditure in mind. The inclusion of items in the basket of goods used was determined by a 1904 survey of family budgets. The collection of this data series was begun with the object of measuring what it would cost to maintain 'the pre-1914 standard of living of the working classes.' [249] It is legitimate to

use these national indices to compare real wages in different towns because of the similarity of price levels around the country. In 1908 the Board of Trade noted that 'for equal accommodation and equal provision of food and fuel the necessary expenditure would not differ very much from one town to another.' [250] Edward Hunt concluded that there was 'remarkable similarity in the cost of living in various parts of Britain': while rents varied more than food prices, food took up nearly four times as much of the family budget. [251]

Some extrapolations were performed to estimate how Bradford wages performed after 1906, when the official data become thinner. The figures presented in table seventeen for 1913 levels are based on the assumption that wages in Bradford rose at the same percentage rate as those throughout the Yorkshire wool and worsted industry between 1906 and 1913. Since wage inflation was low in these years, this will not have introduced major errors. After 1914, estimates use the 1928 *Nineteenth Abstract of Labour Statistics* for percentage increases in earnings. In table seventeen, then, the figures for 1913-1921 are best estimates.

Tables seventeen to nineteen present real wages town by town. Moving from money wages to real wages, bringing in the impact of prices, emphasises the upward trend before 1900 when prices were falling. [252] Bradford woolcombers did best, as with money wages, and saw their real weekly wages at 1900 prices rise from £0.44 around 1860 to about £1 at the outbreak of the First World War: a doubling of living standards in two generations. For comparison, Crafts and Mills found that for the whole economy, real wages grew from £0.58 in 1860 to £1 in the early twentieth century. [253]

Table seventeen: Real wages in Bradford, 1860-1921

	Woolcombers (men)	Weavers (women)	Spinners (girls: full time)
1860	0.45	0.47	0.10
1863	0.47	0.53	0.09
1866	0.59	0.51	0.14
1874	0.69	0.71	
1877	0.72	0.67	
1883	0.69	0.67	0.39
1886		0.69	0.41
1906	0.98	0.68	0.46
1913	1.00	0.69	0.47
1920	1.17	0.80	0.55
1921	0.92	0.64	0.43

Real wages in pounds per week at 1900 prices.

Sources: see text. Figures for 1913 onwards are estimates based on trends in the whole British woollen and worsted trade.

Table eighteen: real wages in Leeds, 1860-1926

	Fitters	Moulders	Labourers	Tailoresses
1860	1.11	1.20	0.73	
1885	1.34	1.34	0.93	
1886				0.76
1914	1.70	1.93	1.05	
1920	1.58	1.74	1.31	
1926				0.74

Real wages in pounds per week at 1900 prices.

Table nineteen: real wages in Middlesbrough, 1871-1914

	Furnace keepers	Slaggers	Labourers	Riveters
1871				1.47
1877	2.31	1.47	0.83	
1885				1.84
1886	2.18	1.41	0.88	
1888	1.65		0.91	
1905	2.97	1.83	0.94	
1906				2.75
1912			1.00	
1914				1.70
1919				1.57

Real wages in pounds per week at 1900 prices.

While the Bradford woolcombers' real wages doubled in the half century up to 1914, in Leeds growth ranged from thirty per cent for labourers to sixty per cent for moulders, and in

Middlesbrough the increases were below thirty per cent, while the national average increase was seventy per cent. The Middlesbrough figures understate the growth up to 1914 because only 1905 data are available, and there was a national round of wage increases in the immediate pre-war years. The message for fertility is that it was the male worsted workers who experienced the fastest rise in living standards in the two generations before 1900. This provides more negative evidence about the link between real wages and fertility, showing that perceptions of rising living standards did not lead to higher fertility.

The upward trend in real wages was not a smooth one, but decelerated markedly in the early twentieth century. Again, this is in tune with Crafts and Mills' findings for the whole economy, where real annual growth slipped from 1.6 per cent in the nineteenth century to 0.3 per cent after 1899.[254] This was mainly the result of price inflation, with the cost of living index rising from 100 in 1900 to 112 in 1913, by contrast with the long period of falling prices which ended around 1899. The First World War and its aftermath were characterised by very rapid price inflation, with the cost of living index rising from 109 in 1914 to 271 in 1920 before falling back to 189 in 1923. This inflation naturally emphasised the feelings of uncertainty about future earnings and their value, which can only have increased the wider uncertainties of wartime. Who did well or less well was a confused picture.

The relative position of women worsened during this period in the industries described here. Although their real wages did grow in Bradford, it was at a much slower rate than those of the men working in the same mills. In Leeds, the (admittedly limited) data about the earnings of tailoresses in factories suggests that in real terms they earned no more in the mid nineteen-twenties than they had in the eighteen-eighties. This was also true of women's mill work, where trade unions and collective bargaining neglected women's interests and concentrated on those of men, although exceptions such as Bradford's Manningham Mills Strike of 1890-91 did exist.[255] The literature on the tailoring industry tells a similar story of discrimination by male-led trade unions as well as employers, with the occasional cases of gender solidarity such as witnessed during the tailoresses' strike of 1889 at Arthur and Co. in Leeds.[256]

This fall in the proportion of the household budget being earned by wives, and consequent boost in the share earned by husbands, suggests a limit to the effect discussed earlier, in which higher fertility was associated with greater status differences between couples, and lower fertility with smaller differences. This effect can be seen when looking at major differences in gender roles between different types of industrial society, for example contrasting Bradford and Middlesbrough. It is not observed when looking at gradual changes over time: on the contrary the nineteen-twenties were the high point of pressures on married women to withdraw from the labour force, but the low point of marital fertility. Perhaps this was because attitudes were resilient and women successfully resisted the loss of status within the household which the decline in their share of earnings could have implied. While shrinking as a proportion of total income, the contribution of working women to the household budget remained an essential one.

The overall message for the study of fertility from the real wage data is twofold: there were substantial advances in real incomes, but enough uncertainty to mask them from contemporaries for long periods. The trends in consumption whose impact on fertility are discussed in chapter four were resourced by a growth in real wages which ranged from thirty per cent or less up to

about a hundred per cent, with growth being most evident among men in the Bradford textile trades. Men did not notice the beneficial effects of falling prices in the last quarter of the nineteenth century, and began to feel better off when money wages began to rise after 1900, although the uncertainties of the trade cycle took the edge off any optimism about the long term. Women, with the main responsibility for household spending, were the most aware of the price inflation experienced before 1875 and after 1900, and evidence such as the letters from working women collected by Margaret Llewelyn Davies in 1914 shows that their perceptions were of hardship rather than of being better off than the previous generation.[257] Rising real incomes did not produce rising fertility as they had in previous centuries, either immediately or with the traditional time-lag. At the time when a time-lag of about forty years might have produced higher fertility, around 1910 after a generation of falling prices, the fertility decline was in full swing. New and stronger forces promoting lower fertility, discussed in the next three chapters, outweighed the positive impact of rising real incomes, a phenomenon seen most clearly for Bradford woolcombers, whose incomes rose most.

V

In conclusion, the fertility decline developed in strikingly different ways in the three towns, starting in Bradford first, then in Leeds and only later in Middlesbrough. Examining demographic variables has shown that fertility declined despite, rather than because of, changes in age structure in each town. Migration has emerged as part of the picture, moving each town's age structure towards one which would better explain its observed demographic history, but not by nearly enough to make it the main explanation. The high-profile migrants like the Jews from Eastern Europe and the Irish did not have a very significant impact on towns' fertility rates: the total amount of migration and its timing mattered more, so that it boosted fertility by most in Middlesbrough, and had this effect mainly before 1890. The consideration of birth rates directed attention to the newly important phenomenon of family limitation within marriage. The 1911 Fertility of Marriage survey showed that the standardised birth rate per couple ranged from 2.31 in Bradford, one of the country's lowest, to 2.68 in Leeds, near the national average, up to 3.01 in Middlesbrough.

Looking at labour markets and earnings has helped to explain differences in fertility between the towns. Bradford combined the lowest fertility with the greatest proportion of women in work. Male wages were relatively low so households' dependence on wives' wage packets was the greatest of the three towns. In Leeds, men had more choice of employment, providing a better cushion against the trade cycle and generally somewhat better earnings: female employment was still important but less so than in Bradford, and often of slightly lower status. Middlesbrough presented the greatest contrast between male and female occupation, with a labour market which excluded women from all but the least remunerative work while paying some of its male employees the best wages of the three towns. Middlesbrough had the highest proportion of women with no paid occupation, who had the least to lose in earnings and status from marrying and starting a family. Higher fertility occurred, then, where there were fewer working mothers and larger differences of status and earnings between men and women.

The labour market and earnings information contributes less to the explanation of trends over time. There were no transformations in the world of work on the same scale as the changes in

fertility. Employment was by no means a static picture, but much of the change was gradual replacement of one type of work with another, similar, type, as when Middlesbrough men moved from iron to steel or Leeds women from textiles to tailoring. Differences in fertility between occupations turn out to be helpful in accounting for geographical variation in fertility, but not for temporal change. This was particularly true of women's occupation. Again, attention is drawn back to the search for an underlying cause for the rise of family limitation within marriage, not so far identified.

The consideration of money incomes and real incomes began to shed light on reasons for the growth of family limitation, and produced the unexpected result that family limitation became more prevalent as incomes rose. This was unexpected because earlier generations had become more fertile when incomes were rising, opting for earlier marriage when setting up a household became more affordable. In the place of this positive link, a negative one now emerged. To explain this, it is necessary to examine the impact of rising expectations. This is the subject of the next three chapters.

Another feature of the evidence about incomes was their uncertainty. Rising wages and incomes failed to create, for most, any marked feelings of security or ease, though some could see opportunity. For most, rising expectations came with a strong tinge of anxiety about whether these were achievable. There was of course nothing new about uncertainty, except possibly a greater awareness of the trade cycle and the recurrence of unemployment or short time working than in earlier times. This uncertainty, then, did not have a straightforward effect on fertility, such as simply causing it to reduce – why should such an effect emerge only in the 1870s? It did, however, contribute to geographical and occupational fertility differences. Of the two kinds of working-class culture envisaged by Anna Clark, the older one, with its 'rough, crude vitality' in which couples continued to 'socializ[e], fight and drink together in public' was strongest where vulnerability to economic shocks was greatest and the rewards to prudence least, for example the ironworks community of Middlesbrough. Her other group, in which 'a few disciplined men tried to pull themselves out of poverty, saving the money by spending their evenings at home with their wives', came to be more important in Bradford and Leeds because here this prudent behaviour was not so frequently undermined by unemployment.[258] Family limitation was part and parcel of this prudent attitude to household management.

The fertility decline, which has resisted all simple explanations based on correlations of fertility with factors such as occupation and income, continues to do so. This chapter has been able to rule out changes in population age structure and the effects of migration as sufficient causes, and has shown that the positive link between fertility and income was replaced with a negative one. It points strongly to an explanation based on the growth of family limitation within marriage, as other recent work has done. Elucidating what brought this about, however, requires a move beyond the quantitative evidence into a qualitative examination of changing cultures. Chapters four to six set out this study's contribution to that project.

Use of the 1881 Census Enumerators' Books

The content of all the CEBs from the 1881 Census of Great Britain has been digitised by the University of Essex Historical Censuses and Social Surveys Research Group under the direction of Kevin Schürer and Matthew Woollard. This resource is available to researchers from the UK Data Archive, which provides extracts via email or electronic file transfer, in various formats. Full documentation of the dataset and access arrangements is given on the UK Data Archive website.[259] Schürer and Woollard's working documentation, such as the lists of variables and their definitions, is described as referring to an earlier 5% sample of the dataset, but remains valid.[260]

The first step was to obtain the full CEBs for the three towns. The CEB data is stored by Census county and by parish, so lists of the parishes which made up the three towns in 1881 were extracted from the *Vision of Britain Through Time* website, which has been described in chapter three. The UK Data Archive supplied two files, one each for the Census counties of the North and West Ridings of Yorkshire. For ease of manipulation, these were obtained in SPSS format, and SPSS queries were used to extract all the individual person records belonging to the relevant parishes into an SPSS data file for each town.[261] Four parishes with 179,826 inhabitants were extracted for Bradford, six parishes with 190,886 inhabitants for Leeds and twelve parishes with 89,858 inhabitants for Middlesbrough: the selection of the parishes is recorded in table one. As parishes in the two datafiles came with no identifying metadata except their names, care was needed to exclude three parishes in other parts of the county with the same names, and a 'dummy' Bradford parish, apparently of 300 inhabitants, whose definition remained unclear.

Table one: civil parishes selected to cover Bradford, Leeds and Middlesbrough, 1881.

Bradford		Leeds		Middlesbrough	
	pop.		pop.		pop.
Bowling	28,614	Chapel Allerton	4,324	Acklam West	164
Bradford	68,265	Headingley cum	19,130	Eston	6,282
		Burley			
Horton	46,039	Leeds	160,158	Hemlington	103
(Bradford)					
Manningham	36,908	Potter Newton	5,106	Ingleby Barwick	132
		Roundhay	802	Linthorpe	18,728
		Seacroft	1,366	Maltby	113
				Marion	1,251
				(Middlesbrough)	
				Middlesbrough	36,624
				Normanby	7,867
				(Middlesbrough)	
				Ormesby	7,759
				Stainton	41
				Thornaby	10,794

An example of the format of the CEB data is attached as figure one at the end of this appendix.

The usefulness of this digitised data is enhanced by the research team's coding of each entry for demographic variables such as marital status, position in the household, and occupation. This exercise turned free text in the original CEB into numeric codes selected from a closed list, making searching and extraction much more rapid and accurate. Schürer and Woollard describe in the documentation how the coding was undertaken.[262] The categories of interest for the present study were sex and marital status (very straightforward), position in the household, and occupation. Position in the household was coded using Laslett's taxonomy of household types, which builds up households out of smaller 'conjugal family units' (CFUs) which in turn start from married couples, or lone parents, who do not have already-married children.[263] The taxonomy of occupations used for coding was that devised by the GRO for the 1881 Census, so coding forced all the free text answers to the occupation question into the GRO framework. As with any coding exercise, it is possible for experts to question the quality of the work undertaken – in this case, very accurate – and, more pertinently, whether the coding schemes for different variables were ideal for particular purposes. The Laslett taxonomy of household types, and the GRO's occupation list, seem, however, more than adequate for the needs of this study.

Table two: occupations selected and the 1881 codes corresponding to them

1881 occupation names, grouped by this study's categories	Code
1, 2 Woollen workers (separate male and female groups)	
Woollen Cloth Manufacture	240
Worsted, Stuff, Manufacture	242
Wool, Woollen goods - Dyer, Printer	241
Dyer, Printer, Scourer, Bleacher, Calenderer	270
(undefined)	

3 Engineering workers (males only studied)		
Engine, Machine Maker	133	
Millwright	134	
Fitter, Turner (Engine and Machine)	135	
Boiler Maker	136	
Spinning and Weaving Machine Maker	137	
4 Tailoresses (females only studied)		
Tailor	282	
Milliner, dressmaker, staymaker	283	
5 Iron, steel and shipbuilding workers (males only studied)		
Iron manufacture	375	
Other iron and steel manufacture	382	
Shipwright; ship's carpenter (ashore)	199	
Ship, boat and barge builders	198	

The next requirement was to extract five key groups, based on occupation and sex, from the town data files. The principles for the selection of these were discussed in chapter three, and the five groups were identified there as male Bradford woollen workers, female Bradford woollen workers, male Leeds engineering workers, female Leeds tailoring workers ('tailoresses' in contemporary usage), and male Middlesbrough iron, steel and shipbuilding workers. The codes corresponding to these groups are given in table two. For the study of fertility, couples with possibility of conceiving a child were the focus of interest, so those in which the wife was over forty-five were excluded. Childless couples were also excluded because nothing was known about the reasons for infertility. This made the result only an approximation to the complete set of fertile married couples, but probably quite a close one since a long delay between marriage and the birth of the first child was unusual.

The five groups were extracted as follows. Although three of the groups consist of males, the convention in the study of fertility is to consider all individuals in relation to a mother (since it is she who gives birth), and the Essex codings followed this convention. An extra step, described next, was therefore needed to extract groups of males. The two female groups, however, were straightforward. The process for these, and the SPSS commands used, were:

1. Select all women in the area: `SORT CASES BY sex(A). USE cases x thru y (i.e. select the female cases, delete the male)`
2. From these, select those under 46, married with husband present on Census night, and at least one child also present: `SELECT IF (age<46 AND mar=2 AND NOT kids=0)`
3. From these, select those in the relevant occupational group (see table two), e.g.: `SELECT IF (occocode=240 OR occocode=241 OR occocode=242 OR occocode=270).`

To extract the male groups (Bradford woollen workers, Leeds engineers and Middlesbrough iron and steel and shipbuilding workers) the process, and the SPSS commands were different from the first exercise, were:

1. Select all women in the area

2. From these, select those under 46, married with husband present on Census night and at least one child also present
3. From these, select those whose head of household was in the relevant occupational group , e.g.: `SELECT IF (h_occ=133 OR h_occ=134 OR h_occ=135 OR h_occ=136 OR h_occ = 137)`
4. However, the woman might live in the household of a man who was not her husband, for example her father, so from these, identify those where the head of household was not the husband: `SELECT IF (cfu>1)`, using the CFU approach already described
5. Discard the women of this subset whose husband was not in the relevant occupation. Husband's occupation was established for this subset by inspecting the records for the household in the complete dataset for the town. Four households were considered in this way for inclusion in Leeds, eighty-five in Bradford and forty-three in Middlesbrough: about a third were discarded, the rest retained because the husband and the head of household were both in the desired occupation. The result is the set of women (meeting the age, marriage and children criteria) married to a man of the desired occupation.

The names of the resulting data sets, referred to in the main text, are given in table three.

Table three: name and description of the five 1881 occupational group data sets

BROCF2	Wives of Bradford woollen workers	3,265 cases
BROCM2	Female Bradford woollen workers	2,222 cases
LDSOCFA3	wives of Leeds engineers	805 cases
LDSOCM2	Leeds tailloresses	467 cases
MIDOCFA2	Wives of Middlesbrough iron, steel and shipbuilding workers	2,990 cases

The descriptions of the comparator data sets used in the main text are given in table four.

Table four: name and description of the three 1881 comparator data sets

BRCOMP	Bradford women under 46, married with husband present on Census night and at least one child also present (all occupations of husbands)	16,835 cases
LDSCOMP	Leeds women under 46, married with husband present on Census night and at least one child also present (all occupations of husbands)	18,379 cases
MIDCOMP	Middlesbrough women under 46, married with husband	9,428 cases

	present on Census night	
	and at least one child	
	also present (all	
	occupations of husbands)	

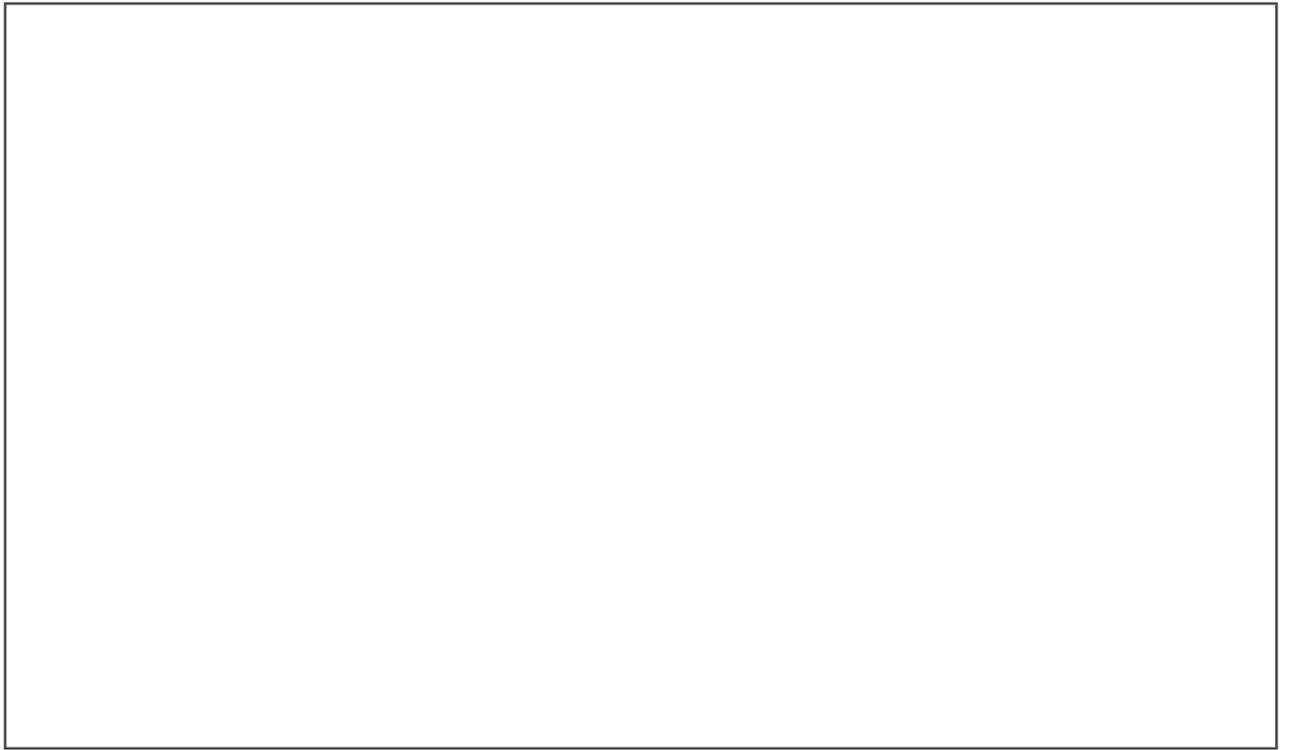
With one exception the statistical analyses carried out were of a basic descriptive type such as frequency analysis, and no special account is required of them. In addition, data on women's marital status was used to estimate age at marriage by calculating the measure known as Singulate Mean Age at Marriage (SMAM).[264] SMAM is only an estimate: the simplifying assumption it makes is that no women die between the ages of fifteen and fifty, but since the populations compared here will have had comparable death rates for females of these ages, the use of SMAM provides a legitimate comparison, also supported by the technical demographic literature.[265] This measure estimates mean age at marriage by considering the proportions of women who are single in each age-group. The data, which can be taken directly from Census Enumerators' Books, or from Census Reports where they give this much detail, is used to compute the average number of years lived in the single state by each woman who marries by the age of (conventionally) fifty, which is identical to the average age at marriage for this group.

An accessible description of the technique is provided by Hajnal.[266] The steps are, when considering a population of one hundred (or working in percentages):

1. Add the proportions single in each five-year band from 15-19 to 45-49 inclusive, and multiply by five (the number of years in the band) to give the total number of years lived by the 15-49 population in the single state
2. Add 1500, the total number of years lived in the single state before reaching age 15, to give the total number of years lived by the 0-49 population in the single state
3. Average the proportions of 45-49s and 50-54s single to estimate the proportion not married at exactly age 50
4. Multiply this by 50 to give the number of years lived in the single state by women reaching 50 without marrying
5. Subtract this from the result at 2 to give the number of years lived in the single state by women who did marry by age 50
6. Subtract the result at 3 from 100 to give the number of women marrying before reaching age 50, and finally
7. Divide the result at 5 by the result at 6 to share those years of single life equally among the marryers, giving the mean age at marriage.

SMAM was calculated for the female populations of the three study towns in 1881, using the digitised Census Enumerators' Books. An SPSS query selected the females from each town, split the file into one-year age bands and then analyzed the frequency of the four possible marital states (single, married, married but husband absent and widowed) by age band. Microsoft Excel was then used to sum the numbers of single women and total female populations in each five-year band for convenience, though the calculation could also have been performed using one-year age bands. (Hajnal reports that the effect of using five-year aggregates in place of single years to reduce the amount of computation is small.[267]) The study also included a calculation of SMAM for each town in 1921 from Census report information: by 1921 the Census Report gave a

breakdown of marital status by age-bands, which was not reported in 1881.[268]



Preparation of the Cost of Living Series

The real wages data presented here are derived by inflating or deflating money wages by a cost of living index in which 1900 = 100. The indices are given in table one. For the years 1855-1913 these are taken from Crafts and Mills.[269] To combine these with the indices published by the Labour Department of the Board of Trade, and later the Ministry of Labour, for the years from 1914, two operations are necessary: to calculate an index for 1914 which is consistent with the earlier (1900 = 100) series, and to inflate the Ministry of Labour indices for 1915 onwards using this figure so as to rebase them to 1900 = 100.

For the first operation, data were extracted from Table 88, 'Index numbers of retail prices of food, coal and clothing, and of rents, 1892-1914' in *British Labour Statistics: Historical Abstract 1886-1968* (1971). These are directly comparable with the Crafts and Mills figures, since they form (via the work of Arthur Bowley) one of Crafts and Mills' sources.[270] Crafts and Mills used Ian Gazeley's revision of Bowley's data for the years after 1886, but this does not produce a difference of more than one for any year.[271]

It is necessary to calculate the 1914 index because Table 88 only gives cost of living indices up to 1900. This in turn is because it only contains rent indices up to 1900, though the other three components are provided up to 1914, as are weights for all four (food 7.5, coal 1, clothing 1.5 and rent 2). Bowley's discussion of movements in rent concludes that, since rents did not change significantly between 1905 and 1912, it is reasonable to assume that they were stationary between 1900 and 1914.[272] Making this assumption, it is a simple exercise to insert a rent index of 100 into the 1914 data and then combine it with the other three components, weighted as above, to produce a 1914 index of 108.8.

The second operation, rebasing the post-1914 data to 1900 = 100, is then simple. Post-1914 indices were taken from Table 89, 'Cost of living index August 1914 – June 1947' in *British Labour Statistics*. These were multiplied by $108.8/100 = 1.088$ to produce the rebased indices.

Table 1: Cost of Living Indices used to Calculate Real Wages, 1855-1925
(1900 = 100)

Year	Cost of Living	Year	Cost of Living	Year	Cost of Living
1855	118	1880	109	1905	101
1856	118	1881	106	1906	101
1857	121	1882	108	1907	103
1858	110	1883	108	1908	105
1859	112	1884	105	1909	105
1860	117	1885	101	1910	106
1861	116	1886	100	1911	106
1862	117	1887	99	1912	110
1863	119	1888	99	1913	112
1864	119	1889	100	1914	109
1865	117	1890	99	1915	134
1866	118	1891	99	1916	159
1867	118	1892	99	1917	191
1868	117	1893	97	1918	221
1869	115	1894	94	1919	234
1870	115	1895	93	1920	271
1871	117	1896	94	1921	246
1872	125	1897	95	1922	199
1873	127	1898	97	1923	189
1874	119	1899	96	1924	190
1875	115	1900	100	1925	192
1876	115	1901	101		
1877	115	1902	100		
1878	108	1903	100		
1879	104	1904	101		

Consumption aspirations and their impact on fertility

The core of this study is the impact on fertility of changing expectations between 1860 and 1920 about how a working-class family ought to live. In this chapter, the focus is on expectations about material living standards. It became common for parents to limit family size so that they could more easily achieve new expectations of material wellbeing, by using more resources on each child – a major departure from earlier cultures of consumption which saw desirable living standards as fixed. Three phenomena will be examined as possible causes of these higher expectations. The first is change in tastes and aspirations which emerged within the working class itself. The chapter will document a number of these from local evidence drawn from Bradford, Leeds and Middlesbrough.

The second, possibility is that, in any period, the material expectations held by the working class were shaped by their emulation of the consumption habits of the better-off.[273] Such an account has to go beyond showing a longstanding desire to emulate elite consumption, to the explanation of specific increases in working-class consumption at particular times. This has not been done convincingly: it is not as though nineteenth-century working-class households had spare income which permitted them to copy some new, more expensive, taste adopted by their superiors. If there was emulation, it would more likely explain (changes in) the composition of working-class consumption than changes in its volume. The chapter will consider whether emulation channelled the spending of rising working-class incomes into middle-class modes of consumption, the purchase of larger volumes of a similar basket of goods to before, or indeed to new but autonomously selected modes of consumption. Was the pay rise spent on a cottage piano, on extra bread, meat and beer, or on renting a larger home with its own toilet? Linked to the emulation of elites was the uptake by the working class of expert views about how to promote the family's health and comfort. The chapter will consider local evidence about the dissemination, reception and influence of this expert advice.

The third possible source of higher working-class expectations was the efforts of the producers of goods and services to promote consumption. Advertising grew considerably during the period, so advertisers must have continued to believe their efforts were increasing consumption of the product, whether by substitution for rival products or by capturing the spending of rising incomes. Advertising aside, a working-class consumer living through these years was conscious that the range of goods in the shops, and services available (ranging from piped water supply to Rugby League matches), was expanding year by year. The growing British economy provided not only rising volumes of goods for sale and rising real incomes to spend on this consumption, but also, very significantly for the study of consumer cultures, an ever-wider range of consumption possibilities with their own sets of meanings. Chapter two showed how the secondary literature, such as De Vries and Scitovsky, described the growth in this period of habits of both aggressive and defensive consumption and the search for novelty: these behaviours had much more impact than they formerly could because of the growth in the range of goods and services offered. Some evidence is offered on the question whether supply or demand came first: did soap manufacturers or cinema owners drum up demand from nowhere, or did autonomous growth in working-class consumption aspirations create market openings for far-sighted entrepreneurs?

Three main types of primary source have been used: local newspapers, oral history and advice literature. This chapter also makes further use of the 1881 CEB resource already described. First, then, a large range of local newspapers survives for the study towns: a survey by the British Library and local archivists identified twelve for the Bradford area, for example.[274] Most of these are in microfilm form, though some originals can still be studied and the *Leeds Mercury* has been digitised by Gale, making online word searches possible.[275]

Effort was concentrated on newspapers which, by their relative cheapness and editorial stance, aimed for a working-class readership as well as a middle-class one. These papers favoured Liberal and Radical politics, the activities of craft unions and friendly societies, and the extension of the suffrage to more working-class men. The editor (and owner) of the *Leeds Express*, Frederick Spark, was even a founder of the Leeds Workpeople's Hospital Fund in 1887.[276] The main sources selected all sold at a penny (occasionally a halfpenny), at a time when the main Leeds middle-class newspapers, the *Leeds Mercury* and the *Leeds Intelligencer* (later the *Yorkshire Post*) cost threepence or fourpence. Information about circulation is very limited, but one of the titles selected, the *Leeds and West Riding Express*, claimed a circulation of eleven thousand during the 1860s. If true, this was a significant level of readership. Newspapers made optimistic claims about their circulation figures, of course. In Middlesbrough, though, Lady Bell reported that the evening paper (the *Daily Gazette*) 'seems to be in the hands of every man and woman, and almost every child.' [277] The circulation of these cheap papers was genuinely wide, and one copy could be passed around a number of readers, as Bell suggests here. The eleven titles used were:

Bradford

Bradford Daily Telegraph

Laisterdyke and Bowling News (weekly)

Leeds

Leeds and West Riding Express (weekly), later the *Leeds Express* and the *Leeds Weekly Express*

Leeds Daily Express, later the *Leeds Evening Express*

Leeds Mercury

Leeds Intelligencer

Armley and Wortley News (weekly)

Yorkshire Evening Post

Middlesbrough

Middlesbrough Weekly News

Daily Gazette and its sister paper, the *Evening Gazette*, later the *North Eastern Daily Gazette* Weekly Gazette, later the *North Eastern Weekly Gazette* and then the *Northern Weekly Gazette*.

The *Leeds Mercury* and *Leeds Intelligencer*, which aimed for a wealthier readership, were included for comparison, and to get benefit where possible from the ability to search the text of the *Leeds Mercury* online. No other title here has been digitised and all had to be examined manually on microfilm. This had the benefit that everything was seen in the context of the rest of the page and the rest of the day's news. 'Without seeing the journal as a whole we miss both pleasant surprises about its contents and general impressions gleaned from its overall look and tone.' [278]

It was necessary to take a sampling approach to this resource in order to keep the amount of material to manageable proportions. Simply reading the papers and selecting those items which seemed to support the chosen argument would not have given a representative picture. Instead, bias was avoided by selecting the editions to be sampled on the basis of dates. Where a source was available for a long period, as with the *Daily Gazette*, the edition selected was that of the first Saturday of April and October in 1870, 1880 and so on. Saturday editions were preferred, after examining editions from each day of the week, because they had more pages and so more content to search, and also devoted proportionately more space to material other than news reporting, which was likely to include content of interest to this study (for example, columns of local events and comment). To ensure that items of a seasonal nature were not missed by selecting just these two months, the first Saturday edition was also picked from January and July in 1890 and 1920. This approach produced a wide range of material, including that related to leisure and holidays at Easter, midsummer and Christmas. Where a source was available for a shorter period, such as the *Laisterdyke and Bowling News*, which covered the period 1895-1917, a similar date-based sampling was used, but at more frequent intervals, in this case the last weekly (Friday) edition in May and November for 1901, 1906, 1911 and 1916.

The newspapers themselves played a part in the raising of aspirations: they do not merely document it. In addition to their 'respectable' working-class readers, they sought middle-class readers, and must have found them if the persistence of advertisements for private education and more expensive houses and clothing is a guide. The result was a product bought by people with a significant range of incomes. Material, whether advertising or editorial, which was aimed at the better-off readers also had the effect of exposing the lower-earning readers to visions of lifestyles which might call for either defensive or aggressive consumption, to bid for higher status or to protect the consumer's existing social position. The following analysis therefore uses the appearance of new goods and services in this press as evidence that its readers would begin to want to consume them. Interestingly, other researchers seem to have made very little use of these local papers for research of this kind.

In addition to newspapers, this study made use of the extensive oral history collections made in the 1980s which are held in public archives in Bradford and Middlesbrough. The use of oral history is particularly appropriate to the study of fertility. In praise of oral history, Paul Thompson spoke of how it put the cumulative effect of individual actions back at the centre of explanations

of historical change.[279] In demography, nothing changes until individual women and men have different-sized families from before. Oral history is therefore a particularly appropriate way to gather information about demographic change, as Kate Fisher, for example, has shown.[280]

Both oral history collections used here contain about seven hundred transcripts of tape-recorded interviews, catalogued in a card index. A typical interview, in the informant's home, lasted two hours or more. All informants alive during the period 1860-1925 who referred to female employment, fertility, pregnancy, childbirth or infant care were considered for inclusion in the present study. This concentrated attention on the sources who were thinking most about fertility and household structure, increasing the relevance of what they said about consumption. The Bradford collection had a somewhat clearer interviewing methodology with themed questions covering topics such as childhood, marriage and work. Interviewers asked about family limitation where it became relevant. The Middlesbrough interviewers appear to have had broader instructions but asked about similar topics. Both surveys aimed at a representative selection of lives but give insufficient details about how informants were recruited. The use of these archives of oral history, rather than the conduct of new oral history interviews, meant that the present study had to select from already chosen informants and had no control over the questions put to them, but more importantly it gave access to recollections of the 1890s which would no longer be available to a researcher beginning a new oral history project today.

Thompson describes a number of issues to consider when interpreting oral history records: the tendency to recall an atmosphere better than an event, the greater likelihood that women than men will recall information about family life, and the way retrospective interpretation can affect the account, but also pose valid questions to the historian about their own interpretations.[281] His conclusion, and that of many other historians, is that oral history is a highly valid source for questions about feelings, attitudes and relationships, though not so dependable for chronologies and factual detail such as a wage rate or an address.

Were these informants representative of their time? In Middlesbrough there is a degree of bias to the better-off working class, though individuals living in deep poverty are also present. Where a father's occupation is noted, half of them worked in the iron and shipbuilding industries dominating the town. The Bradford sample is dominated by textile workers to a greater degree than the city itself was. Direct recollections begin in 1890 at the earliest, though there is some discussion of the lives of informants' parents and grandparents. The discussion that follows uses thirty-four records from Middlesbrough, twenty-five female and nine male, and twenty-three from Bradford, eleven female and twelve male.

This material was augmented by using diaries and memoir. This was particularly important for the study of Leeds, which lacks a general collection of oral history to parallel that in the other towns. The Brunel collection of working-class autobiography (BAWCA, discussed in chapter two) was used, in addition to local history library collections, and this added eleven documents from the study towns, some of them adding a considerable richness of detail, again largely for the period after 1890.[282]

The third main area of source material was advice literature. Public lectures, school textbooks and handbooks intended for the typical home can shed light on consumption in two ways. First, it may

be possible to infer something about contemporary habits from what they say. Naturally a writer's personal agenda, for example to reinforce the middle-class' self-perception as rational, self-controlled consumers by contrasting this with a 'feckless' working class, may obscure the picture. But the selection of topics treated, and the interpretation given to them, still disclose something about contemporary life. Secondly, studying the advice literature alongside other sources helps reveal how much mass consumption was influenced by experts, rather than endogenous factors or the influence of producers. According to Joel Mokyr, rising expectations of better health and comfort stemmed from a 'knowledge revolution' during the nineteenth century in which an 'impressively tight' link developed between expert knowledge and public knowledge: the average household now had much more up-to-date knowledge about how it could enjoy better health.[283] This view finds support in Leeds from a tract of 1858 by Robert Baker, in which he included among the causes of the improved healthiness of the town 'a higher social and intellectual state, or a better knowledge of the general laws of life, disseminated by lectures, cheap publications and Institutions for mutual improvement.'[284] By looking at the reception of expert advice, it is possible to test these interpretations.

Four works by Catherine Buckton, the Leeds education campaigner, were therefore studied, and, for contrast, a 1920 pamphlet by Dr. Grace Dundas, the Middlesbrough 'Medical Officer to Maternity and Child Welfare'. [285] This contrasted pair illustrate the two extremes of success and failure in influencing a working-class audience: their contrasts also point up the cultural distance between Leeds, where Liberal Nonconformist middle-class female society was a major source of welfare initiatives, and Middlesbrough, where although such a group existed, for example founding the Middlesbrough Settlement, it was proportionally much smaller and less influential. In Middlesbrough, the middle class were more inclined to leave the welfare of workers and their families to their trades unions, and welfare initiatives not only appeared more slowly but, when they came, were more municipal and less voluntary. Buckton, a Unitarian and the wife of a Leeds cloth merchant, was one of a group linked to the Yorkshire Ladies Council of Education who became concerned that Leeds' relatively high mortality was the result of ignorance about domestic economy (despite Baker's earlier optimism), and set about remedying this with lectures to working women, and later with school instruction (sometimes for boys well as girls).[286] Dundas, about whom one would like to know more, not least as one of the earliest female municipal doctors, epitomises the English welfare state professional of her time: determined, protective of her professional status and prone to patronise those for whose welfare she worked.

Two observations show why Buckton was more successful than Dundas. First, she was doing her best to achieve what Mokyr described – the popularisation of new scientific knowledge: she had a love of science and of communicating it. For example: 'Professor Tyndall not long ago proved by a beautiful experiment that the air in crowded rooms was full of organic matter and living things which feed on it.' [287] Echoing the language of Robert Philp, another widely-published (and this time working-class) author of advice literature, she felt people needed to understand 'the reason why'. [288] Buckton's interest in communicating new scientific evidence about healthy living makes her a case study of how this knowledge could best be diffused and helps explain her influence. Dundas provides a counter-example, actively using medical science herself but never interested in communicating it by giving reasons for her advice, which she couched instead in patronising and directive terms: 'Avoid uncertified midwives.' [289] 'Put the baby to the breast only six times in the 24 hours, viz.: 6 a.m., 9 a.m., mid-day, 3 p.m., 6 p.m., 10 p.m., [sic] The

mother's breast and the baby's stomach both require a rest from 10 p.m. to 6 a.m. Most mothers expect too much of their breast cells. A mother can go on nursing her child to 10 months if she only feeds it [to this regime].'[290]

Second, Buckton and Dundas show contrasting levels of empathy for their audiences. Buckton's identification with 'My Fellow Townswomen' in the title of her first publication can be read in different ways, depending on the reader's sensitivity to condescension, but in the context of her complete range of activity it clearly shows a degree of empathy. Her habit when lecturing was to spend half an hour beforehand and afterwards chatting with the women: 'many interesting stories were told me... my knowledge increased each week' and she constantly had to change her syllabus to react to new questions which this discussion introduced.[291] Buckton's approach to her audience made it more likely that she would influence them than more didactic speakers could.[292] For example, Mrs Layton complained that as a young mother in 1880s London attending Mothers' Meetings 'I have boiled over many times at some of the things I have been obliged to listen to, without the chance of asking a question.'[293] If any expert advice was likely to affect behaviour, Buckton's stood the best chance.

Dundas, however, seems almost to have despised the mothers for whom she wrote. Shocked by cases of babies born with sexually transmitted diseases contracted *in utero*, she wrote elsewhere that 'Although one has no figures, yet it is certain that a number of premature births, and deaths from atrophy, debility and marasmus, are caused by venereal diseases.'[294] The absence of supporting data, curious for a doctor trained in public health, weakens her claim and increases the reader's suspicion that prejudice played more part in her view than science. And in her pamphlet itself, addressed to new mothers, after opening with the observation that many miscarriages and stillbirths were preventable, she positively snarled: 'Expectant mothers can avail themselves of advice from the [Maternity] Centres if they wish living children born to them.'[295] Some of this advice was offered by Dr Dundas in person, and by other doctors whose list of qualifications, though perhaps not their bedside manner, were equally formidable. This is one reason why, even after health visitors called on every new baby, only one in five was actually brought to the Middlesbrough Settlement's Newport Road Maternity Centre in 1919.[296]

This poor response rate shows how the diffusion and reception of advice depended critically on these two factors of explanation and empathy, which add up to an expert's willingness to engage with a working-class audience as people (though not necessarily as equals). These were strengths of Buckton's approach and weaknesses of Dundas'. Buckton's publications ran into many editions, cheaply published, and as a member of Leeds School Board she saw to the adoption of the domestic economy curriculum which she advocated. At one stage over 3,000 Leeds schoolchildren were following its lessons.[297] Buckton's works influenced audiences beyond Leeds, securing national publication in large print runs.[298] Not all her advice was taken up: Buckton joined in the widespread condemnation of the scale of tea drinking, passing on the view that its tannin content reduced the uptake of other nutrients. By opening the pores, furthermore, it was especially bad for mill girls who, 'when they come out of the close warm rooms on a cold day, ... easily take cold.'[299] Attracted by its flavour and stimulant qualities, consumers of tea took little or no notice.[300] Such examples underline the assertiveness and determination of working-class mothers and wives in making their own choices about how best to secure their families' welfare. Caution is also needed about the impact of school lessons: some women

recollected them as a waste of time, adding nothing valuable to their practical experiences of helping their mothers.[301]

Buckton's broader message, however, and that of like-minded writers such as Philp, did have an impact: they convinced families that health and comfort could be promoted by a set of rational steps justified by modern knowledge. A range of evidence considered in this chapter, from the rise in consultations with doctors, to the growth of soap consumption, to the types of discourse adopted by newspapers and advertisers, bears this out.[302]

II

Discussion now turns to the key areas of family consumption in turn. As this survey progresses, a hypothesis is to be tested. Drawing on De Vries' breadwinner-homemaker household model, the hypothesis is that the allocation of wives' time to wage labour or domestic labour produced different forms of consumption, with different outcomes for welfare. The consumption of market goods generated family welfare more efficiently if more domestic labour was available to transform them into the things the family finally consumed. The survey in this section will look for evidence that consumption took different forms in the three towns, and that some produced family welfare more efficiently than others. The implication of this for fertility is that, other things being equal, the household types where the wife devoted most time to domestic labour could turn any given amount of money income into more welfare, so that a larger family could live at an acceptable standard of living, while households where wives devoted more time to wage labour also found the struggle for family welfare hardest, producing less of it from the same money income.

This could be either cause or consequence: the welfare deficit resulting from low breadwinner income (or indeed the absence of a male breadwinner) could force wives into wage labour, or – staying closer to neoclassical economics – wives' decisions to work could produce sub-optimal welfare outcomes because these decisions allocated the women's time less efficiently. Chapter three has suggested that the former account is more convincing. Either way, the result for fertility was a greater incentive to family limitation in families with working mothers. What is novel about the approach of this chapter is to explore this fertility effect via patterns of consumption, examining the mechanism by which the mother's wage labour placed constraints on family size specifically via its impact on the choice of products bought and processed within the home.

Exploring this hypothesis must not lead, however, into an undue emphasis on economic analysis, as if the central factor was the decisions of actors with perfect rationality and knowledge about what modes of consumption would objectively maximise the welfare of the family as some indivisible unit, a failing of some of De Vries' analysis. It has already been stressed that fertility behaviour was governed by subjective ideas and feelings. Consumption is studied here in relation to individual decisions about fertility behaviour. What matters most about consumption for this study is the anthropological question of how and why the meanings of different acts of consumption varied between towns and changed between 1860 and 1920.

The following survey is divided into sections on food, housing and furnishings, clothing, health and hygiene, leisure and aspirational forms of consumption. Confidence that these were the key

areas of working-class consumption is increased by referring to a 1904 Board of Trade survey of family budgets.[303] This gave weightings of 7.5 for food, coal, 1, clothing, 1.5 and rent, 2. Arthur Bowley's verdict on its validity was that the goods and services used were a fairly Spartan selection and would only represent total household expenditure in the case of the lower paid urban labourer.[304] The discussion which follows, then, addresses all the most important headings of working-class household expenditure.

To begin with food, working-class families, in common with the rest of society, had strong views about food, influenced by socially constructed meanings, such as mothers stinting themselves to leave enough for the male breadwinner's energy needs, or for growing children, or more generally to make money go further, to meet a specific need or otherwise, and beliefs about the need for good food, whether these were traditions, personal understandings or expert messages successfully internalised, perhaps by members of Catherine Buckton's audiences. Some beliefs were of long standing: much oral history and memoir speaks of mothers' conservative buying and cooking habits, as if innovation was considered too risky in something as important as diet, while it could be tolerated in other fields.[305]

Between 1860 and 1920, working-class households nevertheless sought more varied, more nourishing diets. Parents recalled hungry childhoods earlier in the century and showed a determination that their own children should not suffer such impoverished diets. The many mothers who turned out on winter evenings to hear Buckton lecture in 1872 and 1873, an average of eighty at each of five lectures at the Holbeck Mechanics' Institute in south Leeds, for example, showed their dedication to learning something which might help them feed their families better.[306] Their task was a considerable one, but they made progress. The average heights of young adults, which had dipped between 1820 and 1850 according to custody records, began to increase again.[307] The mid-nineteenth century working-class diet, typically based on bread, potatoes, bacon, cheese and tea, was no longer felt sufficient.

Part of the price many mothers paid to nourish their children better was still to stint themselves, alongside the old practice of looking after the nourishment of the male breadwinner first as an investment in his health and earning power. One woman wrote in the *Letters from Working Women*: 'I have told my husband many times that I had had my dinner before he came in, so as there should be plenty to go round for the children and himself'.[308] Similarly, a contributor to the Bradford oral history collection recalled believing that her second child was born underweight because she, the mother, 'hadn't eaten, to make sure Jack and Jackie [her husband and first child] had enough.'[309] Family limitation might mean extra resources for mother's diet as well as more for the children: another mother in the *Letters from Working Women* collection, who reported having to go without so that her eleven children would have enough, also wrote with regret of how 'for twenty years I was nursing or expecting babies'. She did not directly draw the conclusion in her letter that fewer children would have meant an easier life, but hinted strongly at it with the comment that 'I do hope I shall never see the young women of today have to go through what I did.'[310]

The attitudes of mothers were the key, since it was they who controlled the family budget and took the main decisions about food purchases, as chapter six will show. Given the importance that working-class cultures in all three towns placed on a mother providing food for her family, it was

principally through mothers that perceptions about food needs and costs fed through into fertility behaviour. And mothers were persistent: this was not a one-off correction to redress the wrongs of the 'hungry forties'. As Oddy and Johnston both note, diets remained monotonous and grossly deficient in protein for many, and contemporary mothers felt this too: the view persisted throughout the period that the new generation of children must have a better diet than their parents had experienced.[311] This attitude was alive and well in 1914 when a Women's Co-Operative Guild correspondent, who 'quite agreed [with her husband] on the point of restricting our family to our means', wrote that 'it is better to have a small family and give them good food and everything hygienic than to let them take "pot-luck."' [312]

While this woman's testimony provides strong support for the claim that people deliberately limited family size so as to pursue their higher expectations for family welfare, it is important not to get ahead of the argument, which contains several more components. The following discussion will examine first the temporal changes in diet identified in this study, and then the spatial variations and their implications.

Working-class people were expanding their diets in two ways. The first was to increase their consumption of the existing products which they liked most, notably tea and sugar, for which per capita consumption doubled between mid-century and the 1900s. By 1900, Britain's per capita sugar consumption became one of the world's highest (with predictable effects on dental health, discussed later in this chapter): the use of meat, dairy products and vegetables also increased.[313] Secondly, new products such as margarine, condensed milk, cheap mass-produced jam and golden syrup came into vogue: an oral history informant from Bradford, one of eleven children of a carter, recalls a diet at the time of the First World War consisting largely of bread, margarine, jam, treacle and the occasional piece of cheese.[314] Though hard-pressed to feed thirteen on a carter's wages, this family nonetheless introduced new foods such as margarine, jam and treacle into its weekly diet which had not been available a generation before.

Most of the new products provided fats or sweetness at low prices. Fats reached their modern position of importance in food culture at this period. Researchers report that fats may be such attractive foods because of learned associations between the sensations from eating them and their nutritive effects, which provide a feeling of satiety.[315] For people with significant energy needs resulting from hard physical labour, fats therefore had great psychological importance: whereas in earlier decades manual labourers, and their wives who had to cope with the physical demands of, for example, wash day, had made do with bread and potatoes for energy, as incomes rose after 1850 families raised their fat intake as their budgets allowed.

Fish and chips are a good example of new (and also tastier) ways to meet this need. They were a new invention, appearing on the market in the 1880s, aided by technological changes such as refrigeration and powered trawlers.[316] Fish and chips met social needs – especially, to save women some cooking time – and satisfied appetites for fats. Consuming fish and chips became a social ritual with its own enjoyable features, such as the free scraps of batter from the deep-frier offered to children at the chip shop. Fish and chips provide another example, like tea, of expert advice being ignored. John Walton documents how expert writers condemned this innovation at first, only coming round in the 1920s to reluctant recognition that fish and chips provided some useful nourishment.[317] The rise of fish and chips was, then, mainly the result of endogenous

changes in working-class tastes, helped along by new production technologies.

Bars of chocolate were another new product that delivered fats: even better, they contained plentiful sugar. In this period people began to club together to save up for chocolate as a Christmas present. A 1920 Leeds advertisement sought agents to collect contributions for a 'Christmas chocolate club', presumably a variation on the Christmas present saving club.[318] At about the same time, an oral history informant in Bradford recalls his mother taking part in a chocolate club at the mill where she worked.[319]

The temporal changes in diet which have been observed, then, were principally the consumption of familiar foods in higher quantities and the addition of new products to the diet which added cheap sources of fat and sweetness. These changes fit the pattern of rising expectations about how a working-class family should live. But food prices were falling for the central generation of the period: new sources of imports became available from countries with lower production costs, as with wheat from the American and Canadian Midwest and canned meat: in the late nineteenth century Middlesbrough workers' substantial appetites for meat could be satisfied more cheaply, with products from the American Fresh Meat Company, the River Plate Fresh Meat Company, and the New Zealand Mutton Company.^[320] Why, then, should these rising expectations, however significant in themselves, have led families to want fewer children and share the food between fewer mouths, as the witness already quoted clearly did? Why did families not simply take advantage of falling prices to enjoy more food for the same expenditure?

A first answer is the technical observation that food prices only fell between about 1873 and 1895. Bowley's cost of living index only gives separate indices for food from 1880, but it is reasonable to think that food prices turned downward in 1873 along with his estimate of the overall cost of living, since food was sixty per cent of his basket of goods.[321] Against a 1914 index of 100, Bowley's food price index falls almost steadily from 115 in 1880 to 82 in 1895 and 1896, before rising almost steadily to 103 in 1913. Ian Gazeley has reviewed Bowley's data and methods, and although critical on small technical points, only considers that Bowley overestimated the fall in prices of the 1880s by about one index point.[322] The actual fall in prices was not enough to make people feel better off: it will be recalled from chapter three that money wages, and even real wages, dipped in all three towns between about 1874 and 1886, critical years – perhaps not coincidentally – for the spread of family limitation within marriage. In fact, the argument against these falling prices encouraging fertility is even stronger: since perceptions about the costs of childrearing took time to change, creating a time-lag between price movements and fertility responses, it is likely that the driver of fertility behaviour in the 1870s, and perhaps the 1880s, was perceptions formed by experiences of the 1860s, when food prices were stationary, and at a higher level than in the following two decades. Time-lags are discussed further in chapter seven.

There is a more basic and powerful explanation for the observed tendency to want fewer mouths to feed so that each could be better nourished. The desire to correct previous under-consumption, essentially childhood hunger, could have been so strong that it outweighed all these price effects. The fall in Bowley's food price index between 1880 and 1895 was just under thirty per cent.[323] It is plausible, given the longevity of this belief in the need to eat a better diet, that attempts to increase the volume of food purchased raised the family food budget by more than falling unit prices could reduce it. Only longitudinal studies of family budgets could resolve this, and

examples (which are scarce everywhere) are not available for Bradford, Leeds or Middlesbrough.

Turning from temporal change to spatial variation, some significant geographical differences can be noted. Elizabeth Roberts notes the ‘textile diet’ in mill towns, where more married women worked and had less time to cook.[324] This is a model relevant to Bradford, whose oral history records document this problem of time for food preparation, and some solutions. Charlie Metcalfe, born in 1911, both of whose parents worked in the mills, recalled that, as the eldest of three children, ‘I was the one that used to look after all the meals and that, you know, till [?they got in from work]. That were my job (laughter), with being the oldest, like.’[325] Mr Metcalfe’s testimony shows that the construction of food preparation as female labour could be overruled by economic necessity, at least in a mill town. Another informant of a similar age, again with both parents in mill work, remembered a neighbour minding the three children: ‘That was so that we’d have a dinner every day, you see. She made us a nice dinner.’[326]

Diets in Bradford were similar to those Roberts found in Preston: bread more likely to be bought than home-baked; pre-cooked items such as cooked meats, pies and tripe.[327] In Bradford and Leeds, as in their original home in Lancashire, fish and chips became a ubiquitous part of working-class culture: high employment rates for mothers made them a specially attractive dish for textile districts since they saved work for a tired mother at the end of the day.[328] Maggie Newbery, who arrived in Bradford as a nine-year-old in 1910, later recalled fetching fish and chips for her older sisters’ tea on their return from the mill.[329] One of the Bradford oral history informants recalls a part-time job as a ten-year-old boy peeling potatoes for a chip shop just after the First World War.[330]

Where women were less likely to go out to work, diets included more dishes involving home preparation. In Middlesbrough, where wives were mostly at home and incomes were higher than in Bradford, the diet (according to Lady Bell) ‘consist[ed] of large chunks of often indigestible forms of meat, washed down at every meal by the eternal tea’ (here too, the scepticism about tea).[331] A typical week’s budget for one family of three devoted seven shillings and fivepence to food (forty per cent of the total income). This was composed of:

‘meat	1s.	7d
1 stone flour	1	5
¼ stone bread meal	0	4 ½
1 lb. butter	1	2
½ lb. lard	0	2 ½
½ lb. bacon	0	4 ½
¼ lb. currants	0	2
4 lb. sugar	0	8
½ lb. tea	0	9
yeast	0	1
milk	0	3 ½
salt and pepper	0	1
½ stone potatoes	0	3’[332]

The prominence of meat, home-baked bread, butter, tea and sugar, and the shortage of fruit and vegetables, is unmistakable. (Four pounds of sugar in a week was not a purchase for long-term use: the family bought the same amount the preceding and following weeks.)

One weakness of Bell as a source is that *At the Works* conveys no sense of change over time: she merely described it as a distillation of observations over the previous thirty years. Evidence about change in Middlesbrough's food habits can be found elsewhere, however. David Taylor has calculated numbers of retailers per head of population from trade directories.[333] Perhaps the most interesting trend this reveals is the rise of bakers and confectioners, and of fishmongers (as well as the separate category of fish and chip shops). This points to rising household expenditure, both replacing home-made with bought bread and increasing the consumption of fish. These patterns did not apply equally to all Middlesbrough consumers, however.

From this account of diets two significant differences emerge between Bradford and Middlesbrough which fit the De Vries model. This stated that consumption generated family welfare more efficiently if more domestic labour was available to transform purchases into the things the family finally consumed. Middlesbrough wives spent more time cooking than Bradford wives. Their time spent in baking turned the large amounts of flour purchased in this example into bread for the relatively low price of, in this case, one shilling and fivepence per week, plus five and a half pence for bread meal and yeast. The purchase of large amounts of meat also indicates an economy in which time-consuming cooking at home was important, compared to Bradford's, where the more expensive cooked meats, pies and tripe were preferred because, unlike a joint of meat, they could be prepared in the time available after a day's work. Secondly, the cost of feeding a family was kept lower in Middlesbrough, at the expense of large amounts of domestic labour for married women. This meant that the family could feed more children than a Bradford one for the same outlay. The pressure to limit family size was therefore not felt so strongly.

Milk is another food for which spatial (and temporal) differences emerged in the study. A significant literature discusses the place of cows' milk in the infant diet, from the point of view of its safety or otherwise and its health impact.[334] Some towns, including Middlesbrough, had very high rates of breastfeeding: in others the use of unhygienic feeding bottles to hand feed infants on cows' milk was widespread. The transport of milk from the countryside by train made its consumption on a much larger scale possible during this period, removing the need to rely on urban cowsheds, which had limited supply earlier. Worse-off mothers struggled to afford milk for their infants where they were not breastfeeding, as the use of the cheaper skimmed condensed milk revealed (this was a hazard to health as it was not nutritious enough). Fildes notes that it was particularly prevalent in Middlesbrough, even though the proportion of breastfed babies was particularly high there too.[335] The situation eventually improved when local authorities began providing powdered milk to nursing mothers, just before or after the First World War, sometimes free of charge. Distribution in Leeds rose from 16,000 pounds in 1918 to 27,000 the following year.[336]

Milk for babies therefore provides another difference between the costs of childrearing in different towns. With more mothers working in Bradford and Leeds, opportunities to breastfeed were less. More families needed to buy milk, and they were more likely to avoid the cheap and dangerous option of skimmed condensed milk. When the Bradford Medical-Chirurgical Society discussed the poor health of infants and their feeding, the assumption in their debates was usually that fresh cow's milk was already being used.[337] This meant that mothers in Bradford had to expect childrearing to be more expensive than Middlesbrough mothers did, since fresh milk was not a cheap commodity. In Leeds, the cost of milk consumption by infants seems to have fallen between those

of Bradford and Middlesbrough. The annual reports of the MOH suggest that in the most deprived districts in the southeast of the town, the use of skimmed milk was common.[338]

While some Bradford and Leeds mothers were foregoing breastfeeding because of the demands of going out to work, this does not provide support for the frequent contemporary view that mothers' work damaged their babies' health and contributed to infant mortality. It was Middlesbrough, not Bradford or Leeds, which had the highest infant mortality rate of the three towns.[339] As Carol Dyhouse has argued, even though artificial feeding had more hazards than breastfeeding, these were outweighed by the slightly better living standard which mothers' work might buy, as a contemporary study in Birmingham had shown.[340]

This shows that De Vries' argument that, in this period, mothers could do more for family welfare by domestic labour than by wage labour, did not apply to all situations. Accepting his argument that an hour of a woman's domestic labour had more value than an hour of wage labour, and accepting his positivist economics, with its stress on objective circumstances, a mother could still buy extra welfare for her family by increasing her wage labour by more than she reduced her domestic labour. Going out to work therefore involved heavy sacrifices of time, exhaustion and, potentially, health in pursuit of family welfare. But it was mothers' perceptions, not external circumstances, which determined their behaviour, as this study has argued throughout. The *Letters from Working Women* show mothers perceiving the hardships of staying at work until just before the birth, and of restarting soon afterwards, in stark terms.[341] Working mothers' perception of the cost of childrearing was higher than that of women working entirely at domestic labour, and this contributed to the fertility differences between the three towns. Where women were most likely to have paid work, the deterrent effect of these perceptions on fertility had most impact on average family size: greatest in Bradford, less in Leeds, and smallest in Middlesbrough.

When this 'working mother' effect was discussed in chapter three, the question of how it might have changed over time was left open. While it is clear how this effect helps explain differences between fertility in Bradford, Leeds and Middlesbrough, how does it help account for the development of the fertility decline over time? It was, after all, harder to combine working for gain with domestic labour than to concentrate wholly on the latter at all periods of history. Did anything change at the time of the fertility decline? What was new was the rising expectations discussed here. These imposed extra demands on both branches of the working mother's activity: she felt pressure to earn more, bringing in extra income to buy more goods in the marketplace, but also pressure to carry out more domestic labour. A bedroom should have a carpet (despite the exhortations of Buckton against the germ-friendly dust it harboured), but (in deference to Buckton or otherwise) it also needed regular cleaning with a carpet-beater: the family ought to have more meat, and this took not only money to buy but also labour to cook.[342] Even though some work, such as cleaning, could be delegated to children, or occasionally husbands (discussed later in this chapter), the 'working mother' effect was strongly amplified by the rise in expectations. This meant that rising expectations slowed fertility more in labour markets like Bradford and less in Middlesbrough, making their birth rates diverge as observed in chapter three.

III

Moving on from diet, securing acceptable standards of housing became more difficult for the working class between 1860 and 1920. Even if expectations had remained constant, rising rents

ensured that meeting them would have cost more in real terms. It is not surprising that the period witnessed growing antagonism between landlords and tenants, finding expression in radical and socialist politics and in the reactions of landlords and their political representatives.[343] This section discusses the pressures on fertility created by the mounting difficulty of securing a home, and the growth of expectations about its size and quality, and how it ought to be furnished.

Looking first at rents, the secondary literature shows that rents rose significantly in the later nineteenth century. This reflects the way demand (a growing population, with rising real incomes and higher expectations – discussed below) was outstripping supply. Gregory Clark notes a seventy percent rise in rents between the 1850s and the 1900s, with most growth in the 1870s and 1880s.[344] Ellen Ross quotes Edith Simcox writing in 1885 that sixty per cent of the gains workers had made in rising wages in the previous half-century had gone on rising rents.[345] There was not nearly enough housebuilding in the three towns to satisfy this demand.[346] Dr Ina Kitson-Clark, one of the leaders of the infant welfare movement in Leeds, was still lamenting in 1920 that ‘the housing schemes are the most important... no healthy generation can be reared without some mitigation of the present awful overcrowding – but they are slow in coming.’[347] Local authority housebuilding only reached a significant pace after 1920 in the towns studied, reflecting national trends.

The newspaper evidence for rents should be read with care: for example, the same street could have a different character in 1900 from that in 1870 due to the opening or closing of a factory nearby; also buildings might deteriorate, or be renovated. The fact that the press only gradually became a significant market place for houses to rent during the period, complementing word of mouth or shop window advertisement, also hampers interpretation. What can be said is that by 1880 the cheapest sector of the housing market is well-represented in advertisements, such as the rent collector advertising for tenants for ‘cottage houses’ in the poorest areas of Hunslet (South Leeds) from two shillings per week, though five or six shillings was a more typical working-class rent.^[348] Similar rented accommodation was advertised in Bradford and Middlesbrough. Bell reported, in relation to the generation before 1907, that most working-class rents in Middlesbrough were between four and five shillings.[349]

Rents continued to cause pressure in the early twentieth-century. Evidence for Bradford, Leeds and Middlesbrough collected by the Board of Trade is presented in table one. These rent movements between 1905 and 1912, a time of generally steady prices in the wider economy, shows an upward drift in the rent of larger (four-room) dwellings in Bradford and Leeds, but not in Middlesbrough.[350] The top of the rent range moved from five shillings and sixpence to six shillings and sixpence in Bradford, and from five shillings to six in Leeds, while staying at six shillings in Middlesbrough. The differential over a two-room dwelling, whose rent stayed the same at three to four shillings, thus increased: Emily Clea’s widowed mother was still able to rent a single-roomed house near Bradford for four shillings in about 1920.[351] Against a largely static volume of housing available, these widening rent differentials show rising demand in Bradford and Leeds for larger homes, reflecting the growing aspiration for more living space. This difference between Middlesbrough and the two West Yorkshire towns fits the picture of the former town as one where the local culture paid less attention to improving the home comforts of family life. With lower expectations about what a good quality of family life involved, Middlesbrough felt the downward pressure on fertility less strongly than the other two towns. By

the early twentieth century, however, expectations were beginning to rise in Middlesbrough as well as elsewhere, as the discussion of the need for larger homes in the *Northern Weekly Gazette* in 1905 suggested.[352]

Table one: Rents for working-class housing in Bradford, Leeds and Middlesbrough, 1905-1912

	Two-room dwellings		Four-room dwellings	
	1905	1912	1905	1912
Bradford	3 - 4s.	3 - 4s.	5s. - 5/6	5/6 - 6/6
Leeds	3s. - 3/6	3s. - 3/6	4/6 - 5s.	4/6 - 6s.
Middlesbrough	3 - 4s.	3 - 4s.	4/6 - 6s.	4/6 - 6s.

Source: *Seventeenth Abstract of Labour Statistics of the United Kingdom*, Parliamentary Papers (1914-1916), LXI, p. 110.

Not all working-class households had to rent their homes: since the late eighteenth century, the best-paid artisans had bought houses via terminating building societies, especially popular in Yorkshire, Lancashire and the Black Country. By the 1870s, saving and borrowing for house purchase was becoming more formally organised in permanent building societies. Four fifths of the members of the Leeds Permanent Building Society were working class, with half its deposits saved by those putting in less than 3s. 6d. per week.[353] With rising real income opening the prospect of home ownership to a wider group, this was another area in which material aspirations expanded in the later nineteenth century. This provided another downward pressure on the subjective benefits of childrearing: a house that would hold a smaller family could be more easily bought than one for a family with six children or more. In this case, the change came from within the working-class itself, as the stratum to whom this fertility constraint applied became proportionately larger due to rising real incomes: looking at the working class as a whole, there was a shift in preferences towards owner-occupation. To keep a sense of perspective, however, the Leeds Permanent (which also operated in Sheffield and Hartlepool) still only had 20,000 members in 1914, although there were other local societies such as the Leeds and Holbeck.[354]

Rent was not the only area of concern to a working-class household: the quality of the housing on offer was a further issue. Gregory Clark's index of implied housing quality provides one perspective on this topic.[355] His index (based on a mainly southern sample but also including properties in County Durham), aimed to identify changes in the property itself, such as extensions, additional windows, and private toilets replacing shared privies, rather than environmental factors such as piped water and sewers (which the utility company had no obligation to connect to individual properties). From its base decade of the 1860s, with an index of 100, it wandered with no clear trend between values of 96 and 115, ending on 104, perhaps suggesting that any improvements from the low standards of mid-century were slow and uncertain. Unfortunately Clark's quality index shows few clear trends over his whole period from 1600-1909, and although this could be a valid finding, the weight of his reliance on an econometric approach, completely excluding descriptive sources, leaves doubts about whether his results are artefact or insight.

The local evidence is that the housing features which Clark aimed to capture, such as exclusive

use of a toilet and overall property size, did improve much more slowly than the connection to water services. For toilets, a strong quantitative account could be given from public health sources, who sometimes counted toilet arrangements by type. The emphasis of the present study, however, is on subjective attitudes, and the ways these affected the perceived costs of childrearing. The autobiographical material is valuable here for showing contemporary revulsion at the old earth closets, and the adoption of higher, more expensive, standards as quickly as achieving these became a practical possibility. In Middlesbrough, Margaret Goldsborough recalled from around 1910-1914 how the middens were emptied weekly at night, by scavengers: 'poor men, what a shame, you can have all y'telly, you can have all y'radiograms, all the best things going – they were the best that ever invented in this country, was a flush toilet. I think so.' [356] The flies, which spread disease, bothered Goldsborough most (illustrating, though perhaps after the event, the reception of expert advice, which the corporation had long pasted on town walls in special health posters). [357]

Similar concerns affected Mary Gawthorpe, who recalled with distaste having to walk up the street to the earth closets, later trough water closets, which seven Gawthorpes shared with another family. [358] A 1965 archive photograph shows both her house and, two doors up, the shared toilet building. [359] The attractiveness of piped water supply and water closets also emerges in small ads for rented homes in the cheap press, which drew attention to these services and asked higher rents in consequence, as with the *Laisterdyke and Bowling News*' typical 1906 advertisement offering 'through houses with water and water closet' for six shillings to six shillings and sixpence. [360]

The rising expectations for sanitary arrangements, including water supply, exhibited the interplay of different causes which form one theme of this chapter: they also contributed directly to the rise in the perceived costs of childrearing. Piped water and sewerage were normally imposed on a town district by administrative decision (welcomed with a mixture of relief about the effect on hygiene and anxiety about the cost in higher rates). In this way, elites consisting of local corporations, sanitary experts and entrepreneurs imposed their values on working-class communities. This was no longer a question of mere advice but an eloquent confirmation of Adrian Forty's doctrine of the power of design, in which the meanings given to homes changed at this time from a 'source of moral welfare to one of physical welfare from beauty [to] efficiency.' [361] Forty himself dates most of this change to the first decade of the twentieth century, but precursors are visible in the present examples a generation earlier. [362] The compulsory connection of working-class homes to mains water supply and sewers, naturally at their own expense, was a particularly forceful example of the use of design (though one which Forty neglects).

There was a boom in local authority investment in sewers and piped water supply to each home between 1890 and 1910, noted by Frances Bell and Robert Millward. [363] Its exact timing varied, but Leeds extended its water services beyond the town centre relatively early, giving Robert Baker cause for some premature rejoicing as early as 1858, and getting more seriously under way in the later 1870s. [364] Back in 1872, Buckton had distributed handbills in Holbeck on the dangers of badly designed drains (the health hazards of allowing 'drain gas' to enter a home were a continuing theme of her lectures). [365] By the end of her lecturing career in 1885 she was able to rejoice that 'the Corporation carry a constant supply of excellent water at a small rate [about

ten shillings per year for a modest terraced house] into every dwelling in the borough.’[366] One must question how much her audiences could do about her drains advice in the short-term, but over a lifetime, which normally witnessed removal to a new address several times over, it was more possible for them to realise her 1885 hope that ‘the people will demand model dwellings, and also those sanitary reforms which ignorant corporations and thoughtless masters and mistresses now withhold from them.’[367] The steady drip of Buckton’s advice into adult lecture audiences, the buyers of her books, and (as here) elementary school children, helped build up the expectation of better homes, and the sense of an entitlement long denied, now, like better diets, to be reached for.

The contemporary connection made between infant mortality and sanitation also shows that the pressures to achieve greater cleanliness were directed most strongly towards families.[368] Although everyone, including the childless, had to have the new drains, families came under special pressures to become cleaner and more hygienic. A family (or a newly married couple) choosing a rented home was under more pressure to select one with good drains than a widow or bachelor was. By the 1880s, in most working-class parts of Leeds and Bradford, having a family meant paying the higher rates and rent for a home with proper sanitation. This was not equally true of Middlesbrough. The ‘rougher’ culture in which men neglected both home comforts and wives’ opinions about family life, including family size, extended to a lack of motivation to move to homes with better sanitation. The gender contrast in priorities is brought out by a petition to Middlesbrough Corporation to provide proper drainage for Bank Street (in the Newport district of the town), all of whose fifty signatories were mothers. ‘Seeing that fever is so prevalent we feel very anxious about the health of our young families’, they wrote.[369] The document is not dated, but comparison of the signatories’ names with rating books places it in 1876.[370]

Like piped water and sewerage, the supply of domestic gas reached working-class districts mainly in the 1880s or later. Its chief contribution to home comfort at this stage was in lighting rather than cooking, let alone heating, at this point, and it was expensive. In Leeds, the growth in connected households was fastest in 1898-1900, by which time there were 840 miles of gas mains, compared to 660 in 1886.[371] Jan de Vries cites an estimate that gas supply had reached a third of all English homes by 1901: with three-quarters of the population calling themselves working-class, it follows that at least some better-off artisan homes were connected to gas supplies by then.[372] Since gas was used mainly for lighting at first, its cost was almost entirely additional, since it substituted only for lamps and candles, and not for the household’s much more significant spending on coal. It will be recalled that coal accounted for a twelfth of a poorer working family’s entire budget. Connection to gas supplies, then, was an aspirational form of expenditure for a working-class household in the generation before the First World War.

Rising expectations about space, and an end to age-old overcrowding, were often more important than the desire for a connection to the new utilities. Working-class families of the 1860s often put up with two-roomed dwellings, but by 1920 the ‘two-up, two-down’ was the acceptable minimum, with two separate bedrooms, one for the adults and one for the children. An 1899 conference in Leeds illustrates one step along this road. Ben Turner told the conference that ‘as one who has lived in a cellar dwelling and in a back-to-back house, and who now was in a through house, it was inhuman to expect any man who worked six days a week to live in any but the best through house a workman could possibly have.’^[373] This perfectly illustrates the rising sense of entitlement already discussed.

For working-class families, the move to separate bedrooms was, like the struggle for better diets, a way of using rising real incomes to redress past hardships. The overcrowded homes of the 1860s and before, in which the parents of the 1870s and 1880s had spent their childhood and teenage years, were disliked on grounds of health and modesty – particularly the sleeping arrangements. Many autobiographers describe these, often referring to modesty, for example mentioning rooms divided by sheets, undressing in the dark, and careful schemes about which children and adults, of which sex, were allowed to share a bed. The kinds of selection occurring in oral history and autobiography mean that witnesses with stories of severe overcrowding are more likely to tell these, because they represent eye-catching contrasts with the present day, making them interesting to the audience. Those whose family had what was regarded as enough room will be less likely to mention this. Making allowance for this bias in the sources, some patterns still emerge.

The feeling that children should have their own beds grew stronger, more clearly in Bradford than Middlesbrough (less information was available for Leeds). In Bradford in the 1910s the Williamson family, though poor and run on patriarchal lines, with the five children standing at table for meals and getting what was left when father had taken his choice, still found it necessary to provide a young child with his own single bed although all seven of them had to fit in what he recalled as a ‘two-room house’. This comes to light because his mother responded to arguments with his hard-drinking father by renouncing the marital bed, taking the child’s, and moving him in with father, where he had to ‘keep perfectly still.’[374] For the child to have his own bed was important, but so was this assertion of independence by his mother, who also went out to work on munitions during the First World War, and later as a railway porter. It was probably also a way of avoiding unwanted sexual attention and unwanted conceptions. Responding to these pressures to have more beds, large families who could afford to rent or buy houses with more rooms were doing so by the 1900s, as in the case of a Bradford boy who had four brothers and five sisters.[375] Those who could not afford to move somewhere larger continued to live in very overcrowded conditions, but now felt the stigma more, as the first group were effectively leaving them behind.[376] The account of one such family, for example, stresses the poverty of the Windhill and Dockfields districts of Shipley (near Bradford) in which they were obliged to live.[377] In this way, the stigma of overcrowding increased the perceived cost of childrearing.

In Middlesbrough, small homes were at least as common as in the other towns. Many were built speculatively during the successive booms of the 1840s, 1860s and early 1870s. Florence Bell began her account of the workmen’s lives by deploring the rushed construction: ‘[no] time and space can be wasted on what is merely agreeable to the eye, or even sanitary day by day the little houses spring hurriedly into existence.’[378] Until the early 1900s nearly all were two-up, two-downs. Overcrowding was more common than elsewhere, since families were larger, though there was less complaint: the average father’s lack of interest may have communicated itself to the oral history witnesses. Even when infant and child mortality left space in a house, economic pressures encouraged the mother to fill it with a lodger, of which there were many in the town. For example Elizabeth Bell (no relation of Florence), who lost three of her four siblings, grew up in such a household.[379] Similarly Mrs Gilbert’s mother, who managed to bring up seven children in the 1880s and 1890s, took in a lodger as well, despite the pressure of space, as a desperate tactic to make ends meet as a widow with a young family.[380] Having a lodger involved additional challenges to modesty and privacy, but was sometimes inescapable.

It would be a mistake to see the respectable preservation of modesty within family homes as universal: the kind of household which neighbours looked down upon as 'rough' might take a more informal approach. It was still not an entirely carefree one, as the autobiography of Joseph Armitage of Hunslet, south Leeds indicates.[381] The son of a hard-drinking ex-miner, who by this time was working in Walter Scott's Hunslet steel works, and of a housekeeper/cook, Joseph grew up with a stepbrother fourteen years older in a downwardly mobile household who were evicted after complaints about drunken arguments, and forced to move to an area of Hunslet which he labelled (in hindsight from 1974) as a 'slum'. Describing the taking of baths in the kitchen, Armitage noted that women bathed when the males were out of the house, but men 'whenever necessary and no-one raised an eyebrow. inhibitions were not thick on the ground.'[382]

The desire for more room was not all about modesty: both old and new ideas about hygiene in the home taught that the fewer people sharing a given volume, the healthier they would be. This was believed both on the grounds of old fears that diseases were spread by miasmas, whose persistence Eric Sigsworth's memoir of a Leeds childhood confirms, and on the strength of new scientific views.[383] Catherine Buckton, who had a carpenter create visual aids that were literally 'model dwellings', wrote in a 'course of instruction for elementary schools' that 'Professor Tyndal not long ago proved by a beautiful experiment that the air in crowded rooms was full of organic matter and living things which feed on it.'[384] Families wanted homes with more rooms, then, so that their children could grow up with more space, fresh air, and privacy than the parents had done. This search for space came up against Britain's enduring shortage of affordable homes. Space could only be had at rents which were hard to afford.

On top of these price signals, however, there were also subtler pressures which signalled to working-class families that fewer children would mean better housing. By around 1900, there is evidence for the development of a dislike among landlords for renting to large families. A commentator in the Middlesbrough-based *Northern Weekly Gazette* wrote in 1905 that large families were trapped in the 'slums' because 'many property owners will not let their houses to people having more than one or two children. Woe betide, then, the poor man who has a large family and is desirous of bringing the children up in decent surroundings.'[385] From being seen as the norm in 1870, a family with several children had begun to be seen as an indicator of potential problems to the landlord. By making this more widely known, papers like the *Northern Weekly Gazette* helped raise the perceived costs of childrearing by spreading anxiety about how landlords and other influential individuals would make life harder for a large family.

The housing market thus signalled – not only through the price mechanism but also indirectly through landlords' and neighbours' attitudes – that the wise and virtuous family should limit its fertility to fit the home it could afford. (This is a good example of one of Fine's product 'information systems', in which beliefs and discourses about the product, as well as its intrinsic qualities, affect demand.[386]) Which of the three types of change discussed in this chapter was operating here? As far as rents themselves are concerned, it makes most sense to see this as an influence from the providers of housing, in their failure to increase supply enough to keep the price constant as population rose. Presumably they found this highly profitable, since the demand for urban housing will have been very inelastic.

As for the size and quality of the home itself, so for its contents: by the 1890s, expectations about furnishing the home had increased, and would continue to do so. Once more, the meanings of goods in the home illustrate a family's values. The move towards more bedrooms and less sharing of beds just discussed meant that more beds were wanted, and more supplies of other bedroom furniture, for example for storing clothes, were also needed. Families wanted ornaments too, not just functional furniture, and Buckton's working-class audiences ignored her strictures against their custom of filling every room with as much furniture as possible, since she thought this harboured germs which could hide in the extra dust, and against spending on 'knick-knacks'. [387] In the study towns, furniture retailers advertised just these wares, and encouraged consumers' expectations. The range of goods a family expected to possess widened over time. In 1890, advertisements mentioned furniture, fire irons, crockery, beds, chairs, engravings and clocks. In 1920, in addition to these items, a retailer such as Hardcastle's of Armley (West Leeds) offered, for instance, carpets, stair carpets, linoleums, clothes horses and brasses. Hardcastle offered all of these items second-hand as well as new: he certainly expected the less well-off to aspire to own them too. [388] The larger and more enterprising businesses might offer deals such as Robert Kidd of Middlesbrough's 'Working Man's Home Furnished for £10' or, in Bradford, the Great West Riding Furniture Company's 'Cottage House Furnished for £12 10s'. [389]

One small but significant addition to the costs of furnishings (and space needs) was the pressure from the infant welfare movement for babies to sleep in cots rather than in their parents' beds. Among the many concerns about infant welfare they raised was the worry about babies accidentally smothered in bed by 'overlying' by their drowsy parents. The complaint could become very strident when the parents' state was put down to inebriation, an observation made by coroners from time to time and taken up by the press. [390] Using a cot was also promoted as reducing the likelihood of catching infections from other family members. The Leeds Babies Welcome tried to make compliance easier by demonstrating how a cot could be home made from a banana crate, though the enthusiasm with which this suggestion was received is not recorded. [391]

The collection of furniture and knick-knacks affected the front parlour, that quintessential institution of the working class in this period, even more than the crowded bedrooms. It was the one place where space was set aside, so possessions naturally accumulated there. Buckton remarked critically on the reservation of this room for seeing visitors and Sunday use, because this led to daily overcrowding in the 'back kitchen', but the institution was much too strong to yield to utilitarian arguments. [392] The respectability which the parlour demonstrated to visitors, for example impressing boyfriends and girlfriends of the family's teenage children with its high standards, was too important. As a result, house space was under even more pressure, and the difficulty of crowding a large family into a few small rooms more keenly felt. Without parlours, parents would have felt the space costs of childrearing less strongly.

Meanwhile, in the kitchen, De Vries notes the arrival from the 1870s of the closed range, making more varied menus and cleaner kitchens possible: this was the aspiration of the fashion-conscious, although in Leeds Buckton, practical as usual, was still singing the praises of an ordinary cottage range with an open grate a decade later, provided it was fitted with – inevitably – an 'economiser', which 'saves coal, lessens dust and labour'. [393] The kitchen, too, then, was a scene of rising standards and growing pressures on families to spend. Early twentieth century middle-class

commentators noticed the strength of working-class mothers' expectations, though often in dismissive language, Virginia Woolf criticising them for setting their sights on 'ovens and bathtubs', and Naomi Mitchison claiming that they wanted 'nice little home-nests, brick houses with every convenience for the housewife and home-lover'.[394] Such expectations were indeed growing, and to establish and maintain such a home was easier (in both expense and effort) with a smaller family than a larger one. As Peter Scott has argued for interwar working-class households, the need for higher consumption around the house made parents limit family size 'to sustain their new lifestyles'.[395]

In established families, awareness of the high cost of achieving these expectations promoted stopping behaviour, and late spacing. Newly married couples were affected too, since their expectation was to move into their own home as soon as possible after the wedding. Here, the impact on fertility was greater in the end, since it affected the entire fertile period. The retailers' complete house furnishings offers were pitched particularly at this group. Examination of the 1881 CEBs confirms just how strong the custom of setting up a separate household immediately on marriage was. Table two shows that, of all married males with co-resident children sampled, ninety-nine per cent headed their own household. Among the married female workers with co-resident children sampled, ninety-four per cent of Bradford mill workers and ninety-seven per cent of Leeds tailoresses belonged to the first 'conjugal family unit' (CFU) listed at their address, that is, the woman or her husband was the head of the household. This is an impressively high proportion, given the high cost of setting up home and the relative poverty of the young actors involved.

Table two: proportion of workers belonging to the first couple listed at their address (%), 1881

	Whole sample	Workers aged <25
Bradford textile fathers	99	97
Bradford textile mothers	94	84
Leeds engineers (male)	100	99
Leeds tailoresses	97	92
Middlesbrough ironworkers	99	97

Source: digital 1881 CEBs

The Census snapshot shows couples at all durations of marriage, and duration of marriage was not a Census question so it is not possible to research household status by duration of marriage. Young married workers represent a reasonable proxy, however, so in the final column of Table two the proportion is shown for workers aged under twenty-five. More than ninety-five per cent of males and more than eighty per cent of females led their own household even in this group, rather than living with, for example, parents or in-laws.

Even among the younger mothers working in Bradford mills, examples such as the twenty-two-year-old worsted weaver Ruth Newton living with her husband, two sons and a boarder are found four times as frequently as those like Catherine Lawler, another twenty-two-year-old weaver, but

living with her husband and baby son in her father's household. This confirms that newly-weds were motivated very strongly to leave their parents' homes within a short period of marriage. Saving up for furnishings (and other costs of setting up a household) was therefore a task to be carried out mainly before marriage. The strength of the impulse to do so put the costs of family life firmly in young couples' minds at exactly the point when their reproductive behaviour began.

This case for the impact of cost perceptions on fertility underlines the importance of housing and furniture to the broader argument. The sector offers strong evidence of rising working-class expectations and their expense. It also shows how these perceptions about the rising costs of childrearing were translated into downward pressure on family size, augmented in this case, unlike that of food, by rising like-for-like costs. Where the family of the 1860s was often reconciled to living in a two-roomed dwelling which shared a pump and a privy with neighbours, in 1920 a widespread and achievable expectation was two separate bedrooms, for the adults and the children, a heavily-furnished front parlour, a kitchen with piped water and a closed range (or even a gas stove), and, finally, a water closet. By then, many parents felt that having fewer children was a practical and indeed praiseworthy route to this kind of existence, a choice which benefited the children themselves as well as the adults.

IV

1860-1920 was a transitional period in the history of clothing, between the time when many of the average household's clothes were home-made and a more recent world of mass-produced garments. Among the poorest, some of the old ways of meeting the need for clothing persisted a long time. On the last day of 1889, the Methodist Leeds Central Mission held an event for seven hundred children, each receiving an almanac and an orange: 'those who were most poorly clad were taken into an ante-room and clothed with warmed garments donated by friends.' [396] Christmas seems to have been the customary time for charitable gifts of clothing: around 1910 the company and employees of Heaton's in Leeds were distributing over five hundred items of clothing through schools to 'the very poorest, most needy and deserving of your little girl scholars.' [397] Some large families who received gifts from Heaton's provide evidence of the way poor households understood that more children meant more trouble clothing them. One mother wrote 'I have six children and the eldest is ten years of age... so I have nothing to spare', another that Heaton's gift 'would come in very useful for they take a lot of keeping tidy, seven girls.'

Other sources of cheap clothing were available besides charity. Pawn shops, apart from their central function of lending, were also a source of cheap clothes (and many other second-hand goods) when they sold off unredeemed pledges. [398] For example, the earliest surviving edition of the (Middlesbrough and district) *Weekly Gazette* in 1877 carries an advertisement from J. Wilks' Clothing, Jewellery and Pawnbroking Establishment offering 'unredeemed pledges of all descriptions' and also boys' suits at the unusually low price of 3/6d. [399] Clothing clubs, in which mothers worked together to sew or to save up for clothing for the family, provident cheques and tally men were other enduring features which offered women essential lines of credit with which to buy clothes. [400] The institution of mutual provident cheques, later very widespread, began in Bradford at this period with Waddilove's, while Bell's description of the '£1 ticket system' is in essence a local Middlesbrough version of the provident cheque, in which a broker bought credit from a small number of stores and sold it on to women at a profit, allowing them to

pay in instalments.[401] Some of the oral history informants report that their mothers made all the children's clothes, around the turn of the century.[402] For the truly desperate, theft was a further option, as for the pregnant Armley woman imprisoned for six weeks for stealing shoes from a pawn shop in 1900.[403]

Alongside these enduring features of mid-Victorian working-class life, however, was a growing mass market in factory-made clothes (in whose production Leeds and its tailoresses played a very significant part). Advertisements for these became steadily more numerous, and the prices and styles suggest a gradual widening of the market to take in those on lower incomes. Early advertisements such as those of the famous Barran's of Leeds aimed at middle-class audiences, but later advertisements proudly proclaimed their wider markets, for instance, 'Mrs Kennedy, the People's Milliner.'^[404] The new availability of mass-produced clothing made it possible to aspire to a wider range of fashions.

Once mass production existed, the possible styles and products to choose from were far more numerous than before, and wants could multiply as information about these products spread, for example in the cheap newspapers studied here, which ran large numbers of advertisements (such as Mrs Kennedy's) in every edition. Factory production, though not always of high quality in practice, also made it possible to aspire to higher standards. For example, cotton shirts were easier to wash than the linen or woollen garments they replaced, and contributed to the pursuit of higher standards of hygiene discussed later in this chapter. The strong growth of ready-made clothing advertisements in the local newspapers after 1870 shows how working-class aspirations to own a wider range of such clothing were increasing. However, the home production of clothing, most often for children, survived, most strongly in Middlesbrough, where it added to the long list of domestic tasks which women might carry out. The pressure of expectations about better clothing was therefore felt more strongly in Bradford and Leeds, where people were more likely to buy, or hope to buy, ready made clothing.

What propelled this growth in aspirations for better clothing? Fine and Leopold suggest that endogenous changes in working-class tastes were more important than any desire to emulate the clothing of the rich. They point out that copying the tastes of the better-off would not have been easy to do in a convincing way, noting the observation of a designer in 1863 that 'ready-made articles of apparel find their admittance only among the vulgar, or those devoid of taste.'^[405] People knew that ready-made clothing was an indicator of lower social status. As quality improved at the top end of the ready-made market, these gradations of status became subtler but the underlying point remained: it was not worth spending money trying to look like the wealthy since it was too easy to be found out. On the other hand, buying clothes to conform to a model of specifically working-class respectability was much more worthwhile.

Mass production came only slowly to the world of babies' clothing, where bought garments remained expensive. Most working-class mothers continued to make their own by cutting down the garments of other members of the family.[406] Here too, aspirations rose, making childrearing harder. The infant welfare movement, active from the 1870s and increasingly prominent by the 1890s, was eager to give mothers advice about how to dress their babies, with sewing classes and instructions about appropriate and inappropriate clothes. Strong views were expressed about how the wrong choice of dress would be harmful to health. Buckton's views on the subject were fairly typical – the need to wrap babies up warmly, in contrast to current practice – although her

enthusiasm as an educator, exhibiting a live eider duck in a discussion about insulation, was probably unique.[407] The strictures of the late Victorian campaigners about keeping babies warm do seem to have been effective: by the first decade of the twentieth century, babies were being wrapped in considerably more layers: for instance a ‘gown, several skirts, cashmere cloak or cape... and several covers in the pram.’[408] While most could not, like this comfortably-off Teesside shopkeeper’s family, afford cashmere, by Edwardian times multiple layers of baby clothing had replaced the older notion of ‘hardening’ infants by putting them out of doors in ‘a dress that would chill the blood of a strong man or woman.’[409]

To avoid disapproval, then, mothers now had to take additional care that the baby was correctly dressed, and this involved spending more time sewing (and more money) than formerly. In 1917, for example, in Middlesbrough, ‘Mrs Levick [the Medical Officer] presented the [Cannon Ward] centre with a book of patterns, from which garments are cut and made and sold to the mothers....Our aim has been to induce the mothers to have warmer clothes and better material, without tawdry trimmings.’[410] The attention of the infant welfare movement also called for higher standards of dress for the mothers themselves: the MOH for Leeds noted the existence in 1912 of ‘a large number of children whose mothers are not prepared to bring them to the Welcome, sometimes on account of their own clothes.’[411] Clothing, then, was another field in which doing as a working-class mother should was becoming harder and more expensive. Rising expectations about children’s clothing, then, were a further factor in the growing perceived cost of childrearing. Chapter five will describe how the spread of education magnified this impact.

V

Working-class aspirations to better living standards in this period have already been summed up, following De Vries and Mokyr, under the broad heading of health and comfort. This study questions how much was contributed by the ‘push’ of ideas by these communicators, and how much by the ‘pull’ of their already receptive audiences, showing by their attendance, or the purchase of a two shilling book, their motivation to make changes to their household management based on the new expert knowledge. Both were necessary, but more would have been achieved in the absence of new knowledge than in the absence of popular motivation, since motivated mothers would have used rising income to make improvements in diet and housing even without the benefit of nineteenth-century biological science. The next section, which moves from the broader determinants of health such as food and shelter to more specifically hygiene and health-related concerns, is a good field in which to test the relative force of these push and pull factors, since the move from learning new knowledge about germs and infection to adopting new practices of cleanliness was a particularly obvious one to make. If experts had an impact, they were most likely to make it here.

Soap (whether used to clean bodies, clothes or houses) is a good example of a product in growing demand. De Vries notes the accelerating growth of soap consumption per head, from about one per cent annually in 1791-1830, to two and a half per cent in 1830-1881.[412] Katrina Honeyman’s history of the Leeds soap manufacturer Joseph Watson and Sons notes that consumption per head doubled between 1861 and 1891. Watson’s were a successful player in the national market and so do not provide evidence which can be tied to Leeds alone, but their rapid entry into soap production, with an output rising from a hundred tons per week in 1885 to six hundred tons in 1893, confirms how buoyant the market was. The growth in the use of soap

slowed between 1900 and 1907, indicating that the most rapid growth in demand was in the second half of the nineteenth century.[413]

This demand growth seems to have come from the working class above all. In the absence of convenient or cheap water supplies, they had done less washing (whether of bodies, clothes or homes) in the period before running water was connected. Middle-class consumers, connected to running water earlier in the century than most working-class families, and better able to afford high standards of cleanliness due to both income and time effects (owing to the employment of servants), adopted a more intense use of soap sooner.[414]

Soap producers were nonetheless promoting their products to a mass working-class market from early on. The *Leeds and West Riding Express* in 1860 carried advertisements for Harper's Twelve Trees Soap Powder which encouraged readers to consult the manufacturer's 'Dialogue' booklet – 'Fourth Million'. [415] The advertisement gave an example of 'a friendly bit of chit-chat between Mrs Scrubwell and Mrs Thrifty' on how easy the product was to use, avoiding the need for rubbing the clothes, 'and you know how black my Jim's shirts get at the foundry.' [416] Other companies, such as Joseph Watson and Lever Brothers, also aimed their advertising at working-class wives and mothers.[417]

Watson's 'How D'You Do?' booklet, a similar medium to Harper's Dialogue, and distributed free with soap bars, exemplifies the relationship between the knowledge held by housewives and the improvement of health and comfort, while suggesting too that skilful advertisers could take over the process of knowledge dissemination and turn it to their own purposes.[418] The booklet combined informative content ('Statisticians tell us that thousands of people die ... from infectious diseases. ... Where dirt is, there is the microbe also.') with appeals to the housewife's desire to promote health and comfort ('How do YOU do – YOUR soap selection?with due reflection as to how much home comfort, home happiness, home cleanliness and home health depend on [it]? ... How are you to keep home – that dearest spot on earth – healthy? ... WATSON'S MATCHLESS CLEANSER [provides] ... a sense of security from the scourge of Infection ...')

Inhabitants of the study towns would encounter numerous advertisements of this kind, encouraging higher aspirations. In addition to press advertising, soap was often advertised on outdoor placards.[419] Even more eye-catching were the decorated coaches which took salesmen around the country, announced by trumpet fanfares, and handing out toys and balloons to promote Watson's Venus soap, and the competitions with major prizes (including a house), not to mention the distribution of his 'Matchless Cleanser' yearbook to schools.[420] Watson's were not the only advertisements to play on the fears of epidemic diseases, including cholera.[421]

It seems, then, that the origin of this eye-catching growth in the use of soap was a combination of the diffusion of expert knowledge and the powerful promotional efforts of the manufacturers, the two at times combining as in the examples above. Buckton told the story of a working woman who told her at a lecture that 'she had been "fair capped" to find that she could not get off the dirt unless she used soap, but now "I understand the reason why"'. [422] Evidence of how these ubiquitous messages could be received by mothers and children can be found in a miscellany column from 1890 about what schoolchildren wrote in their essays. A Bradford boy in the third

standard had apparently written that:

‘when you are clean people never edge away from you, never mind about your clothes, but they say unto you like our teacher that it is next to godliness. Be thankful unto him because your mothers can afford soap, and because they make you use it. Also when your mother puts her fingers down your coat-neck afore breakfast, and peeps to see if there’s any black there, and then sends you back to the sink again to wash yourself look at the necks of masters and superintendents and preachers and [you] will not find a ring, which is always a sine as you have not gone far down.’[423]

In this example, the emulation of middle-class models is prominent. However, this may only reflect the situation in which the text was produced: a need to write something which would satisfy the teacher. The working class also had its own reasons for seeking cleanliness: in the battle to be numbered among the ‘respectable’ rather than the ‘rough’, it was an obvious badge. Joseph Armitage of Hunslet took pride in his ‘rough’ origins but still reported taking regular baths: almost everyone was trying to be considered clean.[424] The more difficult cleanliness was to achieve and the more visible (for example a front doorstep, or a child’s clothes), the more powerfully it signified the respectability of the family. When the Leeds leatherworker John Gawthorpe led his church choir and became a Sunday School superintendent, his search for respectability would have been in vain if the rest of the congregation had been able to see or smell signs of his pungent weekday occupation.[425] Certainly middle-class members of the congregation (and the priest) were among those Gawthorpe wished to impress, but he set out to do so as a working man with particular standards, not as someone crossing a class divide.

Cleanliness was regarded very much as part of a woman’s work in the home. In De Vries’ terms, the wife was the member of the family who was expected to take purchases such as Twelve Trees Soap Powder or Watson’s Matchless Cleanser and turn them into the ‘commodities’ such as clean clothing and a clean home which met the family’s needs for health and comfort. Since this labour was arduous and time-consuming, it is of some importance who was carrying it out, as this affects the question of whose interests would be served most by limiting family size and the amount of washing and cleaning required. The evidence shows mothers washing clothes and making children wash to the standard they saw as necessary. Large numbers of oral history records and reminiscences describe the weekly wash and many tasks of house-cleaning as women’s work in this period. Were there any exceptions?

A small entry in the miscellany column of the *Leeds Weekly Express* in 1890 may imply that cleaning the floor could, surprisingly, be a male role in this district: ‘Here is an interesting and a pleasing item for paterfamilias and his boys. It is asserted by many hospital authorities that infection etc. is less where floors are dry-rubbed and polished than where a moist unhealthy atmosphere is maintained by the soap and water process.’[426] The implication here is that the father or sons in the household were given the task of washing the floors, and would welcome the excuse to switch to polishing (though it seems doubtful whether this would really be less work). The jocular reference to ‘paterfamilias’ is part of a discourse which presented the father as completely dominant, but this was not the whole story, and wives could allow husbands the illusion of dominance as part of a strategy which might also include getting him to wash – or,

indeed, polish – the floors. This was not so different from the methods, noted by Fisher, which wives might use to influence their husbands' sexual behaviour without appearing to do so, as discussed in chapter two.[427] Small examples such as the note on floor-polishing are a reminder that, whatever the superficial appearance, housewives were by no means powerless to shape the family's attitudes, including its expectations about living standards. This is important because, as this study shows, such expectations were a significant motive for family limitation. The relative impact of husbands' and wives' living standard expectations on family limitation is discussed further in chapter seven.

The Middlesbrough oral histories produce one example of a husband helping out, which is interesting for what it shows about the usual assumptions. Beatrice Knowles, who married in 1917, says of her husband that 'if Len wanted an evening off the foreman would say "is it mangling night?" He used to say "yes it is." [Question: Did he help you with the housework?] Yes, he was very good.'[428] The foreman's teasing question, and Mrs Knowles' 'very good', surely show that both of them regarded Len Knowles' help with the mangling after work as unusual, and worthy of comment. Bell's extended discussion of housework, and particularly of the circumstances in which a wife may start to neglect it, is by no means lacking in sympathy for the woman's position, but its message in relation to gender roles is clear: women do all the housework, and they must do it well if their husbands are to remain happy.[429] This is clearest in her two examples of the impact on young husbands where this standard is not met: the man who grows 'more and more accustomed to look for comfort and enjoyment out of his own home', and the one whom she 'longed to see ... taken care of by some tender capable woman', but is not, and attempts suicide.[430]

In West Yorkshire, and especially in a mill town like Bradford with so much female wage labour, male participation in some of the housework tasks – still carefully demarcated to preserve a sense of gender difference – was more common than in Middlesbrough. Men's work included the mending of boots or shoes, other repairs, and for those who had one, keeping the allotment or vegetable garden. These, at least, were male tasks in Middlesbrough too. However the Leeds reference to cleaning, and a similar practice in the small mill town of Haworth, near Bradford, in which men cleaned the outside of the windows and washed the pavement in front of the house, argue for a larger male role.[431] The breadwinner-homemaker household was being modified in recognition of the value of women's wage labour to the household, and the need to spare some of a wife's time and energy for it. This slightly closer approach to the sharing of domestic burdens made shared understandings of the burdens of family life and shared perceptions of the costs of childrearing easier, as chapter three suggested, following Szreter. This way of sharing domestic labour, then, limited as it clearly was, nevertheless contributed to the lower-fertility culture of mill towns.

Rising expectations about health can also be demonstrated through the consumption of medical care and medicines. While newspaper advertisements for patent medicines were ubiquitous throughout the period, the rise of advertisements for dentistry reflects a new service being offered. In 1877, Mosely and Son could boast in Middlesbrough of being 'the only qualified dentists in the North of England', but later it was common to see advertisements for several dentists on a single page of these newspapers.[432] Extractions and false teeth were offered at prices calculated to draw in a wide range of patients: the Moselys emphasised that they 'perform[ed] all operations for

the Working Classes at a Half Fee' and made 'a special class of strong useful Teeth for the working classes at a greatly reduced charge.' Holroyd and Jackson, 'Popular Dentists' in central Leeds, were offering extractions for a shilling in 1906, or for those with deeper pockets or more sensitive mouths, 'painless (freezing), 2/6d'.^[433]

There was a similar growth in the demand for the services of doctors. What promoted these increases in demand is not wholly clear. James Riley questions how much patients expected a cure, and suggests that to receive a foul-tasting medicine and a service that was attentive and cheap may have been enough.^[434] This does not suggest that the rise in consultations was due to growing reverence for the skills of an expert, and may imply that it was part of the search for respectability. This carries some conviction, though some of Riley's own evidence, including critical reviews by a Friendly Society about the medical care of a patient who died, points the other way, indicating that members were looking for efficacy (as it was understood at the time) and not only respectability.^[435]

For whatever reason, though, use of the doctor was growing. Riley has shown how friendly society members were increasingly likely during this period to pay the dues which brought the services of a contracted doctor: nationally, the proportion rose from a third in mid-century to two-thirds by 1900.^[436] As Friendly Societies joined together in Medical Aid Associations, they could negotiate more professionally with doctors and their representatives, and secure medical benefits for more of their members and, importantly, now their dependents. The Bradford Friendly Societies' Medical Aid Association was successful in securing more than three visits and seven prescriptions per case.^[437]

There was a significant development in working men's views during the last quarter of the nineteenth century. Where they had earlier viewed the medical benefits of friendly societies as an insurance against their own loss of earning capacity, by treating illness and injury to return them promptly to work, they increasingly also expected to be able to buy medical cover for their wives and children, who had previously had to rely for health care on family knowledge, patent medicines, informal practitioners like bonesetters, charitable dispensaries, or, in extremis, the Poor Law doctor.^[438] The new friendly society benefits which could be bought with higher subscriptions often included a maternity payment. A mother of nine children who wrote to Llewelyn Davies in 1914 acknowledged the value of the thirty shillings from the Hearts of Oak and said: 'I have always been able to look after myself, with the help of a good husband.'^[439] Here as in other aspects of living standards, an autonomous change in working-class attitudes – one which emerged within the friendly society movement – produced higher expectations and higher expenditure (in friendly society contributions), though the external force of doctors' organisation for better bargaining helped drive up fees faster.^[440] Like other forms of rising demand discussed in this chapter, the growth in demand for medical care took a form which made larger families more costly than before. This growing willingness to invest in professional medical care for children also illustrates the trend discussed in chapter six to show affection in more material, and expensive, ways.

It is not necessary to follow David Green in claiming implausible levels of success for these working-class initiatives to provide wider medical cover.^[441] Bronwen Swinnerton has shown in detail (in an unpublished PhD thesis) how these claims cannot be supported and that successful

insurance for wives and children's medical care was the exception, not the norm, before the statutory National Insurance scheme began in 1911.[442] The effectively-run Bradford association just mentioned only had three thousand members in a town with seventeen thousand families.[443] Even in 1911, National Insurance coverage was not universal and its benefits were set at the old levels: one mother saw its maternity benefit, thirty shillings as at the Hearts of Oak, as 'only a trifle to the large expense that is incurred, when you have paid £1 1s. for your doctor, your nurse 10s. per week'[444]

The point here is, rather, that the success of just a minority in providing in this new way for their families shows how expectations were rising. Expectations first began to grow among a better-off minority, but the success of their efforts also created the aspiration to follow suit in a much wider group of working-class men. The growing availability of family doctor services, including home visits, brought about a climate in which delay in calling the doctor to a sick child became reprehensible, even a matter to be brought up in the coroner's court, as the example quoted in chapter six reveals. This is an example of how new consumption by one group prompted defensive consumption by others, who now felt they had to spend to keep up. Those who had not been able to insure for family medical costs were sharply reminded, by personal experience or that of friends and neighbours, how significant these were. For example, 'I had two down with measles, one two years old with his collar-bone out, and a little girl thirteen with her arm broke ... [while] I was expecting my eighth little one, and my dear husband worried out of life, as you see with all this trouble I was only having the £1 a week and everything to get out of it.'[445]

Not only, then, were there new, higher, expectations, which could be expensive: in addition, each childhood illness or injury would remind families of this. It was common knowledge that an unexpected doctor's bill could be a catastrophe for a precarious family budget, despite doctors' frequent tolerance of delay or even default in settling them.[446] This awareness of the family budget's vulnerability to doctors' bills is clear in the letter from a mother with a rapid succession of difficult pregnancies who took special pains to 'get the doctor paid before I wanted him again', even though they had to go without Sunday lunch to achieve this.[447] Mothers like her knew from bitter experience that childbirth could often mean unexpected medical costs. The association of cost with the birth itself underlined the message that having more children meant more expense. While the general argument of this study has been that changing perceptions of the costs of childrearing prompted women and men to spacing behaviour throughout the period of family formation, the previously unexpected impact of high medical costs at a birth may well have been an exception (in common with other unexpectedly negative experiences of childbirth, such as pain and poor health), more likely to promote stopping than spacing.

To sum up, it will be recalled that the factor which affected fertility was not the cost of childrearing but the perceived cost of childrearing. As these examples show, medical care was an area in which perceptions of cost were strong. All in all, the considerable advances in access to medical care for working-class families during the later nineteenth century, autonomously created and very largely self-funded, are an underestimated component of the wider rise in the perceived costs of childrearing. More generally, the evidence considered here about hygiene and health from the three towns confirms their substantial contribution to these perceived costs. De Vries' description of working-class expectations as focussing on hygiene and comfort is a reasonable one, although his emphasis on looking forward to new opportunities is a little too optimistic as a

description of the general attitude. It was commoner to see health and hygiene, just like diet and housing, as a catching-up process of making good past deficits, now seen more clearly in the light of the diffusion of expert knowledge. This was the view of the woman, already quoted, who wrote in 1914: 'I think that it is better to have a small family and give them good food and everything hygienic than to let them take "pot-luck."' [448]

VI

Working-class families' expectations about how they would spend leisure time became more ambitious in the period 1860-1920, in a similar way to the expansion in their aspirations for material things. The expanding economy offered a multiplying range of leisure activities, more of which (though not all) were commoditised and required payment to enjoy. This growing emphasis on the commercial sector gave the growth of leisure activities a stronger impact on household budgets than it would otherwise have had.

The earlier part of the period witnessed the rapid growth of the music hall. Advertisements for these abound, in all three towns studied. Bradford, for example, had Pullen's Music Hall in 1872, its first Alhambra (in a wooden circus building whose cheapest seats were threepence) in 1873, the Palace (described as 'raucous') in 1875, the Prince's in 1876, the Empire in 1889 and the still-surviving Alhambra in 1914. In addition the Theatre Royal (opened in 1864) offered pantomime as well as theatre.[449] In Middlesbrough, by the 1870s there was for example the Oxford Palace of Varieties in Feversham Street, where a gallery seat cost sixpence.[450] As the *Leeds Express* noted in 1880, 'a very large proportion of the working classes in our great towns are in the habit of going to music halls.' [451] Commentators increasingly criticised the music hall as vulgar and a temptation to drinking. Those with aspirations to respectability might need something else by the 1880s.

One outlet for this need, which illustrated the desire to provide for children's amusement as well as adults, was the pantomime. It began as an art form which only the middle classes could afford, but developed a wider attraction. Writing his weekly column in the *Leeds Express* in January 1890, 'Zephyr' described the pantomime as 'the jolliest sight of the season....the oldsters go to see the enjoyment of the youngsters more than the spectacle itself.' [452] This feeling that amusement should be provided for children too continued to develop. Bradford's education authorities were acknowledging this when, in 1920, they arranged for large numbers of schoolchildren to see *Peter Pan* at the Theatre Royal.[453]

The invention of cinema made it cheaper for children to attend performances, as well as offering a new form of consumption to adults. The *Armley and Wortley News* has a particularly rich range of cinema advertisements, beginning in 1910. By 1920, five different picture houses in the immediate area were all advertising in its pages. It may have been this keen competition which led the Palace Picture Hall to offer penny children's matinees and a skating rink.[454] A recent local history study in Middlesbrough notes the existence of five cinemas before the First World War.[455] Significantly three of these (Cleveland Hall, the Pavilion and the Scala) were in the poor Newport Road area, partly no doubt as premises were cheaper but also indicating the working-class nature of the early audience.

The cinema's separate offerings for children and adults were almost a new departure: the whole family had attended the music hall performance. With more frequent changes of programme than the theatre, family members would demand more frequent trips to the cinema as well, so that although cinema seats were cheaper than theatre ones, overall family spending on them was higher. An oral history informant from Bradford recalled looking after her youngest brother, taking him to the cinema. This was the only way she would get the twopence needed for admission (they belonged to a family of nine children).[456] For this family and many like them, while the advent of the cinema brought new and exciting entertainment, it was a fresh pressure on the budget.

The period also witnessed a growth of both professional and amateur sport. The former drew increasing crowds to Association and Rugby League football matches, and to cricket. Fans could follow teams in the pages of the local press, which took a growing interest, and by 1890 the *Leeds Express* offered a separate Saturday sport edition alongside its main edition for the day. Attending professional fixtures was the preserve mainly of adult males, although contemporary photographs show that some fathers took their sons to the game, passing on male expectations about consumption from one generation to the next. What is unclear is whether the increasing commercialisation of football and horse-racing, and the associated betting, legal (on the racecourse) or illegal (in the streets), attracted the same amount of male expenditure as the earlier lifestyle had with its higher alcohol intake, or whether Anna Clark's sober artisan saving money to spend on maximising family welfare by staying in with his wife instead of going to the pub is the more accurate picture of the typical late nineteenth-century breadwinner. This discussion of leisure will conclude with a closer look at how this gender issue emerged differently in the three towns.

It would be a mistake to regard the rise of commoditised professional sport, putting extra pressure on household income, as the only development taking place. At the same time, amateur and children's sport was on the increase. Municipal initiative was important in this. When the authorities in Bradford opened two bowling greens, a tennis court and a croquet lawn in the working-class surroundings of Bradford Moor Park in 1906, the local paper was clear that they would pay their way provided they were patronised as well as earlier ones established in the town in Peel and Bowling parks.[457] The growth of sport for children is discussed in chapter six. This increase in the watching of and participation in organised sport was a further way in which households could pursue more complex and time-consuming leisure lives.

Another important aspect of leisure was the day out, or longer excursion. In 1860, the development of the railway network had already created the possibility of travelling further for pleasure than pre-railway generations could. The *Middlesbrough Weekly News*, for example, reported a twenty-carriage train excursion to Raby to enjoy the sights of the castle and countryside.[458] While many excursions were organised by workplaces and could play an important role in workplace cultures, it would be wrong to think that the majority took this form. The example just mentioned was organised by a church, and many were commercial ventures. Railway companies, in particular, frequently advertised excursion trains. In Leeds, the east coast resorts, Blackpool and the Lake District were all being offered by 1860.[459] The rise of coastal resorts as providers of large scale holidays in the generations that followed showed how rising real incomes offered a growing proportion of the population the chance to get away for a few days'

holiday. By 1890, Miss Traice's 'Household Hints for the People' in the *Leeds Express* was discussing how to leave the house in the right condition when going away, since 'it has become so much the custom for people of all classes to take a holiday by the sea or elsewhere every year.'^[460]

It is tempting to describe the development of mass leisure during this period in terms of large themes such as the rising consumption of leisure experiences packaged as new commodities and sold to a market of people with more to spend than before. While this is true and relevant, it should not obscure the persistence of very diverse forms of informal and self-organised leisure, ranging from the keeping and exhibiting of songbirds to illegal gambling on running races and from homing pigeons to prizefights.^[461]

A long-term trend which does emerge clearly is the rise in aspirations to more complex and expensive kinds of leisure activity. The examples already mentioned can be complemented by a comparison between the popularity of the Leeds Fair in 1880, when its suppression by the town authorities drew many expressions of regret, and in contrast the range of activities appearing in accounts of the 1920 Easter holidays. The Leeds summer fair, held on the Smithfield market ground in July, had combined a cattle market with boxing, marionettes, illusions, shooting and caravan shows such as 'the learned pig or smart pony' – in short, a typical large fair based around a market such as had long been popular.^[462] When the town council closed the fair in 1880, the *Leeds Express* detected a good deal of working-class nostalgia for what had been lost, the noise and bustle appealing to children in particular, it was said. Demand for the traditional types of entertainment on offer must have been significant, since the fair was able to revive itself on new sites beyond the town council's control.

Forty years later, leisure had diversified. Readers of the *Armley and Wortley News* looking for ideas about how to relax in the Easter break could choose between a football match between Leeds United and Bradford, Rugby League fixtures, tram excursions to local beauty spots and a large programme of cinema.^[463] In the other towns studied here, the *Bradford Daily Telegraph* noted that Blackpool and Morecambe remained top destinations for an Easter holiday, but a growing number would travel longer distances from Bradford, to London, the south and Lincolnshire coastal resorts. Not only did they go to the cinema if they were staying in the town, but some would tour from one cinema to the next.^[464] In Middlesbrough, the wetness of the Easter weather prompted reflections which showed how far aspirations had risen. Nearby coastal resorts like Saltburn and Redcar were pleasant enough, but the weather showed how much the northeast needed indoor amusements such as Blackpool could boast.^[465] Compared to 1860 or 1880, the typical newspaper reader now expected much more: leisure had become much more demanding of time and resources.

This study has argued that husbands, as well as wives, could be aware that a smaller family meant larger shares of the resources for all. It is reasonable to ask whether men had a selfish motive for family limitation in the freeing of more resources to spend on so-called male vices like alcohol, tobacco and betting, or on other forms of male-dominated leisure. This is an under-researched area, and an examination of trends in the proportion of household income spent on alcohol and gambling would be informative. De Vries notes that alcohol consumption per head peaked in the late 1870s, and by the 1930s the consumption of beer had fallen by forty per cent, and that of

spirits by even more.[466] More detailed evidence about occupational and geographical variation, and its correlation with cultural differences in the position of women, including their ability to influence their husbands' fertility behaviour, would be very valuable.

In practice, a taste for high consumption of these items was associated with a lack of interest in the family's welfare and home comforts, and with higher fertility. Far from fostering the wish to have fewer children so that there was more money for beer, high spending on the male vices indicated men who did not communicate as well with their wives as other men did, and were less likely to reach agreement with them on the value of family limitation. Douglas and Isherwood have made a plausible link between high male expenditure on alcohol, lack of interest in consumption for domestic comfort, and of interest in wives' wishes generally. They draw their evidence for this from a West Yorkshire mining town in the 1950s, using the classic *Coal is Our Life*.^[467]

Middlesbrough, a town whose contemporary reputation for high alcohol consumption was backed by court statistics on drunkenness, fits into this same cultural pattern.^[468] Lady Bell's chapter on 'drink, betting and gambling', whilst inevitably revealing as much about middle-class liberal nonconformist attitudes as about working-class culture, draws (however selectively) on the day-to-day observations of her team of home visitors.^[469] The present study identifies in chapter six how the share of wages retained by the father was higher in Middlesbrough than in Bradford and Leeds, and this retained money was the source of funding for the male vices. Margaret Goldsborough did not report anything about the alcohol consumption of her father, but as a skilled worker at Head Wrightson's Foundry with 'skimmer lads' working under him, Mr Goldsborough's decision, as late as 1914, not to spend his wages on renting a house with its own water closet suggests that his priorities lay elsewhere.^[470] (Not everyone spent all their 'pocket money' on vices, though: Bell's survey of working-class households' reading habits notes many who were 'great readers'.^[471])

Men like Mr Goldsborough could be found everywhere, though, providing a further warning against the stereotyping of communities. Two individuals from Bradford who exemplify this combination of hard drinking and disinterest in home comforts had large families, as this model of marital communication would predict, of five and eleven children respectively.^[472] The first, who lived by an economy of makeshifts including work as a pub pianist, 'liked a drop of wallop got with the boys at weekends and this is where [the money] all went.' He had 'the choice of the meals and you got what was left. Children stood at the table for meals, and 'there wasn't the sort of camaraderie between parents and children as exists today father never seemed to take any notice of you.'^[473] He beat his wife, leading to separation on more than one occasion and also, more unusually, a court appearance.

Meanwhile, the drinker with eleven children was a carter whom his son called 'a hard worker of necessity very low paid one of the real working class.' He administered his beatings, 'with particular force,' to the children rather than to either of his wives, leaving his son to recall, almost in tears sixty years later, that 'he was a hard man [who] I presume had to keep a strong hand over us else life wouldn't have been worth living for him.'^[474] This was the family already cited which existed largely on bread, margarine, jam, treacle and the occasional piece of cheese, whose home life demonstrated the father's disinterest in the rest of the family's welfare. The sparse diet

was also the economic result of too many young mouths to feed, which captures the way that such a disinterest could be expressed in unrestrained fertility. All three communities were diverse enough to contain men of this outlook, but it was Middlesbrough where the dominant culture was most indulgent towards them.

VII

The last section of this survey of consumption covers items purchased not to meet material needs but entirely for display, characterised by De Vries as ‘aggressive’. This was a necessarily small category, given tight budgets. Such expenditure can demonstrate rising expectations particularly effectively, since its whole purpose is contained in its meaning, unlike the purchase of food, whose nutritional value came first, whatever signals it was also bought to convey. The public drinking of cocoa was one example. The Leeds Cocoa House Company, a temperance alternative to the public house, was able to open five cocoa houses by 1880. John Barran said at the opening ceremony of the new Kirkgate branch, ‘in this age of progress fresh enterprises were constantly being set on foot to more fully meet the wants of the public.’[475] He clearly felt that the Leeds Cocoa House Company’s initiative was just one example of the availability of new consumer goods among many. While drinking cocoa at a cafe was hardly in the class of conspicuous extravagance, drinking it in a cafe rather than at home it was more expensive, and part of the attraction was display as well as sociability.

This cafe in Kirkgate also formed the ad hoc headquarters of Isabella Ford’s Leeds Tailoresses’ Union during the 1889 strike at Arthur and Co.[476] The tailoresses’ choice of venue is evidence that the appeal of drinking at the cocoa house had spread to lower paid groups who wanted to imitate this habit of their better-off counterparts. Spending time at the cocoa house had become part of the tailoresses’ broader liking for street life. The *Leeds Weekly Express* described this culture in 1890 with a somewhat critical account of ‘the long evenings after tea, when they perambulate the streets of the town, or otherwise search for entertainment and amusement’, ‘flaunting about the street’, attracted to the ‘glare and glitter of the streets, with their “life” and freedom and gaiety.’[477]

While this custom began from a search for something cheap yet interesting to do after work (and an opportunity to meet young men), it developed naturally into forms of consumption calculated in part to display independence and fashionability. A different type of aspirational good beginning to diffuse more widely in the population was the H. Samuel watch, offered for sale at six shillings at branches in Bradford and Leeds in 1911.[478] As the economy offered more and more such opportunities, young single adults had ever more calls on their limited spending power, in competition with the older impulse to save up for marriage.

VIII

The foregoing discussion has established that parents’ subjective assessments of the costs of childbearing increased in this period. It is highly plausible that this made some of them decide to limit their families, so that the whole family could enjoy higher living standards. But what contemporary evidence is there that this was so? At national level, the Women’s Co-operative Guild collection, *Letters from Working Women*, is a good source.[479] In addition to letters

already cited in this chapter, a number of the other correspondents expressed this point of view. For example, one woman wrote of her gladness that she had only one child, adding 'we live in quite a poor house, 7s. 6d. weekly rent, but to do justice to my grown-up step-children... I cannot afford to have any more children.'[480] Another wrote that 'my husband, along with myself, considered his wages [of 15s. to 32s. per week] were not adequate to maintain a family.... I love children dearly, another reason why I do not wish them to be created to be badly fed, clothed badly, uneducated etc. on a mere pittance.'[481] The lack of resources to give children a satisfactory standard of life is not the only reason given for family limitation in this collection. A consciousness that frequent pregnancy could lead to death or serious illness for either the mother or the children is also mentioned, and the difficulty in affording proper nursing care and outside domestic assistance during lying-in links the two. But the economic argument is prominent.

Sources in the three study towns echo this point of view. The comment of the *Northern Weekly Gazette* in 1905 that large families could not hope to move to better houses has already been noted.[482] A woman who worked as a midwife in Bradford in the 1930s recalled that 'if they had two children, and they hadn't a lot coming in, they would probably go to have an abortion.'[483] Another Bradford woman, the youngest of four surviving children, explained the penalties of a large family: 'when they'd one child they could take that child on holiday, and we never went on holiday. And they were dressed nice... if you'd ten kids you only got the same – your father could only earn the same wage....[friends had abortions because they couldn't afford the children]...I mean, one after the other. I mean, you hadn't the money....clothes had to be handed down and patched up....I didn't know what it was to get anything new.'[484]

There were gender differences in the strength with which such feelings were held. The evidence from the three towns studied is that mothers, as expected, were influenced the most by those pressures which weighed on the family budget, since they were its controllers, and by considerations of the time and energy which extra children demanded in domestic tasks. It is noteworthy, however, that although the *Letters from Working Women* is an entirely female source, several of the letters refer, like the one just quoted, to decisions taken by 'my husband, along with myself' or claim that 'my husband and myself were quite agreed'.[485] The suggestion is at the least of joint decision-making, and sometimes even a male lead is implied. Recalling the discussion in chapter two, this may have been no more than the adoption of the outwardly submissive persona demanded of women by contemporary society, while a wife quietly but effectively steered her husband to the choice she wanted by hints, humour and indirect suggestion. Male witnesses, as is normal in oral history and autobiography, have much less than female to say about their feelings on the subject, and so it is hard to tell what men in these three towns thought. This chapter, however, establishes clear motives for men as well as women to want smaller families, whether this was the young husband out shopping for furniture with his new wife, or the father of three contemplating the high cost of a week in Blackpool.

There is no need for surprise at the relative rarity of statements (even by women) praising the virtues of family limitation. The women and men who felt this way were still, before the nineteen-twenties, pioneering a new way of thinking about family life which was not welcomed by all, as some of the *Letters from Working Women* show.[486] It could be criticised as selfish, for example. As Szreter comments, the fertility decline began in private decisions to limit family size, copied by couples who saw its advantages for families around them, and only later did public

norms catch up with what was becoming widespread practice and give it public legitimacy.[487]

Another conclusion to which the chapter leads concerns the influence of expert advice. The large market for advice literature such as that of Buckton and Philp makes it clear that ordinary consumers felt a need for such advice. For each artisan household which bought such a book and took up just a few of the hundreds of proposals it contained (far too many for any family to adopt most of them), there were neighbours and relatives who copied their example in some respect: a recipe, a cleaning method, a way of adapting clothes. It is striking, however, that the working-class audience for advice was self-confident enough to make its own selections from what it heard. The chapter contains many examples of advice from Buckton which was not taken: on tea-drinking, the amount of furniture in a bedroom, or the use of the best parlour. Buckton was a particularly sympathetic populariser, who combined her enthusiasm for spreading scientific understanding of 'the reasons why' with an empathy for her audience. Her impact was still very strongly shaped by the personal choices of the working-class mothers who had sought out her advice. The impact of less effective communicators like Dundas was much smaller. The behaviour of the mothers shows how their motivations were the decisive factor: by seeking advice, they confirmed De Vries' and Mokyr's view that expert knowledge was diffusing powerfully, but also revealed a pre-existing desire for improvement. If there had been no advice, their search for improved welfare for their families would have found other outlets: expert advice helped to steer but did not provide the power.

The growth in expectations about how a family ought to live was felt in all three study towns during the period. By the 1870s, features of consumption – what was consumed, how it was interpreted and what other goods and services were seen as desirable and achievable – had become more a national than a local phenomenon. The influence of much improved transport and of greater literacy, making an awareness of possible goods and services easier to achieve, could easily have brought this about. Everyone, everywhere, shared to some degree in this growth of expectations, even if it was as the poorest member of the community, feeling the growing strain of keeping up with a society whose other members could afford greater increases in their consumption. Rising expectations therefore contributed everywhere to the reduction in fertility. Parents perceived that they could give their children a better childhood than they had experienced, whether in terms of diet, size of home, or hygiene factors such as piped water or medical care. Experiences such as renting and furnishing the first family home, or paying the doctor's bills for attending births and childhood illnesses, brought home how these higher expectations multiplied the additional cost of each new child. They raised the perceived costs of childrearing. Sometimes, as with food, there were periods when unit cost reductions mitigated this effect: in other sectors such as rents and medical fees, inflation was the rule, emphasising the rise in childrearing costs. By 1920 it was normal for parents to feel that having fewer children allowed them to provide better for each, to the benefit of the whole family.

Within this general picture, the survey of consumption just undertaken has identified some differences between the three towns. In Middlesbrough, more of the needs for food, and slightly more of the needs for clothing, were met by home production by married women, compared with Bradford and Leeds. The pattern that emerges, labelled here the 'working mother effect', is that where women played a smaller part in paid work, they played a larger one in transforming purchases into final consumption, and where they worked more, they struggled to combine this

effort with the domestic tasks (including childcare) still expected of them. The perceived costs of childrearing were thus higher for working mothers. The rise in material expectations amplified the 'working mother' effect for the same reasons as it amplified the more general impact of rising expectations on fertility. This meant that rising expectations slowed fertility more in labour markets like Bradford and less in Middlesbrough, making their birth rates diverge.

Thus, the conditions in Bradford, of low-paid men, and women frequently in work, which was also poorly paid, challenged the successful operation of the breadwinner-homemaker household in two ways. Husbands brought in less money than elsewhere, and women had less time and energy for the domestic labour which was needed to turn purchases into welfare. This simply made family life harder. The worst effects were felt by mothers, who attempted to combine earning and domestic labour and made considerable sacrifices in order to do so. It would be interesting to know more about how far husbands helped out by contributing to domestic labour, but very little evidence about this was found and the impression is that this contribution was small. In these circumstances, the attractions of a smaller family were strongest. Husbands could see these attractions, not only if they felt some sympathy for their wives but also by realising that everyone in the family would be better off if the limited amount of final consumption available was shared between fewer family members. The attractions were clearer to wives, with the first-hand experience of the exhaustion and anxiety.

In Leeds, men were better paid on average than in Bradford, and a significant number of women had paid work, though fewer than Bradford. It is particularly important in the more diverse town of Leeds to bear in mind that any discussion about average conditions is an averaging out of the experiences of several discrete groups (a point which also applies to the other towns, however). The household in which the wife combined full-time wage labour and domestic labour was less numerous than in Bradford, but many were still to be found. Overall, the conditions for raising a family were a little easier than in Bradford. Another factor which reduced the perceived costs of childrearing compared with Bradford was the lower wages in tailoring compared to the worsted mills, discussed in chapter three. This difference meant that if a woman had to give up work when she started a family, she sacrificed less wages than her Bradford counterpart.

The situation in Middlesbrough was the furthest from Bradford, since the wife in a typical household here did not have paid employment, and average male wages were higher. This was the environment in which the breadwinner-homemaker household operated most successfully, and raising a family was a little easier here than in the other two towns. Easy is of course a relative term, and there are enough descriptions of wives perceiving their domestic labour as a form of drudgery to warn against regarding life in the Middlesbrough household in too rosy a light. On the other hand, married women often perceived employment as another form of drudgery, and there is evidence that they therefore gave it up once they could afford to.[488] The picture of what mothers in Middlesbrough, or elsewhere, thought of housework needs to be a balanced one (and to recognise the variety of individual viewpoints). The argument here has been that with slightly higher incomes in the households of the better-paid ironworkers and shipbuilders, and their more efficient conversion into family welfare by women with more time to do so, many Middlesbrough households found the perceived cost of childrearing lower than their counterparts in the other towns. This was a factor in Middlesbrough's higher fertility.

This chapter has shown how rising expectations about family consumption produced an increase in the perceived costs of childrearing. In each town, opportunities to secure a better standard of living – and to escape past hardship – through new forms of consumption opened up, but with these came pressures to conform to these rising standards. Women and men responded with a wish to have smaller families than previous generations, so that each child could have a larger share of the resources available. Variations in the pressures which consumption placed on households in the different towns help to explain why fertility declined faster in Bradford and Leeds than in Middlesbrough. Chapters five and six continue this exploration of rising expectations and their impact on family size.

Perceptions of education and their impact on fertility

This chapter continues the analysis of rising expectations and their causes, switching the focus to the impact of universal education. 'Raising a child was indeed now harder', notes Ellen Ross (in relation to London), '...This rewriting of the terms of mothering was surely a factor in lowering the fertility rates of the women of the poorest London boroughs'.^[489] This chapter confirms that Ross' argument is valid for Bradford, Leeds and Middlesbrough, and it also suggests that some of the downward pressures on fertility were felt by fathers as well as mothers.

The new demands made by education were fourfold. First, there was a need to comply with the demands made by the education authorities in order to avoid the sanctions they could impose. Working-class families came under closer scrutiny from public authorities than they had previously done. Second, the fact that children attended school exposed families to stronger pressures from the rest of their communities. School attendance called for new cultural behaviours to do with (for example) clothing, feeding, and cleanliness, and standards had to be met if the good opinion of the rest of the community was to be retained. This led to a collective reinforcement of the rising standards, for example of health and clothing, which were now expected. Furthermore, even without new standards, going to school made the family's compliance or otherwise with existing standards more clearly visible. Going to and from school at the same time of day, everyone's children could be seen, and compared. School made children, and the way their parents treated them, more visible. Since these two forms of new demands on families overlapped so much, they will be considered together.

The third field in which education made demands was in postponing the beginning of a child's employment and its financial contribution to the household budget, though this was also being delayed by the extension of employment legislation. Finally, education expanded children's mental horizons. Literacy gave them access to new information sources, and education could also give them a belief in the possibility of personal improvement and change. This chapter will consider the time-lags involved in these influences on fertility: for example the effects of this opening of horizons is one which would be felt in the following generation rather than earlier.

What caused these rising expectations? When families did what was necessary to comply with the demands of the authorities, 'expert' opinion was at work on them in a particularly powerful form. Whereas experts in the guise of health reformers normally (except in the case of vaccination) had to work on individuals by exhortation, the education reformers secured the support of the state to ensure that their message was heeded. In addition to this, though, the development of new forms of working-class respectability linked to school attendance can be seen. A small number of examples are also identified of producers using the need to comply with schools' demands as a 'hook' for their advertising.

The themes of chapters four to six (material consumption, education and relationships) are of course related. Mass education was the main arena in which the official world noticed and might influence various kinds of working-class consumption (most particularly, children's clothes), and

could also notice cruelty and neglect more readily. Mass education was also a melting pot in which families could absorb the influences of other families in every field connected with child rearing. Chapter five concentrates on the phenomena most closely related to school, which might not have happened without the spread of mass education.

I

As context for the discussion which follows, a brief account of the chronology of mass education will be useful. School enrolment had already been growing strongly before the Act of 1870. In Leeds, the philanthropist James Hole's 1860 essay *Light, More Light* on the state of education among the working classes is a significant account of developments since the early nineteenth century, claiming that in 1839 eight per cent of Leeds children were in day schools and fourteen percent in Sunday schools; by 1851 these figures were thirteen per cent and eighteen per cent.[490] In Bradford, Leeds and Middlesbrough, the 1860s saw the opening of various new schools, for example in Middlesbrough the St John's National Schools and the new Wesleyan Methodist school 'run on government principles' in 1860 and St. Patrick's Roman Catholic school in 1865.[491]

The 1870 Act was permissive, allowing local School Boards to decide whether or not to make attendance compulsory. The 1880 Act made attendance compulsory nationwide. It sharpened the impact of fees, already experienced by the families which were sending children to school, by bringing the opters-out into the system. These were mainly the poorest – contemporaries liked to praise the respectable workman who 'of course' sent his children to school voluntarily. John Bright claimed in 1870 that no-one was so interested in education as 'the working man and his wife with their four or five or six children about them.' [492] (Bright unconsciously underlines the size of families, which made the impact of education on the household a more powerful one than it would have been if there had been fewer children.)

The deterrent impact of fees on poorer families was at its greatest during the period up to 1891 when attendance was compulsory but not yet free. Nationally, fees at voluntary aided schools rose from eight shillings and fourpence per year in 1870 to eleven shillings and threepence in 1890, while those at Board schools had reached nine shillings and a penny in 1890.[493] For a family with an income of a pound a week, having three children at school at once would cost about three per cent of this sum. This was more significant than the figure may suggest, as the 'school pence' had to be found week by week out of a budget which was already too tight to pay for everything the family needed. This was a painful weekly reminder of the cost of education. During the 1870s and 1880s, the first stages of the fertility decline, school fees were an important part of the growing perception of the rising costs of childrearing. In this way, they played their part in the development of the general presumption in favour of fewer children which the period saw.

In 1891 fees were abolished by the Assisted Education Act.[494] Their importance to families was demonstrated by the immediate jump in school enrolment, which had been growing by less than one per cent per year: annual growth rose to 3.78 per cent in 1892 before falling back to one per cent by 1900.[495] This rise in enrolment did not represent the end of the working-class association of education with financial sacrifice. Fees had left their imprint on local cultures, and education made other, continuing, demands on families to ensure that parents did not forget that it

increased the costs of childrearing.

These demands were felt over a lengthening part of the parents' life-course as children stayed on longer at school. From 1870 there was an upward trend in the length of education. This was imposed by a mixture of education and employment legislation, the latter confined to factory work so that younger children could still be found at work in many other settings including domestic service and retail, for example as delivery boys. The Factories and Workshops (Consolidation) Act of 1891 imposed a minimum age of eleven years for factory work, removing younger children entirely from the factory workforce, and in 1901 the Factories and Workshops Act raised the minimum age for factory work to twelve years.[496] Meanwhile the education legislation extended the duration of compulsory education to five years in 1876, six years in 1893 and seven in 1899.[497] It needs to be remembered that what affected family life was not the official legal picture but the actual attendance behaviour. Ellis estimates that the average duration of education not only rose sharply as a result of the 1870 Act, naturally enough, but also continued to increase, as table one shows:

Table one: average length of school career (England and Wales), 1870-1897

Year	Average school career (years)
1870	2.55
1880	5.19
1890	6.13
1897	7.05

Source: Ellis, p. 315.

These figures underline the impact of the introduction of compulsory education on family life, making a particularly strong impression in the decade after the Forster Act of 1870. The typical child was spending twice as long at school in 1880 as in 1870, two-and-a-half more years, and a correspondingly shorter span at work. These estimates help to assess the importance of the reduction in children's earnings, which has been seen as an important cause of the reducing net benefits of childrearing and one of the contributors to the fertility decline.[498]

For a few, the school career began to extend for longer still. After 1902, working-class children had at least a theoretical chance of scholarships to help fund education beyond elementary school, but in practice only one working-class child in two hundred won a scholarship to a secondary school in the period before the First World War.[499] Almost all still left school at the age of twelve to fourteen years (the exact moment dependent on securing a certificate of educational achievement) until in 1918 a new Education Act raised the school leaving age to fourteen. This Act extended opportunities for secondary education by reserving a quarter of grammar school places for scholarship children, but financial constraints ensured that the same deterrent effect on poorer families continued to operate.[500] In the autobiographical records studied here, post-1902 accounts of boys and girls who left school and started work at the earliest opportunity are numerous. Middlesbrough fourteen-year olds starting at the works included Henry Dotchin (at the shipyards in 1912) and Albert Cowperthwaite (at a foundry in 1914); girls going into service by that age included Alice Welsh in around 1910 and Olive Taylor in 1913.[501] It may be a sign of

the limited value they saw in their elementary schools that none of the witnesses expressed regret that they were prevented from studying longer. The rarer children who could stay on at school under the 1902 arrangements belonged to the families of well-paid skilled workers, such as the Bradford iron moulder's son who won his scholarship in about 1907 (and went on to an advantageous apprenticeship to a builder), and, in 1915 (rarer still as a girl), the daughter of one of the prestigious and highly-paid River Tees Pilots.[502] Her secondary education similarly found her better-than-average employment, via typing college into secretarial work.

II

These, then, were the stages between 1860 and 1918 by which the children of working-class families were drawn into universal education lasting until the age of about fourteen years. This experience raised the perceived costs of childrearing. The first impact, from which the others flowed, was for children to be present at school, rather than absent with or without their parents' permission. As the employment of children was gradually restricted, parents became less likely to keep their children from school so that they could work, but some continued to in less regulated areas of employment. For example, in 1895 the *Northeastern Weekly Gazette* ran an article on the hard lives of girls who gathered shellfish on the Tees. They told the paper they did so 'to escape the School Board Officer' since no inspectors ever visited the mudflats.[503] Girls were kept at home to help with household tasks: for example one of the Middlesbrough oral history informants stayed off school for two days per week in the 1890s to take care of her baby brother. Her North Ormesby school was following a pragmatic course adopted in earlier generations when it allowed her to take him in to sit beside her for one day per week.[504] The same witness went on at fourteen to minding another family's baby for wages, and recalled a large range of other informal work. Families had an enduring need for children's labour or the wages it brought, and this clashed with schools' priorities, reminding parents how education was raising the cost of childrearing.

School attendance was enforced through the courts, as newspaper evidence shows in regular court reports. For example the *Leeds Evening Express* of 5 July 1890 reported the results of School Board summonses: ten 'school attendance orders', twenty-five fines of one shilling to ten shillings, and seven children committed to Industrial Schools as a punishment for playing truant.[505] These schools were an institution created to avoid the older practice of sending children convicted of an offence to prison. As an example of their use as a punishment for truancy, in 1900 the twelve-year-old Walter Jackson found himself sent to Leeds' residential Shadwell Industrial School until the age of sixteen for playing truant from Edgar Street Day Industrial School, where he had already been sent for previous truancy. The regime at Shadwell appears, from the reports of the Leeds press and of the government inspector, to have been a humane one, in keeping with the industrial school ethos of rehabilitation and the learning of a trade.[506] The *Armley and Wortley News*' headline, 'A warning to schoolboys', nevertheless sent a message to other families that a failure to attend school could lead to family breakup and incarceration.[507]

By 1910, a higher leaving age (now twelve years, subject to passing the certificate) was being enforced. A case was brought in Leeds about a girl of thirteen years and eight months who did not meet either 'the standard or attendance qualification' for exemption.[508] Disaffected thirteen-

year-olds, kept in school by the need to meet the attendance qualification before they could be allowed to leave, caused particular problems for their parents and there are other examples of summonses for this age group.[509] The authorities could be resolute: one Bradford official in 1910 thought children should simply be kept at school indefinitely until they reached ‘the standard’, or else attend compulsory night school.[510] While his hopes were not to be realised, they show the thoroughness with which some local officials sought to keep children in school until the date appointed by law. This kept up the pressure on families to comply.

While most families kept out of trouble and some were highly motivated to send their children to school, others disliked compulsion. Joe, one of the Bradford oral history witnesses, recalled that his mother, a woolcomber who belonged to the last generation of children before the 1870 Act, was illiterate. By way of explanation, he produced a family interpretation of events: ‘that was the days when they weren’t forced to go to school.’[511] Compulsion could arouse strong feelings. The engineer Joseph Pickles, attending a Leeds Trade Council conference on education in 1870, described compulsion as ‘police supervision’ and a ‘spy system’.[512] An article in the *Northeastern Weekly Gazette* in 1895 commented that foreign observers thought Britain had “‘conscription” as regards school attendance’, making it more likely that conscription would be introduced for the army as well.[513] Although compulsory attendance was accepted, with more or less reluctance, people continued to find it onerous. When the infants’ department of Stanningley School (between Bradford and Leeds) had to be re-sited in 1901, the *Laisterdyke and Bowling News* commented that the attendance officers would have difficulty making parents send small children the longer distance to the new school.[514]

The ultimate sanctions of removing a persistently truanting child to a residential industrial school, or imprisoning a parent for non-payment of a fine, show how strong the threat of compulsion might be. The highest priority of the typical parent was to keep the family together, for example by avoiding the workhouse, so for the state to invoke the possibility of separating the family in one of these ways threatened what mattered most to parents.[515] Ensuring school attendance did not only avoid official sanctions: it also enhanced the family’s respectability, at least in the artisan community. When the *Bradford Daily Telegraph* in 1910 ran a story in praise of a boy who had left school with a perfect attendance record, it signalled that school attendance brought respect and status to the child’s family.[516]

Moving beyond the fact of attendance itself, going to school also imposed demands on how children should be dressed. While it was impractical for cost reasons for authorities to require distinctive school uniforms, children were expected to be dressed presentably. For the ‘respectable’ elements of the working class, other people’s opinions, in addition to those of the school authorities, were well worth influencing by sending children to school adequately dressed. Even some of the very poorest shared the aspirations for good clothing which were now raising living costs for the working class generally. A letter from a father in the Heaton’s papers reported that ‘my daughter says [sic] she will be a swell in her new coat and skirt tomorrow when she goes for her Prize Giving of the Lord Mayor and Lady Mayoress.’[517] That even the poorest could share these aspirations, when meeting them would be so much more challenging than for the rest of society, testifies to the strength of such wants as a social phenomenon.

The cost of this respectability was significant, both for its inroads into family budgets and for the

time that mothers (and daughters) had to invest in mending. One girl receiving a garment from Heaton's in 1912 wrote that 'I shall try and have it for a year ... and keep it clean and well-mended'. [518] It is clear from some of the Heaton's letters that keeping the clothes in good repair was a way of satisfying authority as well as staying respectable, as when the girls at Sweet Street School told the company (in a letter sent via their teachers) that their needlework lessons meant that Heaton's gifts would be kept in good repair. Whether or not this comment was included at the teacher's suggestion, it shows that the girls knew that their efforts in mending their clothes would please the school as well as win them a better opinion from their neighbours.

A succession of newspaper advertisements for school clothing demonstrates the cost pressures which made this careful mending so necessary. Before the 1870 Act, the target audience for such advertisements consisted of the middle classes and the families of the best-off skilled workers. One typical example was, significantly, placed in the *Leeds Mercury*, which at threepence cost three times as much as the *Leeds and West Riding Express* and so had a better-off readership:

'BARRAN the boys will fill with delight
As often he's done with the beautiful sight
Of elegant dress, he makes it a rule
To prepare for them all, when going to school....'

This large advertisement continued: 'The juvenile display at BARRAN'S Mart ... for school wear, for all purposes at the lowest prices, is useful, elegant, strong giving plenty of scope for the wearer, even if he is a boisterous boy, to test the capacity of BARRAN'S boys' dress, for it will bear any strain.' [519] Forty years later, advertisers pitched their messages to a wider and less wealthy audience. Walker's Cash Drapery found it worthwhile to advertise in the halfpenny *Armley and Wortley News*, offering 'girls' pinafores and costumes ... boys' and youths' clothing a speciality'. [520]

For a family with a budget of between one and two pounds per week, these clothes were far from cheap. The same company in 1910 offered its 'boys' cheapest style of suits' (the normal school wear of jacket and trousers) at prices from four shillings and elevenpence to six shillings and elevenpence. [521] As further evidence of the development of a mass market, shops for ready-made clothing spread out from Barran's and Walker's city-centre locations to low-income districts. In 1919, 'Frank Briggs, the Children's Outfitter' was advertising from Wellington Road, New Wortley, an unfashionable location close to the gasworks. [522]

Boots, again standard school wear, also illustrate the expense of school clothing. In January 1920, Billy Stephenson's Sample Boot Shop in Armley, Leeds, described their twelve shilling and ninepence boys' school boots as 'will repair twice – guaranteed': a necessary promise perhaps if they were to sell at this price. Stephenson's sold school boots off during the summer in a 'reduction of stock sale' at the more affordable price of four and elevenpence to six and elevenpence. [523] Boots, and other clothing, were such a financial strain on some families that a range of makeshifts (in addition to repairs) had to be adopted. In addition to charities, there was second-hand dealing, including the establishments Middlesbrough knew as 'boiled-boot shops', which scavenged old boots, patched them up and re-sold them. [524]

Another element of the second-hand market was the buying of unredeemed pledges from pawn shops. Pawnbrokers knew, though, that pledges of clothing and boots were generally going to be redeemed on a Friday or Saturday night once the pay packet for the week had arrived, since they were needed so much.[525] Thirteen-year-old Thomas Horsfall knew the value of boots at the pawnshop when, in Leeds in 1900, he stole and pawned six pairs, putting the money on a horse (which lost).[526] A similar understanding of the workings of the clothing market was shown by the woman who wrote to Heaton's that she promised not to pledge or sell the clothes they had given her daughter 'as it would be a sin to do so after your kindness.'[527]

Clothing children adequately for the purposes of school was, then, a significant pressure on working-class families, and one which became universal after 1870, extending down the income scale to those who would have to struggle the most. By imposing a higher quality standard for children's clothing and footwear than had previously applied, compulsory education magnified the effect which family size had on clothing budgets: each child now had to be dressed better, at a higher cost. Little wonder, then, at the comment in one of the parents' letters to Heaton's, on receiving school clothes from them, that 'there are ten of us and only one working.'[528] A family with so many children below working age had more reason than others to value the gifts they received. The problem of providing suitable clothing was a significant way in which the arrival of education made a large family more difficult to raise than formerly.

Clothing was not the only area in which education made new and more onerous demands. The increased visibility of working-class children to the state authorities once they came under the eyes of teachers and school inspectors also raised new health issues. The state had not previously noticed these problems most of the time. Many children were simply in poor health. Eye, ear and skin complaints, and children under-nourished by inadequate diets, were not uncommon. When Bradford first introduced the medical examination of schoolchildren in 1893, head teachers referred over a thousand whose health they considered 'defective', and by 1907, when the school health service had got into its stride and was able to assess the health of the whole town's school population, its medical superintendent, Dr Crowley, found that at least six thousand children were underfed and another fifteen thousand had 'nourishment below normal.'[529] This was of course an important source of the impetus in Bradford to introduce free school meals. Feeding at school relieved some of the pressure on the poorest families, but before its introduction in the early twentieth century (and even after, for the many families who did not qualify, or rejected free meals on the grounds of stigma), the schools' new interest in identifying which children were being inadequately fed at home was another case of the education system raising the standard of parenting required and raising the costs of childrearing. A smaller family in which more resources were used on each child was now preferable to a larger one in which food, for example, was spread more thinly.

The response of the authorities to each problem of child welfare was normally to blame the children's parents (especially their mothers). Poor health was the result, so it was said, of maternal ignorance about the right diet, fresh air, clothing or sources of infection, and a 'feckless' failure to take proper care of children. Reports of the Medical Officers of Health in all three towns abound with such comments.[530] The results of this attitude included the promotion of cleanliness at school, as in the Bradford children's essays about soap and washing already noted in chapter four. Criticism of parents became sharper as time went on, and official attitudes developed from a stress

on education to an interest in compulsion, for which central government gradually created the necessary powers. The Education (Administrative Provisions) Act, 1907, was a milestone in this process, providing for the medical inspection of schoolchildren. One power available was to exclude a child from school on health grounds. Failing to comply with the system of exclusion had further consequences: in Middlesbrough the *Northeastern Weekly Gazette* reported a case of a man fined for failing to report that his child had scarlet fever: his plea of ignorance of the law was not, of course, accepted.[531]

Manufacturers of patent medicines and cleaning products recognised a commercial opportunity in this situation. The makers of the proprietary soap 'Zam-Buk' included accounts of children sent home from school with ringworm in their advertisements.[532] Zam-Buk appeared on the British market in 1903, and used an office address in Leeds in national advertising campaigns which offered readers a 'Penny Test Tablet', promising it would 'prevent and arrest skin-disease', and warning that 'if the skin is in an unhealthy condition, a small cut, crack or scratch may be sufficient to set up blood-poisoning or chronic skin-disease.'[533] In drawing attention to schools' new-found interest in preventing the transmission of ringworm, Zam-Buk's manufacturers merely updated the soap-makers' longstanding use of popular fears of epidemics, to exploit similar worries in the specific context of school.[534]

The emphasis on labelling health problems as the results of individual (parental) inadequacy meant that official goals for children's welfare were frequently pursued by placing greater obligations and costs on parents instead of making social provision to achieve them. This fitted with the liberal philosophy of personal responsibility, and helped avoid expense to ratepayers. In West Hartlepool (County Durham) the council considered in 1910 how to respond to large numbers of school exclusions for 'vermin, skin disease etc.', and wanted to use all possible powers for 'compelling parents to do their duty in relation to the cleanliness of their children', but stopped short of accepting a plan for school nurses since 'they dared not ... spend any more money now.'[535] Again, the message parents received was that childrearing was a more difficult and expensive process than it had been in their parents' or grandparents' times.

It may be argued that the emphasis in this chapter on the extra demands placed on working-class parents distorts the true impact of child health initiatives. The other side of the picture was the development of services such as free clinics, free spectacles and free school meals. However, two arguments can be made in defence of this chapter's emphasis. Firstly, the welfare services in question appeared quite late in the period being considered, most of them after 1906. Provision before then was voluntary and patchy. By the time the state began to offer services, the working class had been receiving exhortation and advice for more than a generation. So the main impact of child welfare concerns during the period studied was through this exhortation and advice. And secondly, the provision of valuable services was means-tested and limited to the poorest, so did not impact on the majority of families. Those in search of respectability would, as the system intended, try to avoid using such services. A Bradford oral history informant recalls, for example, how her parents did not want to accept the 'charity' of free school meals for their five children.[536]

Universal compulsory education, then, meant that for the first time all parents came under the influence of the demands which schools made. Children had to be sent to school, and meet

standards of nutrition, clothing, cleanliness and health which were higher than many had previously achieved. The better-off element of the working-class community, as well as the school authorities themselves, made it known that complying with these requirements was essential to respectability. These pressures were a significant part of the wider phenomenon of rising standards which led parents to choose quality instead of quantity in family life.

III

Education also added to the net costs of raising a child by postponing the moment at which a child began to earn money and contribute to the costs of its maintenance. This change has been described by demographers as a switch in the direction in which resources flowed between generations. Longer ago, it is argued, the overall flow of resources was from children to their parents, as they were cheap to raise and brought home valuable earnings before leaving the household. It paid to have a large family of young workers. This then changed to a situation where resources flowed from parents to children, because when employment was postponed, children's earnings no longer outweighed their maintenance costs. Such large families then became harder to afford and family size declined. [537]

It is hard to see evidence of parents calculating in this way, however, and this theory is best viewed as a description of implicit rather than acknowledged motivations. It is more helpful to add the idea of a family life-cycle. The child's early years were a period in which there were maintenance costs but no earnings contribution, followed by a period when the child was a dependent who now brought in earnings as well. There was therefore a period of the parents' lives when children were young and net expenses high, followed by a period when the children made a growing contribution to household costs and pressures on family budgets were perceived to ease. This better matches what parents thought, and focuses attention on any change in the age at which a child made the transition to an earner. The emphasis in the following discussion is therefore on the postponement of children's earning power.

Firstly, it is quickly apparent that some children were earning, and that nearly all of this money was passed to their parents – in practice, to their mothers to form part of the household budget of which the mothers were nearly always the guardians. Oral history informants are unanimous about this point, a typical example being the Bradford man who recalled earning seven shillings and sixpence per week at a grocer's shop in 1921, aged twelve, and handing it all to his mother to receive sixpence back as pocket money.[538] The money handed over to what this informant called 'the coffers' was known as 'jock money', 'jock' being contemporary slang for food.[539] Children's earnings, then, had a direct impact on household budgets rather than being largely retained by the child.

What was the magnitude of these payments? The textile sector produces particularly good official information. In the 1860s, before universal education, statistics show wage rates for children under the age of thirteen in both Bradford and Leeds, in the worsted and flax industries respectively. Since wages increased with age, it is problematic that tables often refer only to 'boys' and 'girls' without exact ages, and that the meaning of these categories migrates to slightly older age groups after 1870, but clear references to under-thirteens include the examples in table two, taken from Board of Trade returns.

Table two shows that Bradford and Leeds children under the age of thirteen who worked in the textile trades could usually expect to bring home between two and four shillings each week in the 1860s. While these were small amounts of money, they should be compared to typical adult weekly wages in the same industries, which could be as low as fourteen shillings in this period, ranging up to twenty and sometimes thirty shillings. This made a young child's earnings a significant addition to family income, often a fifth or a sixth of what an adult could bring home. The overall tightness of family budgets, particularly in the textile sector since it was relatively low-paid, added to the importance of children's earnings. Furthermore, as Humphries comments, the low pay of adult women in textiles and the rapid increase in children's wages there as they grew older meant that older children could be more valuable wage-labourers than their mothers.[540] The restriction of child labour in textiles, as discussed below, therefore had a specially strong impact on perceived costs of childrearing.

Table two: Child Wages in the late 1850s and 1860s

	Date	Weekly wage rate
Bradford:		
worsted manufacture: boys	1855-57	1s. 3d. to 4s. 6d.
worsted manufacture: girls	1855-57	1s. 6d. to 4s. 6d.
Worsted manufacture: boys and girls	1860	2s. 2d to 2s. 4d.
Worsted manufacture: boys and girls	1866	2s. 6d. to 4s.
Leeds:		
Flax spinning and weaving: boys and girls	1855-57	3s. 6d.

Source: *Returns of Wages Published Between 1830 and 1886*, Parliamentary Papers (1887), LXXXIX

Other sectors employed less child labour than textiles, and this meant that the restriction of child labour had less impact in these areas than in the textile sector. For an impression of the relative importance of different sectors by the eighteen-nineties, table three shows the recorded gender distribution of school-leavers' first employment in Yorkshire's large urban and manufacturing districts. It underlines the importance of the textile sector, particularly for girls' employment, but the table probably under-records the tailoring sector, since children or parents responding to the survey may not have construed homeworking as 'work' which needed to be recorded.[541]

Table three: Occupations on leaving school, 1893-94

(Elementary School leavers, all large urban and manufacturing districts in Yorkshire)

%	Textiles	Errands, carts	Shops	Domestic service	Total occupied
Boys	26	20	13		95
Girls	21			15	56

All categories >10% included

Source: *Labour Department of the Board of Trade: Fifth Annual Report, 1897-98, Abstract of Labour Statistics*, Parliamentary Papers (1898), LXXXVIII.

The evidence is that child employment in textiles declined rapidly after 1870. Table four shows how the numbers of children at work in the British worsted industry declined from 29,000 to 17,000 between 1874 and 1890. In reading these figures it should be borne in mind that half of all worsted employment was in Bradford, so these figures are a fair guide to trends in that town.

Table four: Child employment in worsted manufacture, 1870-1890

	1870	1874	1878	1885	1890
Boys	8,000	14,000	10,000	9,000	8,000
Girls	10,000	15,000	11,000	9,000	9,000
Total	18,000	29,000	21,000	18,000	17,000

Source: *Labour Department of the Board of Trade: Third Annual Report, 1895-96, Abstract of Labour Statistics*, Parliamentary Papers (1896), LXXX.

The slightly surprising increase between 1870 and 1874 may well reflect better reporting due to greater official interest following the passing of the 1870 Education Act. After 1874, numbers of children recorded at work declined by over forty per cent. These figures do not take account of the special legal institution of half-timers provided for the textile industry: children who worked half-time and attended school the other half of the week. This institution seems to have cushioned the impact of the restriction of child labour (as it was intended to). The employment of half-timers delayed the full effects of the restriction of child labour: their numbers declined in turn, but a little later, from 24,000 across the worsted industry in 1885 to only 9,000 in 1904.[542] Naturally, however, half-timers were not earning at the same rate as their full-time predecessors had been: one Bradford informant began work as a half-timer on one shilling and ninepence per week, which increased to four shillings and sixpence when she went full-time.[543] Half-time working only limited the impact of declining child employment on family budgets: it did not reverse it. Restriction of child labour in textile factories had begun early, but the value of such labour to employers and families meant that the process of withdrawing children under twelve from the mills extended over many decades, taking until 1901. The downward pressure on household incomes was a sustained force rather than a sudden shock, often experienced through a struggle to circumvent regulations. In Bradford and other textile towns, the long duration of this negative pressure on fertility helps explain the early start to the fertility decline and its persistence.

Looking beyond the textile sector, some differences between employment sectors become apparent. In other types of factory employment, found in Middlesbrough and Leeds, it is not hard to find evidence of boys over the age of fourteen at work in factories of different kinds, but younger children (even in the period when it was lawful for them to work in factories) are much less evident.[544] Another difference between textiles and other factories is the much greater likelihood of finding girls at work in a textile mill than in other factory work. Females of any age

played almost no part in Middlesbrough iron and steel production until the First World War, for example. This was another reason why the raising of the minimum age for factory work had more impact in textile districts than elsewhere: with children of both sexes affected, the restriction of child labour had potentially twice the effect that it could in an all-male workplace.

Girls were likely to be employed in less regulated sectors, such as tailoring. Ellen Gill's experience, starting work in 1901 in Leeds at the age of thirteen, was typical. She received three shillings per week for a month before switching to piece work, 'when I couldn't possibly earn even three shillings a week ... [we] had to buy our own cotton.'^[545] This was at Campbell's, a large tailoring factory. Conditions in workshops and homework were worse: here, apprentices might work unpaid at first for the privilege of a foothold in the employment market and some experience.^[546] While this was the general picture of homeworking, some did value the opportunity to work in a domestic setting rather than under factory discipline: the Gawthorpe sisters in Leeds switched from better-paid mill work to home dressmaking once the family budget could allow this.^[547] In general, the low pay in tailoring meant that the restriction of child labour, when it did come about, affected family budgets less than the restriction of children's slightly better-paid work in textile mills.

Like tailoring, domestic service was a very low-wage sector. Girls entering live-in service received board and lodging and perhaps two or three shillings per week; 'day girls' received about the same wage.^[548] Siân Pooley's illuminating study of domestic servants in Lancaster in this period, while emphasising the importance of even these small contributions to the family budget, finds an example of a girl taking home only one shilling and sixpence.^[549] Domestic servants' wage packets, small as they were, nonetheless were valued by households for whom every little mattered (and the board and lodging for live-in servants also reduced the pressure on their mothers' budgets). As the same Middlesbrough woman recalled, 'when I grew up, I went into service, I had to, because there was no money, we all went to service.'^[550] One oral history informant who progressed from domestic service to a textile mill specifically contrasts the wages, saying that the mill was 'very tedious work but you got a good wage.'^[551] The restriction of child labour therefore withdrew more income from households depending on the mills than those where daughters went into service. In short, child labour was so integral to the textile economy that, compared to other labour markets, its withdrawal affected fertility much more.

It is important to avoid the impression that all the restriction of child labour occurred between the 1870 and 1918 Education Acts. Child labour was being limited before then, as regular reports of prosecutions under the various Factory Acts show.^[552] It is also true that many children of school age were still doing informal paid work at the end of the period, although the boy who in 1919, at the age of ten, was cleaning hen-houses, killing and plucking hens for sixpence each and peeling potatoes for chip-shops had to work exceptionally hard for his age by then.^[553] However, although these examples show that the restriction of child labour must be seen as part of a longer trend, it remains true that the introduction of universal compulsory education and its effective extension to the age of fourteen was the critical stage. Requiring all children to be at school and investigating those who were not had more effect than the efforts of factory inspectors to police every workplace.

Education expanded children's mental horizons. The growth of literacy opened children to the influence of the written word. If they read nothing else, newspapers brought literate school-leavers the influences of advertising, the prescriptions of experts and stories about how others lived, all of which affected their expectations about the conditions in which families should live. Chapter four showed how lessons in domestic economy had the potential to shape children's views on food, health and hygiene, while suggesting the limits to their impact. Education could also be a more general and open-ended introduction to the idea that other ways of living were possible, by introducing children to the existence of communities beyond their own and by promoting the value of self-improvement.[554] In these varied ways, education could produce young adults with higher aspirations than their parents, who chose to meet them partly by reducing the size of their families.

The local evidence shows a range of goals for influencing their scholars' outlook among those involved in education. Many promoted aspirations to a healthier and more comfortable life, particularly if they came to the topic with an interest in public health. In 1858, Dr. Robert Baker could already rejoice that Leeds was achieving 'a higher social and intellectual state, or a better knowledge of the laws of life, disseminated by lectures, cheap publications and Institutions for mutual improvement.' He was not complacent, however, arguing that 'social science has yet its greatest work to accomplish, viz., to teach the working classes that kind of economy, by which they would feel pauperism a degradation, and ignorance a crime.'[555] Attitudes like these helped shape the curriculum of Leeds schools under its active School Board following the 1870 Act.

Schools in Leeds were in a relatively good position to further the widening of children's horizons. The Liberal ascendancy in the town's local government during the seventies and eighties was particularly likely to favour education as a preparation for self-help (Leeds being the town of Samuel Smiles as well as of Edward Baines). Thus in 1879, the *Leeds Mercury*, enthusiastically backing the School Board's relatively high investment in buildings against Conservative calls for economy, claimed, with permissible exaggeration, that the Board

'has not treated the children of the working class as paupers and criminals for whom the barest and most tasteless sustenance would suffice. On the contrary it has sought to equip them fully for the battle of life so that.... [they] might have a fair start in the race of existence.'[556]

It was in very much this spirit that Dr James Kerr, the Medical Superintendent to the Bradford School Board, gave his opening address to a meeting of the Bradford Health Association in 1891 or 1892, when he argued that the solution to the town's health problems was to 'improve the surroundings and teach the people', not with education of a literary kind but 'the education of their senses and their muscles, teach them to observe, think and live.'[557] Standing firmly within the public health tradition, Kerr harked back to Baker's conception that a knowledge of the 'laws of life', that is, healthy living, was necessary for the individual to successfully take responsibility for their well-being and that of their children. While energetically dedicated to improving the physical surroundings of family life, Kerr argued that education was equally important, and had to foster new aspirations of a better life along with understanding about how better health could be realised.

The celebration of the opening of three new Board Schools in Leeds in 1900 was an occasion for speeches rehearsing the many different goals of universal education, from greater industrial competitiveness with Germany and the USA to social quiet, euphemistically presented as 'reasonableness between man and man, between employer and employed.' Most interestingly, a School Board speaker referred to education as 'the best way to counteract what was base and low ... educated parents presented a higher standard of life and morals to their children.' [558] In such terms as these, education set itself the task of raising (and shaping) its scholars' aspirations. Under its influence, they would want their own children to have better lives, and they would understand that the tasks of a parent had become more demanding.

V

This chapter has shown from the evidence of Bradford, Leeds and Middlesbrough how the arrival of universal compulsory education had a fourfold influence on fertility. It raised the threshold of an acceptable standard of family life, firstly through the demands which education authorities themselves made of families, and secondly by making children more distinctively visible to their communities so that existing pressures of respectability operated more strongly. Thirdly, education was the most powerful factor postponing the start of children's earning careers, making larger families less affordable. And fourthly, education raised the target standard of living in a more long-term way, by teaching children that they could aspire to improve themselves.

The evidence discussed here also permits some further reflections on the impact of education. How long did it take for these influences to work through into fertility rates? The impact of the higher social expectations which parents experienced once they sent their children to school could have come within a decade: there is no reason why it had to be delayed until the next generation. Parents who found after 1870 that their children would now have to go to school lived alongside families whose children already did so. It was not difficult for whole communities to learn what new ways of living this entailed.

The lessons which they learned, about keeping their children adequately dressed, clean and healthy, were more powerful because their models were the more respectable families in their communities. This made them the obvious models from which to learn what the new and unfamiliar institution of sending children to school would entail. But it also emphasised that the financial sacrifices might be significant: the families who now provided role models were those who, by virtue of their higher incomes, had already been able to exercise the choice to send children to school. Knowing that school attendance had, thus far, been a feature of the better-off working class, their less well-off counterparts knew that school was not just a change in how children spent the day but also a change, with a price attached, in how a family lived its life.

Comparing the timing of the fertility decline in these three towns, discussed in chapter three, with the timing of universal education, the effects of universal education could be felt early enough to be one contributor to the fertility decline more or less from its onset in the eighteen-seventies. However, the full impact of universal education on fertility was felt more slowly. Education postponed children's earnings in a gradual process, the decline in reported child labour and in half-time working spreading over the decades before the First World War.

Naturally, the impact which schools had on the attitudes of the scholars themselves took a whole generation to be reflected in family size. Where children grew up to expect a better standard of family life and ended up limiting family size to achieve this, the thinking of the much-expanded school cohorts of the eighteen-seventies began to affect birth rates from about 1890 onwards. Correlation in time and place is no proof of causation, but this account of the impact of education is consistent with the accelerating fall in birth rates and deserves serious consideration as one of its causes.

Rather than only operating on mothers, as Ellen Ross suggested, many of the pressures which education created were perceptible to fathers as well.[559] It is true that as managers of the family budget, mothers were the most strongly aware of extra clothing costs or the hardship caused by delaying the start of a child's contributions to the family coffers, as Ross saw. Nevertheless, the evidence considered here includes letters of thanks for gifts of clothing written by fathers as well as mothers, and complaints by men as well as women viewing the compulsory education of their children as interference and regimentation. In a world before the contraceptive pill, where the available means of family limitation (abstinence and withdrawal) depended mainly on male restraint, this evidence for male awareness of factors making smaller families desirable is important.

Finally, there is an ironic message about the impact of the state. During the period, anxiety was voiced more and more strongly about the threats to the nation posed by falling birth rates. Yet the state's new interest in education and its desire to promote the wider welfare of children at parents' own expense made a significant contribution to falling fertility. Universal compulsory education raised the perceived costs of childrearing by increasing the minimum acceptable standard of parental care and by postponing the moment when children began to earn. Ironically, state intervention may have done as much to achieve its welfare goals by unintentionally persuading parents to have smaller families as it did by the intended routes of exhortation and education. In the new, smaller, families, children had more chance to thrive, with more resources and attention devoted to each of them.[560]

Changing identities, personal relationships and fertility

Chapter six extends the rising expectations argument into the world of relationships and identities within the family. In parallel to the argument of chapters four and five, it shows that the period 1860 to 1920 saw changes in the way that the identities of parents and children were constructed, and in the relationships between family members which were acceptable. The changes discussed in the two previous chapters, and those considered here were all part of the evolution in working-class views about how a family ought to live.

The secondary literature identifies a number of possible changes affecting family life in this period. The purpose of this chapter is not so much to revise existing interpretations as to explore and extend their relevance to the working-class fertility decline, in the light of local evidence. Lawrence Stone's *Family, Sex and Marriage in England* remains the most often consulted work.[561] For Stone, the later nineteenth century witnessed a return from a stern, patriarchal approach to childrearing, based on an Evangelical wish to reform the child's sinful will, to a more affectionate and child-centred form of parenting which had similarities with Enlightenment bourgeois patterns. Stone's account acknowledges that the sources for all of this are mainly middle-class. His nineteenth-century working class is one whose relationships, whether between parents and children or between spouses, were often brutalised by poverty, and which shared in this return to affection only in the twentieth century, when rising real income and falling family size spared more time for each child.

John Burnett sought in *Destiny Obscure* to soften this picture a little, partly by a timely reminder about the diversity of families (whose structures, as Michael Anderson pointed out, were much more diverse before the declines in fertility and child mortality, as seen in chapter one).[562] If nothing more, he at least urges recognition of the divide between the 'respectable' and the 'rough'. [563] Burnett also argues for more general qualification of Stone's account, seeing evidence for some affection in working-class family life before 1900 while largely accepting Stone's view that it was less visible than among the middle classes.[564] Too much of the discussion turns on the stock character of the alcoholic father, which is unfortunate when Burnett's autobiographical sources, although certainly providing examples, also, as he points out, show that there were fathers of many other kinds.[565] Anna Clark's men who abstained from alcohol to save money for family expenditure are one obvious contrast.[566] Those who have examined the testimony of working-class witnesses most have found least reason for Stone's pessimism. Humphries' large sample of autobiographies only found between two and four per cent of fathers described as physically abusive.[567] The general view of their parents which her autobiographers expressed was that they showed care and affection to their children, though often prevented by economic hardships from showing it in the ways they most wished. Thus a mother would regret that her son had to work at such a young age, and a son would recall that his father was often absent because of long work hours.[568]

Evidence about any change in affection itself over time is hard to interpret in the sources, while changes in the outward signs by which it was expressed can be read more reliably. To confirm the

general hypothesis of this study that developments between 1860 and 1920 made childrearing more costly, it would be enough to show that parents came to believe that affection had to be expressed in more costly ways. This avoids the so-far inconclusive debate about whether affection itself is immutable over time.[569] This chapter therefore surveys the local evidence about how relationships and identities found outward expression, before drawing some conclusions about the impact of these changes on fertility. The discussion is organised into three fields: first, changes in the construction of childhood, in which children came to be seen as more dependent on parents, and childhood of longer duration than formerly; second, the growth of top-down comment, surveillance and intervention, and third, the development of relationships between spouses, which involved the construction of somewhat more demanding roles for fathers and husbands during this period, without providing a commensurate reduction in the roles allocated to mothers and wives.

I

The changing constructions of childhood in the later nineteenth century are the starting point, as they provided the legitimacy for the growing number of interventions in family life discussed in the next section. The trend discussed here to regard childhood as longer and more dependent than formerly can also be illustrated in the raising of the effective school-leaving age and of the start of full-time employment, discussed in chapter five. Children were now considered to need more education before they could fend for themselves or be useful adult members of society, and longer protection from the hazards of the world of work.

This changing view of childhood is visible in the oversight of young children to keep them safe from harm. Reports of accidents show that childhood was constructed in ways which laid more stress on vulnerability and the need for supervision as time went on. Early in the period, reports of accidents show no surprise, either by witnesses or reporters, that children were playing without supervision. When two-year-old William Jeffcock drowned in a pool near Middlesbrough dock, it was a three-year-old who was with him who had to fetch his father.[570] No-one any older seems to have been given the responsibility of watching over William; nor do either his parents or Bolckow and Vaughan's ironworks, whose land it was, appear to have had any thought for the danger the pool held for children generally. In a similar case in Leeds in the same year, Tom Lawton, also two years old, was run over and killed by a cart after being 'sent by his mother on an errand' from his home in the very poor Leylands district into Regent Street, a nearby main road.[571] An older attitude, which did not sufficiently recognise children's mental differences from adults, and resulting extra vulnerability, seems to have been prevalent in the 1860s.

This was an area in which the dissemination of new expert views had some impact. Health writers, including Leeds' Charles Thackrah, were addressing the upbringing of children by mid-nineteenth century. Thackrah's famous *The effects of arts, trades and professions on health* contained, by its second, 1832, edition, a lengthy section on health at school, with prescriptions for balance between physical and mental exercise and the restriction of desk-work which show a concern that children lacked the mental or physical stamina of adults.[572] Once again, the impressively tight link described by Mokyr from expert prescription to popular understanding came into play, and Catherine Buckton can again illustrate this. Her first set of lectures included the exhortation to speak softly when 'reproving' a child as its 'love and respect can only be gained by these means', a view which made her critical of the National Schools and

stayed with her in her long career on Leeds School Board.[573] From the beginning, she believed that greater knowledge about the nature of childhood would counteract tendencies to cruelty, 'once young people are reverently taught how wonderfully their bodies are made, and the great care that is needed to preserve them in health.'[574] For the reception of this message, the testimony is available of a missionary (relayed by Buckton) reporting, appropriately, a kind of conversion experience in which a woman persisted in beating her children brutally until at a Buckton lecture 'she was filled with sorrow, and ceased to treat her little ones unkindly.'[575] This account has clearly been shaped by conventional discourses of the time, and Buckton's recollection of a young mother coming up to her at the end of a lecture simply to whisper 'I will try' has a more convincing ring.[576]

In Bradford, Margaret McMillan was spreading a similar message in the 1890s by her journalism (mainly for Robert Blatchford's *Clarion*), adult education at the Bradford Labour Institute, home visiting, and school inspections.[577] It is unlikely that such advocacy would have changed popular culture very much if it had not found a motivated audience. In chapter four, it was noted that working-class families would have pursued greater health and comfort even without the input of those spreading new knowledge to assist them. It was argued that the powerful motivation of mothers in particular to give their families a better childhood than their own was a stronger force, and indeed that expert advice felt not to be relevant to working-class agendas was set aside. Very much the same applies to rising expectations about the treatment of children: these were driven mainly by a wish to do better than the families of the 1840s or 1850s, with expert advice (and elite political agendas) providing some of the steering rather than much of the motive force.

As a result of these influences, by the 1890s new attitudes became visible. Small children were felt to need closer supervision. While accidents continued to be reported, they diminished, and were now more likely to occur in the home. Younger children may now have been kept indoors more: at least when playing outdoors they were now more likely to be supervised by older siblings. Typical home accidents reported in 1890 involved children scalded by cooking pots while their mother's back was turned.[578] Mothers were now keeping their young children closer to them. One comment from a press report of one of these cases illustrates the greater attention society was now paying and the weight of expectations which parents could feel. Fortunately for Elizabeth Barnes of Leeds, whose daughter died by falling into a bucket of boiling water, the 'evidence showed no-one was to blame.'[579] Clearly, though, the apportionment of blame was a live issue, most obviously for the inquest but also for press reporters.

By the 1890s, it is clear that much trouble was being taken over the care of young children, whether this was a task of their mothers, elder siblings or others. Mothers had always used the help of relatives for this, but by now it was a matter of greater anxiety. The job of caring for young children which mothers delegated now had to satisfy the higher standards of care which were emerging. An oral history informant in Middlesbrough, recalling the 1890s, remembered how her widowed mother got home from work to find her grandmother 'putting some condensed milk in my brother's mouth with a knife that finished it, and mother said she'd have to go home.'[580] The norm was for the oldest sister to have the task, often an onerous one, of looking after her younger siblings. The oral history evidence contains numerous examples.[581]

Many of these teenage girls were obliged to give up paid work when a change in family

circumstances made their help with childminding essential. The sacrifices involved, particularly for the oldest sister herself, but also indirectly for the rest of the family in foregoing her contribution to the household budget, could be considerable. Even at the age of twenty-one (in 1909), Ellen Gill had to leave her job at a Leeds mill which had paid nine shillings per week to help her mother look after newborn twins and other young members of a family of ten, a task she persevered in until her marriage five years later. 'Dad suggested that I had better leave my job at the mill as Mother would need me at home.' [582] One of the Middlesbrough oral history informants had a similar experience: her mother died when she was eighteen, and she spent the next nine years, until her marriage, looking after her large family of younger brothers and sisters. [583]

The trouble taken by these young women, with the renunciation or postponement of their own plans (including marriage), is evidence of how seriously the need for reliable child care was now being taken. As children came to be regarded as more vulnerable and in greater need of good care, more trouble needed to be taken to ensure that they got it. This was one of the factors which encouraged parents of a small family to think twice before having more children and lengthening the period for which child care was needed. This foregone income resulting from family childminding raised the perceived costs of childrearing, and was felt in two ways. The absence of a daughter's wage contribution to the household budget was felt immediately by her mother above all, while the daughter who was not able to earn drew conclusions about the expense and difficulty which would attend having her own children a few years later. There were, in other words, both direct and inter-generational effects.

There was, then, an important trend to regard childhood increasingly as something special and different from adulthood, which called on parents to make a greater investment of time and money in their children. As well as documenting the dangers of falling short of these rising standards, the local press also gave out more positive messages which helped to shape parents' thinking about what was involved in a 'good childhood.' As well as reporting aimed at adults, it is noteworthy that this is the period when newspapers first produced materials for children themselves. This was in itself an indication that children, and their difference from adults, were being paid more attention.

In each town being studied, at least one cheap newspaper from the group examined here introduced a column intended for children between 1890 and 1910. The 'Children's Corner' in the *Leeds Express* after 1890, and the 'Children's Circle' which featured in Middlesbrough's *Northern Weekly Gazette* by 1905 were typical. Both served up a diet of competitions, puzzles, poetry, general knowledge (such as pieces on nature study and 'life in Japan') and letters. [584] The weekly column on Scouting which the Bradford Daily Telegraph had adopted by 1910 was a more specialised example. [585] There was also material to encourage adult readers to take an interest in their children's activities, notably through the coverage of sports (at this stage exclusively boys' rather than girls' sport). In Middlesbrough, for example, the reporting of boys' cricket in the local press expanded between 1860 and 1920 from only covering matches at elite schools such as Yarm Grammar School to accounts of competitions between state schools and youth clubs, reflecting the spread of school sport itself. [586] The *Bradford Daily Telegraph* moved into reporting boys' sport by covering the new Bradford Schools football cup, played between teenagers at higher grade schools such as Belle Vue and Hanson and half-time

schools for young mill workers such as Whetley Lane and Usher Street.[587] Also in Bradford, the *Laisterdyke and Bowling News* was reporting the results of the Leeds and District Sunday Schools Cricket League by 1911.[588] This growing interest in children's sport demonstrates an adult world which had become more interested in children's lives, and more willing to invest resources in them, compared to the time when children had only played in the street. Newspaper coverage helped embed this new activity in local cultures as something normal and, as time went on, necessary.

II

The second field for consideration was the growth of intervention by 'experts' and social superiors, described here as providing some of the steering. There had already been a certain amount of intervention in working-class family life before, but in the second half of the nineteenth century its character underwent some changes. Working mothers were already used to criticism from doctors and other commentators about their failure to breastfeed their babies or to look after them at home themselves. In 1862 Dr J. H. Bridges of Bradford, while making it plain that 'it is not the mother that I blame alone or most', nonetheless remarked that 'for a mother to go into a factory, trusting her baby to a paid nurse, whose only care is to hush its cry and lull its irritable brain with opiates, is an act of infanticide.'[589] Bridges was only echoing the views of others, such as William H Hudson, Bradford's town clerk, who had recently written that 'to allow women to confide to relatives, or oftener to strangers, willing to undertake the charge for the smallest sum, the nurture and bringing up of their infants is fraught with [serious] consequences.'[590]

What was changing during this period, however, was the rise of much more effective means of transmitting these expert opinions to mothers themselves. Such opinions probably had little impact on the typical mother while they were simply discussed at meetings of the National Association for the Promotion of Social Science, or the Bradford Medico-Chirurgical Society.[591] With the rise of the infant welfare movement, growing numbers of health visitors, 'lady inspectors' and visitors of other descriptions were beginning to work for Medical Officers of Health and other branches of the borough council, as well as voluntary bodies. They assembled information about the lives of working-class women (such as the materials Lady Bell used in *At the Works*) and they spent time visiting, attempting to pass on what was currently regarded as the best practice in childrearing.

This phenomenon began to take on a significant scale around 1890: by the time of the First World War it had a major impact. When Leeds' health visitors succeeded in 1914 in visiting 6,757 of the 9,483 notified births in the city, this was the first time that state-sponsored maternity services were in touch with the majority of new mothers there.[592] In 1920, similar achievements had been made in Middlesbrough, and the National Association for the Prevention of Infant Mortality could claim that Bradford had 'the best equipment for infant welfare in the world.'[593] These networks of visitors were a powerful resource for spreading expert, official, views about parenting and by 1914 they were telling very large numbers of mothers about new standards which had to be achieved.

The infant welfare movement took an all-encompassing interest in its field, by no means confined

to the perceived evils of mothers having to go out to work or the promotion of breastfeeding. In this way it gave mothers a wide-ranging sense of new standards of care which might be needed. They could have ignored all this well-intentioned advice and carried on as before, and some did. However, a new mother, with no prior experience of caring for a baby and anxious to do all she should for its welfare, can be more vulnerable to self-doubt than people at other life stages and more open to the advice of those claiming expertise. The reports of infant welfare organisations in the three towns show that a growing number of mothers were using them for advice as well as for free services such as the supply of milk powder. There seem to have been few aspects of childrearing on which the infant welfare movement did not comment. Their warnings on the dangers of unprotected gas rings, for example, formed part of the growing focus on accident prevention, and other examples of their concerns included the dangers of placing very young children on push chairs.[594] After the 1890s the infant welfare movement was a major source of mothers' impressions that childrearing had become more complex, demanding more investment of time in the relationship with the child.

If parents had been in doubt that the official world had rising expectations about their relationships with their children, the local newspapers would have made this clear. By the 1880s, the news agenda of these local papers included an emphasis on crime, excitement and strong images of action and danger, taking space from the earlier concentration on political events. It is not surprising, then, that some of the stories were lurid and eye-catching, even if events in a quite different part of the UK had to be drawn upon to provide a story. Editors already regarded the misfortunes of children as good copy, no doubt arousing sympathetic interest from their readers, and stories of boys drowned in swimming accidents on local rivers, for example, ran regularly from the 1860s or before. By the 1880s, though, the focus on family life and the qualities of parents was growing stronger. A flavour of the new kind of reporting is given by an 1890 account in the *Leeds Express* of remarks by the London coroner that nine babies had suffocated over the Christmas period through overlying by drunken parents who had put the baby in their bed. 'Parents proved to be UNDER THE INFLUENCE OF DRINK' was the headline.[595]

In this climate, editors took great interest when there was a renewal of the concern that parents were insuring their babies' lives and then allowing them to die of neglect in order to claim the insurance money. This was a recurrent scare, which resurfaced in the late 1880s and led to attempts at legislation. Its promoters were quoted at length. Thus the *Northeastern Daily Gazette* reported the honorary secretary of the NSPCC, the Reverend Benjamin Waugh, writing of a 'herd of cruel, reckless married and unmarried creatures (mothers, and males to match them), lazy as sloths, lustful as monkeys, crafty as serpents, savage as tigers some whore, some bet, some drink and they have babies.' [596] It was not simply a matter of all editors joining unthinkingly in a moral frenzy, however. The *Leeds Express*, which carefully nurtured its appeal to trade unionists and the better-off working man in general, covered a riposte to this campaign in which a meeting at the Metropolitan Labour Association described the Bill as 'a foul insult to the working classes'. [597]

This newspaper coverage taught working-class parents that the authorities, and society generally, took more of an interest in how they treated their children than in previous generations. One report from 1890 which would have been out of place a generation earlier dealt with the inquest on a Middlesbrough girl of nineteen months who had died from diarrhoea. The coroner went into

details of what medical attention the parents had sought for her. A doctor had attended until he saw no prospect of being paid, then advised the parents to go to the Poor Law doctor, which they had failed to do. It was only when a medical witness told the inquest that the child would have died in any case that the matter was allowed to rest, the coroner noting that this medical opinion 'saved the parents from what would have been a very awkward and serious position.' A further sign of the times in this case was the observation that the child's life had been insured, though the policy did not make a payment because it had been taken out less than ten weeks before the death. Emphasising the intended message, the headline for this story was 'Gross parental negligence at Middlesbrough.' [598]

Cases of parental cruelty and neglect show the clearest evidence of newspapers' growing interest in family life, which was prompted by the growing recognition of children's difference and vulnerability already identified. Editors saw a public mood of growing sympathy for young victims and revulsion at cruelty and neglect, and recognised an opportunity to increase sales. Ordinary readers wanted to read about these cases. The state also reflected this public mood, taking a growing interest in the surveillance and policing of parenting, as chapter five showed in relation to truancy and fines for parents who failed to send their children to school. The authorities, and also voluntary organisations such as the recently founded NSPCC, took a growing interest in many aspects of family life.

Official concern about cruelty and neglect, reflected in prosecutions, was not new in itself, and was already being reported in the newspapers in the 1870s. Its meaning was changing, however. The *Leeds Evening Express* reported in 1870 on the imprisonment for three months of Edwin Haste, a Headingley quarryman, for 'neglect of family'. [599] The main stress in this case was on the old concern of letting the family become a burden on the parish, but the balance of reporting was starting to change: criticism of fathers' behaviour for its harm to the wife and children, always present in some degree, started to assume more importance. Reporting of domestic violence, with accounts of the evidence given in court, therefore grew. The somewhat greater willingness of the police and courts to take up cases (as the state created extra remedies such as separation orders for wives) made more copy available for newspapers.

Examples of court orders in favour of working-class wives appear from about 1890. In one typical example, the police court in Leeds found that the husband had deserted his wife out of jealousy, believing she was seeing other men. It rejected his pleas of poverty, describing him as a drunkard and arguing that if he could afford beer he could afford eight shillings per week in maintenance. [600] Awards could be higher, depending on the man's means and the number of dependents, for example a guinea per week for a wife and one child in a Bradford case of 1890. [601] Furthermore, although expense and legal difficulty kept divorce beyond the reach of working-class wives, separation orders had become a possibility. The *Laisterdyke and Bowling News* reported one such order in 1911, granted to Lavinia Bateson on the grounds of persistent cruelty. [602] The court accepted her arguments that her husband was persistently drunken and violent, acknowledging in the process that she had been justified in leaving home on four earlier occasions. News reports such as these let men know that the state no longer fully upheld the older, more patriarchal, view of marriage in which the wife had little or no redress whatever the husband's conduct. In this new atmosphere the seriousness of marriage and fatherhood was impressed upon men in a more definite way than formerly.

A typical case, which benefits from being told in autobiography rather than the language of the court reporter, was that of Joseph Armitage, born in Leeds in 1908, who recalled ‘the nights, mostly Friday and Saturday nights, when beer and bad tempers resulted in things being thrown about, and George and myself being outside in the street until it was safe.’[603] Another autobiographer, Elizabeth Bell of Middlesbrough, recalled how her parents ‘fought terribly’ because father, who had come down in the world from glassblower to labourer, was ‘a very bad-tempered man’ while mother was ‘a bit lackadaisical’, leading to quarrels about money. As Humphries notes, the abusive male was usually using violence to shore up the status he was losing through shortcomings as a breadwinner, which would readily account for the money worries mentioned in this case.[604] Elizabeth eventually found herself intervening physically when her father struck her mother only days after she had given birth to Elizabeth’s only surviving sibling.

The significant change during the period was in the reactions of authorities and local communities. Neighbours, not just the police and courts, became more willing to intervene. Legislation such as the Prevention of Cruelty and Protection of Children Act (1889), the Custody of Children Act (1891) and the Children Act (1908) responded to new levels of public concern by increasing the state’s powers of intervention. Whereas in 1870, a case in Leeds shows the police unable to take action for lack of legal powers to remove a child from its family, later there is much more evidence of activism.[605] The growing number of prosecutions does not represent simply a new pressure imposed on working-class communities by external authority, but also a new resource by which these communities could police themselves better, reporting distressing cases to the new NSPCC in large numbers. The NSPCC would not have been able to reach three quarters of a million children between 1889 and 1903 without frequent support from neighbours.[606] Robert Roberts’ account of growing up in Salford before the First World War gives an example of a shopkeeper (his mother) who, hearing the local gossip, would ‘quietly “put the Cruelty man on”’.[607]

The NSPCC became the most important recognised channel for reporting cruelty and neglect. Newspaper reports of prosecutions often show an NSPCC inspector bringing the case to court, and arranging for the court’s custody order to be carried out where children were taken away from their parents. In 1890, for example, an NSPCC inspector was instrumental in securing the imprisonment of James Leonard for one month, and the fining of his wife Ann, for the neglect of their two young children, who were taken into care.[608] Later the same year, the *Armley and Wortley News* was reporting a similar case, also brought by the NSPCC.[609] In Middlesbrough, the NSPCC was also in the public eye, for example in 1895 when the *Northeastern Weekly Gazette* announced a fundraising bazaar to be opened by the Duke of Cambridge, a cousin of the Queen.[610] This was a considerable local profile for a town whose reputation for a ‘rough’ culture might have suggested a lack of interest in child welfare. Public opinion everywhere was moving in favour of intervention.

As well as increasing the level of intervention against cruelty and neglect, this increased public concern also extended the definition of what was unacceptable. Sending children to work on the streets was one example. In Leeds in 1890, Albert Spencer of York Street was brought to court accused of sending out a child less than ten years old to sell matches in the street after eleven at night.[611] Most likely he was caught by the new provisions of the 1889 Act, which particularly targeted parents benefiting from begging or selling undertaken by their children.[612]

It also became much easier to remove children from the care of their parents, a sanction which families were likely to take particularly seriously given the importance they attached to keeping the family together. The *Bradford Daily Telegraph* reported the address given by the Recorder to the Bradford Quarter Sessions in 1890, drawing attention to changes in the law on juvenile offenders. He stressed that courts should punish parents where they were at fault, and take advantage of the creation of children's homes to remove children from harmful family circumstances now that this could be done without sending them to 'barrack-like' reformatory schools.[613] In this way, the new view of childhood made it more likely that the authorities would intervene in the lives of families which fell too far short of current standards. Intervention began at a lower threshold than formerly: as the Recorder's comments show, courts could now more readily consider taking a vulnerable child from its home, newly confident in the belief that it could be placed somewhere better.

The new view of childhood affected some parts of the court system less than others, however. Criminal procedure seems to have been slow to reflect newer interpretations of childhood, and a glimpse of an older attitude can be seen in the Leeds court report from 1890 in which admitting the evidence of a child in a prosecution for theft was unproblematic, and not remarked upon: questions of the reliability of the evidence or the welfare of the witness seem not to have arisen for the magistrate or the reporter.[614] This was a minor theft of a few hares from a market stall, and the public interest in convicting the thief was therefore relatively small. If there had been inhibitions about relying on a child's evidence, such as developed during the twentieth century, the case could have been dropped with little harm. That it was not shows that the issue of a child giving evidence was not seen as important.

To sum up this section, the regular reporting of court cases let all newspaper readers know that parents of the 1890s and after were punished for cruelty and neglect in circumstances where legal action would have been unlikely in the previous generation.[615] It may be objected that, while this was true, it need not have coloured the average parent's perception of how much effort was involved in bringing up a child. Did most parents regard the minority guilty of cruelty or neglect as so different from them that society's condemnation of such behaviour had no lessons for the rest of the community? To argue this would overlook the general climate of increasing surveillance of, and intervention in, family life. Certainly prosecutions for cruelty and neglect were the extreme end of the spectrum, which was why they attracted the attention of newspaper editors. But they were the acute examples of a broader message which also included the need to secure medical care for a child, to send it to school, as considered in chapter five, and to avoid leaving it unsupervised. Readers could not ignore the accounts of the punishment of parents for cruelty and neglect as exceptional: instead they were vivid illustrations of the way in which new expectations were placed on all parents.

III

The third area of change in family relationships was the evolution of the roles of husband and wife. This involved the construction of a slightly more demanding role for fathers and husbands. These extra demands did not reduce the pressures on mothers and wives, however: indeed their roles became more demanding too, since they received nearly all the extra obligations towards children discussed so far. For husbands it was a question of a modest reassessment of how they

should contribute to domestic labour roles which remained predominantly allocated to their wives. This account has three parts: first, evidence about perceptions of male and female roles from particular ritual events, then the important subject of resource pooling – how male breadwinners and their wives treated the man's earnings, and finally indications about wider aspects of marital relationships.

Male ideas about appropriate gender roles drew strength from the mutual reinforcement of the male workplace. Women were, obviously, present in some workplaces such as mills, but men and women did not generally socialise at work, and women were absent from the iron foundries and engineering works. In a very male-dominated environment, an ethos flourished which celebrated the man as the strong, hardworking provider and viewed the woman mainly as a dependent. In Middlesbrough, there are powerful examples of this. Working life around a blast furnace or in a shipyard combined all the elements which were then seen as making up 'man's work' – strenuous physical exertion, sometimes combined with the application of high levels of skill (for example in the furnace keeper's decision on the right moment to tap the furnace), dirt, danger, and exposure to health risks such as fumes, moving machinery and the alternation of extreme heat and outdoor winter cold. This kind of working day, combined with long hours and relatively high wages, fostered pride in a self-image of the tough, hardworking, provider.

An example of a typically male-oriented Middlesbrough culture was the dinner provided in 1870 by the Acklam Ironworks for the workmen and their 'wives and sweethearts' at the Oddfellows Hall (normally an exclusively male venue). Although women attended, they did so as dependents. The speaker addressed some of his remarks to them, such as advice to choose a man who was good at his work and of steady habits rather than one who simply earned a high wage. Contrasting those wives bringing lunch to their husbands who looked 'so nice and tidy' with those who did not look 'so smart and clean', he observed that 'tonight he had found out that [the latter] must have belonged to some other works.' [616] The whole occasion (or the press report of it which others would read) sent a message that women's relation to this works to which they 'belonged' was as a wife or sweetheart, and someone who brought lunch for the workman. At the 1890 fundraising tea for the Railway Servants' Orphans' Fund, still in Middlesbrough, wives were again prominent in the capacity of providers of meals, 'Mesdames' x, y, and z, 'presiding at tea tables'. [617] Displays of male gallantry, underlined in the press report, reinforced this role, but nevertheless twenty years on from the 1870 dinner, the women's position was more integral to the proceedings. An event centred on child welfare would naturally suggest this to a society which linked child care almost exclusively to women. It may, then, have been the advance of interest in children's welfare which brought women in just a little from the fringes of men's attention.

Press accounts of male-dominated social events in Bradford and Leeds illustrate a similar assertion of men's self-image as dependable providers. In an irony not lost on the Women's Co-Operative Guild, Co-Op events were typically male-dominated affairs despite the wife's pre-eminent role in shopping and budgeting. The all-male platform party at the opening of a new shop in Leeds in 1880 were able to show an understanding of the importance to families of the dividend, and of confidence that Co-Op food was unadulterated, which should warn against assumptions of too stark a gender divide in attitudes. A man's satisfaction in himself as a provider was not inconsistent with interest and sympathy for the roles women played. However, Frederick Spark devoted most column inches to his own remarks on the day, referring to how 'Co-Operation

promoted independence, and when a man became independent he was sure to be respected. An independent man must be a careful man, and a careful man must be a better member of society than a wasteful and improvident man.’[618] This conventional restatement of male artisan self-confidence was the main message reaching Spark’s readers.

Workplaces, being clearly gendered themselves, were a particularly effective site for these rituals which reinforced male self-images. The presentation to William Hepworth, the retiring forge manager, at the Farnley Iron Works near Leeds in 1920 of a gold watch by the managers, and a smoking cabinet by the workmen, moved him to respond with talk of ‘friendship’, a ‘strenuous time together’ in his fifty-eight years’ service and a ‘busy and happy time’.[619] The language is that of male companionship. An exception which proves the rule is the ceremony presenting a clock to a Miss Waddington on her departure from the West Riding ABC Publishing Company after twelve years, in order to marry.[620] Women could have leaving celebrations too by 1920, but still had to leave work of this kind in order to marry.

A contrasting social event, in which gender roles were not emphasised, was the mill outing, for example an excursion to the Yorkshire Dales in twenty-four charabancs from Leigh Mills in Stanningley near Leeds.[621] Men and women, both employees and their spouses, and children all participated. In this case, men and women had similar connections to the mill and the author of the printed account, almost certainly a participant rather than a journalist, did not think it necessary to distinguish what these were. Large-scale Sunday outings and other treats for families were not new, but those organised by a workplace with male and female employees, some of them husbands and wives, sent a message about shared lives which fostered more companionate views of marriage than the largely separate leisure cultures which often existed around all-male workplaces. In the 1860s and 1870s when male exclusivity in leisure was strongest, these outings still occurred but were more likely to be organised by churches, as was the excursion to Raby noted in chapter four.[622] This was less of a challenge to the male world view centred around the works. While the growth of mill outings was partly the result of owners’ desire to promote workers’ loyalty, and by no means just a result of changing attitudes to the gendering of leisure, it does indicate, in Bradford and Leeds, a weakening of the gender divide in the use of leisure time.

Female ideas about gender roles do not emerge as clearly from the sources, although many of the autobiographical sources were female. This was often because roles were taken for granted and felt too obvious to need comment. In Middlesbrough, male and female witnesses agreed that girls normally went into domestic service.[623] Mrs Bell, however, steered her daughter Elizabeth away from domestic service, which she had herself hated, and into tailoring, making men’s suits (‘a sweat shop [a thirteen-hour day when busy] I hated it’).[624] This is a glimpse of one Middlesbrough woman’s perception that domestic service was too servile an occupation for a young woman. But alongside rebellion against low status at work, the transmission of a submissive female role within marriage is visible: Mrs Bell told her daughter that she hadn’t known anything about reproduction until she was pregnant, and that ‘the only way you got to know about sex was from different children.’ Elizabeth herself claimed somewhat more knowledge, but reported that ‘even when I was married [in about 1935] I knew nothing about contraception.’[625] It is not necessary to take these claims as the literal truth: as discussed in chapter two, these professions of ignorance were a way to adopt an accepted female role, often attractive to boyfriends and husbands, which allowed the male to be the experienced, informed

and dominant partner in a relationship.

The mostly unspoken assumption in Middlesbrough was that a young woman would fit into the role of poorly paid wage labour until marriage, then leave the labour market for a life of domestic labour. Those who found this unacceptable had the option of moving away from the town, for example to the mills of Bradford, and their need to go to such lengths underlines the strength of the culture against which they rebelled.[626] In Leeds, the diversity of the labour market signalled that married women could work, but it was usually seen as a hardship, the result of poverty. Thus the older Gawthorpe women combined their dislike of factory discipline with a belief in the rightness of a married woman concentrating on domestic labour, while the young tailoresses of the 1880s and 1890s enjoyed the extra freedom which their small incomes bought, but often left the labour market soon after marriage.[627]

In Bradford, the economic necessity of staying on longer at work after marriage was too normal to arouse much comment. The fact that so many women did so produced a true female occupational culture (as the Leeds tailoresses had). Blewett notes its assertiveness within the workplace, attempting to defend women's status from occupational and sexual exploitation, for example resorting to 'sunning' (stripping and sexually mocking) young men who failed to show sufficient respect.[628] In the local newspaper sources, a concealment of birth case in Bingley (three miles north of Bradford) sheds more light on this female occupational culture. The mother, Maria Dickenson, was a forty-year-old widow and the alleged father was her overlooker at Ackroyd's Mill. In this account, one of Mrs Dickenson's female colleagues reported to her how a rumour was going round the mill that she had had a miscarriage.[629] By means mainly of discussion, mill women sought to police both male sexual predators and fellow-women who infringed the moral code by becoming pregnant out of wedlock. The world of gossip, described by Melanie Tebbutt and discussed in chapter two, operated inside the factory gates as well as around women's homes.[630] All three towns, then, demonstrated long-lasting female views of gender roles. These discourses reminded married women how hard it was to combine work with bringing up a family, while offering some mutual comfort to those who had to do this.

Attitudes to the pooling of money for household use are a strong indicator of the nature of marital relationships. Managing the household budget was regarded by nearly everyone as a female role. Roberts' account of Lancashire points to a 'near-universal' assumption that the woman would have the power in spending, and over the home and children.[631] The local evidence appears to confirm this. Bell wrote: 'Everything depends upon her; the husband's steadiness and capacity to earn are not more important than the wife's administration of the earnings.'[632] This management role gave wives and mothers an important place in the household, and most families acknowledged how essential it was to their welfare. However, a systematic variation in the way a breadwinner handed over his earnings can be identified. There were two different approaches to pooling earnings. In the first, the husband gave his wife his entire wage-packet, receiving back an allowance often described as 'pocket-money'. Bell mentioned, for example, the following families:[633]

Table one: Men handing over the entire wage packet, c.1900

	Income	Retained by wife	Returned to husband	Husband's portion (%)
--	--------	------------------	---------------------	-----------------------

A.B. (p56, 79)	18s.6d. -	17s.9d -	9d.	3.5*	
	23s.9d.	23s.			
H.R. (p79)	42s.	35s.	7s.	17	
F.G. (p79)	45s.	38s.	7s.	16	
Labourer (p80)	25s.	23s.	2s.	8	

*average

The other group of husbands handed over a fixed amount and kept everything they might earn beyond that. The following examples are drawn from Bell and the Teesside Archives *Recorded Memories* oral history collection:

Table two: Men handing over an allowance, c. 1900

	Income	Given to wife	Retained by husband	Husband's portion (%)
D (Bell, p. 79)	24s.	21s.8d.	2s.4d.	10
S.D. (Bell, p. 79)	40s. -	30s.	10s. - 30s.	38*
	60s.			
B.M. (Bell, p. 80)	60s.	30s.	30s.	50
F.G. (Bell, p. 80)	50s. -	30s.	22s. - 40s.	57*
	68s.			
Mr Whitfield (TA, 55W)	92s. -	92s.	0 - 60s.	20*
	152s.			

*average

In practice, the former approach, as tables one and two show, put a larger proportion of income into the wife's hands for spending on household needs. The latter approach was often, but not always, taken by men with high fluctuating earnings, for example Mr Whitfield who earned four pounds and twelve shillings weekly on the railway, and sometimes a further three pounds in overtime. He aimed to hand over all of the regular pay packet (though on at least one occasion gambled it all away), and retained the overtime for himself.[634] For this group of families, the assumption seems to have been that once a housekeeping allowance had been given to the wife, all earnings including windfalls such as extra overtime were the entitlement of the man. While this strategy could put significant amounts of money in women's hands, it gave them a lower status than handing over the wage packet, since it emphasised male property rights in the weekly wage rather than shared decision making about meeting family needs and wants.

This lower status for wives was underlined in more than a third of the houses visited by Bell and her colleagues by husbands not telling women what they earned.[635] It could also be reinforced by comments, such as that of Margaret Philips' father, employed in a wire works, that 'he spoilt my mother by giving her a guinea at first.' [636] It is not clear what he gave her when there were four Philips children. In Middlesbrough, then, women could not rely on having a say in the whole of household expenditure. About half these examples achieved this and the other half had to fund the household from an allowance provided by the husband. In view of these budget responsibilities and husbands' varying degrees of support, it is not surprising that in the oral histories, people recall their mothers worrying much more often than their fathers, though this also

reflects the social pressure on men to keep their worries more hidden, as experienced by Mr Bell the glassblower fallen on hard times, who, returning from visiting his seriously ill wife in hospital, 'flung himself on the bed and he cried and cried and cried and Northern men never cry, and that stuck in my mind a long time.' [637]

Middlesbrough men kept more control of their money, more frequently paying out an allowance for housekeeping. Bell's discussion of budget management is placed in a chapter entitled 'The expenditure of the *workman*' (emphasis added), as though he rather than his wife was responsible for the spending. In Bradford, by contrast, 'tipping up', handing over the full amount and receiving pocket money back, was the rule. The carter, already encountered, who exercised such a harsh dominance over his children, later remarried a woman with sufficient presence to act as 'really a kind of keeper of the purse [she] really was in command of the situation.' [638]

The newspaper sources offer further evidence about wider aspects of gender relationships. A couple of pieces from the Middlesbrough *Northeast Daily Gazette* suggest the gender divisions of working-class culture in the town. The miscellany section of an edition from 1890 features a thirty-line humorous piece whose gist is simply that women gossip: a conversation between neighbours is imagined which keeps threatening to end but is constantly renewed. The critical tone and message that women were devoted to inconsequential and endless gossip must have been intended to strike a chord with the male reader. [639]

The *Gazette* was also aware that it had female readers however, and by 1900 was aiming specific material at them in its 'Lines for Ladies' (generally a column about fashion). In 1900 a piece addressed to new wives urged them to have realistic expectations of married life rather than 'an impossibly high standard' and told young couples to support each other. Lady Bell had a similar warning about young married women starting with too high expectations and being worn down by domestic toil. [640] The article was given the revealingly pessimistic headline 'Happy Though Married'. [641] The general picture of married life in the pages of the *Gazette* is one in which men and women had relatively little in common, did not understand each other particularly well and usually just got on with their different roles. The picture of the mill outing from Stanningley described earlier, though softening this impression a little, ought not to suggest that married life in Leeds or Bradford was completely different. It was merely a little closer to the companionate end of the spectrum.

By the end of the period, newspapers carried stories promoting newer, more demanding, constructions of fatherhood. While in general fathers often received surprisingly little attention from the infant welfare movement (usually more concerned to promote particular views of mothers' duties), demands were nonetheless made of fathers on occasion. In 1920 the *Armley and Wortley News* reported a talk by Dr Marion McKenzie in Leeds Baby Week. She did not think men were unwilling to help their wives when a baby was on the way, but did need instruction, for example encouragement to take over tasks such as carrying coals upstairs or doing the mangling. The comment column of the *News* took issue, considering that her remarks might be true of 'drink-sodden slum dwellers, the middle class or the aristocracy', but not of 'average weekly wage-earners, scores of whom do all that she suggests and more to help their wives in times of weakness and sickness.' [642] It is revealing that the journalist took issue, not with the call to help out, but with the belief that a reminder was needed. Whatever the truth of such a claim, this topic was

open to debate in Leeds in 1920. In Middlesbrough, one looks in vain for any references to fathers in the infant welfare movement's communications. For example, they are entirely absent from the sixteen pages of Dr Dundas' *Maternity and Child Welfare* leaflet of the same year.[643] Since Middlesbrough fathers felt less social pressure to share the costs of childrearing, it was easier for them to take a relaxed view of larger families.

IV

In conclusion, parents' relationships with their children developed during the period in ways which made them more demanding. This is not quite the same as Lawrence Stone's argument that there was a growth of parental affection towards children, in the late nineteenth and early twentieth centuries.[644] If that is true, then it strengthens the argument that parents sought to take more trouble over each child. But the evidence from Bradford, Leeds and Middlesbrough can also be read as showing that the affection was there from the start. The oral history evidence, for example, contains numerous cases of deep parental grief over the death of young children, stretching across the whole period.[645] The 1876 petition of the mothers of Bank Street, Middlesbrough is a similar denial of the view that poverty inevitably brutalised working-class family relationships before the closing years of the nineteenth-century. Far from taking a fatalistic attitude to their children's lives and health, in the way that writers such as Stone have regarded as normal for this period, they were concerned enough about preventing disease to petition their local corporation, despite low levels of literacy (indicated by the quality of some of the pencilled signatures) which made this a particularly challenging and unusual step for many of them.

Whether or not there was any more parental affection after 1900 than before – and this remains questionable – the years 1860-1920 certainly witnessed cultural changes which made parents express their affection in the new, more demanding ways which this chapter has described: the recognition of a longer, more dependent childhood requiring more care for each child. As parents were attracted to this model of family life in growing numbers, they limited the size of their families so that they could devote the time and energy required to it. Since fertility had begun to decline in some towns before these cultural changes had started to gather strength, they were not among the factors which started the fertility decline in the 1870s or before. However, the cultural changes described in this chapter influenced the outlook of parents starting families in the 1890s and after, and are a plausible factor contributing to the way the fertility decline gathered momentum from that time onwards.

Consideration of marital relationships has shown some difference between the three towns, with more movement away from the 1860s male artisan view of gender roles in Bradford and Leeds than in Middlesbrough, at least in public discourse such as the cheap working-class newspapers examined here. The change should not be exaggerated, as though this was a key period in the development of gender roles. As Elizabeth Roberts observed for her Lancashire towns, these roles remained resilient well into the twentieth century.[646] This resilience can be seen in attitudes to women's employment in the three towns, where employers and unions were quick to reverse the movement of women into factory work created by the special circumstances of the First World War. The changes in attitudes to children moved more rapidly than those in gender roles: perhaps children were a less threatening subject, easier to agree upon. The contribution which gender roles did make to fertility change in this period was to help or hinder wives' influence over their

husbands' fertility behaviour, in the model introduced in chapter two. This chapter has found confirmation that wives' influence was already greater, and in this period grew just a little faster, in Bradford and Leeds than in Middlesbrough. As wives became more motivated to limit their families for the reasons discussed in this study, the differences in marital relationships described in this chapter helped them have more impact in Bradford and Leeds than in Middlesbrough.

Conclusions

I

This study attributes the fertility decline to family limitation within marriage, deliberately secured by both women and men in significant numbers after around 1860. It has shown that their motivations, though complex, are amenable to study and explanation. Most recent accounts which have taken this path have, wisely, stressed that a range of factors were at work, that evidence for motives is hard to come by, or both. Caution on either of these grounds remains necessary. For one thing, the importance of sexuality, reproduction and family formation to most people's lives makes it intrinsically likely that these will be influenced by many different facets of an individual's experience. It is unlikely that a persuasive monocausal explanation is waiting to be discovered.

The evidence is that large numbers of working-class people came to want smaller families than they had themselves grown up in, an attitude noted by Humphries in the autobiographies she uncovered of men born between the late eighteenth century and 1874.[647] As Fisher has cautioned, however, this generalised goal does not mean that individuals, let alone couples acting in agreement, had a target family size: merely a wish to have a family that was not too large. The present study interprets this as a desire for a family that was not so large as to render unaffordable their changing expectations about how a working-class family ought to live. Among the expectations Humphries identified were the ability to protect children from the rigours of full-time employment until they reached an age deemed appropriate, and the ability to afford at least some full-time education for each child, rather than sacrificing the educational needs of the eldest by sending them to work to earn the money which would meet the living costs of their younger siblings.

In addition to Humphries' set of expectations, the present study describes the development by working-class women and men, in the three generations between the mid-nineteenth century and the end of the First World War, of a range of further expectations about how their families ought to live. Szreter is wrong to argue that because the working class did not have 'rising expectations of affluence', it could not adopt family limitation in pursuit of expectations about living standards, as Banks had argued that the middle classes did.[648] Working-class expectations, as this study has shown, were indeed different, but they were just as influential. The growth of these expectations was a major factor in the spread of family limitation and the consequent decline in fertility.

This section summarises the outcomes of the present study chapter by chapter. Chapter two set up the conceptual framework adopted here, and examined and rejected rival explanations of the fertility decline which lacked the necessary focus on the deliberate agency of working-class individuals. These included Coale's emphasis on the breakdown of religious sanctions against birth control and the development of a more secular world view. Although not in itself a denial of the agency of individuals, who would at least have needed to decide to abandon their religious

inhibitions, his account does raise the problem, examined further in chapter two using the work of Sewell, of exactly how people could have transformed such a strong set of cultural values while starting from a position which completely accepted its constraints. The stronger reason for rejecting this account, however, is the empirical evidence found by other scholars that family limitation never was unthinkable: only certain ways of achieving it, including barrier methods of contraception. The chronology of the take-up of barrier methods places it after the main decline in fertility, ruling it out as a major contributor. Accounts of the fertility decline based on the arrival of these new methods, which (problematically) assumed the pre-existence of motives, were also, consequently, set aside.

In adopting this focus on the motives of individuals, this study has made use of the concept of the perceived relative costs of childrearing. Chapter two noted both its strengths and weaknesses: it is at the same time both a logical and wide-ranging model of the influences on potential parents, which correctly directs attention to their perceptions, yet also an example of the attempt by economic thought to frame the entire debate about human behaviour in terms of rational choices. It has nothing to say about the accidental impact on fertility of choices about sexual behaviour which were taken with no thought for the conceptions which might result, and nothing to say about factors which influenced fertility behaviour without surfacing within individuals' conscious perceptions, such as gradually rising real incomes. As Fine commented in another context, economics assumes that human rationality produces specific human cultures, when in fact it was the other way round.[649] While the concept of perceived relative costs of childrearing cannot, for these reasons, be adopted as a universal framework for understanding fertility behaviour, it is accepted in this study that enough people thought about enough of the factors which influenced their conscious decisions about fertility for this approach to be a useful one. To account for the fertility decline it is not necessary to explain all fertility behaviour: just a large enough portion of it to produce the observed fertility changes.

The stress which a perceived relative costs of childrearing approach lays on the importance of perceptions is particularly useful since, as noted in chapter two, fertility change is a good example of a phenomenon which requires individuals to make subjective decisions before there is any change in the aggregate measures which are so often the focus of scholarly analysis. Subjective perceptions, not impersonal forces, were what changed in the fertility decline, bringing attention back to the stress placed in this study on individual agency. Just one of the many kinds of perception held by working-class parents – and potential parents – has been selected for detailed study here: their rising expectations about how their families ought to live.

The concept of expectations about how their families ought to live is an important formulation for the whole study. It has been seen here as forming a central component of working-class culture, defined as the complete, orderly system of meanings that accounted for the shared life of a working-class community. With the assistance of Sewell, Geertz, Sahlin and Giddens it was found possible to make sense of cultures and cultural change in a way that acknowledged just how strong were the patterns which a culture laid down for its individual members, while avoiding the kind of stasis which Bourdieu feared this would create, in which the only possibility of change came from external intervention. Individuals can modify the structures within which they grow up and which shape their outlook, for example by changing the meanings of some of their components so that the culture of the past does not merely reproduce itself unchanged. Naturally,

their freedom to do so is a function of those same structures within which they live, and the millowner's university-educated son had more of this freedom to alter his material world by redefining his mental world than a young man like Joseph Marshall, born on 13 January 1913, the second son to a Bradford spinner and a striking dyer's labourer.^[650] This is a strongly anthropological way of studying the people of the past. Its principal virtue is to illuminate the meanings of different objects and actions – the fish and chip supper, the child getting ready for a day at the elementary school – and in this way to shine a light into lost mental worlds.

The main conceptual achievement of chapter two was to lay out this approach to working-class fertility: its philosophy, justification, and the reasons for preferring it to other ways of researching fertility. Chapter three then described and reported on the quantitative analysis, particularly of the 1881 Census Enumerators' Books, which forms half of the dialogue represented by the study. This gave baseline information about fertility, employment, wages and real wages, and on the relationships between these variables. It will be most convenient to summarise its conclusions separately, in the following section of this chapter, since this discussion of the differences between Bradford, Leeds and Middlesbrough deserves development at greater length. Chapters four to six then described and reported on the qualitative analysis of expectations about how working-class families ought to live, drawing on newspapers, oral history and the observations of external commentators, for example doctors and health and welfare campaigners such as Catherine Buckton of Leeds. This qualitative material formed the second half of the dialogue presented here.

Chapter four noted how the idea spread that having smaller families could mean bigger shares of life's good things, including leisure, for each person. Applied to food, the first essential of life, this could be especially powerful. The mid-nineteenth century working-class diet, typically based on bread, potatoes, bacon, cheese and tea, was no longer felt sufficient. Per capita consumption of tea and sugar doubled between mid-century and the 1900s, and the use of meat and dairy products, with animal fats prominent, and of vegetables, also increased. Working-class people were using their rising real incomes to expand their diets in two ways. The first was to increase their consumption of the existing products which they liked most, notably meat, tea, sugar and animal fats. By 1900, Britain's per capita sugar consumption became one of the world's highest. The second change was to consume new products which supplied fats or sweetness at low prices, such as golden syrup, margarine, and fish and chips, and bars of chocolate. The definition of good food was not static, and as it extended, the desirable diet became more expensive. For a growing number of mothers, the solution was to have fewer children so that they could feed each one better, as they told Margaret Llewelyn Davies in 1914, for instance.^[651]

There was a gender difference in the impact of consumption spending on perceptions. Husbands often gave their wives an unchanging amount for housekeeping regardless of price (or wage) levels, as in the case of Mr Philips, the Middlesbrough father (employed in a wire works) who would say that 'he spoilt [his wife] by giving her a guinea at first.'^[652] There were two periods when a woman must have experienced particular anxiety about the rising cost of feeding families where household spending was rigidly fixed in this way: the times of rising market prices in the decade before 1873, and again from the late nineties when prices, after a flat spell, began to rise once more. One response she had was of course to negotiate with the husband for more money, and this may have been the immediate occasion of the difficulties between Elizabeth Bell's

parents examined in chapter six. The impact of this chronology on fertility is considered further in the third section of the present chapter.

The idea of smaller families leading to bigger shares for all was clearly discernible, too, in the sectors of housing and furnishings. Rising rents, growing by perhaps seventy per cent in the second half of the nineteenth century, would have meant that housing costs per family member outstripped rising wages even if the standards which couples expected had remained constant. In fact, they increased, the expectations of a typical working-class family moving from a two-roomed dwelling without piped water in the 1860s to a four-roomed dwelling with water, and preferably a water closet and gas lighting, by the time of the First World War. Expectations about furnishings increased in tandem. More rooms were wanted partly because the once-traditional sharing of beds by children was found less acceptable, so more beds were wanted, and more bedrooms had to be furnished. The institution of the working-class cottage parlour came within the reach, or at least the aspirations, of more households. Women were more likely to want to cook on a closed range or even a gas stove, certainly not the open fire still widespread in 1860. Chapter four showed how much effort young newly-weds made to move out into their own home, regardless of occupational background: this meant that they experienced the (substantial) cost of renting and furnishing one at the very point when they were most likely to think about starting a family, linking the two steps very clearly in their minds and signalling that the larger the family, the more expensive the home would be.

It was also noted, in chapters four and five, how rising expectations about standards of clothing imposed rising costs on families, and how they understood that the more children there were needing to be clothed respectably, the greater the expense. While there was nothing new about the arithmetic involved in realising that four children cost more than two, the rising standard of respectability, imposed particularly by the demands of schools, increased the scale of the impact on household budgets. Younger children continued to wear patched and mended hand-me-downs, but rising standards made mothers more reluctant to adopt such makeshifts, and many more made-to-measure clothes were bought, at greater expense. Once they had to attend school, the shame involved in sending children out barefoot or inadequately shod was much greater, and more sacrifices were made to secure boots, expensive though they were.

Health and hygiene formed another sector in which rising expectations raised the costs of childrearing, if costs are defined widely enough to capture the significant non-monetary burdens incurred in pursuing these goals. Though they did not amount to a large proportion of total household expenditure, health and hygiene made substantial, and growing, demands on wives' time and physical effort, whether in the strenuous exertion of wash day or the kneeling and bending of cleaning floors. The higher expectations of Edwardian times also involved the use of more soap, as a means to cleaner clothes, cleaner homes and children who would not be ashamed at school by dirty necks or skin infections.

In the field of leisure, chapter four described both male-dominated activities such as sport, betting and the drinking of alcohol, and other forms of working-class leisure, such as holidays, which were more of a family affair. In the male sphere, expectations about expenditure on sport and betting may have grown fast enough to counterbalance falling expenditure at the pub: this remains difficult to assess. Expectations about leisure activities for the whole family, however, were

clearly rising, responding in part to cultural changes which now called for the whole family to spend some leisure time together. In the same way as with clothing, rising expectations, whether about quality or volume, increased the 'unit cost' of consumption: the amount which had to be spent per child. At the start of the period, a holiday might mean a day out on the train to Raby or Shipley Glen: at the end, it could be a stay of perhaps a week at a bed-and-breakfast in Redcar, Blackpool or even a resort on the south coast. These increases in unit cost magnified the existing incentive to have a smaller rather than a larger family. The Bradford woman who described women limiting the size of their families because they could not afford more children also told her interviewer that 'when they'd one child they could take that child on holiday, and we [a family of four children] never went on holiday.'^[653] Looking at expectations about leisure as well as other forms of consumption strengthens the case that men, as well as women, had growing motives for family limitation during this period. The argument that a family of three could afford a holiday while a family of six could not was as appealing to the husband as to the wife.

Chapter four, then, and the two which follow, show that by studying the people of the past in the anthropological way adopted here, it is possible to reconstruct the world of expectations.

'Expectations' is a word which needs separating into its different components: it contains a number of pairs of opposites, all relevant to the present study. There are the individual's own expectations, such as Ben Turner's feeling of entitlement to live in a 'through house' rather than a cellar or back-to-back house, and, in contrast, there are expectations which others hold about an individual, such as the School Board's expectation that a parent will send his child to school, or the doorstep gossip which imposed the expectation on a mother that her front windows should always have clean net curtains. The first kind of expectation naturally gave rise to the kind of consumption defined by De Vries as 'aggressive', conveying the meaning that the individual had a definite status in society, for example when a well-paid artisan bought a gold watch, or, better still, gave one to his son as a coming-of-age present (the giving and receiving of gifts always being full of meanings for the anthropologist, above all for the webs of mutual obligation which are thereby created).

Individuals' own expectations could be very prosaic, for example that the whole family should have meat twice a week, and eat jam and butter with their bread rather than dripping, or live in a house with its own toilet rather than a shared privy midden. Other expectations were much more pleasurable. De Vries identifies the emergence in the nineteenth century of a habit of continually searching for novel consumer goods, behaviour he attributes to a 'Romantic ethic' in which the anticipation and yearning were more satisfying than the act of consumption in which pleasure had previously been found.^[654] It is understandable that the tailoresses from Arthur and Co. enjoyed the anticipation of a drink together at the Leeds Cocoa House in Kirkgate more than the actual occasion. The point is that having this anticipatory pleasure regularly now became one of their expectations. Unfortunately for them, disposable income was an issue: when a young person's understandable desire to spend leisure time enjoyably with people of her own age absorbed too large a fraction of her very low wages, these expectations about her consumption slowed down any efforts to save up for marriage.

Tailoresses were too poor to marry young in any case, but then they always had been so: the new factor was that they felt poorer, now that they compared their wage packet with the wider range of wants – expectations – which they now developed. The Cocoa Houses were a small example of

this, and the newspapers described many other forms of leisure spending, sometimes with disapproval. In this they followed in a very old tradition, of which the education reformer James Hole's 1860 condemnation of 'the profligacy of the streets' in the *Leeds and West Riding Express* was by no means an early example.[655] Social pressures like these directed young people towards defensive consumption such as the use of a cocoa house instead of a bar. The tailoresses, being young and unmarried, are a slightly unusual example, because the impact these higher expectations had on their fertility made itself felt by reducing their nuptiality. This was partly a selection effect (as discussed in chapter three: the tailoresses who most wanted to marry early often ceased to be tailoresses in order to do so, if they could find a man whose wage would support them both). But like the unmarried tailoresses, married people also yearned for new and more satisfying goods to consume, such as seaside holidays of increasing length and distance, and when they, too, felt the pressure on their disposable incomes, since they were already married their fertility response in this case was to limit their family size.

The expectations of other people, by contrast with individuals' own expectations, could provoke 'defensive' consumption, in which households protected themselves from losing status in comparison with other consumers, for example when a mother went short of food so that she could afford boots for her children, avoiding the appearance that her family was poorer than others in the neighbourhood. 'Keeping up appearances' in this way was by no means confined to the poorest, and the buying of an expensive watch could also be a defensive act, when undertaken by a man who felt the need to preserve his respectability with a circle of work colleagues, neighbours or friends.

The picture of rising expectations and costs was developed, and given a greater focus on children, by the examination of the impact of universal education in chapter five. The rise of mass education has been seen, thanks to Caldwell, as altering the direction of inter-generational flows of income within the family: where previously children had become earners at an early stage, supporting their parents, the mid-nineteenth century rise of popular education and legal restriction of child labour prolonged their financial dependence and turned them into a precious and expensive investment. Humphries' recent research on the lives of working-class children in the eighteenth and early nineteenth centuries supports this interpretation, arguing that their childhood experiences of privation resulting from large families encouraged them to limit the size of their own families as the advance of education and retreat of child labour made childrearing more expensive from mid-century onwards.[656]

A range of local evidence was found in chapter five to support these views, demonstrating how children spending more time at school and less in factory labour increased parents' perceptions of the costs of childrearing. This evidence included the demands which schools and School Boards made on respectability, such as clothing and cleanliness. The significance of children's clothing, introduced in chapter four, became greater in chapter five, which examined how going to school exposed the child, and by extension its parents and the way they cared for the child, to the scrutiny not only of teachers but also, in a new and more powerful way, of the whole local community who saw children coming and going very visibly in large numbers at fixed times, and no longer blending into the background of working people of all ages. Other examples of the impact of education, and of the legal restraint of factory labour, include the postponement of child earnings and the longer-term effects of aspirations to self-improvement fostered by a Victorian education.

School was recognised as not just a change in how the child spent its day but also a change in how a family lived its life. During the period, this impact grew considerably, as the average child's school career grew from two and a half years in 1870 to seven years in 1897. Not only was education a strong influence: exposure to it also nearly tripled – or more than tripled when taking into account the growth in the proportion of children ever enrolled as well as the time each enrolled child spent in education.

This study has taken a broad view of the perceived 'costs' involved in childrearing. Chapter six extended the account of rising expectations and their growing costs by discussing some of the non-monetary costs of childrearing, including time, anxiety, and energy (or, viewed another way, fatigue). Chapter six drew attention to changes in the way childhood was constructed, in which children came to be seen as more vulnerable and dependent than formerly. This raised the costs of parenting, not only by demanding more parental effort at every stage but also by lengthening childhood itself (for example with the raising of minimum legal ages for different kinds of employment, and of the school leaving age). The view of childhood as more vulnerable promoted a growth in top-down surveillance of, comment on, and regulation of, the treatment of children. It was noted that this activity not only increased, as the emergence of the NSPCC showed, but developed from observation and comment into interventions such as home visiting and legal action against cruelty, neglect or truancy. Chapter six also noted related changes in the social construction of family life and parental roles, particularly in the rising expectations of fathers' behaviour. While gradual change was taking place in all three towns, it was somewhat faster in Bradford and Leeds, widening the gap in fertility with Middlesbrough by enhancing wives' capacity to influence their husbands' behaviour.

Expectations about how working-class families ought to live were not, of course, limited to the physical realm of which goods they ought to consume. To look at the meanings of the goods involved inevitably points beyond them, to the relationships between the people involved. Indeed, the journey in this study, which has now come from a household's weekly food shopping at the start of chapter four to the new attitudes to fatherhood at the end of chapter six, is part of one complete, orderly system of meanings. This anthropological openness to the lessons which objects teach about the people who bought and used them brings with it an emphasis on the wholeness of a culture, in this case that of a working-class community, recalling Fine's stress on studying the history of consumption in the context of relevant 'information systems' and beliefs. The rising expenditure on feeding and clothing children, and on providing them with entertainment, whether it was the 'Children's Corner' in a newspaper like the *Leeds Express*, twopenny seats at a Bradford cinema, or a trip to Shipley Glen by charabanc, is simply the expression in physical terms of the changing attitudes to childhood, and to the respective roles of children, mothers and fathers, described in chapter six. There is, as the anthropologist Daniel Miller wrote in his recent study of a modern London street, 'an overall logic to the pattern of relationships to both persons and things.' [657]

Leaving behind, now, the chapter-by-chapter summary, the concept of expectations contains a further pair of opposites which must be examined: the difference between the self-confidence of those who, to Matthew Arnold's mind, 'assert[ed] an Englishman's heaven-born privilege of doing what he likes', and the anxiety of those who feared for the worst in a changing world.[658] This contrast between assertiveness and anxiety is linked to other contrasts already discussed:

between creating one's own expectations and conforming with the expectations of others, and between aggressive and defensive consumption. Ittman's conclusion about the cultural causes of the fertility decline in Bradford, as a defensive reaction to worsening circumstances after 1851 is consistent with this duality.[659] There is a hint that Ittman recognised the existence of its confident pole, as well as the anxious one, in his otherwise slightly odd reference to 'the combination of a home-centred, defensive culture seeking new horizons while still fearing the worst' as a precondition for family limitation. He sees the fertility decline ultimately as a defensive attempt to preserve a stable way of life, however, reading the entire working-class condition up to 1945 in a quite pessimistic way which treats the class mainly as a victim of circumstance before the deliverance of 'security in the form of state intervention' then arrives from somewhere off-stage.[660] The present study supports a reading which leaves more to the agency of working-class parents themselves.

Assertiveness and anxiety had varying effects on different working-class groups. First of all, there was a gender divide. These are generalisations with frequent exceptions, but the evidence of the local newspapers and the oral histories does show that male wage-earners were more likely to take the assertive, self-confident view of their own – and their family's – prospects and entitlements. One source of this was the constant reinforcement of every working man's sense of worth as a breadwinner, produced by male forms of sociability such as workplace dinners and other ritual events of the kinds seen in the sources. This was a discourse which the cheap press, knowing how to flatter its readership and retain their custom, eagerly supported. The *Armley and Wortley News* knew exactly what it was doing when it contrasted 'drink-sodden slum dwellers, the middle class or the aristocracy', with 'average weekly wage-earners, ... [who] ... help their wives in times of weakness and sickness.'[661] Working men were thus encouraged to recognise their superiority, over the weaker sex as well as every other class.

Wives and mothers faced different stimuli, based on the social constructions of their roles in the family. They could, it is true, share in this outlook of assertiveness and confidence, and take a richly-deserved pride in their achievements in keeping their families together, bringing up their children, putting the expected meals on the table and producing a comfortable home according to the expectations of the time. Those who had paid work could derive confidence and a sense of worth from this, as men could, but women's work was constructed very differently from men's. The whole idea of a mother going out to work had many critics, some of them very close to home, others in positions of authority in society. As noted in chapter three, for a woman to work as well as running the household was a double burden, and this huge task was bound to produce anxiety for many about their capacity to cope. Even without a job to think about, the responsibility for ensuring the children's welfare was divided in such a way that mothers felt most of it: a father had to earn all he could, hand over enough for housekeeping, not drink too much and avoid domestic violence, but, even without her own employment with its attendant burdens, similar to a man's, a mother also had to manage nearly all the emotional challenges of child care on her own – nursing a sick infant, say, or dealing with a dispute with the school – as well as the heavy responsibility of budget management against limited resources. It is not surprising, then, that in the oral histories, people recall their mothers worrying much more often than their fathers.

Women, then, were likelier than men to feel those motivations to limit fertility which took the anxious rather than the confident form. While a wife feared for the impact of another child on the

struggle to make the housekeeping last until Saturday, her husband might look forward to the prospect of more agreeable holidays by the seaside if they had fewer children for whom to buy rail tickets and beds at the boarding-house. Women were not necessarily more likely to want smaller families than men, as Seccombe thought, but they did have a different balance between their reasons for so doing. This difference could make communication between wives and husbands about family limitation difficult, and offers evidence to support Szreter's model of a hurdle to be surmounted before consensual family limitation might begin. Now that the difficulty is understood in this nuanced way, however, it does not quite seem capable of producing the 'century of simmering tension' of Hera Cook's overheated phrase.[662] The question remains of whether these different balances of motives for wanting the same thing, a smaller family, add up to a large enough hurdle to account for the differences in fertility between towns (and male occupations), as Szreter claims. More work is needed to chart gender differences in attitudes to family limitation, testing out the proposals of Seccombe and others.

An individual was steered towards a more assertive or a more anxious outlook by a combination of objective and subjective influences. Against a 'pure' feminist view, such as that of Gisela Bock, which argues that gender is not a given but socially constructed, this study adopts the more nuanced position that gender is a mixture of givens and negotiables, some (or indeed all) of the former being imposed by social construction (not biology) but, by virtue of the strength of that imposition, are truly givens and not subject to negotiation, making them objective facts for the individual.[663] Here the limits are reached which a person's *habitus* imposes on her, or his, freedom to alter the culture she, or he, inhabits. A Middlesbrough woman before 1914 could become a doctor, a teacher, or many other things by struggling hard enough against the local culture (though she could do so much more easily if she had money and was middle class). She could not, under any circumstances, become a blast furnace keeper, a slagger or a foundry labourer, even if she had wanted to. Whether she could have wanted to, or whether the particular *habitus* of working-class Middlesbrough prevented this, is a moot point. Some of the constraints experienced by working-class Middlesbrough women were none the easier to break for being 'mind-forged manacles'.[664]

The factor of gender thus combines both objective and subjective influences: it was not only a question of being either female or male, each with its set of social 'givens', but also of the way the individual constructed their own gender role subjectively, something depending very strongly on the wife's and husband's own personalities (including optimism and pessimism), knowledge and skills, and on the balance between them. The oral histories, as recollections from childhood about their parents, have limits here, and cannot reveal either what the witness' mother and father really felt, or what another adult's perception of these would have been at the time. But they still offer many tantalising glimpses of gender relations through the eyes of a child, of which chapter six offered some examples.

This study has emphasised the role of changes in expectations. How did this picture of more confident men and more anxious women change as expectations increased? The description of gender differences just given would have been equally true in 1820. What rising expectations did, however, was to magnify both the opportunities, such as new ways to dress, or to furnish the home, and new ways of spending leisure time, and some of the anxieties. It is true that rising incomes and new forms of self-help (such as trade unions, the Co-op and the panel doctor) were

diminishing some of the starkest threats to the family, though this should not be exaggerated. But in a better-off working class, the gap between those who were thriving and those who were surviving became wider, and in a more complex economy, with more consumption opportunities, there was more to go wrong. The definition of success was changing; the requirements of respectability were steadily becoming more demanding. In this way, rising expectations increased the contrast between the confident and the anxious. Given the social constructions of gender which existed at the time, in many cases this also promoted a wider gap between the male and the female outlook: one aspect of De Vries' breadwinner-homemaker divide.

Apart from gender, factors such as the security or insecurity of employment, discussed in chapter three, played an important role in producing different kinds of expectations. A person could view the new world of consumption more confidently if they expected to retain a job for the foreseeable future, while in times of economic uncertainty, with the prospect of wage cuts, short time or unemployment, they would doubt whether they could meet all the expectations on them. Health was another major influence, since households where either parent (not just the male breadwinner) was too sick to carry out the roles socially assigned to them were prey to anxieties from which there still relatively few forms of protection or insurance.

This examination of the contrast between assertive, confident consumption and its reverse, the world of anxiety and worry, suggests that rising expectations encouraged family limitation by two routes. First, it held out the prospect of better living standards to those who chose to have fewer children, and could therefore give a larger share of their resources and time to each family member. This had the most appeal to those who were able to take a relatively confident view, offering them a chance to shape their futures. The second route was that the new complexity increased the anxiety surrounding the rearing of a child. With a wider range of expectations and demands, there was more scope for failure and loss of respectability. This argument had most effect on those who already felt that they were in a relatively precarious position, but also made a general appeal to prudence. It has already been noted that this struck a chord with the contemporary working-class ethic of self-control. In these ways, new expectations brought about lower fertility in a very broad range of working-class couples, whether optimism or uncertainty about the future was uppermost in their perceptions.

Is attributing falling fertility in this period to both assertiveness and its opposite an attempt to have it both ways? Since fertility was falling in both assertive and anxious groups, does this analysis miss the true explanation and instead imagine causal pathways where there were none? Recalling Bloch's remark that causes have to be looked for, not assumed, this study has indeed found evidence for both causal pathways, which was set out in chapter four. In support of family limitation by the confident and aspiring, the chapter described, for example, the way that small families were perceived as the ones who could afford holidays and new clothes for the children. Ben Turner's rising aspirations for the quality of his own home provided another example. As evidence for the other pathway from rising expectations to lower fertility, the one that led via anxiety, consider, among many examples, including a large number of writers in *Letters from Working Women*, two Bradford comments about women who had abortions because they decided they could not afford to have their children in such quick succession.[665]

One more observation is possible about the contrast between confidence and anxiety. The two are,

in the end, divided by a fine line: the unemployed Bradford boilermaker, who walked to Middlesbrough seeking work, knew that, for the short term at least, if he were successful, he would secure his family's wellbeing, while if trade were no better on Teesside than at home, poverty would envelop them all.[666] A furnaceman injured in an accident at the Leeds Forge Company, employed (according to custom) by the foreman, not the company, knew that if the court interpreted the Workmen's Compensation Act in the right way, he should be confident of receiving a damages award from the Forge large enough to pay his rent and provide at least some kind of subsistence: if the case went the other way he would be left with only the limited benefits available from his union or friendly society.[667] Many of the *Letters from Working Women* reflect this fine line which working-class households walked, conveying the authors' perception of their families being poised between the chance of a better future and the brink of an abyss of unemployment, sickness, poverty, the workhouse and family breakup. Both pathways, the forward-looking aspirational and the fearful, operated to reduce fertility, and in this way both could even operate in the same person's mind at the same time: 'I love children dearly I do not wish to create them to be badly fed, clothed badly, uneducated, etc., on a mere pittance. my sincere desire is that a better time is dawning for working-class mothers and their babies.' [668]

Before leaving this summary of the arguments of the study, the relevance of rising expectations to declining fertility will be tested by comparing the late nineteenth century fertility decline, during which expectations were rising as shown in this study, with the fertility decline between about 1820 and 1840. In the early decades of the nineteenth century, and previously, most urban workers had seen themselves as 'the labouring poor', obliged to find a subordinate existence for themselves and their families within an economy and society which they often perceived (though by no means rightly, as it now appears) as stable and unchanging. Rapid urbanisation and industrialisation helped undermine this world view, but not in a wholesale way before the advent of Chartism in the eighteen-thirties. The opportunity therefore exists for a comparison between one decline taking place before expectations about how a working-class family ought to live had started to rise, and another which began when rising expectations were moving ahead under full steam. If the 'rising expectations' interpretation is relevant in the later nineteenth-century decline, it should help account for differences between this one and the earlier.

During the fertility decline of the 1820s to 1840s, there was little or no evidence of rising expectations. On the contrary, there was a widespread perception that life was getting harder. Perhaps, indeed, it was, at least in fast-growing towns, as the evidence of a one-inch decline in men's heights between 1820 and 1850, and the (much-disputed) dip in real wages, would imply.[669] The young men who had smaller families than their parents during the 1820s and 1830s were, according to Humphries, looking back on the exceptional hardships of growing up in a large family during an intense period of urbanisation and industrialisation, and deciding that smaller families were better for children.[670] Such a decision did not logically require any sense that opportunities or social expectations were rising. Indeed, no small number of the protests at social conditions in this era, described so evocatively by Thompson, harked back to real or imagined golden ages rather than looking forward to new dawns, as the campaigning mother of 1914 did.[671]

The first nineteenth-century fertility decline was a defensive reaction to perceptions of growing hardship. Its levelling off between 1850 and 1870 could then be interpreted as a result of

perceptions of improving living standards. It is beyond the scope of the study to seek the origins of such changes in perceptions, although the ten per cent leap in (Crafts' and Mills' national index of) money wages around 1852, to a level which they subsequently sustained, and, in the 1860s, improved upon, must have been important. So, probably, was the repeal of the Corn Laws, for its key impact on perceptions that food would be cheaper, whatever the realities were. How far these national aggregate pictures of change in fertility or wages can be applied to local communities, however, and how much they conceal quite different local patterns and relationships, is a question for the second section of this chapter.

By the 1870s at the latest, and earlier for some people and places, new forces, new perceptions, were at work: the growing economy now allowed new kinds of consumption which created opportunities for working-class people to live more healthily and comfortably (or at least, less unhealthily and uncomfortably), and the social pressures to keep up with the standards set by the better-off working class were harder to resist. By contrast with the fertility decline of the earlier nineteenth century, when potential parents tried to preserve a static level of welfare against perceptions of rising threat, in the second fertility decline they pursued expectations of a rising level of welfare against a mixture of perceptions which encompassed both opportunity and threat. Humphries suggests that her model, apposite for the first decline, was also relevant in second, but, although the mechanism she describes did continue to operate, and must have played some part, the greater magnitude and staying power of the second fertility decline also calls for additional explanation. Her 2007 account would have been more valuable to this study had it examined the change over time in the strength of the intergenerational effect of deprivation on fertility which she describes, though this was not her purpose there. Although she has more sources in her 1851-1874 cohort than any of the earlier three (pre-1790, 1791-1820 and 1821-1850), her discussion is flavoured by the strength of her longstanding interest in the period 1780-1830, so that a sense of what has changed after 1850 and, by how much, does not emerge strongly.[672] Her recent monograph based on the same materials takes the opportunity to discuss chronology fully, but does not supersede the arguments set out here about the years after 1860, because its approach compares the four cohorts, making 1851-74 a discrete sample within which further change is mostly not described.[673] Humphries' account suggests that the rise of education was important to the second fertility decline.[674] It was, however, the presence of rising expectations, sustained over a long period, which was the key difference which made the second decline so much larger than the first. The 'rising expectations' interpretation is, in this way, capable of doing useful explanatory work in accounting for this observed difference better than other interpretations.

II

The next section of this chapter discusses the relevance of the differences identified here between the three towns. This sheds important light on the question of whether there was one nationwide fertility decline with the same underlying causes everywhere, as the conventional wisdom has it, or multiple declines with varied characteristics, as Garrett, Szreter and others have argued since the 1980s.[675] Evidence from Bradford, Leeds and Middlesbrough showed that expectations about how a working-class family ought to live were growing in all three towns, suggesting that this was a widespread trend. Indeed, the growth of mobility which accompanied the spread of railways, and the rise of other forces which promoted a more homogeneous culture, such as a national education system and a national press, gave working-class culture an increasingly

national dimension, in which the rich variety of local characteristics became less important than they had previously been.

These similarities in the evidence from Bradford, Leeds and Middlesbrough about rising expectations, while offering a welcome foundation for making generalisations about the rest of urban Britain, do pose one problem. Chapter three described how fertility declined much earlier and faster in Bradford than in Middlesbrough, with Leeds occupying an intermediate position. How, then, can the account of nationwide growth in expectations now put forward be reconciled with this evidence of local variation in fertility responses? Is the new account by Szreter and others of 'multiple fertility declines' to be accepted, and, if so, how then should it be integrated with the present account of expectations which rose everywhere? This section will answer this question by examining two groups of issues. Firstly, were there differences in the expectations which developed in the three towns studied? If so, do these help explain the varied patterns of change in fertility? Secondly, were there differences in the cultures of the three towns which would explain why similar changes in expectations would produce different changes in fertility?

The discussion will begin with a recapitulation of the relevant differences which were found in chapters four to six. First, there were differences in diet. Mothers in Middlesbrough spent more time on food preparation, and the food consumed there included more home-baked bread and more home-cooked meat, whereas families in Bradford and Leeds were more likely to eat bread from a baker, and processed foods including pies, cooked meats and fish and chips. The mothers of young infants, being more likely to breastfeed in Middlesbrough, avoided the expense of fresh milk which fell on mothers in the other towns. By spending more domestic labour overall on food preparation, Middlesbrough mothers secured their families' food needs at lower cost. This kept the perceived cost of childrearing a little lower, and the perception of the benefits of family limitation less powerful.

There also seems to have been slightly less pressure on housing costs in Middlesbrough than in Bradford and Leeds. This might reflect greater opportunities for low-cost building on new land in this more recently established town. Cheap land was available for working-class housing in Newport ward in the 1870s, and areas to the southeast of the town centre such as North Ormesby were heavily developed from the 1890s. Bradford and Leeds, however, had been developed longer ago and building land was in shorter supply. The slightly lower rents for four-roomed houses in Middlesbrough than in Leeds and Bradford, which were noted in the early twentieth century, might also indicate less interest in having extra space, and a greater concern to live nearer to the works in more traditional housing. In either case, the result was again that a growing family imposed slightly fewer extra costs in Middlesbrough than in the two other towns.

Another area in which there was evidence for slightly lower costs in Middlesbrough was clothing, with evidence that mothers continued to make clothes for children for longer than in Bradford and Leeds, where the move to ready-made clothes came a little sooner. These considerations about the cost of living can be combined with De Vries' argument about the greater efficiency, in this period, of the breadwinner-homemaker household: the form which households took most frequently in Middlesbrough, this breadwinner-homemaker model, made it easier for families to have more children than in Leeds, where the model was somewhat less prevalent, with more women in full-time work, and easier again than in Bradford, where women's full-time work was

most common. This is best understood as a difference in the amount of demands falling on mothers, who in Bradford most often had the hardest task, that of combining a full day at the mill with a burden of housework. There was some evidence that housework was more likely to be shared in Bradford, and Leeds, but this is not likely to have diminished wives' burdens very much.

There were some differences between the three towns in relation to education, child labour and expectations about family life, discussed in chapters five and six. Bradford's greater historic exposure to child labour, in which both girls and boys were employed in the mills in large numbers, magnified the reduction in children's earnings which households experienced when child labour was curtailed, causing a sharper rise in the perceived relative costs of childrearing than in a culture such as Middlesbrough's where child labour of both genders had been less prevalent, or Leeds', where somewhat fewer girls than boys had been employed. According to the 1861 Census, for example, 23% of under-20-year-old females in Leeds had an occupation, compared to 30% of males of the same age. While the Census, as discussed in chapter three, may have undercounted female occupation, the comparative geographical approach shows that this was not the whole explanation of this difference, because in Bradford the comparable figures were 30% of young females occupied and 34% of young males. If undercounting of females was the whole explanation, the gender gap would be equally wide for each town. [676]

This difference in the employment rates of girls, then, meant that the relative costs of childrearing increased by more in Bradford and Leeds than in Middlesbrough. In fact, even when considering boys alone, there is a further reason why the restriction of child labour had less impact in Middlesbrough. The need for stamina, and concentration to avoid danger, in ironworks labour meant that there was little demand for the youngest boys at the works: fourteen was the normal starting age. This meant that the earliest increases in school leaving age and minimum age for factory work, bringing them up from low starting points such as age ten, withdrew fewer boys from the labour force in a specialised labour market like Middlesbrough's than in a more diverse one like Leeds, or Bradford, whose larger commercial and office sectors also gave more scope in the 1860s to the employment of errand- and delivery-boys. Middlesbrough households did not feel the reduction in child earnings over this period nearly as much as those in some other places, because child earnings were less common in the first place. This was a further factor which meant that the pressure for family limitation was felt less strongly here than elsewhere.

It is possible to show, then, that there were significant differences between the three towns in the way perceived relative costs of childrearing changed. Expectations grew less quickly in Middlesbrough, and children's contributions to the household budget had less far to fall. In Bradford, at the opposite end of the spectrum, families shared in the full range of growing expectations about living standards from the start. Women who had full-time jobs, a more frequent situation in Bradford than elsewhere, felt the pressure of combining wage labour with the domestic labour involved in meeting new needs, while the wage contribution of children, having been higher than elsewhere because of the employment of so many children in the mills, fell most rapidly. These considerations are important, but are not the whole story. Even if there had been none of these differences between the three towns, there are reasons why changes in expectations would have produced a greater decline in fertility in Bradford and Leeds than in Middlesbrough.

To explore these reasons, it is necessary to recall that the mechanism by which rising expectations were translated into lower fertility was decisions to limit family size within marriage, because there would be more resources to go round if families were smaller. Some recapitulation of the gender relationships within married couples is necessary at this point. The motivations of men and women need to be considered separately. Chapter two showed that men and women in this period did not generally discuss target family size and reach joint decisions. They were more likely to have a broader goal of achieving a smaller family than previous generations. The literature reviewed in chapter two mostly argues that women were the driving force in this. This study has suggested that, while this may be true, rising expectations also gave men more reason to want smaller families than previously thought.

In the case of men, deciding on family limitation could lead directly to family limitation through the use of abstinence or withdrawal. Where women wanted smaller families, they still had to induce their husbands to use one of these forms of family limitation before there was a fall in fertility. Chapter two discussed the use of abortion as a means of family limitation without the need for their husbands' involvement. Although one of a woman's options, unless she had ethical, for example religious, objections, abortion did not play a leading role in the fertility decline. For the most part, then, the proximate determinant of family limitation in this period, whatever the underlying influence of women, was men's choices.

This draws attention to the question of how much influence women had over their husbands' choices. The previous discussion proposed that where women had less influence over their husbands' sexual behaviour, rising expectations would still produce some decline in fertility via the direct route of men choosing to limit family size, but where women had more influence, rising expectations would produce a greater fall in fertility because their influence over their husbands would add to the size of the family limitation behaviour. In chapter three, it was shown that different communication communities could be identified, each with their own levels of fertility, and that male occupation was an important factor which distinguished these communities from each other. Women's influence over their husbands varied between these communities. It was greatest in the Bradford woollen industry, where husbands and wives often both worked for the same enterprise, in different parts of the same site, and that made it easier for a husband to understand a wife's interests. In Middlesbrough the mental distance between the man's world of the ironworks or shipyard and the woman's existence, which did not usually include full-time paid work, was much greater.

There is a problem with this simple restatement of the female influence, 'communication communities' model. This study's new stress on the role of male choices in the rise of family limitation diminishes the role of this variation in the influence of women over their husbands in creating fertility differences between towns. Another field has already been identified in which an influence which could have created town differences was smaller than first thought: the hurdle to communication between women and men was composed merely of different balances of motives for wanting the same thing, a smaller family, and not as Cook and Szreter argued, of different goals altogether. While the female influence, 'communication communities', explanation has not been undermined by these findings, it is weakened. Does it remain strong enough to account for the magnitude of the differences between, in particular, fertility change in Bradford at one extreme and Middlesbrough at the other?

Szreter's decision to base communication communities on male occupations rests, as he exhaustively shows, on strong enough statistical correlations.[677] Furthermore, the evidence of chapter six about work cultures and how they varied, from the very male-dominated ones of Middlesbrough ironworks to the more complex ones of Bradford mills, provides support for the view that the husband's workplace was important in shaping the culture of home life and the extent to which husbands and wives were able to communicate in general, and to communicate about sexual behaviour in particular, making family limitation more or less achievable. This is not to contradict the earlier observation that couples avoided a 'calculating' approach to family size: only to suggest that the mental world of the male Bradford mill worker made him more receptive to a wife's hints and suggestions than that of the Middlesbrough shipbuilder or ironworker.

But did the shared experience of mill employment really promote greater communication between husbands and wives? Mill employment was by no means uniform: on the contrary it had a myriad distinctions, many now completely unintelligible to anyone who has not recovered enough of the language of scribblers, teasers, willyers, tops, noils and the rest of the world of worsted. Employment distinctions continued to be strongly affected by gender, too, even during the emergency working conditions of the First World War, as shown in chapter three. Women and men did not work alongside one another in the mills doing similar work: on the contrary, there was rigid gender demarcation. Most work was regarded as either male or female; 'male' jobs were constructed as requiring more skill, although this was often objectively hard to demonstrate, and there were clear differentials in pay and status.[678] Overlookers, for example, were always male. Mary Blewett reports lively gender antagonism, amounting to sexual harassment, between adult female workers on one hand and two male groups, the overseers and 'cheeky boys', on the other.[679] The sexes did not work harmoniously side by side in Bradford.

Did they nonetheless have enough shared experience to make understanding of each other's point of view easier than in communities like Middlesbrough where the typical workplace was entirely male? Or perhaps Szreter is guilty, in *Fertility, Class and Gender*, of failing to exercise consistently the virtue he commended in its opening pages: to make local explanations of fertility decline 'properly culturally contextualised in all their local variety [and recognised as] primarily determined by highly negotiated socio-political and ideological forces.'?[680] Does this book, which, in fairness, aspires to guide future local studies like the present one, not to do the local research itself, preach an interpretation based too narrowly on male occupation and not enough on the rest of the local context and negotiation? It would appear so. Bradford women and men were further apart than Szreter thinks woollen mill workers were: at the same time, Middlesbrough women and men were in fact closer together than Szreter thinks ironworkers were. They did go to social events together, even at the man's workplace or organised by his union, as shown in chapter six. In the First World War, women managed to become labourers and machinists in significant numbers, although it is true that they lost these jobs again by about 1920. In some cases, however, they gave them up willingly to their returning 'heroes' because the distance between the women's and the men's mental worlds was small enough for such acts of understanding and sacrifice. The existence of very similar turmoil in the wartime labour market in Bradford and Leeds does not weaken the argument: if anything, this similarity between places with contrasting fertility strengthens the proposition that differences between communication communities were not enough to explain all the differences in fertility.

The 'male occupation determining female influence' model of communication communities and their impact on fertility oversimplifies the influences at work. The characteristics of a communication community did not all depend on male occupation. The evidence discussed in chapter three showed that migration and religion played a role. Migrant communities, particularly those who had travelled a long distance, retained powerful elements of their own cultures, as seen in the Irish of all three towns and in the eastern European Jewish community of Leeds. The fact of migration itself usually produced a younger, more fertile age structure. Female occupation, however, was the most important additional influence on the formation of communication communities. Chapter three demonstrated how female occupation can be used to refine the model. It may make more sense to think of a sub-community of mill working couples, and separate ones where the wife worked in a mill and the husband, say, in engineering. The mere fact that the wife worked made mutual understanding easier about the pressures of bringing up a family (although if men worked night shifts, it might mean that a couple rarely met for long: this might sometimes make communication harder and fertility higher, but, on the other hand, female Lancashire cotton workers reported that they used this lack of contact to limit their fertility by making it an excuse to avoid coitus).[681] These observations complicate Szreter's picture of 'about thirty' communication communities, leaving lumping and splitting problems about the communities to be described, but they promise to refine the communication communities model so that it reflects the reality better. There were communities with a shared language and mental world, as the primary sources show, but they need to be defined by examining their cultures themselves – Szreter's 'local context and negotiation' – rather than by selecting them from statistical analyses of occupational fertility as he did.

This examination of reasons for the differences in the fertility decline in the three towns leads to five main conclusions. First, there were differences in the way that expectations about living standards grew. These were not large, but they were significant enough to play a role in making large families less attractive in Bradford and Leeds than in Middlesbrough. Expectations developed faster in the West Yorkshire towns than in Middlesbrough, putting more pressure on women and men to limit the size of their families. Second, the formation of different communication communities meant that the possibilities for communication between husband and wife varied. Since such communication was necessary for the wife to influence a husband's family limitation behaviour, differences in its effectiveness had some effect on fertility, but it is doubtful whether they were the most important cause of the differences between the three towns. Although male occupation was a very important element of the differences between communication communities, their origins were more complex than Szreter's account suggests, depending in particular on the local nature of female and child as well as male labour.

Third, the hurdle to communication between women and men was smaller than others have thought, being created only from different balances of motives between women and men (confident ones more common in men, anxious ones in women) for wanting the same thing, a smaller family. There was not, as Cook and Seccombe have thought, a 'century of simmering tension' between women who wanted family limitation and men who did not care but wanted frequent coitus.[682] Fourth, new evidence presented here for the role of male choices in the rise of family limitation diminishes the role of variation in the influence of women over their husbands in creating fertility differences between towns. Finally, to talk of multiple fertility declines as if trends in different towns had separate, unrelated causes is misleading. Deeper factors, amongst

which rising expectations were very important, affected all the towns studied in a similar way. Szreter's purpose in speaking of multiple fertility declines was to emphasise the independent adoption of family limitation by many different communication communities, a point which can readily be supported. The disadvantage of the phrase is that it distracts attention from the underlying factors which all the communities studied here experienced, a contradiction of his stance in favour of basing explanations on economic relationships, set out at the start of *Fertility Class and Gender*.

III

Were the underlying factors driving fertility change exclusively economic? Certainly there was a strong connection between the nature of the local labour market and the factors identified here as more immediate influences on fertility. In chapter two, doubts were raised about the adequacy of purely materialist, Marxian, accounts of social history which stressed the primacy of economic change as a driver of all other developments. Has this study overcome those doubts and concluded that fertility change in the three towns considered was, in the end, a function of economic change? The economy was certainly important. The expansion of the national economy was a major contributor to the dynamism of expectations identified here, both by creating rising real wages which expanded the scope of consumption ambitions and, equally important, by rapidly broadening the range of goods and services which people could aspire to consume. The leading local entrepreneur John Barran opened a cocoa house in Leeds in 1880 with the comment that 'in this age of progress fresh enterprises were constantly being set on foot to more fully meet the wants of the public.' [683]

The economy also made its impact felt through the effects on fertility of differentiated local labour markets. Recent scholarship, which the present study has supported, argues that male, female and child labour patterns all played important roles in determining fertility rates. Each industry generated its own coherent pattern of demand for the labour of men, women and children: the present study has stressed the different effects on fertility created by Bradford's world of extensive female and child labour alongside low-paid male labour, Leeds' complex universe of industries with interlocking demands for every kind of labour from surgeons to office-boys and boilermakers to tailoresses, and by contrast Middlesbrough's simpler world of very limited female and child labour with rather better-paid male breadwinners.

The impact of child labour, and of its curtailment, on fertility was therefore a significant effect of the local economy, as shown in the previous section of this chapter and in chapter five. Most important of all, however, was the impact of differences in adult occupation on the nature of the different communication communities. An account of these which is based on male occupation alone is insufficient, however. This study has argued, instead, for more attention to be paid to the nature of female and child labour, as well as the more often discussed impact of variations in the occupational fertility of men.

In Bradford, households' need for women and children to work as hard as they could to compensate for low adult male incomes underlay the culture of a greater reliance on markets and a smaller one on domestic labour to satisfy the search for comfort and health at home, opening households up to the rising cost pressures of their new expectations more completely than in

cultures such as Middlesbrough's. In Leeds, the same phenomenon could be found in some groups (and a more sophisticated market for consumer goods and services was overlain on this labour market pattern, promoting more of the search for novelty than in Bradford, let alone in Middlesbrough, where what was consumed was more constrained by what domestic labour could produce.

But although very important, the economy was not the only influence on fertility. To begin with, chapter three referred to the modest part played by religion, specifically the proportion of Catholics in the population. Even leaving this point aside, however, it is not possible to conclude that the economy was the only influence. The evidence of chapters four to six is that the development of new working-class expectations was a much more complex process than simply workers and their spouses spending their growing budgets on all the new goods and services which the burgeoning mid- and late-Victorian economy spread out before them. A significant part of chapters five and, especially, four, was devoted to asking whether new expectations came from the stimulus of producers, the wish to emulate wealthier consumers or follow the advice of experts, or from endogenous changes in the tastes of the working class.

The conclusion reached, unsurprisingly, was that it was a little of each. It would be idle to claim that all the efforts of producers to stimulate an interest in their wares came to nothing. On the contrary, this study has shown how they were able to boost the consumption of such items as furniture (introducing the working class to mercantile credit in the process, as they could not sell new furniture fast enough to households who had to save up out of such small incomes), and of soap, clothing and the cinema. But even these examples are not simple ones. The rising demand for soap for personal hygiene was fuelled, too, by the diffusion of expert knowledge about germs and disease and by a desire to meet middle-class standards of cleanliness, as the Bradford schoolboy's comment about the clean necks of teachers and ministers illustrated. The cinema could not have been sold so effectively in the 1910s if it had not met a pent-up demand for something more novel and cheaper than the theatre.

Emulation of the better-off seems to have played only a small role in the expansion of working-class consumption expectations, perhaps surprisingly. Would it not have been natural for poorer households, becoming aware of new forms of consumption enjoyed by the better-off, for example by beginning to read some of the same newspapers, or by the information disseminated by the multitudes of domestic servants about their employers' lifestyles, to start aspiring to some of the same things? It appears not. While emulation may play a role in the consumption decisions of the less well-off today, it is anachronistic to read this back into an era when perceptions of class difference were much stronger. The evidence is that, for most forms of consumption, working-class decisions were taken without reference to middle-class consumption patterns because these were regarded as exotic and unaffordable, the lifestyle of a separate and different group. This is a point which Fine makes with particular force in relation to clothing, castigating the contrary view of Neil McKendrick and others as a surrender to the self-justifying belief of the upper classes that they alone were the bearers of taste and culture.[684]

The working class of the nineteenth and early twentieth century appears to have had enough self-confidence not to take such a belief on board. The working class' perceptions of itself have been discussed in chapter two, where it was noted that a new confidence and assertiveness was afoot

after the mid-nineteenth century. To search for its origins would exceed the scope of this study, but its results included the ethic of self-control which was noted as a facilitator of family limitation, an urge to self-improvement which incorporated a thirst for practical knowledge, a powerful strand of self-help and mutual aid, and a very strong emphasis on respectability, in the form of compliance with the expectations of peers, rather than, in general, those of distant social superiors. To avoid giving an idealised picture of nineteenth-century working-class culture, it is of course necessary to acknowledge that these are only some of the facets of a much more complex picture: the working class was as varied as any other.

These characteristics were important, nonetheless, and conditioned the way working-class consumption and expectations responded to middle-class consumption, and also to the opinions of experts. The most important point about expert opinion as an influence on consumption at this period is not the enormous growth of scientifically informed knowledge about health, hygiene and comfort, but the rapidity with which large elements of the working class took up the new knowledge and incorporated it in their lifestyles and consumption decisions. Chapter four showed how Catherine Buckton's lectures to women in Leeds and Bradford in the 1870s about health and hygiene were so successful partly because she recognised this thirst, and knew how to satisfy it with popularised science, 'the reasons why' in place of mere preaching or assertion. Her approach mirrored that of working-class writers like Robert Philp, of whom Chase writes that he 'sought to demystify knowledge by codifying it. He had a profoundly political purpose: to democratise learning and place science at the service of a mass readership' and, in common with Chartist beliefs of the 1830s, 'envision[ed a] working-class domesticity, in which woman is a worker rather than merely an ornament within the home. As so often, what ostensibly appears to epitomise Victorian bourgeois values, on closer examination is actually a drawing out of popular aspirations' (emphasis in original).[685]

It was in this spirit, then, that working-class people were influenced by the views of experts. A range of evidence, from the rise in consultations with doctors, to the growth of soap consumption and changes in the ways babies were dressed, to the types of discourse adopted by newspapers and advertisers, illustrates the way working-class audiences were receptive to new kinds of ultimately science-based knowledge about how best to improve their families' health and comfort. They were not an uncritical audience, though, and this study has shown how they rejected advice to drink less tea and not to eat fish and chips. The conclusion must be that working-class people were generally confident enough to base their consumption decisions and aspirations on their own judgements and tastes. The expansion of working-class consumption during this period, in both scale and complexity, largely shaped by autonomous, bottom-up processes, was an important phenomenon which has been insufficiently recognised. A better picture of its shape would be of benefit both to economic and cultural historians.

IV

This fourth section of the chapter asks what conclusions can be drawn about the time-lags between the changes in expectations identified here and the changes in fertility which have been shown to flow from them. Time-lags are important because knowing how long the processes took offers insights into how they worked. One sort of process should be sought if the evidence suggests it took effect in a year, a different one if it required a generation. Looking for insight into

the nature and duration of these processes is iterative, and success in each helps the other.

Starting, then, from the conclusions of qualitative work done earlier in the study about how cultural changes would affect fertility, and making these the premises – for instance, that the local implementation of universal compulsory education caused local fertility to fall – hypotheses were developed about likely mechanisms and their associated time-lags. In this example, the hypotheses were that higher social expectations about the quality of childrearing imposed by school attendance could have started to affect perceptions about the costs of childrearing very quickly: the signals were there for the parents of newly-enrolled children to notice from the very beginning. A parent with existing children at school would be best placed to draw the conclusion that education meant more expenses for each new child, since she or he already knew what was involved in educating their children and what it cost. It was further hypothesised that this process would reach detectable levels within a decade. All that remained to complete this process was to test these hypotheses for plausibility against evidence about the timings of (in this example) the education changes and the local decline in fertility.

A more powerful mode of argument would be attractive, and one possibility examined was to make greater use of statistical methods. If a simple arithmetical relationship was expected between a cultural variable, such as spending on housing, and fertility, then it would be a reasonably simple statistical operation to examine the two data series over time and find the time-lag which represented the best fit. The economic history literature contains numerous examples of studies which do this.[686] However, at least three factors hinder this mode of investigation. First, the events being examined were all rather gradual changes, for example in consumption and in the birth rate. Sharp, sustained changes in any of the variables, which would lend themselves most easily to this type of analysis, were rare. This is not an insuperable problem and data could be aggregated over a number of years, at the expense of having to estimate the time-lags less precisely. Second, securing data about the independent variables such as those relating to consumption would be complex. The biggest difficulty would be that the search is not for a link between fertility and consumption itself – not a trivial item to measure, but a feasible one – but rather a link with expectations about what a family should consume. To attempt to quantify these expectations would involve a high level of conjecture. And, third, it is acknowledged that fertility was influenced by a number of factors, not only by expectations. Thus, the use of statistical methods at this stage of knowledge could give false confidence, although they might perhaps be profitably applied once better data series can be constructed.

To begin at the start of the period studied, family limitation within marriage was not a major influence on fertility for most couples in 1860, and couples still regulated their family size mainly by prudential decisions about how young to marry. Nuptiality responded to real wages, at a time-lag of about forty years. Wrigley and Schofield have argued that this interval was required because in the shorter term, year-to-year fluctuations would be larger than the underlying income trend and obscure it from view.[687] It would only begin to be apparent when young adults started to notice that they were appreciably better (or worse) off than their parents had been at the same age. For example, a young man might be able to save the sum conventionally thought necessary for marrying by an earlier age than his father had.

During the period studied, the secondary literature is agreed that this link between fertility and

real wages broke down, and that it did so because of the rise of family limitation within marriage. Previous work has not, however, devoted attention to the new set of time-lags which arose in place of the older mechanism. One obvious starting point for a new account is that family limitation within marriage allows couples much finer control over their family size, with the possibility of changing their minds after marriage, leading to the possibility of couples making a much quicker fertility response to changes in the cultural environment – a response which, in principle, can also be observed at population level in published birth rates. Where previously a development which boosted the desire for smaller families could only work through into lower fertility by delaying marriages, and would not influence the fertility of existing married couples, in the new situation these couples could now decide to start spacing their births (or spacing them more widely than they were already). In place of a generational rhythm to any change in fertility, from the time when fertility began its long-term decline it should start responding to external influences as soon as women and men noticed them.

This shifts attention to the length of the delay with which relevant cultural changes worked their way into people's perceptions on a significant scale. It also makes the situation more complex than formerly, since each of the different developments potentially making people want smaller families could have had its own associated time-lag. Another source of complexity is the need to respect the particularity of different places. Just as chapter three showed that different factors influenced the detailed course of the fertility decline in different towns, so different local cultures should be expected to produce different time-lags even for the same factor: the opening of elementary schools might cause a dip in fertility to show up after five years in Bradford but only after ten in Middlesbrough. It is important to continue to avoid the recourse to an over-arching explanation claiming validity for very different communities. While it can be claimed with confidence that rising expectations about how families should live reduced fertility after 1860, and did so as soon as women and men realised that these expectations were raising the costs of childrearing, it is not legitimate to generalise from detailed findings about one town to claim that the processes observed there took the same form elsewhere.

It is therefore time to examine the detailed evidence about 'inputs' to these time-lags, bearing in mind that the 'output' to be explained was a fertility decline observed first in Bradford, where it was fastest in the 1870s and 1880s, then in Leeds, where it was fastest in the 1890s and 1900s, and last in Middlesbrough, where it was fastest in the 1900s. In relation to food, first of all, the pattern of cultural change was a gradual growth in the expected level of per capita spending extending over the whole period. While dietary expectations could not be measured directly, it was clear that actual consumption rose in this way, and families certainly aspired to diets which were more, not less, expensive than their actual ones. The data are not fine-grained enough to distinguish particular periods of faster or slower growth, but the introduction of new products, such as fish and chips in the 1880s, will have delivered a boost (though only a small one for any particular product).

Overlaid on this pattern of actual consumption was a pattern of perceived cost influenced by market prices and the operation of the 'money illusion' discussed in chapter three. Using the cost of living indices in appendix two to chapter three, this meant that between 1858 and 1873, and after 1899, rising prices created the perception that food costs were rising, although they may not have been rising in real terms for a given family, depending on movements in the wages of its

particular breadwinner. Women will have been most keenly aware of rising food prices, given wives' responsibility for household spending and budgeting. This implies that there was a 'pulse' of anxiety about the rising cost of feeding families, which affected married women (and possibly also those contemplating marriage) in the decade before 1873, then faded as food prices fell, before returning at the turn of the century. With food forming the most essential of all requirements for childrearing, and more than half of all household expenditure as shown in chapter four, there is good reason to think that the anxiety of the 1860s made women want smaller families.

The question is, how quickly? Did it operate via the Wrigley and Schofield mechanism of reducing nuptiality in response to hard times, or by prompting family limitation within marriage? This is a question which is amenable to quantitative analysis using marriage registration data, a promising area for further work. The secondary literature suggests, as already noted, that the nuptiality mechanism ceased to operate at just about this time. An explanation is needed for the rise of family limitation within marriage, and one attractive hypothesis is that when expectations about living standards began to rise, a phenomenon dated here to mid-century, the extra anxiety about affording the family food bill was enough, for growing numbers of individuals, to trigger stronger family-limiting behaviour within marriage. (This need not, as shown in chapter two, have been a completely new form of behaviour, and where there were precedents it would be adopted more easily and quickly.) The 1860s were the first decade in which rising expectations coincided with rising prices to produce this double pressure on the perceived costs of childrearing. By the 1870s, enough women were reducing their fertility to produce a downturn strong enough to be picked out from the background noise in the aggregate birth rate. It is plausible that the first instance of this double downward pressure of prices and expectations and the moment of the secular downturn in fertility are causally connected, and also that this additional impact of these rising prices on fertility was felt within a decade.

In favour of this view, women who already had at least one child were the most likely group to notice the impact of rising prices on the cost of childrearing: the alternative – prudential estimation of future childrearing costs by people yet to start their families – is a much less likely mechanism for rising food prices to affect perceived costs of childrearing, since estimating a future child's food needs is both a highly inexact process and one which few prospective parents are likely to attempt. Once a mother had at least one child, however, the magnitude of food costs for future ones was much more apparent and much more likely to provoke attempts to 'space' future births. This argument applies, obviously, to the other goods a child consumed, as well as food. Furthermore, the cost of feeding each existing child – a cost which was itself rising in the 1860s – makes the hardship created by the need to feed a new one greater. There is, then, both a convincing mechanism by which rising prices in the 1860s would lead to lower birth rates within a decade, and a good reason (the coincidence of rising prices and rising expectations) why this shorter time-lag should occur for the first time at this point in history. Further work to find evidence, indirect though it might be, about the reasons for women's choices would be valuable. Autobiographical material stating that women wanted smaller families so that they could feed them better has been quoted in this study, but only from the later part of the period.

Similar arguments to those about food also apply to other elements of working-class consumption, with significant variations. The housing market, for example, did not mirror the food market in the

chronology of its price changes. At national level, housing costs rose fastest in the 1870s and 1880s, and overall by seventy per cent in the second half of the nineteenth century. Further work on the local picture might establish from sources such as rating books and rent registers how the profile of working-class housing costs evolved differently in each town, though Short cautions against imagining that comparison over time is easy.[688] For the period 1909-1914, the register of land ownership prepared for the introduction of Lloyd George's land tax, preserved at the National Archives in the form of Field Books, which include rents for each property, provide a snapshot.[689]

In the same way as for food, it is important in thinking about housing to look separately at expectations of housing needs as well as at actual housing costs. Chapter four showed how expectations were rising. It is likely that local expectations moved in fits and starts, at the prompting among other things of the appearance of new housing developments and new types of accommodation. In Middlesbrough, for example, working-class aspirations to better housing probably increased in the 1870s when terraced streets of housing were erected in Newport and Cannon wards, of a superior quality to the older courtyard properties in St. Hilda's ward, already denounced as insanitary twenty years earlier by public health investigators such as Ranger.[690] Once more desirable homes were available within walking distance of men's employment, it became possible to aspire to live in one. The quality of housing available rose again with the development of North Ormesby as a residential district adjacent to the newer ironworks, and the beginning of large scale council housing in the early nineteen-twenties was a further step in the direction of more space and comfort, also bringing forth rapid growth in spending on furniture.[691] More detailed studies of local conditions would illuminate the physical changes in quality and quantity of housing stock, movements in prices and rents, and the development of working-class expectations. The time-lags between changes in housing and effects on fertility may have been longer than those for food, since housing expenditure is more 'lumpy': it is easier to trade up to a higher quality of food consumption in easy stages than to move to a better house, so expectations of better housing might be kept in check for longer.

Chapter five showed how changes in education, and in child labour, affected the perceived relative costs of childrearing in several different ways which had different time-lags. The chapter demonstrated how higher social expectations about the quality of childrearing imposed by school attendance could have started to affect perceptions about the costs of childrearing very quickly: the signals were there for the parents of newly-enrolled children to notice from the very beginning. In a similar way to their perceptions of the rising costs of food, discussed above, a parent with existing children at school would be best placed to draw the conclusion that education meant more expenses for each new child, a further example of the growing incentives for family limitation within marriage. The link between the rapid growth of school enrolment in the 1870s and the growth of such family limitation behaviour to the point that it affected aggregate birth rates, in the same decade, is a logically appealing one. Chapter five also showed, however, that the incidence of schooling, measured by enrolment and length of school career, continued to grow after the 1870s, just as the incidence of child labour continued to decrease, by stages, throughout the period. The relationships between changes in education and changes in fertility, and the time-lags involved, were not simple ones. Education, like housing, generates data series, such as numbers enrolled and average age at leaving full-time education, which would be profitable subjects for regression analysis against fertility at local levels.

This new account was made possible by taking a multi-place, multi-factor approach to the study of working-class consumption and attitudes to consumption. Previous studies which focussed on a single place, such as David Taylor's account of social change in Middlesbrough, and particularly those focussed on one aspect of material culture such as John Walton's history of fish and chips, have missed the broader cultural implications of rising expectations, and so have not made the connection with fertility.[692] The argument here is that since the higher expectations about the quality of family life had many components, each individually small, it was easy for a study of (say) the domestic use of gas not to notice its contribution to the general rise in the cost of the typical lifestyle to which families aspired.[693] It is only by looking at working-class consumption in the round, as in the present study, that the impact of rising expectations on the perceived costs of childrearing, and so on fertility, can be detected. The examination of new sources for consumption expectations, specifically cheap local newspapers, working-class autobiography, and oral history collections, has allowed the present study to uncover a bigger picture which was not previously obvious. This section of the chapter therefore sets out why the approach adopted here was successful, and what lessons could be learned from it. Building on this, directions for further work are then suggested in the following section.

The adoption of a comparative approach, examining the distinctive working-class cultures of Bradford, Leeds and Middlesbrough, has given this study extra power, making it possible to observe which features (such as the prevalence of home bread baking in Middlesbrough) were specific to one place, and which (such as the purchase of increasing amounts of furniture, sometimes using credit) could be found in each location studied. To gain the full benefit of a comparative study, it was necessary to identify locations which were, at the same time, sufficiently similar for comparison to be relevant, and not confounded by too many variables, and yet sufficiently different in key respects to produce significant variations in fertility patterns which might be linked to these cultural differences. The second section of the present chapter, and chapter three, demonstrate that this approach was a success, showing links between the different fertility histories of the three towns and cultural differences including preferences in diet, housing and clothing, and the prevalence of female and child labour. Cultural differences in the ease or otherwise with which wives could influence husbands' fertility behaviour were also found to be relevant, though not decisive. As a result of this study's comparative approach, it has produced evidence which necessitates the modification of Szreter's 'communication communities' model, showing that, although it is valuable to analyse populations into communities sharing characteristics of language and ways of thinking, including the degree of communication that was possible between men and women, there must be a more nuanced account of the defining characteristics and formation of such communities than to ascribe it all to patterns of male occupation.

The first necessity for a successful comparative study in this field was to select districts which differed principally in those characteristics which were, *a priori*, considered most likely to influence fertility. In this case, this meant the distribution of male occupation: the prior assumption, subsequently confirmed, was that a concentration of strenuous manual labour in an all-male environment would be associated with high fertility, and a concentration of male employment in textiles would be associated with low fertility. (The importance of female and

child employment only became clear during the study.) Selecting a set of districts between which this was the main difference allowed attention to be focussed on the impact of this variable – an approach akin to the statistical one of controlling for other variables whose impact, if any, was not to be investigated.

Thus, selecting three Yorkshire industrial towns avoided the extra complexity which would have been introduced by including London, or a part of it, or other types of town. This would have introduced other variables, interesting in their own right, but at the expense of producing so many possible influences on fertility that the contribution of any one would have been harder to disentangle. A great port with a more mobile population, a town with a very large immigrant population, a market town in southern England, or a town in Scotland, whose urban culture differed from England's in significant ways including the nature of working-class housing, would have been harder to compare with the towns studied here, although this would be a worthwhile exercise if means could be devised to control for the differences in occupational structure. The study also deliberately selected urban settings although the study of rural fertility, generally higher than urban despite lower incomes, would again have been valuable.

It was then important to define the geographical extent of the districts being studied. Chapter three discussed how boundary changes, the reporting conventions adopted by different Censuses, and urban growth made this problematic, but these difficulties were pragmatically overcome by careful description and selection of the geographical areas available in each statistical document, assisted by the record of administrative boundary changes available on the *Vision of Britain Through Time* website. As described in appendix one to chapter three, the digitised Census Enumerators' Books to be used for each town were selected by matching the civil parishes in which this data is presented with the boundaries of the three towns. This approach was not perfect, as already noted, and more precise comparability between Censuses could have been achieved by defining the study area specially for the study, extracting data from Enumerators' Books record by record. It is doubtful, however, whether the very large amount of time required for such an operation would have improved the accuracy of the data by enough to justify the investment: chapter three described some sensitivity analyses performed on the results actually derived, which showed that the changes in data produced by slightly different decisions about definitions would not have been large.

Another consideration was that in a period when the geographical extent of urbanisation, and the characteristics of urban districts, could change rapidly, the accuracy gained by comparing the same set of addresses in 1860 and 1920 would be partly spurious anyway: the appearance of providing a description of an unchanging 'Leeds' would conceal the fact that (say) all engineers lived within the 1860 boundary selected, but by 1920 a quarter of them lived outside it in Stanningley, or that an area like parts of Woodhouse had become gentrified over the same period. Statistical approximations of the type made in this study are entirely justified, provided they seek honestly to capture the actual development of the town, are fully documented, and are subjected to sensitivity analysis in order to show what level of confidence should be placed in the results.

This study has opened up a new avenue of investigation into the motives of the growing numbers of people who chose to limit their family size between 1860 and 1920, showing that rising expectations about living standards were an important contributing factor. By breaking into this new area, it has revealed many opportunities for further investigation. In particular, the nature of working-class consumption and working-class expectations has emerged as a complex, important, researchable and yet so far under-examined field of enquiry. It is amenable to both quantitative and qualitative research, including studies such as the present one which combine both approaches. On the quantitative side, it is possible to examine the markets for food, housing and other commodities. Taylor's work on Middlesbrough using trade directories to chart the growth in numbers of food retailers suggests one approach, and ways of identifying rents have been proposed earlier in this chapter.[694] Occasionally, household budgets survive, usually as a result of contemporary social enquiries such as Lady Bell's, again in Middlesbrough, and these can be invaluable. Aggregate pictures of the trend in a town's alcohol consumption may be gleaned from licensing data, giving an insight into men's leisure preferences and possible cultural changes, or differences between communities.

More accurate data about consumption patterns could be combined with better insights into fertility trends using the statistical techniques pioneered by Woods, Garrett and others to show the detail of family limitation behaviour by estimating age-specific fertility rates. The imminent opening of the 1911 Census Forms to scholars provides the opportunity to bring such numerical analysis forward by another decade, making it possible to examine most of the period of the great fertility decline by these techniques. It would be a missed opportunity, however, if studies based on this new data confined themselves to the variables available in the Census itself and neglected the dimension of rising expectations about living standards emphasised here. The opening of raw 1911 Census data will also allow record-linking studies, for example those which track individuals from one Census to the next, to roll forward another decade. This would be particularly useful in studying the relationship between a woman's employment history and her fertility over her life course. Another opportunity for statistical examination would be to analyse the breakdown of the old link between real wages and nuptiality, exploring just when and how it was supplanted by family limitation within marriage for different social groups. For example, did the old link survive although overshadowed by a more powerful 'within marriage' effect, or did it fade away altogether?

An excellent link to make with the Census by the use of record-linking and quantitative techniques would be the rich archives of rent and land data generated by the 1910 Finance Act and the preparations for the taxation of land following Lloyd George's so-called 'People's Budget'. [695] The costs of housing could be researched, for one moment in the 1910s, with far more fine detail than has been possible in the present study, and statistical analyses performed seeking correlations between fertility and different housing types, sizes and costs. Did couples move to larger homes before or after starting their families, and how does this vary by occupation? How well does the size of the home correlate with number of children, within and across occupational groups? What does this add to understanding of the life-cycle of poverty: how big a part did rent play in the rising costs of the growing family which pushed couples under the poverty line as more children arrived?

Qualitative studies which explore the meanings different groups attached to different goods, and to other components of living standards such as leisure time, are essential to fully understand why expectations rose as they did, and what the differences were between different social groups. Newspapers, for example, provide plentiful raw materials for the application of anthropologically-inspired methods to investigate these questions. While autobiographical evidence is rare, those like Burnett, Vincent and Mayall, or Humphries, who have searched for it have shown that it can be uncovered. They have demonstrated effective search strategies and means of interrogating the sources which are discovered. It is not likely that autobiographical sources which talk candidly about the motives for family limitation in the nineteenth century await discovery, but known sources, and those awaiting discovery, are likely to reveal much more about the wider mental worlds of working-class communities than is currently known, and this will contribute to insights into the fertility decline as well as many other subjects in social history.

There is scope here to add some of the resources of other social sciences to those of anthropology in the historian's toolkit. Sociologists such as Sarah Irwin already use concepts such as the social construction of patterns of interdependence between genders and generations to investigate families and life courses.[696] These approaches are, in principle, available to the historian, once he or she has overcome the key difference that they cannot directly use the survey instruments of the social sciences to ask questions, as is possible with living people, or ask follow-up questions (at least not directly or in real time) when something interesting emerges, as the student of contemporary society can. Approaches from developmental and social psychology could also teach the historian new, possibly better, ways of investigating topics such as the social nature of learning, the transfer of values, knowledge and skills between generations, and the social construction of meanings, above all those of the greatest importance for the self, such as 'family', 'mother', 'father' and 'childrearing'.

This multi-centre study has shown the value of comparing different communities. It is only a sample of what could be done to describe and compare the fertility experience of different communication communities over time. A study of a rural community where fertility remained high for longer would, for example, be a valuable contrast to the groups described here. More ambitiously, an international comparison of the fertility experience of, for example, mill towns or iron and steel communities in two countries would illuminate the impact of cultural and political differences, in something like the way that Ron Lesthaeghe's study of matched pairs of French and Flemish-speaking communities within Belgium did, his findings showing how these cultural variables affected fertility more than the simple economic ones to which the demographic transition model had, until then, given precedence.[697] The need for a single scholar to be sufficiently familiar with sources about two different cultures would make such a study more difficult, but not impossible.

Another fruitful international project could be to examine the impact of migration on fertility (and perceptions of fertility) by comparing the fertility of those migrating to, say, Middlesbrough with that of those migrating from it, or staying put. Did the exodus of working-class English people to the United States and to parts of the Empire remove people who were more fertile, as one might conjecture, or less, than the neighbours they left behind? More, or less, fertile than the Irish, Scots, Welsh, Lincolnshire folk and others who moved into Middlesbrough and the other towns? What were the overlapping chronologies of leaving and departing, and how did they affect both the

towns' fertility trends and the perceptions of these, such as the image of the 'feckless Irish'? What part did documentable trends in the fertility of different groups play in the rise of the natalist fear, by the 1890s, that there were too few white men left in England to maintain the Empire?

VII

This study has shown the importance of rising expectations in bringing about deliberate family limitation among the working class in the generations before the First World War. It has examined people's aspirations for, among other things, better diets, better clothing and better homes, and has shown that men as well as women were motivated by these considerations. Instead of providing ever more cannon-fodder for the nation's industrial and military rivalry with her neighbours, working-class mothers and fathers 'went on strike' (in one mother's phrase) for better living conditions.[698] As Eilidh Garrett put it, they stopped 'thinking of England.' [699] This was a very deep subversion indeed of the fertility role being urged on them by the state and much of elite society, and shaped the England of the nineteen-twenties and thirties decisively. But, deeply subversive as it was, it was very largely done without the rancour or class envy which would have been so understandable. The comments of a Women's Co-Operative Guild activist in 1914, which encapsulate so much, deserve to close this account:

'My husband, along with myself, considered his wages were not adequate to maintain a family, provide proper attention, etc., during confinement, and solely for this reason we do not feel justified in having any more children if it can possibly be avoided. I love children dearly, another reason why I do not wish to create them to be badly fed, clothed badly, uneducated, etc., on a mere pittance. I could say much more, but my sincere desire is that a better time is dawning for working-class mothers and their babies.' [700]

*

*

*

Bibliography

Primary Sources

Unpublished:

Bradford Central Library, *Bradford Heritage Recording Unit* oral history collection

Brunel University, Burnett Archive of Working-Class Autobiography, Armitage, Joseph, *The Twenty-Three Years, or The Late Way of Life – And of Living*, TS (1974)

_____, Denison, Mary, *Church Bells and Tram Cars: A Vicarage Childhood* (TS)

_____, Gill, Ellen *Diary* (TS)

_____, Ransom, Elizabeth MS (untitled)

_____, Rignall, Elizabeth, *All So Long Ago* (TS)

Teesside Archives, *Recorded Memories* oral history collection

_____, CB/M/C 5/2 County Borough Clerk's Department, reference volumes

_____, CB/M/C 5/6 _____, memoranda and petitions

_____, Linthorpe Rate Books

_____, U/BSC/2/6/4 British Steel Collection: Cochrane's

_____, U/PEN (2) 11 Pennington Papers

_____, U/S/27 Cochrane Papers

_____, U/S/446 *Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage and Supply of Water, and the Sanitary Condition of the Inhabitants of the Borough of Middlesbrough ...* by W. Ranger, Esq. (1854)

Thackray Medical Museum, Leeds, catalogue of archived documents

West Yorkshire Archive Service, Bradford Archives, 40D89, Minute-Books of the Bradford Medical-Chirurgical Society

_____, DB16 Bell Collection

West Yorkshire Archive Service, Leeds Archives, WYL 101/4/15 Leeds Babies' Welcome Association Papers

_____, WYL 1088/6/12 Heaton's: letters from schoolchildren re gift-coats

Newspapers:

Bradford Central Library:

Bradford Daily Telegraph

Laisterdyke and Bowling News (weekly)

Leeds Central Library:

Leeds and West Riding Express, later called the *Leeds Express* and the *Leeds Weekly Express*

Leeds Daily Express, later called the *Leeds Evening Express*

Leeds Intelligencer

Armley and Wortley News (weekly)

Yorkshire Evening Post

The Leeds Library:

Leeds Mercury

Middlesbrough Central Library:

Middlesbrough Weekly News

Daily Gazette, later called the *North Eastern Daily Gazette*

Evening Gazette

Weekly Gazette, later called the *North Eastern Weekly Gazette* and the *Northern Weekly Gazette*

Nineteenth Century British Library Newspapers, <http://find.galegroup.com/bncn/> :

Leeds Mercury

Official documents:

Abstracts of Labour Statistics:

Labour Department of the Board of Trade, Annual Report; Abstract of Labour Statistics, 1893-94, Parliamentary Papers (1894), LXXX

Labour Department of the Board of Trade: Fifth Annual Report, 1897-98, Abstract of Labour Statistics, Parliamentary Papers (1898), LXXXVIII

Seventh Annual Abstract of Labour Statistics, 1899-1900, Parliamentary Papers (1901), LXXIII

Seventeenth Abstract of Labour Statistics of the United Kingdom, Parliamentary Papers (1914-1916), LXI

Nineteenth Abstract of Labour Statistics of the UK, Parliamentary Papers (1928), XXV

Annual Reports of the Medical Officer of Health:

Annual Report of the Sanitary Committee for 1894 [Bradford]

Annual Reports of the Medical Officer of Health for Middlesbrough [bound set, 1898-1904]

Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1905 by the Medical Officer of Health

Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1906 by the Medical Officer of Health

Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1912 by the Medical Officer of Health

Report on the Health and Sanitary Conditions of the City for the Year 1914 [Leeds]

Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1919 by the Medical Officer of Health

Board of Trade Enquiry into Working-Class Rents, Housing and Retail Prices, Parliamentary Papers (1908), CVII

Census Reports:

Census of England and Wales, 1861: Population Tables Volume II, Abstracts of Ages, Occupations and Birthplaces of People, Division IV to Division XI, Parliamentary Papers (1863), LIII

Census of England and Wales, 1871: Population abstracts: Ages, civil condition,

occupations, and birth-places of the people: Vol. III, Parliamentary Papers (1873), LXXI

Census of England and Wales, 1881: volume III: Ages, Conditions as to Marriage, Occupations and Birthplaces. Parliamentary Papers (1883), LXXX

Census Returns of England and Wales, 1901, giving details of Area, Houses and Population; also Population, classified by Ages, Conditions as to Marriage, Occupations, Birth-places, and Infirmities, in each county of York. Parliamentary Papers (1902), CXXI

Census Returns of England and Wales, 1911: Vol. I. Administrative Areas, Parliamentary Papers (1912-1913), CXI

Census of England and Wales, 1911: Vol. XIII: Fertility of Marriage, Part II. (HMSO, 1923)

Census of England and Wales, 1921, Yorkshire (HMSO, 1923)

Registrar-General's reports:

Twenty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England, Parliamentary Papers (1863), XIV

Thirty-fourth annual report of the Registrar-General of births, deaths, and marriages in England, Parliamentary Papers (1873), XX

Thirty-ninth annual report of the Registrar-General of births, deaths, and marriages in England. Parliamentary Papers, (1878), XXII

Forty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England. Parliamentary Papers (1883), XX

Registrar General of Births, Deaths and Marriages in England, Fifty-third annual report, Parliamentary Papers (1890-91), XXIII

Fifty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in

England, Parliamentary Papers (1892), XXIV

Sixty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England and Wales, Parliamentary Papers (1902), XXVIII

Seventy-fourth annual report of the Registrar-General of births, deaths, and marriages in England and Wales, Parliamentary Papers (1912-13), XIII

Registrar-General's Statistical Review for 1921 (HMSO, 1923)

Registrar-General's Statistical Review for 1922 (HMSO, 1925)

Registrar-General's Statistical Review for 1923 (HMSO, 1925)

Report of an enquiry by the Board of Trade into the Earnings and Hours of Labour of Workpeople in the UK. Textile Trades in 1906, Parliamentary Papers (1909), LXXX

Report to the Board of Trade on the Sweating System in Leeds, by a Labour Correspondent (1888), Parliamentary Papers (1888), LXXXV

Returns of Wages Published between 1830 and 1886 (Industrial Workers in the UK), Parliamentary Papers (1887), LXXXIX

Thirty-Ninth Annual Report of Local Government Board 1909-10: Supplement to the Report on Infant and Child Mortality, Parliamentary Papers (1910), XXXIX

Other published materials by contemporaries:

Anonymous, *The Unfortunate Genius, by a Factory Girl* (Armley, 1852)

Arnold, Matthew, *Culture and Anarchy: Essays in Political and Social Criticism* (Smith, Elder, 1869)

Baker, Robert, 'On the Industrial and Sanitary Economy of the Borough of Leeds in 1858' reprinted from the *Journal of the Statistical Society of London* (December 1858)

Bell, Florence, *At the Works: A Study of a Manufacturing Town* (Virago, 1907, 1985)

Bridges, Dr J. H., *Health, with Remarks on the Death-rate of Bradford and Other Towns: a Lecture Delivered in the Theatre of the Mechanics' Institute, Bradford, November*

17th 1862 (Reprinted from the *Bradford Review*)

Buckton, Catherine, *Two Winters' Experience in Giving Lectures to My Fellow Townswomen of the Working Classes on Physiology and Hygiene* (Leeds: William Wood, 1873)

_____, *Health in the House: Twenty-Five Lectures of Elementary Physiology... Delivered to the Wives and Children of Working-men in Leeds and Saltaire* (Longman, 1876)

_____, *Food and Home Cookery* (Longman, 1879)

_____, *Our Dwellings, Healthy and Unhealthy: Addressed to Girls Attending the Leeds Board Schools* (Longman, Green and Co., 1885)

Cudworth, William, *Worstedopolis : A Sketch History of the Town and Trade of Bradford, the Metropolis of the Worsted Industry* (Bradford: W. Byles and Sons, 1888)

Flint, Miriam, and others, *Cannon Street: Lest We Forget* (Middlesbrough, 1993)

Gawthorpe, Mary, *Up Hill to Holloway* (Penobscot, Maine, 1962)

Hoggart, Richard, *The Uses of Literacy* (Harmondsworth: Pelican, 1957-1960)

Home Chat (1910)

Hudson, William H., *The Health of Bradford. A Paper read in the Public Health Section of the National Association for the Promotion of Social Science at the Bradford meeting, October 1859*

Layton, Mrs, 'Memories of Seventy Years', in *Life as We Have Known It, by Cooperative Working Women*, ed. by Margaret Llewelyn Davies (Virago, 1977)

Llewelyn Davies, Margaret, ed., *Maternity: Letters from Working Women* (Bell and Sons, 1915, 1978)

Newbery, Maggie, *Reminiscences of a Bradford Mill Girl* (Bradford, 1980)

Philp, Robert Kemp, *The Practical Housewife: Forming a Complete Encyclopædia of Domestic Economy and Family Medical Guide*. New edition, revised and greatly enlarged. (Houlston and Wright, 1860)

_____, *The Reason Why: Domestic Science: Affording Intelligible Reasons for the Various Duties Which a Housewife Has to Perform*. Fourteenth thousand, carefully revised and enlarged edn. (Houlston & Sons, 1869)

Ravenstein, E. G., 'The Laws of Migration', *Journal of the Statistical Society of London*, 48, 2 (1885), 167-235

Roberts, Robert, *The Classic Slum: Salford Life in the First Quarter of the Century* (Harmondsworth: Pelican, 1971, 1977)

Rowntree, Benjamin Seebohm, *Poverty : A Study of Town Life* (Macmillan, 1901)

Sigsworth, Eric, *A Respectable Life: Leeds in the 1930s* (Beverley: Highgate of Beverley, 1995)

Spark, Frederick, *Memories of My Life* (Leeds: Fred. R. Spark & Son, 1913)

Thackrah, Charles Turner, *The effects of arts, trades and professions, and of civic states and habits of living, on health and longevity*, second edition (Longman, 1832; Edinburgh: Livingstone, 1957)

Thompson, Nancy, *At Their Departing: A Childhood Memoir* (Futura, 1987)

Secondary Sources

Books:

(place of publication is London where not otherwise stated)

Banks, Joseph, *Prosperity and Parenthood* (Routledge and Kegan Paul, 1954)

Banks, Joseph, and Olive Banks, *Feminism and Family Planning in Victorian England* (Liverpool: Liverpool University Press, 1965)

Baylis, Isobel, *The Leeds Babies' Welcome Association: A Memoir* (Leeds, 1991)

Becker, Gary, *A Treatise on the Family* (Chicago: University of Chicago Press, 1981)

Benson, John, *The Penny Capitalists: A Study of Nineteenth-Century Working-Class Entrepreneurs* (Dublin: Gill and Macmillan, 1983)

———, *The Working Class in Britain, 1850-1939* (Longman, 1989)

Blake, William, *Songs of Innocence and of Experience : Shewing the Two Contrary States of the Human Soul* (1789-1794; Oxford: Oxford University Press, 1970)

Bowley, Arthur, *Wages and Income in the UK since 1860* (Cambridge: Cambridge University Press, 1937)

Bourke, Joanna, *Working-Class Cultures in Britain, 1890-1960* (Routledge, 1994)

Burke, Peter, *History and Social Theory* (Cambridge: Cambridge University Press, 2005)

Burnett, John, ed., *Destiny Obscure: Autobiographies of Childhood, Education and Family from the 1820s to the 1920s* (Routledge, 1994)

Burnett, John, David Vincent, and David Mayall, eds, *The Autobiography of the Working Class: An Annotated Critical Bibliography* (Brighton: Harvester, 1984, 1989)

Bythell, Duncan, *The Sweated Trades: Outwork in Nineteenth-Century Britain* (Guildford, 1978)

Callanan Martin, Kathleen, *Hard and Unreal Advice: Mothers, Social Science and the Victorian Poverty Experts* (Basingstoke: Palgrave Macmillan, 2008)

Carson, Robert, *A Short History of Middlesbrough* (Redcar: A. A. Sotheran, 1977)

Clapham, John, *The Bank of England* 2 vols, Vol. 2 (Cambridge: Cambridge University Press, 1944)

- Clark, Anna, *The Struggle for the Breeches. Gender and the Making of the British Working Class* (Berkeley: University of California Press, 1995)
- Davin, Anna, *Growing up Poor : Home, School, and Street in London, 1870-1914* (Rivers Oram Press, 1996)
- De Vries, Jan, *The Industrious Revolution: Consumer Behaviour and the Household Economy from 1650 to the Present* (Cambridge: Cambridge University Press, 2008)
- Dennis, Norman, Fernando Henriques, and Clifford Slaughter, *Coal Is Our Life: An Analysis of a Yorkshire Mining Community* (Eyre & Spottiswoode, 1956)
- Digby, Anne, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994)
- Dougan, D, *The History of Northeast Shipbuilding*, (Allen and Unwin, 1968)
- Douglas, Mary, and Baron Isherwood, *The World of Goods: Towards an Anthropology of Consumption* 1996 edn. (Routledge, 1979, 1996)
- Dyhouse, Carol, *Feminism and the Family in England, 1880-1939* (Oxford: Blackwell, 1989)
- Fildes, Valerie, *Breasts, Bottles and Babies: A History of Infant Feeding* (Edinburgh: Edinburgh University Press, 1986)
- Fine, Ben, Michael Heasman, and Judith Wright, *Consumption in the Age of Affluence: The World of Food* (Routledge, 1996)
- Fine, Ben, and Ellen Leopold, *The World of Consumption* (Routledge, 1993)
- Fisher, Kate, *Birth Control, Sex and Marriage in Britain, 1918-1960* (Oxford: Oxford University Press, 2006)
- Floud, Roderick, *The People and the British Economy* (Oxford: Oxford University Press, 1997)
- Forty, Adrian, *Objects of Desire: Design and Society since 1750* (Thames and Hudson, 1986-1995)
- Gibson, Jeremy, and Colin Rogers, *Poor Law Union Records. 4, Gazetteer of England and Wales* (Birmingham: Federation of Family History Societies, c.1993)
- Giles, Judy, *The Parlour and the Suburb. Domestic Identities, Class, Femininity and Modernity* (Oxford: Berg, 2004)
- Gittins, Diana, *Fair Sex: Family Size and Structure, 1900-1939* (Hutchinson, 1982)

- Green, David *Working-Class Patients and the Medical Establishment: Self-Help in Britain from the Mid-Nineteenth Century to 1948* (Aldershot: Temple Smith/Gower, 1985)
- Green, Jonathon, *Cassell's Dictionary of Slang* (Cassell and Co, 1998, 2000)
- Habakkuk, John, *Population Growth and Economic Development since 1750* (Leicester: Leicester University Press, 1971)
- Higgs, Edward, *Life, Death and Statistics: Civil Registration, Censuses and the Work of the General Register Office, 1836-1952* (Hatfield: Local Population Studies, 2004)
- Himes, N. E., *A Medical History of Contraception* (Baltimore, New York: Gamut Press, 1936, 1963)
- Hinde, Andrew, *Demographic Methods* (Arnold, 1998)
- Hitchcock, Tim, and Robert Shoemaker, *Tales from the Hanging Court* (Hodder Education, 2006)
- Holdsworth, Peter, *Domes of Delight* (Bradford: Bradford Libraries and Information Services, 1989)
- Hopkins, Eric, *Working-Class Self-Help in Nineteenth-Century England* (UCL Press, 1995)
- Hudson, Patricia, *The West Riding Wool Textile Industry : A Catalogue of Business Records from the Sixteenth to the Twentieth Century* (Edington, Wilts.: Pasold Research Fund Ltd, 1975)
- Humphries, Jane, *Childhood and Child Labour in the British Industrial Revolution* (Cambridge: Cambridge University Press, 2010)
- Hunt, E H, *Regional Wage Variations in Britain, 1850-1914* (Oxford: Clarendon Press, 1973)
- Janssens, Angelique, ed., *Gendering the Fertility Decline in the Western World* (Bern: Peter Lang, 2007)
- Jenkins, David, and Kenneth Ponting, *The British Wool Textile Industry, 1770-1914* (Heinemann, 1982)
- Johnston, J. P., *A Hundred Years of Eating: Food, Drink and the Daily Diet in Britain since the Late Nineteenth Century* (Dublin: Gill & Macmillan, 1977)
- Jones, Eric, and Irene Rye, *Spotlight on the Silver Screen: A History of the Local Cinemas on the Far Northeast Coast of Yorkshire* (Loftus: Loftus Town Council, 1996)
- Joyce, Patrick, *Visions of the People: Industrial England and the Question of Class, 1848-1914* (Cambridge: Cambridge University Press, 1991)

Landry, Adolphe, *La Révolution Démographique'. Etudes Et Essais Sur La Problème De La Population* (Paris: INED, 1934, 1982)

Laslett, Peter, *Household and Family in Past Time: Comparative Studies in the Size and Structure of the Domestic Group over the Last Three Centuries* (Cambridge: Cambridge University Press, 1972)

Le Guillou, M, *A History of the River Tees* (Middlesbrough, 1978)

Lesthaeghe, Ron J., *The Decline of Belgian Fertility, 1800-1970* (Princeton: Princeton University Press, 1977)

Levine, David, *Reproducing Families: The Political Economy of English Population History* (Cambridge: Cambridge University Press, 1987)

Marland, Hilary, *Medicine and Society in Wakefield and Huddersfield, 1780-1870* (Cambridge: Cambridge University Press, 1987)

Marx, Karl, 'The Eighteenth Brumaire of Louis Bonaparte', (New York, 1852)

Mason, Michael, *The Making of Victorian Sexual Attitudes* (Oxford: Oxford University Press, 1994)

———, *The Making of Victorian Sexuality* (Oxford: Oxford University Press, 1994)

McKendrick, Neil, John Brewer, and J. H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Europa, 1982)

McLaren, Angus, *Birth Control in Nineteenth-Century England* (Croom Helm, 1978)

———, *A History of Contraception from Antiquity to the Present Day* (Oxford: Blackwell, 1990)

McLeod, Hugh, *Religion and the Working Class in Nineteenth-Century Britain* (Basingstoke: Macmillan, 1984)

Meacham, Standish, *A Life Apart: The English Working Class, 1890-1914* (Cambridge, Mass.: Harvard, 1977)

Miller, Daniel, *The Comfort of Things* (Cambridge: Polity, 2008)

Mills, Dennis, and Kevin Schürer, *Local Communities in the Victorian Census Enumeration Books* (Oxford: Leopard's Head Press, 1996)

Mitchell, B R, *British Historical Statistics* (Cambridge: Cambridge University Press, 1988)

Mitchison, Rosalind, *British Population Change since 1860, Studies in Economic and Social*

History (Economic History Society, 1977)

Newsplan: Yorkshire and Humberside Index to Local Newspapers by Place (Wakefield: Yorkshire and Humberside Newsplan Implementation Committee, 1996)

O'Connell, Sean, *Credit and Community: Working-Class Debt in the UK since 1880* (Oxford: Oxford University Press, 2009)

Parkes, Andrew, *Newsplan: Report of the Newsplan Project in Yorkshire and Humberside* (British Library, 1990)

Peel, John, and Malcolm Potts, *Textbook of Contraceptive Practice* (Cambridge: Cambridge University Press, 1969)

Reay, Barry, *Microhistories: Demography, Society and Culture in Rural England, 1800-1939* (Cambridge: Cambridge University Press, 1996)

Riley, James Sick, *Not Dead* (Baltimore: Johns Hopkins University Press, 1997)

Roberts, Elizabeth, *A Woman's Place: An Oral History of Working-Class Women, 1890-1940* (Oxford: Blackwell, 1996)

Rose, Jonathan, *The Intellectual Life of the British Working Classes* (New Haven: Yale University Press, 2001)

Rose, Sonya, *Limited Livelihoods: Gender and Class in Nineteenth-Century England* (Routledge, 1992)

Ross, Ellen, *Love and Toil: Motherhood in Outcast London, 1870-1918* (New York: Oxford University Press, 1993)

Scitovsky, Tibor, *The Joyless Economy* (Oxford: Oxford University Press, 1976, 1992)

Secombe, Wally, *Weathering the Storm. Working-Class Families from the Industrial Revolution to the Fertility Decline* (Verso, 1993)

Sewell Jr., William H., *Logics of History: Social Theory and Social Transformation* (Chicago: University of Chicago Press, 2005)

Short, Brian, *The Geography of England and Wales in 1910: An Evaluation of Lloyd George's 'Domesday' of Landownership* (Bristol: Historical Geography Research Group, 1989)

———, *Land and Society in Edwardian Britain* (Cambridge: Cambridge University Press, 1997)

Smelser, Neil J, *Social Paralysis and Social Change: British Working-Class Education in the Nineteenth Century* (Berkeley: University of California Press, 1991)

- Smith, Woodruff D, *Consumption and the Making of Respectability, 1600-1800* (Routledge, 2002)
- Stedman Jones, Gareth, *Languages of Class: Studies in English Working-Class History, 1832-1982* (Cambridge: Cambridge University Press, 1983)
- Stephenson, Paul, *Central Middlesbrough part two* (Middlesbrough: Middlesbrough Libraries and Information, 2003)
- Stone, Lawrence, *The Family, Sex and Marriage in England, 1500-1800* (Harmondsworth: Penguin Books, 1977-82)
- Szreter, Simon, *Fertility, Class and Gender in Britain, 1860-1940* (Cambridge: Cambridge University Press, 1996)
- Tebbutt, Melanie, *Making Ends Meet: Pawnbroking and Working-Class Credit* (Leicester: Leicester University Press, 1983)
- , *Women's Talk: A Social History of Gossip in Working-Class Neighbourhoods, 1880-1960* (Aldershot: Ashgate, 1995)
- Teitelbaum, Michael, *The British Fertility Decline: Demographic Transition in the Crucible of the Industrial Revolution* (Princeton: Princeton University Press, 1984)
- Thatcher, A.R., ed., *British Labour Statistics: Historical Abstract 1868-1968* (HMSO, 1971)
- Thompson, E. P., *The Making of the English Working Class* (Gollancz, 1963; Harmondsworth: Penguin, 1991)
- Thompson, Paul, *The Voice of the Past: Oral History* (Oxford: Oxford University Press, 1978)
- Tranter, Neil, *British Population in the Twentieth Century* (Basingstoke: Macmillan, 1996)
- Vincent, David, *Bread, Knowledge and Freedom: A Study of Nineteenth-Century Working-Class Autobiography* (Europa, 1981)
- Walton, John, *Fish and Chips and the British Working Class, 1870-1940* (Leicester: Leicester University Press, 1992)
- Winter, Jay, *The Great War and the British People* (Basingstoke: Macmillan, 1985)
- Woods, Bob, *Children Remembered: Responses to Untimely Death in the Past* (Liverpool: Liverpool University Press, 2006)
- Wrigley, Antony, and others, *English Population History from Family Reconstitution* (Cambridge: Cambridge University Press, 1997)

Wrigley, Antony, and Roger Schofield, *The Population History of England, 1541-1871* (Cambridge: Cambridge University Press, 1981)

Yasumoto, Minoru, *Industrialisation, Urbanisation and Demographic Change in England* (Nagoya: Nagoya University Press, 1994)

Articles and book sections:

Alter, George, 'Theories of Fertility Decline : A Nonspecialist's Guide to the Current Debate', in *The European Experience of Declining Fertility, 1850-1970: The Quiet Revolution*, ed. by John et al Gillis (Oxford: Blackwell, 1992), pp. 14-27

Anderson, Michael, 'The Social Implications of Demographic Change', in *The Cambridge Social History of Britain, 1750-1950*, ed. by F. M. L. Thompson (Cambridge: Cambridge University Press, 1990), pp. 1-71

———, 'What Can the Mid-Victorian Censuses Tell Us About Variations in Married Women's Employment?', *Local Population Studies*, 62 (1999), 9-30

Armstrong, Alan, 'The Use of Information About Occupation', in *Nineteenth-Century Society: Essays in the Use of Quantitative Methods for the Study of Social Data*, ed. by Antony Wrigley (Cambridge, 1972), pp. 192-210

Atkins, Peter, 'White Poison? The Social Consequences of Milk Consumption, 1850-1930', *Social History of Medicine*, 5, 2 (1992), 207-27

Bell, Frances, and Robert Millward, 'Public Health Expenditures and Mortality in England and Wales, 1870-1914', *Continuity and Change*, 13, 2 (1998), 221-49

Benería, Lourdes, 'Toward a Greater Integration of Gender in Economics', *World Development*, 23, 11 (1995), 1839-50

Blewett, Mary, 'Diversities of Class and Gender Experience and the Shaping of Labor Politics: Yorkshire's Manningham Mills Strike, 1890-91 and the Independent Labour Party', *Labor History*, 47, 4 (2006), 511-35

———, 'Yorkshire Lasses and Their Lads: Sexuality, Sexual Customs, and Gender Antagonisms in Anglo-American Working-Class Culture', *Journal of Social History*, 40, 2 (2006), 317-36

Bock, Gisela, 'Women's History and Gender History: Aspects of an International Debate', *Gender and History*, 1, 1 (1989), 11-15

Bourke, Joanna, 'Housewifery in Working-Class England, 1860-1914', *Past and Present*, 143 (1994), 167-197

- Bowden, Sue, Ronald Crawford, and Graham Sykes, 'The Public Supply of Gas in Leeds, 1818-1949', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), pp. 80-111
- Busfield, Deirdre, 'Job Definitions and Inequality: The 'Unskilled' Women Workers of the West Riding Textile Industry, 1850-1914', *Textile History*, 19, 1 (1988), 61-82
- Campbell, Bruce, 'Nature as Historical Protagonist: Environment and Society in Pre-Industrial England', *Economic History Review*, 63, 2 (2010), 281-314
- Carlsson, Gösta, 'The Decline of Fertility: Innovation or Adjustment Process', *Population Studies*, 20, 2 (1966), 149-74
- Carus, A W, and Sheilagh Ogilvie, 'Turning Qualitative into Quantitative Evidence: A Well-Used Method Made Explicit', *Economic History Review*, 62, 4 (2009), 893-925
- Counce, Stephen, and Katrina Honeyman, 'Introduction: The City of Leeds and Its Business 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), pp. 1-23
- Chase, Malcolm, 'The Implantation of Working-Class Organisation on Teesside, 1830-1874', *Het Tijdschrift Voor Sociale Geschiedenis*, 18, 2 (1992), 191-211
- Clark, Gregory, 'Shelter from the Storm: Housing and the Industrial Revolution, 1550-1909', *The Journal of Economic History*, 62, 2 (2002), 489-511
- Coale, Ansley, 'The Demographic Transition Reconsidered', in *International Population Conference*, ed. by International Union for the Scientific Study of Population (Liège: IUSSP, 1973)
- Collins, Michael, 'The History of the Leeds Permanent Building Society, 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), pp. 57-79
- Crafts, Nick, 'A Cross-Sectional Study of Legitimate Fertility in England and Wales, 1911', *Research in Economic History*, 9 (1984)
- , 'Duration of Marriage, Fertility and Female Employment Opportunities in England and Wales in 1911', in *Discussion paper series / University of Leeds, School of Economic Studies* (Leeds, 1988)
- Crafts, Nick, and Terence Mills, 'Trends in Real Wages in Britain, 1750-1913', *Explorations in Economic History*, 31 (1994), 176-94
- Davies, Katherine, 'Maternal Mismanagement or Environmental Factors? The High Rates of Infant Mortality in Middlesbrough, 1890-1913', *Cleveland History*, 62 (1992), 40-60

Dillon, T., 'The Irish in Leeds, 1851-1861', *Publications of the Thoresby Society*, LIV part 1, 119 (1974), 1-28

Doyle, Barry, 'Labour and Hospitals in Urban Yorkshire: Middlesbrough, Leeds and Sheffield, 1919-1938', *Social History of Medicine*, advance publication (2010)

Dyhouse, Carol, 'Good Wives and Little Mothers: Social Anxieties and the Schoolgirl's Curriculum, 1890-1920', *Oxford Review of Education*, 3, 1 (1977), 21-35

———, 'Working-Class Mothers and Infant Mortality in England, 1895-1914', *Journal of Social History*, 12 (1978), 248-67

Ellis, A. C. O., 'Influences on School Attendance in Victorian England', *British Journal of Educational Studies*, 21 (1973), 313-26

Fildes, Valerie, 'Infant Feeding Practices and Infant Mortality in England, 1900-1919', *Continuity and Change*, 13, 2 (1998), 251-80

Fine, Ben, 'Consumption for Historians: An Economist's Gaze', in *SOAS, Department of Economics, Working Paper Series* (London: SOAS, 2000)

Fisher, Kate, ''She Was Quite Satisfied with the Arrangements I Made': Gender and Birth Control in Britain, 1920-1950', *Past and Present*, 169 (2000), 161-93

Fisher, Kate, and Simon Szreter, ''They Prefer Withdrawal': The Choice of Birth Control in Britain, 1918-1950', *Journal of Interdisciplinary History*, 34, 2 (2003), 263-91

Garrett, Eilidh, 'Thinking of England and Taking Care: Family Building Strategies in England and Wales, 1891-1911', in *La Demografia Y La Historia De La Familia* (Murcia, 1997), pp. 63-83

———, 'Was Women's Work Bad for Babies? A View from the 1911 Census of England and Wales', *Continuity and Change*, 13, 2 (1998), 281-316

———, 'The Dawning of a New Era? Women's Work in England and Wales at the Turn of the Twentieth Century', in *Women's Work in Industrial England*, ed. by Nigel Goose (Hatfield: Local Population Studies Society, 2007)

Garrett, Eilidh, and Alice Reid, 'Satanic Mills, Pleasant Lands: Spatial Variation in Women's Work, Fertility and Infant Mortality as Viewed from the 1911 Census', *Historical Research*, 67 (1994), 156-77

Gazeley, Ian, 'The Cost of Living for Urban Workers in Victorian and Edwardian Britain', *Economic History Review*, 42 (1989), 207-21

Hajnal, John, 'Age at Marriage and Proportions Marrying', *Population Studies*, 7, 2 (1953), 111-

Hall, A. A., 'Wages, Earnings and Real Earnings in Teesside: A Reassessment of the Ameliorist Interpretation of Living Standards in Britain, 1870–1914', *International Review of Social History*, 26 (1981), 202-19

Higgs, Edward, 'The Tabulation of Occupations in the Nineteenth-Century Census, with Special Reference to Domestic Servants', in *Local Communities in the Victorian Census Enumerators' Books*, ed. by Dennis Mills and Kevin Schürer (Oxford: Leopard's Head Press, 1996), pp. 27-35

Hill, Bridget, 'Women, Work and the Census: A Problem for Historians of Women', *History Workshop Journal*, 35 (1993), 78-94

Hinde, Andrew, 'Household Structure, Marriage and the Institution of Service in Nineteenth-Century Rural England', in *Local Communities in the Victorian Census Enumeration Books*, ed. by Dennis Mills and Kevin Schürer (Oxford: Leopard's Head Press, 1996), pp. 317-26

Hitchcock, Tim, 'A New History from Below', *History Workshop Journal*, 57 (2004), 294-98

Hobsbawm, Eric, 'The Making of the Working-Class, 1870-1914', in *Worlds of Labour: Further Studies in the History of Labour*, ed. by Eric Hobsbawm (Weidenfeld & Nicolson, 1984), pp. 194-213

Honeyman, Katrina, 'Gender Division and Industrial Divide: The Case of the Leeds Clothing Trade, 1830-1970', *Textile History*, 28, 1 (1997), 47-66

———, "'Soapy Joe's": The History of Joseph Watson and Sons Ltd., 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), pp. 217-243

Horrell, Sara, and Jane Humphries, 'Women's Labour Force Participation and the Transition to the Male-Breadwinner Family, 1790-1865', *Economic History Review*, 48 (1995), 89-117

Humphries, Jane, "'Because They Are Too Menny...." Children, Mothers and Fertility Decline - the Evidence from Working-Class Autobiographies of the Eighteenth and Nineteenth Centuries', in *Gendering the Fertility Decline in the Western World*, ed. by Angelique Janssens (Bern: Peter Lang, 2007), pp. 113-50

Irwin, Sarah, 'Interdependencies, Values and the Reshaping of Difference: Gender and Generation at the Birth of Twentieth-Century Modernity', *British Journal of Sociology*, 54, 4 (2003), 565-84

Ittmann, Karl, 'Family Limitation and Family Economy in Bradford, West Yorkshire 1851-1881', *Journal of Social History*, 25, 3 (1992), 547-74

Johnson, Paul, and Stephen Nicholas, 'Male and Female Living Standards in England and Wales, 1812-1857: Evidence from Criminal Height Records', *Economic History Review*, 48 (1995), 470-

Jordan, Ellen, 'Female Unemployment in England and Wales, 1851-1911: An Examination of the Census Figures for 15-19-Year-Olds', *Social History*, 13, 2 (1988), 175-90

Jowitt, J A, 'The Retardation of Trade Unionism in the Yorkshire Worsteds Textile Industry', in *Employers and Labour in the English Textile Industries, 1850-1939*, ed. by J A Jowitt and Arthur McIvor (Routledge, 1988)

Joyce, Patrick, 'The End of Social History?', *Social History*, 20, 1 (1995), 73-91

Laslett, Peter, and John Harrison, 'Clayworth and Cogenhoe', in *Historical Essays Presented to David Ogg*, ed. by Henry Bell and Richard Ollard (Adam and Charles Black, 1963)

Laybourn, Keith, "'the Defence of the Bottom Dog": The ILP in Local Politics', in *Victorian Bradford: Essays in Honour of Jack Reynolds*, ed. by D. G. Wright and J A Jowitt (Bradford: City of Bradford, 1982)

McCloskey, Deirdre, 'Femmes Fiscales', *Times Higher Education Supplement*, 31 May 1996

McLaren, Angus 'Women's Work and Regulation of Family Size: The Question of Abortion in the Nineteenth Century', *History Workshop Journal*, 4 (1977), 70-81

Mitchell, Sally, 'Victorian Journalism in Plenty', *Victorian Literature and Culture*, 37 (2009), 311-21

Mokyr, Joel, 'Why "More Work for Mother"? Knowledge and Household Behaviour, 1870-1945', *Journal of Economic History*, 60 (2000), 1-41

Morgan, C. J., 'Demographic Change, 1771-1911', in *A History of Modern Leeds*, ed. by Derek Fraser (Manchester: Manchester University Press, 1980)

Morris, Bob, 'Whose Time and Whose Place? Searching for the History of Twentieth-Century Leeds', *Publications of the Thoresby Society, second series*, 18 (Miscellany) (2008), 1-17

Oddy, Derek, 'Food, Drink and Nutrition', in *The Cambridge Social History of Britain, 1750-1950*, ed. by F. M. L. Thompson (Cambridge: Cambridge University Press, 1990), pp. 251-78

———, 'Working-Class Diets in Late Nineteenth-Century Britain', *Economic History Review*, 23 (1970), 314-23

Peel, John, 'The Manufacture and Retailing of Contraceptives in England', *Population Studies*, 17, 2 (1963), 113-25

Pooley, Siân, 'Domestic Servants and Their Urban Employers: A Case Study of Lancaster, 1880-1914', *Economic History Review*, 62, 2 (2009), 405-29

- Rimmer, W. G., 'Occupation in Leeds, 1841-1951', *Publications of the Thoresby Society, L*, (Miscellany) (1968), 158-78
- Schiffman, Susan S., and others, 'Orosensory Perception of Dietary Fat', *Current Directions in Psychological Science*, 7, 5 (1998), 137-43
- Scott, Peter, 'Did Owner-Occupation Lead to Smaller Families for Interwar Working-Class Households?', *Economic History Review*, 61, 1 (2008), 99-124
- , 'Mr Drage, Mr Everyman, and the Creation of a Mass Market for Domestic Furniture in Interwar Britain', *Economic History Review*, 62, 4 (2009), 802-27
- Secombe, Wally, 'Starting to Stop: Working-Class Fertility Decline in Britain', *Past and Present*, 126, 1 (1990), 151-88
- Shepherd, Janet, 'Buckton, Catherine Mary (1826/7–1904)', in *Oxford Dictionary of National Biography* ed. by Colin Matthew and Brian Harrison (Oxford: Oxford University Press, 2004)
- Sigsworth, Eric, 'Bradford and Its Wool Industry under Victoria', *Bradford Textile Society Journal* (1952-53), 63-70
- Steedman, Carolyn, 'McMillan, Margaret (1860–1931)', in *Oxford Dictionary of National Biography* ed. by Colin Matthew and Brian Harrison (Oxford: Oxford University Press, 2004)
- Szreter, Simon, and Eilidh Garrett, 'Reproduction, Compositional Demography, and Economic Growth: Family Planning in England Long before the Fertility Decline', *Population & Development Review*, 26 1(2000), 45-80
- Szreter, Simon, Robert A. Nye, and Frans van Poppel, 'Fertility and Contraception During the Demographic Transition: Qualitative and Quantitative Approaches', *Journal of Interdisciplinary History*, 34, 2 (2003), 141–54
- Taylor, David, 'Melbourne, Middlesbrough and Morality: Policing Victorian "New Towns" in the Old World and the New', *Social History*, 31, 1 (2006), 15-38
- , 'The Infant Hercules and the Augean Stables: A Century of Economic and Social Development', in *Middlesbrough, Town and Community, 1830-1950*, ed. by Tony Pollard (Stroud: Sutton, 1996), pp. 55-80
- Thompson, Barbara, 'Public Provision and Private Neglect: Public Health', in *Victorian Bradford: Essays in Honour of Jack Reynolds*, ed. by D. G. Wright and J. A. Jowitt (Bradford: City of Bradford, 1982)
- Williamson, Margaret, '“Getting Off at Loftus”: Sex and the Working-Class Woman, 1920-1960', *Family and Community History*, 3, 1 (2000), 5-17

Woodhouse, T., 'The Working Class', in *A History of Modern Leeds*, ed. by Derek Fraser (Manchester: Manchester University Press, 1980)

Woods, Bob, 'Mortality Patterns in the Nineteenth Century', in *Urban Disease and Mortality in Nineteenth-Century England*, ed. by Woods and John Woodward (Frome: Batsford, 1984)

———, 'The Population of Britain in the Nineteenth Century', in *British Population History from the Black Death to the Present Day*, ed. by Michael Anderson (Cambridge: Cambridge University Press, 1996), pp. 287-342

Unpublished sources:

Alvin, Christine, 'Medical Treatment and Care in Nineteenth-Century Bradford', unpublished PhD thesis, University of Bradford, 1998

Chase, Malcolm, "'Enquire Within Upon Everything": R. K. Philp and the Democratisation of Knowledge', (Leeds: University of Leeds, School of History Discussion Papers, 2009)

Garrett, Eilidh, 'Before Their Time: Employment and Family Formation in a Northern Textile Town, Keighley, 1851-1881', unpublished PhD thesis, University of Sheffield, 1986

Honeyman, Katrina, 'The History of Joseph Watson and Sons Ltd.' Leeds University, typescript of a lecture given to the Thoresby Society, 1994

McIntosh, Tania, "'A Price Must Be Paid for Motherhood": The Experience of Maternity in Sheffield, 1879-1939', unpublished PhD thesis, University of Sheffield, 1997

Swinerton, Bronwen, 'The Health of the Working Class in Leeds and Bradford, 1900-1940', unpublished PhD thesis, University of Leeds, 1993

Watson, David, 'The Effect of the Growth of Middlesbrough on the Surrounding Rural Economy, 1830-1914', unpublished MPhil thesis, University of Leeds, 1993

Databases and Websites:

Alexander, Sally, 'Review: *A Woman's Place*, by Elizabeth Roberts', Institute of Historical Research, (1998) <www.history.ac.uk/reviews/paper/sally.html> [Accessed 17 December 2009]

Bradley, Kate, 'Review: *The Parlour and the Suburb. Domestic Identities, Class, Femininity and Modernity* by Judy Giles', Institute of Historical Research, (2005) <www.history.ac.uk/reviews/review/456> [Accessed 14 May 2010]

Hatton, Timothy, and Richard Martin, 'Fertility Decline and the Heights of Children in Britain,

1886-1938'2009) <ftp.iza.org/dp4306.pdf> [Accessed 22 September 2009]

Higginbotham, Peter, 'The Workhouse' <users.ox.ac.uk/~peter/workhouse/IS-Leeds/IS-Leeds.shtml#Post-1834> [Accessed 10 March 2010]

Hinde, Andrew, 'Review: *Microhistories: Demography, Society and Culture in Rural England, 1800-1939*, by Barry Reay ', Institute of Historical Research, (1997) <www.history.ac.uk/reviews/paper/reayrev.html> [Accessed 25 May 2009]

Leeds Library & Information Service, 'Leodis – a Photographic Archive of Leeds' <www.Leodis.Net> [Accessed 23 April 2010]

Mason, Michael, 'Review: *Fertility, Class, and Gender in Britain 1860–1940* by Simon Szreter', Institute of Historical Research, (1996) <www.history.ac.uk/reviews/review/5> [Accessed 20 July 2010]

Rugby League Website RL1908.com, <www.rl1908.com/rugby-league/zam-buk.htm> [Accessed 22 March 2010]

Shaw-Taylor, Leigh, and Antony Wrigley, 'Diverse Experiences: The Geography of Adult Female Employment in England and the 1851 Census' (n.d.) <www.geog.cam.ac.uk/research/projects/occupations/abstracts/paper12.pdf > [Accessed 3 December 2007]

UK Data Archive <www.data-archive.ac.uk> [accessed 25 January 2010] University of Essex Historical Censuses and Social Surveys Research Group, 'Census of England and Wales, 1881: Enumerators' Books (Digitised and Coded)' (2002) (dataset reference number SN4177). Documentation provided: Schürer, Kevin, and Mathew Woollard, 'National Sample from the 1881 Census of Great Britain 5% Random Sample, Working Documentation Version 1.1', (2002).

[1] Michael Anderson, 'The Social Implications of Demographic Change', in *The Cambridge Social History of Britain, 1750-1950*, ed. by F. M. L. Thompson (Cambridge: Cambridge University Press, 1990), pp. 1-71 (p. 39).

[2] Anderson, 'The Social Implications of Demographic Change', p.46.

[3] Timothy Hatton and Richard Martin, 'Fertility Decline and the Heights of Children in Britain, 1886-1938'2009) <http://ftp.iza.org/dp4306.pdf> [Accessed 22 September 2009] - located via New Economics Papers <http://nep.repec.org/>.

[4] Anderson, 'The Social Implications of Demographic Change', p.40.

[5] Jan De Vries, *The Industrious Revolution: Consumer Behaviour and the Household Economy from 1650 to the Present* (Cambridge: Cambridge UP, 2008).

[6] Bob Woods, 'The Population of Britain in the Nineteenth Century', in *British Population History from the Black Death to the Present Day*, ed. by Michael Anderson (Cambridge: Cambridge University Press, 1996), pp. 287-342. (p. 342).

[7] Simon Szreter, Robert A. Nye, and Frans van Poppel, 'Fertility and Contraception During the Demographic Transition: Qualitative and Quantitative Approaches', *Journal of Interdisciplinary History*, 34, 2 (2003), 141–54 (p. 142).

- [8] For simplicity, the three locations are referred to as ‘towns’ throughout the period. In fact, Leeds received the official status of a city in 1893, as did Bradford in 1897.
- [9] John Clapham, *The Bank of England* 2 vols: Vol. 2 (Cambridge: Cambridge University Press, 1944), p. 271.
- [10] A. W. Carus, and Sheilagh Ogilvie, ‘Turning Qualitative into Quantitative Evidence: A Well-Used Method Made Explicit’, *Economic History Review*, 62, 4 (2009), 893-925 (p.905).
- [11] Minoru Yasumoto, *Industrialisation, Urbanisation and Demographic Change in England* (Nagoya: Nagoya University Press, 1994).
- [12] Carus and Ogilvie, p.905.
- [13] Peter Laslett, and John Harrison, ‘Clayworth and Cogenhoe’, in *Historical Essays Presented to David Ogg*, ed. by Henry Bell and Richard Ollard (London: Adam and Charles Black, 1963). Place of publication of all books cited is London unless otherwise stated.
- [14] T. H. C. Stevenson, the principal author of the special report on fertility discussed below, came to dominate the contemporary debate on the fertility decline from his vantage point at the General Register Office: *Census of England and Wales, 1911: Vol. XIII: Fertility of Marriage, Part II* (HMSO, 1923).
- [15] Woods, ‘The Population of Britain in the Nineteenth Century’, p. 320.
- [16] John Habakkuk, *Population Growth and Economic Development since 1750* (Leicester: Leicester University Press, 1971), p. 53.
- [17] Michael Teitelbaum, *The British Fertility Decline: Demographic Transition in the Crucible of the Industrial Revolution* (Princeton: Princeton University Press, 1984), pp. 6, 10.
- [18] Antony Wrigley and Roger Schofield, *The Population History of England, 1541-1871* (Cambridge: Cambridge University Press, 1981), and Antony Wrigley and others, *English Population History from Family Reconstitution* (Cambridge: Cambridge University Press, 1997).
- [19] Habakkuk, p. 53.
- [20] Woods, ‘The Population of Britain in the Nineteenth Century’, p. 342; Roderick Floud, *The People and the British Economy* (Oxford: Oxford University Press, 1997), p. 46.
- [21] Teitelbaum, p. 11; Woods, ‘The Population of Britain in the Nineteenth Century’, p. 342; Simon Szreter, *Fertility, Class and Gender in Britain, 1860-1940* (Cambridge: Cambridge University Press, 1996).
- [22] Carus and Ogilvie, pp. 896-899.
- [23] _____, pp. 916-917.
- [24] Woods, ‘The Population of Britain in the Nineteenth Century’, p. 293.
- [25] Neil Tranter, *British Population in the Twentieth Century* (Basingstoke: Macmillan, 1996), pp. 86-93, tables 4.1 and 4.2.
- [26] Floud, *The People and the British Economy*, pp. 41-43; Teitelbaum, pp. 3-5.
- [27] Bob Woods, ‘Mortality Patterns in the Nineteenth Century’, in *Urban Disease and Mortality in Nineteenth-Century England*, ed. by Woods and John Woodward (Frome: Batsford, 1984), p. 39.
- [28] David Levine, *Reproducing Families: The Political Economy of English Population History* (Cambridge: Cambridge University Press, 1987), pp. 160-216.
- [29] Eric Hobsbawm, ‘The Making of the Working-Class, 1870-1914’, in *Worlds of Labour: Further Studies in the History of Labour*, ed. by Eric Hobsbawm (Weidenfeld & Nicolson, 1984), pp. 194-213; Standish Meacham, *A Life Apart: The English Working Class, 1890-1914* (Cambridge, Mass.: Harvard, 1977), pp. 116-155.
- [30] Wally Secombe, *Weathering the Storm. Working-Class Families from the Industrial Revolution to the Fertility Decline* (Verso, 1993).
- [31] Barry Reay, *Microhistories: Demography, Society and Culture in Rural England, 1800-1939* (Cambridge: Cambridge University Press, 1996); for a demographer’s reactions to Reay, see Andrew Hinde, ‘Review: *Microhistories: Demography, Society and Culture in Rural England, 1800-1939*, by Barry Reay’, Institute of Historical Research, (1997) <<http://www.history.ac.uk/reviews/paper/reayrev.html>> [Accessed 25 May 2009].
- [32] Reay, p. xxi.

- [33] Dennis Mills and Kevin Schürer, *Local Communities in the Victorian Census Enumeration Books* (Oxford Leopard's Head Press, 1996).
- [34] *Census of England and Wales, 1911: Vol. XIII: Fertility of Marriage*.
- [35] Szeleter, pp. 132-133.
- [36] Szeleter, pp. 67-282. Quotations here are from p. 180.
- [37] *Census of England and Wales, 1911: Vol. XIII: Fertility of Marriage, Part II*, pp. civ-cxxi.
- [38] N. E. Himes, *A Medical History of Contraception* (Baltimore, New York: Gamut Press, 1936, 1963), p. 390.
- [39] Szeleter, pp. 13-14, 17-18.
- [40] Joseph Banks, *Prosperity and Parenthood* (Routledge and Kegan Paul, 1954); Joseph Banks, and Olive Banks, *Feminism and Family Planning in Victorian England* (Liverpool: Liverpool University Press, 1965).
- [41] Szeleter, p. 364.
- [42] Michael Mason, 'Review: *Fertility, Class, and Gender in Britain 1860-1940* by Simon Szeleter', Institute of Historical Research, (1996) <www.history.ac.uk/reviews/review/5> [accessed 20 July 2010].
- [43] Szeleter, pp. 367-439.
- [44] Patrick Joyce, *Visions of the People: Industrial England and the Question of Class, 1848-1914* (Cambridge: Cambridge University Press, 1991), p. 17.
- [45] Szeleter, pp. 45, 65.
- [46] Angelique Janssens, ed., *Gendering the Fertility Decline in the Western World* (Bern: Peter Lang, 2007).
- [47] Carus and Ogilvie, p. 893.
- [48] Gösta Carlsson, 'The Decline of Fertility: Innovation or Adjustment Process', *Population Studies*, 20, 2 (1966), 149-74 (p. 149).
- [49] Peter Burke, *History and Social Theory* (Cambridge, 2005), p. 95.
- [50] William H. Sewell Jr., *Logics of History: Social Theory and Social Transformation* (Chicago: University of Chicago Press, 2005).
- [51] _____, pp. 18-20.
- [52] _____, pp. 136-144.
- [53] John Benson, *The Working Class in Britain, 1850-1939*, (Longman 1989). pp. 3-4.
- [54] Tim Hitchcock, 'A New History from Below', *History Workshop Journal*, 57 (2004), 294-98 (p.297).
- [55] Kathleen Callanan Martin, *Hard and Unreal Advice: Mothers, Social Science and the Victorian Poverty Experts* (Basingstoke: Palgrave Macmillan, 2008).
- [56] Mary Douglas, and Baron Isherwood, *The World of Goods: Towards an Anthropology of Consumption* 1996 edn (Routledge, 1979).
- [57] Joyce, *Visions of the People*; Gareth Stedman Jones, *Languages of Class: Studies in English Working Class History, 1832-1982* (Cambridge: Cambridge University Press, 1983).
- [58] Dougals and Isherwood, p. xiii.
- [59] Hitchcock, 'A New History from Below', p.295.
- [60] Anna Davin, *Growing up Poor : Home, School, and Street in London, 1870-1914* (Rivers Oram Press, 1996); Jane Humphries, '"Because They Are Too Menny...." Children, Mothers and Fertility Decline - the Evidence from Working-Class Autobiographies of the Eighteenth and Nineteenth Centuries', in *Gendering the Fertility Decline in the Western World*, ed. by Angelique Janssens (Bern: Peter Lang, 2007); Leonard Schwarz and Jeremy Boulton's Pauper Lives Project (<http://research.ncl.ac.uk/pauperlives/>, accessed 13 July 2008); and Tim Hitchcock and Robert Shoemaker, *Tales from the Hanging Court* (Hodder Education, 2006), which reports some of the findings of the major AHRC-funded Old Bailey Proceedings Online project <www.oldbaileyonline.org> [accessed 15 November 2008].
- [61] Patrick Joyce, 'The End of Social History?', *Social History*, 20, 1 (1995), 73-91.
- [62] E. P. Thompson, *The Making of the English Working Class*. Penguin, 1991 edn. (Gollancz, 1963), pp.

84-97.

[63] Sewell, particularly his chapter 4, 'A Theory of Structure', pp. 124-151.

[64] Ben Fine, 'Consumption for Historians: An Economist's Gaze', in *SOAS, Department of Economics, Working Paper Series* (SOAS, 2000); Ben Fine, Michael Heasman, and Judith Wright, *Consumption in the Age of Affluence: The World of Food* (Routledge, 1996); Ben Fine and Ellen Leopold, *The World of Consumption* (Routledge, 1993).

[65] Fine, 'Consumption for Historians: An Economist's Gaze', p. 10.

[66] Banks, *Prosperity and Parenthood*, Banks and Banks, *Feminism and Family Planning in Victorian England*; Diana Gittins, *Fair Sex: Family Size and Structure, 1900-1939* (Hutchinson, 1982); Elizabeth Roberts, *A Woman's Place: An Oral History of Working Class Women, 1890-1940* (Oxford: Blackwell, 1996).

[67] Sally Alexander, 'Review: *A Woman's Place*, by Elizabeth Roberts', Institute of Historical Research, (1998) <<http://www.history.ac.uk/reviews/paper/sally.html>> [Accessed 17 December 2009].

[68] Habakkuk, p.53.

[69] Ansley Coale, 'The Demographic Transition Reconsidered', in *International Population Conference*, ed. by International Union for the Scientific Study of Population (Liège: IUSSP, 1973), p. 65.

[70] Angus McLaren, *A History of Contraception from Antiquity to the Present Day* (Oxford: Blackwell, 1990), pp. 141-177; George Alter, 'Theories of Fertility Decline: A Nonspecialist's Guide to the Current Debate', in *The European Experience of Declining Fertility, 1850-1970: The Quiet Revolution*, ed. by John et al Gillis (Oxford: Blackwell, 1992), pp. 13-27 (p. 22).

[71] Hugh McLeod, *Religion and the Working Class in Nineteenth-Century Britain* (Basingstoke: Macmillan, 1984).

[72] Michael Mason, *The Making of Victorian Sexual Attitudes* (Oxford: OUP, 1994), p.128.

[73] _____, pp. 129-132.

[74] Richard Hoggart, *The Uses of Literacy* (Harmondsworth: Pelican, 1957-1960), pp. 91-92.

[75] Michael Mason, *The Making of Victorian Sexuality* (Oxford: OUP, 1994), pp. 32-34.

[76] Mason, *The Making of Victorian Sexual Attitudes*, pp. 125-126.

[77] _____, p. 123; the originals were published in *Social Science*, 1861, pp. 52, 66-67, 77-79, 143, 196. See also David Vincent, *Bread, Knowledge and Freedom: A Study of Nineteenth-Century Working Class Autobiography* (Europa, 1981), p. 42.

[78] Kate Fisher and Simon Szreter, 'They Prefer Withdrawal': The Choice of Birth Control in Britain, 1918-1950', *Journal of Interdisciplinary History*, 34, 2 (2003), 263-91 (p. 289); Kate Fisher, 'She Was Quite Satisfied with the Arrangements I Made': Gender and Birth Control in Britain, 1920-1950', *Past and Present*, 169 (2000), 161-93 (p.182). See also _____, *Birth Control, Sex and Marriage in Britain, 1918-1960* (Oxford: OUP, 2006), p. 77.

[79] Fisher, and Szreter, 'They Prefer Withdrawal': The Choice of Birth Control in Britain, 1918-1950', p. 276.

[80] BCL, *BHRU*, record A0067, p. 56.

[81] Rosalind Mitchison, *British Population Change since 1860, Studies in Economic and Social History* (Economic History Society, 1977), p. 33.

[82] See Szreter, pp. 398-424 for these surveys.

[83] LCL, *LE* 4 January 1890.

[84] Thackray Medical Museum, Resource Centre Catalogue. (Not available online.)

[85] John Peel, 'The Manufacture and Retailing of Contraceptives in England', *Population Studies*, 17, 2 (1963), 113-25. (For the cement process see p. 117).

[86] Tania McIntosh, '"A Price Must Be Paid for Motherhood": The Experience of Maternity in Sheffield, 1879-1939', unpublished PhD thesis, University of Sheffield, 1997, p. 29. John Peel and Malcolm Potts, *Textbook of Contraceptive Practice* (Cambridge: Cambridge University Press, 1969) list a range of nineteenth-century prices for contraceptive appliances, including rubber letters (sheaths) from two shillings per dozen to ten shillings depending on quality, p. 22.

[87] For innovation in condom manufacture, see Peel, 'The Manufacture and Retailing of Contraceptives in

- England'. On embarrassment, see Margaret Williamson, "'Getting Off at Loftus": Sex and the Working-Class Woman, 1920-1960', *Family and Community History*, 3, 1 (2000), 5-17 (p. 13).
- [88] Nick Crafts, 'A Cross-Sectional Study of Legitimate Fertility in England and Wales, 1911', *Research in Economic History*, 9 (1984); ———, 'Duration of Marriage, Fertility and Female Employment Opportunities in England and Wales in 1911', in *Discussion paper series / University of Leeds, School of Economic Studies* (Leeds, 1988).
- [89] Angus McLaren, *Birth Control in Nineteenth-Century England* (Croom Helm, 1978), ———, 'Women's Work and Regulation of Family Size: The Question of Abortion in the Nineteenth Century', *History Workshop Journal*, 4 (1977), 70-81 (p. 78).
- [90] Gittins, *Fair Sex: Family Size and Structure, 1900-1939*, pp. 160-164.
- [91] Szeleter, p. 431.
- [92] McIntosh, pp. 222-223.
- [93] MCL, MI614 *Annual Report of the Medical Officer of Health for the Year 1904*, p. 71.
- [94] Wally Seccombe, 'Starting to Stop: Working-Class Fertility Decline in Britain', *Past and Present*, 126, 1 (1990), 151-88 (p.178).
- [95] Cook, p. 121.
- [96] Williamson, p.13, Roberts, *A Woman's Place*, p. 95. Peel and Potts also found an East Riding version, 'getting off at Cottingham' (as opposed to continuing to Beverley), p. 49.
- [97] Peel and Potts, p.49.
- [98] Fisher and Szeleter, p. 270.
- [99] Szeleter, pp. 398-424.
- [100] Szeleter, chapter 8, pp. 367-439, Seccombe, 'Starting to Stop: Working-Class Fertility Decline in Britain'.
- [101] *Census of England and Wales, 1911: Vol. XIII: Fertility of Marriage*.
- [102] Szeleter, p. 368.
- [103] Landry, Adolphe, *La Révolution Démographique'. Etudes Et Essais Sur La Problème De La Population* (Paris: INED, 1934, 1982). I owe this reference to Szeleter, p. 368.
- [104] Simon Szeleter, and Eilidh Garrett, 'Reproduction, Compositional Demography, and Economic Growth: Family Planning in England Long before the Fertility Decline', *Population & Development Review*, 26 1(2000), 45-80 (p. 71).
- [105] Ellen Ross, *Love and Toil: Motherhood in Outcast London, 1870-1918* (New York: OUP, 1993), pp. 99-101.
- [106] Seccombe, pp. 173, 186-187.
- [107] Fisher, *Birth Control*, p. 137.
- [108] Cook, p. 121.
- [109] Ross, p.73.
- [110] Fisher, *Birth Control*, p. 239.
- [111] Fisher, 'She was quite satisfied', pp. 187-188.
- [112] Fisher, 'She was quite satisfied', p. 188.
- [113] Karl Marx, 'The Eighteenth Brumaire of Louis Bonaparte', (New York, 1852), p.1.
- [114] Benson, *the Working Class in Britain*; John Benson, *The Penny Capitalists: A Study of Nineteenth-Century Working-Class Entrepreneurs* (Dublin: Gill and Macmillan, 1983); John Burnett, David Vincent, and David Mayall, eds, *The Autobiography of the Working Class: An Annotated Critical Bibliography* (Brighton: Harvester, 1984, 1989); John Burnett, ed., *Destiny Obscure: Autobiographies of Childhood, Education and Family from the 1820s to the 1920s*, 1994); Anna Clark, *The Struggle for the Breeches. Gender and the Making of the British Working Class* (Berkeley: University of California Press, 1995); Eric Hopkins, *Working Class Self-Help in Nineteenth-Century England* (UCL Press, 1995); Meacham.
- [115] For a brief description of the Brunel archive and a link to its index, see <<http://www.brunel.ac.uk/life/study/library/resources/collection#Burnett>> [accessed 21 September 2009].
- [116] Matthew Arnold, *Culture and Anarchy: Essays in Political and Social Criticism* (Smith, Elder,

- 1869), pp. 104-105.
- [117] Humphries, “‘Because They are Too Menny”, p. 146.
- [118] Jonathan Rose, *The Intellectual Life of the British Working Classes* (New Haven: Yale University Press, 2001).
- [119] Hopkins, pp. 1-6 and throughout.
- [120] Melanie Tebbutt, *Women’s Talk: A Social History of Gossip in Working-Class Neighbourhoods, 1880-1960* (Aldershot: Ashgate, 1995).
- [121] Roberts, *A Woman’s Place*, p. 203, Meacham, pp. 195-200.
- [122] Tebbutt, *Women’s Talk*, pp. 82-83.
- [123] Sonya Rose, *Limited Livelihoods: Gender and Class in Nineteenth-Century England* (Routledge, 1992), p. 149.
- [124] Hopkins, p. 54.
- [125] Benjamin Seebohm Rowntree, *Poverty : A Study of Town Life* (Macmillan, 1901).
- [126] De Vries, chapter five.
- [127] De Vries, p. 189.
- [128] Nick Crafts, and Terence Mills, ‘Trends in Real Wages in Britain, 1750-1913’, *Explorations in Economic History*, 31 (1994), 176-94 (pp.180-182).
- [129] De Vries, pp. 199-205.
- [130] See in particular Gary Becker, *A Treatise on the Family* (Chicago: University of Chicago Press, 1981).
- [131] Judy Giles, *The Parlour and the Suburb. Domestic Identities, Class, Femininity and Modernity* (Oxford: Berg, 2004); see also Kate Bradley, ‘Review: *The Parlour and the Suburb. Domestic Identities, Class, Femininity and Modernity* by Judy Giles’, Institute of Historical Research, (2005) <<http://www.history.ac.uk/reviews/review/456>> [Accessed 14 May 2010].
- [132] Joanna Bourke, ‘Housewifery in Working-Class England, 1860-1914’, *Past and Present*, 143 (1994), 167-197.
- [133] De Vries, p. 23; Tibor Scitovsky, *The Joyless Economy* (Oxford: Oxford University Press, 1976, 1992).
- [134] De Vries, pp. 21-22; Woodruff D. Smith, *Consumption and the Making of Respectability, 1600-1800* (Routledge, 2002), p. 244.
- [135] Fine, ‘Consumption for Historians: An Economist’s Gaze’, p. 2.
- [136] Lourdes Benería, ‘Toward a Greater Integration of Gender in Economics’, *World Development*, 23, 11 (1995), 1839-50, pp. 1840-1841; for a pointed and effective critique of the ‘male’ perspective of Becker (and many other economists), see Deirdre McCloskey, ‘Femmes Fiscales’, *Times Higher Education Supplement*, 31 May 1996.
- [137] De Vries, pp. 231-237.
- [138] De Vries, pp. 210-237.
- [139] Szepter, p. 445; Humphries, “‘Because they are too Menny”, pp. 115-116.
- [140] Ross, p. 129.
- [141] Szepter, p. 446.
- [142] Burnett, *Destiny Obscure*, p. 270.
- [143] William Cudworth, *Worstedopolis: A Sketch History of the Town and Trade of Bradford, the Metropolis of the Worsted Industry* (Bradford: W. Byles and Sons, 1888).
- [144] *Census of England and Wales, 1861: Population Tables Volume II, Abstracts of Ages, Occupations and Birthplaces of People, Division IV to Division XI.*, Parliamentary Papers (1863), LIII, (hereafter ‘*Census, 1861*’) p. 680; Barbara Thompson, ‘Public Provision and Private Neglect: Public Health’, in *Victorian Bradford: Essays in Honour of Jack Reynolds*, ed. by D. G. Wright and J. A. Jowitt (Bradford: City of Bradford, 1982).
- [145] Keith Laybourn, “‘The Defence of the Bottom Dog’: The ILP in Local Politics’, in *Victorian Bradford: Essays in Honour of Jack Reynolds*; Carolyn Steedman, ‘McMillan, Margaret (1860–1931)’, in *Oxford Dictionary of National Biography* ed. by Colin Matthew and Brian Harrison (Oxford: Oxford

- University Press, 2004); Christine Alvin, 'Medical Treatment and Care in Nineteenth-Century Bradford', unpublished PhD thesis, University of Bradford, 1998, p. 196.
- [146] Alvin, p. 341.
- [147] Karl Ittmann, 'Family Limitation and Family Economy in Bradford, West Yorkshire 1851-1881', *Journal of Social History*, 25, 3 (1992), 547-74 (p. 550).
- [148] David Jenkins, and Kenneth Ponting, *The British Wool Textile Industry, 1770-1914* (Heinemann, 1982), p. 169.
- [149] Jenkins and Ponting, pp. 229-250.
- [150] Eric Sigsworth, 'Bradford and Its Wool Industry under Victoria', *Bradford Textile Society Journal* (1952-53), 63-70 (p. 67).
- [151] *Leeds Mercury (LM)*, 4 December 1883; Stephen Counce and Katrina Honeyman, 'Introduction: The City of Leeds and Its Business 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), p. 16.
- [152] LUL, Mary Gawthorpe, *Up Hill to Holloway* (Penobscot, Maine, 1962), pp. 10-26.
- [153] See T. Woodhouse, 'The Working Class', in *A History of Modern Leeds*, ed. by Derek Fraser (Manchester: Manchester University Press, 1980), p. 370, for the disputes between socialist and liberal-leaning unions in the 1890s.
- [154] *Census, 1861*, p. 681; *Census Returns of England and Wales, 1911: Vol. I. Administrative Areas*, Parliamentary Papers (1912-1913), CXI, (hereafter '*Census, 1911*') p. xxi.
- [155] David Taylor, 'The Infant Hercules and the Augean Stables: A Century of Economic and Social Development', in *Middlesbrough, Town and Community, 1830-1950*, ed. by Tony Pollard (Stroud: Sutton, 1996), pp.60-64; M. Le Guillou, *A History of the River Tees* (Middlesbrough, 1978), pp. 86-87; D. Dougan, *The History of Northeast Shipbuilding*, (Allen and Unwin, 1968), p. 121.
- [156] Taylor, 'Infant Hercules', p. 63; Dougan, p. 121.
- [157] Taylor, 'Infant Hercules', p. 68.
- [158] Dougan, p. 137.
- [159] Barry Doyle, 'Labour and Hospitals in Urban Yorkshire: Middlesbrough, Leeds and Sheffield, 1919-1938', *Social History of Medicine, advance publication* (2010), p. 5. I am grateful to the author for early access to this article, since made available at <<http://0-shm.oxfordjournals.org.wam.leeds.ac.uk/cgi/reprint/hkq007>> [accessed 6 May 2010].
- [160] E. G. Ravenstein, 'The Laws of Migration', *Journal of the Statistical Society of London*, 48, 2 (1885), 167-235 (p. 215).
- [161] Briggs, pp. 245-246.
- [162] David Taylor, 'Melbourne, Middlesbrough and Morality: Policing Victorian "New Towns" in the Old World and the New', *Social History*, 31, 1 (2006), 15-38, p. 18.
- [163] *Twenty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England*, Parliamentary Papers (1863), XIV, pp. i, 36; *Thirty-fourth annual report of the Registrar-General of births, deaths, and marriages in England*, Parliamentary Papers (1873), XX, pp. vii, ix, xv, 38; *Forty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England*. Parliamentary Papers (1883), XX, pp. vi, xv, 20, 22, 78, 82; *Fifty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England*, Parliamentary Papers (1892), XXIV, pp. v, viii, 50, 54; *Sixty-fourth annual report of the Registrar-General of Births, Deaths, and Marriages in England and Wales*, Parliamentary Papers (1902), XXVIII, pp. vi, xv, 50, 54; *Seventy-fourth annual report of the Registrar-General of births, deaths, and marriages in England and Wales*, Parliamentary Papers (1912-13), XIII, pp. vii, 148-149; and *Registrar-General's Statistical Review for 1921* (HMSO, 1923), Tables, Part II: Civil, p. 47.
- [164] Edward Higgs, *Life, Death and Statistics: Civil Registration, Censuses and the Work of the General Register Office, 1836-1952* (Hatfield: Local Population Studies, 2004), pp. 217-218.
- [165] Higgs, pp.165-185.
- [166] <<http://parlipapers.chadwyck.co.uk/marketing/index.jsp>>
- [167] Higgs, pp. 221-228.

- [168] For the high quality of late Victorian birth registration, see Teitelbaum, p. 69, and Woods, pp. 319-320.
- [169] Jay Winter, *The Great War and the British People* (Basingstoke: Macmillan, 1985), pp. 252-254.
- [170] *Registrar-General's Statistical Review for 1922* (HMSO, 1925), Tables, Part II: Civil, pp. 46-47; *Registrar-General's Statistical Review for 1923* (HMSO, 1925), Tables, Part II: Civil, pp. 46-47.
- [171] *Registrar-General's Statistical Review for 1921*, Text, p. 108.
- [172] The original table reads 6,885: a transcription error, since the sum of the breakdown of births given alongside that figure is 8,685.
- [173] Bob Morris, 'Whose Time and Whose Place? Searching for the History of Twentieth-Century Leeds', *Publications of the Thoresby Society, second series*, 18 (Miscellany) (2008), 1-17 (p. 3).
- [174] Alice Reid, Cambridge Group for the History of Population and Social Structure, personal communication 22 April 2010.
- [175] <<http://www.visionofbritain.org.uk/index.jsp>> [accessed on 9 March 2009].
- [176] *Thirty-ninth annual report of the Registrar-General of births, deaths, and marriages in England*, Parliamentary Papers, (1878), XXII, p. 39.
- [177] Jeremy Gibson, and Colin Rogers, *Poor Law Union Records. 4, Gazetteer of England and Wales* (Birmingham: Federation of Family History Societies, c.1993).
- [178] *Thirty-fourth annual report*, p. 79, gives the three SDs in Stockton RD: Sedgefield, Stockton, and Yarm.
- [179] *Seventy-fourth annual report of the Registrar-General of births, deaths, and marriages in England and Wales*, Parliamentary Papers (1912-13), XIII, pp. vii-viii.
- [180] *Registrar General of Births, Deaths and Marriages in England, Fifty-third annual report*, Parliamentary Papers (1890-91), XXIII, p. ix.
- [181] Eilidh Garrett, 'Before Their Time: Employment and Family Formation in a Northern Textile Town, Keighley, 1851-1881', unpublished PhD thesis, University of Sheffield, 1986, pp. 266-267.
- [182] *Fertility of Marriage*, pp. vi-vii, where the text of the questions is reproduced.
- [183] *Fertility of Marriage*, p. lxvi.
- [184] C. J. Morgan, 'Demographic Change, 1771-1911', in *A History of Modern Leeds*, ed. by Derek Fraser (Manchester: Manchester University Press, 1980), p. 49.
- [185] *Census of England and Wales, 1921, Yorkshire* (HMSO, 1923), (hereafter 'Census, 1921') p. 2.
- [186] *Census, 1871*, pp. 458, 490.
- [187] Florence Bell, *At the Works: A Study of a Manufacturing Town* (Virago, 1907, 1985), p.178.
- [188] *Census 1921*, p. 177.
- [189] University of Essex Historical Censuses and Social Surveys Research Group, *Census of England and Wales, 1881: Enumerators' Books (Digitised and Coded)*, (University of Essex Historical Censuses and Social Surveys Research Group: Colchester, 2002), dataset SN4177, available at <www.data-archive.ac.uk>. (Cited hereafter as 1881 CEBs.)
- [190] Hinde, *Demographic Methods*, p. 97.
- [191] 1881 CEBs. Dataset MIDOCFA2, variable 'kids'.
- [192] 1881 CEBs. Dataset BROCF2, variable 'kids'.
- [193] T. Dillon, 'The Irish in Leeds, 1851-1861', *Publications of the Thoresby Society*, LIV part 1, 119 (1974), 1-28 (p. 2).
- [194] Morgan, p. 62.
- [195] Ravenstein.
- [196] TA, U/S/27 Cochrane Papers, *Prelude* (TS) by Cochrane's grandson, 1953.
- [197] Malcolm Chase, 'The Implantation of Working Class Organisation on Teesside, 1830-1874', *Het Tijdschrift Voor Sociale Geschiedenis*, 18, 2 (1992), 191-211 (p.193).
- [198] Taylor, 'Melbourne, Middlesbrough', pp. 33-34.
- [199] Taylor, 'Melbourne, Middlesbrough', p. 33.
- [200] Census sources consulted here are:
Census, 1861, part II, table 18

Census, 1871, part I, table 17

Census of England and Wales, 1881: volume III: Ages, Conditions as to Marriage, Occupations and Birthplaces. Parliamentary Papers (1883), LXXX (hereafter '*Census, 1881*'), Division IX, table 10

Census Returns of England and Wales, 1901, giving details of Area, Houses and Population; also Population, classified by Ages, Conditions as to Marriage, Occupations, Birth-places, and Infirmities, in each county of York. Parliamentary Papers (1902), CXXI (hereafter '*Census, 1901*'), table 35

Census, 1911, table 13. The 1891 Census was not used due to reservations about the quality of its treatment of women's occupations, discussed here.

[201] Higgs, pp. 38, 80.

[202] Alan Armstrong, 'The Use of Information About Occupation', in *Nineteenth-Century Society: Essays in the Use of Quantitative Methods for the Study of Social Data*, ed. by Antony Wrigley (Cambridge, 1972), pp. 192-210, pp. 192-195.

[203] *Census, 1871*, p. 464.

[204] *Census, 1881*, p. 401.

[205] W. G. Rimmer, 'Occupation in Leeds, 1841-1951', *Publications of the Thoresby Society, L*, (Miscellany) (1968), 158-78 (pp. 159-160); Armstrong, pp. 201-209.

[206] *Census, 1911*, Table 25 (starting on page 524).

[207] Sara Horrell and Jane Humphries, 'Women's Labour Force Participation and the Transition to the Male-Breadwinner Family, 1790-1865', *Economic History Review*, 48 (1995), 89-117 (p. 90); Leigh Shaw-Taylor and Antony Wrigley, 'Diverse Experiences: The Geography of Adult Female Employment in England and the 1851 Census' (n.d.)

<www.geog.cam.ac.uk/research/projects/occupations/abstracts/paper12.pdf> [Accessed 3 December 2007], p. 7; Michael Anderson, 'What Can the Mid-Victorian Censuses Tell Us About Variations in Married Women's Employment?', *Local Population Studies*, 62 (1999), 9-30 (p. 10).

[208] Ellen Jordan, 'Female Unemployment in England and Wales, 1851-1911: An Examination of the Census Figures for 15-19-Year-Olds', *Social History*, 13, 2 (1988), 175-90 (pp.186-187).

[209] Edward Higgs, 'The Tabulation of Occupations in the Nineteenth-Century Census, with Special Reference to Domestic Servants', in *Local Communities in the Victorian Census Enumerators' Books*, ed. by Dennis Mills and Kevin Schürer (Oxford: Leopard's Head Press, 1996), pp. 27-35 (pp. 31 and 35).

[210] Eilidh Garrett, 'The Dawning of a New Era? Women's Work in England and Wales at the Turn of the Twentieth Century', in *Women's Work in Industrial England*, ed. by Nigel Goose (Hatfield: Local Population Studies Society, 2007), p. 358.

[211] Eilidh Garrett and Alice Reid, 'Satanic Mills, Pleasant Lands: Spatial Variation in Women's Work, Fertility and Infant Mortality as Viewed from the 1911 Census', *Historical Research*, 67 (1994), 156-77 (pp. 162,173).

[212] Bridget Hill, 'Women, Work and the Census: A Problem for Historians of Women', *History Workshop Journal*, 35 (1993), 78-94 (p. 82).

[213] Szreter, p. 312.

[214] Jordan, p. 180.

[215] Jordan, p. 185.

[216] Garrett, 'The Dawning of a New Era?', p. 358.

[217] For the restricting assumptions about women's skills and roles, see Deirdre Busfield, 'Job Definitions and Inequality: The 'Unskilled' Women Workers of the West Riding Textile Industry, 1850-1914', *Textile History*, 19, 1 (1988), 61-82.

[218] Katrina Honeyman, 'Gender Division and Industrial Divide: The Case of the Leeds Clothing Trade, 1830-1970', *Textile History*, 28, 1 (1997), 47-66, Duncan Bythell, *The Sweated Trades: Outwork in Nineteenth-Century Britain* (Guildford, 1978), pp. 65-80.

[219] Bythell, pp. 169-171 (though Bythell is mainly discussing rural outwork in the seventeenth and eighteenth centuries, and does not speculate whether high levels of outwork caused high fertility or vice versa).

[220] This was calculated by extracting the sets of all tailoresses, all female domestic servants, and all

- women, aged 15-30, from the Leeds 1881 CEBs. Each set was analysed by the variable “mar” and those with values of 2 (married), 3 (married, spouse absent) or 4 (widowed) were treated as married.
- [221] Middlesbrough Central Library, *North Eastern Daily Gazette (NEDG)*, Saturday editions 4 April 1900; 6 October 1900; 2 April 1910; 1 October 1910; 3 April 1920; 2 October 1920. For the use of this source, see chapter four.
- [222] Bell, p. 222.
- [223] Szreter, p. 554.
- [224] *Fertility of Marriage*, p. cxvii.
- [225] Eilidh Garrett, 'Was Women's Work Bad for Babies? A View from the 1911 Census of England and Wales', *Continuity and Change*, 13, 2 (1998), 281-316 (p. 312).
- [226] Brunel University, BAWCA, Elizabeth Rignall, *All So Long Ago* (TS, unpublished).
- [227] Gawthorpe, pp. 7-8, 54-55.
- [228] Wrigley, and Schofield, pp. 421-422.
- [229] ———, p. 438.
- [230] The main sources used were:
Returns of Wages Published between 1830 and 1886 (Industrial Workers in the UK), Parliamentary Papers (1887), LXXXIX
Labour Department of the Board of Trade, Annual Report; Abstract of Labour Statistics, 1893-94, Parliamentary Papers (1894), LXXX
Report of an enquiry by the Board of Trade into the Earnings and Hours of Labour of Workpeople in the UK. Textile Trades in 1906, Parliamentary Papers (1909), LXXX
Nineteenth Abstract of Labour Statistics of the UK, Parliamentary Papers (1928), XXV.
- [231] Teesside Archives (TA), U/S/27 Cochrane Papers, *TS Notes on the History of Cochranes (Mbro) Foundry Ltd*; TA, U/BSC/2/6/4 Ormesby Furnaces Foundry Register Book.
- [232] Patricia Hudson, *The West Riding Wool Textile Industry : A Catalogue of Business Records from the Sixteenth to the Twentieth Century* (Edington, Wilts: Pasold Research Fund Ltd, 1975).
- [233] For example in the *Report to the Board of Trade on the Sweating System in Leeds, by a Labour Correspondent (1888)*, Parliamentary Papers (1888), LXXXVI.
- [234] A.R. Thatcher, ed., *British Labour Statistics: Historical Abstract 1868-1968* (HMSO, 1971), pp. 7-8.
- [235] Particularly in the *Returns of Wages Published Between 1830 and 1886*.
- [236] *Earnings and Hours of Labour of Workpeople in 1906*.
- [237] Ittmann, p. 550.
- [238] Anthea Hall, 'Wages, Earnings and Real Earnings in Teesside: A Reassessment of the Ameliorist Interpretation of Living Standards in Britain, 1870–1914', *International Review of Social History*, 26 (1981), 202-19.
- [239] Hall, p. 209.
- [240] Doyle, p. 3.
- [241] *Seventh Annual Abstract of Labour Statistics, 1899-1900*, Parliamentary Papers (1901), LXXIII, pp. 82-83. (This document is mis-catalogued in the House of Commons Parliamentary Papers database as the Sixth abstract.)
- [242] BCL, *BHRU* record A0041; BCL, *BDT*, 14 January 1913.
- [243] BCL, *BDT*, 14 January 1913.
- [244] BCL, *BHRU* record A0041.
- [245] *Crafts and Mills*, pp. 180-182.
- [246] Schofield, p. 16.
- [247] *Crafts and Mills*, pp. 178-183.
- [248] *Crafts and Mills*, p. 183.
- [249] Thatcher, ed., *British Labour Statistics: Historical Abstract 1868-1968*.p. 11.
- [250] *Board of Trade Enquiry into Working Class Rents, Housing and Retail Prices*, Parliamentary Papers (1908), CVII, p. vii.
- [251] E. H. Hunt, *Regional Wage Variations in Britain, 1850-1914* (Oxford: Clarendon Press, 1973), p.

- 104; *British Labour Statistics*, 165 (footnote 2) and 166. Variations in rents are discussed in chapter four of the present study.
- [252] The cost of living indices for each year are given in the appendix to this chapter.
- [253] *Crafts and Mills*, pp. 180-182.
- [254] *Crafts and Mills*, 191-193.
- [255] J. A. Jowitt, 'The Retardation of Trade Unionism in the Yorkshire Worsted Textile Industry', in *Employers and Labour in the English Textile Industries, 1850-1939*, ed. by J. A. Jowitt and Arthur McIvor (Routledge, 1988), pp. 84-106; Mary Blewett, 'Diversities of Class and Gender Experience and the Shaping of Labor Politics: Yorkshire's Manningham Mills Strike, 1890-91 and the Independent Labour Party', *Labor History*, 47, 4 (2006), 511-35.
- [256] Honeyman, 'Gender Division and Industrial Divide', p. 59.
- [257] Margaret Llewelyn Davies, ed., *Maternity: Letters from Working Women* (Bell and Sons, 1915, 1978). See for example Llewelyn Davies' editorial comment on p. 14.
- [258] Clark, p. 255.
- [259] See www.data-archive.ac.uk, where this dataset has the reference number SN4177.
- [260] Kevin Schürer, personal communication.
- [261] SPSS, the Statistical Package for the Social Sciences (some 2009-2010 versions were called PASW, Predictive Analytics SoftWare), is a product of SPSS Inc., now owned by IBM. See <http://www.spss.com/>.
- [262] Kevin Schürer, and Mathew Woollard, *National Sample from the 1881 Census of Great Britain 5% Random Sample, Working Documentation Version 1.1* (2002), available with this dataset from the UK Data Archive website.
- [263] Peter Laslett, *Household and Family in Past Time: Comparative Studies in the Size and Structure of the Domestic Group over the Last Three Centuries* (Cambridge: Cambridge University Press, 1972). The Essex researchers describe the allocation of people to CFUs within a household in Schürer and Woollard, pp. 37-39. Alternatively, see Kevin Schürer, 'Family and Household Structure', in *Local Communities in the Victorian Census Enumeration Books*, ed. by Dennis Mills and Kevin Schürer (Oxford: Leopard's Head Press, 1996), pp. 280-297.
- [264] Andrew Hinde, 'Household Structure, Marriage and the Institution of Service in Nineteenth-Century Rural England', in *Local Communities in the Victorian Census Enumeration Books*, ed. by Dennis Mills and Kevin Schuerer (Oxford: Leopard's Head Press, 1996), pp. 317-26.
- [265] Andrew Hinde, *Demographic Methods* (Hodder, 1998, 2005), pp. 79-81.
- [266] John Hajnal, 'Age at Marriage and Proportions Marrying', *Population Studies*, 7, 2 (1953), 111-36 (pp. 129-130).
- [267] Hajnal, p.130.
- [268] *Census, 1881*, pp. 396, 398-399. The 1881 Census Report gave most of the necessary information, but not enough, as it collapsed the over-25s into ten-year bands, giving less accurate results.
- [269] *Crafts and Mills*.
- [270] Arthur Bowley, *Wages and Income in the Uk since 1860* (Cambridge: Cambridge University Press, 1937), pp. 118-126.
- [271] Ian Gazeley, 'The Cost of Living for Urban Workers in Victorian and Edwardian Britain', *Economic History Review*, 42 (1989), 207-21.
- [272] Bowley, p. 119.
- [273] Neil McKendrick, John Brewer, and J. H.Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Europa, 1982), chapter 10 and p. 168.
- [274] Andrew Parkes, *Newsplan: Report of the Newsplan Project in Yorkshire and Humberside* (British Library, 1990); *Newsplan: Yorkshire and Humberside Index to Local Newspapers by Place* (Wakefield: Yorkshire and Humberside Newsplan Implementation Committee, 1996).
- [275] *Nineteenth Century British Library Newspapers* <<http://find.galegroup.com/bncn/>> [accessed on 9 September 2009].
- [276] Frederick Spark, *Memories of My Life* (Leeds: Fred. R. Spark & Son, 1913), pp. vi, 160.
- [277] Bell, p. 144.

- [278] Sally Mitchell, 'Victorian Journalism in Plenty', *Victorian Literature and Culture*, 37 (2009), 311-21 (p. 317).
- [279] Paul Thompson, *The Voice of the Past: Oral History* (Oxford: OUP, 1978), pp. 5-7.
- [280] The discussion of oral history's merits is particularly clear in Fisher, *Birth Control, Sex and Marriage*, pp. 12-25.
- [281] Thompson, pp. 91-138.
- [282] For a brief description of the BAWCA archive and a link to its index, see <<http://www.brunel.ac.uk/life/study/library/resources/collection#Burnett>> [accessed 21 September 2009].
- [283] Joel Mokyr, 'Why "More Work for Mother"? Knowledge and Household Behaviour, 1870-1945', *Journal of Economic History*, 60 (2000), 1-41.
- [284] Robert Baker, 'On the Industrial and Sanitary Economy of the Borough of Leeds in 1858' reprinted from the *Journal of the Statistical Society of London* (December 1858), p. 8.
- [285] LCL, Catherine Buckton, *Two Winters' Experience in Giving Lectures to My Fellow Townswomen of the Working Classes on Physiology and Hygiene* (Leeds: William Wood, 1873); *Health in the House: Twenty-Five Lectures of Elementary Physiology...Delivered to the Wives and Children of Working-men in Leeds and Saltaire* (Longman, 1876); *Food and Home Cookery* (Longman, 1879) and *Our Dwellings, Healthy and Unhealthy: Addressed to Girls Attending the Leeds Board Schools* (Longman, Green and Co., 1885); TA, County Borough of Middlesbrough leaflet, 'Maternity and Child Welfare' U/PEN (2) 11/23.
- [286] Janet Shepherd, 'Buckton, Catherine Mary (1826/7-1904)', in *Oxford Dictionary of National Biography* ed. by Colin Matthew and Brian Harrison (Oxford: Oxford University Press 2004).
- [287] Buckton, *Food and Home Cookery*, p. 102.
- [288] Buckton, *Two Winters' Experience*, p. 6. See Robert Kemp Philp, *The Reason Why: Domestic Science: Affording Intelligible Reasons for the Various Duties Which a Housewife Has to Perform*. Fourteenth thousand, carefully revised and enlarged edn. (Houlston & Sons, 1869). 'The Reason Why' was a constant Philp catch-phrase.
- [289] TA, leaflet, 'Maternity and Child Welfare', p. 2.
- [290] _____, p. 8.
- [291] Buckton, *Two Winters' Experience*, p. 6-9.
- [292] Martin, 'Hard and Unreal Advice', has many examples of the didactic delivery of advice, such as Helen Bosanquet's 'slum doctor' in Shoreditch who 'knew' that since infant mortality was the result of inappropriate food, the answer had to be 'simple clear advice as to the proper way of feeding and treating babies', rather than (for example) better drains or family allowances, p. 142. The Webbs shared Bosanquet's admiration for this approach to giving advice, pp. 144-5.
- [293] Mrs Layton, 'Memories of Seventy Years', in *Life as We Have Known It, by Cooperative Working Women* ed. by Margaret Llewelyn Davies (Virago, 1977), p. 40.
- [294] TA, U/PEN(2) 11/22, Middlesbrough Maternity and Infant Welfare Central Committee, Third Annual Report, 31 March 1919, p. 23.
- [295] TA, leaflet, 'Maternity and Child Welfare', p. 2.
- [296] TA, U/PEN(2) 11/21, Welfare Central Committee, First Annual Report, 31 March 1917, pp. 1, 8-9, Third Annual Report, pp. 15.-17. The Middlesbrough Settlement, established in 1892 by the local Congregational church in Cannon Street, was a model of the paternalistic ironmaster philanthropy by then out of fashion on Teesside: Lady Bell opened the building in 1909, while donors included the Nancarrowes and the Steads, Mrs Stead becoming Treasurer. (Paul Stephenson, *Central Middlesbrough*. Vol. two (Middlesbrough: Middlesbrough Libraries and Information, 2003), pp. 10-12.
- [297] Buckton, *Our Dwellings*, p. viii-xi.
- [298] For example, in 1885 the twelfth edition of *Health in the House* was on sale for 2s. – see *Our Dwellings*, 1885 edition, back endpaper.
- [299] Catherine Buckton, *Health in the House* (Longman, Green and Co., 1876), p. 142.
- [300] Buckton, *Our Dwellings*, pp. 104.
- [301] Carol Dyhouse, 'Good Wives and Little Mothers: Social Anxieties and the Schoolgirl's Curriculum, 1890-1920', *Oxford Review of Education*, 3, 1 (1977), 21-35 (pp. 30-31).

- [302] For consultations with doctors see the Friendly Society evidence in James Riley, *Sick, Not Dead* (Baltimore: Johns Hopkins University Press, 1997), pp. 270-272; for soap, see section in this chapter.
- [303] Thatcher, ed., *British Labour Statistics: Historical Abstract 1868-1968*, p. 11.
- [304] Bowley, p. 114.
- [305] For an example from a Middlesbrough memoir, see Nancy Thompson, *At Their Departing: A Childhood Memoir* (Futura, 1987), pp. 157 and 167.
- [306] Buckton, *Two Winters' Experience*, p. 5.
- [307] Paul Johnson and Stephen Nicholas, 'Male and Female Living Standards in England and Wales, 1812-1857: Evidence from Criminal Height Records', *Economic History Review*, 48 (1995), 470-81. For Johnson and Nicholas, the 'hungry forties' were aptly named.
- [308] Llewelyn Davies, ed., p.76.
- [309] WYAS, BA, BHRU record A0098, p.54.
- [310] Llewelyn Davies, ed., pp. 18-19.
- [311] Derek Oddy, 'Working-Class Diets in Late Nineteenth-Century Britain', *Economic History Review*, 23 (1970), 314-23 (p. 322); J. P. Johnston, *A Hundred Years of Eating: Food, Drink and the Daily Diet in Britain since the Late Nineteenth Century* (Montreal, 1977), p. 13.
- [312] Llewelyn Davies, ed., p. 115.
- [313] Fine, Heasman, and Wright, pp. 94-96; Derek Oddy, 'Food, Drink and Nutrition', in *The Cambridge Social History of Britain, 1750-1950*, ed. by F. M. L. Thompson (Cambridge: Cambridge University Press, 1990), pp. 251-78.
- [314] BCL, BHRU, A0129; for diet trends generally see Oddy, 'Food, Drink and Nutrition'; Johnston, p. 8; Ross, p. 40.
- [315] Susan S. Schiffman and others, 'Orosensory Perception of Dietary Fat', *Current Directions in Psychological Science*, 7, 5 (1998), 137-43 (p. 137).
- [316] Ross, p. 40.
- [317] John Walton, *Fish and Chips and the British Working Class, 1870-1940* (Leicester: Leicester University Press, 1992).
- [318] AWN, 1 October 1920.
- [319] BCL, BHRU, A0045.
- [320] Taylor, 'Infant Hercules', p.68.
- [321] B. R. Mitchell, *British Historical Statistics* (Cambridge: Cambridge University Press, 1988) p. 738; Gazeley, p. 210.
- [322] Gazeley, pp. 212-214.
- [323] Mitchell, p. 738.
- [324] Elizabeth Roberts, *A Woman's Place*, pp. 142-166.
- [325] WYAS, BA, BHRU record A0105.
- [326] WYAS, BA, BHRU record A0001.
- [327] Roberts, *A Woman's Place*, pp. 142-166.
- [328] Walton, pp. 23-28.
- [329] Maggie Newbery, *Reminiscences of a Bradford Mill Girl* (Bradford, 1980), 25.
- [330] BCL, Bradford Heritage Recording Unit, A0024.
- [331] Bell, p. 226.
- [332] Bell, p. 56-57.
- [333] Taylor, 'The Infant Hercules and the Augean Stables: A Century of Economic and Social Development', pp. 67-68.
- [334] Valerie Fildes, *Breasts, Bottles and Babies: A History of Infant Feeding* (Edinburgh: Edinburgh University Press, 1986); Peter Atkins, 'White Poison? The Social Consequences of Milk Consumption, 1850-1930', *Social History of Medicine*, 5, 2 (1992), 207-27; Katherine Davies, 'Maternal Mismanagement or Environmental Factors? The High Rates of Infant Mortality in Middlesbrough, 1890-1913', *Cleveland History*, 62 (1992), 40-60; Valerie Fildes, 'Infant Feeding Practices and Infant Mortality in England, 1900-1919', *Continuity and Change*, 13, 2 (1998), 251-80.

- [335] Fildes, 'Infant Feeding Practices' p. 269.
- [336] LUL, *Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1919 by the Medical Officer of Health* (Leeds, 1919), 59.
- [337] WYAS, BA, 40D89, Minute-Books of the Bradford Medical-Chirurgical Society. The most relevant discussions are in February 1882 and March 1911.
- [338] *Annual Report, 1905*, p. 91; *Annual Report, 1906*, p. 51.
- [339] *Thirty-Ninth Annual Report of Local Government Board 1909-10: Supplement to the Report on Infant and Child Mortality*, Parliamentary Papers (1910), XXXIX, pp. 105 and 112.
- [340] Carol Dyhouse, 'Working Class Mothers and Infant Mortality in England, 1895-1914', *Journal of Social History*, 12 (1978), 248-67 (p. 257).
- [341] Llewelyn Davies, ed., pp. 19, 22 and 40.
- [342] Buckton, *Our Dwellings*, p. 104.
- [343] Brian Short, *The Geography of England and Wales in 1910: An Evaluation of Lloyd George's 'Domesday' of Landownership* (Bristol: Historical Geography Research Group, 1989), pp. 5-8.
- [344] Gregory Clark, 'Shelter from the Storm: Housing and the Industrial Revolution, 1550-1909', *The Journal of Economic History*, 62, 2 (2002), 489-511, p. 501.
- [345] Ross, p. 40.
- [346] For a discussion of this phenomenon in Middlesbrough, see Taylor, 'Infant Hercules', pp. 72-74.
- [347] WYAS, LA, Leeds Babies' Welcome Association Papers, folder on mother and child welfare, MS article *Prevention is Better than Cure* WYL 101/4/15, 4.
- [348] *LE*, 10 July 1880.
- [349] Bell, p. 67.
- [350] *Seventeenth Abstract of Labour Statistics of the United Kingdom*, Parliamentary Papers (1914-1916), LXI, p. 110.
- [351] BCL, *BHRU*, record A0145, p. 4.
- [352] *NWG*, 23 September 1905 (see below).
- [353] Hopkins, pp. 24, 40; Michael Collins, 'The History of the Leeds Permanent Building Society, 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), p. 59.
- [354] Collins, p. 62.
- [355] Clark, 'Shelter from the Storm: Housing and the Industrial Revolution, 1550-1909', p. 501. De Vries misinterprets this article when he cites it to suggest housing quality rose by 50%, a far rosier picture than Clark actually gives.
- [356] TA, *RM*, record 74, p. 8.
- [357] For example TA, CB/M/C 5/2/42 and 5/2/54: *County Borough Clerk's Department, reference volumes: posters Cholera and Typhoid Fever* (1893) and *Summer Diarrhoea* (1899).
- [358] Gawthorpe, pp. 5-16, 18.
- [359] The photograph was first identified as the Gawthorpe home by the present study. See Leeds Library & Information Service, Leodis – a Photographic Archive of Leeds <www.Leodis.Net> photograph no. 200362_69622439, [accessed on 5 November 2008].
- [360] BCL, *LBN* 25 May 1906.
- [361] Adrian Forty, *Objects of Desire: Design and Society since 1750* (Thames and Hudson, 1986-1995), p. 108.
- [362] Forty, p. 160.
- [363] Frances Bell and Robert Millward, 'Public Health Expenditures and Mortality in England and Wales, 1870-1914', *Continuity and Change*, 13, 2 (1998), 221-49.
- [364] Baker, pp. 7-8.
- [365] Buckton, *Two Winters' Experience*, p. 15.
- [366] Buckton, *Our Dwellings*, p. 84.
- [367] Buckton, *Health in the House*, preface to the sixth edition, p. xii.
- [368] For the contemporary link between infant mortality and sanitation, see almost any of the annual

- reports by boroughs' Medical Officers of Health, and even earlier medical commentaries, such as TA, U/S/446: *Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage and Supply of Water, and the Sanitary Condition of the Inhabitants of the Borough of Middlesbrough ... by W. Ranger, Esq.* (1854), for example pp. 27-28.
- [369] TA, CB/M/C 5/6/6.
- [370] TA, *Linthorpe Rate Books, 1871-1886*. Internal evidence that the street had only been built four years at the time of the petition also aided the dating.
- [371] Sue Bowden, Ronald Crawford, and Graham Sykes, 'The Public Supply of Gas in Leeds, 1818-1949', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), p. 85.
- [372] De Vries, p. 196.
- [373] WYAS, Bradford, Bell Collection DB16, case 19, p.17.
- [374] BCL, *BHRU*, record A0110, pp. 3-5.
- [375] BCL, *BHRU*, record W0006, p. 3.
- [376] BCL, *BHRU*, records A0129, A0145, A0163.
- [377] BCL, *BHRU*, record A0129, p. 2.
- [378] Bell, p. 3.
- [379] TA, *RM*, record 191, p. 8.
- [380] TA, *RM*, record 125, p. 15.
- [381] BAWCA, Joseph Armitage, *The Twenty-Three Years, or The Late Way of Life – And of Living*, TS (1974).
- [382] Armitage, pp. 4-23.
- [383] Eric Sigsworth, *A Respectable Life: Leeds in the 1930s* (Beverley: Highgate of Beverley, 1995), pp. 75-76.
- [384] The models of good and bad homes are described in Buckton, *Our Dwellings*, pp. 5-17; the quotation is from *Food and Home Cookery*, p. 102.
- [385] *NWG*, 23 September 1905.
- [386] Fine, Heasman and Wright, pp. 82-94.
- [387] Buckton, *Our Dwellings*, pp. 96-104, 113.
- [388] *DG*, 5 July 1890, *AWN*, 1 October 1920.
- [389] *DG*, 5 July 1890, *LBN*, 26 July 1895. A 'cottage house' meant simply a working-class house, usually in a terraced street.
- [390] *LE*, 4 January 1890.
- [391] Isobel Baylis, 'The Leeds Babies' Welcome Association: A Memoir', (Leeds, 1991), p. 7.
- [392] Buckton, *Our Dwellings*, p. 12.
- [393] De Vries, p. 196; Buckton, *Our Dwellings*, p. 91.
- [394] Cited by Carol Dyhouse, *Feminism and the Family in England, 1880-1939* (Oxford: Blackwell, 1989), pp. 186-187.
- [395] Peter Scott, 'Did Owner-Occupation Lead to Smaller Families for Interwar Working-Class Households?', *Economic History Review*, 61, 1 (2008), 99-124 (p. 99); ———, 'Mr Drage, Mr Everyman, and the Creation of a Mass Market for Domestic Furniture in Interwar Britain', *Economic History Review*, 62, 4 (2009), 802-27.
- [396] *LWE*, 4 January 1890.
- [397] WYAS, Leeds, Heaton's: letters from schoolchildren re gift-coats WYL 1088/6/12.
- [398] Melanie Tebbutt, *Making Ends Meet: Pawnbroking and Working Class Credit* (Leicester: Leicester University Press, 1983).
- [399] MCL, *Weekly Gazette (WG)* 22 September 1877
- [400] WYAS, LA, Leeds Babies' Welcome Association Papers, folder on mother and child welfare, MS notes on clothing clubs, c.1920 WYL 101/4/15.
- [401] Sean O'Connell, *Credit and Community: Working-Class Debt in the UK since 1880* (Oxford: Oxford University Press, 2009), pp. 56-59; Bell, p. 70.

- [402] TA, Recorded Memories (RM), 4, 199.
- [403] AWN, 6 April 1900.
- [404] LM, 21 January 1860; AWN, 5 December 1890.
- [405] Fine and Leopold, p. 134.
- [406] Baylis, p. 7.
- [407] Buckton, *Food and Home Cookery*, pp. 91-93.
- [408] BAWCA, Elizabeth Ranson MS (untitled), p. 23.
- [409] Buckton, *Food and Home Cookery*, pp. 92,93.
- [410] TA, Middlesbrough Maternity and Infant Welfare Central Committee, First Annual Report, U/PEN(2) 11/21, pp. 8-9.
- [411] LUL, *Annual Report made to the Urban Sanitary Authority of the City of Leeds for the Year 1912 by the Medical Officer of Health* (Leeds, 1912), 23.
- [412] De Vries, pp. 196-198.
- [413] Katrina Honeyman, 'Soapy Joe's': The History of Joseph Watson and Sons Ltd., 1893-1993', in *Leeds City Business*, ed. by John Chartres and Katrina Honeyman (Leeds: Leeds University Press, 1993), pp 219-20.
- [414] Bell and Millward, p. 226.
- [415] LCL, LWRE, 7 July 1860.
- [416] LCL, LWRE, 7 July 1860.
- [417] Honeyman, Katrina, 'The History of Joseph Watson and Sons Ltd.', Leeds University, typescript of a lecture delivered to the Thoresby Society, 1994.
- [418] _____.
- [419] See Leeds Library & Information Service, Leodis – a Photographic Archive of Leeds <www.Leodis.Net> for examples, such as photographs nos. 007531_163746, 2002319_90809268, and 200373_34370059, which show soap advertisements on walls, on trams and in shop windows.
- [420] Honeyman, 'The History of Joseph Watson and Sons Ltd.' p. 15.
- [421] MCL, *Northeastern Weekly Gazette (WG)*, 19 September 1885; WG, 21 September 1895.
- [422] Buckton, *Health in the House*, p. 7.
- [423] BDT, 5 April 1890.
- [424] Armitage, p. 23.
- [425] Gawthorpe, p. 14.
- [426] LCL, *Leeds Weekly Express*, 4 January 1890.
- [427] See Fisher, 'She was quite satisfied', p. 188, for this strategy.
- [428] TA, Recorded Memories 192, p12.
- [429] Bell, pp. 182-190.
- [430] Bell, pp. 183, 189-190.
- [431] Rignall, pp. 42-57; Burnett, ed., *Destiny Obscure*, p. 224.
- [432] WG, 22 September 1877; 3 dentists' advertisements on front page of AWN, 1 April 1910.
- [433] LBN, 25 May 1906.
- [434] Riley, pp 98-99.
- [435] Riley, p. 99.
- [436] Riley, pp. 47-50.
- [437] Riley, p. 61.
- [438] Hilary Marland, *Medicine and Society in Wakefield and Huddersfield, 1780-1870* (Cambridge: Cambridge University Press, 1987), especially chapter six on 'fringe medical practice'.
- [439] Llewelyn Davies, ed., p. 66.
- [440] Riley, pp. 75-90.
- [441] David Green, *Working Class Patients and the Medical Establishment: Self-Help in Britain from the Mid-Nineteenth Century to 1948* (Aldershot: Temple Smith/Gower, 1985).
- [442] Bronwen Swinnerton, 'The Health of the Working Class in Leeds and Bradford, 1900-1940', unpublished PhD thesis, University of Leeds, 1993.

- [443] Riley, p. 61; for the number of families in Bradford, see table four in appendix one to chapter three.
- [444] Rate given in *BDT*, 14 January 1912; for the comment see Llewelyn Davies, ed., p. 56.
- [445] Llewelyn Davies, ed., p. 19.
- [446] Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994), chapter eight.
- [447] Llewelyn Davies, ed., p. 76.
- [448] Llewelyn Davies, ed., p. 115.
- [449] Peter Holdsworth, *Domes of Delight* (Bradford: Bradford Libraries and Information Services, 1989), pp. 6-7.
- [450] Robert Carson, *A Short History of Middlesbrough* (Redcar: A. A. Sotheran, 1977), p. 37.
- [451] *LE*, 17 July 1880.
- [452] *LE*, 4 January 1890.
- [453] *BDT*, 3 April 1920.
- [454] *AWN*, 2 January 1920, 1 April 1920, 2 July 1920.
- [455] Eric Jones, and Irene Rye, *Spotlight on the Silver Screen: A History of the Local Cinemas on the Far Northeast Coast of Yorkshire* (Loftus: Loftus Town Council, 1996).
- [456] BCL, BHRU, A0163, p. 4.
- [457] *LBN*, 25 May 1906.
- [458] *MWN*, 7 July 1860.
- [459] *LWRE*, 7 July 1860.
- [460] *LE*, 5 July 1890.
- [461] *LE*, 24 July 1880; *LE* 10 July 1880; *LBN*, 31 May 1901; *LE* 4 January 1890.
- [462] *LE*, 3 July 1880; 10 July 1880; 17 July 1880.
- [463] *AWN*, 1 April 1920.
- [464] *BDT*, 3 April 1920.
- [465] *NEDG*, 3 April 1920.
- [466] De Vries, p. 234.
- [467] Douglas, and Isherwood, pp. 123-6; Norman Dennis, Fernando Henriques, and Clifford Slaughter, *Coal Is Our Life: An Analysis of a Yorkshire Mining Community* (Eyre & Spottiswoode, 1956).
- [468] Taylor, 'Melbourne, Middlesbrough', p. 33.
- [469] Bell, pp. 246-272.
- [470] TA, RM, record 74.
- [471] Bell, pp. 145-162, example on p. 153.
- [472] BCL, BHRU, records A0110 and A0129.
- [473] BCL, BHRU, record A0110, pp. 3, 11.
- [474] BCL, BHRU, record A0129, pp. 2, 11, 16b, 23.
- [475] LCL, *Leeds Evening Express (LEE)*, 3 July 1880.
- [476] *LM*, 29 October 1889.
- [477] LCL, *LWE*, 1 and 4 January 1890.
- [478] *LBN*, 26 May 1911.
- [479] Llewelyn Davies, ed.
- [480] Llewelyn Davies, ed. p. 89.
- [481] Llewelyn Davies, ed., p. 100. Further references to aspirations about living standards occur for example on pp. 108, 112, and 115.
- [482] See footnote 113 above.
- [483] BCL, BHRU A0067, 57.
- [484] BCL, BHRU A0098, 17, 75.
- [485] Llewelyn Davies, ed., pp. 100, 115.
- [486] For example, Llewelyn Davies, ed., p. 115.
- [487] Szreter, pp. 556-558.
- [488] Roberts, *A Woman's Place*, p. 142.

- [489] Ross, p. 25.
- [490] *LWRE*, 6 October 1860.
- [491] *MWN*, 14 January 1860; 14 April 1860; Miriam Flint and others, *Cannon Street: Lest We Forget* (Middlesbrough, 1993), p. 26-28.
- [492] *LEE*, 12 January 1870.
- [493] Neil J. Smelser, *Social Paralysis and Social Change: British Working Class Education in the Nineteenth Century* (Berkeley: University of California Press, 1991), p. 293.
- [494] Joanna Bourke, *Working Class Cultures in Britain, 1890-1960* (Routledge, 1994), p.117.
- [495] A. C. O. Ellis, 'Influences on School Attendance in Victorian England', *British Journal of Educational Studies*, 21 (1973), 313-26 (p. 314).
- [496] Bourke, *Working-Class Cultures*, p. 17.
- [497] Ellis, p. 315.
- [498] Caldwell.
- [499] Bourke, *Working-Class Cultures*, 116.
- [500] Bourke, *Working-Class Cultures*, 116-117.
- [501] TA, *RM*, records 398, 80, 129, 26.
- [502] BCL, *BHRU*, record W0006, pp. 3-10; TA, *RM*, record 397.
- [503] MCL, *NEWG*, 21 September 1895.
- [504] TA, *RM*, record 125, p.9.
- [505] LCL, *LEE*, 5 July 1890.
- [506] See the relevant page at the workhouse.org.uk website, Peter Higginbotham, 'The Workhouse' <<http://users.ox.ac.uk/~peter/workhouse/IS-Leeds/IS-Leeds.shtml#Post-1834>> [Accessed 10 March 2010].
- [507] LCL *AWN* 5 October 1900.
- [508] LCL, *AWN*, 7 October 1910; seventeen more cases were also reported in this edition.
- [509] LCL, *AWN*, 1 April 1920.
- [510] BCL, *BDT*, 2 April 1910.
- [511] BCL, *BHRU*, record A0137, p. 3.
- [512] LCL, *LWE*, 8 January 1870.
- [513] MCL, *NEWG*, 21 September 1895.
- [514] BCL, *LBN*, 29 November 1901.
- [515] For the overriding priority of protecting the family from disasters which would bring separation, see for example Robert Kemp Philp, *The Practical Housewife: Forming a Complete Encyclopædia of Domestic Economy and Family Medical Guide*. New edition, revised and greatly enlarged edn. (Houlston and Wright, 1860), p. vii; Gawthorpe, p. 8, and in the secondary literature, for example Roberts, *A Woman's Place*, p. 203.
- [516] BCL, *BDT* 1 October 1910.
- [517] WYAS, LA, Heaton's: letters from schoolchildren re gift-coats WYL 1088/6/12.
- [518] _____.
- [519] LCL, *LM*, 21 January 1860.
- [520] LCL, *AWN*, 6 April 1900, 5 October 1900.
- [521] LCL, *AWN*, 1 April 1910.
- [522] LCL, *AWN*, 3 January 1919.
- [523] LCL, *AWN*, 2 January and 2 July 1920.
- [524] Bell, p. 69-70.
- [525] Tebbutt, *Making Ends Meet*.
- [526] LCL, *AWN*, 5 October 1900.
- [527] WYAS, LA, WYL 1088/6/12.
- [528] WYAS, LA, WYL 1088/6/12.
- [529] Alvin, pp. 199-200.
- [530] For typical examples, see, for Bradford, WYAS BA BB2/8, *Annual Report of the Sanitary Committee for 1894*, p. 48, for Leeds, LUL, *Annual Report made to the Urban Sanitary Authority of the*

- Borough of Leeds for the Year 1906*, p. 49, and for Middlesbrough, MCL MI614 *Annual Report of the Medical Officer of Health for the Year 1901*, p. 18.
- [531] NEWG, 21 September 1895.
- [532] MCL, NWG, 23 September 1905.
- [533] BL, *Home Chat*, 1910. For the origins of Zam-Buk, see Sean Fagan, 'Tracking Down the Zam-Buk' at 'Rugby League Website RL1908.Com', <<http://www.rl1908.com/rugby-league/zam-buk.htm>> [Accessed 22 March 2010].
- [534] See NEWG, 19 September 1885, 21 September 1895 for examples of such soap advertisements.
- [535] MCL, NEDG, 1 October 1910.
- [536] BCL, BHRU, record A0067, p.11.
- [537] Alter, pp. 23-24.
- [538] BCL, BHRU, record A0129, p.14.
- [539] Jonathon Green, *Cassell's Dictionary of Slang* (Cassell and Co, 1998, 2000), p. 668.
- [540] Jane Humphries, *Childhood and Child Labour in the British Industrial Revolution* (Cambridge: Cambridge University Press, 2010), p. 236.
- [541] Garrett, 'The Dawning of a New Era?', p. 358.
- [542] *Report of an enquiry by the Board of Trade into the Earnings and Hours of Labour of Workpeople in the United Kingdom. Textile Trades in 1906*, Parliamentary Papers (1909), LXXX.
- [543] BCL, BHRU, record A0069, pp. 15-16.
- [544] For boys starting factory work at fourteen, see for example TA, RM records 80 and 398, and LWRE, 7 January 1860; LEE 23 July 1870.
- [545] BAWCA, *Ellen Gill's Diary* (TS), p. 2.
- [546] TA, RM, record 199.
- [547] Gawthorpe, pp. 7-9.
- [548] TA, RM, records 5W, 23.
- [549] Siân Pooley, 'Domestic Servants and Their Urban Employers: A Case Study of Lancaster, 1880-1914', *Economic History Review*, 62, 2 (2009), 405-29, pp. 418-419.
- [550] TA, RM, record 129.
- [551] TA, RM, record 129.
- [552] LCL, LM, 7 January 1860; 6 October 1860 (reporting a Bradford case).
- [553] BCL, BHRU, record A0024.
- [554] Rose, introduction.
- [555] Baker, p. 8.
- [556] LM, 17 November 1879.
- [557] WYAS, BA, Bell Collection of medical press cuttings, deed box 16, case 19.
- [558] LCL, AWN, 5 October 1910.
- [559] Ross, p. 25.
- [560] Hatton and Martin argue that between 1906 and 1938 rising household income and falling family size account for nearly half of the increase in heights, and much of this effect is due to family size.
- [561] Lawrence Stone, *The Family, Sex and Marriage in England, 1500-1800* (Harmondsworth: Penguin Books, 1977-82).
- [562] Burnett, *Destiny Obscure*, pp. 234-248, 267-268; Anderson, 'Social Implications of Demographic Change', p. 40.
- [563] Burnett, *Destiny Obscure*, p. 270.
- [564] _____, p. 267-68.
- [565] _____, p. 240.
- [566] Clark, p. 255.
- [567] Humphries, "'Because they are too Menny'", p. 133.
- [568] _____, pp. 144, 132.
- [569] Bob Woods, *Children Remembered: Responses to Untimely Death in the Past* (Liverpool: Liverpool University Press, 2006) is a good introduction to this debate.

- [570] MCL, *MWN*, 7 July 1860.
- [571] LCL, *LWRE*, 6 October 1860.
- [572] Charles Turner Thackrah, *The effects of arts, trades and professions, and of civic states and habits of living, on health and longevity*, second edn (Longman, 1832; Edinburgh: Livingstone, 1957).
- [573] Buckton, *Two Winters' Experience*, pp. 12-13; Shepherd.
- [574] Buckton, *Health in the House*, p. xi.
- [575] _____ .
- [576] Buckton, *Two Winters' Experience*, p. 13.
- [577] Steedman.
- [578] BCL, *BDT*, 5 July 1890.
- [579] LCL *LWE*, 5 July 1890.
- [580] TA, *RM*, record 125, p.16.
- [581] See BCL, *BHRU* records A0145 and A0163; BCL, Newbery, p.25; BAWCA, Mary Denison, *Church Bells and Tram Cars: A Vicarage Childhood* (TS), p.49, and in the same archive Ellen Gill, *Ellen Gill's Diary* (TS), p.3; TA, *RM*, records 60 and 125.
- [582] BAWCA, Gill, p.3.
- [583] TA, *RM*, record 60.
- [584] LCL, *LE*, 4 January 1890; MCL, *NWG*, 23 September 1905.
- [585] BCL, *BDT*, 1 October 1910.
- [586] MCL, *MWN*, 6 October 1860; *NEDG*, 3 July 1920.
- [587] BCL, *BDT*, 7 April 1900.
- [588] LCL, *LBN*, 26 May 1911.
- [589] York Minster Library, Dr J. H. Bridges, *Health, with Remarks on the Death-rate of Bradford and Other Towns: a Lecture Delivered in the Theatre of the Mechanics' Institute, Bradford, November 17th 1862* (Reprinted from the *Bradford Review*), p. 31.
- [590] York Minster Library, William H. Hudson, *The Health of Bradford. A Paper read in the Public Health Section of the National Association for the Promotion of Social Science at the Bradford meeting, October 1859, on the State of the Public Health of the Borough of Bradford and on some of the Causes which have Influenced its Condition*, p. 15.
- [591] WYAS, BA, 40D89, *Minute-books of the Bradford Medico-Chirurgical Society* (1874-1907).
- [592] *Report on the Health and Sanitary Conditions of the City for the Year 1914* (Leeds, 1915), pp. 42-43.
- [593] TA, U/PEN(2) 11/22, *Middlesbrough Maternity and Infant Welfare Central Committee, Third Annual Report (1919)*; BCL, *BDT*, 3 January 1920.
- [594] TA, U/PEN(2) 11/21, *Middlesbrough Maternity and Infant Welfare Central Committee, First Annual Report (1917)*.
- [595] LCL, *LE* 4 January 1890.
- [596] MCL, *NEDG*, 5 July 1890.
- [597] LCL, *LE*, 5 July 1890.
- [598] MCL, *NEDG*, 5 July 1890.
- [599] LCL, *LEE*, 29 January 1870.
- [600] LCL, *AWN*, 6 April 1900.
- [601] BCL, *BDT*, 4 October 1890.
- [602] BCL, *LBN*, 26 May 1911.
- [603] Armitage, p. 16. For newspaper reports, see for example *LBN* 26 May 1911, *NEDG* 3 April 1920.
- [604] Humphries, "Because they are Too Menny", p. 133.
- [605] LCL, *LEE*, 16 July 1870.
- [606] Szreter, p. 520.
- [607] Robert Roberts, *The Classic Slum: Salford Life in the First Quarter of the Century* (Harmondsworth: Pelican, 1971, 1977), p. 45.
- [608] LCL, *LWE*, 5 July 1890.
- [609] LCL, *AWN*, 5 December 1890.

- [610] MCL, *NEWG*, 21 September 1895.
- [611] LCL, *LEE* 4 January 1890.
- [612] Szreter, p. 520.
- [613] BCL, *BDT*, 5 July 1890.
- [614] LCL, *LE*, 4 January 1890.
- [615] Further examples include, from Bradford *BDT*, 5 July 1890; from Leeds *LEE*, 16 July 1870, *LE*, 4 January 1890 and from Middlesbrough *NEDG*, 5 July 1890.
- [616] MCL, *DG*, 7 January 1870.
- [617] MCL, *NEDG*, 5 April 1890.
- [618] *LE*, 17 July 1880.
- [619] LCL, *AWN*, 2 July 1920.
- [620] *AWN*, 1 April 1920.
- [621] *AWN*, 2 July 1920.
- [622] *MWN*, 7 July 1860.
- [623] *RM*, records 5W (male) and 26 (female).
- [624] TA, *RM*, record 191, p. 11.
- [625] _____, p. 13.
- [626] *RM*, records 114, 129.
- [627] Gawthorpe, pp. 7, 54-55.
- [628] Mary Blewett, 'Yorkshire Lasses and Their Lads: Sexuality, Sexual Customs, and Gender Antagonisms in Anglo-American Working-Class Culture', *Journal of Social History*, 40, 2 (2006), 317-36 (pp. 327-328).
- [629] LCL, *Yorkshire Evening Post*, 1 October 1890.
- [630] Tebbutt, *Women's Talk*.
- [631] Roberts, *A Woman's Place*, p. 118.
- [632] Bell, *At the Works*, p. 182.
- [633] Bell, pp. 47-84.
- [634] TA, *RM*, 55W.
- [635] Bell, p. 78.
- [636] TA, *RM*, 8.
- [637] TA, *RM*, record 191, pp. 1,10,11.
- [638] *BHRU*, record A0129, p.14.
- [639] MCL, *NEDG*, 4 January 1890.
- [640] Bell, pp. 178-184.
- [641] MCL, *NEDG*, 6 October 1900.
- [642] *AWN*, 2 July 1920.
- [643] TA, U/PEN (2) 11/23, *Maternity and Child Welfare*.
- [644] Stone.
- [645] BCL, *BHRU* record A0098; Gawthorpe, p.22; LUL, Anonymous, *The Unfortunate Genius, by a Factory Girl* (Armley, 1852), p.112; Gill, p.4; Bell, p. 191; BAWCA, Elizabeth Ranson, *untitled*, (TS), p. 4-5.
- [646] Roberts, *A Woman's Place*, pp. 202-203.
- [647] Humphries, "'Because they are too Menny'", pp. 113, 126-127.
- [648] Szreter, p. 47.
- [649] Fine, 'Consumption for Historians: An Economist's Gaze', p. 2.
- [650] *BDT*, 14 January 1913; Mr Marshall's own testimony is recorded in BCL, *BHRU* record A0041.
- [651] Llewelyn Davies, ed., for example the letters on pp. 100 and 115.
- [652] TA, *RM*, 8.
- [653] BCL, *BHRU* record A0098, p. 17.
- [654] De Vries, p. 23.
- [655] *LWRE*, 6 October 1860.

- [656] Humphries, ““Because they are too Menny””, p. 146.
- [657] Daniel Miller, *The Comfort of Things* (Cambridge: Polity, 2008), p. 5.
- [658] Arnold, pp. 104-105.
- [659] Ittmann, p. 563.
- [660] _____.
- [661] *AWN*, 2 July 1920.
- [662] Cook, p. 121.
- [663] Gisela Bock, 'Women's History and Gender History: Aspects of an International Debate', *Gender and History*, 1, 1 (1989), 11-15 (pp. 10-11).
- [664] 'London', in William Blake, *Songs of Innocence and of Experience: Shewing the Two Contrary States of the Human Soul* (1789-1794; Oxford: Oxford University Press, 1970).
- [665] BCL, *BHRU*, records A0067 and A0098.
- [666] TA, *RM*, record 114.
- [667] *LM*, 4 December 1883. The court held the company liable in this case. Other injury compensation cases at the same company were reported in the *Leeds Mercury* on 28 January 1888 and 12 November 1892.
- [668] Llewelyn Davies, ed., p. 100.
- [669] Johnson and Nicholas. The 'standard of living' controversy continues: the present study has accepted Crafts and Mills' estimates of real wages, which are less pessimistic than some but still show no clear upward trend between 1820 and 1847 (Crafts and Mills, pp. 180-181). Their figures will not, of course, be the last word.
- [670] Humphries chose to exclude the very few female sources available because they would not achieve statistically significant numbers for the quantitative arm of her study. The fact that she found so much evidence on motives for family limitation from male testimony alone should warn against too much enthusiasm for Seccombe's argument that female motivation was the key.
- [671] See Thompson as well for the importance of 1830 as a turning point towards (in his terms) 'a more clearly defined class consciousness, in the customary Marxist sense in which working people were aware of continuing both old and new battles on their own.', p. 782 (1991 Penguin edition: emphasis added).
- [672] Humphries, ““Because They are Too Menny””, p. 126.
- [673] Humphries, *Childhood and Child Labour*.
- [674] Humphries, ““Because They are Too Menny””, pp. 145-146.
- [675] Szreter, pp. 310-366: see also the summary on his p. 45, already quoted here in chapter two.
- [676] *Census, 1861*, pp. 722-728.
- [677] Szreter, pp. 310-330.
- [678] Busfield.
- [679] Blewett, 'Yorkshire Lasses and Their Lads', pp. 327-328.
- [680] Szreter, p. 45. See also p. 65.
- [681] Janet Greenlees, Glasgow Caledonian University, personal communication (23 April 2010).
- [682] Cook, p. 121; Seccombe, pp. 173, 186-187.
- [683] LCL, *LEE*, 3 July 1880.
- [684] Fine, and Leopold, *The World of Consumption*, pp. 129-134; McKendrick, Brewer, and Plumb.
- [685] Malcolm Chase, "'Enquire within Upon Everything": R. K. Philp and the Democratisation of Knowledge', (Leeds: University of Leeds, School of History Discussion Papers, 2009), pp. 8-9.
- [686] For one recent example, see Bruce Campbell, 'Nature as Historical Protagonist: Environment and Society in Pre-Industrial England', *Economic History Review*, 63, 2 (2010), 281-314 (p. 298).
- [687] Wrigley, and Schofield, p. 422.
- [688] Short, *Land and Society in Edwardian Britain* (Cambridge: Cambridge University Press, 1997), p. 341.
- [689] _____. The Field Books are at class IR58 in the National Archives collection.
- [690] Ranger, for example p. 14, pp. 27-28.

- [691] Scott, 'Did Owner-Occupation Lead to Smaller Families?'.
 [692] Taylor, 'Infant Hercules'; Walton.
 [693] Bowden, Crawford, and Sykes.
 [694] Taylor, 'The Infant Hercules', pp. 67-68.
 [695] Brian Short, *Land and Society*, p. 2.
 [696] Sarah Irwin, 'Interdependencies, Values and the Reshaping of Difference: Gender and Generation at the Birth of Twentieth-Century Modernity', *British Journal of Sociology*, 54, 4 (2003), 565-84.
 [697] Ron J. Lesthaeghe, *The Decline of Belgian Fertility, 1800-1970* (Princeton: Princeton University Press, 1977).
 [698] Llewelyn Davies, ed., p. 50.
 [699] Eilidh Garrett, 'Thinking of England and Taking Care: Family Building Strategies in England and Wales, 1891-1911', in *La Demografía Y La Historia De La Familia* (Murcia, 1997), pp. 63-83, (p. 83). I am grateful to the author for an offprint of this otherwise inaccessible publication.
 [700] Llewelyn Davies, ed., p. 100.

-

Overall fertility

Nuptiality

Real wages

Food prices

External migration

mortality

Marital fertility

+

+

+

Extramartial fertility

+

+

+

Population

