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British Marital Fertility in the 1930s

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ABSTRACT

SCHOOL OF SOCIAL SCIENCES

SOCIAL STATISTICS

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Britain's fertility at the end of the nineteenth century and start of the twentieth century has been the subject of a certain amount of debate in recent years. Szreter (1996), Garrett & Reid (1995) and Anderson (1998) argue that birth spacing played a larger role in the Britain fertility transition than was previously thought. An implication of their argument is that there appear to be two distinct groups of players in the fertility decline; the late marrying couples, who through the use of birth control (Szreter stressing the role of abstinence), tend to space their children widely and thus end up with small families; and the early marriers, whose fertility patterns follow traditional lines, and thus end up with larger families.

This thesis explores the marital fertility experienced in Britain in the 1930s. The 1930s were a period of unprecedentedly low fertility, the Total Period Fertility Rate never going above 1.89 throughout the decade, and reaching a nadir of 1.72 in 1933. It is also known that by the 1930s a high proportion of couples ended up with only one child. Indeed, the 1946 Family Census (Glass & Grebenik, 1954), shows that of those couples marrying in 1925 as many had a completed family size of one as had a completed family size of two (25% in each case), a further 17% of couples remaining childless. This study uses data from the Royal Commission on Population 1944 – 1949 and from the 1944 – 1945 Mass Observation study, Britain and her Birth Rate.

Throughout the decade there are distinct social class differentials in marital fertility, with the 'middle classes' achieving lower fertility than the 'artisan and skilled working classes' who in turn achieved lower fertility than the 'unskilled working classes'. Both quantitative and qualitative techniques have been employed to attempt reasons for the low fertility of the decade in general, and more specifically for the apparent social class differentials.

The study also addresses the subjective nature of research in general, and the position of traditional theories of fertility and their applicability to the British experience.

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Acknowledgements

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I am greatly indebted to Janette Cochrane from the Hartley Library for her help in discovering the whereabouts of the Royal Commission on Population data. The staff at the Mass Observation Archive, University of Sussex, also deserve many thanks for their time and advice.

A huge vote of thanks must go to my colleagues for their advice, support and shoulders to cry – without them I would have given up and returned to shelve-stacking! In particular I would like to thank Sandy Mackinnon for his patience and data retrieval skills, Debbie Edwards, Kathy Hooper, Anne Owens and Jane Schofield for their administrative support and constant supply of tea, biscuits and advice, Rachel Partridge for proof reading this thesis, and the peer group support of all the other Ph.D. students.

Last, but by no means least, I would like to thank Jake, Ru, Martha and George for giving me a life beyond work and study.

We owe almost all our knowledge not to those who have agreed, but to those who have differed.

(C.C. Colton, 1820)

Chapter 1
Introduction to my study and me

Well I'm just outta school like I'm real cool
Gotta dance like a fool, got the message that I gotta be
A wild one, ooh yeah, I'm a wild one
Gotta break it loose, gonna keep 'em movin' wild
Gonna keep a swingin' baby, I'm a real wild child
Gonna meet all my friends, gonna have ourself a ball
Gonna tell my friends, gonna tell them all
That I'm a wild one, ooh yeah, I'm a wild one

Iggy Pop

1.1 Plan of the thesis

This thesis is primarily a study of marital fertility in Britain in the 1930s. However, wider research issues beyond the realms of the study itself are also discussed. In Chapter 1 I discuss my reasons for the study of British marital fertility in the 1930s and contemplate how my position as researcher influences and acts on the research. Reflexivity and the importance of Self are considered, and the degree of subjectivity that researchers bring with them (consciously and unconsciously) is examined.

In Chapter 2 I look at the fertility of the 1930s in quantitative terms, so that the scale of this period of low fertility can be clearly seen. Fertility levels, parity distribution and occupational differentials in fertility are examined. Reproductive histories are utilised in an attempt to assess the relative importance of 'stopping' and 'spacing' in the British experience of fertility decline.

Chapter 3 is in essence a literature review. It covers contemporary explanations for the low fertility of this period. Demand theories of childbearing are discussed and critiqued. More recent theoretical debates are addressed, in particular, the problem with social science in general, the importance of birth spacing, and the

importance of context, in examining fertility patterns. Papers discussing more recent low fertility societies are also included in the discussion.

Chapter 4 considers the data and its context. It begins with a brief overview of Britain in the 1930s. There then follows an examination of the concern that was felt at that point in time about the low fertility of the era, due, in no small part, to a number of misleading population projections. These projections and their legacy are explored. Part of the legacy of the projections was the creation of the two data sets that are used in this study, interview transcripts from the Royal Commission on Population of 1944 –1949, and questionnaires from the 1944 –1945 Mass Observation study, Britain and her Birth Rate. The background to these studies and details of the data sets are then considered.

Chapter 5 details the results of the quantitative analysis carried out on the Mass Observation data set. Childbearing at five and ten years of marriage and an analysis of birth histories enables a discussion as to what the results suggest about the stopping versus spacing argument that is ongoing in research on fertility in this period. There follows the contemplation of spacing from marriage being relevant for some couples in this period. A multinomial logit model allows the analysis of factors associated with childbearing at five years of marriage, and these findings, along with the other quantitative findings lead to a discussion on how these results correspond to the findings of other studies.

Chapter 6 covers the qualitative analysis of the Royal Commission on Population interview transcripts. It begins with an introduction to grounded theory, the approach I took for this piece of analysis. Thus, I describe my approach to this method of analysis and the results that have emerged from it. Particular mention is made of the relationship that this approach suggests between fertility in the 1930s and economic and educational issues, general feelings of insecurity, housing issues, social change and fashion, employment issues, maternity care and psychological change. The relationship between fertility and housing appears especially relevant, and thus this relationship becomes the focus for Chapter 7.

Chapter 7 focuses on the relationship between housing provision and fertility. There is a review of both the contemporary and the more recent literature on the subject. This is followed by a discussion on the dynamics between housing and fertility that are suggested by the data. The chapter concludes by considering the relevance of these findings to modern low fertility societies.

Chapter 8 is a critique of Coale's preconditions for fertility decline, and suggests why they are not helpful in explaining the British experience of fertility decline. The related concept of a 'turning point' in fertility is also discussed.

I end, in Chapter 9, with an attempt to reach some conclusions and assess what has been accomplished by this thesis.

1.2 Why study British marital fertility in the 1930s?

'How long is a trend?' is one of the unanswerable questions in demography. As is noted in Chapter 8, what some see as the start of a trend others interpret as a 'blip'. The 1930s is one of these periods of uncertainty.

Fertility in Britain is usually thought to have begun its secular decline in the latter half of the nineteenth century, though some recent debate on this has led to some, notably Szreter and Garrett, putting the date somewhat earlier (Szreter and Garrett, 2000). However, this process is often seen as being complete by the 1930s, with fertility up until the end of the 1930s being seen as being the end of this transitional period, and the period after the 1930s being seen as part of a new process. The 1930s become a lost in the gap between these stepping stones that have been created in demographic history. In my research I wish to maintain the idea that the fertility needs to be seen as a continuum, rather than as a series of different trends or stepping stones. Thus there is the need to fill in this gap.

The 1930s are a rather grey period in Britain's fertility history, too recent to be considered historical, and too old to be considered contemporary. Added to this is the embarrassment demographers of the era no doubt felt when they wrongly predicted huge declines in the size of the British population as a result of the Net Reproduction Rate consistently falling below one. I believe that this led to the 1930s becoming a period that British demographers would rather forget. In short, there is a deficit of information on this period, which is a shame, since this period of unprecedentedly low marital childbearing may well hold hints as to the real motivational factors behind fertility limitation.

1.3 Who I am and how this influences the study

This is a story. Not the story. This is my story. A product of my history. A product of my experiences. A product of tales that I have been told that cannot be untold. A product of texts that I have read that cannot be unread. My biases cannot be denied.

I am female, white, middle class and a practising Christian, although I don't know whether I practise through faith, fear or a desire to belong. I have four children (two born inside marriage and two born outside marriage), a failed marriage, a car, and a mortgage. I have been educated within both the state and the independent systems of schooling. I have six siblings, and as a child, I holidayed in Europe most years. I have never experienced extreme poverty or deprivation. How should I be defined? As a woman? A mother? An academic? I might just as well be defined by the clothes I wear, or by the records in my record collection.

Yet who I am is intrinsic to this study. Steier (1991, p. 2) raises the question of whether the inclusion of the researcher (i.e. of Self) in the research makes all research autobiographical. I consider the research process a personal process, does that make it autobiographical? The research is certainly a part of my biography, and I am an intrinsic part of its structure. Perhaps whether one would term this autobiographical is up to the individual!

Reflexivity in research

This can be when the researcher is an integral component of the research. This is more usually the case in fieldwork studies where there is interaction between the researcher and the researched. However, in this study it holds the more basic meaning of simply being aware that I have biases and preconceptions and preferences that influence not only the process, but also the results and ultimately the interpretation of those results.

Although I own my experiences, I may often be blind to them. No matter how hard I try I can never remember all that has happened to me, does that mean that what I do not remember at this instance has no influence on me at this point in time? Similarly, I know I am biased in the way that I present myself. I have not put forward any of the negative attributes that also define me, though I have no doubt that they play a major role in defining who I am. So I argue that although I cannot identify my Self, I know it is here and will not (cannot) deny its existence. Just as I believe in God, although I cannot see this entity I call God, I have faith that he is there. I read the words of others, and find that they have a similar belief in this entity called God, and yet none of us can see him or prove that he is there. Yet we know he is there. Similarly, I cannot see this entity I call Self, I cannot prove that it exists, but I KNOW that it is there.

In researching this story I have recognised some motivations more readily than others. I have, no doubt valued some of the texts that I have read more highly than others. This I have not done purposefully, rather, through ignorance. I think it was the Apostle Paul who said 'I do not understand my own actions', and indeed, my history has led to me approaching the data with tunnel vision. I acknowledge that others may well have a different field of vision. When a person is asked 'why'

they carried out a certain action, they do not give the real reason, rather they give an explanation for their action (not necessarily The Explanation), what Maturana (1991, p. 31) calls 'a reformulation' of that experience. If I were asked to give my reason for having or not having children at any given period of my life, would I be able to give the reason? I could give an explanation that would justify my behaviour, but I doubt I would give (or even know) the whole reason.

Just as life may exist on Mars, but because it is not in a form that we recognise as being life, we do not see it, so as researchers it seems that we analyse data to produce the results that we personally recognise as being logical, sensible, 'true'.

Subjectivity in this study

The interpretations of this study are mine. They are biased and no doubt some would say prejudiced, but that does not make them insupportable. It could be argued that subjectivity and quantitative research do not lie happily together, numbers and statistics being seen as objective (and some would say scientific). However, in all research the choice of statistic, method of analysis, and interpretation of the results are subject to a degree of subjectivity. Researchers can only use the methods and statistics of which they have knowledge. Similarly, they can only test for those variables which they considered to be possible.

The subjectivity attached to this study should not in anyway minimise its findings. Whilst I could only test for those variables that I imagined possible, I did not limit the testing only to those variables that I believed probable. When coding the variables for analysis, the codes arose from the data and were not pre-set by me. Thus, I have attempted to minimise the immeasurable impact of my subjectivity by acknowledging its existence.

Steier recognises this issue (1991, p. 1), stating:

> As inquirers and researchers, we create worlds through the questions that we ask coupled with what we and others regard as reasonable responses to our questions.

When my analysis showed housing provision as being a relevant factor for some couples, I cannot say that I was surprised - I would not have tested whether it was a relevant factor if I personally had not considered it a possibility. I was glad that it showed up as statistically relevant for some couples as this was an interpretation that made intuitive sense to me. That the analysis had given the housing variable statistical significance despite my attempts to minimise the influence of self on the data, in some way made my contingent 'truth' exist. It set it in concrete, I had numbers to show that it was important. However, the question of whether I had unconsciously forced the data to show that this variable was significant continues to rumble on. In acknowledging my subjectivity and acting to minimise it, my contingent 'truth' should be brought closer to the theoretical (but unobtainable) objective truth[1]. However, I can not be sure that this is the case, and neither can I measure the distance between the objective truth and my contingent 'truth'. Thus, by acknowledging my subjectivity in an attempt to minimise it and move closer to the objective 'truth', I come up against a problem. I cannot see what I do not imagine might be there, but that does not mean that it is not there. Silverman takes this one step further raising the question of validity in qualitative research:

> The various forms of ethnography, through which attempts are made to describe social process, share a single defect. The critical reader is forced to ponder whether the researcher has selected only those fragments of data which support his argument.
>
> (Silverman, 1985, p. 140)

[1] Hereafter 'truth' refers to contingent 'truth', whist truth (without inverted commas) refers to the theoretical objective truth.

Thus, I am left with not only the concern of 'what am I not seeing?', but also, 'am I being selective in my use of the data?'.

Miles (1979, p. 591) stated that:

> The most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated. For quantitative data, there are clear conventions the researcher can use. But the analyst faced with a bank of qualitative data has very few guidelines for protection against self-delusion, let alone the presentation of unreliable or invalid conclusions to scientific or policy-making audiences. How can we be sure that an 'earthy,' 'undeniable', 'serendipitous' finding is not, in fact, wrong?

I accept that another researcher using the same data might reach a set of different, though overlapping, conclusions using different methodologies. Similarly, I accept that another researcher might well reach different, though overlapping, conclusions using the same methodologies as myself. None of these conclusions reached will be the objective truth. Indeed, the theoretical, objective truth cannot be reached, because whilst we strive towards objectivity by acknowledging our subjectivity, we can never reach the position of total objectivity. Were our subjective 'truth' to correspond to the objective truth, would we know?

I am concerned that the analysis I carry out is as appropriate as possible and that my interpretations of the results are as close to the objective truth as possible. But even when practising well-defined quantitative methods (let alone qualitative methods), how can we be sure of the appropriateness of a method or the interpretation of a result? What data we input into our analyses is vital to what results emerge. Sometimes our input data is set, given. But does that mean that it is the right data to answer our questions? When we are able to choose our input data, do we recognise all the variables? To reiterate an earlier statement, we

can only recognise those variables that we can imagine to exist. Our tunnel vision must limit us.

We have no way of knowing which of the subjective conclusions is the best 'truth'. I aim to minimise the impact of my biases by being aware of them and by using the methods of analysis I believe to be most suitable for the data. Yet for doing this, I still cannot measure the impact of myself on the study. I have minimised the impact of myself to the best of my abilities. Thus, I have produced the best contingent 'truth' that I am able at this point in time to produce.

Chapter 2
Fertility levels and patterns in England and Wales, 1925 – 45

It doesn't take a mathematician to add a simple sum
Either you are simply beautiful or I am simply dumb
Dumb, dumb, dumb
Dumb, dumb, dumb
Dumb, dumb, dumb

The Beautiful South

2.1 Introduction

This research began with the awareness that there are periods in our recent history of relatively high fertility and periods of relatively low fertility. Although perhaps somewhat simplistic an explanation for this research topic, I really just wanted to know what might have led to these gluts and dearths of births.

The fertility history of the 1930s has a personal focus for me, in that my parents were born in the birth dearth of the 1930s, both into families of 3 children; whereas my many siblings and I were born into the birth glut of the 1960s. Why did my grandparents (who did not have the contraceptive knowledge and methods available to my parents) restrict their fertility so effectively, while my parents did not? This restriction of fertility, without recourse to modern methods of contraception, the motivation for it, and the subsequent fertility patterns of my grandparents, and the grandparents of my peers, are the foci of my thesis.

In order to appreciate the character of 1930s' child bearing patterns it is necessary to look at those that came before and after and place the 1930s in its historical context. Hence I begin this chapter by examining the fertility trends in England and Wales paying particular attention to the period immediately

surrounding the 1930s, i.e. 1925 to 1945, but also looking at the long term history of fertility decline in Britain.

First in section 2.2 I take a brief overview of the fertility transition, and discuss briefly some of the recent controversy as to when the transition began. I then look at the fertility levels of England and Wales from 1925 to 1945. In section 2.3 parity distributions are examined and their importance, both as part of short-term fertility patterns and as part of more long-term changes in fertility, is discussed. Section 2.4 examines occupational differentials in fertility. Section 2.5 focuses on the issues that surround 'stopping' and 'spacing' in reproductive behaviour. Finally in section 2.6 I summarise the distinctive features of the fertility levels and patterns in the 1925 – 1945 period.

2.2 Fertility trends

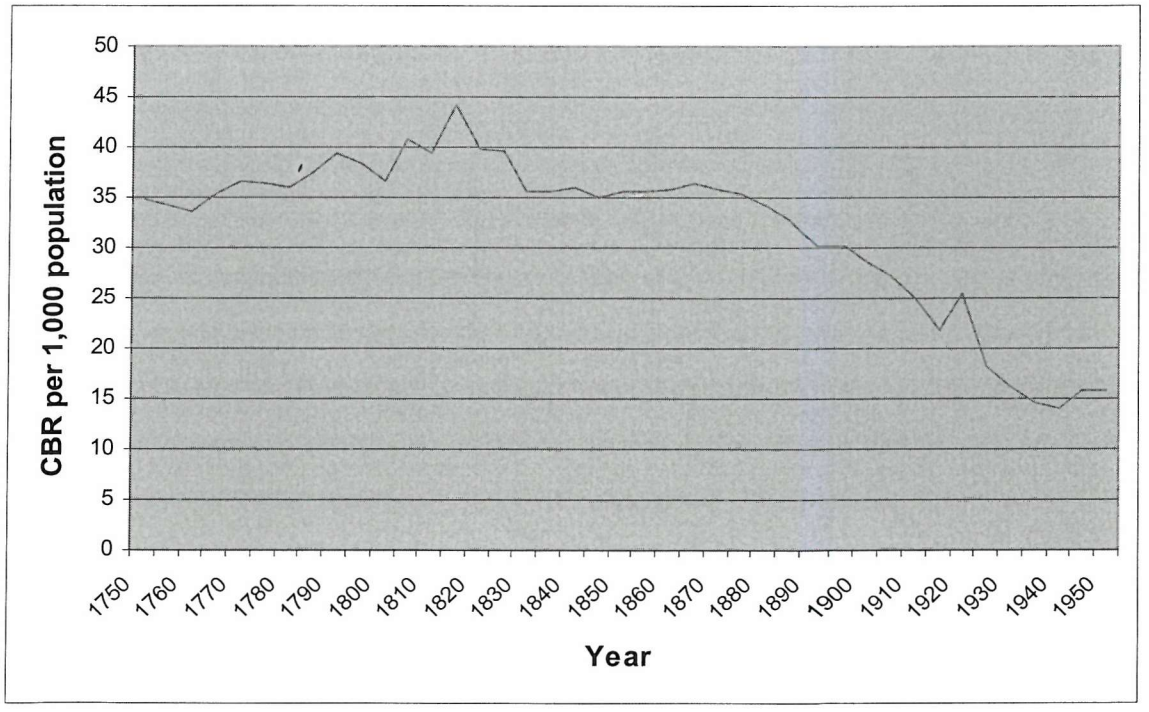
2.21 The fertility transition of England and Wales

It is not clear exactly where in society the decline in fertility originated and how it permeated through the various strata of society. That there were pronounced social class differences in age-specific fertility during the British fertility transition is well documented (Woods and Smith, 1983; Woods, 1987). It has been argued that fertility control originated among the middle classes and diffused down to the working classes over time (Banks, 1954; Levine, 1987). However Garrett's study of 19th-century textile workers (Garrett, 1990), who appeared to have the knowledge to space their births some time before the secular fertility decline really began, casts doubt on this. Moreover in Gittins's oral histories (Gittins, 1982), former domestic workers (through whom this diffusion was meant to take place) denied having gained any contraceptive knowledge in this way. Garrett and Reid (1995, p. 86) state that were diffusion taking place, it had 'more of a spatial than a social dimension', with all the classes in a geographical area more or less lowering their fertility simultaneously.

Traditionally, fertility in Britain is thought to have begun its secular decline in the latter half of the nineteenth century, and although the exact timing and rate of the decline are disputed, fertility fell according to all measures from the 1870s. Wilson and Woods (1991) suggest that there was a rapid decline beginning in the last quarter of the nineteenth century, whilst Reay (1994) puts forward that the fall in family size immediately followed the introduction of the New Poor Law in 1834, though his study is based on just one area in Kent, and thus must be viewed with some caution.

More recently, Szreter and Garrett (2000) have argued quite plausibly for taking 1816 as the turning point for fertility, since it is in 1816 that fertility peaks, declining thereafter until 1846, when it rises again until 1876. When one considers Figure 2.1 their argument appears substantive. However, I would question the need to attach any date to the onset of the British fertility decline. The notion of the 'onset' of the fertility decline implies that prior to that

Figure 2.1 The Crude Birth Rate in England 1750 - 1950



Source: Mitchell, (1988), Table 10.

date fertility was uncontrolled, and yet the undulations of the data in Figure 2.1 suggest to me that the fertility of couples in Britain has long been somewhat variable and this variation could be due to varying degrees of control being practised.

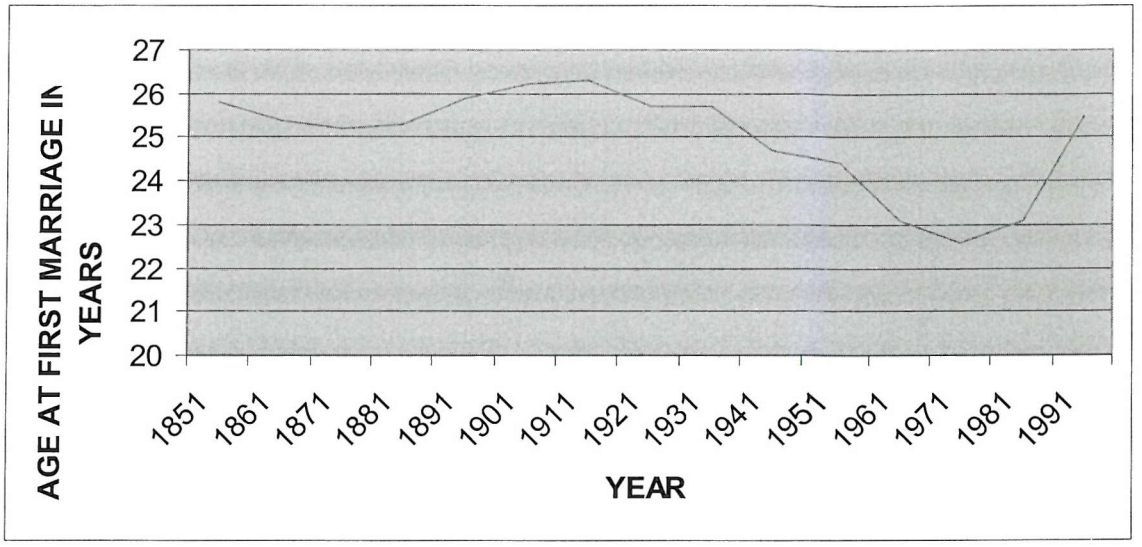
The issues relating to dating the fertility decline are confused by the dichotomous view of fertility history that exists in the demographic world whereby fertility is either 'traditional' and 'unplanned' or 'modern', 'planned' and 'parity specific'. In a country such as Britain, that has a long culture of late marriage, those marrying late (as a Malthusian 'prudential check') have family limitation within their sphere of conscious choice. They are planning – albeit in a non-parity specific way. Hence, one has to ask whether the variations seen are due to fertility variations within marriage, or due to variations in marriage itself.

Wrigley and Schofield (1981) relate these variations (pre-1850) directly to changes in marriage rates. The rôle of marriage on fertility is obviously considered when one looks at the proximate determinants of fertility as described by Bongaarts and Potter (1983), where there is an index of marriage as part of the overall 'fertility equation' and Coale (1967) also includes an index of marriage. Yet marriage as conscious fertility inhibiting behaviour is not considered under Coale's pre-conditions for fertility decline (Coale, 1973) (the implications that surround the use of Coale's pre-conditions for fertility decline in explaining the British experience are addressed at length in Chapter 8).

Marriage has a crucial part to play in the British fertility experience since this is where the vast majority of fertility occurs. There were clear differences between the social classes in the age at first marriage during the British fertility transition. This would have impacted on the average completed fertility of the different classes. It is suggested that those marrying later not only experienced reduced fecundity through age, and limited their fertility through delayed marriage, but that they also bore their children at a slower pace than the earlier marriages. It could be suggested that in delaying marriage for a number of

years, sexual restraint had become second nature for a number of late marriers.

Figure 2.2 Mean age at first marriage for women, for England and Wales, 1851 – 1991.



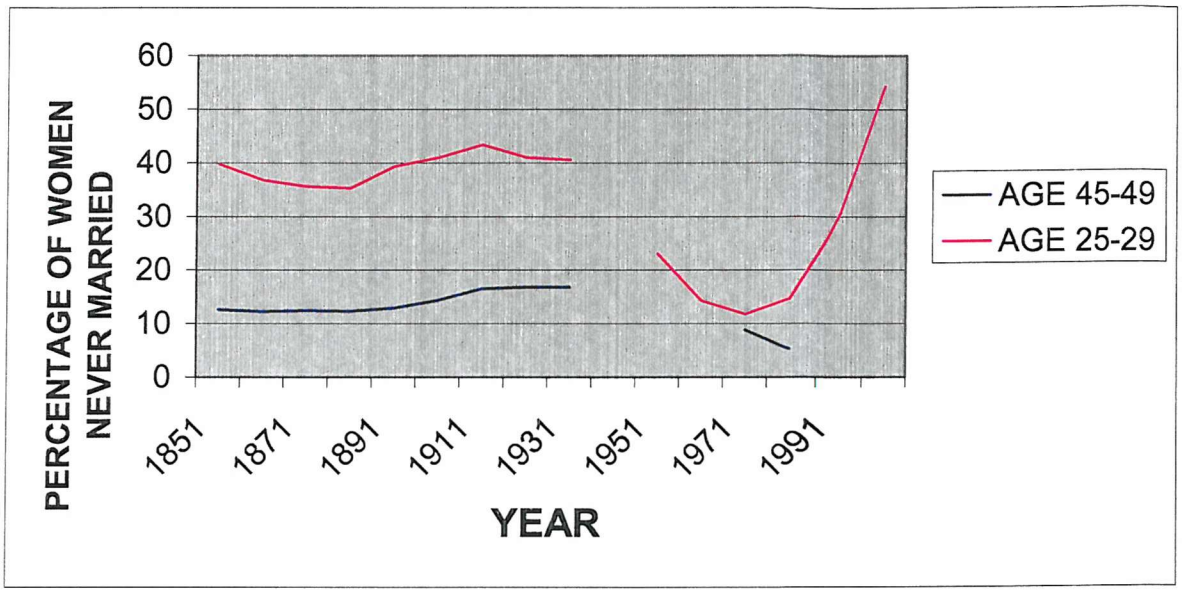
Source: Data 1851-1931 Teitelbaum, 1984, Table 5.2., data 1941-1981OPCS, 1987, Table 1.6, data 1991 ONS, 1999, Table 1.6.

Britain has a tradition of late marriage and high levels of non- marriage. Teitelbaum (1984, p. 100) presents data on the singulate mean age at marriage for England and Wales from 1851 until 1931. As can be seen from Figure 2.2, this remains remarkably constant throughout this period at between 25 and 26 years. There is a decline after the 1930s, age at first marriage for women hitting a low of around 22 ½ years in the early 1970s and rising again thereafter.

Figure 2.3 shows the proportion of women who have never married by ages 25 to 29 years and again by ages 45 – 49 years. Variations in the first group can be directly related to changes in the mean age at first marriage. The second group is somewhat more interesting, since variations in the proportions of those women who reach age 49 years without marrying can have huge implications

to overall fertility. If increasing proportions of women are never married by this age then increasing numbers of fertile years are effectively lost.

Figure 2.3 Proportions of women never married by ages 25-29 years and 45-49 years, 1851 – 2001



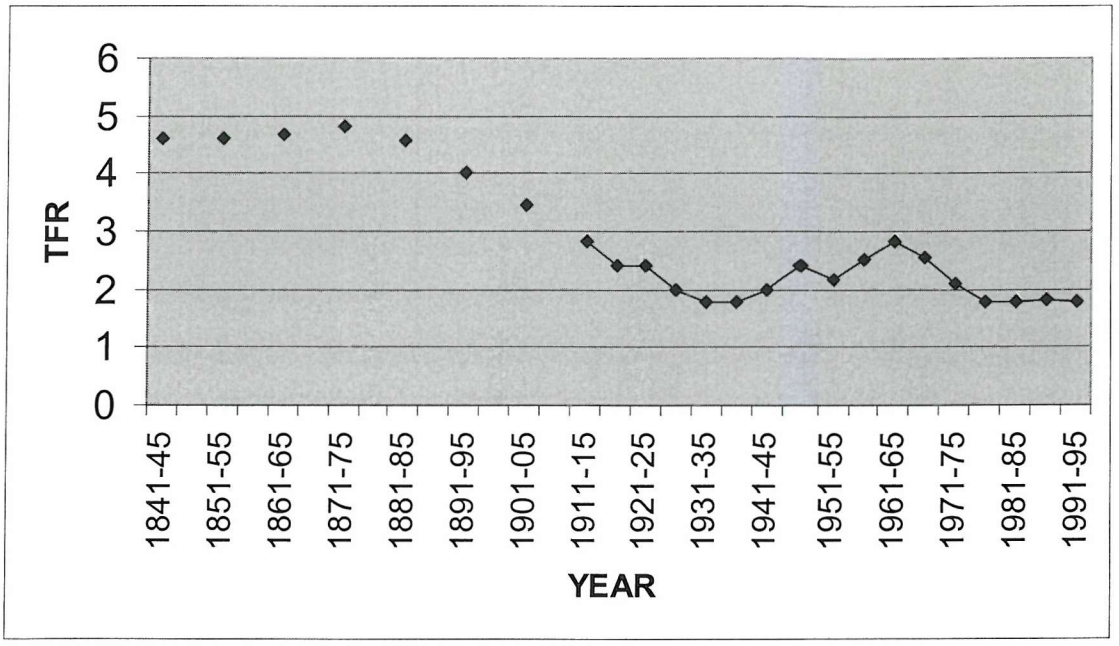
Source: Data 1851-1931,Teitelbaum, 1984, Table 5.1. Data 1951-2001 calculated from ONS, 1999b,Table 3.36.

When looked at alongside age at first marriage, the proportions of women never married show a number of similarities. Both age groups exhibit a good degree of consistency up to 1931, followed by a decline both in age at first marriage and in the proportions never married, followed by a rise in proportions never married by ages 25-29 years from the 1970s onwards.

When the total fertility rates (TFRs) for the corresponding periods are examined with these variations in age at first marriage and proportions married they make intuitive sense (Figure 2.4). From the 1870s until the 1910s the TFR falls as age at first marriage and proportions never married at both ages rise slightly. From the 1930s there is a rise in TFR and a corresponding fall in age at first marriage and in the proportions never married by ages 25-29 years – more

women are being exposed sooner to the risk of pregnancy (through marriage) and thus fertility rises. There appears to be a divergence in this relationship from the 1970s. Since then the age at first marriage has once again increased, as have proportions of women aged 25-29 years never married and fertility has settled at a fairly stable and low level, no longer following marriage trends to such an extent.

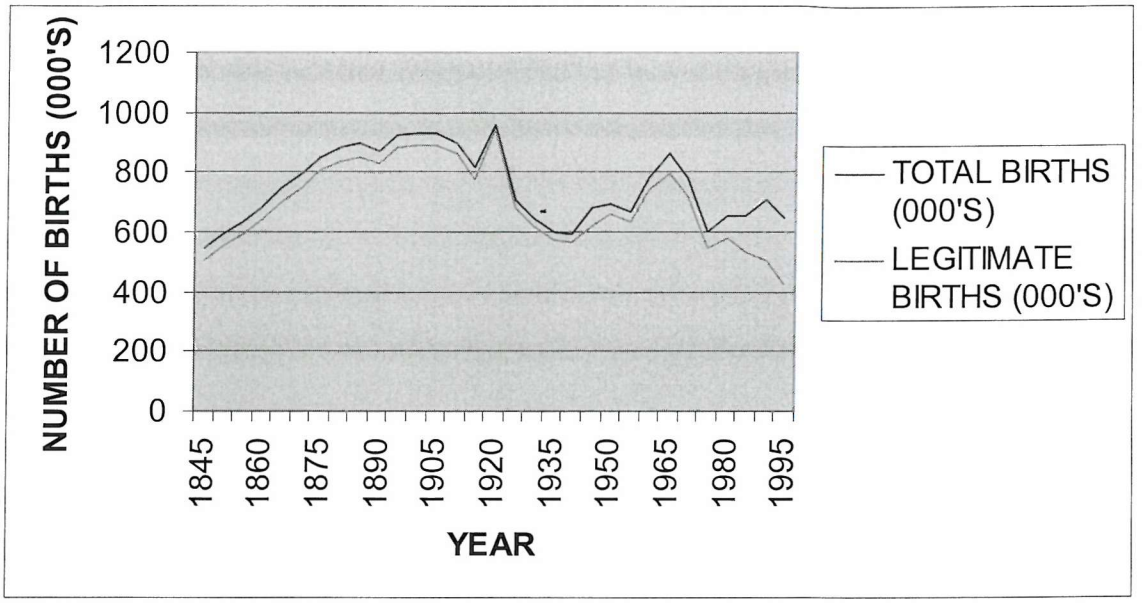
Figure 2.4 Total Fertility Rate for England and Wales, 1841 - 1995



Source: Data 1841-1981OPCS, 1987, Table 1.4. Data 1985-95 ONS dataset PBH14.

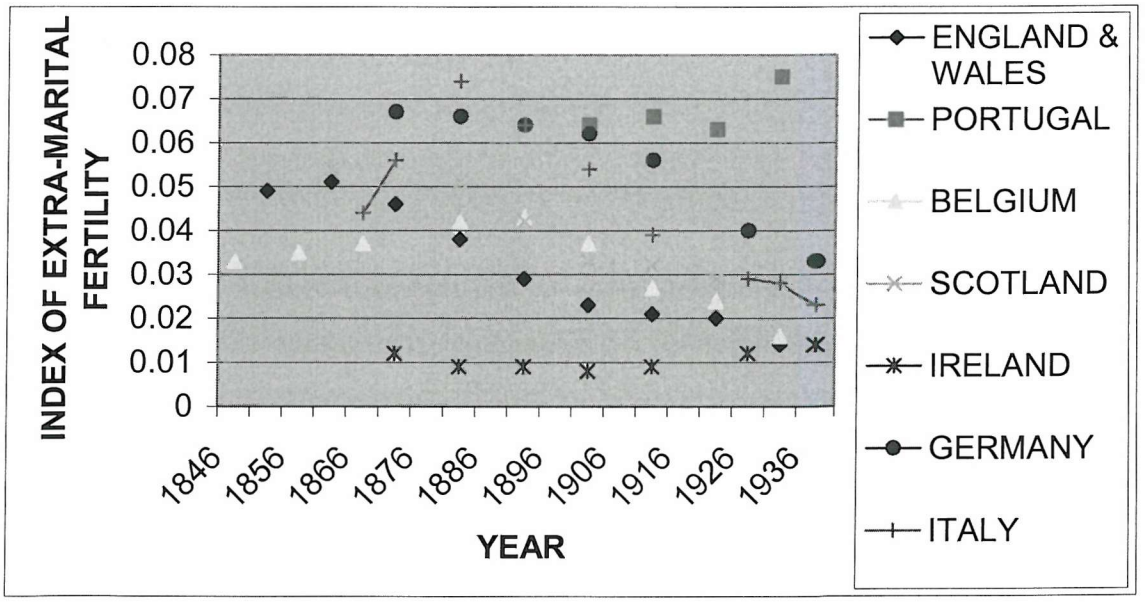
Figure 2.5 also shows that it is not until the 1980s that there is any real divergence between the total number of births and those born within marriage. So it can be seen that until very recently the vast majority of British fertility was within marriage, with variations in marriage rates and age at first marriage having direct effects on overall fertility rates. Indeed Teitlebaum's indices of extra-marital fertility for Britain from 1851 until 1931 are low compared to the European experience generally, with only Ireland having consistently lower levels of extra-marital fertility (Figure 2.6).

Figure 2.5 Total births and legitimate births, 1845 – 1995



Source: Data 1845 – 1980, Mitchell, 1988, Table 10B. Data 1985 – 1995 ONS, 1999, Table 1.1A.

Figure 2.6 Variability in extra-marital fertility for 7 European countries, 1846 – 1936.



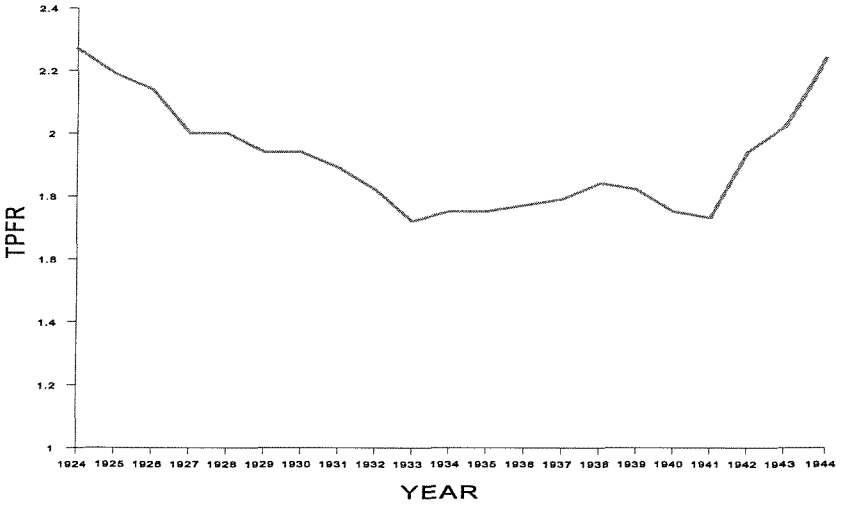
Source: Teitelbaum, 1984, p. 148.

Where pre-marital sex resulted in pregnancy, marriage tended to precede the birth (Laslett, 1977). When this happened one could argue that the marriage had been brought forward and thus the woman's period of exposure to the risk of pregnancy had been increased (due to a larger part of her fertile years being spent 'in union') and thus her overall fertility would be higher than if a pre-marital conception had not occurred. Thus when considering British fertility history one needs to consider the influence of age at first marriage, levels of extra-marital fertility and proportions married.

2.2.2 Fertility levels, 1925-45

When focussing in on the 20 years from 1925 until 1945, it is clear that this is a period of immense changeability. The Total Fertility Rate (TFR) in 1925 is 2.19, by 1933 it has fallen to 1.72, and by 1944 has soared to 2.24. Yet throughout the 1930s, a period of unprecedentedly low marital fertility in British fertility history, the TFR remained below 1.9 (Figure 2.7).

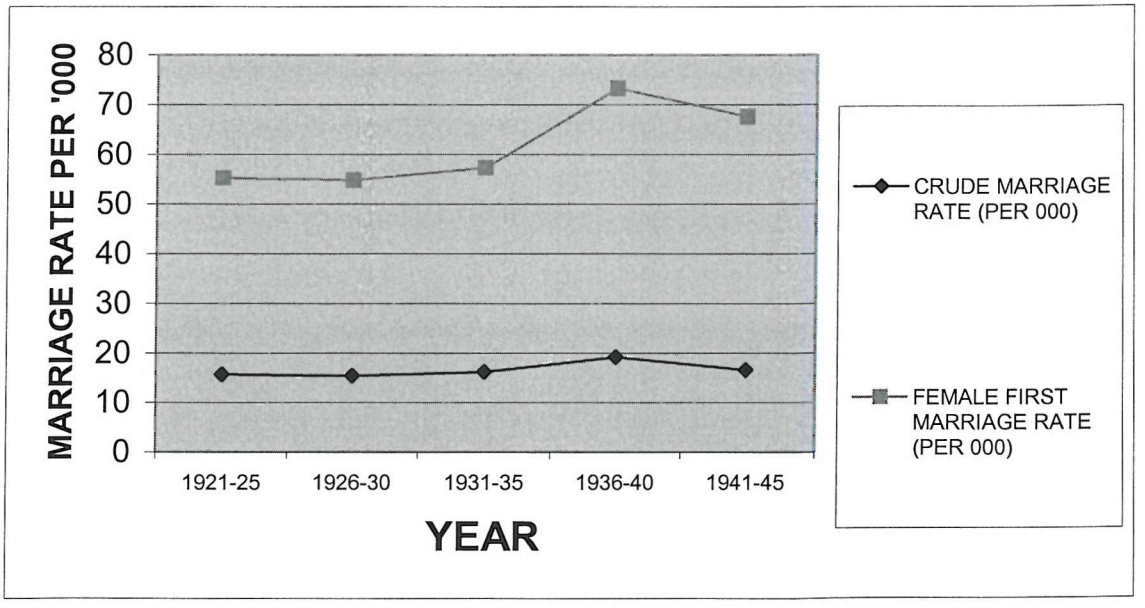
Figure 2.7 Total Fertility Rate of England and Wales 1924-44



Source: Office of Population Census and Surveys, 1987, *Birth Statistics. 1837-1983.* London: HMSO. Table 1.4.

Although some of the rise in fertility in the late 1930s and early 1940s can be accounted for by the rise in marriage rates (both in the Crude Marriage Rate and the First Marriage Rate for women), the decline to 1.72 cannot (Figure 2.8). In fact the marriage rates appear remarkably constant until the late 1930s. Indeed, when referring back to Figure 2.2, it is clear to see that age at marriage is falling throughout this period, thus the decline in fertility that is seen up until 1933 is a decline in fertility within marriage, even though more women are exposing themselves to the risk of pregnancy sooner through this decline in age at first marriage.

Figure 2.8 Crude Marriage Rates and First Marriage Rates for women, England and Wales, 1920 - 1945

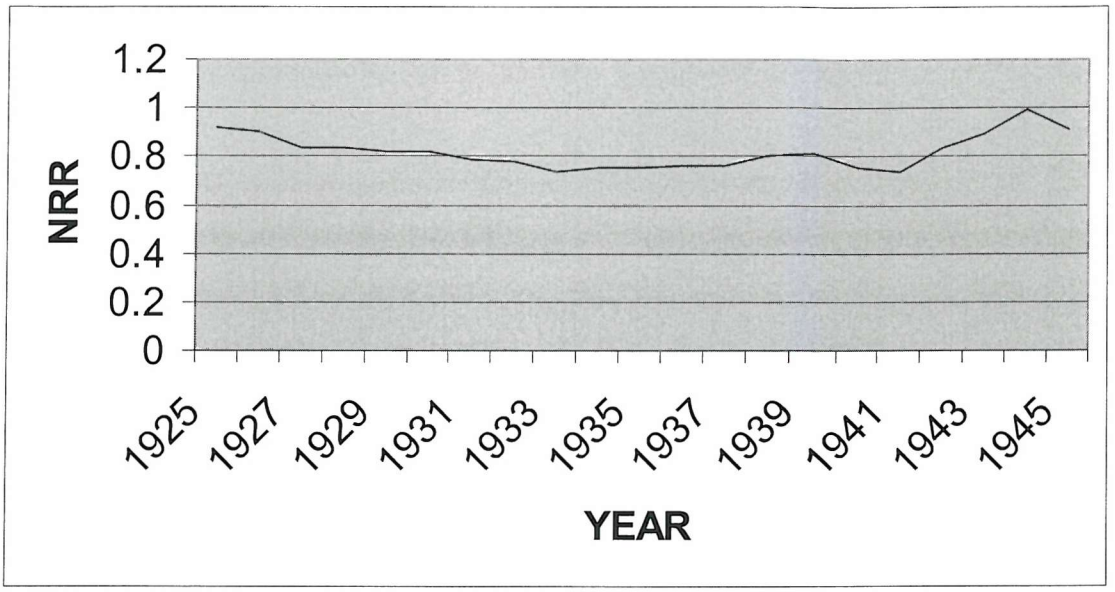


Source: OPCS, 1987, Table 1.5.

The figures that provoked major concern during the 1930s were those for the Net Reproduction Rate. Figure 2.9 clearly shows that it remained below 1 throughout the period and this led to fears of a population decline that are discussed further in Chapter 4. It is not until 1946 that the NRR rises above 1 where, somewhat ironically, it stays for the next 25 years until 1971. Since

then, although the NRR has remained below 1, it has not fallen to the levels experienced in the 1930s and early 1940s, a low of 0.79 being measured in 1977 compared with 0.74 in 1933 and 1941.

Figure 2.9 Net Reproduction Rate, England and Wales, 1925-45



Source: OPCS, 1987, Table 1.4.

Thus when considering the fertility of this era it is important to consider not only that fertility fell, reaching its nadir in 1933, but also that it rose thereafter, in fact quite substantially so from 1941 (as is clear from Figure 2.6). However, this rise was not noticed at the time, probably due to an understandable pre-occupation with issues to do with World War II.

2.3 Parity distributions

2.3.1 Why are parity distributions important?

Thus far overall fertility rates have been considered, but these can mask huge variations in fertility behaviours. Total fertility rates are derived from age specific fertility rates and at a point in time reflect little more than that fertility varies with age. They cannot reflect variation in fertility behaviour that is not age specific. Very different fertility behaviours can result in similar TFRs, with variations in both the tempo of fertility and in completed family size being missed if parity distributions are not examined.

There is a tendency in the demographic community to look at average behaviour, rather than to identify the numerous behaviours that go to make up this central tendency or middle road. Gittins bemoans the fact that 'Demographers have generally studied population change at a macro level, ignoring to a great extent the institutions in which population dynamics are generated: the family' (Gittins, 1982, p.11). Whilst not wishing to dismiss the usefulness of averages in giving an overall picture, that picture cannot be in anyway defined without the patterns that go to make up the average being identified and examined in their own right.

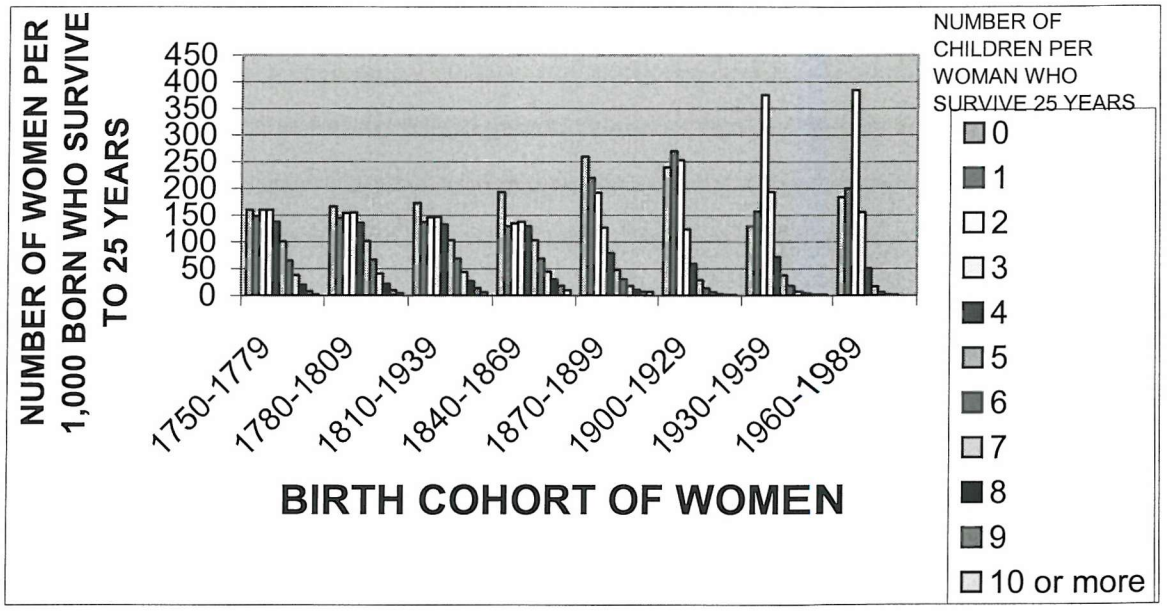
Anderson addresses just this in his study on very small families. He observes the lack of attention that has been paid to fertility distributions, with average measures of fertility being favoured in many studies, noting 'the implications of the increased numbers of childless couples and couples with just one child have gone largely unnoticed in literature on the British fertility decline' (Anderson, 1998, 177-8).

2.3.2 Long-run changes: 1925-45 in context

Figure 2.10 demonstrates quite clearly the changes in the distribution of completed family size that have occurred over the last 250 years. Throughout this period there has been a shift away from the wide band of family size

distributions to a very narrow ribbon focussed on the small family of one or two children. The 1840-69 birth cohort has an increasing proportion of childless families, whilst the 1870-99 birth cohort has an increasing proportion of both childless and one-child families. This trend towards smaller families becomes increasingly apparent from the 1930-59 birth cohort, when the proportion of two child families (which had been on the increase since the 1840-69 birth cohort) exceeds that of any other family size.

Figure 2.10 Distribution of women according to number of children born to them who are still alive on their 25th birthdays 1750- 1989



Source: Distributions calculated by P.R.A. Hinde[1] using Wrigley, et al (1997, Table 17.7, 403) for birth cohorts 1750-1779 and 1780-1809, Anderson (1998, Figure 1, 178) for birth cohorts 1840-1869 and 1870-1899, Hobcraft (1996, Table 7, 509) for the 1900-1929 and 1960-89 birth cohorts, and ONS (1998, Table 10.5, 58) for 1930-1959 birth cohort.

It is interesting (and indicative of the diversity that can be lost through the use of 'averages') that although the TFRs at the turn of the Twentieth Century and in the 1960s were very similar, the distributions of completed family sizes for the corresponding periods are very different, with a move away from the

[1] My thanks go to Dr Hinde for allowing me to use these figures. The method used to calculate them is given in Appendix IV.

diverse spread of completed family sizes that is seen up until the turn of the Twentieth century towards the focus on smaller families with which we are familiar today.

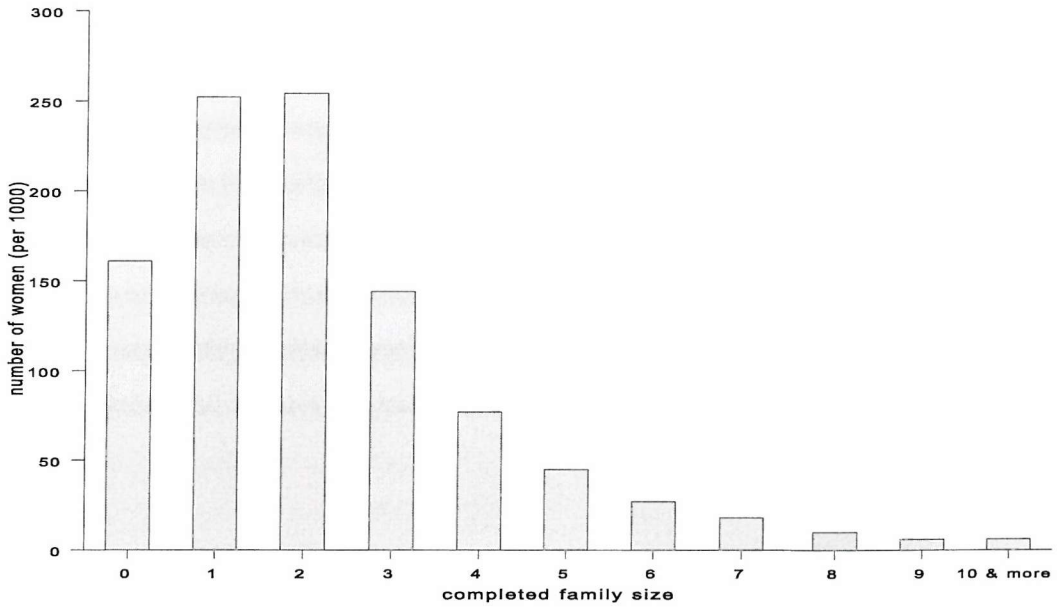
It can be argued that this narrowing of family sizes is a reflection of changes in survivorship, and certainly the decline in child and infant mortality throughout the twentieth century does appear to be reflected by the narrowing. However, unless there was some sort of change in fertility, would not the narrowing be in the higher groups – the same number of births occurring, by more surviving and thus more women having larger numbers of children surviving to 25 years of age.

2.3.3 Parity distributions among inter-War marriage cohorts

It is known that by the 1930s a high proportion of couples had a completed family size of just one child. The 1946 Family Census (Glass & Grebenik, 1954) shows that of those couples married in 1925, as many had a completed family size of one child as had a completed family size of two children (25% in each case), a further 17% remaining childless. 14% of the 1925 marriage cohort went on to have three children and 19% had a completed family size of four or more children (Figure 2.11).

When one compares family size distributions of the 1925 marriage cohort with those of more recent birth cohorts, it is clear that there has been a move away from the relatively even spread of low child-bearing (i.e. one and two children) that is evident in the 1925 marriage cohort, towards a family size distribution that appears increasingly to focus on the parities of zero and two, with the one child family declining in popularity (Figure 2.12).

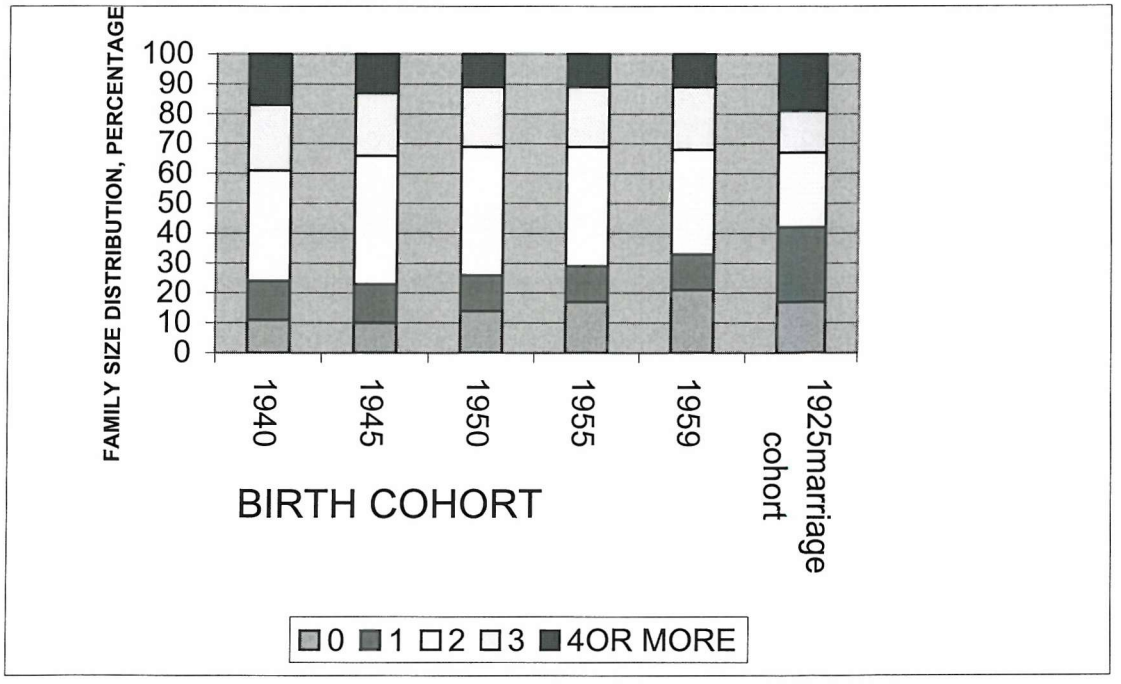
Figure 2.11 Completed family size for 1925 marriage cohort



Note. Figures relate to first marriages of women under the age of 45 years.

Source: Glass & Grebenik (1954), 1946 Family Census, Table 16, p 87.

Figure 2.12 Family size distribution for 5 birth cohorts and the 1925 marriage cohort



Source: Birth cohorts, ONS, 1999c, Table 3, p.38. Marriage cohort Glass & Grebenik (1954), 1946 Family Census, Table 16, p 87.

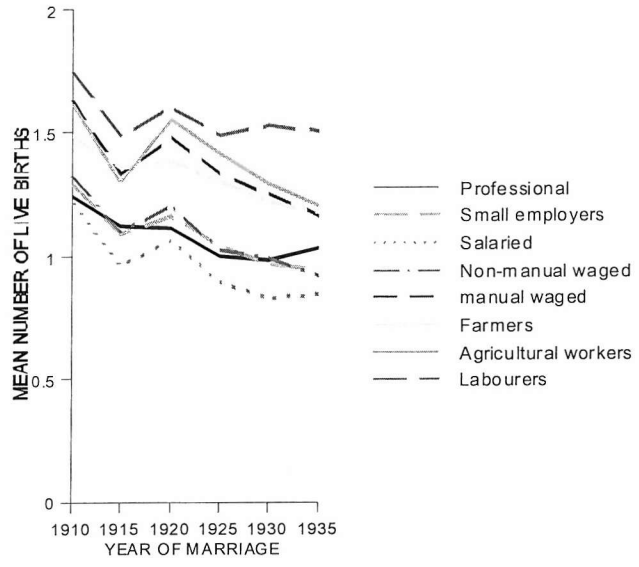
The need to consider family size distribution is emphasised by the fact that even though fertility rates in the 1930s and the 1980s and 1990s are very similar (re: Figure 2.4), the distributions of family size for these three decades are different.

2.4 Occupational differentials in fertility

Glass and Grebenik (1954) present data from the 1946 Family Census (a ten per cent sample) on the average number of live births by five and ten years of marriage by social group for all ages at marriage under 45 years. The social status categories they used can be classified on the basis of their fertility into two groups (Figures 2.13 and 2.14), one broadly encompassing the middle classes (professional, small employers, salaried and non-manual waged) and the other manual and agricultural workers. Taking the marriage cohort of 1930 as broadly representative of those who were having children during the 1930s, the first group had on average one child within the first five years of marriage and roughly 1.5 children on average within the first ten years of marriage; the corresponding figures for the second group were about 1.3 and 2.0 children (save for the unskilled labourers, who had 1.5 and 2.4).

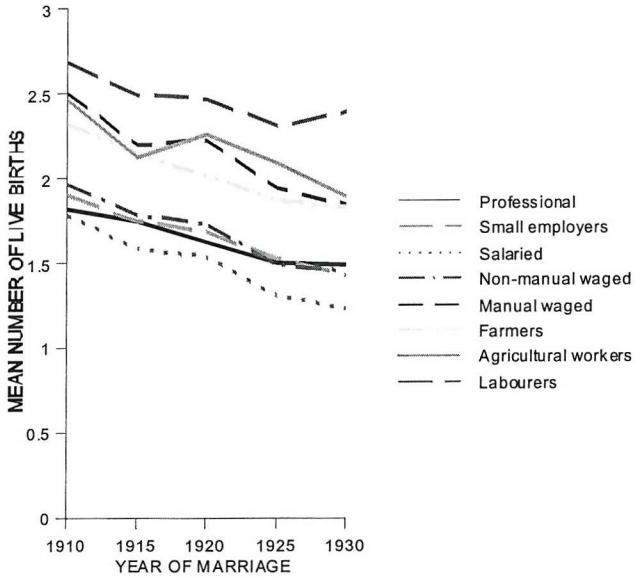
Differences between the social classes also emerge in the spacing of these children. Garrett et al. suggest that there was some difference between social classes in childbearing patterns early on in marriage in the first decade of the twentieth century, with working class women being more likely to be pregnant on marriage than those in social class I, and there being 'a substantial social difference in the apparent resort to delaying the arrival of children at the start of marriage' (Garrett et al., 2001, p. 281).

Figure 2.13 Live births by 5 years of marriage by occupational category



Source: Glass & Grebenik, 1954, Tables L.1 to L.182, for all women under 45 years at marriage.

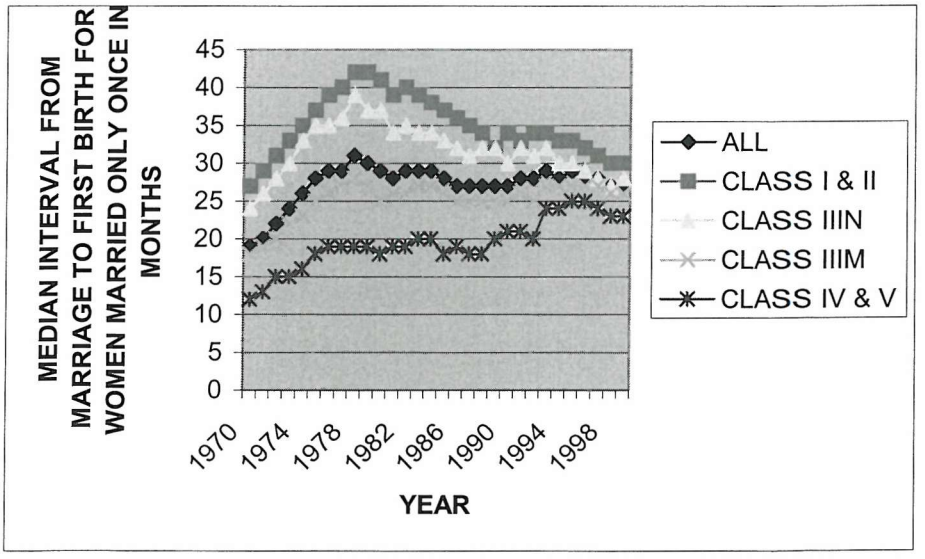
Figure 2.14 Live births by 10 years of marriage by occupational category



Source: Glass & Grebenik, 1954, Tables L.1 to L.182, for all women under 45 years at marriage.

Mass Observation data from 1944-45, however, contain rudimentary birth history data for marriage cohorts from 1917 to 1935 (in Chapter 5 there is a fuller description of these data), and analysis of these data (Eckstein and Hinde, 1999), suggests that during the inter-War period there was a hierarchy of family building strategies with the middle classes tending to have fewer births by both five and ten years of marriage than the artisan and skilled working classes, who in turn had fewer births by five and ten years of marriage than the unskilled working classes. In particular, there was variation between classes in the spacing between marriage and the first birth, with the middle classes, in particular, having a prolonged childless 'honeymoon' period after marriage, whereas the unskilled working classes bore their first child after marriage on average within two years. After the first birth, however, some spacing was observed among all social groups, though it was again most pronounced among the middle classes.

Figure 2.15 Median interval in months from marriage to first birth for women only married once, by social class, 1970-1999.



Source: Data 1970-1983, OPCS, 1987, Table 11.3. Data 1984-1987, ONS (1988). Data 1988-1998, ONS (1999). Data 1999 ONS (2000) Table 11.3.

This ties in nicely with Szreter's conclusion that some couples were restricting their fertility 'from very early on in marriage' (Szreter, 1996, p. 378), i.e. spacing from very early on in their marriage if not from the marriage itself. And indeed, as will be described further in Chapter 3, a number of 'marriage manuals' recommended the spacing of birth for the health of both the mother and the child, and in one such manual (Scott, 1938, p43), spacing from marriage is discussed.

Interestingly, as Figure 2.15 demonstrates, in more recent years, there has been a social class convergence of marriage to first birth intervals.

2.5 Stopping and spacing

2.5.1 Reproductive histories

In order to examine fertility at the micro rather than the macro level (and thus be able to examine distributions of completed family size and births intervals), it is necessary to have reproductive histories. These are what Hinde (1998, p. 129) calls 'a potted biography', giving information on the childbearing careers of individual women. Events such as her date of birth, date of marriage and dates of childbirth are given and thus the intervals between events can be measured. Such information is not widely available for large numbers of women, and this is particularly the case for historical populations. However, it can be invaluable in identifying the variations that exist within a population in both the tempo and quantity of childbearing.

Measurements of the intervals between marriage and first birth and subsequently between births have become central to the debate on whether 'stopping' and/or 'spacing' behaviour is evident in a population.

'Stopping' describes fertility behaviour in which births go unprevented until some sort of target number has been achieved. There is then a total cessation of childbearing. In contrast, 'spacing' describes fertility behaviour which slows

the rate at which births occur, 'spacing' them. Unlike 'stopping', it is not parity specific.

Reproductive histories can also be used to examine 'starting' behaviour. I believe the marriage to first birth interval to be of vital importance in explaining the low fertility of the 1930s. It is unfortunate that 'starting' behaviour is not often considered as many questions related to it are, on the whole, left unanswered. For instance, in very low fertility societies, when there is a long interval between marriage and first birth, it is debateable whether this ought to be described as a large 'space' or a failed 'stop'.

2.5.2 Fertility transition and family limitation

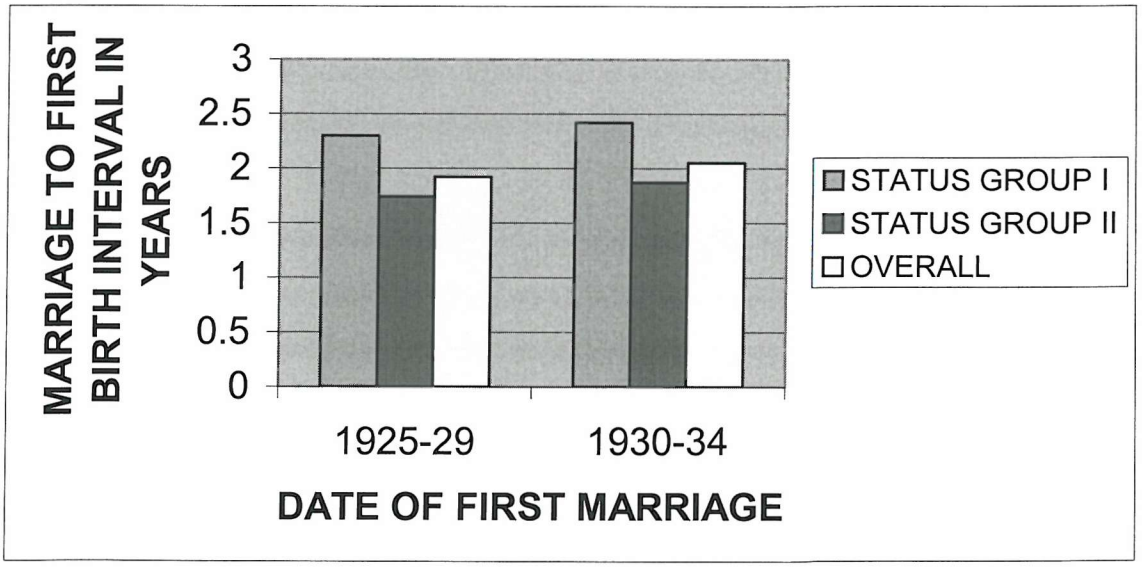
For many years it was believed by most demographers that the behavioural change which underpinned the decline in marital fertility was the diffusion through the population of 'stopping' behaviour (Teitelbaum, 1984; Woods 1987). By this it is meant that couples who had achieved their desired family size then adopted birth control in order to 'stop' further childbearing. In this belief, demographers were strongly influenced by Louis Henry's distinction between 'natural' and 'controlled' fertility (Henry, 1961). More recently, however, it has been argued that increased birth spacing played a far more important role than was originally believed (Garrett and Reid, 1995; Szreter, 1996; Anderson, 1998; Garrett et al, 2001).

Some have gone so far as to suggest that spacing was the predominant behaviour in the British fertility decline, taking place in what is called by Szreter (1996, p. 432) 'a culture of abstinence, where the 'abstinence' is abstinence from sexual intercourse. Szreter does not say whether or not he believes couples' attempts to space their children were parity specific, but he does point out that, as stated earlier, in some communities or social groups it might have begun early on in marriage. Garrett and Reid (1995) argue that this was the case among the middle classes. Their evidence suggests that, among these middle classes, lower fertility was achieved by birth spacing after the first birth.

Anderson (1998) concentrates on the increase in the proportion of very small families throughout this period of decline, 'very small' indicating no more than one child. Like Garrett and Reid, he concludes that overall, little attempt was made to delay the first birth, and that any spacing took place thereafter.

Although these studies suggest that increased birth spacing was important in the British fertility decline, they are unable to conclude that 'stopping' behaviour was absent, or even unimportant. It could, for example, be suggested that the prolonged interval between first and second births found by Garrett and Reid (1995) is in fact failed 'stopping' behaviour, and whether Anderson's very small families were produced by 'stopping' or excessive 'spacing' is a moot point. Garrett et al (2001) suggest that a couple might have decided upon marriage not to have very many children, and thus formulated a childbearing strategy involving increased birth spacing, rather than coming to a decision to use some form of birth control later on in marriage after the birth of a number of children, but the evidence for this is as yet inconclusive.

Figure 2.16 Mean interval between marriage and first birth for marriages at 10 years duration



Source: Glass & Grebenik, 1954, Part 1, Table 6, p 167.

The Royal Commission on Population (RCP) data provide somewhat rough information on the interval between marriage and first birth, giving the data divided into only two groups, status group 1, non manual workers, and status group 2, manual workers (1954, Table 6, p. 167). However, the extended honeymoon period of the middle classes described earlier, can be seen in this data also, with a non manual worker from the 1925-29 and 1930-34 marriage cohorts having a marriage to first birth interval of roughly 2 years and 4 months and 2 years and 5 months respectively, compared to a manual worker of the same cohorts who had a first birth interval of 1 year and 9 months and 1 year and 10 months respectively (Figure 2.16).

2.6 Conclusion

What is apparent from this chapter is that the 1930s were clearly a decade of immense change in British fertility history. Fertility rates were so low as to have never been achieved before, and almost 50 years pass before they are achieved again. Huge changes occurred in the timing and overall number of births. Average measures explain little of this. What needs to be addressed is who the main actors were and which scripts were they following.

For example, did childless couples intend to be childless, or did they 'over-space' their first births? For those couples who had a completed family size of one, did their script intend that they only had one child, or was that child a failed attempt at childlessness (i.e. failed stopping at zero), or was it a failed attempt at a parity greater than one (i.e. failed, or 'over done' spacing, with couples misjudging the effectiveness of their contraceptive methods - being used to space their children- until it is too late for a second child to be born).

For each parity the same type of questions need to be asked. Was achieved fertility desired fertility? If not, why not? What factors influenced fertility decisions, and how the decisions were carried out are intuitive follow-on areas for study.

Chapter 3
Explanations of low fertility

You drink your coffee and I sip my tea
And we're sitting here playing so cool, thinking 'What will be, will be'
But it's getting kind of late now
Oh I wonder if you'll stay now, stay now, stay now
Or will you just politely say 'Good night'

Hazel O'Connor

3.1 Introduction

The literature on the study of fertility is huge, and even when the field is temporally limited and narrowed to that of changing marital fertility, it is still immense. This is a review of literature relating to modern low fertility societies, and the theories that are sometimes used to 'explain' them. The aim of this chapter is to describe the major theoretical explanations which demographers and others have put forward to account for the low fertility of developed countries, and therefore of the low fertility in inter-War Britain.

Section 3.2 focuses on the contemporary explanations of demographers, sociologists, economists and others for the low fertility of the era. In section 3.3 demand theories are addressed, with the work of the Chicago school and some sociological theories of fertility being examined. A critique of the demand theories follows (section 3.4). The chapter then approaches more recent theoretical developments (section 3.5) including the importance of birth spacing and context in understanding fertility behavior. The chapter concludes in section 3.6 with an assessment of the limitations of the traditional theoretical approaches to explaining low fertility and consideration of what type of approach might better explain the data.

3.2 Contemporary explanations

Many of the contemporary explanations put forward as to the low fertility of the 1930s were not of the type of the demographic theories of fertility that are bandied about today. Rather they tended to be ideas presented by individuals (who often had no or little demographic or statistical knowledge or training), that were, to them at least, intuitive.

A number of these 'non-scientific' or 'non-theoretical' ideas were presented in the form of 'marriage manuals' (e.g. Wright, 1953, Scott, 1938 & Hutton, 1935) or essays (e.g. Charles, 1934 & Titmuss and Titmuss, 1942).

Although their authors were not directly referring to fertility behaviour in the 'marriage manuals' that were written throughout this period, inferences can be made from them as to the nature of marriage. The selection cited were chosen for the simple reason of their availability today. The Sex Factor in Marriage (Wright, 1953), first published in 1930, considers the primary element necessary to 'make an ideally happy marriage' to be 'companionship and co-operation between husband and wife', with parenthood coming in second place. This sentiment is echoed in an essay by Charles (1934, p 194) who felt that the 'moral sentiment towards sex and parenthood has changed'. Although children are still seen as an important part of a marriage, with voluntary childlessness only being recommended for the poor or those considered (by individual authors) as eugenically unsuitable for reproduction (for examples see Scott, 1938, and Hutton, 1935), the spacing of births is seen as being beneficial for both health and economic reasons. Scott (p 43) states that: 'Where it is felt that the cost of rearing and educating children would constitute a hardship, and probably affect adversely the happiness of the marriage, a case for avoidance or delay of conception undoubtedly exists'. He continues, 'Where a couple decide against having a child during the first few years of marriage...' and goes on to devote (and entitle) a section on 'The Best Birth-Control Methods Available During the Honeymoon Period'. Although it is mechanical methods of contraception that are recommended, with withdrawal advised for use 'in emergencies only' (p 49), the very fact that the use of birth control from marriage is

being discussed suggests to me that it was taking place. Lewis-Faning (1949) states that by the mid-1930s roughly two-thirds of married women had used birth control, although he does not specify at which point in the family building strategy. This is backed up by Charles' references to the 'fashionable family' for the decade, it being 'an average family of little more than one at the best, more probably less than one' (1934, p. 195).

'Attempted abstinence', to coin Szreter's phrase (1996, p 393) is suggested to me by the references in the literature made to couples having separate beds, it being suggested by Hutton, (1935, p. 29) and described by Charles (1934, pp 171-2) who writes:

> Two new factors which would tend to promote greater frequency of sexual intercourse in what we may now assume to be the 'safe' period, if indeed a safe period exists, have both come into operation during the period of the decline of the European birth rate. One of these is the increasing disposition among married couples to adopt separate sleeping arrangements. The other is the birth of the feminist movement. In its initial stages feminism was identified as a revolt against the sexual demands of the male partner and a puritanical exaltation of abstinence. With the growth of a more enlightened attitude to sex, this has given place to a recognition of the sexual needs of both partners and the attempt to adjust them in such a way as to secure maximum satisfaction to both. It can hardly be doubted that this attitude, reinforced by the factor of additional privacy which operates today in so many marriages, must reduce the frequency of sexual intercourse at the time when conception is most likely to occur, even if the net frequency of sexual intercourse remains unchanged.

One writer of the era who was however, eminently qualified to comment, was David Glass. He was to carry out a significant amount of work for the Royal Commission on Population 1944-49 and later went to become a Professor of Sociology at the London School of Economics. In his personal hypothesis as to why couples were limiting their child bearing, Glass looks to economic and aspirational explanations:

> Moreover, parents are now much more ambitious for their children than was the case even at the end of the nineteenth century. The prevailing aim is no longer for sons to carry on their fathers' occupations, but to begin where their fathers left off. The cost of bringing up children therefore includes many more items today - not only the mere expense of food, clothing, and housing, but the cost of 'waiting', that is, of the postponement of the earning period while the child is receiving some form of higher education, and the parents have to consider, besides their income at that time, the prospects of employment in the future. Add to this the fact that large families generally form a barrier to social intercourse, particularly today when there are so many kinds of attractions outside of the home, and it is evident that very heavy pressure is being brought to bear upon people and helping to decrease their willingness to have children.
>
> (Glass, 1936, p. 89)

He was, however, aware that he did not fully understand the process through which fertility changed (why it changed rather than how it changed), and admitted in his 1940 work that 'in spite of all our statistical techniques, we have no clear understanding of the *rationale* of changes in fertility' (Glass, 1940, p. 350). He concluded that 'we cannot do more than guess if and when the decline in fertility will eventually check itself'.

Russell (1932, p37) concurs with this view of parental aspirations leading to them limiting their fertility, 'They do not care to breed, now that they need not, unless the world offers something to their children'. Charles (1934, p 194) suggests that 'Children are felt to be a burden', and that they were felt to be 'a competing element in a rising, because more variegated, standard of life'.

3.3 Demand theories

3.3.1 Demographic transition theory

The demographic transition theory is described as being 'the process of change from high birthrates and death rates to low birthrates and death rates' (Daughtery & Kammeyer, 1995, p.294). Populations are ascribed one of three stages dependent upon their fertility levels. In the initial stage populations have high and static fertility. Populations in the second stage have evidence of fertility decline, and the third stage is characterized by low and stable fertility. The time lag between mortality falling and fertility falling (i.e. between the first and second stages) leads to a period of rapid population growth.

Notestein (1945) presented the first comprehensive explanation of fertility change using the demographic transition theory. He believed that whilst mortality rates were high, fertility rates would also be high, being kept at this level by social and cultural norms. When mortality rates declined it was no longer necessary for fertility to remain high and the cultural norms which kept it high would change and fertility rates would fall, 'for it is only when rising levels of living, improved health, increasing education, and rising hopes for the future give new value to the individual life that old customs break and fertility comes under control' (Notestein 1945, p.57). In short, he believed that if the rationale for high fertility (i.e. high infant and child mortality) disappeared then the cultural norms that encouraged high fertility would also disappear. Thus, the availability and knowledge of contraceptive practice by themselves were not enough for fertility decline, and that cultural changes were needed for fertility changes to occur, stating that 'the decline in fertility requires more profound changes than the mere availability of the convenient contraceptive' (Notestein, 1948, p. 250).

Kingsley Davis's interpretation of demographic transition theory differs in that he sees fertility decline as an economic response rather than a cultural or social response. He suggests that economic development leads to mortality decline which in turn leads to rapid population growth. This rapid growth then threatens the rising living standards

achieved due to the economic development and thus fertility is restricted in order that these rising living standards are protected. Interpreting the fertility declines in northwest Europe and Japan he states,

> 'My own view is that no society has been geared to a sustained high rate of natural increase except by conquest. Under a prolonged drop in mortality with industrialization, people in northwest Europe and Japan found that their accustomed demographic behavior was handicapping them in their effort to take advantage of the opportunities being provided by the emerging economy. They accordingly began changing their behavior. Thus it was in a sense the rising prosperity itself, viewed from the standpoint of the individual's desire to get ahead and appear respectable, that forced a modification of his reproductive behavior'. (Davis, 1963, p.352)

Davis is dismissive of the idea of fertility decline as a cultural or societal response to mortality decline and concludes his paper by saying:

> 'Faced with a persistent high rate of natural increase resulting from past success in controlling mortality, families tended to use every demographic means possible to maximize their new opportunities and to avoid relative loss of status. An understanding of this process in population theory has been hindered by a failure to see the multiphasic character of the response and by an interpretation of demographic behavior as a response either to absolute need or to some cultural idiosyncrasy such as particular 'value system' or 'custom'....We do not 'explain' India's high death rate and Sweden's low death rate by saying that the one 'values' high mortality and the other low mortality. Yet we sometimes come perilously close to this in regard to other aspects of human demography, especially fertility'. (Davis, 1963, p.362)

In demographic literature there is a long-running debate over the relative primacy of

fertility decline as a cultural response or as an economic response to mortality decline. More recently however, there has been debate as to the general applicability of the theory itself, and this is discussed in more detail later in the chapter.

3.3.2 The Chicago school

In many economic models of fertility behavior (e.g. Becker, 1981), children are viewed as consumer goods, on par with cars, holidays and refrigerators. The psychic rewards gained from parenthood are compared to those from other consumer durables. Indeed, Daniel Vining (1986, p 179) opined that:

> ...for humans who understand their history, reproduction is likely to be bypassed deliberately, and often with relief; in its place we are likely to see the substitution of a combination of reduced reproduction and increased attention to more direct phenotypic satisfactions.

Woods (1987, p. 309) also suggests the importance of the 'consumer orientated, fashion conscious society'. One does wonder how much the advent of the motorcar as a fashion accessory (or as a signal to others of having achieved the middle-classes) influenced the fertility of the 1920s and 1930s. However, this does suggest (as does economic theory) that fertility decisions are rational decisions. However, at an instinctive, gut reaction level, this link between rationality and fertility seems somewhat tenuous to me.

If fertility decisions are rational, then the fundamental question that couples need to decide is whether to have children or not have children. Yet how can a childless couple accurately assess the psychic rewards that parenthood would give them? They cannot 'try before they buy' in the same way that you can with other consumer durables.

This is not to suggest that rationality does not come into the equation at all. It is simply

that I believe that fertility decisions are rationalized rather than rational. No rational woman would give over her body to morning sickness, stretch marks, back ache and indigestion for nine months, then spend hours in excruciating pain, be sleep deprived for months and have years of economic outlay in return for a consumer durable that makes no economic return, but that leaves home (hopefully) on maturity. Indeed it is interesting that those supposing rationality in fertility decisions are in the main men.

A number of economists believe that (in the developed world) it is possible via economic theories to explain:-

i) the fertility declines of the fertility transition (including variations in the timing and levels demonstrated by various social and occupational groups);
ii) post war fluctuations;
iii) the 1960s baby boom;
iv) the current below replacement levels of fertility being experienced in many parts of the developed world.

.

Two main schools of economic theory exist:

1. the demand theory (or Chicago School, or new household economics), identified with Becker;
2. the socio-economic approach, identified with Easterlin and Leibenstein.

Economic demand theories of fertility see children as durable goods, although this is a questionable analogy (and to some, e.g. Blake 1968, an inherently wrong one). Children cannot be given back, sold on or part exchanged for a new model in the way that a car can. Their supply cannot be fully controlled – there is the problem of infecundity and unwanted fertility. Theoretically, the use of abortion means that over-supply can be controlled, economists no doubt arguing that this makes children a scarce commodity.

If one does accept the analogy of children as durable goods, they need to be seen as

'inferior goods' - the higher income groups generally buy fewer than lower income groups. According to Becker (1960) this is because as income rises so children of higher quality are desired, thus fewer are had. This interaction between quantity and quality can partially explain why the quantity of children (e.g. the Total Fertility Rate) changes over time. Becker also argues that a reduction in the number of children born to a couple can increase the representation of their children in the next generation if, by having fewer children, the couple is able to invest more in the general education, training, and general marketability of each child that they.

This can be seen as being a somewhat dubious argument since it will only hold in practice if either:-

a) Higher quality children are more likely to survive to reproductive age than lower quality children, or
b) Higher quality children are more likely to enter reproductive unions if they survive than lower quality children.

The data from the Royal Commission on Population and Mass Observation seem to suggest that some parents in Britain in the 1930s wanted to have fewer children in order to invest more in those few, a 'two cordon-bleu meals rather than half a dozen McDonald's value meals' sort of scenario.

In more recent years, the relationship between the mother (or prospective mother) and the labour market, or the 'opportunity costs' of child bearing, is often stressed (e.g. Butz and Ward, 1979), with the position of the mother in the labour market playing a pivotal role in the timing and realized fertility of the family. Indeed, the social class differentials in fertility seem logical if looked at in this light. Since years of education are directly related to social class, the middle class woman with more education than the working class woman effectively has more to lose by having a child if in so doing she forgoes earnings, career advancement etc. Ní Bhrolchaín, (1986) concluded that the tempo of childbearing in Britain the 1950s and 1960s was accelerated and birth intervals shortened due to the perceived prospect of returning to the labour market; whereas in

the 1970s different economic and employment conditions meant that women were returning to work between births and thus lengthening birth intervals. There is also the problem of a delayed birth becoming a non-birth, and thus lowering fertility. Were the women in the 1970s acting as their predecessors in the 1930s had? Certainly a number of the RCP interviews mentioned that work was seen as an acceptable and even desirable alternative to children by some women.

This is also evident in Britain today. (Jefferies, 2001, p 6) notes that, as ever increasing choices are available to individuals, so the decision to child bear becomes more complicated, 'the increasing acceptability of voluntary childlessness, the climate of union instability, the high cost of child care and the attractions of employment and leisure compete with having children'.

3.3.3 Adding some sociology: Leibenstein, Easterlin and Caldwell

To repeat Duesenberry's often-repeated quip, 'Economics is all about how people make choices. Sociology is all about why they don't have any choices to make.' (Duesenberry, 1960). When examining fertility patterns, sociological theory has tried to explore these constraints. Hobcraft and Kiernan believe the five main constraints to be time, money, ideas, security and biology (Hobcraft and Kiernan, 1995, p 7). It needs to be noted however, that these constraining factors are not constant between classes and occupations, so that, for example, the reproductive choices available in the nineteenth century to the ladies of Mayfair were rather different to those of the women of the Rhondda (Woods, 1992).

In the socio economic theories, tastes are seen as changeable rather than given (a major short coming in the demand theories of fertility). Leibenstein (1974) looks at the relationship between tastes and social status. Thus economic changes affect a family's status which in turn affects their tastes, not only for the quality and quantity of children, but also for the range of services and goods that now compete with children. Easterlin (1975, 1978) takes a similar path, assuming that all determinants of fertility work through:

i) the demand for children (depending on tastes for children and alternative 'goods')
ii) the supply of children
iii) the costs of fertility regulation (monetarily and socially).

In this model the motivation to limit childbearing occurs only if supply exceeds demand, but is dependent on the costs that are attached to the limitation. This ties in well with the Fawcett and Khoo's 1980 study of Singapore which is discussed in more detail in Chapter 7.

The concept of normative behavior and the power or dominance of social norms plays a large role in sociological theories, with Blake (1968) arguing that as far as fertility is concerned, 'economic issues are secondary to normative ones'. Changes in other areas of life lead in turn to changes in social norms (e.g. to family limitation becoming acceptable, and to the idea of the two child norm or an ideal desired family size).

Caldwell suggests that fertility behavior is economically rational behavior that is bound by 'socially determined economic roles and within bounds largely set by biological and psychological factors' (Caldwell, 1978, p 553). He acknowledges the role played by inter-generational 'wealth flows', i.e. the economic relationships that exist within the family, and how these change over time. Connected with this is the idea that as the economic value of children changes (e.g. from being providers of wealth to consumers of wealth), so fertility will fall.

In examining the influence of cultural changes on fertility, Caldwell (1978, 1982) stresses the importance of 'Westernization'[1], rather than modernization, in modern fertility declines, which at a loose level connects with the idea that in historical populations there were contraceptive forerunners who were copied by the masses. Westernization can be seen as being another form of this copying, i.e. taking up non-indigenous norms. In his writing on the fertility of the developing world in particular

[1] Although obviously, the West could not 'Westernize', it could only modernize.

Caldwell addresses the imposition of Western values through such institutions as the UN, the Church and television. I do wonder whether cinema and radio imposed values on couples in the 1930s, and if so, whose values? The possible influence of the media on couples' fertility in the 1930s is discussed further in chapter 4.

The role that education plays in fertility declines can also be interpreted as part of 'westernization' or 'modernization'. It could also be the case that education makes one more aware of the greater range of opportunities available, the range of choice that one has, and the risks associated with certain behaviors (Handwerker, 1986).

Notestein (1953, p 16) stated that the changes in the institutional structure of urban industrial society led to the '...emergence of a new ideal in matters of family size.' . Changes in norms regarding parenthood, and especially motherhood, have to be seen as being very powerful in this context (e.g. Gittins, 1985). Indeed, when examining the British fertility decline, Anderson (1996, p 16). suggests that:

> important shifts in attitudes to marriage and/or procreation are likely to have been more important than any dramatic technical innovation in methods of fertility control or the spread of information about such methods.

Handwerker (1986, p 10) places no relevance on economics in influencing fertility and sees fertility changes as a reflection of cultural transformation. The cultural transformation that brings about fertility changes being viewed is as important as the fertility changes themselves, i.e. fertility change is a symptom of cultural change.

Lesthaeghe, similarly, concentrates on the importance of changing cultural factors when examining fertility change (e.g. Lesthaeghe, 1983), although as Pollak and Watkins (1993, p. 494) point out, in order to examine the importance of culture, we have to be aware of how we are defining it, e.g. culture as a set of constraints, culture as a preference structure etc. Demographers have often been rather lazy and have failed to clearly define what they mean by 'culture'. According to Handwerker (1986, p 11),

culture:

> refers to the content and structural specifications that people use to define economic, political, social, religious, and psychological factors...It follows from this perspective that variables included in decision-making models cannot have consistent effects. The effect of a given variable must be contingent on the manner in which it is conceptualized, and the manner in which it is conceptualized must be relative to specific cultural regions and culture-historical periods.

Cultural factors are thus seen as helping to explain why, for example, two countries at similar positions industrially and economically might have two very different fertility schedules (e.g. Lesthaeghe's (1977) study of the fertility transition of Belgium, in which the Walloon areas and the Flemish area exhibited very different fertility levels). Notestein also stresses the importance of the role that culture (as opposed to diffusion) plays in fertility behavior (as summarised in Szreter, 1996, p 17).

Garrett and Reid (1995) however, conclude that '..modernization rather than industrialization lay at the root of the fertility decline in England and Wales,' with 'cultural rather than economic factors' being at work to reduce fertility (Garrett and Reid, 1995, p 97).

Woods (1987) makes the link between education and the new literature on family limitation (e.g. The Wife's Handbook) that was becoming available in the latter half of the nineteenth century. He suggests that it was not the actual information given in such books (which was often known) but the fact that these books changed norms regarding family limitation.

When studying changes in fertility, we need to remember that:

> 'depending on the needs and attitudes of the spouses, the flow of social influence between them, and other aspects of the family structure and

marital relationship....Economic incentives or disincentives , for example, will not affect all households in the same way but will influence fertility complexly through their interaction with the style and dynamics of family life'. (Bagozzi & Van Loo, 1980, p 121-122).

3.4 Critisms of the demand theory

Low fertility is a feature of the modern developed world, and, as shown by Wilson (2001), is also increasingly a feature of the less developed world. Although there no longer appear to be the early twentieth century's concerns of 'racial suicide', there is great interest in this tendency, especially as low fertility leads to increasingly aged populations.

In their 'Iconoclastic View' of demand theories of the fertility transition Cleland and Wilson question the basic assumptions behind such theories (Cleland & Wilson, 1987). This paper effectively rebukes demand theories of the fertility transition. They question the central premise of both the economic and the sociological approaches to demand theories of fertility is the premise that an assumption 'so entrenched as to be almost unquestionable.....that the changing balance between costs and benefits of childbearing, resulting in reduced parental demand for children, is the fundamental force behind fertility decline' (Cleland and Wilson, 1987, p.5). They acknowledge that at the time transition theory was developed there was little in the way of suitable data against which to test the theory, but point out that this is no longer the case and thus utilize historical and developing countries data in order to test transition theory.

They come to a number of interesting conclusions (pp 27-28):

- That parity specific birth control is probably absent in most traditional societies.
- Its absence does not imply that children possess a high economic value for their parents.
- The timing of the transition is influenced by cultural rather than economic

indicators.

- The speed of decline relates more to the diffusion of new ideas rather than to changes in micro-economic forces.
- The decline in parental demand for children does not appear to precede fertility transition.

Most interesting for this study, however, is the conclusion that, in the case of England, the evidence 'contradicts most major theories of the transition' (p.15) and they go on to state that this example should 'warn us against an uncritical acceptance of demand models of the transition' (p. 15). Leading on from this conclusion, the question of the applicability of Coale's preconditions for fertility decline in Britain is discussed at length in chapter 8.

Wilson (2001), in his thought-provoking paper on the cases of Addis Ababa in Ethiopia and the Scheduled Castes in Kerala State in India, considers the implications for fertility theory of low fertility societies existing not only in the developed world, but also in the developing world. He states that 'We are moving into a world in which low fertility is the norm of experience for rich and poor nations alike' (p 13), and goes as far as to suggest that 'there is no society in the world whose social and economic circumstance are inimical to the establishment of low fertility' (p 14). Where such examples fit in current fertility theory is not obvious, and raises the question of the general applicability of the theories and whether perhaps there is an explanation that can cover low fertility societies regardless of their developmental, economic and political states.

Indeed, Kohler & Kohler's 2001 paper on the fertility decline in Russia after 1990 shows only too well that there is no simple theory that fits. They present the three main explanations that are put forward, and concentrate in their analysis on the first. The arguments they present are:

1. The economic crisis argument. This chimes with many of the explanations for Britain in the 1930s, that an increased sense of economic uncertainty economic and worries about the labor-market led couples to postpone childbearing or

reduce the desired number of children.

2. The adjustment argument, i.e. a process of 'westernization' or 'modernization'.
3. The second demographic transition argument, i.e. that Russia is entering its second demographic transition (the term coined by van de Kaa, 1987), echoing the footsteps of the West.

Interestingly, on examining data at both macro and micro level they come up with opposing results for the economic crisis argument, with the macro level analysis suggesting an association between economic conditions and fertility limitation, while the micro level analysis suggests no such negative relationship, and frequently the opposite.

This does leave me wondering whether traditional fertility theories really have a role in explaining:-

a. fertility outcomes, and
b. the more recent examples of low fertility societies in particular.

The theories discussed so far have been developed by economists and sociologists, each within their own framework of understanding. The economists focus on the quantity of 'quality of children' versus 'alternatives' to those children, whilst the sociologists focus on shifts in tastes and how as society changes so preferences change in favor of fewer children. Yet fertility behaviour does not take place within such isolated frameworks. It takes place in contexts that include the economic, the sociological, the psychological, the biological and countless other aspects. If you look at a picture from just one angle, you cannot see the full picture.

3.5 Recent theoretical developments

3.5.1 The problem with social science

The work of Cleland and Wilson (1987) demonstrates clearly that the desire to produce general theories and rather simplistic views of what are intrinsically complex demographic processes is not terribly useful to those wishing to develop an understanding of such processes.

Indeed, Szreter states (1996, p 45) that:

> the way forward in the analysis of changing human fertility behaviour does indeed lie in following an approach which focuses upon the economic relationships involved, but only once these have been properly culturally contextualised in all their local variety, and provided they are seen as primarily determined by the influence of highly negotiated, socio-political and ideological forces of change.

Thus a need to move away from the confines of demand theories of fertility transition and from Coale's preconditions for fertility decline is needed. Were economic factors the only ones that mattered, rationally acting couples would not be deciding how many children to have, rather, whether they should have children at all. As Gittins states (1982, p 17), child bearing decisions do not take place 'within a social vacuum' where there 'is no consideration of the role of norms and social and ideological pressures exerted on individuals concerning marriage and childbearing'.

These criticisms of traditional theories of fertility decline should not be read as implying that economic and sociological factors are not related to outcome fertility, the inverse relationship between wages/living standards and mortality is well noted, and in societies where nuptiality is linked to economics (e.g. Malthus's preventive check that was true for England historically), a relationship between wages and nuptiality can be seen. Indeed, the Fabian Society inquiry into the falling birth rate at the turn of the century

stresses how those exhibiting most thrift were those exerting greatest control over their fertility (Webb, 1907). However, that a relationship exists does not imply causality.

3.5.2 The importance of birth spacing

Until relatively recently parity specific 'stopping' behavior (as put forward by the likes of Henry, 1961, and Coale and Trussell, 1974) was held to be the sign of 'modern' birth control. However, the importance of 'spacing' in the decline of fertility has now moved into the debating chamber. 'Stopping' behavior is identified by births being allowed to come until some 'maximum' or target number has been reached, and there is then a total cessation of any further childbearing. In contrast, 'spacing' slows the rate at which births occur, and thus reduces fertility. Spacing can begin at any point in the childbearing career and is non-parity specific.

There is a technical problem in ascribing the terms 'stopping' and 'spacing' to retrospective data sets, in that there really is no way of knowing whether a birth that has occurred after a long interval is a 'spaced' birth or a failed attempt at 'stopping'. Similarly, is a non-birth 'stopping' or over-done 'spacing'? Thus the interpretation of the data by the researcher comes into play in ascribing these terms to various situations.

Traditionally, studies of the British fertility transition have stressed 'stopping' as the primary player (e.g. Teitelbaum, 1984; Woods, 1987), however, in more recent years others have reached the same conclusion as Szreter (1996) and have argued that increased birth spacing played a far more important role than was originally believed (e.g. Garrett & Reid, 1995; Anderson, 1998; Garrett, et al.2001). Szreter and Garrett go so far as to state in the opening paragraph of their 2000 paper that there is 'compelling evidence of the widespread and prolonged spacing of births in addition to, and in some cases instead of 'stopping' behaviour' Szreter and Garrett, 2000, p.45). They refer to the shapes of the age specific marital fertility curves of various cohorts of women as evidence of this. The inferences they make from these curves could however, be interpreted otherwise, and it could be suggested that they are interpreted in this way to

fit with the growing body of literature that supports the argument for the role of spacing in the British fertility transition.

In his 1996 book, Szreter also addresses the 'stopping' versus 'spacing' debate. Spacing is stressed, although he does not say whether or not he believes couples' attempts to space their children were in any way parity specific. However, Garrett and Reid (1995) argue that this was the case among the middle classes, their evidence suggesting that, among these classes, lower fertility was achieved by birth spacing after the first birth.

In his re-examination of the 1911 census data relating to the Fertility of Marriage Report (His Majesty's Stationary Office, 1923), Szreter concludes that those couples belonging to the occupational classes that recorded low fertility 'must have been restricting themselves to an extremely low birth rate from very early on in marriage, during the first five to ten years' (1996, p 378), and suggests that this is due to 'a great deal of spacing'. Indeed, as I will discuss in Chapter 6, this coincides with my suggested interpretation of the Mass Observation data used in this study, that for some couples, spacing from marriage was an important part of their fertility behaviour. Also using the 1911 Fertility Census, Crafts presents figures that suggests that by 1911 spacing 'was well established in urban England and Wales, and accounted for a substantial fraction of total births averted' (1989, p.335). Anderson (1998) questions both Szreter's' and Crafts' analyses. Like Garrett and Reid, he concludes that overall, little attempt was made to delay the first birth, and that any spacing took place thereafter (p.191).

Anderson (1998) concentrates on the increase in the proportion of 'very small' families throughout this period of decline, 'very small' indicating no more than one child although, arguably, those 'very small' families of zero children were in fact spacing from marriage and thus not initiating 'starting' behaviour. It is interesting, however, that his reworking of Crafts' 1989 data showed there to be high levels of childlessness (whether it be seen as 'stopping at zero' or excessive 'spacing') among women marrying over the age of 25 years, in many urban areas (p.190). This corresponds to the findings of the Mass Observation data discussed in detail in Chapter 5.

3.5.3 The importance of context

In his postscript to The European Experience of Declining fertility (Gillis, Tilly & Levine, 1992, pp 326 - 338), Levine ponders on the preference for aggregate data (such as that used in the Princeton project) over micro-level data. He reflects on the fact that 'aggregation homogenizes large-scale data sets so that variations on a common theme are systematically downplayed' (pp 327 – 328). This idea echoes the variations in levels of fertility that are shown in chapter 2, and the extent to which they can vary from the aggregate mean measures produced.

Thus questions become asked as to the relative importance of aggregate over micro-level measures. Levine asks 'Was there one or were there many fertility declines?' (p329). In so asking the importance of context moves to the forefront.

> If there were many fertility declines then historians' concern with when something happens, how it happens, and in what context it happens takes on a pointed relevance. The issue is subtly transformed from a search for a master combination that will make all the tumblers in the historical lock fall simultaneously to the discovery of many smaller combinations. For the social historian, this line of inquiry provides the possibility of locating the context of declining fertility in the historically contingent blend of multiple levels of decision-making. Such multiplicity draws our attention not only to the separate motivations of those countless couples who each made individual decisions to 'stop' but also to the larger social processes that provided the changing social framework within which novel decisions were made and then enacted.
>
> (Gillis, Tilly & Levine, 1992, p.329)

The context in which such changes take place should not be important just to the social historian but also to the demographer. Aggregate measures are easier to measure and fit models to, but just because micro-level studies are by their very nature more complex that is not reason for the demographer to ignore them. There does not have to be an

'either or' situation. If aggregate measures are being studied, then the variations which go to make up the aggregate need to be appreciated, as does the contexts in which those variations occur.

Frejka's 1980 paper on Czechoslovakia (discussed in more detail in Chapter 7) stresses the need to view the contextual nature of fertility behaviors. This theme is continued in 2001 (Frejka & Calcot, 2001, p 1) when it is suggested that there is (in low fertility countries in the late 20th century) a 'postponement of births regarded as temporary by the couples involved with many of the postponed births never being born'. However, even though postponement is evident, there are distinct differences between countries, especially between formerly socialist countries and the rest of the developed world. This suggests to me that there is a need to rethink fertility theory in order that such differences can be more fully appreciated.

This also ties in with Heitlinger's study of the low fertility of Czechoslovakia in the 1960s (Heitlinger, 1976). Alternatives to childbearing were attractive in a period when childbearing was not so attractive an option. These alternatives included increased opportunities for women in education and employment, and worked to reduce fertility in a period when rapid urbanisation, inadequate housing, and low wages all worked to make child bearing a relatively unattractive option. Although Heitlinger states that 'most Czechoslovak women limit the number of their children because of material considerations' (p 125), the exact nature of these 'material considerations' is not given. However, the general hassles of daily life in Czechoslovakia in this period are discussed (the laundry, the housework, the queues at the shops, etc.) and one gets a picture of life for a mother in Czechoslovakia that is very similar to the ones which mothers in Britain presented to the Royal Commission on Population and that are discussed further in Chapter 6.

3.5.4 The importance of messiness and contingency

Livi-Bacci's study of population policy in Western Europe in more recent times suggests that the very low fertility experienced in some areas where contraception is banned can be explained by a 'better safe than sorry' attitude prevailing (1974, p 195):

> couples are strongly motivated to have very small families, but they are unable to get efficient medical advice or safe and reliable contraceptives. They are aware of this, and knowing the risk of failure, prefer to reduce their family size below the level they would really desire, so as to be on the safe side.

It would not be unreasonable to suggest that this attitude may well have been at play, for some couples at least, in Britain in the 1930s, thus helping to explain the high proportion of one-child families in this period. This begs the question of whether the nature of marriage changed in order that couples were to restrict fertility within marriage rather than by delaying marriage. Or, as Szreter suggests, did the culture that led to years of sexual restraint by delaying marriage influence couples to exhibit a degree of sexual restraint within marriage, his 'culture of abstinence' (1996, p. 393)?

In earlier periods, according to Macfarlane (1986, p. 52), the production of offspring was regarded as necessary in order to legitimise a marriage, but this may have become less important in the interwar period. It certainly appears to be the case that many couples were happy to remain childless, and there is some evidence to suggest that this may have been because they preferred to spend money on other items. In 1949, the Royal Commission on Population (p.42) suggested that 'more leisure, along with higher standards of living, more ways of spending, increased facilities for recreation and pleasure outside the home, the private motor car, cheap transport, development of holidays away from home, all tended to emphasise the advantages enjoyed by those with few ties'.

However, the RCP do not go so far as to state whether it is believed that childless (or very low fertility) couples were viewed as any less legitimate than other more prolific couples of the era. This leads me to suggest that the question of when children were no longer needed to legitimise a marriage needs to be further examined.

Fisher's study using oral histories and covering marriages between 1918 and 1953 suggests that the low fertility of the era was achieved without such strong motivation. Rather 'they used birth control, yet they claimed not to mind when children were born or care how many they had' (Fisher, 2000, p.301). Her study presents birth controllers (regardless of their degree of effectiveness in controlling) who had an abstract idea of having 'not too many' children, without an actual idea of how many was 'too many'. Indeed she cites one of her interviewees who stated that he wanted to keep his family size 'in its right perspective', doing so through the use of withdrawal and condoms.

The physical means by which this restricted fertility was achieved are open to debate and for me present many more questions that have in this study to be left unanswered. Was there, as Szreter persuasively puts forward, 'a culture of abstinence' (1996, p 420) in which periodic or 'attempted' (p 393) abstinence had an important fertility limiting rôle to play? Where does coitus interruptus fit in - is it failed abstinence? Gittins interprets coitus interruptus as a display of male dominance in the marriage bed (1985, p 101), though I would argue that for this to be a satisfactory long term inclusion in a couple's sexual relations, co-operation rather than a power struggle is more likely.

There are countless other unanswered questions that spew forth. Were sexual relations even seen as a necessary, or even a desirable part of marriage in this period? Did other forms of non-coital sexual relations play an increasing rôle in the marital bedroom? It is unfortunate that Kate Fisher's excellent study of birth control in Britain the 1930's did not press this question further and instead concludes that 'there was little indication that non-penetrative sex was ever substituted for intercourse as a contraceptive strategy' and that 'references to 'sex' nearly always seemed to mean sexual intercourse' (Fisher, 1997, p.109).

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From my biased stand point I find Elizabeth Roberts' oral histories (Roberts, 1996) of women knowing nothing of sex, birth control and childbirth incomprehensible. I do not doubt that there were some women who were ignorant, just as there are today. However, were they all so, how on earth did fertility manage to fall so low? The Royal Commission on Population report on family limitation (Lewis Faning, 1949) presents a similar picture of ignorance, but the author himself notes failings in the results and believed there to be a far wider practice of birth control methods than the results suggested (pp. 89-92).

Although this is primarily a study of why fertility was low in the 1930s, to know the methods by which fertility was restricted might well have added to the overall picture of the concept of marriage and family building in this period. Abstinence (whether total or periodic), withdrawal and non-coital relations suggest (to me, if not to Gittins) a significant degree of cooperation and communication existing within the relationships.

3.6 Conclusion

This chapter has demonstrated that the traditional fixed models of economic or sociological behavior do not provide pleasing explanations for the changes that were taking place in Britain. There is not an either/or scenario going on, where only one factor is responsible for the changes taking place. As Hobcraft states:

> there is a need for qualitative assessments of the relative importance of the various factors involved, which must transcend current disciplinary boundaries. Single discipline accounts will not suffice; narrow economic, cultural or biological determinism are all unacceptable. A proper account of fertility change must necessarily include the interplay of (at least) ideational, economic, cultural, biological and technological elements in determining the behavior of individuals. (Hobcraft, 1996, p 489)

Kate Fisher's oral histories go some of the way to doing this. They present us

with the insight that there were couples practising birth control, but not, apparently, due to what modern demographers might recognize as family limitation motivations. Rather they were carrying out such practices due to abstract notions of keeping their families 'in perspective', without any real ideas of number to which they wished to limit their family, or the spacing of those births.

This leaves the question of 'What is the best way to understand the process fertility decline?'. I am naturally swayed towards the use of qualitative data to expand the knowledge of personal demographic processes that is presented in aggregate statistical form through quantitative analysis. Childbearing and the decisions that go with the time, speed, and extent of it must be one of the most personal of these demographic processes.

Thus in the following chapters the patterns of child bearing that are forthcoming from the Mass Observation data set are analysised statistically, and then a more qualitative understanding of the processes which brought about these patterns is developed.

Chapter 4
Data and their setting

Pressure pushing down on me
Pressing down on you no man asks for
Under pressure that burns a building down
Splits a family in two
Puts people on the streets.

Queen & David Bowie

4.1 Introduction

The aim of this chapter is to describe the data used in the following chapters and to contextually ground them, i.e. the data need to be seen in collaboration (or partnership) with the temporal characteristics in which they were sourced. The data used were only collected in the 1940s due to concern about the low fertility of the 1930s. The fact that this concern was misplaced only became evident at a later date, after the data were collected. Thus to view the data with such hindsight apparent would, I feel, be inappropriate.

The setting of the data is crucial to its understanding. It is all too easy to analyse demographic data using models and theories which appear place and time non-specific (or specific to a place and time different to that from which the data is sourced), but I would question the helpfulness of that in explaining the data. Thus in this chapter I work on the premise that demographers need to view data contextually with the temporal characteristics of that data is held firmly in mind

Section 4.2 gives a compacted history of Britain in the 1930s, allowing the data to be given some of the context that I believe to be crucial to its understanding. Obviously it could quite legitimately be argued that since I am only aware of a small part of the context in which the data sits that I also cannot fully understand

or appreciate the data. This is true, who other than the one that has lived an experience can fully understand or appreciate that experience? All I can do is aim to form an overlap of understanding between the data and myself, through an awareness that context is relevant.

In section 4.3 I present the history of my data collection, and in Section 4.4 I try to develop an understanding of the data and its context by focussing on the concern that was felt about the perceived low fertility of the era. I attempt to address the question of why this concern developed and to look at the legacies evolving from it. I then describe the data and their sources – The Royal Commission on Population of 1944-49 (from which I use 21 of the original interviews) in section 4.5, and the 1944-45 Mass Observation study entitled Britain and Her Birth-Rate (from which 567 original questionnaire transcripts are used) in section 4.6.

4.2 A brief history of Britain in the 1930s

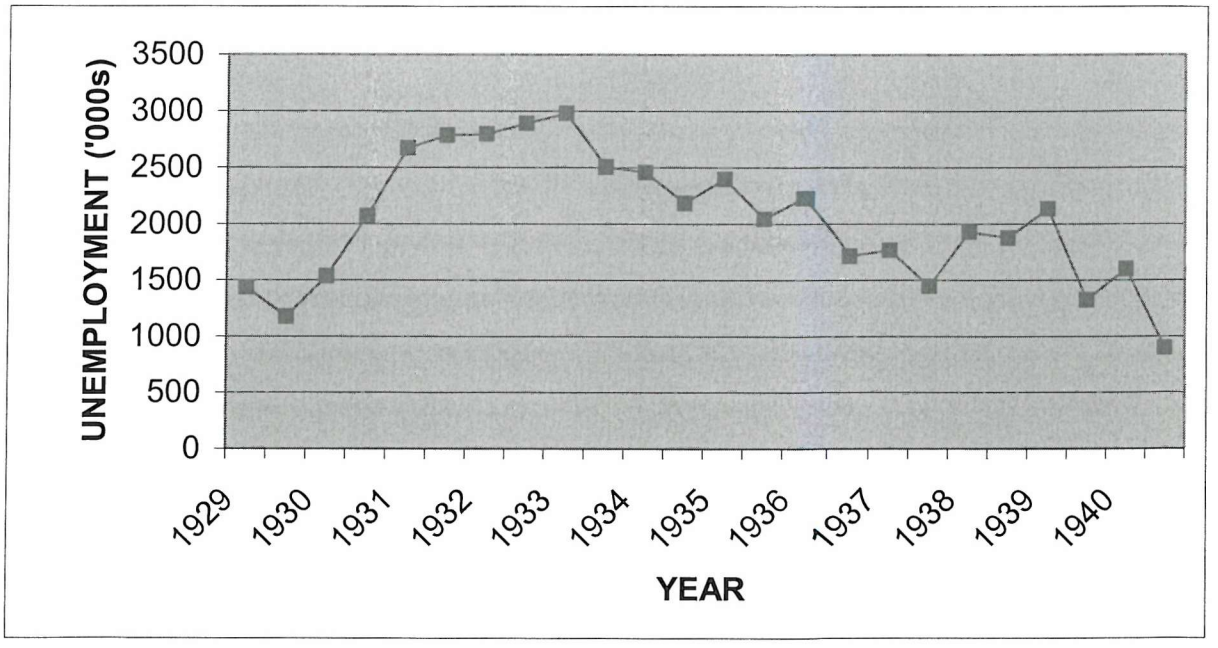
I felt it was important to be aware of the context in which the data used were initially gathered. As stated in Chapter 2, the 1930s were a period of unprecedentedly low marital fertility in Britain. The recognition of this decline in the birth rate led to a number of population projections being made (e.g. Charles, 1934), and these painted a somewhat depressing picture of a declining and increasingly elderly population in the future. I believe that this perception by the initial data collectors would have biased the collection and analysis of the data, in the same way that my personal assumptions bias the way in which I handle data.

To set the scene for this study, I believe that the 1930s should be viewed as a period of rapid changes, which perhaps left much of the population quaking (and nervous) in its wake. For many the 1930s saw a rise in living standards, though pockets of severe deprivation and poverty existed. Thorpe (1992, p 126) describes the 1930s as 'a period of economic, social and political flux, and their end product was a country which was, on the whole, better-off than it had been in

1929, ready to face the ultimate challenge of war in reasonably good shape'. Adding, 'this is not to deny the existence or the seriousness of poverty, misery, and deprivation in some areas'.

The 1930s can be seen as being a period when the 'haves' (or those 'wanting to have') were intent on defending what they had achieved and amassed (by way of status and material goods). For the 'have-nots', the negative reaction of benefit officials towards those claimants with large families (as reported to the Royal Commission) might well have been enough to 'encourage' them to limit their fertility. Conversely, it could be argued (and indeed Gittins, 1982) that for those 'have-nots' in unstable and insecure forms of employment for whom economic planning is not an option, a fatalistic attitude to life, and to fertility, exists.

Figure 4.1 Unemployment 1929-1940 ('000s)



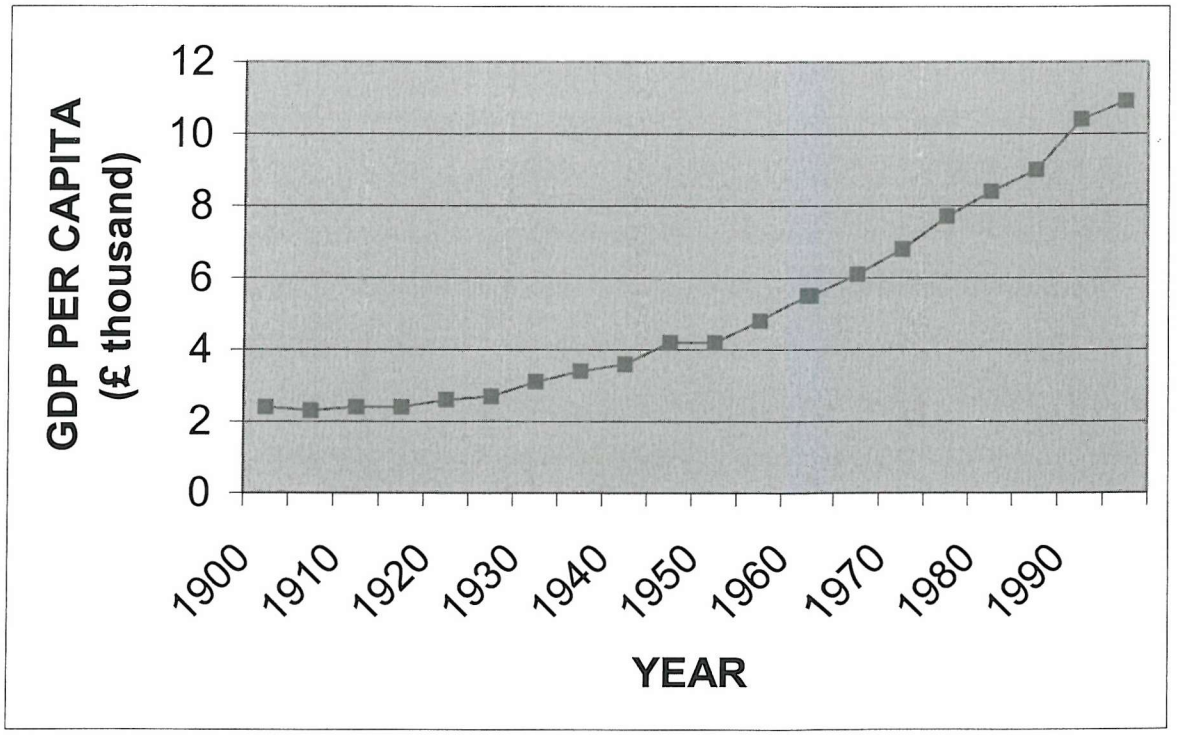
Note: Figures given for January and July of each year, and refer to people registered at unemployment exchanges.

Source: Ministry of Labour, (1929-40).

What is beyond debate is that the 1930s were a period characterised by unemployment (Figure 4.1). Even in the boom times, unemployment never fell below 1 million (about 10%), and at its height at the start of 1933 reached nearly 3 million (or 23%)[1]; much more than the 'one in ten' bemoaned by popular music group UB40 in the 1980s.

There was also a group of workers not considered unemployed, generally those ineligible for unemployment benefit, who took lower paying jobs on redundancy and thus experienced a decline in income and subsequent living standards (Klingender, 1935).

Figure 4.2 Gross Domestic Product per capita, at factor cost, 1900-95



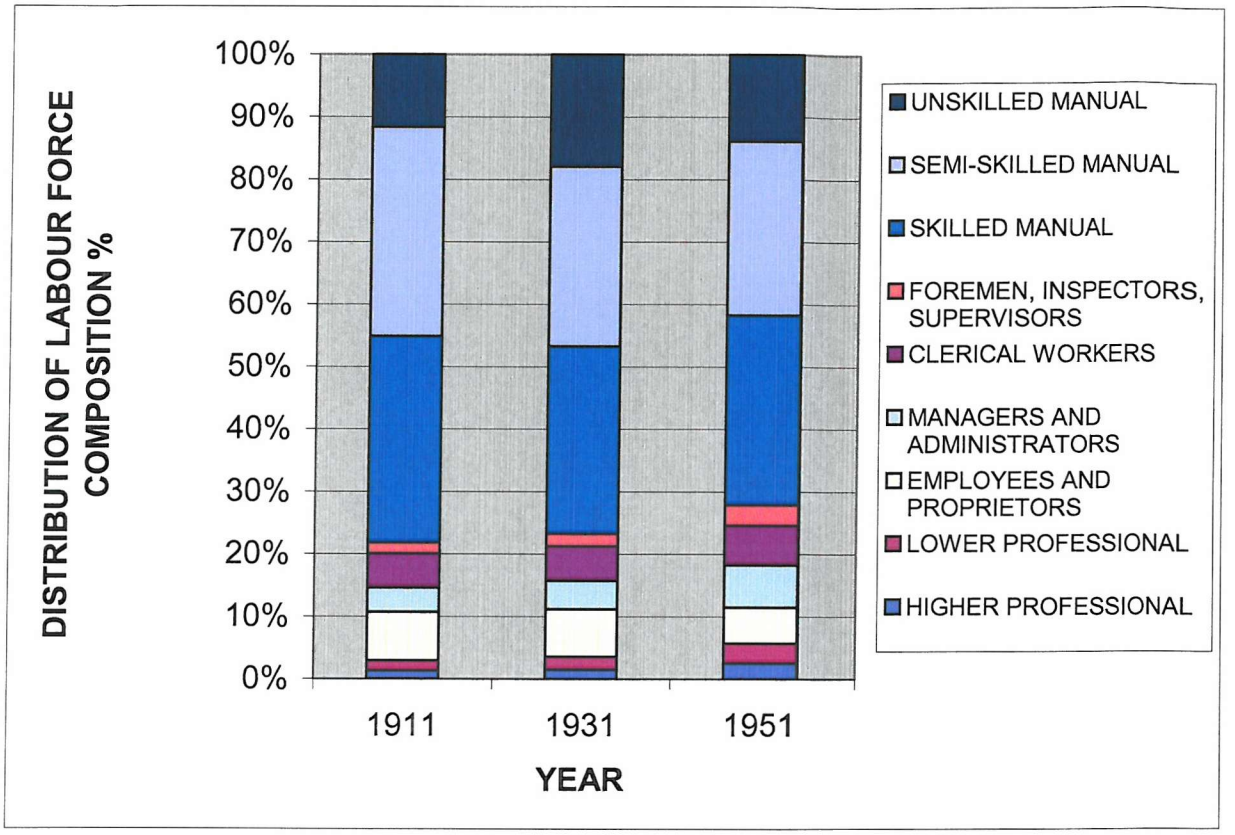
Source: ONS (2000b), Data set ST30A1.

[1] Figures from Ministry of Labour Gazette, vols. 37-48 (1929-40) and relate to the registered unemployed, hence true unemployment would have been even higher.

Figure 4.2 shows that the GDP per capita was increasing (in real terms) steadily Although much of the unemployment experienced in the 1930s was short term, its widespread nature combined with the changeable economic circumstances of the nation would not have done much to encourage a sense of security among the population, and may have been partially responsible for the trend in delayed childbearing exhibited by a number of couples in this period. Indeed, the 1930s could be presented as a decade of insecurity, with negative perceptions evolving out of fear of the changing labour market, economy and world as a whole. These negative perceptions existed, even though real wages were actually rising in this decade and 'the 'normal' working-class income was now, possibly for the first time in British history, above the subsistence level', (Rubinstein, 1986, p 75), throughout the period.

Although the benefits of this increase may not have been spread evenly throughout the population, in overall, average measures, the well-being of the individual was generally improving, despite the fact that the economy was heavily based on the staple industries and in need of restructuring. However, the National Government of the period was seemingly not dynamic enough to do this. There was a general easing of the global economy after 1933, and the expansion of new manufacturing industries (e.g. the motor car industry and radio production), of house building and of service industries boosted the economy. However, the need to restructure still existed, and it could be argued, as Capie & Collins do (1980, p 57) that were it not for the realisation in late 1937 that World War II was imminent, and the subsequent rearmament that took place, the economy would have declined further. Gradual changes appear to be taking place in the occupational composition of the labour force throughout this period (Figure 4.3), with proportions of manual workers decreasing and non-manual workers increasing.

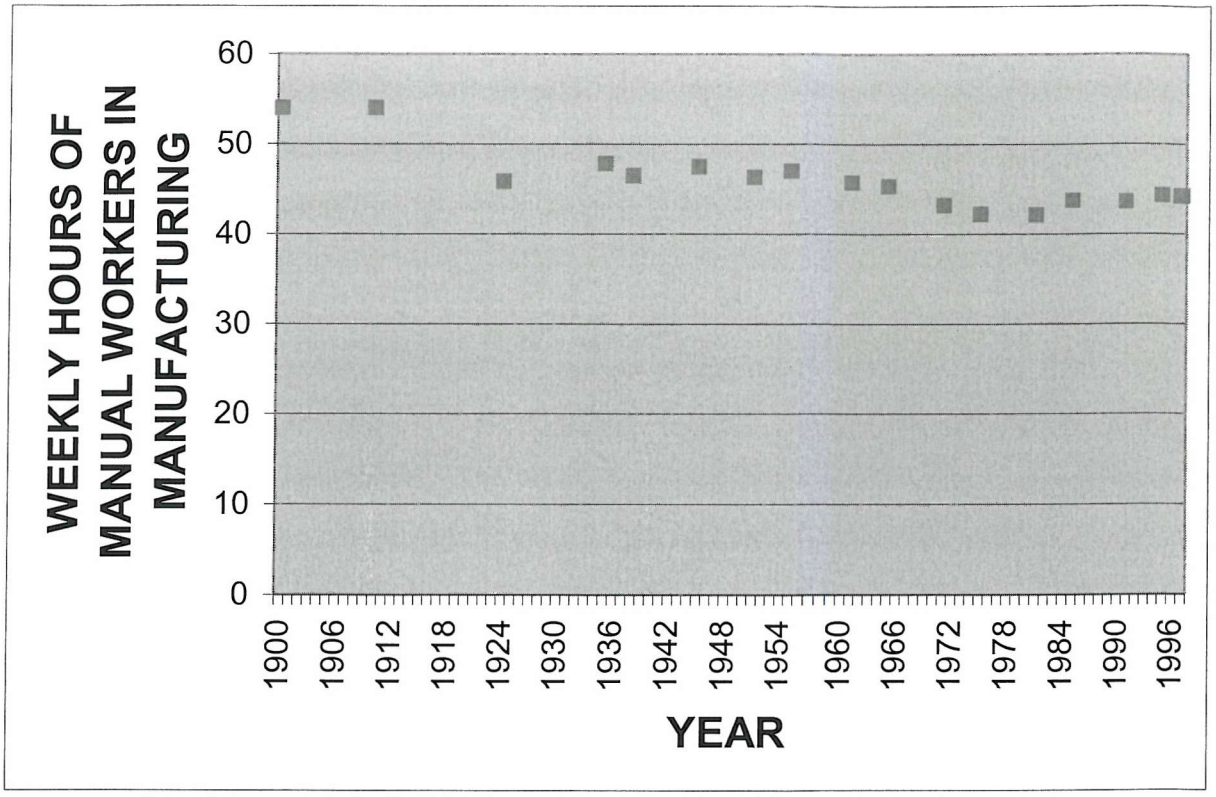
Figure 4.3 Occupational composition of the male labour force, 1911-1951 (%)



Source: Coleman and Salt (1992), Table 9.3, p. 376.

Figure 4.4 seems to suggest that working hours (for the working classes at least) were generally lower throughout the 1930s, compared with at the turn of the twentieth century, giving people more time for home, family and leisure activities.

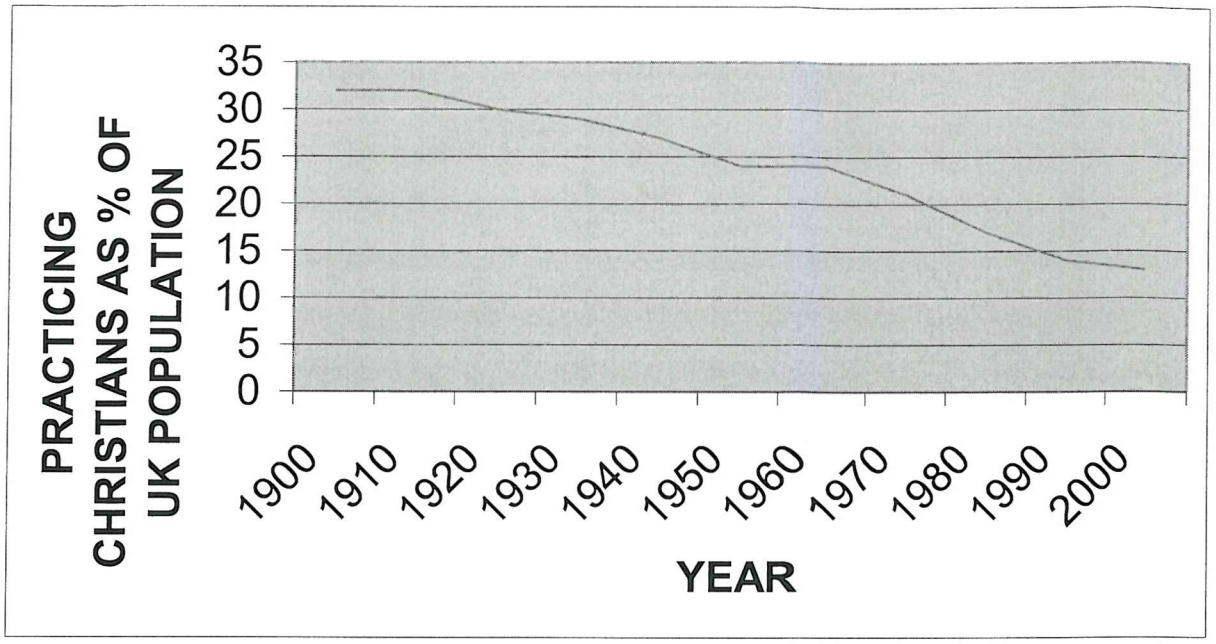
Figure 4.4 Weekly working hours of manual workers in manufacturing 1900-97



Source: Gallie (2000) in Halsey & Webb (2000), Table 8.18, p. 306.

As the middle class suburbs expanded and the inter-war council house-building program took shape so the nature of home life changed into what Thorpe (1992, p 95) describes as 'a cult of domesticity'. Home making, gardening, DIY, reading and listening to the radio took over from the traditional leisure time entertainment of the Church and alcohol. Church membership was declining steadily throughout the period (Figure 4.5) and it could be suggested that leisure pursuits had become the new 'religion' for many.

Figure 4.5 Church membership as a percentage of the UK population, 1900-2000.



Source: Brierley, (2000) in Halsey and Webb (2000), Table 19.2, pp.654-5.

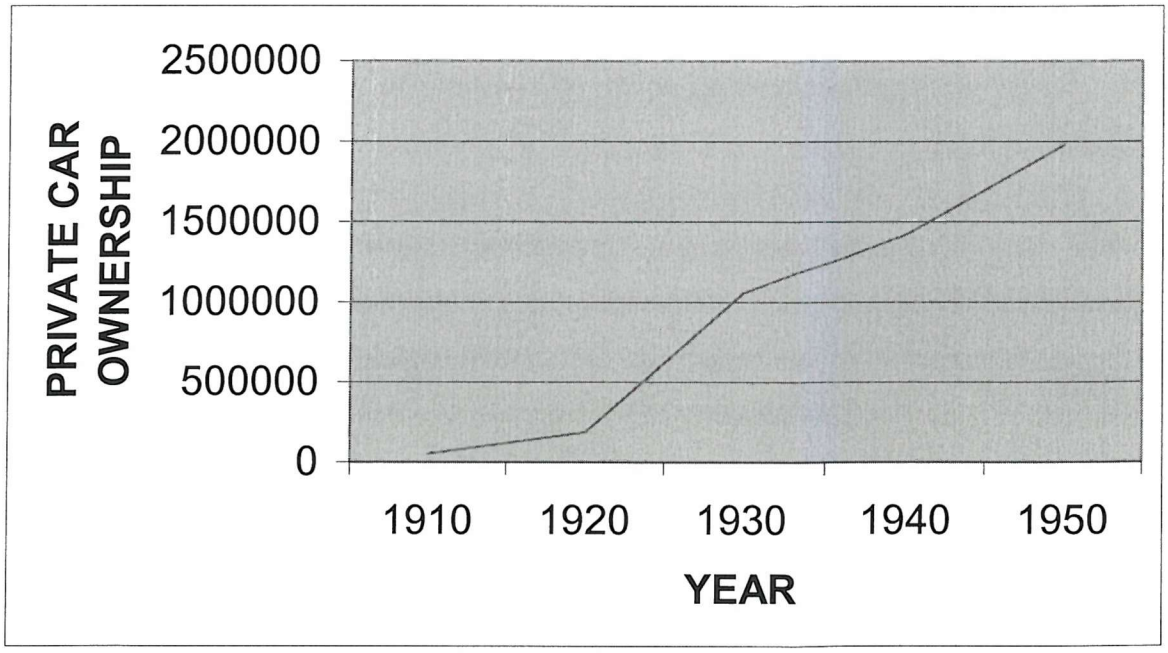
Indeed, Eva Hubback (1947, p. 103) went so far as to suggest that such new-found pleasures as listening to the radio were leading the couples having less frequent sex, and were thus responsible for the low birth rate. And indeed, radio ownership increased dramatically in this period, with 75% of household having a radio in 1939 compared to 43% in 1932 (Pegg, 1979, p. 32, as cited in Thorpe, 1992, p.108).

Visits to the cinema also increased greatly in this pleasure and leisure-seeking decade. In 1934 there was a weekly attendance of 18.5 million, by 1939 it had risen to 20 million (Thorpe, 1992, p. 107). Thorpe describes cinema as being 'democratizing in its effects: as well as providing a common experience to all classes, it also provided, in film stars, a new focus for deference and admiration much more exciting than the aristocracy' (Thorpe, 1992, pp.107-8). The ideals presented in film were very often those of women being glamorous energetic and

childfree. Would not such representations have some impact on the psyche of the populous? Even on a more practical level, the lifestyles depicted with modern housing with the latest modern conveniences and levels of cleanliness must have sown the seeds of 'lifestyle' desire in hearts of some young couples. It is quite ironic that for all this expansion in leisure activities and their accompanying lifestyle desires, that the 1930s are seen as being a dark and depressing decade.

Motoring became a popular past-time with the rise of the 'day out' to the countryside or coast. The motorcar an emblem of the new consumerism that reigned with car ownership increasing five-fold between 1922 and 1937 (Figure 4.6). Those who did not own a car could take day trips on coaches or trains, or by bicycle, with cycling becoming an increasingly popular pursuit.

Figure 4.6 Private car ownership 1910-1950

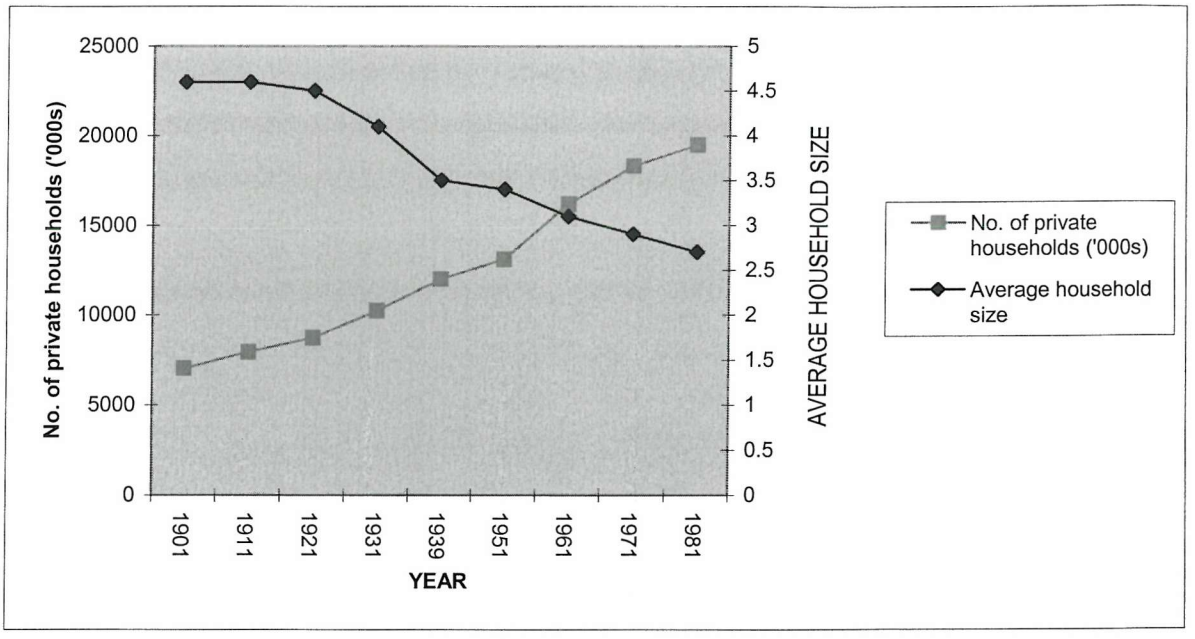


Source: Root, (2000) in Halsey and Webb (2000), Table 13.4, p. 442.

There were huge numbers of houses being built in this period, however, in real terms the availability of suitable accommodation did not improve much throughout

the decade. Slum housing was being demolished and new housing was being built, but numbers of households were increasing and becoming smaller as the physical structure of 'family' changed (Figure 4.7).

Figure 4.7 Average household size and numbers of private households, England and Wales, 1901-1981.



Source: Coleman and Salt (1992), Table 6.2, p.221.

Many of the new houses built at this point were for owner occupation. Although local authority housing was being built, for many working class couples the accommodation available to them was considered either highly unsuitable to family life (no inside tap, and a shortage of space), or children were not permitted by the landlords. Indeed, as will be shown in Chapter 7, in the evidence presented to the Royal Commission on Population, unsuitable housing, and the high rents being charged for the more suitable new housing, are put forward time and time again as reasons for couples to avoid or delay having children. In the meantime there were the new pastimes such as dancing, visiting the cinema and motoring on which couples could spend their free time and money, leading to the

decade being described by some as 'a rather selfish period in British History', (Thorpe, 1992, p 97).

4.3 The history of the data collection

As is common for many social science theses, mine was started with an area that I wished to research rather than an exact research question in mind. As is discussed in detail in Chapter 2, marital fertility in Britain in the 1930s was at the lowest it had ever been. This information intrigued me and led me to search for data from that period which might throw light on the reasons for such low fertility. In recent work, Kate Fisher has used interviews with surviving members of couples who were having children during the inter-War period to try to understand the rationale and motivations behind their childbearing (Fisher, 1997; 2000). While Fisher's work has yielded new insights, for example the possibility that couples did not make conscious choices about their childbearing at all, I wondered how likely it would be for an elderly person to accurately recall the motivation they felt for behaviour that had taken place many years before. The alternative option of examining current low fertility and relating this current experience to that experienced some 70 years previous was to me unsatisfactory, given the extent to which British society has changed during these decades. Thus I felt that examination of historical data would provide insight into the phenomena that were taking place throughout the 1930s.

My starting point in my search for suitable data was the internet. Keyword searches alerted me to two suitable contemporary studies that might be able to provide the data required:

- The Royal Commission on Population 1944-49
- Britain and her Birth Rate a 1944 -45 study by the Mass Observation.

The search for the raw data relating to these studies was straight forward in the

case of the Mass Observation study; however, it was far from straight forward in the case of the Royal Commission data. The fact that a Royal Commission had taken place meant that somewhere there would be the interview transcripts relating to the end report. With the aid of an interested librarian[2] and two days in the spring of 1997 searching the library storerooms at the London School of Economics, the interview transcripts were eventually tracked down the basement of the LSE library – the logic behind searching at LSE being that this was the last place that David Glass (the main author of the resultant report) worked. Two boxes were found that held the interview transcripts used by the Royal Commission on Population (RCP) for the creation of their report. A third box, containing the statistical data relating to the RCP report, is believed to exist somewhere in the depths of LSE. However, my search in 1997 did not discover it, neither was it found during the relocation of the library stock in 2002. Transfer of the two boxes to the University of Southampton for a period of one month was arranged in order that the transcripts could be photocopied and returned to LSE, and detailed analysis carried out on the copies.

As stated previously, the original data relating to Britain and her Birth Rate were much easier to find. Not only can all data relating to Mass Observation studies can be accessed in the Mass Observation Archive at the University of Sussex in Brighton, but the archive's website provides good information on the data available and prior to my visit, the helpful and informative staff at the archive had provided me with details of the contents of various boxes relating to the study. In addition to this, the published book Britain and her Birth Rate contained questionnaire schedules. Thus, in the summer of 1997 I travelled to Brighton and the archive, already knowing which boxes I wanted to explore. An initial study of the contents of the box loads of questionnaires and other items used for the initial study confirmed their appropriateness for my study and I then transcribed the details from the questionnaires into a computer spread sheet and paper (only very limited photo-copying of the questionnaires being permitted) in order for analysis to take place on my return to Southampton.

[2] Many thanks go to the late Janette Cochrane for her help with my search for this data.

Ideally, one dataset would have been analysed before the other was collected. However, pregnancy meant that it was advisable to collect all the data first while travel was still relatively easy. Thus the analysis of the qualitative data from the RCP interview transcripts was in the very early stages when I collected the data from the Mass Observation archive. In retrospect it would have been advantageous to have completed this analysis before collecting the Mass Observation data in that more detailed analysis of issues raised by the RCP data might have been possible if other data from the archive had been included in the study.

The interview transcripts were the first data to be analysed, since they were the first data to be collected. Indeed, there was quite a period of time between the completion of the analysis of this data and the commencement of the statistical analysis of the Mass Observation data as I took nine months maternity leave at this point.

On my return from maternity leave in September 1998 I began to examine the Mass Observation data in detail. The first step was coding the responses to the many open-ended questions in the questionnaire. This was a time-consuming process not only due to the number of responses involved, but also because of the difficulty of creating a relatively small number of response categories for each question, to enable statistical analysis of the data, without losing the essence of each response.

As the statistical analysis progressed so I became aware of the common areas and themes that existed in both data sets. However, it was not until after a second bout of maternity leave (lasting from September 1999 until September 2000) that I set about linking the commonalities in a somewhat more methodical manner.

4.4 Concern about low fertility

4.4.1 Population projections made during the 1930s

As far back as 1895 suggestions were being made that birth rates would decline and that this would have an impact on population numbers in Britain. Cannan (1895) entitled his paper 'The probability of a cessation of the growth of the population of England and Wales'. His forecasts were the first example of forecasts based on cohort survival (based on age, fertile age groups and survival proportions) rather than mathematical extrapolation, Cannan stating that 'The truth is that every estimate of population, past, present, and to come, ought to be founded on a consideration of the factors on which the growth or decline of population is dependent – births, deaths, - immigration, and emigration (Cannan, 1895, p.509, cited in De Gans 1999, p. 64). Although the complex relationship between changing fertility and mortality rates and subsequent population outcomes were not fully understood at this point in time, Cannan's forecasts were closer to the mark than those produced by 'official' sources. This was something Cannan himself recognised, asserting that 'the line (of population growth) shown is a much more probable one than that which might be laid down by the 'official' method, and which would shoot through the bottom of this diagram between 1921-1931 and encircle the globe before the diagram was widened many yards' (Cannan, 1895, p.514 cited in De Gans, 1999, p. 64).

The early years of the twentieth century are a period of conflict in ideas as to the dynamics of population change, with the law of logistic population growth countering the demographic method (or cohort component projection method). This conflict is clearly and comprehensively covered by De Gans (1999) who describes how the attraction of a biological law with a logistic curve that fitted observed past population growth was seen by many as superior to the non-scientific demographic method which he quotes Kuczynski (in Honey, 1937 supplement) as calling 'a reasoned guess'.

The net reproduction rate (NRR) became seen in this period as an attractive,

easily understood and, perhaps most importantly, scientific method of population forecasting. The NRR is 'the total number of daughters that each member of a birth cohort of women produces, after allowing for the mortality of the birth cohort' (Hinde, 1998, p. 153). In simple terms if the NRR is 1.0 then the subsequent generation will be the same size as the current generation, if it is below one it will be smaller, if it is above one it will be larger. However, it is only a good predictive tool if fertility and mortality rates remain constant.

Kuczynski's 1928 book, The balance of births and deaths used time series of the NRR to demonstrate that fertility had fallen below replacement level in many countries. Predictions of under-population and race suicide followed.

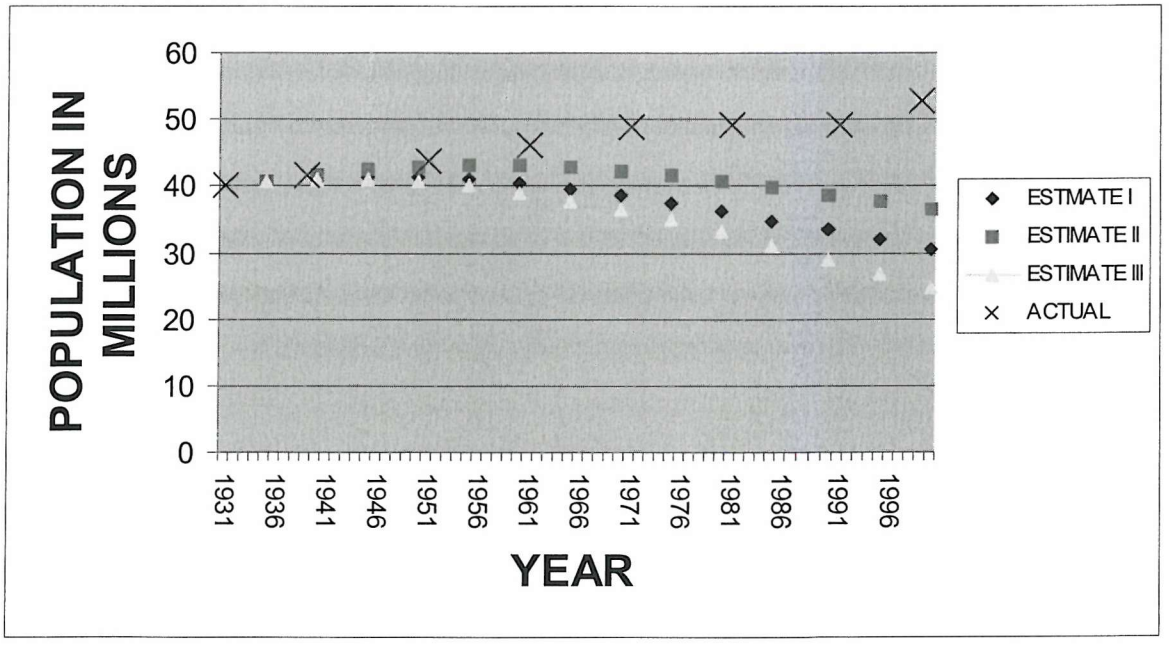
In 1936 Glass wrote his study, The Struggle for Population. He prefaced the work with the statement, 'In recent years the population problem has assumed a new importance. The threat of declining numbers has already influenced the policies of many Governments and is likely to affect still more Governments in the near future'. This sense of foreboding was compounded by Carr-Saunders' introduction to the book: 'The population of this country has now almost reached its peak; decline will shortly set in, and even if fertility remains at its present level, that decline will soon become rapid'. Such mis-interpretations of the data were not unique to Britain. In Sweden, France, Italy and Germany falling populations were also forecast. Myrdal, writing of the Swedish experience in 1938, states: 'I do not think we ought to be surprised if the population should attain a maximum and start to fall within the next ten years' (Myrdal, 1940, p. 53).

In the chapters that followed, Glass presented a plethora of statistics to show that Britain (and indeed much of the then developed world) was in danger of population decline: 'Recent investigations by statisticians... show that in almost every country in the Western World the birth rate has now fallen to such a point that, if it continues at the present level, populations will soon begin to decline, and that once decline has begun, its downward progress will be rapid. Moreover, among these countries, our own is a striking example of the probability of future

decline' (1936, p. 1). In the 1930s it appears that population decline was perceived by experts as probability rather than a possibility.

The population predictions of three of these experts (Professor Bowley, Dr Leybourne and Enid Charles) are discussed further by Glass. Ironically, the most accurate, that of Professor Bowley predicting a British population of almost 49 millions by the years 1971, was pooh-poohed by Glass as an exaggeration of the probable population growth. Glass favoured Dr Leybourne's steady decline in population numbers, feeling this scenario to be 'more likely' (Glass, 1936, p. 12). Enid Charles' three different projections based on three different sets of assumptions are also presented, with the second set of assumptions in which fertility continues to fall until 1965, and mortality until 1985 were seen by author as 'to approximate most closely to what may really happen' (Glass 1936, p. 12), with huge declines in population numbers being forecast.

Figure 4.8 The estimated and actual population of England and Wales in millions



Note. Estimate I assumes constant fertility and mortality. Estimate II assumes constant fertility and mortality plus net immigration. Estimate III assumes declining fertility and mortality.
Source: Projections I, II and III, Glass (1940). Table 35, p. 358. 'Actual' ONS (2001), Dataset NMGBTA.

Figure 4.8 demonstrates these projections, with their distance from the reality being clear to see. With her most optimistic projection, the maximum population predicted in 1995 is less than 40 million (Glass 1936, p 14).

Four years later on, Glass was still unaware of the importance that timing of fertility played in eventual population outcomes, and the degree to which fertility levels can change over a relatively short period of time. Indeed, in the preface to his 1940 study, Glass considered that Britain's future population was one that was 'at least on the verge of decline'.

Enid Charles (1934) writes in a most knowledgeable tone about the future population of England and Wales. She appears to be often quoted as an expert in the field (e.g. by Glass 1936, as stated earlier) and indeed played a part in the investigations of the Royal Commission on Population of 1944-49. Yet for all her knowledge on the subject she was not prepared to believe that fertility would increase again, or that expectation of life at birth would rise to the levels to which it has.

In explaining how the NRR will influence the population she states:

> The net reproduction rate in England and Wales at the present time [1933] is not much higher than 0.75, and the population has practically ceased to increase. If no further change in fertility and mortality rates takes place, a stable population composition will eventually be reached. When this point has been reached the population will be reduced in the proportion ¾ in each subsequent generation... Let us suppose that the present fertility and mortality of England and Wales remain as they are. Once a stable age composition has been reached a population, equivalent to that of England and Wales (about 45 millions) at the present time, would be reduced to less than 6 millions, i.e., about half the size of greater London, in about 200 years... The population of Great Britain may or

> may not at any future time be halving itself in a generation. Our present knowledge makes such a possibility less incredible than any of the 'nightmares of population' which Malthus depicted.
>
> (Charles, 1934, p 75).

However, forecasters in this period did predict with a fair degree of accuracy the changes in the age structure, with an aging population predicted. Indeed, the problems associated with an aging population were well understood by the time of the Royal Commission on Population, and the poster (Figure 4.9) graphically illustrates this understanding.

Figure 4.9 Poster found inbox of interview transcripts relating to Royal Commission on Population 1944-49.

4.4.2 The legacy of the projections

Hindsight is a wonderful thing. Demographers and historians can look back at the early attempts at population forecasting and marvel at the mistakes that were made. The context in which the projections were made is ignored, and the supremacy of current knowledge is savoured. The demographers of the 1930s had no reason to believe that the demographics of that period were not here to stay, part of the brave new world of cars, apartment blocks, refrigerators and war. Hence they gave primacy to their current levels of fertility at the expense of possible future levels of fertility. Perhaps they could have been more sceptical about the longevity of such fertility patterns, but they were not. Indeed, were it not for these mistakes, it is doubtful that either of my data sources would have been produced. The anxiety produced by projections of falling populations, fuelled further by the suggested eugenic composition of this future population incited debate. This debate undoubtedly was instrumental in the setting up of the Royal Commission on Population, and the Mass Observation study, Britain and her Birth Rate.

Birth control is, and was, a political issue. Whether it be the need for more 'cannon fodder' for the armies or workers for the land, or a perceived threat of Malthusian food shortages leading to campaigns for fewer births, reproduction is a political (big P and little p) issue. Hence, the personal politics that are attached to each projection or theory of population need to borne in mind when criticising the failings of the various population projections is. As I stated in Chapter 1, I am aware of some of my biases, but am blind to others. Similarly these projections were made in a context that cannot be re-experienced or fully understood. Those making the projections each held different biases and beliefs. There was, of course, some common ground among these projections (i.e. the belief that the population would decline). If my argument from Chapter 1 carries forward, then this overlap becomes an area of 'common truth'. Even though this 'truth' is now known with hindsight to have been falsehood, this does not reduce the power of them and thus the common belief was that this was the case. Studies of the

1930s and 1940s were carried out in this context and no doubt with this consciously or unconsciously in mind.

The emergence of Neo-Malthusian theory, in the guise of the logistic curve was no doubt very attractive to many concerned with population issues. Here was a mathematical formula that fitted past experience and that could easily be used to predict the future. It was seen as scientific and hence superior to any method that relied on personal judgement. De Gans (1999, p 253) describes how: 'the 1920s logistic growth methodology gave a new stimulus to the waning law-of population-growth belief. This was the more so because it was introduced by scientists with a Science background'.

In addition to the conflict with the 'Scientific', there was the obsession with the Net Reproduction Rate (NRR) as demonstrated by Kuczynski's book, (Kuczynski, 1928). De Gans (2000) states that this book 'made an overwhelming impression and convinced many students of population of the predictive power of NRR'. And it was this 'overwhelming impression' that, I believe, was responsible in the main for the wrong projections of the era.

The basic problem with cohort methods of projection is that demographers make projections using retrospective data and judgement. The demographers of the 1930s were aware that cohort measurements were more satisfactory than period ones, but ignored the period nature of low fertility in this period. In their calculations, they considered those couples that were delaying and limiting births in this period as destined not to have those missed births at all, whereas there was some degree of 'catch up' in the 1940s. In ignoring these later births, not only were those births (i.e. those in the 1940) lost from the projections, but the births that those births went on to produce (i.e. those in the 1970s) were also lost, and so on.

Delayed births are not necessarily non-births, although some may become non-births. Just because there were couples in the 1930s who for whatever reason

chose not to have children *at that point in time*, it does not necessarily follow that they would not have children later on in their marriage, although naturally by delaying childbearing they may well not have achieved the desired number of children, and the rate at which they bore their children might also have changed. Such deficits, and the possible later gluts when the delaying couples are doing their catching up along side couples from later cohorts that have an earlier childbearing pattern, have obvious implications for the resultant population structure, and population numbers. This leads into the argument for cohort over period demographic measures since transient period effects do not affect them in the way they affect period measures. However, the demographers making these projections in the early part of the twentieth century were not in a position to see the completed fertility of those women child bearing (or not child bearing) in the 1930s. All they could do is make assumptions (albeit wrong ones) about their future fertility behaviour.

4.5 The Royal Commission on Population data

4.5.1 Background to the Royal Commission on Population

The Royal Commission on Population (RCP) was set up in 1944 with the express purpose:

> To examine the facts relating to the present population trend in Great Britain; to investigate the causes of these trends and to consider their probable consequences; to consider what measures, if any, should be taken in the national interest to influence the future trend of population; and to make recommendations.

There had been earlier political debate about the setting up of a Royal Commission on Population in the 1930s, spurned on by the forecasts of racial suicide referred to earlier. However, the start of World War II took it off the agenda for a while. Thoughts of post-war reconstruction brought it to the fore once more,

and on July 9th 1943 a population enquiry was authorised.

Three main committees were set up – the Economic Committee, the Statistics Committee, and the Biological and Medical Committee, each having professionally interested members. The remaining members of the Royal Commission were from 'the great and the good', i.e. 'perceived experts' such as medical professionals and representatives from Church groups and women's groups.

There are obvious issues as to those who were not selected to give evidence as much as to those who were selected. However, despite searches for further information relating to the establishment of the RCP, both at the London School of Economics (where the interview transcripts are located) and at the Public Record Office, it has not been possible to identify any offers of evidence that were not accepted.

The question of whether such 'perceived experts' made reliable witnesses needs to be considered since they were primarily from the middle classes, discussing the fertility of both their own class and of the working classes. However, not only is this class bias often the case with Royal Commissions, regardless of what topic is being investigated, but in this case it is also the 'middle classes' that were experiencing the lowest fertility levels. Thus, a number of the witnesses can be viewed as describing their own experiences and that of their peers. In addition to this, the lack of 'working class' accounts is mitigated to an extent by those emergent from the questionnaires of Mass Observation's Britain and her Birth Rate, which are discussed further in Chapter 4.6.

The histories of some of the witnesses are unknown beyond the basic descriptions given them in the interview transcripts, however detailed biographies can be found for others, especially those with medical and/or political backgrounds[3].

[3] Biographies can be found in Appendix 1

The RCP wanted to amass information quickly and cost effectively and thus employed the use of expert witnesses. Such expert witnesses included David Glass and Robert Kuczynski, who were both researchers for the RCP as well as witnesses in the interviews. They were both eminent social researchers with strong links to the London School of Economics and numerous academic publications between them. Dr Joan Malleson was also a notable contributor to the evidence. She was involved in the establishment of the Family Planning Association and was seen as a pioneer in sexual reform, writing books for the lay audience that explained birth control methods and methods by which couples might improve their sexual enjoyment.[4]

The involvement of Dr Malleson in the provision of evidence to the RCP could be viewed as a bias in favor of the advocacy of birth control. Yet in the evidence she puts before the Commission this is not the case. As with the other witnesses, she presents her interpretations of the reasons for the low birth rate. Thus, where family planning is being used, she presents the reasons as she sees them for this being so.

Fifteen of the forty nine witnesses present in the 21 interviews appear to have been members of the Eugenics Society, Glass, Malleson, Rathbone and Baird among them. The Eugenics Society was founded, under the name Eugenics Education Society, in 1907 following the establishment of a Eugenics Laboratory in the University of London. Unlike the Galton Laboratory, which was also inspired by the teachings of Sir Francis Galton and founded in 1904, the Eugenics Society was a popular rather than a scientific institution, drawing its members primarily from the middle class professions of medicine, university teaching and science (Farrell, 1970, p. 225 as cited in MacKenzie, 1976, p. 504). The society had amassed over 1,000 members by 1913 (MacKenzie, 1976, p. 503).

[4] 'Any Wife or Any Husband' published under the name Medica in 1950 was explicit in explaining the purpose of the clitoris.

Quite how membership of the Eugenics Society might have influenced the evidence needs to be considered. That the witnesses were motivated enough to present evidence to the RCP suggests that, regardless of their membership of the Eugenics Society or any other group, they may well have their own agendas to motivate them so to do. Biases might well be expected to exist in such evidence. The question that needs to be considered is whether the biases are all in the same direction, or whether they are random.

Although a number of the witnesses were members, the majority of the witnesses, roughly 70%, were not members. Of the 34 direct quotes given by the witnesses that were used in Chapter 6, 13 were from members of the Eugenics Society, the majority of 21 being from non-members. There is also little variation in the considered causes of the low fertility as can be seen in Table 4.1. Indeed the main themes as discussed in detail Chapter 6 came through time and time again in both groups of witnesses.

However, what is said by whom does need to be considered. The analysis of the data (in Chapter 6) did not show the evidence of those who were members of the Eugenics Society to be in any way different to that given by those who were not members. Indeed, it is ironic that the evidence of those members of the Eugenics Society who presented their evidence in that capacity (the evidence resulting from interview 17) was the only evidence not to be used directly.

Thus, although those giving evidence might well have had hidden agendas, there appears to be no real difference in the evidence present according to whether the witnesses were members of the Eugenics Society or not. Members of the Eugenics Society highlighted 'Anxiety' and 'Fear of (Parental) Responsibility', whilst non-members did not, but this accounts for very few statements, and is countered by the references to issues of employment, fear of the future and general feelings of insecurity issued by those who were not members of the Eugenics Society.

Table 4.1 Causes of low fertility identified by membership of the Eugenics Society

	Members of the Eugenics Society	Not members of the Eugenics Society
Alternatives to children	√	√
Anxiety	√	
Birth control	√	√
Consumerism	√	√
Dependent parents	√	√
Desire for social betterment	√	√
Economic	√	√
Educational desires for offspring	√	√
Employment/unemployment	√	√
Family structure/relationships	√	√
Fashion/social change	√	√
Fear of the future	√	√
Fear of responsibility	√	
Fear of childbirth	√	√
Habit of delay	√	√
Housing difficulties	√	√
Insecurity	√	√
Increased burden of children	√	√

Table 4.1 continued

	Members of the Eugenics Society	Not members of the Eugenics Society
Lack of parental urge	√	√
Lack of prestige for parenthood		√
Lack of education on child care	√	
Lack of child care	√	√
Maternity care	√	√
Media		√
Modern life	√	√
Numerous motives	√	√
Psychological	√	√
Social taboos	√	
Unconsummated marriages/ sexual problems	√	
Unconscious motives	√	√

Source: Royal Commission of Population interview transcripts.

Through the collation of statistics, questionnaires and interviews a number of reports and papers were produced. One of the major studies produced by the RCP was the 1946 Family Census, a ten per cent sample of the female population which produced the first examples of fertility analysis on a cohort rather than a

period basis. Another important study resulting from the work of the RCP is Lewis-Faning's Report on an Enquiry into Family Limitation and its Influence on Human Fertility during the Past Fifty Years (Lewis-Faning, 1949), which examined the use of contraception.

By the time such reports were produced, it was clear to those involved with the RCP that the fear of population decline and racial suicide that had presented themselves in the 1930s were unfounded, and subsequently public interest in matters demographic had declined.

The data used in this thesis consists of 21 original interview transcripts from the 1944-49 inquiry. The interviews did not follow any common format and the members of the panel individually presented the interviewees with the questions that they personally felt relevant.

4.5.2 The interview transcripts

The search for the interview transcripts began with the reading of the RCP reports. The realisation came that somewhere there must exist the original interview transcripts from which these reports evolved. But where? A search of the internet did not bring forth any clues, however an idea from one of the Hartley Library's librarians did. She suggested that they might have been left in one of the work places of the authors, and indeed two cardboard boxes of transcripts (plus a few contempory papers and posters) were found in the depths of the library at the London School of Economics, D.V. Glass having held a position there for many years after his work on the RCP. Receipts at LSE library suggest that there is a further box of papers relating to the inquiry, but these have not as yet been uncovered.

The transcripts were typewritten on either tissue thin paper or on the reverse side of previously used paper. The quality of print was not on the whole very good and

hence plans to scan the transcripts into the Ethnograph computer package had to be abandoned at this point.

Although, as stated earlier, there was no common format in the interviews, what became apparent on reading the Royal Commission interview transcripts, is that there appeared to be a belief held by many on the commission that the low birth rates experienced for the previous decade were a 'problem' that needed rectifying.

The papers were photocopied and then manually coded to enable textual analysis, a grounded theory approach being taken. A list developed of some 31 suggested 'causes' for the low fertility of the era was developed, with a further 16 ideas to 'encourage' fertility. The methodology is described fully in Chapter 6.

4.6 The Mass Observation data

4.6.1 Background to Britain and her Birth Rate

Mass Observation (MO) have been observers and commentators on social change since the 1937. In the 1940s the organisation was presenting itself as 'an independent, scientific, fact-finding body' with a 'team of trained whole-time objective investigators and a nation-wide panel of voluntary informants'. Its aims are described as 'ascertaining the facts as accurately as possible...developing and improving the methods for ascertaining those facts....disseminating the ascertained facts as widely as possible' (Mass Observation,1945). Early reports by MO were often on social issues, however, from the late 1940s the emphasis moved towards consumer behaviour. Twenty-five books were published by MO between 1937 and 1950, Britain and her Birth Rate being one of these.
MO were carrying out interviews in a number of London Boroughs for their study, Britain and her Birth Rate at the same time that the RCP was initiating their study. Their report was written with the explicit bias that:

> The underlying assumption is that the coming fall in population will be a bad thing' and should be arrested if possible.
>
> (Mass Observation, 1945, p 23)

Of the 1,000 questionnaires carried out, Mass Observation went on to use 787 of them for their analysis and final report, the other 213 being discarded. This was due to variations in the questions asked which led to those questionnaires having rather different information than that of the majority. When compared to the 1931 and 1951 census data for the boroughs in question, the sample appears slightly to over-represent women aged 20-35 years, and to under-represent those aged 40-49 years.

Even the remaining MO data are far from perfect. At least three different interview schedules were used in the data included in this study. Also, the respondents were grouped in a way defined by MO into three social classes: 'middle class', 'artisan and skilled working class', and 'unskilled working class'. Which of these a respondent fell into was assessed by the interviewer rather than by using an occupation based hierarchy of social class. The selection procedure was also far from that used in modern statistical surveys. Half the interviews were carried out in the street and half were house-to-house. For a street interview to be carried out, the woman interviewed had to reside in the area. Street interviewers were also instructed that they could only approach one in ten women accompanied by a child under five. House-to-house interviewers were instructed that they should not select the houses at which they called to interview by obvious external signs of children being present in the household. Reflecting the bias of the study mentioned earlier, it was believed that such measures would prevent the study being weighted towards those with larger families, and thus highlight the reasons for low fertility and the possible remedies. However, this bias can be seen as benefiting my study, in that it is these very women with low fertility that I wish to investigate.

The Mass Observation study questionnaires began with a number of questions

eliciting background information about each respondent, including age, social class, the number of children that the respondent's mother had, education, type of dwelling, number of rooms (excluding bathroom and kitchen), whether or not she was religious, and, if so, to which religion she belonged. The ages of any children which respondents had were then recorded. Further questions concerned her reasons for marriage and her views on childbearing. Those on marriage asked why the respondents themselves had married, whether their experience of marriage had been what they had expected it to be, and the importance of children in a marriage.

Respondents were then asked how many children they would ideally like to have and why this number was chosen. If a respondent's ideal family size was greater than that so far achieved, she was asked what was preventing her from having more, and if it was fewer than she had she was asked why she wanted fewer and why she had more than she wanted. Those who stated that they wanted no more than they had were also asked to give their reasons for this. Questions were then asked on what would encourage respondents to have more children, with respondents initially being invited to make their own suggestions, and then being asked directly whether family allowances, better housing, pain relief in childbirth, home helps, housing or surety in the future would encourage them to enlarge their families further.

4.6.2 The survey data

The original questionnaires relating to Britain and her Birth Rate are stored in the Mass Observation Archive at Sussex University. However, the archive's rules mean that they have to remain within the bounds of the archive and only very limited photocopying can be carried out. Hence many hours were spent copying the responses from the questionnaires onto a computer spreadsheet, with any additional comments on the questionnaires also being noted.

The raw data relating to the responses from the 21 questions asked eventually

filled 45 columns of the spreadsheet. These included:

- The borough in which the questionnaire was carried out.
- The age of the woman at the time of the questionnaire.
- The social class of the woman
- The year of her first marriage (and second if applicable)
- Whether she was widowed
- Whether she was pregnant
- Whether she had had a still birth or miscarriage
- The number of children ever born at the time of the questionnaire
- The number of surviving children.
- The ages of each of her children
- The type of accommodation.
- The number of rooms in the accommodation (excluding bathroom and kitchen).
- The tenure of that accommodation.
- The age the woman was educated until.
- The number of siblings she had.
- Whether she perceived herself to be religious and if so, to which religion she belonged.
- Whether she was working and if so, what type of work.
- Why she married.
- The degree to which she believed children to be important to marriage.
- How many children she ideally wanted, if this was fewer than she had, more than had, or 'no more', why was this so.
- What might encourage her to have more

As can be deduced from the above list, a number of the questions were open-ended encouraging a degree of free response from the interviewee. The responses given tended to follow common themes and thus they were coded according to such common themes in order that quantitative analysis would be

possible. Details of the range of analysis carried out are given in Chapter 5.

Of the 787 questionnaires used by MO for their final report, 567 related to married women - the focus of this study. Of these 567, one had no information on either year birth or year of marriage, and thus is very limited in use. There are a further 25 women for whom year of birth is given, but year of marriage is not, and one woman for whom year of marriage is given, but year of birth is not, obviously restricting the use of these 26 cases to some extent. When the data set is further restricted by censoring the data at 1940, a further 104 cases are lost. There is a lack of information on class in one case in the sample.

It is somewhat ironic that by the time both the Royal Commission on Population and Britain and her Birth Rate were underway, the period of extreme low fertility had passed.

Chapter 5
Quantitative analysis of Mass Observation data

Lady Madonna, children at your feet
Wonder how you manage to make ends meet
Who finds the money when you pay the rent
Did you think that money was heaven sent

Lennon & McCartney

5.1 Introduction

This chapter looks at the quantitative analysis of the Mass Observation data. In section 5.2 the selection of the sample and its representativeness are discussed. The quantitative analysis is then covered, first examining the childbearing trends at five and ten years of marriage (section 5.3) and comparing them to data available from the 1911 census and the 1946 Family Census. Section 5.4 considers factors that are associated with fertility in the first five years of marriage. The process of developing a multinomial logit model and the results of that model which suggests factors associated with these trends are discussed in this section. In section 5.5 birth histories are analysed using birth interval analysis and parity progression ratios. There is then a discussion about the results from the Mass Observation data and how they correspond to other studies (section 5.6). The chapter then concludes with a discussion of the findings of the data analysis and the limitations of such quantitative analysis in a study of this type.

5.2 Sample selection

The quantitative data used in this study comes from the original interview transcripts pertaining to a 1944-45 Mass Observation study Britain and Her Birth-Rate. The interviews were carried out in a number of London boroughs in 1944 and covered the areas of Bermondsey, Bethnal Green, Chelsea, Hammersmith,

Hampstead, Harlsden, Kensington, Marble Arch, Marylebone, North Circular Road, Neasden, Paddington, Poplar, Shoreditch, Tottenham Court Road and Willesden.

As stated in Chapter 4, there were variations in the form of the questionnaires and this appears to be especially the case for those carried out in Willesden. This is the area where there was an early pilot questionnaire was used and a full surviving copy has yet to be found. It appears from the relevant responses that there were some different questions, some variation in different question order, and some questions were phrased differently to those in the later questionnaires. Neasden and some of the Paddington questionnaires also vary slightly from the main, in particular in the questions to do with encouragements to have further children.

When compared to the 1931 and 1951 census data for the boroughs in question, the sample appears slightly to over-represent women aged 20-35 years, and to under-represent those aged 40-49 years. 'Middle class' women are also under represented in the sample when compared to the corresponding 1931 and 1951 census returns. In the full sample of 567 women, just 69 (12%) are described as 'middle class', compared to 196 (35%) 'skilled' and 301 (53%) 'unskilled'.

In the restricted data set used in this analysis, age at marriage ranges from 12 years to 34 years, with 79 per cent marrying in the age range 20-29 years. This fits in nicely with the official figures for mean age at first marriage of 25 years for women in 1931 (ONS, 1998, Table 3.5). Year of birth ranges from 1894 through to 1922, and year of marriage from 1917 through to 1944 (though for much of the analysis only those marriages up to 1940 are included).

5.3 Childbearing in the first five and ten years of marriage

5.3.1 Number of births

Because of the survey method used to gather the Mass Observation data, it is important to establish how representative they are of the national picture before proceeding to analyse them further. As will become apparent in the following section, these comparisons of the Mass Observation data with other more conventional sources suggest that for the artisan and skilled manual workers and the unskilled manual workers, the fertility experience of the Mass Observation respondents broadly reflected that of comparable women at a national level. The small number of middle class women in the Mass Observation data, however, had atypically low fertility after five years of marriage and (though the numbers are really too small to say anything at all with confidence) probably after ten years of marriage.

The analysis of the Mass Observation data began by considering the number of confinements the respondents had in the first five and ten years of marriage. This is done largely to allow comparison with studies based on the 1911 census and the 1946 Family Census, both of which make use of these measures. Here, I consider marriages between 1917 and 1935 for the five-year measure, and between 1917 and 1930 for the ten-year measure.

It can be seen (Table 5.1) that there were clear social class differentials in fertility. 'Unskilled working class' women had more children in both the first five and the first ten years of marriage than the 'artisan and skilled working class' women, who in turn had more than the 'middle class women'. A striking feature is that nearly half of the 'middle class' women had no children in the first five years of marriage. Whereas 37 out of 42 'middle class' women (88%) had fewer than two children during the first five years of marriage only 61% of the 'skilled' women and 44% of the 'unskilled' women did so. Virtually all the women with three or more children (41 of 44 cases) during the first five years of marriage fell into the 'unskilled'

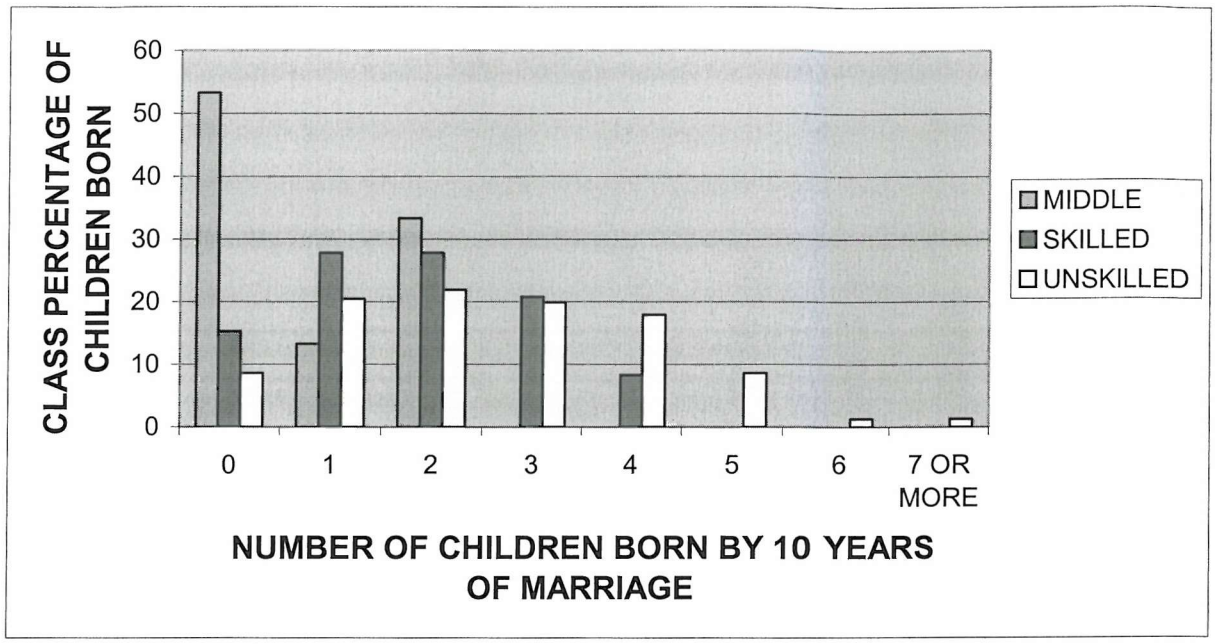
category , the remaining three cases falling into the 'skilled' category and none into the 'middle class' category. After ten years of marriage half of the 'unskilled' women had three or more children, whereas only 29% of the 'skilled' women (and none of the small number of 'middle class' women) did so. The disparities of these variations in family size distribution are apparent in Figure 5.1.

Table 5.1. Number of confinements by five and ten years of marriage

				Number	of	confinements	
	Social class	Number of women	0	1	2	3 or more	Mean
5 years of marriage	All women	380	67	138	131	44	1.42
	Middle class	42	19	18	5	0	0.67
	Artisan & skilled working class	118	21	51	43	3	1.24
	Unskilled working class	220	27	69	83	41	1.65
10 years of marriage	All women	237	30	51	60	96	2.27
	Middle class	15	7	2	6	0	0.93
	Artisan & skilled working class	72	11	20	20	21	1.79
	Unskilled working class	150	12	29	34	75	2.63

Source: Mass Observation (1945).

Figure 5.1 The distribution of number of children born by ten years of marriage by social class



Source: Mass Observation (1945).

5.3.2 Comparison with 1911 census and 1946 Family Census

The results from the Mass Observation data can be compared with those obtained from the 1911 census (Table 5.2). Garrett et al. (2001) present data from the 1911 census on the average number of births by 1911 to women married when they were 20-29 years of age in the two marriage cohorts of 1901-06 and 1906-11. On average, the women in these two cohorts had been married 7.5 and 2.5 years respectively by 1911.

Table 5.2 Mean number of births by various durations of marriage: Mass Observation data compared with 1911 census

Social class	1911 census		Mass Observation	
	c. 2.5 years (marriages 1906-11)	c. 7.5 years (marriages 1901-06)	5 years (marriages 1917-35)	10 years (marriages 1917-30)
Middle class	0.81-0.95	1.78-2.22	0.66±0.22	0.93±0.57
Artisan and skilled working class	0.82-1.11	1.86-2.39	1.19±0.16	1.68±0.30
Unskilled working class	1.04-1.28	1.89-2.96	1.60±0.15	2.45±0.28

Note. Both sets of data refer only to women married at ages 20-29 years. The 1911 census data are given as the range of means of various sub-groups within each broad social class grouping. The Mass Observation data are presented in the form of the mean plus or minus two standard errors. Thus the 95 per cent confidence interval for the middle class women after five years of marriage is 0.44-0.88.

Sources. Mass Observation (1945); 1911 census data from Garrett, et al. (2001, Table 5.6.4, pp.276-77).

A direct comparison between these data and the Mass Observation data is rendered rather awkward by both the different average marriage durations involved, and the fact that fertility declined between 1901-11 and the 1920s and 1930s. Nevertheless, a number of observations can be made. First, the few 'middle class' women in the Mass Observation sample have very low fertility, much lower than that observed among middle class women in the decade 1901-11. Second, the fertility of the 'artisan and skilled working class' women in the Mass Observation sample is rather lower than that observed among similar women in 1901-11. By contrast, the fertility of the 'unskilled working class' women in the Mass Observation data is not very different from that of similar women in 1901-11.

Garrett et al. (2001, p. 278) suggest that there is little difference between social classes in childbearing patterns early on in marriage. The Mass Observation data, however, do seem to suggest that there is a hierarchy of family building strategies with the middle classes tending to have fewer births by both five and ten years of marriage than the artisan and skilled classes, who in turn had fewer births by five and ten years of marriage than the unskilled working classes. In the case of the middle classes, this conclusion is based on very few cases, and so is very tentative. Focusing, therefore, on the other two classes, one obvious possible explanation is that, during the early 20th century, fertility declined more among the skilled working classes than among the unskilled.

This is consistent with data from the 1946 Family Census data which suggests that the decline in fertility between the marriage cohorts around 1910 and those of the 1930s was less among the labourers (or unskilled manual workers) than among other groups, so that social class differentials widened slightly over time.

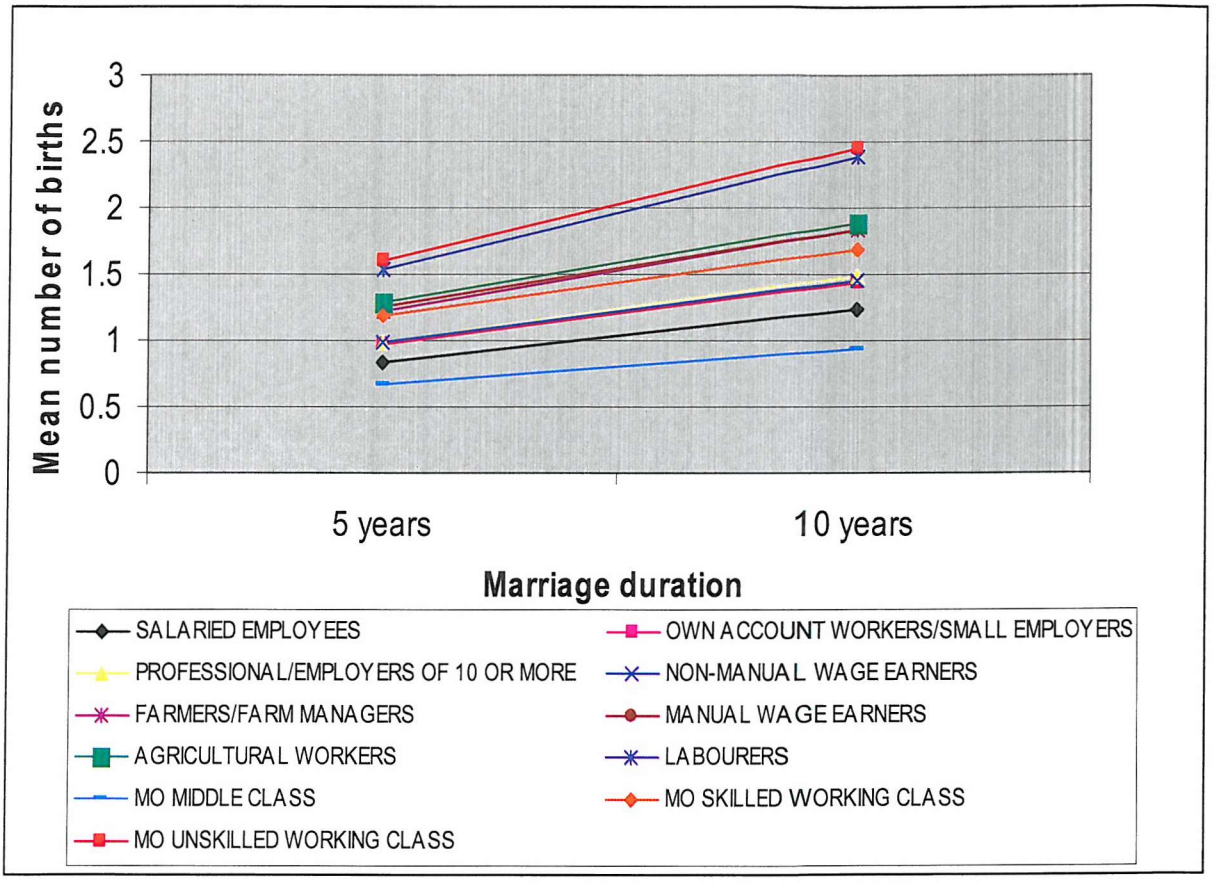
The very low fertility of the middle class women is worthy of further comment. Because the ascription of class was left to the interviewers there is a potential that this low fertility was one of the criteria used by the interviewers to decide whether a woman was middle class or not. If this is true, then the very low fertility of the middle class women in the MO sample may be largely artefactual.

There is certainly a disparity between the MO data for middle class women and aggregate data from the 1946 Family Census, however, interestingly, the MO data for the other two groups compare well to the aggregate data from the 1946 Family Census.

Using the 1946 Family Census, Glass and Grebenik (1954) present data on the average number of live births by five and ten years of marriage by social group for all ages at marriage (under 45 years) for marriage cohorts which include those in the Mass Observation study. A comparison of their figures with the mean values for all women from the Mass Observation data (Figure 5.2) confirms that the small

middle class sample in the latter had particularly low fertility. Their achieved fertility after both five and ten years of marriage was below even the least fertile group (salaried workers) in Glass and Grebenik's data.

Figure 5.2 Comparison of 1946 Family Census data and Mass Observation data on mean number of births by 5 and10 years of marriage



Note: Mass Observation data relate to first marriages to women under the age of 45 years, up to 1935, for 5 years duration, and first marriages to women under the age of 45 years, up to 1930 for 10 years duration. The 1946 Family Census data relates to first marriages in 1930 to women under the age of 45 years.

Sources. Mass Observation (1945), and Glass & Grebenik (1954) Part II, TablesL.9 to 177.

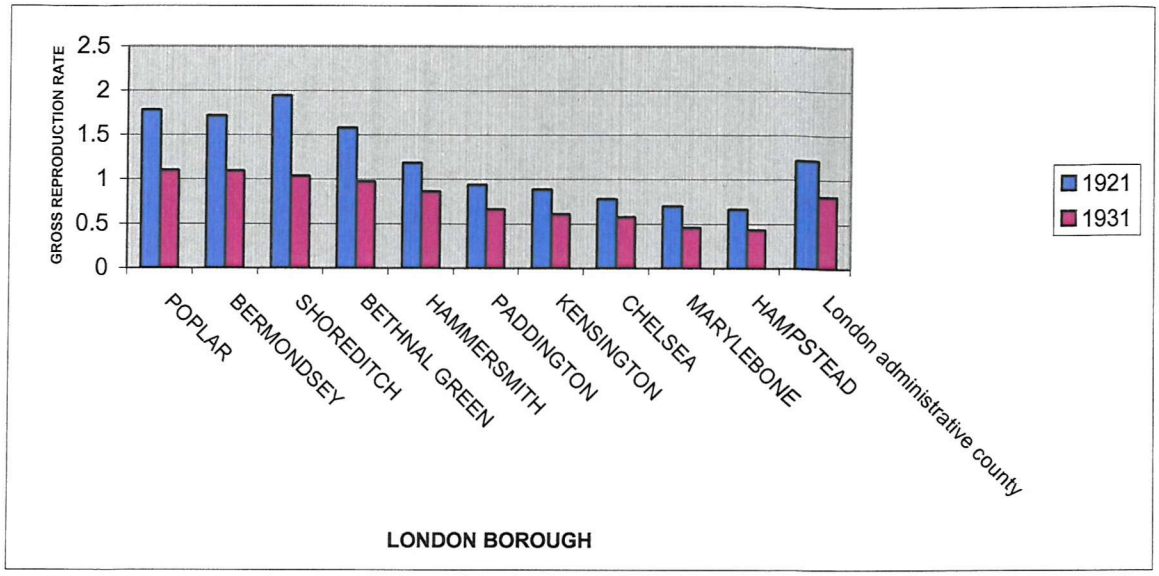
However, women described as belonging to the 'artisan and skilled working class' in the Mass Observation data had achieved fertility after five years of marriage which was somewhere between the two main groups evident in Glass and Grebenik's data (one broadly encompassing the middle classes and the other manual and agricultural workers).

Finally, the achieved fertility after both five and ten years of marriage among those women described as 'unskilled manual workers' in the Mass Observation data is very close to that of the labourers in the 1946 Family Census data. In the 1946 data, the labourers' 1930 marriage cohort had, on average, just over 1.5 live births in the first five years of marriage, compared with 1.6 for unskilled manual workers in the Mass Observation data. The labourers' 1930 marriage cohort in the 1946 data had achieved an average of just under 2.4 live births in the first ten years of marriage, compared with 2.45 for the corresponding marriage cohort of unskilled manual workers in the Mass Observation data.

It has been suggested (and my thanks go to Simon Szreter for this suggestion) that the very low fertility of the 'middle class' women in the MO sample could be a peculiarity to their location, i.e. London. Certainly data presented by Charles and Moshinsky (1938) on the Gross Reproduction Rate (GRR) of various parts of Britain suggests that London exhibited fertility lower than that in many other parts of Britain in 1921 and 1931, and that some London boroughs exhibited very low fertility indeed in comparison with others.

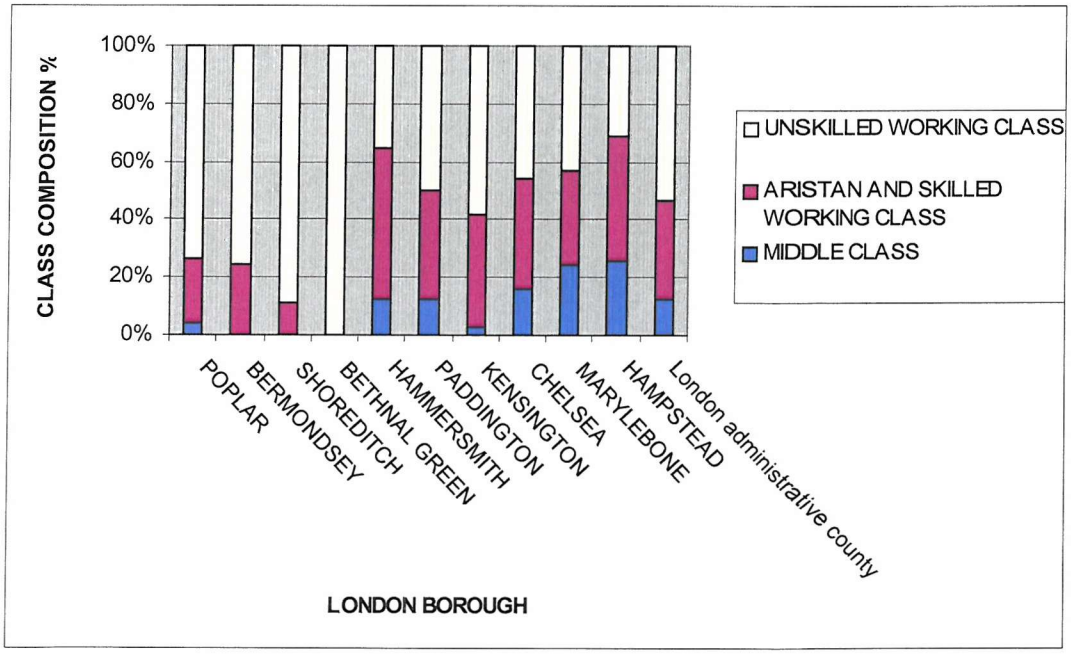
On closer inspection it is evident that those boroughs that had a higher proportion of middle class inhabitants (as assumed by the proportions of middle class interviewees selected by Mass Observation) achieved a lower GRR compared to those boroughs with a more working class population (Figures 5.3 and 5.4). This is especially so for Chelsea, Marylebone and Hampstead, these three boroughs alone accounting for 59 out of the 69 cases (i.e. 86%) of 'middle class' women in the Mass Observation study.

Figure 5.3 Gross Reproduction Rate of various London boroughs



Source: Charles & Moshinsky (1938), Table III, pp. 122-23.

Figure 5.4 Class composition of various London boroughs



Note: The class composition is that supposed by the proportions of each class selected by Mass Observation in the various London boroughs.

Source: Mass Observation (1945).

The large class differentials in fertility after five and ten years of marriage in the Mass Observation data are not due to different ages at marriage in the three broad social groups. The 'middle class' women did marry at a slightly older age than the rest, their mean age at marriage of 23.9 years being compared to 22.3 years for the 'artisan and skilled working class' women, but it would be unrealistic to suggest that this difference would have a huge effect on the relative fecundity of the two groups. The 'unskilled working class' women married at an average age of 22.0 years, very similar to that of the 'skilled' group.

5.4 Factors associated with fertility in the first five years of marriage

5.4.1 Multinomial logit models

Because the Mass Observation study gathered information on a variety of background factors, it is possible to analyse the factors associated with varying levels of fertility more fully. The dependent variable in this analysis is the number of children born after five years of marriage. It is divided into four categories: zero, one, two and three or more. Three models were estimated as a series of related binary logistic regression models using the procedure described in Begg and Gray (1984). This approach had the advantage of allowing variability in the impact of the variables in each of the models.

It is however, debatable as to whether these categories ought to be seen as categorical or ordinal. The decision as to which way the data are categorised affects the method that is used, the two possible methods considered in this case being either a multinomial logit model or an ordered logit model.

In the multinomial logit model there is no assumption about the ordinal relationship between the categories, even though the categories are numerically ordered in this case. The ordinal logit model does, however, take into account the ordinal nature of the categories, the dependent variable being thought of as a

continuous variable which has cut off points denoting the transition from one of the categories to another (Winship and Mare, 1984).

It was decided that, although there was undoubtedly an ordinal relationship in the categories, that the categories themselves were distinct. I did not wish to view the number of children born after five years of marriage as a continuous variable, since I saw the members of each category as distinct, i.e. those with no children after five years of marriage were qualitatively different to those with one child after five years of marriage, who in turn were distinct from those with two children after this period and so on. Hence a multinomial logit model was carried out.

A multinomial logit model using the baseline category J with the predictor vector X has the form:

$$\log\left(\frac{\pi_j}{\pi_J}\right) = \alpha_j + \beta_j x, \qquad j=1,\ldots,J-1. \qquad \text{(Agresti 1996, p. 206)}$$

In this analysis the predictor set of covariates affect the log odds of:

- Having no children at five years of marriage compared to the baseline of two children in this period;
- Having one child at five years of marriage compared to the baseline of two children in this period;
- Having three or more children at five years of marriage compared to the baseline of two children in this period.

The potential covariates and their categories[1] that were tried in the model are:

- Social class – categories being 'Middle Class' and 'Skilled Class', with 'Unskilled Class' as the control category.

[1] Full details of the categories used in the models can be found in Appendix V

- Educational level – categories being 'High Education', 'Medium Education' and 'Missing Education', with 'Low Education' as the control variable.
- Year of marriage (MARR) and year of marriage squared ($MARR^2$). These are continuous variables and were calculated by subtracting 1930 from the actual year of marriage (so that, for example, in the case of a woman married in 1926 they took the values -4 and 16 respectively). The variable 'year of marriage squared' is included to allow for the possibility that the effect of the year of marriage on fertility in the first few years of marriage is non-linear.
- Number of rooms in respondent's home (excluding bathroom and kitchen) – the categories being 'Small House', 'Large House' and the control category of 'Medium House'[2].
- Woman's reason for marrying – the categories being 'Traditional Positive' (the control category), 'Modern Positive', 'Pregnancy', 'Negative Reasons' and 'Missing Reasons'[3]
- Importance the woman gave to children in a marriage – the categories being 'Positive' (the control category), 'Negative' and 'Missing'
- Number of siblings – with the categories of 'Maternal Family Size 1 or 2', 'Maternal Family Size 3 or 4', 'Maternal Family Size 5 or More' (the control category) and 'Missing'.
- Whether religious or not – the categories being 'Religious' and 'Not Religious' (the control category).

[2] The number of rooms is that at the time of the interview rather than that the first five years of marriage. The implications of this are discussed in section 7.3

[3] The responses given to create these categories were:
Traditional Positive = Security (own home, settle down, wanting something of own, security in old age), love, companionship, seen as being the normal or usual thing to do, wanted children
Modern Positive = Desire (wanting physical relationship with husband), excitement, war (excitement/urgency of war forcing the pace of relationship)
Negative = to get happiness, wanted to be free, an arranged marriage, don't know.
Pregnancy is quite self explanatory as a reason for marriage, though it could be suggested that marriage on pregnancy is a tradition response.

Table 5.3 Frequency table for potential covariates for the multinomial logit model

POTENTIAL COVARIATE	FREQUENCY	RESPONSE PERCENTAGE
SOCIAL CLASS	383	99.7
EDUCATIONAL LEVEL	361	94.0
YEAR OF MARRIAGE	384	100.0
NUMBER OF ROOMS	333	86.7
REASONS FOR MARRYING	297	77.3
IMPORTANCE OF CHILDREN IN MARRIAGE	349	90.9
NUMBER OF SIBLINGS	382	99.5
WHETHER RELIGIOUS OR NOT	384	100.0

Source: Mass Observation (1945).

Table 5.3 shows the frequency of response for the potential covariates tried in the model.

Although other potential covariates are present in the dataset I felt that two main problems existed with them that precluded my selection of them for the model. First was the issue of the large number of missing responses to some questions. A primary example of this is the response to the question about religious group to which only 109 (less than 30%) responded. The second issue which precluded selection related to a number of yes/no questions that were asked towards the end of the questionnaire (questions 15-19 in the final questionnaire transcript):

15. If you didn't have to go through so much in actually having a child, do you think that would make a difference to the number of children you would like to have?
16. If the government gave money allowances for children, do you think that would make a difference to the number of children you would like to have?
17. Do you think if you could have some help in the house that would make a difference to the number of children you would like to have?
18. Do you think if you could live in the sort of house you like that would make a difference to the number of children you would like to have?
19. Do you think if you could be sure of the future that would make a difference to the number of children you would like to have?

Not only did these questions have response rates that were somewhat on the low side (see Table 5.4), but I also felt that they would serve only to confuse any attempt to interpret the model since they were asking what might encourage future childbearing rather than what was responsible for the rate of childbearing being experienced.

It could be suggested that initial sample size itself was relatively small for this type of analysis. However, there are many applications of the multinomial logit model where the sample size is smaller, especially in medical research.[4]

The problem of collinearity (as between educational level and social class) is characteristic of this dataset. Indeed, as can be seen from Table 5.5, many of the variables are associated with social class.

Table 5.4 Response rates to questions 15 to 19 of the Mass Observation 'Britain and her Birth Rate' questionnaire.

QUESTION	FREQUENCY	RESPONSE PERCENTAGE
WOULD EASIER PREGNANCY/BIRTH ENCROURAGE CHILDBEARING?	235	61.2
WOULD FAMILY ALLOWANCES ENCOURAGE CHILDBEARING?	195	50.8
WOULD HELP IN THE HOME ENCOURAGE CHILDBEARING?	232	60.5
WOULD IMPROVED HOUSING ENCOURAGE CHILDBEARING?	210	54.7
WOULD SURETY ABOUT THE FUTURE ENCOURAGE CHILDBEARING?	182	47.4

Source: Mass Observation (1945).

[4] A quick look through back copies of The British Medical Journal reveals smaller sample size than that used in this study, e.g Schwartz and Hupert (2003) had a sample size of 164 in their study, Glasgow, Ponsonby, Yates, Beilby and Dugdale (2003) had a sample size of 174; and Chandna, Schulz, Lawrence, Greenwood, and Farrington (1999), had a sample size of 292 in theirs. These studies utilized the multinomial logistic regression technique.

Table 5.5 Table to show the asymptotic significance of the association between the variables as measured by the Chi-squared test

VARIABLE	Social class	Educational level	Number of siblings	Reasons for marrying	Number of rooms	Importance of children in marriage	Whether or not religious
Social class	0	0.000**	0.000**	0.181	0.276	0.000**	0.487
Educational level	0.000**	0	0.000**	0.001**	0.869	0.029*	0.576
Number of siblings	0.000**	0.000**	0	0.633	0.310	0.009**	0.129
Reasons for marrying	0.181	0.001**	0.633	0	0.139	0.000**	0.214
Number of rooms	0.276	0.869	0.310	0.139	0	0.192	0.091
Importance of children in marriage	0.000**	0.029*	0.009**	0.000**	0.192	0	0.989
Whether or not religious	0.487	0.576	0.129	0.214	0.091	0.989	0

*significant at 5% level of significance

**significant at 1% level of significance

It can be seen quite clearly that social class is associated with educational level, number of siblings and importance of children in marriage. The high degree of association between social class and these other variables means care is needed when constructing a model that includes them alongside social class.

In order to analyse the data further I created dummy variables for each of the variables other than 'whether or not religious' which already was in zero/one form (i.e. yes or no). Two children at five years of marriage is the control group for the dependent variable and three different outcomes were compared against the possible outcome of having two children at five years of marriage. Thus three simultaneous models were run, the outcome or dependent variables being:

- Zero versus two children at five years of marriage
- One child versus two children at five years of marriage
- Three or more versus two children at five years of marriage.

A forwards selection technique was taken with each of the models. This allowed for categories with very small numbers to be removed or amalgamated into other categories. The numbers of cases in each of the models is shown in Table 5.6.

Table 5.6 Number of cases in each of the three models

MODEL/CATEGORY	0 v 2	1 v 2	3 or more v 2
1st category	68	142	41
2nd category	130	130	130
TOTAL	**198**	**272**	**171**

5.4.1.1 Zero versus two children

Taking the 'zero versus two children at five years of marriage' model first the category for each variable with the largest number of responses was used as the control category. For educational level, this was LOW EDUCATION (educated up to 14 years of age), for reasons for marriage this was TRADITIONAL POSITIVE, for social class it was UNSKILLED, for number of siblings it was 5 OR MORE, for number of rooms it was MEDIUM HOUSE (3 to 4 rooms), and for the variable for the importance of children in marriage it was POSITIVE CHILDREN (i.e. that children are important in marriage). Where there were a substantial number of missing values, the categories for missing values were also included in the model to see whether there was any significance in these non-reported responses.

Each variable was put into the model separately. The results of this can be seen in Table 5.7. Reasons for marriage and number of siblings were found not to be significant at all and were omitted from the model at this point. Social class was shown to produce the greatest change in the -2 log likelihood value and thus have the greatest influence in the model. The next step of the model entailed adding each of the variables one at a time to a model including the social class variable to

see which should stay in the model at the next step.

Table 5.7 Step one of zero versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHI-SQUARE	DEGREES OF FREEDOM	SIGNIFICANCE
CLASS	230.149	24.593	2	.000
REASONS FOR MARRIAGE	248.761	4.287	3	.232
LEVEL OF EDUCATION	234.908	19.833	2	.000
IMPORTANCE OF CHILDREN IN MARRIAGE	239.101	15.641	2	.000
NUMBER OF ROOMS	235.223	19.518	3	.000
NUMBER OF SIBLINGS	252.407	0.188	2	.910
WHETHER RELIGIOUS OR NOT	243.452	9.143	1	.002
YEAR OF MARRIAGE	247.762	4.832	2	.089

The second step of the zero versus two children at five years of marriage model starts with social class included, and a -2 log likelihood value of 230.149. The results of the variables entered into the model along side social class can be seen in Table 5.8.

Table 5.8 Step two of zero versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
LEVEL OF EDUCATION	218.164	11.985	2
IMPORTANCE OF CHILDREN IN MARRIAGE	223.920	6.229	2
NUMBER OF ROOMS	207.283	22.866	3
WHETHER RELIGIOUS OR NOT	222.989	7.160	1
YEAR OF MARRIAGE	221.313	8.836	2

The significance of the improvement in the model when adding new variables is tested by comparing the change in the chi-square value with the chi-squared distribution. Thus for level of education, we compare the change in the chi-squared value (11,985) with the chi-squared distribution. The critical value of the chi-squared distribution at 95% level is 5.99. Since 11.985 is greater than 5.99 we conclude that adding education improves the fit. Although all the variables inputted with social class were shown to be significant, number of rooms resulted in the greatest decrease in the -2 log likelihood and thus was next to be added to the model.

The third step of the model starts with a -2 log likelihood value of 207.283. The parameters of the variables entered into the model along side social class and number of rooms can be seen in Table 5.9.

Table 5.9 Step three of zero versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
LEVEL OF EDUCATION	195.489	11.794	2
IMPORTANCE OF CHILDREN IN MARRIAGE	199.803	7.48	2
WHETHER RELIGIOUS OR NOT	201.637	5.646	1
YEAR OF MARRIAGE	190.901	16.382	2

Again, all the variables entered were found to be significant. Since year of marriage had the largest impact on the -2 log likelihood value it was the next variable to be included in the model along side social class and number of rooms.

At step four (Table 5.10) level of education had the greatest influence on the -2 log likelihood value and was thus the next to be included. The inclusion of both social class and level of education was tentative at this stage due to the close association between these two variables as seen in the cross tabulations carried out previously.

Table 5.10 Step four of zero versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
LEVEL OF EDUCATION	182.283	8.618	2
IMPORTANCE OF CHILDREN IN MARRIAGE	185.934	4.967	2
WHETHER RELIGIOUS OR NOT	185.608	5.293	1

At this next step religion was more influential than the importance of children to a marriage and was the final variable to be added into the model.

Table 5.11 Step five of zero versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHI-SQUARE	DEGREES FREEDOM
IMPORTANCE OF CHILDREN IN MARRIAGE	176.593	5.690	2
WHETHER RELIGIOUS OR NOT	176.307	5.976	1

Hence, the model for zero versus two children at five years of marriage consists of the variables:

Social class

Educational level

Number of rooms

Year of marriage

Whether or not religious.

Thus we have the final the model for zero versus two children at five years of marriage Table 5.12). It is somewhat complex, and it can be argued that by back stepping to one of the earlier simpler models very little is lost by way of predictive value.

Table 5.12 Variables in the Equation for Zero Versus Two Children at Five Years of Marriage

	B	S.E.	Wald	df	Sig.	Exp(B)
MIDDLE CLASS	3.283	.805	16.654	1	.000	.038
SKILLED CLASS	.898	.433	4.309	1	.038	.407
SMALL HOUSE	1.532	.555	7.611	1	.006	.216
LARGE HOUSE	-1.759	.693	6.437	1	.011	5.807
MISSING HOUSE VARIABLE	1.490	.582	6.562	1	.010	.225
RELIGIOUS?	-1.294	.515	6.306	1	.012	3.647
YEAR OF MARRIAGE	-.103	.040	6.721	1	.010	1.108
YEAR OF MARRIAGE SQUARED	-.012	.006	3.806	1	.051	1.012
MISSING EDUCATION VARIABLE	2.242	.820	7.473	1	.006	.106
NEGATIVE VIEW ON IMPORTANCE OF CHILDREN IN MARRIAGE	2.141	1.005	4.541	1	.033	.118
Constant	.990	.367	7.284	1	.007	2.690

5.4.1.2 One versus two children

This process of manual forward stepping was repeated for one child versus two children at five years of marriage and for three or more versus two children at five years of marriage. The results from these series of steps are detailed in Table 5.13 to Table 5.16.

The variable 'number of rooms' was the most significant in the first step (see Table 5.13) and thus was held in the model. The variables for reasons for marriage and number of siblings were not included into the second step due to their lack of significance. Although the year of marriage was not statistically significant at conventional levels it was retained at this stage due to its significance in the zero versus two model and also due to my personal interest in the possible temporal effects on fertility patterns.

Table 5.13 Step one of one versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHI-SQUARE	DEGREES OF FREEDOM	SIGNIFICANCE
CLASS	367.425	9.117	2	.010
REASONS FOR MARRIAGE	373.721	2.821	4	.588
LEVEL OF EDUCATION	365.352	11.190	3	.011
IMPORTANCE OF CHILDREN IN MARRIAGE	366.623	9.920	2	.007
NUMBER OF ROOMS	360.031	16.512	3	.001
NUMBER OF SIBLINGS	374.544	1.998	2	.368
WHETHER RELIGIOUS OR NOT	374.181	2.361	1	.124
YEAR OF MARRIAGE	375.339	1.203	2	.548

On the second step of the model (see Table 5.14) social class and the importance of children in marriage proved to be significant (comparing change in chi-square value with the chi-squared distribution at the relevant degrees of freedom). However, social class has the greatest impact on the -2 log likelihood value. It was thus included alongside number of rooms in the third step of the model.

The variable for the importance of children in marriage brought about the largest decline in the -2 log likelihood value, as can be seen in Table 5.15, and was the next to be included in the model.

It can be seen in Table 5.16 that by step four of the model only very small gains are made to the -2 log likelihood by the inclusion of any of the three remaining variables, and so none was added to the model.

Table 5.14 Step two of one versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
CLASS	347.762	12.269	2
LEVEL OF EDUCATION	353.941	6.09	3
IMPORTANCE OF CHILDREN IN MARRIAGE	348.107	11.924	2
WHETHER RELIGIOUS OR NOT	358.274	1.757	1
YEAR OF MARRIAGE	358.416	1.615	2

Table 5.15 Step three of one versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
LEVEL OF EDUCATION	344.036	3.726	3
IMPORTANCE OF CHILDREN IN MARRIAGE	335.218	12.544	2
WHETHER RELIGIOUS OR NOT	346.457	1.305	1
YEAR OF MARRIAGE	343.850	3.912	2

Table 5.16 Step four of one versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
LEVEL OF EDUCATION	332.586	2.632	3
WHETHER RELIGIOUS OR NOT	334.096	1.122	1
YEAR OF MARRIAGE	331.663	3.555	2

Thus the model for one versus two children at five years of marriage as shown in Table 5.17, consists of the variables:

Number of rooms
Social class
Importance of children in marriage.

Table 5.17 Variables in the Equation for One Child Versus Two Children at Five Years of Marriage

	B	S.E.	Wald	df	Sig.	Exp(B)
MIDDLE CLASS	1.685	.562	9.003	1	.003	.185
SKILLED CLASS	.626	.287	4.760	1	.029	.535
SMALL HOUSE	1.113	.382	8.513	1	.004	.328
LARGE HOUSE	-.841	.394	4.546	1	.033	2.318
MISSING HOUSE VARIABLE	1.007	.436	5.326	1	.021	.365
NEGATIVE VIEW ON IMPORTANCE OF CHILDREN IN MARRIAGE	1.559	.695	5.025	1	.025	.210
MISSING IMPORTANCE OF CHILDREN IN MARRIAGE VARIABLE	-1.093	.475	5.293	1	.021	2.983
Constant	.387	.210	3.401	1	.065	1.473

5.4.1.3 Three or more versus two children

The same method was followed for the final model of three or more versus two children at five years of marriage.

By Comparing Table 5.18 to the tables detailing the steps of the previous two scenarios it is interesting to observe that the number of siblings that a woman had was the most significant variable for the first step of this model – it not being a variable that has come into play before. Religion was omitted at this point due to its lack of significance.

Table 5.18 Step one of three or more versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHI-SQUARE	DEGREES OF FREEDOM	SIGNIFICANCE
CLASS	172.641	15.736	2	.000
REASONS FOR MARRIAGE	176.228	12.569	3	.007
LEVEL OF EDUCATION	182.070	6.307	2	.043
IMPORTANCE OF CHILDREN IN MARRIAGE	184.942	3.435	2	.179
NUMBER OF ROOMS	182.933	5.444	3	.142
NUMBER OF SIBLINGS	168.430	19.947	2	.000
WHETHER RELIGIOUS OR NOT	188.374	00.003	1	.956
YEAR OF MARRIAGE	181.750	6.627	2	.036

At step 2 of the model only social class makes a significant impact on the -2 log likelihood value (see Table 5.19) and thus is the next to be included.

Table 5.19 Step two of three or more versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
CLASS	159.386	9.044	2
REASONS FOR MARRIAGE	161.007	7.423	3
LEVEL OF EDUCATION	166.515	1.915	2
IMPORTANCE OF CHILDREN IN MARRIAGE	163.558	4.872	2
NUMBER OF ROOMS	161.327	7.103	3
YEAR OF MARRIAGE	165.455	2.975	2

In step three only number of rooms led to a significant change in the -2 log likelihood value (see Table 5.20). It was the next variable to be included in the model.

Table 5.20 Step three of three or more versus two children at five years of marriage

VARIABLE	-2 LOG LIKELIHOOD	CHANGE IN CHI-SQUARE	CHANGE IN DEGREES OF FREEDOM
REASONS FOR MARRIAGE	152.028	7.358	3
LEVEL OF EDUCATION	159.191	0.195	2
IMPORTANCE OF CHILDREN IN MARRIAGE	154.891	4.495	2
NUMBER OF ROOMS	151.330	8.056	3
YEAR OF MARRIAGE	156.952	2.434	2

At step four of the model only very small reductions in the 2 log likelihood value were made by adding further variables, and thus none was added to the model.

Table 5.21 Variables in the Equation for Three or more Versus Two Children at Five Years of Marriage

	B	S.E.	Wald	df	Sig.	Exp(B)
MIDDLE CLASS & SKILLED CLASS	-2.099	0.711	8.706	1	.003	.123
SMALL HOUSE	-.845	.824	1.052	1	.305	.430
LARGE HOUSE	1.162	.484	5.759	1	.016	3.195
MISSING HOUSE VARIABLE	1.305	.804	2.636	1	.104	3.689
MATERNAL FAMILY SIZE 1 OR 2	-.459	.727	.399	1	.528	.632
MATERNAL FAMILY SIZE 3 OR 4	-2.269	.790	8.255	1	.004	.103
Constant	-.716	.285	6.310	1	.012	.489

The completed model for three or more versus two children at five years of marriage is as shown in Table 5.21.

Thus three models were constructed for the three scenarios. The zero versus one child at five years of marriage was the most complicated of the three, with social class, number of rooms, whether religious or not, year of marriage, importance of children in marriage and having a missing level of education variable all included in the model. For one versus two children at five years of marriage the model is somewhat more straightforward, including just the variables for social class, number of rooms and importance of children in marriage. For three or more versus two children at five years of marriage the model is similarly straightforward consisting of the variables for social class, number of rooms and maternal family size. The differences between the models for each of the scenarios are themselves interesting and worthy of further study at a later date.

What was now wanted was a set of variables that could be used for all three scenarios so that direct comparison could be made. Since social class and number of rooms are significant in each of the three models it was decided to use these variables in the final series of models. In addition, the variables for year of marriage and year of marriage squared were also included into the model in order that any temporal changes might be plotted and observed (indeed, the quadratic specification of the date of marriage covariate was given in order to allow for the temporal trend in marital fertility during the period in question). In the three or more versus two model the middle class and skilled working class categories were combined due to the very small numbers of middle class women. The parameters of the common set of models are given in Table 5.22.

Table 5.22 Parameter estimates from multinomial logistic models of zero, one and three or more children versus two children at five years of marriage by five years of marriage by class, date of marriage and number of rooms.

	Children by	5 years		of marriage	
	0 vs 2		1 vs 2	3 or more vs 2	
	β	S.E.	β	S.E.	β	S.E.
Social class						
Middle	3.690**	.738	1.825**	.573	-2.228**	.664
Skilled	0.716	.389	0.573*	.281	-2.228**	.664
Unskilled	0	-	0	-	0	-
Number of rooms						
1 - 2	1.266**	.485	0.876*	.367	-0.634	.821
3 - 4	0	-	0	-	0	-
5+	-2.012**	.643	-0.912*	.387	1.028*	.470
Year of marriage – 1930	-0.106**	.036	-0.026	026	-0.034	.037
Year of marriage – 1930^2	-0.011	.006	-0.003	.004	-0.005	.006
Constant	0.759	.302	0.090	.230	-0.775	.307

Note: Reference categories are underlined.

** Denotes significance at the 1% level.

* Denotes significance at the 5% level-

Source: Mass Observation (1945).

Thus, in this analysis it the final multinomial logit model reads as:

$$\log\left(\frac{\pi_j}{\pi_J}\right) = \beta_{j_0} + \beta_{j_1} C_1 + \beta_{j_2} C_2 + \beta_{j_3} R + \beta_{j_4} a + \beta_{j_5} a^2$$

where:

C are dummy variables for class;

R is the number of rooms (excluding kitchen and bathroom);

a is the year of marriage.

5.4.2 Results

The results of the multinomial models may most clearly be presented in the form of a series of graphs depicting the fertility for marriages from 1917 to 1935 of a number of hypothetical women in various social class/house size combinations (Figures 5.5 – 5.7).

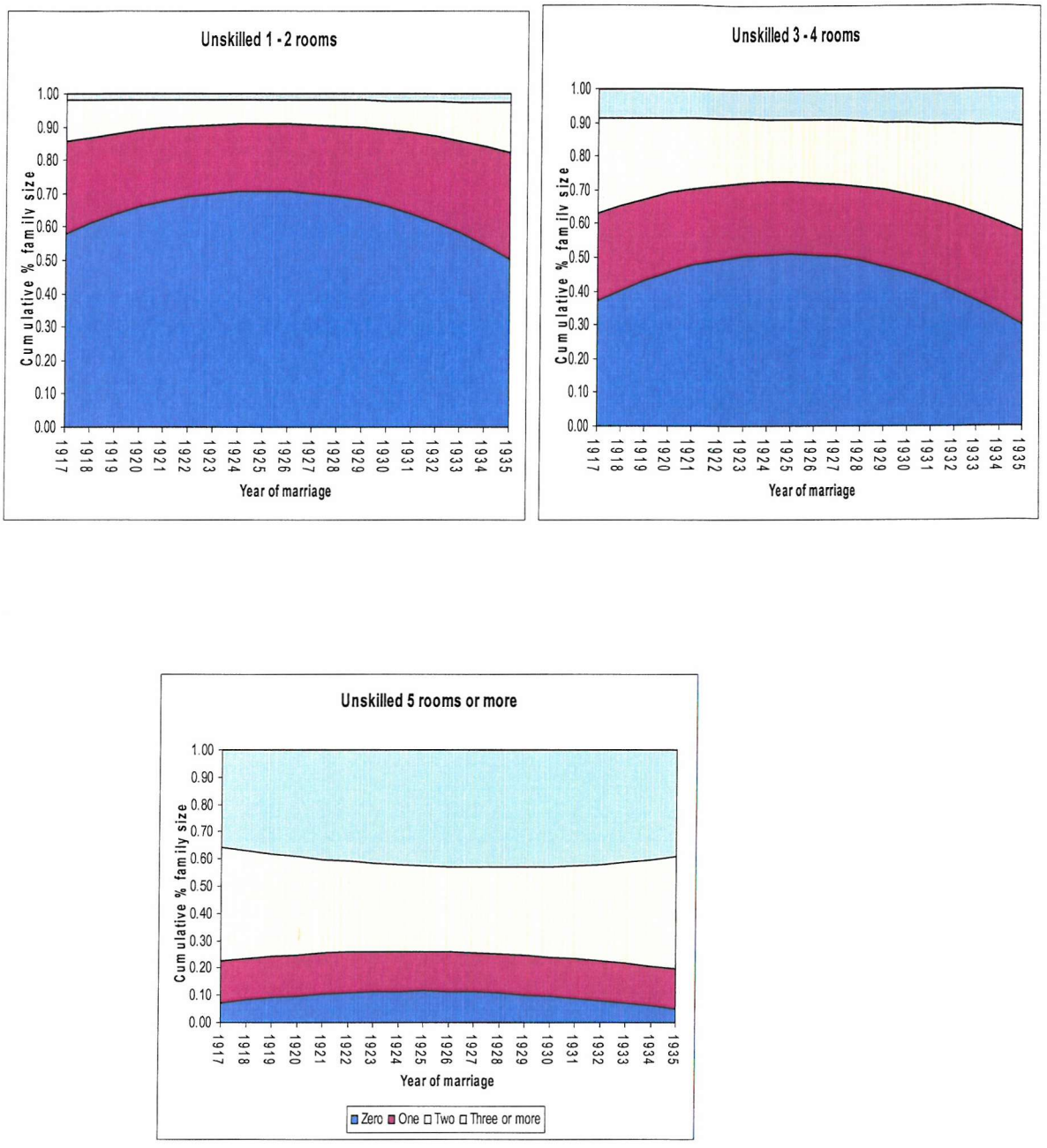
In Figure 5.5, when one focuses on the top half of the graphs, it is clear that for the 'unskilled working classes' the model has their fertility at five years of marriage increasing as the number of rooms available to them increases.

In Figure 5.6 when one focuses on the top part of the graph sequence, again it is evident that the model depicts the fertility at five years of marriage of the 'artisan and skilled working classes' as increasing as the number of rooms increases. The small proportion of light blue showing though, suggesting that the effect is not as strong as for the 'unskilled classes', there being less likelihood of achieving three children in the five years.

In Figure 5.7 it is the bottom part of each of the graphs in the sequence that is most telling, the proportions of purple decreasing and corresponding proportions of red increasing as the number of rooms increases. There is very little change in the top halves of the sequence, very few second births being predicted by the model, regardless of number of rooms available.

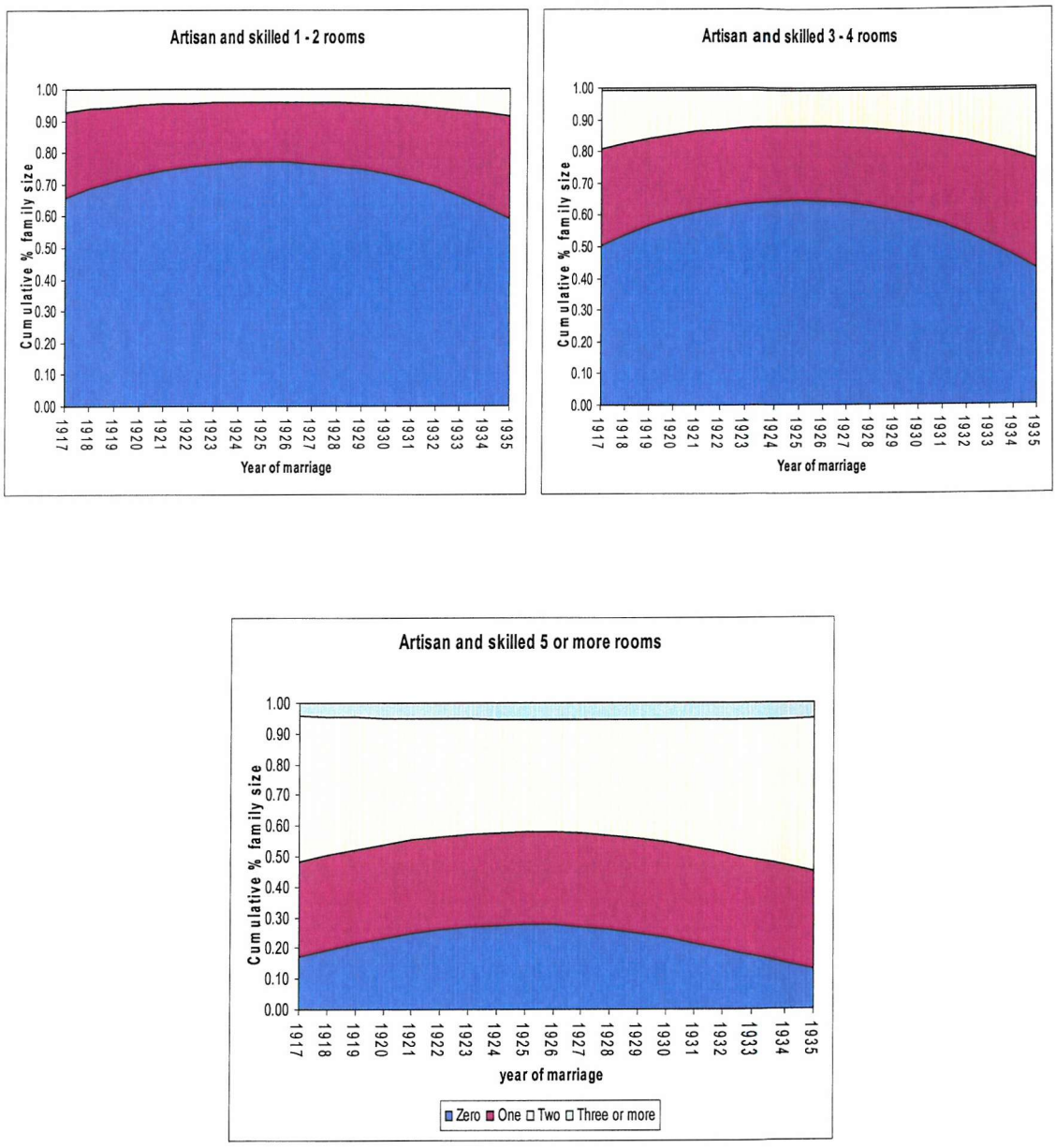
The curved shape of the fertility sequences produced by the model suggest that those marriage cohorts after 1917 had progressively lower fertility in the first five years of marriage until the marriage cohort of 1925, after which fertility increased once more. The fertility of marriage cohorts from 1932 onwards surpassed that of the marriage cohort of 1917.

Figure 5.5 Unskilled working class at five years of marriage for three different room size/ year of marriage continuums



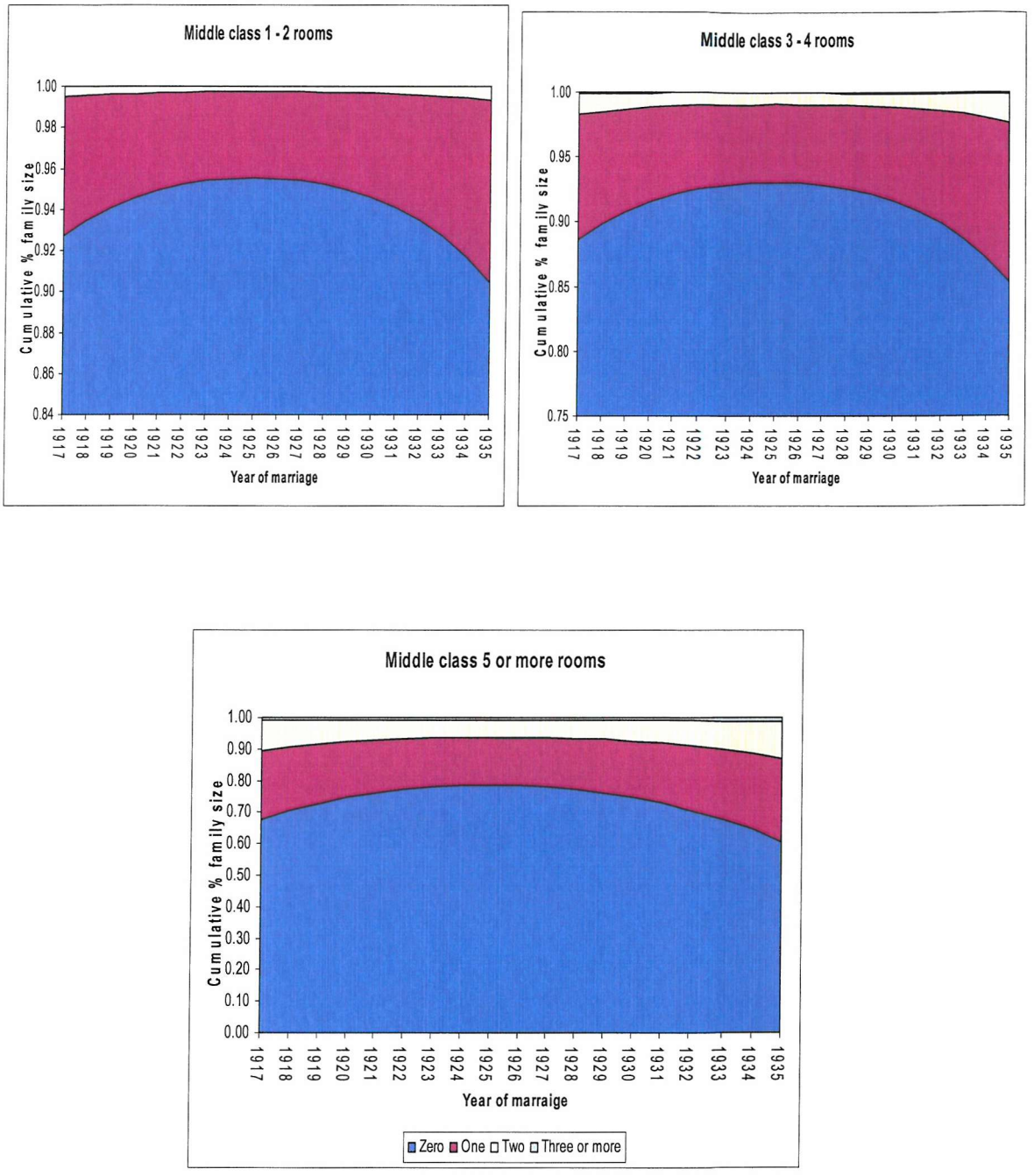
Source: Mass Observation (1945)

Figure 5.6 Artisan & skilled working class at five years of marriage for three different number of rooms/year of marriage continuums.



Source: Mass Observation (1945).

Figure 5.7 Middle class at five years of marriage for three different number of rooms/year of marriage continuums.



Source: Mass Observation (1945).

5.5 Analysis of birth histories

5.5.1 Birth intervals

In the study of fertility, particularly when addressing the 'stopping' versus 'spacing' debate, it is desirable to examine the distribution of times between marriage and first births and between subsequent births. Censorship of the data, whereby a birth does not occur before the cut off time of the study (1940 in this case) is avoided through the use of life table analysis. The fundamental idea behind such analysis is that the period of observation of the study is subdivided into a number of smaller time intervals (in this example into periods of one year). For each interval, all the women who have been observed at least that long are used to calculate the probability of a birth occurring in that interval. In this study a total of ten one-year periods were covered in each of the life tables.

Unlike the 1911 census data, or the 1946 Family Census data, the Mass Observation interview transcripts include birth histories. These birth histories are censored at the date of interview; nevertheless they may be analysed using fairly straightforward event history methods. The birth histories we analyse in this section begin with each respondent's marriage, and the 'events' are the subsequent births prior to the interview, in order. Before proceeding to describe the analysis, it must be noted that very few respondents were pregnant when they married. Fewer than six per cent of women in each of the three social classes had a first marital birth in the same year as their marriage (and not all of these need have been conceived pre-maritally). Given this, it is unsurprising that only nine out of the 384 women married between 1917 and 1935 stated openly that pregnancy was their reason for marrying [5]. Twenty women had their first birth in the calendar year of their marriage, and fourteen had their first birth in or before the year preceding their wedding.

[5] Due to year of marriage and the years of birth of any children born being established in most cases, it is possible to see where premarital births exist. However, they have not been examined as yet in this study

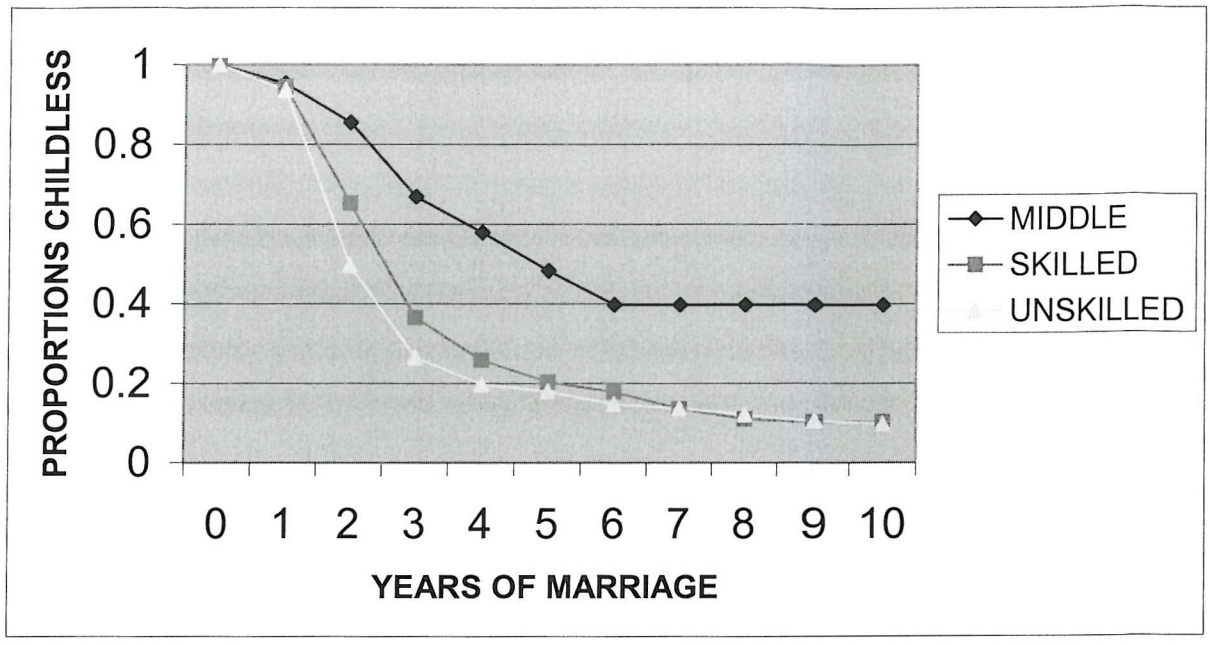
Using those marriages where there were no premarital conceptions, two life tables were estimated. The first measured the duration between marriage and the first birth, and the second the duration between the first birth and the second birth. In so doing, it was possible to include censored cases, thus creating a larger sample that that used for the analysis of childbearing in the first five and ten years of marriage.

Those women who had not had a premarital conception or birth and who were married up to and including 1939 were included in the life tables. This resulted in there being 543 observations in the life table running from marriage to first birth, and 419 observations in the life table running from first to second births.

The life tables were estimated separately for each of the three social class groups. The results for the first birth interval (Figure 5.8) show that more of the 'artisan and skilled working class' and the 'unskilled working class' started child bearing soon after marriage compared to the 'middle class' group. Meanwhile many of this 'middle class' group appear to have a prolonged honeymoon period with a delayed first birth. Only eight per cent of the 'unskilled' and ten per cent of the 'skilled' women did not have a first birth during the ten-year period of observation, compared with 32 per cent of the 'middle class' women.

The 1946 Family Census gives mean values for the length of the interval between marriage and first birth for various social status categories. Although these cannot be compared directly with our life table estimates, these means can be compared to the medians resulting from the Mass Observation analysis (Tables 5.23 and 5.24). It is possible to see similarities in the trends across social classes, with the non-manual groups experiencing greater durations between marriage and first births and between subsequent births than the manual groups.

Figure 5.8 Life table for duration from marriage to first birth for three social class groups.



Source: Mass Observation (1945).

The difference in the fertility behaviour of the three groups in the Mass Observation study is greatest in the first two years of marriage (Table 5.23). Whereas only 10 per cent of the 'middle class' women had their first birth in the calendar year following their marriage (that is within about the first eighteen month of marriage), 30 per cent of the 'artisan and skilled working class' women, and 47 per cent of the 'unskilled working class' women had their first birth during this period.

Table 5.23 Marriage to first birth intervals in years– a comparison of 1946 Family Census data and Mass Observation data.

Date of first marriage	STATUS GROUP I	STATUS GROUP II	MIDDLE CLASS	ARTISAN AND SKILLED WORKING CLASS	UNSKILLED WORKING CLASS
1920-24	2.07	1.60			
1925-29	2.30	1.74			
1930-34	2.42	1.87			
1917-35			4.82	2.53	1.99

Note: The figures from the 1946 Family Census are means whereas the figures from the Mass Observation data are medians.

Status Group I refers to non-manual workers, Status Group II to manual workers.

Source: 1920-34 data, Glass and Grebenik, 1954 Table 6, p. 167. 1917-35 data, Mass Observation (1945).

Table 5.24 First to second birth intervals in years – a comparison of 1946 Family Census data and Mass Observation data.

Date of first marriage	STATUS GROUP I	STATUS GROUP II	MIDDLE CLASS	ARTISAN AND SKILLED WORKING CLASS	UNSKILLED WORKING CLASS
1920-24	4.64	4.03			
1925-29	4.86	4.19			
1930-34	4.97	4.37			
1917-35			4.01	4.31	3.32

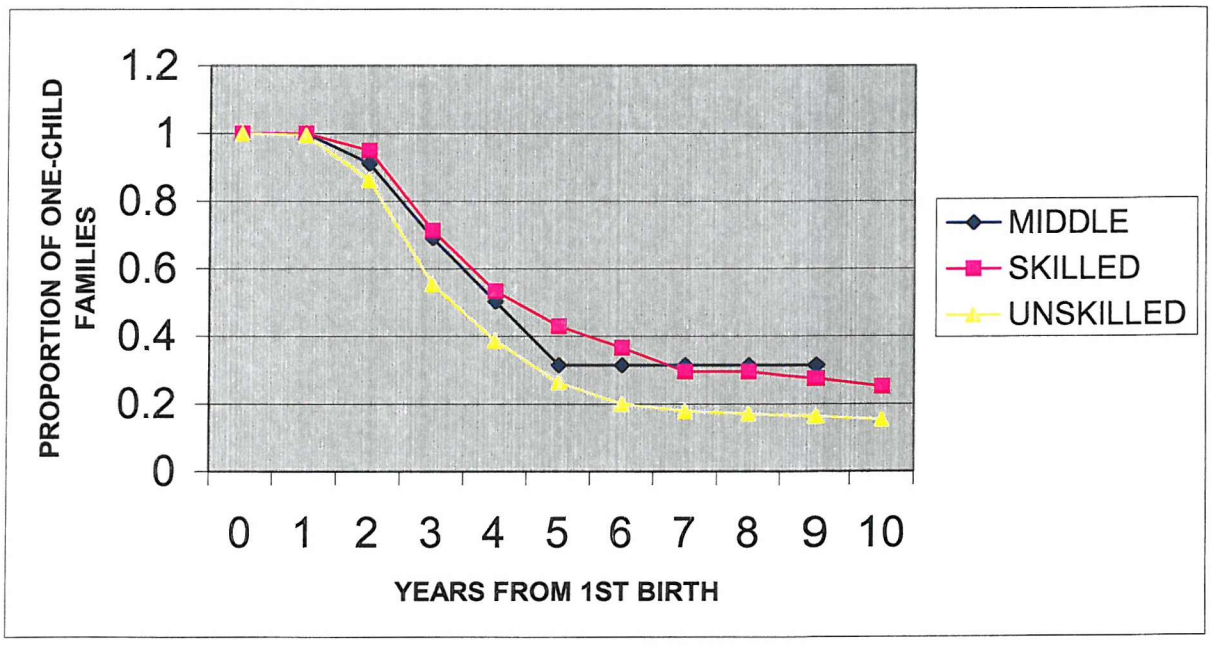
Note: The figures from the 1946 Family Census are means whereas the figures from the Mass Observation data are medians.

Status Group I refers to non-manual workers, Status Group II to manual workers.

Source: 1920-34 data, Glass and Grebenik, 1954 Table 6, p. 167. 1917-35 data, Mass Observation (1945).

It can be seen quite clearly from Figure 5.9 that after the first birth there is a degree of convergence in the fertility behaviour of women in the three social groups. This is also confirmed by Table 5.24. Of those 'middle class' women who do have a first birth, two thirds go on to have a second birth, with the median survival time from first to second birth being just over four years. This median duration is very close to that of the 'artisan and skilled working class' (at roughly four years and four months), although in their case, around four out of every five who have a first child go on to have a second child. These median durations suggest that a degree of birth spacing is going on. The median survival time to second birth is shorter for the 'unskilled working class' at three years and four months, with 90 per cent of those having a first child proceeding to have a second within the ten-year period of observation.

Figure 5.9 Life table for duration from first to second birth for three social class groups.



Source: Mass Observation (1945).

5.5.2 Parity progression ratios

Hobcraft (1996) presents data from the 1971 census which suggests that 81% of women in the 1926-30 marriage cohort had a first birth. Of those women, a further 67% go on to have a second birth. 54% of those having a second birth going on to have a third birth (Hobcraft, 1996, Table 7, p. 509).

Using data from Glass and Grebenik (1954, Table 42, p. 113) to create another series of parity progression ratios, Hobcraft's figures can be compared to those resulting from the 1946 Family Census, and to those for 'skilled' and 'unskilled' women in the Mass observation sample (Table 5.25). There were too few 'middle class' women on the MO sample to make their parity progression ratios valid.

Table 5.25 Parity progression ratios from selected sources for marriages circa 1925-30

			PARITY	PROGRESSION	RATIOS
Marriage cohort	**class**	**source**	**0-1**	**1-2**	**2-3**
1925	Professional	1946 Census Glass & Grebenik	0.82	0.65	0.42
1925	Salaried employees	1946 Census Glass & Grebenik	0.78	0.60	0.35
1925	Manual wage earners	1946 Census Glass & Grebenik	0.87	0.72	0.62
1925	Labourers	1946 Census Glass & Grebenik	0.87	0.79	0.74
1926-30	All	1971 Census, Hobcraft	0.81	0.67	0.54
1925-30	Skilled	Mass Observation	0.75	0.79	0.53
1925-30	Unskilled	Mass Observation	0.99	0.81	0.64

Sources: Glass and Grebenik (1954), Table 42, p. 113. Hobcraft (1996), Table 7, p. 509. Mass Observation (1945).

Although the Mass Observation data are censored due to the interview date of 1944, it was felt as the marriage cohort used was 1925-30, and hence the women had been married for a minimum of fourteen years by that point in time, most childbearing at stages 0 to 1 and 1 to 2 children would have been completed. However, the parity progression ratios for 2 to 3 children might well be deflated due to this restriction in the period of observation.

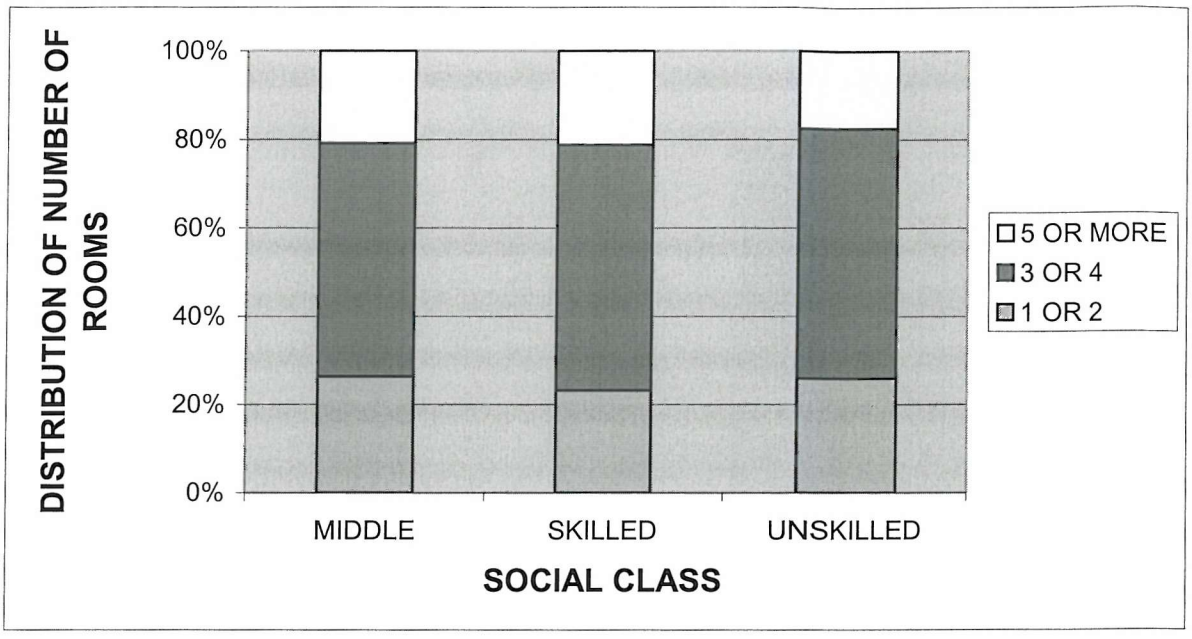
It can be seen that the MO data produce parity progression ratios that are comparable to those of Hobcraft (1996) and Glass and Grebenik (1954), especially when one considers the sample size and degree of censoring that are attached to the MO data. This gives further credence to the belief that the results emerging from the MO data are valid.

5.6 Discussion

The level of education of the respondent and the number of siblings that she had are closely associated with her social class. House size, however, which is closely associated with childbearing during the first five years of marriage, is not so closely related to class. All three classes exhibit very similar distributions of number of rooms (Figure 5.10), and yet have very different fertility patterns in the first five years of marriage (refer back to Tables 5.1 and 5.2 and Figure 5.2).

Although the strength of association between accommodation size and childbearing is clear enough, its interpretation is not as the direction of causality is unknown. For some couples, childbearing may have been inhibited by a lack of accommodation (i.e. by a restriction on the number of rooms available to them); alternatively, couples who had several children might have sought (and found) larger houses (i.e. with more rooms available to them).

Figure 5.10 Distribution of number of rooms in accommodation (excluding kitchen and bathroom) by social class



Source: Mass Observation (1945).

The relationship between housing and fertility arose on a number of occasions in the interviews carried out in 1944 by the Royal Commission on Population. In addition, the results of the multinomial logit models indicated that the relationship between accommodation size and childbearing was potentially more important to those described as being members of the 'unskilled working class', and to a lesser extent among the members of the 'artisan and skilled working class' than among those described as being members of the 'middle class'. Those described in the model as 'middle class' exhibited childbearing patterns that varied little with accommodation size. The model shows there to be a stronger association for the members of the 'artisan and skilled working class', whilst those described as belonging to the 'unskilled working class' are shown by the model as having the strongest association of all the three groups. Thus housing is an area that requires further, more detailed, examination. It is likely that there are visible restrictions on childbearing (such as the size limitation suggested by this analysis), as well as invisible restrictions (such as societal changes as to what was considered

acceptable accommodation in which to raise children). Hence, in Chapter 7 housing and its relationship to fertility are considered in more depth.

Although the Mass Observation study is small and imperfect in comparison with the 1911 census and the 1946 Family Census, it does have the advantage of including birth histories. This is invaluable in light of the recent debate about the role of birth spacing in the British fertility decline. The results of the analysis suggest that the spacing of births was practised from very early on in marriage among a minority of couples. Indeed, large numbers of the small group of women ascribed to the 'middle class' in the MO sample appear to have begun spacing on marriage, delaying their first pregnancy.

In his work on 'very small' families, Michael Anderson recently maintained that inter-War couples made little attempt to delay first births and only spaced thereafter (1998, p.191). The results of this study suggest that this statement was true of the majority of couples, but not all. However, Anderson concludes his paper by stating that the period of British fertility history from 1850 to 1939 should be viewed as:

> 'one of marked differentiation of pathways within an overall long-term progression, as a set of processes in which some groups become pioneers by exploiting particular opportunities as they appeared, thus enabling others to follow their lead once new patterns had become established as part of a repertoire of acceptable behaviours'.
>
> (Anderson, 1998, p.197)

It is this 'differentiation of pathways' that is apparent in the Mass Observation data. The study has identified three distinct pathways, although no doubt other analysis could well have further differentiation. There is the 'middle class' spacing from marriage; the 'artisan and skilled working class' who appear to make some effort to delay their first birth, though not to the degree exhibited by the 'middle class', and who appear to institute birth spacing thereafter. On the third pathway

there is the 'unskilled class' who appear to have make no attempt to delay first births, and less attempt to delay second births than the other two groups, although the median second birth interval of 3.3 years would suggest that some degree of birth spacing was being attempted by some of these women.

In the Mass Observation data set, of the thirteen 'middle class' women who had a second birth, just two went on to have a third birth prior to the interview in 1944. Since it would be most unsatisfactory to present statistics arising from just two cases (and the focus of this study is the 1930s, and both of these middle class women married in 1935, with their third births being towards the end of 1942) they have not been included in the analysis on third births. These figures compare to 40% of the 'skilled' women (32 out of the 80 that had two births went on to have a third birth) and '58% of the 'unskilled' women (108 of the 185 that had two births going on to have a third birth).

As stated earlier, the position of birth spacing in fertility decline has been much debated recently. The results obtained from this study do point to the fact that for a number of couples who married in the 1920s and 1930s, the spacing of births was practised from very early on in marriage. It is however, very hard to distinguish between 'stopping' and 'spacing' behaviour on the basis of retrospectively reported fertility outcomes, even when birth histories are available. For, as one Royal Commission on Population (RCP) witness pointed out: '[a] great many people marry young with the intention of not having a family, at least to begin with.. I think there is that tendency, if people go several years without having children it is rather difficult to adjust themselves to a family' (RCP, interview 3, p.12). In other words, the intention to space from marriage may result in 'stopping at zero'. As another RCP witness put it, 'There is a tendency for people to say "I do not really mind having one", but they keep putting it off and putting it off for one reason or another' (RCP, interview 5, p. 6).

Garrett and Reid (1995) argue that their evidence suggests that, among the middle classes in particular, lower fertility was achieved by birth spacing after the

first birth. However, their study was based on the OPCS data set relating to the 1891, 1901 1911 and 1921 censuses and hence to marriages earlier than the ones in this study. It is certainly conceivable that their observed pattern of numbers of the middle class women spacing after the first birth could have evolved into the pattern observed here whereby numbers of middle class women are spacing directly from marriage. Anderson's (1998) argument (based on 1911 census data) for post parity one spacing, also fits in here, as does Garrett et al's (2001) suggestion that a marriage cohort effect on fertility limitation might be evident, with couples deciding upon marriage not to have very many children, rather than coming to this decision later on in marriage after the birth of a number of children. Similarly this 'spacing from marriage' lies comfortably with Szreter's (1996) belief that in some communities or social groups spacing might have begun early on in marriage.

The analysis in this study suggests that for marriages after 1917, the fertility of which was among the lowest ever recorded in Britain, this same 'spacing' pattern of fertility can be seen. Indeed, it appears likely that social class differentials in childbearing during the early years of marriage are greater among marriages after 1917 than among those from the first decade of the century. There is, however, evidence that a significant proportion of middle class women marrying after 1917 were also delaying their first births (which would reduce fertility still further).

It is open to debate whether the lack of 'middle class' women who had a second birth going on to have a third birth is an example of 'spacing' with a prolonged space following the second birth (to the point of sterility), or whether it is an example of 'spacing' followed by 'stopping'. It does seem to be the case though, that many of the artisan and skilled working class are following (copying?) the same pattern, although at a different level with higher resultant fertility. Since on the whole the unskilled working class women in the study exhibited the highest fertility throughout, it is impossible to assess the extent to which any of their number might be spacing. Certainly their average short marriage to first birth interval seems to suggest that many of them are not spacing early on in marriage.

While Garrett et al's work seems to present a similar hierarchy, they suggest that early on in marriage couples were working to broadly the same fertility pattern. However, as stated earlier, their data refers to a slightly earlier period, and hence the findings of this study could well be an adaptation of the behaviours found in their study.

5.7 Conclusion

What seems certain from this study is that a number of middle class couples marrying in the 1920s and 1930s were limiting their fertility by delaying their first birth. Many of those middle class women who went on to have a second birth delayed it for a similar period, and of those that had two births few were likely to go on and have a third birth. It appears that many of the artisan and skilled working classes had a first birth interval that was shorter than that experienced by many of their contemporaries in the middle classes However, there are close similarities for many members of both these classes when it comes to the length of second birth interval, suggesting that numbers of the artisan and skilled working classes are spacing after the first birth. At aggregate level the unskilled working classes had the shortest first birth interval and spacing does not seem evident to any great degree from the data available.

The analysis in this chapter has hinted at relationships and dynamics in the fertility behaviour of the inter-War period. Models have been interpreted, statistics presented and suggestions made. However, explanations cannot be adequately provided without further investigations being made.

The 'bricks' of the study are here, in the form of models and statistics. What is needed is the 'cement' to bind them together so that a solid form can be built. The 'cement' is qualitative analysis. It has been shown that there is a relationship between housing and fertility; qualitative analysis is now needed to address such issues as the direction of causality of this relationship. The statistics presented

might well suggest that 'spacing' is taking place, but further qualitative study could make this clearer and also present possible answers to the 'why' questions that abound.

Thus in Chapter 6 the qualitative approach taken in this study is discussed further, and in Chapter 7 the issues relating to the relationship between fertility and housing are discussed at length, the 'bricks' being cemented together.

Chapter 6
Analysis of the Royal Commission on Population interview transcripts

Before this river becomes an ocean
Before you throw my heart back on the floor
Oh baby I reconsider my foolish notion
Well I need someone to hold me
But I'll wait for something more
Yes I've gotta have faith...

George Michael

6.1 Introduction

In this chapter the methods of analysis of the Royal Commission on Population interviews transcripts and the results of that analysis are discussed. A grounded theory approach was taken in the textual analysis of these interview transcripts. Section 6.2 starts with a description of grounded theory, moving on to describe in more detail how and why this approach was taken in the analysis of this data. In section 6.3 the results of that analysis are discussed in detail; then in section 6.4 these results are integrated into existing theories of fertility change. The chapter is then summarised and concluded in section 6.5.

6.2 Grounded theory

6.2.1 Background

Grounded theory was developed in the 1960s by Glaser and Strauss (1967) as a means of generating, rather than testing theory. It generally produces mid range theories which can then be linked (in various degrees) to existing theory. Although

grounded theory methodology as developed by Glaser and Strauss involves a rigorous set of procedures for producing substantive theory about social phenomena, the term is often used, as it is in this case, to describe an approach to developing theoretical ideas or concepts from data, as opposed to approaching data with theoretical ideas or concepts. This means that theory resulting from this approach fits at least one data set perfectly (i.e. the data set from which the theory is developed), in contrast to grand theories which are not data derived and therefore might not fit any data sets.

In a simplistic description of grounded theory the research question or situation is the starting point. It is from this position that the researcher attempts to understand what is happening and the dynamics that are at play within that situation. In so doing, the researcher becomes an integral part of the research process, within the process.

The researcher reads and re-reads the text of a data set and identifies categories and the inter-relationships that exist between these categories. The two main processes in the initial grounded theory analysis which serve to examine the construction of the text are coding and categorizing. Coding is the initial phase and serves to organise the data by definitions or categories emergent from the data. This summarises and sorts the observations of the data. Categories are developed from these codes by focused coding (Glaser, 1978), the purpose of which is to build and clarify a category by examining all the data it covers.

A limited set of codes from the initial phase is taken and applied to large amounts of data to see how well they fit. This is known as the constant comparative method. From these categories a grounded theory emerges. To solidify the theory the categories are reduced to core categories by comparing category with category to see how they connect to one another. As links between the categories emerge, so categories collapse and form fewer, more general categories. It is then necessary to examine the literature on the subject being researched to see if the emerging theory links with existing theory.

Ideally the literature is not read prior to this point, the worry being that detailed reading prior to this point might well impose constraints (or preconceived ideas) upon the coding. This can be seen as being an unrealistic condition since prior knowledge of a subject often exists. Indeed, since the area of study was an area of personal interest to me, prior knowledge was present in my case, and undoubtedly I had some preconceived ideas. However, I did not consciously intend to use the data to 'test' these preconceived ideas.

As is the case with most analysis of data, there are the questions as to whether the methodology used was the most suitable and whether a different methodology might have thrown up different results. The complimentary nature of the results of the statistical analysis with the qualitative analysis suggests that it was a suitable method. However, it would be interesting, given time, to see the degree to which the results of other methodologies might have coincided with the findings of the statistical analysis.

Once the data is coded tentative, emerging theories are put forward and are explored in more depth, with theoretical sampling, in which new data is examined to confirm, refute or modify the emerging theory taking place at this stage. The theory that emerges from this process is not a simple end result, rather it is a wall that is built throughout the research process, the codes being the initial bricks, the categories the next row and so on. The theory is built and redefined throughout the process. The resultant theory is one that is grounded in the very data from which it emerged.

Love it or hate it, have faith in it or not, it is the approach I took to analyse the Royal Commission on Population interview transcripts. I wanted to address the data without a pre-set theory to prove or disprove. I wanted to see what the data would present to me if I approached it only with the question: 'What does this tell me of the reasons put forward to the Commission for the low fertility of this period?' I wanted the data to tell me something about what was happening, not to see whether the data would fit (or whether I could make the data fit) a preconceived theory on fertility. I did not want to begin by taking, for example, one

of the theories on fertility discussed in Chapter 3, and merely assess whether or not the data fitted that particular theory. Instead, I wanted the data to tell me which theories were relevant (in varying degrees) to the experiences they described.

There is no orthodoxy of approach to the use of grounded theory - indeed, it has been argued by Glaser (1978) and Turner (1981) that there ought not to be one. However, purists might well argue that my approach is not an example of grounded theory analysis. The original methodology of grounded theory (as given in Glaser and Strauss' text in 1967) can be quite cumbersome and somewhat complex, incorporating the constant comparative method, theoretical sampling and systematic inductive theory building.

Turner (1981, p. 227) questions the usefulness of grounded theory when dealing with social phenomena such as demographic trends, although he states that the reservations he holds are not major. He states rather, that he feels that this method is best suited to qualitative data that is gathered from participant observation, from interviews, from case-study material and from certain kinds of documentary sources. Although my data do deal with demographic trends, they are also of both interview and documentary nature, and are thus, I believe, suitable for this type of analysis. I also believe that since this method of analysis leaves the researcher very open to scrutiny, I have developed more understanding of the researched data, and the complexities of the relationships between the various emerging themes, than I would have done had I taken another, more traditional to demographic research, approach to the study.

The transcripts used contained the thoughts and ideas of primarily middle class commentators. It can be argued that since these commentators were usually discussing the experience of others rather than their own experience that the grounded theory approach is not suitable. However, since the middle classes could be seen as being the fore runners of the very low fertility of the era, I felt their interpretations would be valid, in giving their explanations of what was causing the low fertility they were giving their explanations of what was 'true' to them.

All the interview transcripts that were found were used in the study, although due to the nature of the questions asked varying in each interview, some transcripts (those which addressed the question of reasons for the low fertility of the era) proved more useful than others and thus are referred to more often. I believe I gave all transcripts equal status although there might have been an unconscious bias at play which led to me favouring those where the ideas presented corresponded most closely to my own.

6.2.2 Methodology

Thus I set about coding the interview transcripts. I coded them according to whether an idea had been put forward as a 'cause' of the low fertility, or as an 'encouragement' to increase fertility (i.e. something lacking, the lack being in some way responsible for the low fertility). I also noted links between these ideas, for example, the link between appropriate family housing and economic limitations was commonly noted.

The data were all put onto index cards (the text from the interview relevant to each code, which interview and the page in that interview from which it came, and links to other codes). In ordering the data so, any subsequent analysis and theorising becomes open, rather than a covert process in one's mind. At this stage I would ideally have liked to have been able to re-interview the interviewees with regard to the themes arising from the initial coding, however, due to the historical nature of the data set this was impossible. Hence my story was defined from this categorisation. Once I had arranged these categories into a story that made sense to me, I sought to link it to existing theory and relevant quantitative analysis.

An example of this coding process is given below.

Interview 3 p. 3

1 I spoke to one mother the other day. I said, "I hear, Mrs So-and-
2 so, you are going to have another baby". "Yes," she said, "aren't I
3 unlucky?". Well, that is a dreadful attitude of mind to get into,
4 and of course, a good deal of it is economic, and it is partly
5 housing. This morning I was struggling to get rooms for a family;
6 they are all in one room, and father, mother and three children are
7 all sleeping in one bed. We do get the housing difficulties, but my
8 feeling is that the poorer mothers when they know they are going
9to have another baby, will take abortifacients and hope for the best.

Lines 2 and 3 are coded C4, meaning they refer to the [C]ause being psychological. Line 4 is coded C2 and C22, referring to the causes being economic factors (C2) and housing difficulties (C22). Lines 5, 6 and 7 are also coded C22 referring to the housing difficulties, and lines 7, 8 and 9 are coded C16 (cause being birth control) indicating the reference to abortifacients.

In the following categorisation process housing factors, economic factors and psychological factors formed their own categories, encompassing other codes. The code referring to birth control was incorporated within the category of social change and fashion, though in so doing it could be argued that I have imposed a theoretical notion (i.e. that of birth control as social change) on the data. The categories are not however, isolated from one another, there being obvious links and overlaps between economic factors and housing factors for example.

Since I have a given data set, and thus cannot necessarily fulfil the original criteria of Glaser and Strauss, I describe what I have done as having taken a 'grounded theory approach' to the data, in that:

> A researcher does not begin a project with a preconceived theory in mind (unless his or her purpose is to elaborate and extend existing

> theory). Rather, the researcher begins with an area of study and allows the theory to emerge from the data.
>
> (Strauss & Corbin, 1998, p. 12)

I do question whether I need to justify my use of this approach. That I believe that it can help me to tell my story should be enough. However, since numbers and statistics are not produced by this technique of analysis, it seems that it is not. I am resident in a department of social statistics, not due to a love of, or aptitude for numbers, but because that is where demographers tend to be. However, it appears to me that many demographers are blind to the fact that the demography that they so love to measure is dependent on social processes that are immeasurable.

I took this approach to the data in the knowledge that it results in a personal interpretation of the text, in that I am the one coding and interpreting the data. Turner (1981, p 228) notes the role of the subconscious in decisions about which ideas are identified and how they are interpreted. It is quite possible that if I were to repeat the coding process I would achieve different results, although I do not believe the difference would be great. If someone else were to code the data, I am quite sure that there would be variations both in coding and in interpretation. I am equally aware that if I used a code and retrieve computer programme (such as The Ethnograph or NUDIST) the results might well be somewhat different[1].

However, I have no problem with viewing the different stories concurrently and believe that elements of 'truth', as well as common themes, would exist in all of them. This belief has been strengthened by the attitude of Miles and Huberman as

[1] It was originally intended to code the data using The Ethnograph. However, the quality of the paper on which the transcripts were printed was so poor (the 1940s being a time of paper rationing), many pages being tissue thin and printed on both sides, that it was not possible to scan the text onto the computer. Had I a faster typing speed, or funds to pay a copy typist it would be possible.

given earlier (in Chapter 1), that all knowledge - no matter by which method it is accessed - is useful.

Just as I question the effect of my history on the analysis of the data, so the history of those interviewed needs to be brought into question. When analysing text of this type, there is no way of knowing whether those interviewed were being 'truth'ful in their responses, or even if they were aware of their motivation for their actions. Baszanger (1997, p. 3) notes in her study on chronic pain, that everyone has a history which will affect their accounts of events, that 'individuals are not objective data to be effortlessly read'. Indeed, it seems to me that human beings are innately contradictory animals. Hence, the value of any type of textual analysis can be called into question. However, I approached this textual analysis in the belief that there would be some common bands of 'truth' running through the interviews, and, since some concurrent quantitative data was also available, I would be able to see if commonality in themes existed in both data sets, and if they did, whether these related to existing theories on fertility change.

6.3 Results

6.3.1 Introduction

31 'causes' were identified in the analysis (Table 6.1), some of which were mentioned by just one respondent and others by many. However, it needs to be noted that since there was no common interview schedule certain questions or ideas were only presented to limited numbers of those giving evidence, while other seemingly more common themes were presented to the majority of those attending to comment on. However, because there was no common interview schedule it would be inappropriate to attach any hierarchy to the emergent themes.

There were a further 16 codes which can be seen as 'encouragements' to fertility –i.e. 'if this were done then fertility would increase'. As can be seen from the list of

Table 6.1 Codes emerging from the Royal Commission on Population interviews for 'causes' of the low fertility of the inter-War period

Alternatives to children	Employment/ unemployment	Insecurity	Media
Anxiety	Family structure/relations hips	Increased burden of children	Modern life
Birth control	Fashion/social change	Lack of leisure opportunities	Numerous motives
Consumerism	Fear of the future	Lack of parental urge	Psychological
Dependent parents	Fear of responsibility	Lack of prestige for parenthood	Social taboos
Desire for social betterment	Fear of childbirth	Lack of education on child care	Unconsummated marriages/ sexual problems
Economic	Habit of delay	Lack of child care	Unconscious motives
Educational desires for offspring	Housing difficulties	Maternity care	

Source: Royal Commission on Population

them (Table 6.2) they overlap to a vast degree with the suggested 'causes'.

By then combining the codes into common themes, eight categories were developed (the linkages made being shown in Table 6.3), with some codes falling into more than one category. The relevant literature on these categories was then examined in order that links between the categories produced by the data and existing theory might be established.

Table 6.2 Codes emerging from the Royal Commission on Population interviews for suggested 'encouragements' to increase fertility

Birth control advice	Employment opportunities	Improved maternity care	Popularisation of parenthood
Clinic provision	Family allowances	Labour saving devices	Provision of home helps
Economic	General	Nursery schools/ Child-care provision	Psychological
Education	Improved housing	Paid maternity leave	Rent rebates

Source: Royal Commission on Population

Table 6.3 Categories emerging from the codes emergent from The Royal Commission on Population interviews

Consumerism + Economic + Increased burden of children + Numerous motives ⇓ **Economic**	Educational desires for offspring + Lack of education on child care + Numerous motives ⇓ **Educational**	Anxiety + Dependent parents + Employment/ Unemployment + Fear of the future + Fear of responsibility + Insecurity + Increased burden of children + Numerous motives ⇓ **Insecurity**	Housing difficulties + Numerous motives ⇓ **Housing**

Source: Royal Commission on Population

Table 6.3 cont.

Alternatives to children + Birth control + Consumerism + Desire for social betterment + Educational desires for offspring + Family structure/relationships + Fashion/social change + Habit of delay + Increased burden of children + Lack of leisure opportunities + Lack of prestige for parenthood + Media + Modern life + Numerous motives + Social taboos + Unconscious motives ⇓ **Social change and fashion**	Anxiety + Employment/ Unemployment + Fear of the future + Numerous motives ⇓ **Employment/ unemployment**	Fear of childbirth + Lack of education on child care + Lack of child care + Maternity care + Numerous motives ⇓ **Maternity care**	Alternatives to children + Anxiety + Desire for social betterment + Family structure/relationships + Habit of delay + Lack of parental urge + Lack of prestige for parenthood + Modern life + Numerous motives + Psychological + Social taboos + Unconsummated marriages/ sexual problems + Unconscious motives ⇓ **Psychological change**

Source: Royal Commission on Population

Thus, the resulting eight categories are:

1. economic factors
2. education
3. insecurity
4. housing
5. social change and fashion
6. employment and unemployment
7. maternity care
8. psychological change.

6.3.2 Economic factors

Fertility is often suggested to be economically determined, as shown in the previous chapters, and indeed, the respondents to the Royal Commission also stressed the role they believed economic factors were playing. However, analysis of the text suggests that the relationship between economics and fertility is somewhat more complex than economic models (such as those present by Becker, Easterlin and Leibenstein and discussed in Chapter 3) might suggest.

Indeed, as previously stated in Chapter 3, two main bodies of economic theory exist, the demand theory (or Chicago School, or new household economics), as identified with Becker, and the socio-economic approach, as identified with Easterlin and Leibenstein. In economic demand theories, children are viewed as consumer goods, the psychic rewards gained from parenthood comparable to those from other consumer durables.

The Royal Commission interviews refer to the pattern of child bearing that would emerge from this theory-with children being 'inferior goods', the higher income groups generally buying fewer than the lower income groups and suggest that this

is a pattern of child bearing that is evident in the 1930s. Certainly, in that the middle classes were having fewer children than the skilled working classes who in turn were having fewer children than the unskilled working classes this pattern is evident. However, the Royal Commission data suggests that there was the an 'Easterlin' effect among the middle class and artisan working class with them maximising the investment per child, the desired outcome being social betterment:

> When people are planning how many children they will have, and the general rising cost of rearing children, the higher standards demanded all round in everything, in health, and food, clothing, holidays and that sort of thing, the cost of education is a big factor. (Mrs Dugald Baird M.B., ChB.2[2] RCP, Interview 8, p. 5)

In such socio-economic theories of fertility as Easterlin's, tastes are seen as changeable rather than given. The relationship between tastes and social status becomes paramount, with economic changes affecting a family's status which in turn affects their tastes, not only for the quality and quantity of children, but also for the range of services and goods that now compete with children. Thus, in the 1930s, it could be suggested that as couples' economic circumstances improved and they became able to afford more and higher quality commodities, so they desired increasingly higher quality children to match their lifestyle, with other commodities competing for the same financial outlay:

> I was told yesterday by a woman that she had only one child because another child meant giving up their car, and the car meant a great deal to her. (Dr A. B. Gardiner[3], RCP, Interview 3, p. 16)

> Most parents have a margin which they could do without; in many cases it is something like an expensive holiday or a small car,

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[2] A non-practising doctor involved with the YMCA in Aberdeen for 7 years, running an amateur health service for young mothers.
[3] The National Association of Maternity and Child Welfare Centres

> something which would provide for another child, but they consider these things absolutely essential.
>
> (Mrs Coombs[4], RCP, Interview 5, p. 4)

These alternatives to children not only serve to compete financially with children, but they also appear to compete temporally, with time for activities outside of the home being prioritised by some (although in economic terms, time is money):

> I am thinking back 30 years ago. There were so few pleasures available to the very poor. Sexual pleasures and drink were about the only things left to them. Now, what with the cinemas, omnibuses, radio and that kind of thing, the very poor family has a much stronger motive to avoid having a lot of children because they are a nuisance, an impediment to going to the cinema once a week.
>
> (Miss Rathbone, M.P.[5], RCP, Interview 7, p. 7)

A number of those giving evidence to the Commission appear to consider the choice of such alternatives over children to be the result of 'frank selfishness' (RCP, Interview 3, p. 15). For others, childbearing is delayed while women choose careers over children:

> You put forward the view that many young people marry with the deliberate intention of postponing parenthood until a more favourable time, and that very often the postponement becomes *sine die*. (Mr Ensor[6], RCP, Interview 5, p. 9)

Economic foresight (or economic uncertainty) also seems to have a role to play in the low fertility of the 1930s. It could be suggested that this was due to a throwback to the depression years of the 1920s and early 1930s. Although for most economic conditions had never been better, the hardships endured were still

[4] The Mothers' Union
[5] Wrote a book 'The Case for Family Allowances'.
[6] An RCP committee member

in recent memory.

> Maybe it is a relic of the days of the depression when if you brought a child into the world you were doing something wrong to your family, you were making it worse for your family and putting in another mouth for the nation to feed when there was not any work and no food for everybody. (Mrs Longmoor[7], RCP, Interview 4, pp. 15-16)

This, coupled with widespread (though on the whole short term) unemployment, might well have served as a 'better safe than sorry' limiter on fertility.

> I do feel the majority of people limit their family very largely, anyhow the thoughtful people, because they fear their income will not be enough for education and in the poorer classes it is lack of bare necessities. (Dr Joan Malleson[8], RCP, Interview 2, pp. 8-9)

Indeed, the Fabian Society inquiry into the falling birth rate at the turn of the century stresses how those exhibiting most thrift were those exerting greatest control over their fertility (Webb, 1907).

Also important appears to be the status associated with the increasing career opportunities opening up to women throughout this period, a higher status than that associated with child rearing:

> It is not that having six children has gone down in the public eye, but other things have become possible for women to do.
>
> (Mrs Margaret Jay[9], RCP, Interview 4, p. 13)

The suggested relative lack of prestige and social status for parenthood certainly

[7] An RCP committee member
[8] Member of the Executive Committee of the Family Planning Association
[9] An RCP committee member

would not have worked to encourage fertility:

> Is it not true to say that the fall in the prestige of the mother took place when it was considered to be rather stupid and almost mentally defective to have a large family? - It was a very bad period for women. (Dame Janet Campbell[10], RCP, Interview 21, p. 8)

> They [mothers and housewives] have not been recognised ..... I think a great deal of importance attaches to that a wrong balance is put on parenthood [sic]. Values are attached to wrong things. In films young girls are always glamorised and in advertisements it is all talk about the schoolgirl complexion, there are never nice pictures of mothers with two or three babies around them.
>
> (Mrs Longmoor, RCP, Interview 4, p. 15)

The power of the media is accepted by many today. I do not believe it would not be unreasonable to suggest that, in this period of rapidly growing media output (via newspapers, cinema, magazines and the radio), a relationship existed between what was presented by the media, and what was desired and orchestrated by the public.

6.3.3 Employment and unemployment

It is possible that the fear of unemployment (as opposed to actual unemployment) may well have acted to limit fertility in this period:

> I think that, especially in the labouring class of manual worker there is a considerable sense of insecurity ..... I found there was a great

[10] President of The Medical Women's Federation

fear of unemployment. (Mrs Kent Parsons[11], RCP, Interview 3, p. 2)

A feeling of insecurity, the fear of wars, industrial troubles and unemployment. (Dr Drysdale O.B.E.[12], RCP, Interview 12, p. 3)

Such feelings of insecurity were quite probably a legacy from the depression years. They do, however, seem to be relevant to the low fertility of the inter-War period:

In those days [the 1920s & early 1930s] we had the idea it was wrong to have a baby, and now there is the hangover.
(Mrs Longmoor, RCP, Interview 4, p. 16)

This does not appear to be a 'selfish' insecurity (i.e. the couples to which such statements refer do not appear to be restricting their fertility in order that they are not deprived of their luxury items). Rather it appears from the data that they want to have security not only for their immediate futures, but also for their children's futures:

I am inclined to think that a great many people would be glad to have more children if they saw reasonable prospects for themselves and for their children. (Dr Drysdale, RCP, Interview 12, p. 2)

[11] The National Association of Maternity and Child Welfare Centres

[12] President of The Malthusian League

> I think that insecurity is a very big factor. (Dr Jean Mackintosh[13], RCP, Interview 3, p. 18)

In addition to this, as stated earlier, the growing importance of women's employment also had a role to play, especially, so it seems, in the postponement of the first birth.

> Do you feel that a career does make that postponement of the first child rather likely? - I should have thought it probably did if you have an interesting career or even if the woman is merely earning good money. (Mrs Fisher[14], RCP, Interview 5, p. 14)

Anderson notes the role female employment in this period, 'childlessness was almost certainly attractive to those middle and upper-class women who wished to be involved in the growing range of professional, charitable, political, and literary opportunities, many of which were seen as incompatible with motherhood' (Anderson 1998, p.193).

It was suggested to the RCP that in those areas exhibiting higher fertility, it was due to lack of employment opportunities for women.

> I would anticipate that the belief that in mining villages children are more numerous than in textile areas is mainly due to the fact that women have no chance of finding a job in a mining village[15].
>
> (Mr Kuczynski, RCP, Interview 1, p. 23)

This sentiment is also echoed by Garrett (1990) in her study of the fertility of female textile workers, and also in Garrett and Reid in their study of 'spatial variation' in female employment and fertility patterns (Garrett and Reid, 1994).

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[13] The National Association of Maternity and Child Welfare Centres
[14] Central President of The Mothers' Union and Wife of the Bishop of London
[15] In the literature there are several accounts of miners' high fertility, e.g. Friedlander (1973), Haines (1979).

Both of these studies demonstrate a relationship between female employment and fertility – in simplistic terms, where female employment was relatively high (e.g. in textile areas) fertility was low, and in areas where female employment was relatively low (e.g. in mining areas) fertility was high.

6.3.4 Education

With higher quality children being increasingly desired, so the cost of education becomes an important consideration for a number of parents, although not in the way stressed by Caldwell (1982), where compulsory education or legislation prohibiting child labour, prevents children making an economic input into the family (through their wages) and instead they become an economic drain on the family resources. Rather the real economic cost of education:

> They are anxious to give a good education to their children.
> (Mrs Given Wilson, RCP, Interview 4, p. 7)

A 'good education' equates in the minds of these parents to a private education often followed by a further period of university or other higher education.

> People who are earning, £2,000 a year will deliberately limit their family to two, a boy and a girl, so that they can spend £200 a year on each of them at school and then several more hundred at a university. (Mrs Dugald Baird, RCP, Interview 8, p. 10)

> In the most intelligent households, this factor (education) does possibly enter as the parents are ambitious for their children and want them to have a better and more prolonged education, including college and technical education, but cannot afford to give a large

family all these advantages. (Dr W. N. Pickles[16], RCP, Interview 6, p. 5)

Indeed, parents in the 1930s appeared to want to 'their children to start where they have finished' (RCP, Interview 3, p. 6), social/educational/occupational betterment being seen as an attainable possibility for one's children if not for oneself.

The roles that the changing position of education, and changing educational aspirations, play in fertility decline has been commented on (e.g. Gillis et al 1992). In his 1985 Ph.D. thesis, Hinde suggests that a relationship between the introduction of compulsory education and fertility decline in the 1870s in Britain (Hinde, 1985, pp. 353-362). It appears to me that the role played in the story of fertility limitation by the various pieces of legislation in the latter half of the nineteenth century that worked to restrict child (and female) employment and brought about compulsory schooling for all children up to a given age, needs to be fully assessed.

6.3.5 Housing

In the evidence presented to the Commission, the relationships between economic concerns and housing difficulties are commonly stressed; the desires to provide both adequate income and suitable housing are seemingly closely associated in the minds of many:

> The housing question is also very important and it has an economic aspect because not only is the difficulty in getting housing accommodation at the present time with the consequent high rent, especially for furnished rooms - many young married couples have not got furniture of their own and have to live in furnished rooms -

[16] A Yorkshire G.P.

> but even before the war (WW2) there was this difficulty that so many young people, if they wished to set up house, had to buy their houses, especially in the artisan and the middle class [sic].
>
> (Dr Jean Mackintosh, RCP, Interview 3, p. 2)

The lack of suitable family housing, and the high cost of what was considered suitable is a common complaint; and indeed many examples are given of cramped conditions, lack of inside water supplies and the lack of hot water supplies:

> She [the mother] may or may not have water in the house; she may or may not have hot water in the house; she may have to carry it.
>
> (Dr Jean Mackintosh, RCP, Interview 3, p. 9)

Respondents cited the lack of inside toilets and bathrooms, and 'no child' clauses in the tenancy agreements of the more suitable housing provision:

> As soon as the baby is coming they are told to go, they must go and get some other accommodation.
>
> (Lady Dollan[17], RCP, Interview 4, p. 19)

The question that does need to be asked, however, is why all of a sudden such housing problems became seen as a valid reason for limiting fertility. The housing provision in Britain had been poor for some time. Why in the 1930s did it become a reason for limiting fertility? In the same vein, as will be commented on later, maternal health was also now considered by many to be an 'acceptable' reason to limit fertility.

Cramped housing conditions had existed for many years, and it was common at the turn of the century for children to sleep many to one bed, and for the parents to sleep in the same room as a number of their offspring. So why did it become

[17] An RCP committee member

considered necessary for boys and girls to be segregated into their own single sex rooms and for the parents to share their room with at most an infant? It was argued by some that the use of birth control required a certain amount of privacy (and hence the parents having their own room):

> To put it rather bluntly, birth control is much less possible if you are living in a room where several biggish children are sharing the same room; birth control means a certain amount of privacy.
>
> (Miss Rathbone, MP, RCP, Interview 7, p. 6)

I too feel that this fashion of parents having their own room undoubtedly made the practise not only of birth control, but also of non-coital forms of sexual behaviour, easier. However, is it realistic to suggest that this desire for privacy alone would have led to housing which, by modern standards, would certainly be considered difficult to raise children in, when only a short while previously the overcrowding was accepted as the norm?

Similarly, the problems of external water supplies and the lack of hot running water had long existed. So why did they now become a reason to limit fertility? Were increasingly higher standards of cleanliness were desired or socially required? If so, the growing burden of these higher standards fell on women, that is mothers. Hence, in order to cope with these new standards, fewer children had to be had, since as any parent knows children not only create mess, but also hinder in the process of cleaning it up:

> They have had certain standards of clothing and cleanliness and they just see that it is impossible to do that if they go on having other babies. (Mrs Dugald Baird, RCP, Interview 8, p. 8)

These new standards created what was seen as an ever increasing burden on women. Complaints were made that there was insufficient help with child care to enable these chores to be properly done, and, by the middle classes, that there

was a lack of availability of domestic help.

Such changes in social norms seem to present more questions than they answer; for each relationship that shows itself, one is left asking 'why did this matter at this point in time when it didn't matter previously?' Currently I have no adequate answers to these questions and can only suggest that further research is needed.

In addition to the practical difficulties associated with rented accommodation, there was an increasing desire, among the middle classes especially, to own their own homes. In order to pay for the deposit on the house and the furnishings, couples would sometimes delay childbearing for a period after marriage. We only have to look at the suburbs that sprung up in this period to appreciate how this desire to own their own home, coupled with the ideas on sleeping arrangements and the increasing concerns with hygiene in the home, may well have played a part in the low fertility of the period. Couples already facing the financial burden that a mortgage placed on them, found themselves facing financial restrictions on the size of the house that they could afford to buy, these in turn dictating to some extent the number of children that they had:

> Having put their savings into a house they want to go on living in it, and if it is too small that does rather limit the family in some cases.
>
> (Mrs Fisher, RCP, Interview 5, p. 1)

Standards of 'niceness' and cleanliness in these new suburbs also needed to be maintained, again increasing the workload of the mother. Far from the introduction of such appliances as the vacuum cleaner lessening the burden of housework, it meant that women now vacuumed through their homes daily, rather than brushing them through once or twice a week as they would previously have done. The lack of gardens for children to play in is also commented on (RCP, Interview 8, p. 2). Again this was not a new problem, although no doubt the increasing popularity of the motorcar made the roads less safe places for children to play in than they had previously been. What perhaps was new were the

obligations parents were being made to feel towards their children's safety and health both in the home and out of it. Hence the increased standards of hygiene and the desire for safe playing areas for children. The relationship between housing and fertility and such issues are discussed in more detail in chapter 7.

6.3.6 Maternity care

A number of respondents put forward limitations in the maternity care system as influencing parents in their decision to limit their families. The limited availability of pain relief, a lack of hospital maternity beds, and especially the lack of practical help for the mother in the immediate postnatal period are all presented as dis-inducements to childbearing:

> The woman gets no anaesthetic, no midwife in Scotland is allowed to give an anaesthetic. Then the woman has the services of the nurse perhaps twice for the first two or three days and then she only comes in once a day. Well, the woman cannot possibly be kept comfortable and have all the washing that she needs done for her, and attention given to establishing breastfeeding during the difficult first week. (Mrs Dugald Baird, RCP, Interview 8, p. 9)

> You get such a comparison. In the case of the working class mother, you see the woman coming home and facing all the cares and responsibilities of the house and even of toddlers even before she is really able. You know that the woman in another class would have that extra two weeks of rest in order to avoid that sort of continued ill health. Then, as a result of that, her next door neighbour will say to that working class woman, 'That is what you get by having a family', but it is not so much the effect of having

children as of not having proper rest after the confinement.

(Mrs Kemball[18], RCP, Interview 18, p. 17)

The prolonged ill-health experienced by a number of mothers reputedly due to inadequate antenatal and postnatal care and the lack of opportunity for proper postpartum recuperation certainly does appear to be considered relevant by some. As with a number of the other causes, the limitations of available maternity services were not something new to this period. What was new was that women possibly saw that by limiting their fertility they would also restrict the negative effects of these limitations on their lives.

Among the middle classes, the financial cost of the delivery and confinement was possibly a contributing factor:

> Among the more well-to-do, the cost of having a baby, if one has it with a consultant obstetrician, is very high. Many women come to me and say, 'My last baby cost me, £300 all told. I cannot have another at that price. If I could have a general practitioner in a nursing home, if you know that all is straight forward, perhaps I could do it inside, £100 comfortably, with all the extras, and I can manage that'.
>
> (Miss Annis Gillie, B.S., M.R.C.P.[19], RCP, Interview 21, p. 9)

There also appears to be the increasing practice among the middle classes of them being 'advised' by their doctors to avoid further pregnancies, sometimes very early on in their child bearing careers. This is referred to in Anderson who states that examples of such practice were 'regularly referred to in the Stopes correspondence and elsewhere' (Anderson, 1998, p.193). Although only a very few of the women interviewed by Mass Observation for Britain and her Birth Rate stated outright that they were limiting their families for health reasons, statements

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[18] On behalf of The Catholic Community
[19] Hon. Secretary of the Medical Women's Federation

made to the interviewers seem to suggest that vague maternal health reason were being used as if to justify not having any further children:

> I don't think I want any more now. I think it's the food or something. I've got no energy at all nowadays – just to get through the day, that's about all I can do.
> (33 year old skilled working class woman from Hampstead. Married in 1930 with 2 children born by 1944)

> Well actually my health is not very good.
> (34 year old skilled working class woman from Bermondsey. Married in 1928 with 4 children born by 1944)

The use of negative maternal health implications associated with pregnancy and childbirth as a socially legitimate reason for limiting fertility seems to me to link to the use of poor housing as a legitimate reason for limiting fertility. Changes in attitudes to children and to their position within the institution of marriage, and changes in what was expected from marriage (companionship from one's partner taking prime position) seem apparent.

6.3.7 Psychological change

Among other causes put forward was the suggestion that there was a psychological change; that there had been a loss of urge to have children, or that it was now the case that the urge to have children was satisfied by two children.

> She mentioned that in her opinion the most important fact in relation to the lower birthrate is due to a different emotional outlook, a different attitude to family life, and so forth..... It does seem to me

> ... that the fundamental thing, the maternal instinct, is in abeyance. Whether it is due to modern conditions of life I do not know, but there does not seem to be the same urge to have families.
>
> (Dr Gardiner, RCP, Interview 3, p. 12)

> I find the desire for motherhood is strong and universal, but is satisfied with two usually speaking.
>
> (Miss Mary Sutherland, J.P.[20], RCP, Interview 16, p. 16)

The idea of a loss of urge, or an urge that is satisfied by two, assumes that prior to the decline in fertility all fertility over and above two children was wanted fertility, or at the least, was not unwanted.

6.3.8 Social change and fashion

It would be unrealistic to suggest that society is constant. Norms are continually changing, adapting and adjusting to other changing factors (e.g. economy, politics), yet the rates of change can vary greatly. It could be suggested that this interwar period was a time of rapid changes in a number of spheres of life, and that the low fertility was a reaction to these changes. Possibly among the main social changes affecting fertility in this period was that large families were no longer seen as the natural accompaniment to marriage:

> I think it is very much more a matter of social changes that have taken place in the last 50, 60 or 70 years. In the 'fifties, 'sixties and 'seventies children were regarded as being natural, and a large family was something which normally accompanied marriage, but that is not the case now. (Dr D.V. Glass, RCP, Interview 1, p. 28)

[20] Secretary of the Standing Joint Committee of Working Women's Organisations

Alongside this there was an increasing acceptance of childlessness:

> Large families are out of fashion and childlessness does not meet much criticism. (Miss Cockayne[21], RCP, Interview 4, p. 5)

Indeed, not only was a large family no longer seen as natural within marriage, it was perceived (and presented by the media) to be out of date and rather stupid to have more than two children in much of the interwar period:

> The whole practice of limiting your families has had a most tremendous effect upon public opinion so that it has become a fashion; public opinion has been so strong in making it seem almost foolish and wrong to have more than at most two children.
>
> (Mrs Fisher, RCP, Interview 5, p. 3)

The practical difficulties operating against those parents with large families no doubt served to strengthen this perception that to have a large family was 'wrong'. Not only was the new council housing that was being built throughout this interwar period not suitable for the larger family[22] (the problem of obtaining privately rented accommodation for families with children has already been covered) but the generally negative reaction of officialdom and the media towards those with larger families also appears to be a problem:

> It was not only the officials [unemployment fund officials], but you turned up your newspaper in this town and that, and saw letters to the editor saying how criminal it was of the unemployed to have large families. (Miss Sutherland, RCP, Interview 16, p. 17)

It would not be unreasonable to suggest that the awareness of such negative

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[21] From the Association of Hospital Matrons, attending on behalf of the National Council of Women

[22] The local authority housing being built during the inter-War period was predominantly three bedroom accommodation.

perceptions towards large families would perhaps encourage a couple to limit their families quite dramatically for fear of not being able to support them in a periods characterised by high levels of unemployment, albeit on the whole short-term unemployment.

6.4 Integration of results with existing theories of fertility change

Some links between the data and existing theory have been made already. This section attempts to collate them together and present an overall picture of the dynamics of the fertility patterns evident.

To summarise the main themes that have emerged from the Royal Commission data thus far, there is:

1. Desire for social betterment and social mobility, for ones' children, if not attainable for oneself.
2. Desire for higher quality children, re Becker
3. Competition from other 'commodities'
4. Education.
5. Housing
6. Social expectations and norms of behaviour, re Judith Blake.

The Royal Commission data suggests that parents in the 1930s appeared to want to see 'their children to start where they have finished' (RCP, Interview 3, p. 6), social/educational/occupational betterment being seen as an attainable possibility for one's children if not for oneself. Among the middle class and artisan working class especially, it has been shown that the idea of maximising the investment per child, with the desired outcome being social betterment, seems much in evidence:

> He [the father] is afraid he cannot give the children what he wants to give them. (Dr Janet Aitken[23], RCP, Interview 4, p. 5)

Such sentiments were found to be echoed in text from the Mass Observation study:

> Actually people in our position shouldn't have more than two if they want to bring them up nicely, they can't afford it.
> 41-year-old Hampstead woman. Skilled working class. Married for first time in 1925. Second marriage in 1941. Two children aged 18 years & 15 months in 1944.

> I'd like more if I could bring them up nicely and give them a fair chance.
> 27-year-old Kensington woman. Married in 1941with two children. Skilled working class.

It also appears possible that as couples' economic circumstances improved and they became able to afford more and higher quality commodities, so they fulfilled Becker's models of fertility and desired increasingly higher quality children to match their lifestyle, with other commodities competing for the same financial outlay.

> More often than not they are interested more in a baby car than in a baby carriage. They just want something better all the time, there are so many things outside that appeal to them.
> (Mrs Kent Parsons, RCP, Interview 3, p. 6)

As stated previously, these alternatives to children served not only to compete financially with children, but also to compete temporally, with time for activities outside of the home being prioritised by some;

[23] Medical Women's Federation

> The outside pull of attractions has become very much larger.
>
> (Mrs Given Wilson, RCP, Interview 4, p. 1)

> It's the fact that their leisure times, their games of tennis and badminton and other things, will be interfered with.
>
> (Mrs Coombs, RCP, Interview 5, p. 6)

Alternatives or competition to children are not mentioned in the MO study, though that is not to say they the idea of competing 'commodities' is not relevant, merely that it was not included in the MO interview schedule.

In the RCP data, the relationship between the mother and the work market certainly appears to play a role in the 1930s, with the financial need for women to work in order that the desired standards of living are met, reportedly leading to a delay in the first birth. This reflects the work of Butz and Ward (1979) and Ni Bhrolchaín (1986) in which the role of the timing and tempo of fertility in relation to the position of women in the labour market are considered.

Jeffries' alternatives to childbearing and their attractiveness in relation to childbearing also appear evident in the RCP text. The status associated with the increasing career opportunities opening up to women throughout this period, a higher status than that associated with child rearing, appearing to be important to some women.

> You speak of the status of motherhood. Is not the point there that now you can be a higher civil servant or an extremely competent businesswoman, or run a large section of the BBC, compared with the relative status of having six children. (Mrs Margaret Jay, RCP, Interview 4, p. 13)

No statements referring to work were recorded in the MO interview schedules.

With higher quality children being increasingly desired, so the cost of education

becomes an important consideration for a number of parents, and this can be seen as an example of Caldwell's economically rational behaviour.

> In the higher strata my patients say 'I would love to have another baby but my husband will not let me. We already have three to educate and we cannot possibly educate any more'.
>
> (Miss Harding, RCP, Interview 21, p. 6)

These sentiments are strongly echoed in the Mass Observation data with a 41-year-old woman with four children stating, 'We can't afford to keep them, not if you want to give them a good education and keep them nice, and if they go to a good school it's expected of you'.

A 26-year-old woman with two children interviewed by Mass Observation also contributes:

> I think if a good education were given free to every child it would be a big encouragement - it's the worry about getting them educated makes people not want to have big families, as much as anything.

In the evidence presented to the RCP, the relationships between economic concerns and housing difficulties are commonly stressed; the desires to provide both adequate income and suitable housing seemingly closely associated in the minds of many. Such difficulties in obtaining accommodation are also referred to in the Mass Observation data:

> Old places are not meant to bring children up in. You've only got to knock at the door of a decent flat, and when they see the pram at the door that's enough. They'd prefer to let it to couples without children or those with dogs.
>
> A 26-year-old Chelsea woman. Married in 1940 with one 7-month-old child. Skilled working class.

Certainly there is evidence of Notestein's notion if the rationale for high fertility (i.e. high infant and child mortality) disappeared then the cultural norms that encouraged high fertility would also disappear. The 'psychological change' and 'social changes and fashions' that emerge from the text describe these changing norms, where 'large families are out of fashion and childlessness does not meet much criticism' (RCP, Interview 4, p. 5).

The text presented previously to demonstrate the 'better safe than sorry' attitude to fertility of some, can also be seen as evidence of Davis' notion of fertility decline as a response to economic strain, derived specifically to protect rising living standards.

Similarly, the ideas of Becker, Leibenstein, Easterlin and Caldwell can all be supported by the text. The text describes how some couples were believed to be restricting their fertility because they felt that, 'it is better to do a great deal for one child because that child will do well in some way or other than have a second child' (RCP, Interview 5, p. 4). A fine example of Becker's argument that a reduction in the number of children born to a couple can increase the representation of their children in the next generation.

Leibenstein's ideas of a relationship between tastes and social status are represented on several occasions as are Easterlin's. Indeed, the following piece of text could be said to be an example of both.

> She speaks of the black-coated workers who are anxious to keep themselves and their families in the ranks of the middle class and above that on an income less than that of the artisan, and only do so by restricting their families. (Miss Randle[24], RCP, Interview 4, p. 23)

So how helpful and relevant are such 'top down' grand theories of fertility to understanding the historical experience if the text can be used to demonstrate

[24] Chairman of the Household Service Committee of the National Council of Women

each in this way. Indeed, I am confident that for each economic theory of fertility a piece of text can be present that in some way demonstrates that theory.

6.5 Summary and conclusion

The treatment of qualitative data is a minefield. I very much hope that I did not ignore data that did not support my interpretation, and any personal blindness to concepts and ideas that were not considered or included that might have opposed my interpretation of the data was not conscious.

The bias of the approach taken by the commission (that the low fertility experienced in the 1930s was a problem that needed rectifying) was helpful in that the opinions presented to the commission also followed the same direction. Rather than a conflict of ideas, the interviews were responses to the question of why fertility was low in the interwar period. The Royal Commission for Population were trawling for reasons to explain the fertility levels, hypotheses, ideas, anecdotal evidence - they were not opening the floor for debate. The interviews presented no conflicts, with those ideas presented by some as being important (housing, education and so on) not being disputed by any of the other witnesses. Due to the nature of the interviews, with no common question route being used, it is impossible to create a robust hierarchy of the given variables. Some of the witnesses discussed the influence of housing, others educational desires, others psychological change, and so on. Some of the witnesses mentioned a number of the variables, but did not weight their relative importance. Obviously, in some of the interviews the opinions presented were more helpful than others, in that they focused on the issues most widely mentioned, and it is from these interviews that the quotes incorporated in this study were primarily taken.

However, those interviews that were not referred to directly through quotes were included in the process of coding and thus are still an integral part of the study. Indeed, the grounded theory approach taken in the analysis of the questionnaire

means that the questionnaires defined the main themes of the study. All the main themes resulting from the coding have been explicated stated and included in the discussion of what was thought to behind the low fertility of the era.

There was one interview, interview 17, which although coded was not included in any substantial way in the final study. This interview was with Dr Audrey Lewis (an expert on inheritance of mental abnormalities and sub-normalities), Dr J A Fraser Roberts (an expert on intelligence of children) and Dr G P Blacker of the Eugenics Society. This interview focused on the perceived relationship between intelligence and fertility, and the eugenic quality (or lack of it as they saw it to be) of many of the children that were being born during the interwar period. Although an interesting interview, and no doubt one which would be of benefit to other studies, it did not appear to add anything (either supportive or non-supportive) to my question of why fertility was so low during this period.

It can quite rightly be argued that in omitting the content of this interview I was consciously editing the data, as indeed I was. I imposed the boundaries on the question on which I wished to focus (that is to say, 'why was fertility so low in the 1930s?') and ignored that which was outside of those boundaries. Since the boundaries of the themes were defined by the data I do not believe the inclusion of this data from interview 17 would have changed the results of the study. However, removing the boundaries of the question on which the study was based would, I believe, have changed the results causing a blurring of the findings due to the lack of direct focus on one issue.

Through the 'bottom up' approach of textual analysis carried out on the data, I believe it is possible to develop a better understanding of the reasons behind the low fertility of the inter-war period, and indeed, a better understanding towards fertility behaviour in general. The existing grand theories of fertility need to be seen as useful, co-existing explanations, rather than 'either/or' scenarios. Just as statistics alone are not that useful in presenting the researcher with a clear picture of fertility behaviour, so seeing such theories individually can restrict the

understanding of what is taking place. They are more helpful as a group of co-existing frameworks rather than as separate, individual and independent structures.

Qualitative analysis can be seen as being 'soft' or 'unscientific'. It does not produce numbers, statistics or equations that we can quote and thereby make our analysis a 'truth'. Grounded theory can be viewed as even more fluffy and unscientific because it does not start with a theory with which to examine the data, rather it expects a theory to evolve from the data. I, as the analyst, am innately part of the process; I code the data, I categorise the data, I decide which texts are relevant for me to read, I decide with which of the existing theories I will compare, contrast and evaluate my data. I do not pretend to be objective, but I do not believe that makes my 'truth' wrong.

The analysis shows that the ideas put forward as to why fertility is so low are interrelated. The popular economic theories of fertility can all be supported by the textual data to some degree. Therefore I cannot say that it was down to economic factors, or that the increasing opportunities for women were responsible. There were many changes taking place throughout this period, and the low fertility was a response to some or all of these changes. Obviously different factors would weigh more heavily with some couples that with others, and couples may not have been fully aware of their real motives for wanting to limit their fertility. The idea that one theory can adequately explain the experience of many is, I believe, somewhat shortsighted. In trying to make the data fit one explanation the diversity and richness of experience is lost. The results of the textual analysis however, allow us to now consider the themes that have been highlighted alongside the results of the quantitative analysis and existing theory on fertility to hopefully develop a satisfying picture of what was happening in the 1930s.

Chapter 7

Housing

Imagine there's no heaven
It's easy if you try
No hell below us
Above us only sky
Imagine all the people
Living for today

John Lennon

7.1 Introduction

That housing and its relationship to fertility have a separate chapter is not because I consider housing to be *the* reason (or even necessarily one of the main contributors) for the low fertility of the period. Rather, it demonstrates the need to view demographic data contextually. The housing situation in Britain in the 1930s was problematic, and the fertility patterns need to be viewed with this (and obviously other characteristics of the period) held clearly in mind.

In this chapter I examine both the contemporary and the more recent literature on the relationship between housing and fertility. In reading the contemporary literature the data is contextually placed in that the reader is made aware of the dynamics of relationship (or believed dynamics of the relationship) at the point in time at which the data was collected. A review of more recent literature on the relationship between housing and fertility allows the reader to compare and contrast this relationship both temporally and geographically.

I then move on to examine the dynamics of the relationship suggested quantitatively by the Mass Observation data and qualitatively by the Royal

Commission on Population data and consider how housing policy can influence fertility. The chapter concludes by considering the relevance of the relationship between housing and fertility to modern low fertility societies.

7.2 Literature on the relationship between housing and fertility

7.2.1 Contemporary literature

It is interesting that although often cited as important in the interviews given to the Royal Commission on Population (RCP), in its reports the RCP only briefly considers the relationship between housing provision and fertility. Where housing is considered it is only done so in relation to reasons for use of birth control (Vol 1, p. 177, table 123), and suggests that throughout the 1930s an increasing proportion of women who were using birth control were doing so (so they stated) due to 'housing difficulties', though the exact nature of these difficulties is not given. Table 124 of the report shows this by social class. Although there are no large differences in proportion between the classes, one does have to consider whether the nature of these difficulties would be the same for all classes.

There are, however a number of contemporary works that do consider (in part at least) the interaction between housing and fertility outcomes. One such study, by Political and Economic Planning (PEP) entitled Population Policy in Great Britain (1948), devotes a chapter to housing issues and is aware of the context specific nature in which housing acts on fertility. In the report concerns are voiced that 'for many years, the lack of good accommodation has been a major obstacle to family life' (p 197). A number of issues relating to the nature of this 'obstacle' are raised, among them the issues of: -

- More children equating to less money per head, and therefore to the smaller rent that can be paid by the larger family needing larger accommodation.

- Families with young children not being seen as attractive a tenant when compared to older or childless tenants, who would also be more likely to have more free income and therefore be in a position to pay for the better accommodation.

- Age at marriage needing to be considered, as young marriages lead to increased demand for accommodation compared to older marriages, since accommodation is required sooner.

- New housing estates experiencing the problem of having higher rents than accommodation they were built to replace. On top of this, those living in them had extra travelling expenses in order to get to work, plus there were the increased cost of running the new homes compared to often smaller older homes - not just in fuel usage to heat them but also need to furnish them often on HP thus increasing weekly expenditure.

- The importance of 'community' (P201). Estates of just young families being disadvantaged, since there is an absence of relatives nearby for emergency cover, and general relief for parents. There is the scattering of clans.

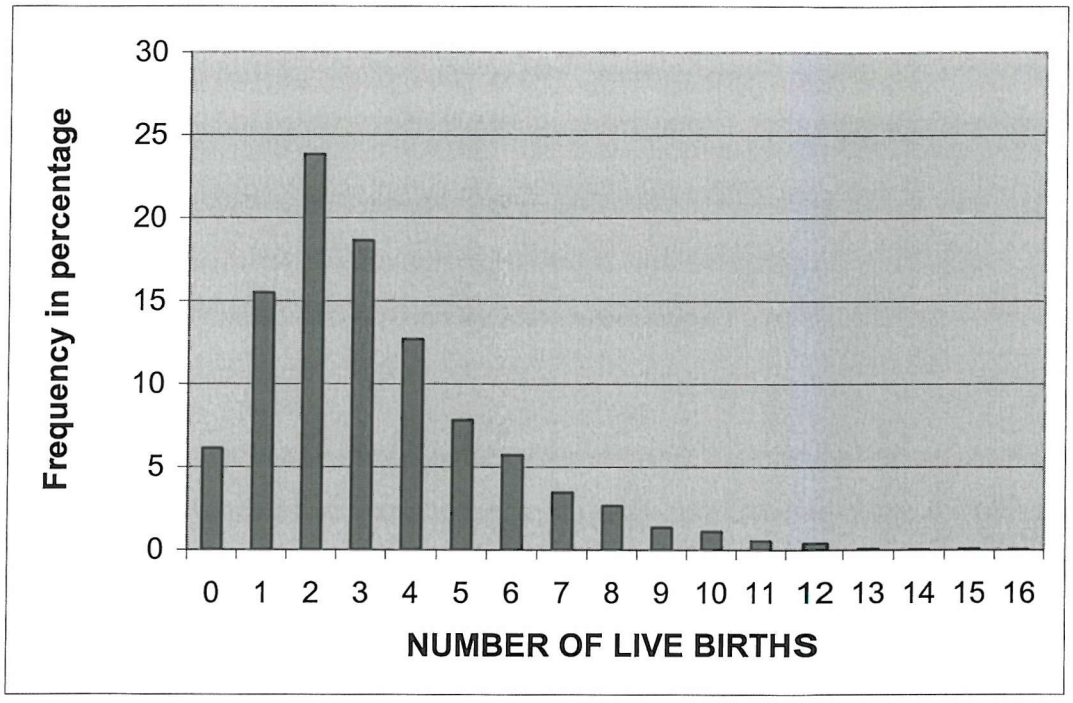
- The need to look forward when housing newly weds since their needs will change over the years, especially if they have children or *want to have children, the* lack of room deterring births. Their future needs needing to be anticipated (P202).

The PEP surmised that 'unless a conscious (housing) policy is adopted, the young family will always tend to be squeezed out of the best accommodation. In those years when space, light and privacy are most important, they are least likely to be obtained.' (P197).

Just a few years prior to the PEP study Enid Charles (1934, p198) wrote of how she considered housing to be: 'possibly the most striking example of the difficulty

which children place in the way of attaining an acceptable standard of life,' with 'landlords play no small part in promoting family limitation'. She goes on to describe the catch 22 situation that exacerbated the situation: 'Owing to the scarcity of large families fewer and fewer new homes or flats are erected to accommodate them. So the tradition which favours the family of two is built into the structure of contemporary civilization'.

Figure 7.1 – Number of live births by 25 years of marriage for women married in 1920 for 6053 marriages in The 1946 Family Census

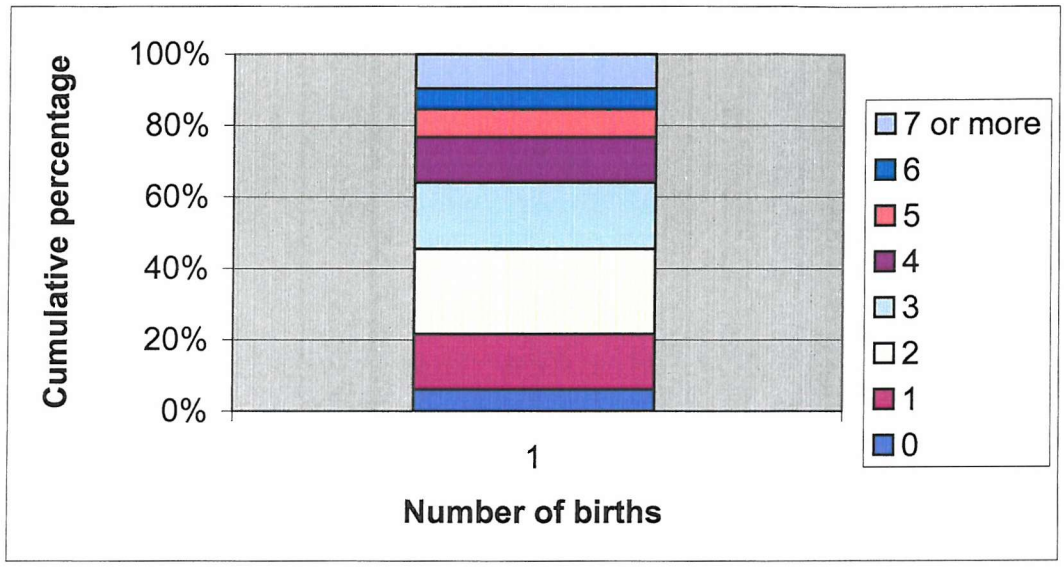


Source: Glass and Grebenik, (1950), p105, Table 10.

Although exactly what constitutes a 'large family' is not defined, one can clearly see from the distribution of family size by 25 years of marriage (Figure 7.1), that most families consisted of 4 or fewer children. Indeed, almost half of marriages had resulted in 2 or fewer live births by 25 years, and over 90% had 6 or fewer by the end of the 25-year period (Figure 7.2). So indeed, large families (however they may be defined) were scarce, though whether this was due to lack of suitable

accommodation in which to raise a large family, or whether there was a lack of accommodation suitable to raise a large family due to the scarcity (and thus lack of demand) is the $64,000 question.

Figure 7.2 – Cumulative percentage of births by 25 years of marriage for women married in 1920 for 6053 marriages in The 1946 Family Census



Source: Glass and Grebenik, (1950), p105, Table 10

The 1935 Housing Act gave the first legally enforceable definition of 'overcrowding', with 'exceptionally large families' being those that contained more than five 'units' (a 'unit being a person over the age of 10 years, children between the ages of 1 year and 10 years being half a unit and those under 1 year not counting at all). In the period from April 1934 until March 1939 23,651 houses were built under the overcrowding scheme, easing the plight of these larger families, though it in no way addressed the whole problem and many families were still living in unsuitable and overcrowded accommodation (Harris, forthcoming, chap. 16).

Glass also considered the ways in which housing provision can act on fertility. Describing how not only the high rents being charged, but also the type of housing

being built influenced family size, he stated: 'People are not only influenced by the fact that house rents are generally high, but also by the stereotype which speculative builders have been creating in the last fifteen years. The whole trend of modern suburban house construction has been the setting up of two- and three-bedroom houses. That is, public, and even private enterprise has intensified the small family movement, and helped to make conditions more difficult for the large family.' (Glass, 1936, P88-89).

In her 1947 book, The Population Of Britain, Eva Hubback similarly purports housing difficulties to be one of the practical obstructions to parenthood in this period. Quoting a poem read by A. P. Herbert during a debate on the Population Statistics bill in 1937 she wrote (p 43):

> They pulled down all the houses where the children used to crowd
>
> And built delightful blocks of flats where children weren't allowed;
>
> And if Father got a job there wasn't anywhere to dwell
>
> But to everyone's astonishment the population fell.

A mirror of the evidence presented to the RCP in which young couples were finding themselves excluded from accommodation if they had, or were expecting, a child.

Of course, low fertility during the 1930s was not just a British phenomenon: it occurred throughout much of the then developed world. And, indeed, the argument that housing and low fertility were related was made in relation to other countries as well. Herberle (1941), for example, refers to contemporary studies in Sweden and in the Netherlands which emphasized the influence of housing conditions on fertility. He saw these studies as confirming the links between

housing and fertility that he and others (W.S. Thompson being perhaps the most notable) were seeing in the United States in this period. Thompson sums up the situation being experienced in America as follows: 'since modern apartments or houses of a size adequate for three or four child families are beyond the means of most people, many families find themselves in the dilemma of being forced to choose whether they will maintain the standards of housing they consider essential to their position and have but one or two children, or will move to poorer quarters in less desirable neighbourhoods and have more children.... In a community where economic status is highly prized and is judged to a considerable extent by the housing one uses, it is inevitable that many will choose to maintain their housing at the expense of curtailing their families, (Thompson, 1938, pp. 363-4). In short, 'a certain standard of living once obtained will be defended at all costs' (Herberle, 1941, pp. 804-5). Indeed, what Thompson and Herberle describe can be seen as the epitome of the Easterlin Hypothesis referred to in Chapter 3, with fertility behaviour being weighted against lifestyle desires.

7.2.2 Recent literature

Frejka (1980) in his study of Czechoslovakia in the 1960s found that fertility was depressed, partly because couples were delaying and restricting childbearing in order maintain a desired standard of living. He writes of young couples being faced with 'an array of constraints' among them 'insufficient housing', these factors making 'child rearing a major burden' (p. 69). He also stresses the fact that these constraints hit hardest at specific stages of the life course. Yet Frejka's excellent analysis stands out for its explicit recognition of the context-specific nature of constraints on childbearing, and the sequential nature of childbearing decisions, which, overall, are perhaps not sufficiently recognised in the demographic literature

Similarly, Zakharov and Ivanova (p 12) discuss how in Russia in the 1980s, policy

measures (including housing benefits) aimed at families with 3 or more children, led to an almost immediate rise in fertility in almost all reproductive ages.

In almost a reverse of these studies, Fawcett and Khoo (1980) describe how governmental policy has been used in Singapore to limit family size. The Singapore government worked to encourage aspirations of home ownership, recognising that 'such aspirations can be conducive to reducing family size, especially when parents are aware of the costs of raising and education children, as most Singaporean parents are' (p 566). They also suggest that the limited suitable outside play facilities available to the huge number of families living in high rise accommodation there might also work to restrict fertility, since if parents prefer their children to play inside in the safety of their apartment where they can be supervised, they will not want too many children under their feet (p 567). The loss of kith and kin networks resulting from couples being housed in these high rise apartment blocks is also suggested to limit fertility with the loss of a support network that the extended family can provide when couples are raising a family. There were increased living costs associated with this new accommodation (higher rents than that which it replaced, increased utility expenses etc) and they suggest that these too would have worked to limit fertility. Ironically the Singapore government decided in 1987 that these policies had been too successful and that fertility was too low and introduced new population policy measures aimed at increasing fertility, housing policy being one of these measures. Graham (1995, p. 223) describes the pro-natalist measures introduced by the Housing Development Board that essentially gave priority to those families with three or more children.

Felson and Solaun (1975) found in their study of public housing residents in Bogotá, Colombia, that those residents with restricted living space (not necessarily lack of rooms, rather the size of the rooms and the subjective feeling of 'crowdedness') had lower fertility compared to those in more spacious accommodation. In their 1978 paper, Curry and Scriven test the generality of Felson and Solaun's findings using data from Racine a middle-sized city in

Wisconsin USA. They conclude that (as in the MO data) higher fertility is related to living in dwellings with more rooms.

Ermisch (1979) considers the cost and availability of housing to be one of 'the *major* competing influences' (p. 42) on fertility movements in Britain between 1955 and 1975, though the quality of available housing is not discussed. Although he does go on to say, when referring to the falls in fertility experienced in the 1970s, that he believed that the housing shortages at that point in time did not appear to be responsible for 'restraining fertility' (p. 53), but does not appear to have considered whether the housing that was available equated with the type of housing that was desired by those in their child bearing years.

7.3 Dynamics of the relationship as suggested by the data

The strong association between number of rooms and fertility revealed by our analysis of the Mass Observation (MO) data suggests that the availability of housing and childbearing were related in 1930s Britain. However, the multinomial model does not given any indication of the direction of the relationship, and a number of possible interpretations could be made. First, it could be that the lack of suitable accommodation restricts childbearing. Second, it is possible that the birth of children leads to the acquisition of suitable housing. The likelihood that this is what we are seeing in the data is increased by the fact that the number of rooms available to the family was measured at the time of the MO interview, whereas the children observed were the outcome of fertility behaviour over the previous five or ten years. Third, it could be that the kind of housing couples are living in and their fertility are both dependent on a third factor, for example income. Fourth, some kind of selection effect might be operating (we describe one such effect in section VI). It is likely that even the direct effects (the first and second possibilities listed above) are complex, and unlikely to be disentangled by quantitative analysis alone. For example, it may be that some couples did not

have children not just because of the inadequacies of their current accommodation, but because they could not see that they would be able to move to suitable accommodation in the foreseeable future.

The RCP and MO data suggest that for different groups, housing influenced fertility in different ways. For some the influence emerged through the physical characteristics of the housing stock (that is, the 'bricks and mortar'), while for others the availability of housing worked indirectly because of its impact on the nature of the communities within which people lived, and in particular its role in social segregation. In this section we consider three pathways along which housing and childbearing seem to have been related. First, direct restrictions on childbearing associated with certain types of housing appear to have prevented (or, at least, dissuaded) some couples from having children. Second, housing has to be paid for, and thus entered into the economic calculations which couples made about childbearing. Third, the social geography of much of Britain during this period was influenced by the geography of the housing stock, leading to the segregation of the population into distinct communities, which had different attitudes towards childbearing. These three effects lie comfortably along-side those given by Chen and Fawcett (1979) in their study of Singapore, in which they have:

1. Educational effects – disincentives to child bearing being used to 'educate' couples towards lower fertility.

2. Facilitating effects – disincentives to encourage 'rational' decision making, stressing the costs of child-bearing and thus encouraging preferences for small families

3. Barrier effects – disincentives to prevent couples from having another child even if they want one.

In this section, direct restrictions (barrier effects), indirect restrictions (working through choice as in Chen and Fawcett's educational effects and facilitating effects) and a community effect are illustrated using extracts taken from the

transcripts of the RCP interviews.

7.3.1 Restrictions

7.3.1.1 Direct restrictions.

In Britain in the 1930s 'no child' clauses were attached to some accommodation and these worked as an obvious statement of exclusion to couples with children.

> I was in Bournemouth the other day and there were many complaints that there were a lot of rickety houses going down and some very pleasant blocks of flats going up, and with the flats there was an understanding, you had to go when the baby came, and I think that is quite a common thing.
>
> (Mrs Given Wilson, RCP interview 4, p. 4)

There was extensive slum clearance throughout the decade, though it took a while to get going. The Chamberlain Act of 1923 was of limited success in that it was mainly directed at private builders rather than local authorities, thus the house building it encouraged was not, on the whole, affordable to the slum dwellers, i.e. to members of the working classes. The Wheatley Act of 1924 was a limited attempt to address this problem. Whilst it favoured house building by local authorities (and did indeed lead to more working class tenants being housed in newly built accommodation than under the Chamberlain Act), the homes built under this act were still too expensive for the poorest tenants who had little choice other than to remain in their slum accommodation. The Greenwood Act of 1930 used subsidies to encourage local authorities to demolish accommodation considered 'unfit' and re-house those displaced by the slum clearance. Between August 1930 and December 1933, 11,796 houses were built under the Greenwood Act subsidies, a total of 76,524 (in the 145 largest local authorities) having been identified as being in need of demolition. This amount seems pitiful when compared with the 395,800 unsubsidised private homes built in the three

years from 1930. 1933 seems to be the turning point not only in fertility, but also in housing policy. With the 1933 Housing Act came a new emphasis on slum clearance and council house building to provide affordable and suitable housing for those unable to afford it in the private sphere, with over 400,000 local authority homes being built in the 6 years from 1933 (Bowley, 1945, p. 271, as cited in Harris, 2004, Chap 16).

So in the early years of the 1930s, fewer replacement homes were built by local authorities than they had intended to build, leaving many in homes supposed only to be fit for demolition (Burnett, 1978 pp 236-237). Even under the reforms of the Chamberlain Act there were complaints that the local authorities demanded rents that were out of reach for many working class families, forcing those families to remain in these unsuitable rented homes (Burnett, 1978, p. 236). Along with these high local authority rents came additional costs of travel to work (the new local authority housing estates often being some way out from the central work areas of towns and cities) and the increased costs of heating and lighting these often larger properties (Burnett, 1978, pp 231-232). There was also the cost of furnishing these new larger homes to consider, this often being done using credit, thereby increasing the weekly expenditure even more.

The continuing existence of older accommodation that was unsuitable for families due to lack of facilities also worked to restrict childbearing.

> There are endless domestic chores in some of the houses in which these women have to live, and the furniture has to be put on the bed before a woman can do any ordinary cleaning work, and that creates a feeling of exhaustion continually.
>
> (Dr Mackintosh, RCP interview 3 p. 9)

Similarly, by building accommodation that was physically unsuitable for those with children, the exclusion of children from those properties could effectively be

achieved.

However, the phrase 'physically unsuitable' begs an obvious question. The housing provision in Britain had been poor for decades prior to the 1930s. Cramped housing conditions had been usual, and it was common at the turn of the century for children to sleep many to one bed, and for the parents to sleep in the same room as a number of their offspring. So why did it become considered necessary for boys and girls to be segregated into their own single sex rooms and for the parents to share their room with at most an infant, when only a short while previously the overcrowding was accepted as the norm? There is no simple answer, all I can suggest is that although the standards expected of a family home had metamorphosed in the previous generation, the reasons behind this metamorphosis are a matter for further research.

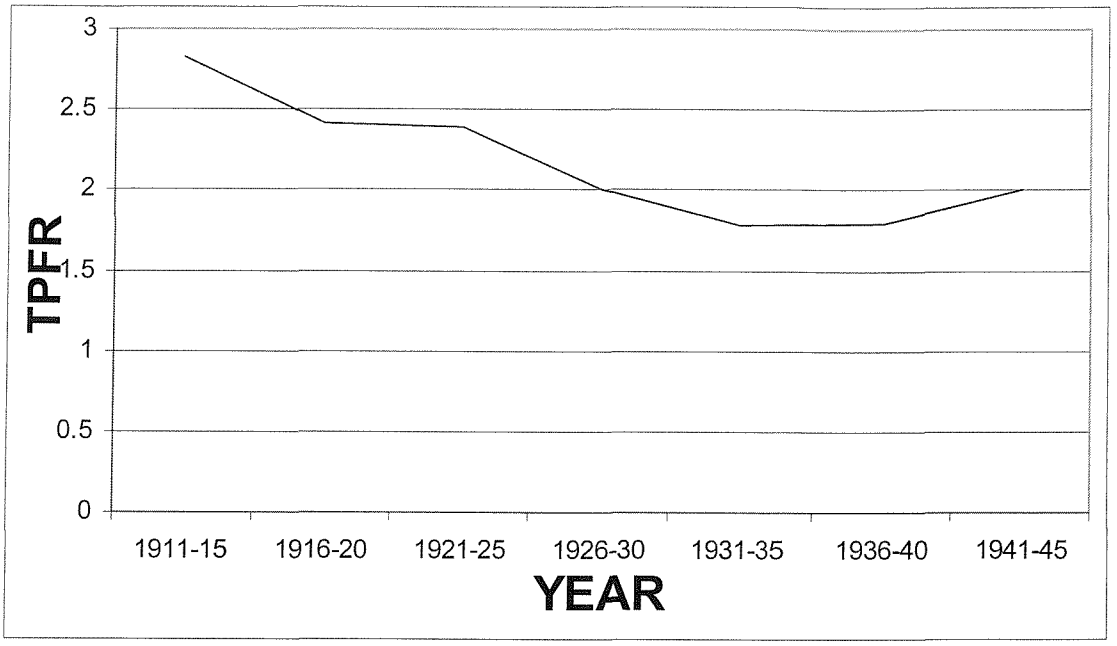
7.3.1.2 – Rent control as a direct restrictor

Rent controls would also have worked as restrictors to fertility[1]. Rent controls were first introduced in 1915. In 1923 they were modified so that rents remained fixed whilst a family remained in the same accommodation. Moving house would mean risking a rent increase. Thus it seems sensible to conclude that families might well chose to remain in accommodation that is too small for a large family and limit their fertility to prevent overcrowding, rather than move somewhere larger and losing the security of their fixed rent.

The data appears to support this at aggregate level, with the incline for the years 921-25 to 1926-30 being steeper than for the periods adjacent (Figure 7.3). The up-turn in fertility after 1933, also fits in with this idea since this was when rent

controls were once again modified, resulting in the abolition of rent controls on over half a million 'middle class' properties. Between 1933 and 1937 rent controls had been removed (or allowed to lapse) on a total of 928,000 homes, primarily those occupied by the middle classes and artisans.

Figure 7.3 – The Total Fertility Rate of England and Wales 1911 - 1945



Source: Office of Population Census and Surveys, (1987), Table 1.4.

At the same time as this was taking place, the 1933 Act actually worked to strengthen rent controls for those in working class accommodation. The numbers of homes that this affected was far larger than those that lost their rent controls, there being over 4 million rent-controlled working class homes in 1932, and over 3 ½ million in 1937. This begs the questions of whether if rent controls did work to restrict fertility by forcing couples to stay in accommodation that was too small/unsuitable for them to consider increasing their family size whilst in that accommodation, did this restriction work for all classes?

Further quantitative analysis into the relationship between tenure and fertility, and perhaps more importantly into the relationship of period effects on the fertility of

the various social classes at this point in time, is hindered greatly by a lack of suitable data. Although The Family Census of 1946 asked about 'main areas of residence since marriage' (Question 18) it did not ask about tenure (indeed, tenure was not asked in the UK census until 1961), and thus a quantitative analysis of the relationship between tenure and fertility is not possible. The Mass Observation questionnaires did have a housing question, asking whether the interviewee was living in a house, or flat, the number of rooms and whether it was owned or rented or belonging to relatives. However, the tenure was rarely given in the responses, so again analysis of the data for this purpose is not possible. The additional failure of the 1946 Family Census (or any other form of official statistic relating to the interwar period) to provide period Total Fertility Rates by social class also serves to inhibit the temporal linkage of housing policy that might be social class specific to social class fertility rates.

7.3.2 Housing provision influencing choice.

During the 1930s much of the boom in the construction industry, was due to privately built housing for owner-occupation to satisfy the increasing desire, among the middle classes especially, to own their own homes. Between 1930 and 1939, more than three times as many houses were privately built than were local authority built, 1,838,800 compared to 582,300 (Harris, Forthcoming, Appendix 16.1). Those couples that chose to buy their own home often went through an extended initial childfree period of marriage when both partners were earning in order to save for a deposit on a house and the furnishings. Once they had bought a house and furnished it they were burdened by a mortgage and restricted by the size of house that they had bought.

Gittins concurs, suggesting that 'those who owned their houses would also tend to control their family size quite drastically as a way of preserving their – often newly acquired standard of living' (Gittins, 1975, p. 60). In the 18 cases that she

presents home ownership certainly appears to be a strong indicator of a small (2 children or fewer) family size (op cite, p. 61).

One also needs to be aware that the 1930s were a decade of increasing home ownership. There was a growing middle class, with the newcomers 'anxious to demonstrate their arrival by the adoption of a lifestyle which separated them from the respectable poverty from which many had risen' (Burnett, 1986, p 250). Home ownership was seen as a prime demonstration of their status. In addition to the increasing numbers of the middle class, home ownership was becoming more accessible; mortgages became cheaper and building societies were accepting smaller deposits.

It can also be argued that for those dual income couples that had postponed the first birth in order to buy a home the postponement of a child becomes a habit.

> There is a tendency for people to say, 'I do not really mind having one (a child)', but they keep on putting it off and putting it off for one reason or another. (Mrs Coombs, RCP interview 5, p.6)

7.3.3 Housing and community formation.

The new local authority estates built in the 1930s to replace those houses lost in the slum clearances may have indirectly influenced fertility. People living in these large areas of social housing lacked both meeting places such as community centres, corner shops and public houses, and also support from kin networks and neighbours, compared with those living in older 'slum' housing stock which was clearly inferior physically. Although some local authorities offered rent rebates to poorer tenants to enable them to afford the new accommodation, such schemes were somewhat controversial since they meant that the better-off tenants were subsidising the less well-off tenants (Bowley 1945, pp113-31, 161-8, as cited in

Harris, forthcoming, Chapter 16).

Though the new housing was 'better value', in that the difference in the size of the accommodation compared with that in the private rented sector was more than the difference in the rent, on the whole, those on low and (especially) insecure incomes were effectively excluded from this new type of housing. In terms of the social classifications used earlier, this meant that those moving to the new housing estates were disproportionately drawn from the skilled working classes, with the unskilled left to fend as best they could in what remained of the privately rented sector.

In the old 'slum' housing the social supports for larger families were present, and large families were not regarded as deviant. Couples who moved into the new local authority housing, however, separated themselves from their families and previous communities. Burnett (1978), in his book on the history of British social housing, refers to the sociological and psychological problems of adjustment that were experienced by those moving onto these new estates due to what he describes as a lack of 'familiar community structure' (p. 231). Mowat, in his study of inter-war Britain describes such estates where 'the warmth and neighbourliness of an old community were lacking. The institutions for such a community were lacking, or only slowly provided, either by straining the resources (and inspiration) of the city council or by philanthropic effort: a community hall, sufficient schools, a branch of the public library' (1955, p 229).

This 'lack of community' was also evident in Fawcett and Khoo's study (1980). It can be seen as having had two effects: on the one hand it made it much more difficult to obtain direct assistance with raising children, but on the other hand this separation gave couples more freedom to make their own decisions about childbearing - that is, they were less likely to be influenced by community 'norms'. The middle-class suburbs that sprung up in this period would also have made the

practice of birth control easier, with the separate parental bedroom allowing privacy, and the household being seen as an individual unit within the walls of its own mini-kingdom, rather than as part of a larger community. Curtains closed and the rest of the world was shut out. The result was that the skilled working classes had lower fertility than the unskilled working classes, and their fertility appears not to have been as influenced by the number of rooms available to them as that of the unskilled.

In fact, the process by which tenants were selected for the new council estates sometimes used childbearing as a criterion. There are references in the RCP data to the childless receiving preferential treatment in the allocation of council housing.

> I remember a case where two elderly spinsters with very good incomes were pressed to take a five-room house, the local authority saying 'You are just the sort of tenants we want'.
>
> (Miss Rathbone, RCP interview 7, p. 11)

The Political and Economic Planning study also refers to the problem of families with young children not being seen as attractive tenants when compared with the older and childless, who were identified as having more free income and therefore better able to pay for the better accommodation: 'unless a conscious (housing) policy is adopted, the young family will always tend to be squeezed out of the best accommodation. In those years when space, light and privacy are most important, they are least likely to be obtained' (Political and Economic Planning, 1948, p.197).

Hence the RCP data suggests that housing influenced different couples in different ways. Some couples were faced with very stark choices, arising both from the nature of tenancy agreements: 'If you have a child you must move out'; or from the nature of the housing stock itself: 'You can't have a child here, you're three floors up and the water tap and WC are in the back yard!'. For others, the

prospect of better housing was influential: 'You don't want any children just yet, you want to save up and buy this nice new house'. For yet others, housing acted indirectly by influencing the norms and values of the communities within which they lived

The qualitative data which we have obtained from the RCP interview transcripts also bring out strongly the fact that the influence of housing provision and availability on childbearing depends greatly upon the context in which different couples found themselves. For example, the slum clearance and construction of new local authority housing estates affected people of different social classes and income levels in different ways. For skilled workers, it created the opportunity to move to new houses away from city centres: for those on the lowest incomes, it simply led to a reduction in the amount of housing available to them at a price they could afford. Similarly, it also affected couples at different stages of the life course in different ways, and it is the contextual nature of the relationship between housing and fertility that I believe to be relevant today in low fertility societies.

7.4 - Why might these results be relevant to modern low fertility societies?

As repeated frequently in this work, fertility in Britain during the 1930s was below replacement level. It was lower than in any previous decade, and lower than in any subsequent decade prior to the 1970s. Indeed, even during the last three decades of 'below replacement fertility' the total fertility rate has, on average, not fallen below its level during the 1930s. As I stated at the start of this chapter, although this chapter has focussed on the relationship between this low fertility and housing provision that does not mean to suggest that the availability of housing was the sole, or even the main, reason for the decade's below replacement fertility rates. However, I believe that I have presented sufficient evidence to show that housing, whether acting alone, or in combination with other factors, was a significant factor influencing couples' decisions about childbearing,

and one which has perhaps been under emphasised in the literature.

Governmental policies can have a domino effect that might well not be apparent at the time of their implementation, and this is where the relationship between housing and fertility has relevance in modern low fertility societies. Curry and Scriven's study of Wisconsin reflected the Mass Observation data in showing there to be some sort of relationship between the number of rooms available and fertility with fertility increasing as number of rooms in the dwelling increase. Even if there is no shortage of actual accommodation, the question of whether the accommodation available is that desired (NB desired not necessarily required) by a couple needs to be considered. Just as Herberle and Thompson suggested in the USA in the 1940s that the financial cost of a desired lifestyle (including residence) would restrict fertility, so in Czechoslovakia in the 1960s Frejka shows couples acting in a similar way. And there cannot be many of us in the UK today who are not aware of the financial costs related to housing (with often two incomes being needed to afford the mortgage or rent), and to how a desired type of accommodation and the accompanying life style is often sought and if achieved 'defended at all costs', to re-quote Herberle, i.e. in the restriction of family size.

Just as the loss of community, resulting from the slum clearance and the new local authority estates that replaced the lost homes, may well have worked to reduce fertility in Britain in the 1930s, so in Singapore in the 1960s and 70s Fawcett and Khoo (1980) suggest that the similar loss of such networks resulting from the re-housing of couples from slums to new public housing may have also worked to reduce fertility. The new public housing of Singapore also increased household bills as it did in Britain in the 1930s. Just as any government wanting to encourage fertility can look to the example of Czechoslovakia for subtle policies of so doing, so can those wishing to limit fertility, but perhaps without the international outcry that might well accompany population policies such as those practised in China, can look to the example of Singapore in the 1960s and 70s.

Chapter 8
How helpful are Coale's preconditions for fertility decline in explaining the British experience?

I'm the trouble starter, punky investigator
I'm the fear addicted, danger illustrated
I'm a firestarter, twisted firestarter
You're the firstarter, twisted firestarter
I'm a firestarter, twisted firestarter

The Prodigy

8.1 Introduction

In this chapter I suggest that Coale's three preconditions for fertility decline (Coale, 1973) serve no useful purpose in aiding the understanding of the British fertility decline. In section 8.2 the preconditions are described and their applicability to the British experience is discussed. The chapter then moves on in section 8.3 to examine ways in which the British experience of fertility decline might be better understood in light of the apparent inappropriateness of Coale's preconditions.

8.2 The preconditions and their applicability

These three preconditions are: (1) that fertility must be 'within the calculus of conscious choice', (2) that reduced fertility must seem to confer some advantage to couples, and (3) that couples must know some means of birth control, be determined to use it, and communicate sufficiently to be able to use it effectively (Coale, 1973, p. 65).

Taking each of these preconditions in turn I wish to suggest that all three of these conditions existed to some degree in the 'natural' fertility regime of Britain. The declines in fertility experienced at the end of the nineteenth century

and the start of the twentieth century were not due to the sudden appearance of these preconditions, but to other processes, such as the decline in infant and child mortality, and thus I suggest that the use of Coale's preconditions is not helpful in assessing the timing and the cause of British fertility decline.

8.2.1 Fertility must be within the calculus of conscious choice

Crucial to Coale's statement that fertility must be within the 'calculus of conscious choice' is the interpretation of 'conscious choice' itself. Coale himself interprets it as follows:

> Potential parents must consider it an acceptable mode of thought and form of behaviour to balance advantages and disadvantages before deciding to have another child – unlike, for example, most present day Hutterites or Amish, who would consider such calculations immoral, and consequently do not control marital fertility. (Coale, 1973, p.65)

There appears to be an implicit belief that a numerical family size preference co-exists within the 'calculus of conscious choice'. Van de Walle addresses this notion and concludes that 'a decline in fertility is not very far away when people start conceptualising their family size, and it cannot take place without such conceptualizing' (Van de Walle, 1992, p.501). The data from both the Royal Commission on Population and Mass Observation seem to suggest that there was no numerical preference, rather a relative size preference, e.g. 'smaller' than that into which they had been born.

Coale-Trussell's methodology for calculating fertility is based on family limitation and thus a numerical family size preference is implicit within this methodology. 'Stopping' behavior implies that a desired family size has been reached and typically (in a population that is limiting its fertility) is reached while the mother still has a number of fecund years ahead of her (Coale and Trussell, 1974). There is a further complication in that the Coale-Trussell methodology encourages a distinction between fertility limitation within marriage and fertility

limitation by marriage. Indeed, Wilson and Woods (1991) present data that suggests that marital fertility in England varied little prior to 1870, but that nuptiality did vary, and it was variations in nuptiality that were the driving force behind fertility variations. Only those populations limiting fertility through the use of contraceptive practices within marriage are seen as being populations fulfilling Coale's preconditions. This implies that there is a neat dividing line that can be drawn between the period when marriage is the main controller of fertility and the period when contraceptive practices within marriage are the main controllers of marital fertility. In a society where late marriage is common and might well encourage low frequency of intercourse within marriage and where withdrawal is practised to varying degrees, there is no such clear boundary. Szreter notes this 'demarcation' of English fertility history into 'two distinct epochs', suggesting that 'this distinction may not be entirely helpful in aiding our understanding of the causation entailed in the key process which produced the shift from one to the other regime' (Szreter, 1996, p. 391).

Indeed, Coale's preconditions do not allow for the role of timing (in the starting, stopping or spacing of childbearing and variations of these patterns within populations) to be considered. Also entwined with the issue of timing is the notion, implicit in Coale's preconditions, that only planned fertility is wanted fertility. Fisher highlights the lack of consideration that many studies have given to the 'multifaceted ways in which couples' intentions regarding pregnancy and family size were actually formulated' (Fisher, 2000, p.304). She considers that for the couples she interviewed 'the use of contraception did not reflect the adoption of a firm and constant strategy for family planning' (p. 305). I believe that she hits the nail on the head with this more fluid approach to understanding fertility decline. Perception of the 'unformulated attitudes toward the timing of pregnancy, size of family, and use of contraceptive strategies' (p.305) is vital to the understanding of the process of fertility decline.

As stated earlier, in Coale's definition of 'conscious choice', 'Potential couples must consider it an acceptable mode of thought and form of behavior to balance advantages and disadvantages before deciding to have another child' (Coale, 1973, p. 65). In the case of Britain, the word 'another' is inappropriate.

Historically, fertility has long been within the calculus of conscious choice for many couples through the delay of the first birth. A feature of the history of British fertility over at least the last 450 years has been a late age at marriage and high levels of non-marriage. Such a delay of marriage was not parity dependent, or to do with limiting the overall number of births, but was associated with birth spacing, in the form of the postponement of the first birth. This effectively makes fertility a subject on which 'conscious choice' has been exercised for several centuries, thus implying that precondition (1) was met. Indeed, to what was Malthus's preventative check referring, if not to the conscious choice that individuals were exercising (Malthus, 1798).

In a study that throws up a number of similarities to the British experience, Feng, Lee and Cambell attribute the low marital fertility achieved by the Qing nobility in China in the eighteenth and nineteenth centuries to deliberate fertility control via 'late starting, early stopping and wide spacing' (Feng, Lee & Cambell, 1995, p. 389). They too conclude that for some Chinese in the eighteenth and nineteenth centuries, 'deliberate fertility control was already within the 'calculus of conscious choice'' (p. 400).

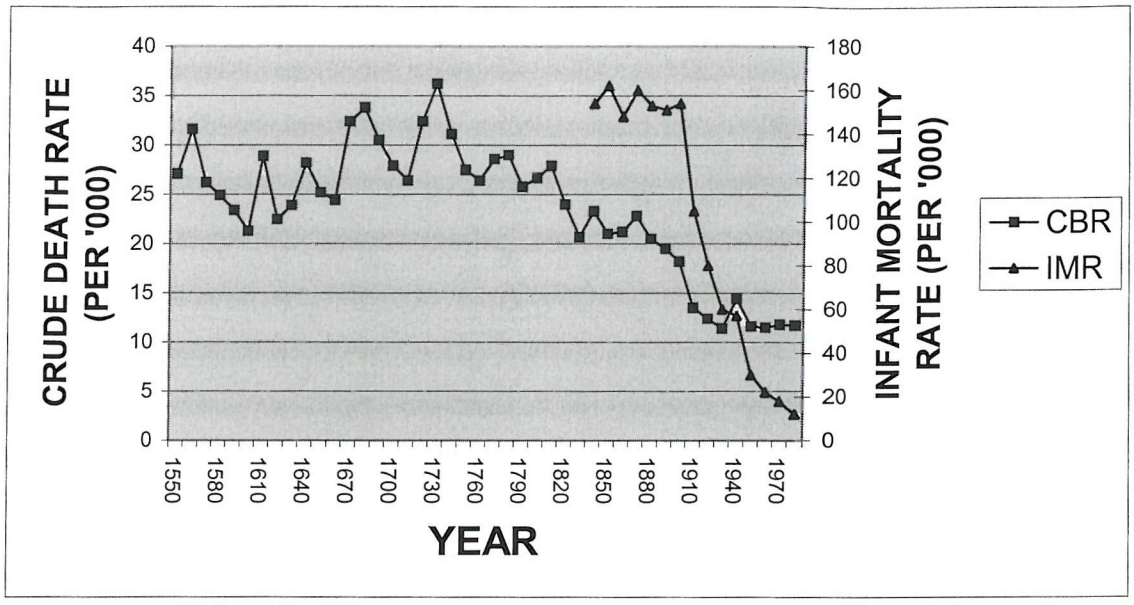
On the other side of the coin, Fisher claims that her oral histories of working class people in South Wales and Oxford who married between 1918 and 1953 present evidence of there not being a 'calculus of conscious choice'. She suggests that although many of her respondents were successfully using birth control methods, their fatalistic attitude towards their outcome fertility, 'it was just luck, wasn't it' demonstrates that reproduction was not within the calculus of conscious choice (Fisher, 2000, pp 298-301). I would disagree with this point primarily because I would question how likely is it that, even if her interviewees were accurately remembering accurate behaviour that took place many years earlier, that ideas they present are accurate interpretations of the motivations for the behaviours they employed in the fecund years of their marriages. For me, the question of how much 'conscious choice' is within the calculus of the individual and how much is determined by social norms is an area of uncertainty.

8.2.2 Reduced fertility must seem to be advantageous

I suggest that in Britain there has long been a relationship between mortality rates and fertility rates, Figures 8.1 and 8.2, and that this has been due to the enactment of 'conscious choice'. Once mortality declined, children and young adults were no longer 'lost' in such great numbers and thus not so many were desired to be born. As dramatic declines in infant mortality rates occurred from the early part of the twentieth century onwards, so the control of fertility through the timing of marriage became an untenable option. Marriage would need to be increasingly delayed to limit the number of surviving children to that which would have been achieved before such a decline in mortality. The foreseeable problem of delaying too much and risking childlessness, and also having to live more years in unmarried celibacy could quite feasibly have encouraged the transition of fertility control by marriage to fertility control within marriage. The existence of conscious choice has not changed, what had changed was that it became advantageous to limit fertility within marriage rather than by delayed marriage.

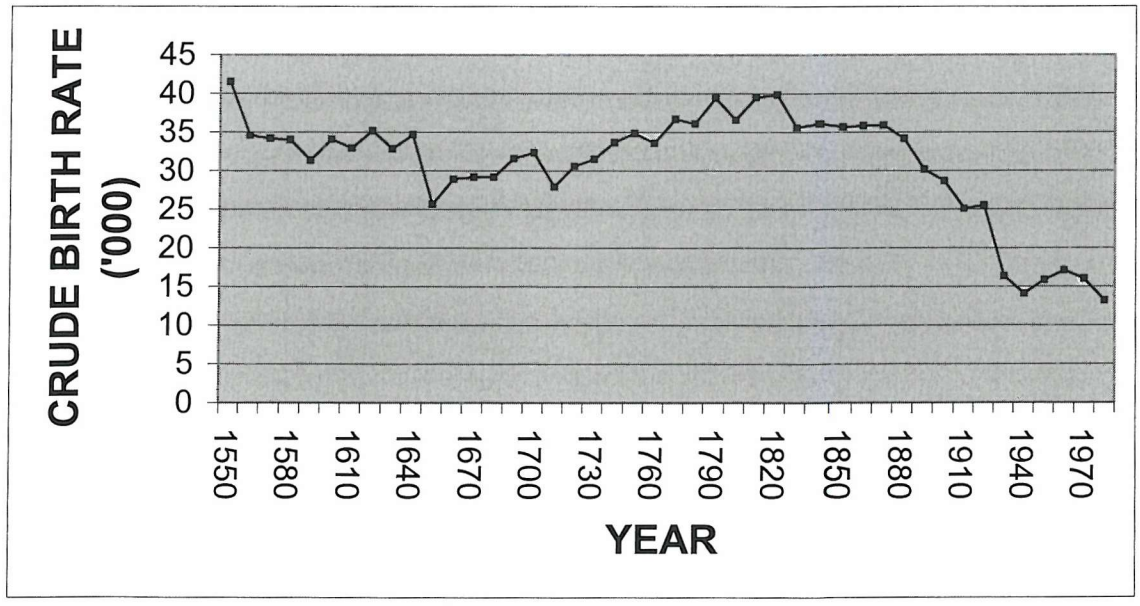
Whilst infant and child mortality rates remained relatively high, it was unlikely that birth control within marriage would be seen as advantageous since late marriage and the effect of the mortality were keeping achieved family size at the levels desired by couples. However, this distinction of birth control within marriage as opposed to birth control by delayed marriage is not apparent in Coale's criteria. The economic consciousness long existent in Britain that led to delayed marriage and non-marriage in times of economic hardship is surely an example of couples seeing reduced fertility as advantageous.

Figure 8.1 Crude death rate and infant mortality rate, England and Wales, 1550 - 1980



Source: Mitchell, 1988. Tables 11 & 13.

Figure 8.2 Crude birth rate, England, 1550 - 1980



Source: Mitchell, 1988, Table 10.

Fisher states that the couples in her study 'used birth control without formulating an ideal family size and without carefully assessing either the benefits or the disadvantages of childbearing at any particular time' (Fisher, 2000, p.301). I would suggest that even if there were no concept of an ideal family size, that those couples practising birth control felt it advantageous to delay a birth (i.e. 'space' a birth). Although technically this is not couples viewing 'reduced fertility' as advantageous, in that it is the influence on the tempo rather than the quantum that is seen as advantageous or disadvantageous. Her couples might well have not been communicating effectively with one another in regards their fertility behaviour, but those practising fertility control would surely have been sharing at some level the notion that to postpone or space births was a good idea.

Certainly a number of those women questioned by Mass Observation and of the couples referred to in the Royal commission on Population transcripts saw reduced fertility as 'advantageous', though clearly the perceived advantages vary:

> You can give one or two what you can't say half a dozen.
> 26 year old skilled working class woman from Hammersmith. Married in1940 and pregnant with first child.
>
> It's not like the old days. People are more particular now, aren't they; they don't want their kiddies just dragged up in the gutter.
> 28 year old skilled working class woman from Chelsea. Married in 1940 with one 2 ½ year old child.
>
> I am thinking back 30 years. There were so few pleasures available to the very, very poor. Sexual pleasures and drink were about the only things left to them. Now, what with the cinemas, omnibuses, radio and that kind of thing, the very poor family has a much stronger motive to avoid having a lot of children because they are a nuisance, an impediment to going to the cinema once a week. (RCP, Interview 7, p. 8)

> When people are considering from the economic side, whether they will have no children or few children or many children, the way they are looking at it is not 'I am richer than someone else in an entirely different class' but 'how do I stand in relation to my own brother or my second cousin or someone on my own level'. – 'What difference will it make to me if I have 3 instead of 2 children, shall I have to reduce my standard of living?' (Mr Ensor, RCP, Interview 7, p. 9)

8.2.3 Couples must know some means of birth control, be determined to use it, and communicate sufficiently to be able to use it effectively

Preconditions one and two were clearly met, the fact that birth control had long been effectively practised by some groups in society fulfils precondition number three.

There is evidence of the spacing of births after marriage by the use of abstinence and withdrawal. Santow (1995) has shown that withdrawal was mentioned in contemporary literature in 17th-century England, with many euphemisms being used, suggesting its common practice. McLaren also presents a tome of evidence on the existence of knowledge and practice of birth control methods in England in the nineteenth century. In it he also suggests that knowledge of birth control practices were evident well before this period (McLaren, 1978).

As stated earlier, birth spacing may not typically have been done with the conscious intention of limiting overall numbers of births (it was often practised to benefit the health of mothers and infants). Nevertheless its existence implies knowledge of how to prevent births and the implementation of this knowledge by some people were met.

Whilst there is little debate over the knowledge of methods of birth control being available, there are questions over whether the knowledge and the

determinants for its use were communicated effectively between spouses. Fisher interprets the vagaries of her couples' histories, in which much appeared to go unspoken, as 'tacit negotiation'. She describes how 'an easy consensus' was reached between spouses with regard to family size, which left 'little need for in-depth discussion'. Instead 'it was simply understood that too large a family was undesirable and that certain steps would have to be taken' (pp. 307-308). This 'easy consensus' seems to make intuitive sense to me. Is it realistic to suggest that the majority of couples (either historically or currently) sit down on marriage and work out their life times' utility maximisations? It is not more sensible to put forward the idea that couples present vague proposals and concepts as regard family size and the timing of fertility, but that they find they have no need for in depth discussions or models for such concepts or the ensuing contraceptive behaviour.

The idea of couples communicating their contraceptive behaviour also implies that contraceptive behaviour is separated from sexual behaviour. Fisher makes a very valid point in stating that 'deciding to use birth control was never an abstract family planning decision based solely on aspirations with regard to children. It was inevitably affected by the nature of sexual relations within marriage. Discussions about contraception were also negotiations about the terms and conditions of sex' (p. 310). In effect, communication about birth control is communication about sexual relations. If couples, through the use of condoms, withdrawal, periodic abstinence, or non-coital sex were able to satisfy both their sexual and their family size desires, surely they were communicating, if not verbally then tacitly through their behaviour?

8.2.4 A 'turning point'?

'Dating cultural change is inherently difficult' (Van de Walle, 1992, p.489) and where change does not occur at a uniform rate in a homogenous population I would question the relevance of so doing. Yet bound up with the ideas of preconditions for fertility decline is the obsession that seems inherent among the demographic community with 'dating' the turning point in fertility, i.e. in

drawing a line with 'natural' fertility on one side, and 'controlled' fertility on the other. The year 1876 is often suggested as marking the onset of the British fertility transition, the year at which the crude birth rate peaked, thus ensuring a marked decline in fertility from this point onwards.

On the other hand, Szreter and Garrett (2000) argue quite plausibly that, if we wish to find a 'turning point', 1816 is a better candidate. I find it interesting that this conflicts with Szreter's earlier statement against such a 'demarcation' of English fertility history into 'two distinct epochs' (Szreter, 1996, p. 391). They suggest 1816, as this is the point at which the gross reproduction rate peaks and therefore subsequently declines. There is a further rise in the gross reproduction rate between 1846 and 1876, but they consider this rise a blip in what is otherwise a downward trend. Ironically, Wrigley and Schofield interpret the downward trend in the gross reproduction rate from 1816 until 1846 as a blip (Wrigley and Schofield, 1981)! This highlights the two crucial problems in identifying 'turning points':

1. When assessing a trend, how long is that trend? If data were available that a far longer trend might be assessed would an alternative 'turning point' be identified?
2. What one person interprets as a 'turning point' another interprets as a 'blip'.

Thus, what is the point in dating a 'turning point'? Fertility behaviour works on a continuum. There is no 'before' and 'after' sitting neatly either side of a dividing line. Surely effort would be better spent in looking at the experience as it is, rather than as an over simplistic model which explains nothing.

8.3 If not Coale's preconditions, then what?

Since all three preconditions for fertility decline have been met in Britain for so long, serious questions about the usefulness of Coale's preconditions for understanding the British fertility transition needs to be raised. For thirty years

the study of fertility decline has been caged within a framework that does not allow for the complexities that exist. I suggest that demographers would be better employed looking inductively at the empirical evidence available, rather than attempting to frame and test hypotheses based on these preconditions.

This is where the importance of Kate Fisher's approach leads the way. The use of oral histories to attempt a more qualitative, data led, understanding of fertility limitation, is, I believe, the way forward.

It is unfortunate that her interviews specifically did not include childless couples as part of her sample. She cites Szreter's call for an 'urgent research priority' for the 'need for oral history research into birth control behaviour' (Fisher 2000, p. 296 citing Szreter, 1996, p. 579). Research into childless couples in the interwar period would be very advantageous in furthering the understanding of the decision processes and fertility behaviour that were taking place in this period, since it is this group of couples that are controlling their fertility to a greater degree than other (childbearing) couples. Indeed, I would be interested to see if this group were presenting the same degree of passivity towards their fertility that Fisher believes her childbearing birth controllers to present.

Thus I conclude that some sort of comparative qualitative study into child bearers and non-child bearers is the way forward in furthering the understanding of fertility decline. To quote McLaren, 'Demographers and sociologists can record and calculate the rise and fall of fertility but such studies often leave unanswered the most interesting questions' (McLaren, 1978, p.12).

Chapter 9
Conclusion

This is the end, beautiful friend
This is the end
My only friend, the end
Of our elaborate plans, the end
Of everything that stands, the end
No safety or surprise, the end
I'll never look into your eyes, again.

The Doors

9.1 Have the aims of the thesis been answered?

The aim of this thesis was to examine the trends and patterns of fertility in the 1930s and to attempt explanations for them. The quantitative measures of fertility and models of childbearing are apparent enough in the information they give. The three social class groups identifiable in the Mass Observation data each have a distinct fertility pattern. The multinomial logit model identifies a relationship between outcome fertility at five years of marriage and the number of rooms available to a family (although the direction of this relationship was not identifiable). However, as to reasons behind such measures, there is no one conclusion. Rather, what has been shown is that to attempt one explanation is futile in that it satisfies nothing other than some statistically created 'average'. Just as the Royal Commission on Population and Mass Observation attempted straightforward explanations, so fertility theory attempts to explain complex and often unconscious motivations as if they are simple. Frejka stresses the need to be aware of context, we also need to be aware that contexts are not all the same, even when within the same geographical or temporal zone.

From the Mass Observation data set, I can pick two women with similar backgrounds (i.e. the same class, similar age and year of marriage, number of siblings and rooms), and yet they have different fertility, so obviously there is more to the explanation than a simple equation can provide. There are two

women in the sample from Hampstead, one aged 33 years at the time of the interview, the other 34 years, both in the 'skilled and artisan' subset, both from large families (one with ten siblings, the other with eight), one was educated until 14 years of age, the other until fifteen, both were married in 1930 and both lived in accommodation with four rooms (excluding bathroom and kitchen). And yet by 1945 one had one child and the other has had two, and yet they both said that they wanted no more children. What is the difference between these women that has led to them having different fertility? As much as we need to look at how much can be explained by such factors as class, date of marriage, number of rooms and so on, we also need to look at how much cannot be explained by these factors.

The 1930s was a period of huge change; a time of insecurity and of rising aspirations. The bleakness that the Victorian era had held for many (especially the working classes) was at an end. Behind them stood the memories of World War One, The Depression, powerlessness; in front of them stood the unknown. How much did the past hold on to them, making each step into this New World slow and weighted with fear? How much did the lure of this golden land that the future could be tempt them, making them want to leap into it with as little baggage (or few children) as possible to weigh them down and hold them back as they climbed the steps to a better life?

Perhaps previously life had been simpler in some ways; without easily accessible information on current events, fashions and lifestyles, there were fewer decisions for a couple to make on how to live their lives. With the introduction of the radio in the home, not only did couples have an alternative evening activity, but it brought into the home news (perhaps frightening) on what was going on in the world, it also brought in expectations of lifestyles that could be attained through its plays.

The influx of magazines that appeared at this time would also have worked to fuel the desires for the life styles that could be had. Indeed, one can quite easily appreciate the impact that advertisements showing vibrant young housewives in sparkling new houses, demonstrating their latest gadget to make

their lives easier, cleaner, and more socially acceptable, might have had on young women who witnessed the lives their mothers had experienced; experiences of lack of space, lack of hot water, lack of inside toilet facilities, tiredness and depletion from pregnancies and childbirth that perhaps had not been chosen or wanted and that had almost certainly not been accompanied with a sufficient period of recuperation. Can anyone be surprised which life style these young women would choose now that many were in the position so to do. That is not to say that the desire to have children had gone, but that a desire for a better life had arrived. The compatibility of these two desires required compromise. The different compromises reached possibly resulted in different fertility.

9.2 Filling in a gap?

The data available suggests that British fertility in the 1930s was low primarily due to postponed births rather than to a general desire for 'very small families'. It would have been useful to have social class period fertility rates calculated from official sources, since the suggestion is that this low fertility is a period effect (delayed births) that has influenced a cohort of women. However, one needs to be aware that delayed births are not the only way of achieving low fertility. In areas where child bearing is firmly linked to marriage, low fertility can be the outcome of delayed marriage (re: Malthus) or a decline in proportions marrying. In cases where childbearing is not so firmly ensconced within marriage (such as in Britain today), low fertility can be a response to combination of delayed births, reduced desired family size, and elected childlessness.

In focussing on housing as an issue in low fertility societies, I wanted to demonstrate not the sole or even necessarily the dominant role of housing in low fertility societies. Rather I wanted to demonstrate the need to be aware of the context in which the low fertility occurred. Other studies have shown low fertility to be related to women's autonomy, women's work, and education among other things. The point is that each factor does not only have one line of

influence. As was shown in Chapter 7, housing influences childbearing in a number of ways, probably in many more ways than I mentioned (or was aware of). Hence there is a liquidity to context that makes it very difficult to analyse, or understand, through the use of quantitative methods alone.

I believe context to be a difficult issue since, as I suggested in Chapter 1, we cannot see that for which we do not look. Even if we do see a factor that is relevant, do we recognise it as such, i.e. do we see factors for what they are in a particular context, or do we see them as what they are to us as individuals as this point in time? For a thesis that is meant to provide answers, this study appears to just throw up more questions!

9.3 The role of theory

Throughout the process of this thesis I have found myself asking more and more questions in relation to the traditional ways in which fertility is researched by demographers:

- Do we need a model to 'explain' behaviour?
- How can a theory for low fertility 'fit' all low fertilities when there is such a diversity of experience?
- Are there distinct divides or 'turning points' in demographic behaviour?

The list of questions is endless, and indeed this study quite probably asks more questions than it answers. Throughout this study I have made links where appropriate (and quite possibly even where inappropriate) between the data and existing theory.

There is the eternal chicken and egg question – what should come first, the data or the theory? The conventional demographic approach to the study of fertility change is scientific. A theory is confronted by the data and the theory is provisionally confirmed or rejected and hence modified accordingly. I feel intrinsically unhappy with this approach and question the need for any primacy

of research approach. Rather than pitch quantitative against qualitative, the combination of approaches can lead to a more complete analysis of demographic issues

Bryman (2001, p. 93) acknowledges that quantitative and qualitative research tend to be treated as though they are 'mutually antagonistic ideal types in the research process'. This divide has not been helped by the tradition in the demographic community of placing quantitative research in prime position. The primacy of quantitative data in analysing fertility change needs to be challenged. Quantitative data simply provides a framework. It does not address more complex issues. A framework can tell you about the measurable structure within which change occurs, but it cannot tell you about the ideals and motivations of the individuals that brought about that change. One can look for commonalities between these frameworks to examine whether they provide a similar overlap of ideals and motivations. Such frameworks give structure to qualitative data – they support it. Because statistics can give visual representations of data, through graphs, tables etc, they have tended to be given primacy in the demographic world, whereas qualitative data, representing the interpretations which individual people placed on the world around them, has sat in second place. I argue that for fertility change to be understood, rather than just measured, these approaches need to be combined, and thus the bigger picture seen.

9.4 Further research

As has been suggested, many questions have been asked in this study, and many of them have been left unanswered. Those left unanswered suggest a path forward for further research to be undertaken.

Statistically, it would be helpful to have period fertility rates for the different occupational or social class categories calculated. This would enable further analysis of birth histories thus benefiting the debate on the relative importance of spacing and stopping in fertility limitation and family building patterns.

Further analysis of the relationship between fertility and housing would be beneficial for both demographic insight and for the policy implications that this relationship has, especially when one considers the relative expense of housing in many low fertility societies today.

What is primarily needed, however, is a deeper understanding of the processes through which fertility changes. Kate Fisher's approach in using oral histories in order to try and develop a better understanding of fertility change is, I believe, a pioneering and exciting way forward. Questions need to be asked of couples with all types of fertility outcomes (i.e. the childless as well as those who had children); not just the 'how' their outcome fertility was achieved, but also 'why' (in so far as they themselves are aware) they have particular family building desires. An obvious criticism of this approach is that rationalised answers are given rather than what might perhaps be the 'real' answer (if the respondent is even aware of the true answer). In many ways this is the crux of research whether it be quantitative or qualitative – we interpret events (and data) to make sense to us. In this internalised process the individual cannot be separate the part of him that is self from the part of him that is researcher. Thus I submit this thesis as my interpretation of events.

Appendix I Interviewees of the Royal Commission on Population

This appendix gives details of those who were interviewed by the Royal Commission on Population 1944 –49 and any affiliations that were given in the raw data.

Interview 1.

Mr R.R. Kuczynski & Dr D.V. Glass.

David Victor Glass had published a number of social studies prior to his work with the Royal Commission on Population, including 'The struggle for population' in 1936, 'The future of our population?' (with C. P. Blacker) in 1937, 'Population and Fertility' in 1938, and 'Population. Policies and movements in Europe' in 1940. He went on to become an eminent sociologist, holding a chair in the Department of Sociology at London School of Economics. A member of the Eugenics Society.

Dr Robert Kuczynski was an eminent refugee scholar who had worked along side Glass prior to the Royal Commission on Population, in studies with Lancelot Hogben, Professor of Social Biology at the London School of Economics.

Interview 2.

Dr Joan Malleson. Member of Family Planning Association. Described in the RCP literature as a doctor at a family planning clinic specialising in the 'barren', she was involved in setting up the Family Planning Association, and was one of the first doctors to run a clinic for sexual difficulties in conjunction with family planning work, at the North Kensington Women's Welfare Centre. She also taught contraceptive techniques at University College Hospital, and wrote a number of simple books of advice for a lay audience under the pseudonym 'Medica'. She was also the moving force behind the famous Bourne case of 1938 creating

common-law precedent enabling doctors to perform abortions on grounds of mental health. A Eugenics Society Fellow.

Interview 3.

Dr Jean Mackintosh, Mrs Kent Parsons and Dr A.B. Gardiner for The National Association of Maternity and Child Welfare Centres.

Dr Mackintosh was a member of the Eugenics Society.

Interview 4.

Mrs Patrick Ness, Dr Janet Aiken, Miss Cockayne, Miss Joyce Burnham, Miss Randle & Mrs Gwen Wilson for the National Council Of Women.

Interview 5.

Mrs Fisher, Mrs Burne, Mrs Coombes & Mrs Remson Ward for The Mothers Union.

Interview 6.

Dr W.A. Pickles - a G.P. in Wensleydale

Interview 7.

Miss Rathbone MP (wrote a book "The Case For Family Allowances") & Mrs Eva Hubback for the Family Endowment Society.

Eleanor Rathbone was an Independent member of parliament. She worked hard to improve the position of women in society. A member of the Eugenics Society.

Eva Hubback was an early member of the Family Planning Association and had also been a member of the Population Policies Committee from 1938 to 1939. She published 'The Population of Great Britain' in 1947. Also a member of the Eugenics Society.

Interview 8.

Mrs Dugald Baird M.B., ChB. A non-practising doctor involved with the YMCA in Aberdeen for 7 years, running an amateur health service for young mothers (those less well off who can't afford to be ill/visit the doctor). Her husband was a gynaecologist. Both her and her husband were members of the Eugenics Society.

Interview 9.

Mr R. F. Harrod.

Published 'Modern Population Trends' in 1939 and was a member of the Eugenics Society.

Interview 10.

Professor James M. Mackintosh, M.D., F.R.C.P. Professor of public health at London School of Hygiene and Tropical Medicine and a member of the Eugenics Society.

Interview 11.

Dr Innes H. Pearse - Medical director of The Pioneer Health Centre, Peckham.

Interview 12.

Dr C.V. Drysdale - President of The Malthusian League & Mr R.B. Kerr - editor of The New Generation, the monthly organ of The Malthusian League.

Dr Drysdale was the Honorary Secretary of the Malthusian League and editor of the 'Malthusian' from 1907 until 1916. His publications include 'Heredity in Relation to Eugenics' in 1911 and 'The Small Family System: Is it injurious or immoral?' in 1913. A member of the Eugenics Society.

Robert Kerr was originally a barrister in British Columbia who went on to become the editor of the 'Malthusian' in 1949. His publications include 'Our Prophets' in 1932 and 'Is Britain Overpopulated?' in 1927. A member of the Eugenics Society.

Interview 13.

Mrs Fisher - Chairman of The National Council for the Unmarried Mother and her Child.

Interview 14.

Dr Grace Leybourne-White. Worked as a researcher on Population Investigation Committee (under Carr Saunders) from 1937-39. Worked on the question of the cost of education and its effect on family size. She was co-author (with K. White) of the book 'Education and the Birthrate' which summarized the problem up to 1939. Published 'Estimate on the Future Population of Great Britain' in 1934. She worked as an inspector of secondary schools from 1939 until 1940. She was a member of the Eugenics Society.

Interview 15.

Mrs Alva Myrdal. Co-wrote with husband a book on Sweden's population problems 10 years previously.

Interview 16.

Mrs Cecily Cook, Mrs Esther Martin & Miss Mary Sutherland, J.P. - for the Standing Joint Committee of Working Women's Organisations. Representing two million women in all.

Interview 17.

Dr Aubrey Lewis, Dr J A Fraser Roberts (expert on intelligence of children) & Dr G P Blacker - Eugenics Society.

Dr Aubrey Lewis was described by the RCP as an expert on inheritance of mental abnormalities and sub-normalities. Published 'German Eugenic Legislation: An Examination of Fact and Theory' in 1934. A member of the Eugenics Society.

Dr J A Fraser Roberts was described by the RCP as an expert on the intelligence of children. Publications include 'An Introduction to Medical Genetics' in 1940 . A

member of the Eugenics Society.

Dr Blacker was Secretary to the Eugenics Society from 1931 until 1943, and went on to become the General Secretary, Director and Chairman of the society. His publications included 'Birth Control and the State' in 1920, 'Eugenics in Germany' in 1933, 'Laws on Health and Marriage' in 1935 and 'Positive Eugenics – A Proposal' in 1946.

Interview 18.

Very Reverend Cannon Mahoney (moral theologian), Dr Newsholme (psychological aspect), Mr Richard O'Sullivan, Mrs Kembell (Mayor of Eccles & chairman of Public Health Committee and Housing and Maternity and Child Welfare committee), and Mrs Bunyan (a mother) - for The Catholic Community.

Interview 19.

Mrs Pyke, Dr Joan Malleson & Mrs Vian for the Family Planning Association.

Margaret Pyke was the first General Secretary of the Family Planning Association. A member of the Eugenics Society.

Interview 20.

Lady Allen of Hurtwood, Miss Gardiner, Dr Margaret Hogarth & Miss Marshall - The Nursery School Association of Great Britain.

Major Cyril Nathan, Miss Alma Fox, Miss Howse & Mrs Enthoven - National Society of Children's Nurseries.

Interview 21.

Dame Janet Cambell (a civil servant), Miss Gillie (a G.P., married with children) & Miss Harding (a gynaecologist and surgeon) - for The Medical Women's Federation, representing 2,000 woman doctors in GB (out of 6,000 registered).

Appendix II Life tables from Mass Observation data

The following appendix provides the life tables produced by SPSS in order to calculate intervals from marriage to first birth (DUR1) and from first birth to second birth (DUR2) for three social class groups (CLASS2, in which 1 = 'Middle classes', 2 = 'artisan and skilled working classes', and 3 = 'unskilled working classes'.

II.1 Life table from marriage to first birth for 'middle classes'

This subfile contains: 567 observations

Life Table
Survival Variable DUR1
for CLASS2 Social class
= 1 Middle class

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Density	Hazard Rate
.0	63.0	1.0	62.5	3.0	.0480	.9520	.9520	.0480	.0492
1.0	59.0	1.0	58.5	6.0	.1026	.8974	.8544	.0976	.1081
2.0	52.0	3.0	50.5	11.0	.2178	.7822	.6683	.1861	.2444
3.0	38.0	1.0	37.5	5.0	.1333	.8667	.5792	.0891	.1429
4.0	32.0	4.0	30.0	5.0	.1667	.8333	.4826	.0965	.1818
5.0	23.0	1.0	22.5	4.0	.1778	.8222	.3968	.0858	.1951
6.0	18.0	3.0	16.5	.0	.0000	1.0000	.3968	.0000	.0000
7.0	15.0	2.0	14.0	.0	.0000	1.0000	.3968	.0000	.0000
8.0	13.0	3.0	11.5	.0	.0000	1.0000	.3968	.0000	.0000
9.0	10.0	1.0	9.5	.0	.0000	1.0000	.3968	.0000	.0000
10.0+	9.0	8.0	5.0	1.0	.2000	.8000	.3175	**	**

Intrvl Start Time	SE of Cumul Surviving	SE of Probability Densty	SE of Hazard Rate
.0	.0270	.0270	.0284
1.0	.0449	.0379	.0441
2.0	.0608	.0506	.0732
3.0	.0644	.0380	.0637
4.0	.0666	.0408	.0810
5.0	.0672	.0407	.0971
6.0	.0672	.0000	.0000
7.0	.0672	.0000	.0000
8.0	.0672	.0000	.0000
9.0	.0672	.0000	.0000
10.0+	.0890	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 4.82

II.2 Life table from marriage to first birth for 'artisan and skilled working classes'

Life Table
Survival Variable DUR1
for CLASS2 Social class = 2 Skilled

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Densty	Hazard Rate
.0	181.0	4.0	179.0	10.0	.0559	.9441	.9441	.0559	.0575
1.0	167.0	9.0	162.5	50.0	.3077	.6923	.6536	.2905	.3636
2.0	108.0	3.0	106.5	47.0	.4413	.5587	.3652	.2885	.5663
3.0	58.0	7.0	54.5	16.0	.2936	.7064	.2580	.1072	.3441
4.0	35.0	4.0	33.0	7.0	.2121	.7879	.2032	.0547	.2373
5.0	24.0	.0	24.0	3.0	.1250	.8750	.1778	.0254	.1333
6.0	21.0	.0	21.0	5.0	.2381	.7619	.1355	.0423	.2703
7.0	16.0	.0	16.0	3.0	.1875	.8125	.1101	.0254	.2069
8.0	13.0	.0	13.0	1.0	.0769	.9231	.1016	.0085	.0800
9.0	12.0	1.0	11.5	.0	.0000	1.0000	.1016	.0000	.0000
10.0+	11.0	11.0	5.5	.0	.0000	1.0000	.1016	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 2.53

Intrvl Start Time	SE of Cumul Surviving	SE of Probability Densty	SE of Hazard Rate
.0	.0172	.0172	.0182
1.0	.0362	.0346	.0506
2.0	.0374	.0353	.0792
3.0	.0347	.0251	.0847
4.0	.0329	.0198	.0891
5.0	.0319	.0143	.0768
6.0	.0294	.0182	.1198
7.0	.0273	.0143	.1188
8.0	.0265	.0084	.0799
9.0	.0265	.0000	.0000
10.0+	.0265	**	**

II.3 Life table from marriage to first birth for 'unskilled working classes'

Life Table
Survival Variable DUR1
for CLASS2 Social class = 3 Unskilled

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Densty	Hazard Rate
.0	283.0	3.0	281.5	18.0	.0639	.9361	.9361	.0639	.0661
1.0	262.0	4.0	260.0	122.0	.4692	.5308	.4968	.4392	.6131
2.0	136.0	6.0	133.0	62.0	.4662	.5338	.2652	.2316	.6078
3.0	68.0	4.0	66.0	17.0	.2576	.7424	.1969	.0683	.2957
4.0	47.0	4.0	45.0	4.0	.0889	.9111	.1794	.0175	.0930
5.0	39.0	1.0	38.5	7.0	.1818	.8182	.1468	.0326	.2000
6.0	31.0	2.0	30.0	2.0	.0667	.9333	.1370	.0098	.0690
7.0	27.0	2.0	26.0	3.0	.1154	.8846	.1212	.0158	.1224
8.0	22.0	1.0	21.5	3.0	.1395	.8605	.1043	.0169	.1500
9.0	18.0	2.0	17.0	1.0	.0588	.9412	.0981	.0061	.0606
10.0+	15.0	13.0	8.5	2.0	.2353	.7647	.0751	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 1.99

Intrvl Start Time	SE of Cumul Surviving	SE of Probability Densty	SE of Hazard Rate
.0	.0146	.0146	.0156
1.0	.0300	.0298	.0528
2.0	.0268	.0256	.0735
3.0	.0245	.0159	.0709
4.0	.0238	.0086	.0465
5.0	.0225	.0120	.0752
6.0	.0220	.0069	.0487
7.0	.0213	.0090	.0706
8.0	.0204	.0095	.0864
9.0	.0201	.0061	.0606
10.0+	.0210	**	**

II.4 Life table from first to second birth for 'middle classes'

This subfile contains: 567 observations

Life Table
Survival Variable DUR2
for CLASS2 Social class
= 1 Middle class

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Densty	Hazard Rate
.0	65.0	11.0	59.5	.0	.0000	1.0000	1.0000	.0000	.0000
1.0	54.0	6.0	51.0	2.0	.0392	.9608	.9608	.0392	.0400
2.0	46.0	7.0	42.5	4.0	.0941	.9059	.8704	.0904	.0988
3.0	35.0	1.0	34.5	3.0	.0870	.9130	.7947	.0757	.0909
4.0	31.0	4.0	29.0	3.0	.1034	.8966	.7125	.0822	.1091
5.0	24.0	2.0	23.0	.0	.0000	1.0000	.7125	.0000	.0000
6.0	22.0	4.0	20.0	1.0	.0500	.9500	.6768	.0356	.0513
7.0	17.0	3.0	15.5	.0	.0000	1.0000	.6768	.0000	.0000
8.0	14.0	4.0	12.0	.0	.0000	1.0000	.6768	.0000	.0000
9.0	10.0	2.0	9.0	.0	.0000	1.0000	.6768	.0000	.0000
10.0+	8.0	8.0	4.0	.0	.0000	1.0000	.6768	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 10.00+

Intrvl Start Time	SE of Cumul Sur-viving	SE of Proba-bility Densty	SE of Hazard Rate
.0	.0000	.0000	.0000
1.0	.0272	.0272	.0283
2.0	.0496	.0431	.0493
3.0	.0616	.0420	.0524
4.0	.0712	.0454	.0629
5.0	.0712	.0000	.0000
6.0	.0760	.0349	.0513
7.0	.0760	.0000	.0000
8.0	.0760	.0000	.0000
9.0	.0760	.0000	.0000
10.0+	.0760	**	**

II.5 Life table from first to second birth for 'artisan and skilled working classes'

Life Table
Survival Variable DUR2
for CLASS2 Social class = 2 Skilled

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Densty	Hazard Rate
.0	189.0	19.0	179.5	.0	.0000	1.0000	1.0000	.0000	.0000
1.0	170.0	25.0	157.5	7.0	.0444	.9556	.9556	.0444	.0455
2.0	138.0	13.0	131.5	25.0	.1901	.8099	.7739	.1817	.2101
3.0	100.0	12.0	94.0	20.0	.2128	.7872	.6092	.1647	.2381
4.0	68.0	8.0	64.0	10.0	.1563	.8438	.5140	.0952	.1695
5.0	50.0	3.0	48.5	7.0	.1443	.8557	.4398	.0742	.1556
6.0	40.0	4.0	38.0	5.0	.1316	.8684	.3820	.0579	.1408
7.0	31.0	5.0	28.5	.0	.0000	1.0000	.3820	.0000	.0000
8.0	26.0	.0	26.0	1.0	.0385	.9615	.3673	.0147	.0392
9.0	25.0	4.0	23.0	1.0	.0435	.9565	.3513	.0160	.0444
10.0+	20.0	19.0	10.5	1.0	.0952	.9048	.3179	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 5.19

Intrvl Start Time	SE of Cumul Surviving	SE of Probability Densty	SE of Hazard Rate
.0	.0000	.0000	.0000
1.0	.0164	.0164	.0172
2.0	.0353	.0328	.0418
3.0	.0429	.0335	.0529
4.0	.0455	.0285	.0534
5.0	.0468	.0268	.0586
6.0	.0473	.0249	.0628
7.0	.0473	.0000	.0000
8.0	.0477	.0145	.0392
9.0	.0482	.0158	.0444
10.0+	.0540	**	**

II.6 Life table from first to second birth for 'unskilled working classes'

Life Table
Survival Variable DUR2
for CLASS2 Social class = 3 Unskilled

Intrvl Start Time	Number Entrng this Intrvl	Number Wdrawn During Intrvl	Number Exposd to Risk	Number of Termnl Events	Propn Termi-nating	Propn Sur-viving	Cumul Propn Surv at End	Proba-bility Densty	Hazard Rate
.0	297.0	22.0	286.0	1.0	.0035	.9965	.9965	.0035	.0035
1.0	274.0	13.0	267.5	31.0	.1159	.8841	.8810	.1155	.1230
2.0	230.0	20.0	220.0	67.0	.3045	.6955	.6127	.2683	.3592
3.0	143.0	11.0	137.5	32.0	.2327	.7673	.4701	.1426	.2634
4.0	100.0	8.0	96.0	24.0	.2500	.7500	.3526	.1175	.2857
5.0	68.0	4.0	66.0	11.0	.1667	.8333	.2938	.0588	.1818
6.0	53.0	6.0	50.0	3.0	.0600	.9400	.2762	.0176	.0619
7.0	44.0	3.0	42.5	1.0	.0235	.9765	.2697	.0065	.0238
8.0	40.0	2.0	39.0	1.0	.0256	.9744	.2628	.0069	.0260
9.0	37.0	6.0	34.0	2.0	.0588	.9412	.2473	.0155	.0606
10.0+	29.0	26.0	16.0	3.0	.1875	.8125	.2009	**	**

** These calculations for the last interval are meaningless.

The median survival time for these data is 3.79

Intrvl Start Time	SE of Cumul Surviving	SE of Probability Density	SE of Hazard Rate
.0	.0035	.0035	.0035
1.0	.0197	.0195	.0221
2.0	.0306	.0280	.0432
3.0	.0322	.0232	.0462
4.0	.0319	.0223	.0577
5.0	.0311	.0170	.0546
6.0	.0309	.0100	.0357
7.0	.0308	.0065	.0238
8.0	.0308	.0069	.0260
9.0	.0308	.0108	.0428
10.0+	.0348	**	**

Appendix III Multinomial logit model

The following appendix presents the SPSS output for the multinomial logit models used to suggest a relationship between fertility and housing. MID = 'middle class'; SKILL = 'artisan and skilled working class'; SMALLHSE = 1 or 2 rooms (excluding bathroom and kitchen); LARGEHSE = 5 or more rooms (excluding bathroom and kitchen). The reference categories are unskilled working classes, and 3 or 4 rooms (excluding bathroom and kitchen).

III.1 Zero vs two children by five years of marriage

Logistic Regression

Case Processing Summary

Unweighted Cases [a]		N	Percent
Selected Cases	Included in Analysis	198	100.0
	Missing Cases	0	.0
	Total	198	100.0
Unselected Cases		0	.0
Total		198	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	0
2	1

Block 0: Beginning Block

Classification Table[a,b]

Observed			Predicted		
			CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
			0	2	
Step 0	CATAGORIES OF CHILDREN BORN BY 5 YEARS	0	0	68	.0
		2	0	130	100.0
	Overall Percentage				65.7

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.648	.150	18.749	1	.000	1.912

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	MID	24.334	1	.000
		SKILL	.042	1	.838
		SMALLHSE	6.847	1	.009
		LARGEHSE	5.931	1	.015
		MARR	1.302	1	.254
		MARR_2	4.148	1	.042
	Overall Statistics		50.684	6	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	56.466	6	.000
	Block	56.466	6	.000
	Model	56.466	6	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	198.276[a]	.248	.343

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Classification Table[a]

Observed			Predicted		
			CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
			0	2	
Step 1	CATAGORIES OF CHILDREN BORN BY 5 YEARS	0	32	36	47.1
		2	11	119	91.5
	Overall Percentage				76.3

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	MID	-3.690	.738	24.966	1	.000	.025
	SKILL	-.716	.389	3.394	1	.065	.489
	SMALLHSE	-1.266	.485	6.818	1	.009	.282
	LARGEHSE	2.012	.643	9.804	1	.002	7.476
	MARR	.106	.036	8.371	1	.004	1.111
	MARR_2	.011	.006	3.490	1	.062	1.011
	Constant	.759	.302	6.327	1	.012	2.136

a. Variable(s) entered on step 1: MID, SKILL, SMALLHSE, LARGEHSE, MARR, MAR

Appendix III.2

Multinomial logit model

One vs two children by five years of marriage

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	272	100.0
	Missing Cases	0	.0
	Total	272	100.0
Unselected Cases		0	.0
Total		272	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
1	0
2	1

Classification Table[a,b]

			Predicted		
			CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
	Observed		1	2	
Step 0	CATAGORIES OF CHILDREN BORN BY 5 YEARS	1	142	0	100.0
		2	130	0	.0
	Overall Percentage				52.2

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	-.088	.121	.529	1	.467	.915

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	MID	6.836	1	.009
		SKILL	.558	1	.455
		SMALLHSE	6.015	1	.014
		LARGEHSE	4.604	1	.032
		MARR	.410	1	.522
		MARR_2	.589	1	.443
	Overall Statistics		22.001	6	.001

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	23.377	6	.001
	Block	23.377	6	.001
	Model	23.377	6	.001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	353.166[a]	.082	.110

a. Estimation terminated at iteration number 4 b
parameter estimates changed by less than .0

Classification Table[a]

Observed		Predicted		
		CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
		1	2	
Step 1	CATAGORIES O CHILDREN BOR BY 5 YEARS 1	82	60	57.7
	2	46	84	64.6
	Overall Percentage			61.0

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	MID	-1.825	.573	10.156	1	.001	.161
	SKILL	-.573	.281	4.150	1	.042	.564
	SMALLHSE	-.876	.367	5.696	1	.017	.416
	LARGEHSE	.912	.387	5.539	1	.019	2.488
	MARR	.026	.026	1.032	1	.310	1.027
	MARR_2	.003	.004	.412	1	.521	1.003
	Constant	.090	.230	.154	1	.695	1.094

a. Variable(s) entered on step 1: MID, SKILL, SMALLHSE, LARGEHSE, MARR, MARR_2.

Appendix III.3

Multinomial logit model

Three or more vs two children by five years of marriage

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	171	100.0
	Missing Cases	0	.0
	Total	171	100.0
Unselected Cases		0	.0
Total		171	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
2	0
3 OR MORE	1

Block 0: Beginning Block

Classification Table[a,b]

Observed			Predicted		
			CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
			2	3 OR MORE	
Step 0	CATAGORIES OF CHILDREN BORN BY 5 YEARS	2	130	0	100.0
		3 OR MORE	41	0	.0
	Overall Percentage				76.0

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.154	.179	41.506	1	.000	.315

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	MID	1.624	1	.202
		SKILL	10.039	1	.002
		SMALLHSE	1.275	1	.259
		LARGEHSE	4.208	1	.040
		MARR	5.819	1	.016
		MARR_2	.698	1	.403
	Overall Statistics		22.601	6	.001

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	26.445	6	.000
	Block	26.445	6	.000
	Model	26.445	6	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	161.933[a]	.143	.215

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Classification Table[a]

Observed			Predicted		
			CATAGORIES OF CHILDREN BORN BY 5 YEARS		Percentage Correct
			2	3 OR MORE	
Step 1	CATAGORIES OF CHILDREN BORN BY 5 YEARS	2	120	10	92.3
		3 OR MORE	29	12	29.3
	Overall Percentage				77.2

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	MID	-20.713	17788.381	.000	1	.999	.000
	SKILL	-2.116	.664	10.172	1	.001	.120
	SMALLHSE	-.648	.821	.624	1	.430	.523
	LARGEHSE	1.045	.473	4.884	1	.027	2.842
	MARR	-.032	.037	.749	1	.387	.969
	MARR_2	-.004	.006	.530	1	.467	.996
	Constant	-.789	.309	6.541	1	.011	.454

a. Variable(s) entered on step 1: MID, SKILL, SMALLHSE, LARGEHSE, MARR, MARR_2.

Appendix IV

Method used to obtain parity progression ratios used in Figure 2.10.

This appendix contains the method used by Dr Hinde to calculate the parity progression ratio used in Chapter 2. These parity progression ratios were calculated in order to estimate distributions of daughters surviving to age 15 years. The method for calculating the parity progression ratios is given below within the methodology given for estimating surviving daughters.

My thanks go to Dr Hinde for allowing me to use this data.

Methodology

Distributions of completed family size (numbers of live births) for ever-married women for the birth cohorts 1750-79 and 1780-1809 were estimated from parity progression ratios (PPRs) given in Wrigley, et al. (1997, Table 17.7, 403). The birth distribution resulting from the original PPRs was then smoothed. For the birth cohorts 1840-69 and 1870-99 they were estimated directly from data given in Anderson (1998, Figure 1, 178). For the 1900-29 birth cohort they were derived from PPRs given in Hobcraft (1996, Table 7, 509). For the 1900-29 birth cohort assumptions had to be made about the PPRs beyond the fifth birth. It was assumed that the PPRs were constant for all parities above five at a level close to that obtaining for the progression from the fourth to the fifth birth. This assumption was consistent with the data for a number of marriage cohorts for which data on PPRs beyond the fifth birth were available, for example the 1915-19 and 1920-24 marriage cohorts (Glass and Grebenik, 1954, Table 6, 80). There remained the distribution for the 1810-39 birth cohort. No reliable data could be found on which to base an estimate for this cohort, so interpolation between the distributions for the 1780-1809 and 1840-69 birth cohorts was used.

The distribution of completed family size for all women in the birth cohort 1930-59 was taken from Office for National Statistics (1998, Table 10.5, 58). For the

1960-89 birth cohort, it was estimated from PPRs given in Hobcraft (1996, Table 7, 509).

For the birth cohorts up to and including 1900-29 the distributions of completed family size for ever-married women were then adjusted to take account of births to never-married women. It was assumed that half the illegitimate births in each cohort occurred to never-married women (the rest accruing to widows and divorcées). As nothing was known about the distribution of completed family sizes of never married women, it was estimated by assuming that it followed an exponential decay function,

$$w_i = w_0 e^{-ki},$$

where w_i is the number of never-married women having i children, and k is the exponential parameter (which varied across cohorts). The values of k and w_0 for each birth cohort were estimated from a knowledge of the proportion of births in each cohort which were illegitimate and the proportion of women in each cohort who never married. The proportion of births in each cohort which was illegitimate was estimated for birth cohorts from 1780-1809 to 1900-29 from data given in Office of Population Censuses and Surveys (1987, Table 1.1, 19-21). The latter were obtained for the earliest two birth cohorts from Wrigley and Schofield (1981, Table 7.28, 260), and for birth cohorts from 1810-39 to 1900-29 from Office for Population Censuses and Surveys (1990, Table 1.1b, 19-21)

The resulting distribution of the completed family size of never-married women was then combined with that of ever-married women to give the distribution of completed family sizes per thousand women in each birth cohort.
A sex ratio of births of 100 girls to 105 boys was assumed. We also assumed that the mortality of all girls born to each birth cohort was identical, but that mortality of the girls varied from cohort to cohort.

The binomial theorem, with a parameter equal to the probability of a child being both a girl and surviving until her 15th birthday, was then applied to the

distribution of completed family sizes for all women used to work out the number of women with j surviving girls (j = 0, 1, ..., 10 or more), G_j. Let the number of women in a cohort having i births be N_i, and the probability that a birth is both female and survives to age 15 be p. Note that $p = (100/105)l_{15}$, where l_{15} is the probability that a female baby survives to her 15th birthday. Then, the number of women who produce no daughters who survive to age 15 years, G_0, is given by the formula

$$G_0 = \Sigma_{i=0} N_i (1 - p)^i$$

and, in general

$$G_j = \Sigma_{i=j} B_{ij} N_i p^j (1 - p)^{i-j},$$

where the upper limit of the summations is the maximum number of live births a birth cohort experiences, and B_{ij} is the number of ways of choosing i items from from j (i.e. the relevant binomial coefficient). So, for example, the number of women with exactly two surviving girls is equal to the number of women who have two births, both of which are girls and survive; plus the number of women who have exactly three births, exactly two of which are girls and survive; plus the number of women who have exactly four births, exactly two of which are girls and survive, and so on. Data on the mortality of the children born to each birth cohort were estimated from Wrigley and Schofield (1981, Table A3.2, 530) for the 1750-79 and 1789-1809 birth cohorts; Woods and Hinde (1987, 33) for the 1810-39 and 1840-69 birth cohorts, and from data given in Office for National Statistics (1997, 2, 3, 6 and 7) for the later birth cohorts.

Appendix V Variables developed from the Mass Observation's 'Britain and her Birth Rate' questionnaires

Place	Place of residence
Age	Age of interviewee
Class	Social class as assessed by MO interviewer
Dom	Date of marriage
Ceb	Number of children ever born
Accom	Type of accommodation
Rooms	Number of rooms (not including kitchen and bathroom)
Tenure	Tenure of accommodation
Edu	Age interviewee educated until
Maternal	number of siblings of the mother interviewed
Religious	Whether religious or not
Whatrel	If religious, what religion
Working	Whether working or not
Whatwork	If working, what work
Whymarry	Main reason for getting married
Kidsinma	How important are children to a marriage
Like	Number of children would like to have
Encourage	What might encourage interviewee to have more children
Pain	Would easier pregnancy and birth encourage interviewee to have more children
Fas	Would family allowances encourage interviewee to have more children
Homehelp	Would home helps encourage interviewee to have more children
Housing	Would type of housing encourage interviewee to have more children
Future	Would surety of the future encourage interviewee to have more children
Dob	Year of birth
cb5	Confinements by 5 years of marriage
cb10	Confinements by 10 years of marriage

dur1	Duration from marriage to first birth
dur2	Duration from first birth to second birth
dur3	Duration from second birth to third birth
aam	Age at first marriage
relig2	Yes/no
edu2	Educational level categorised
mat2	Maternal family size categorised
kids2	importance of children in marriage categorised
rooms2	Number of rooms categorised
whymarr2	Reasons for marriage categorised
whatrel2	If religious, what religion
marr	Year of marriage minus 1930
marr_2	Year of marriage minus 1930^2
cb5cat	Children born by 5 years of marriage categorised
high*	High level education, 19 years of age +
medium*	Medium level education, 15 to 18 years of age
low*	Low level education, up to 14 years of age
missedu*	Missing variable for educational level
tradpos*	Traditional positive reasons given for why married
modpos*	Modern positive reasons given for why married
preg*	pregnancy given as reason for marriage
negmar*	Negative reasons given for why married
misswhy*	Missing variable for reason for marrying
mid*	Middle class
skill*	Skilled and artisan working class
unskill*	Unskilled working class
misssoc*	Missing social class variable
size12*	Maternal family size 1 or 2
size34*	Maternal family size 3 or 4
size5*	Maternal family size 5 or more
misssize*	Missing maternal family size variable
smallhse*	Rooms 1 or 2
medhse*	Rooms 3 or 4
largehse*	Rooms 5 or more

misshse*	Missing number of rooms variable
negkids*	Negative view of children in marriage
poskids*	Positive view of children in marriage
misskids*	Missing importance of children in marriage variable

* Dummy variables

References

Agresti, A. (1996). An Introduction to Categorical Data Analysis. New York: Wiley.

Anderson, M. (1996). Highly restricted fertility. Paper presented to the Annual Conference of the British Society for Population Studies, St Andrews, Scotland, September 1996.

Anderson, M. (1998). Highly restricted fertility: very small families in the British fertility decline, Population Studies 52, 177-99.

Bagozzi, R. P. & Van Loo, M. F. (1980). Decision making and fertility: a theory of exchange. In Burch, T. K. (ed.), Demographic Behavior. Boulder: Westview Press, 91-124.

Banks, J.A. (1954). Prosperity and Parenthood. London: Routledge and Kegan Paul.

Baszanger, I. (1997). Deciphering chronic pain. In Strauss, A. & Corbin, J. (eds), Grounded Theory in Practice. Thousand Oaks: Sage, 1-34.

Becker, G.S. (1960). An economic analysis of fertility. In National Bureau Committee on Economic Research, Demographic and Economic Change in Developed Countries. Princeton: Princeton University Press, 209-31.

Becker, G.S. (1981). A Treatise on the Family. Cambridge, Mass: Harvard University Press.

Begg, C.B. & Gray, R. (1984). Calculation of polychotomous logistic regression parameters using individual regressions, Biometrika 71, 11-18.

Blake, J. (1968). Are babies consumer durables? A critique of the economic theory of fertility motivation, Population Studies 22, 1-26.

Bongaarts, J. & Potter, R. G. (1983). Fertility, Biology, and Behavior. An Analysis of the Proximate Determinants. London: Academic Press.

Bowley, M. (1945). Housing and the state 1919-44. London: George Allen and Unwin.

Brierley, P. (2000). Religion. In Halsey, A.H. & Webb, J. (eds), Twentieth Century British Social Trends. Basingstoke: Macmillan, 650-74.

Briggs, M.S. (1937). How to Plan Your House. London: English Universities Press.

Bryman, A. (2001). Quantity and Quality in Social Research. London: Routledge.

Bulatao, R. A. (1982). The transition in the value of children and the fertility transition. In Hohn, C. & Mackensen, R. (eds), Determinants of Fertility: Theories Re-examined. Liege: Ordina Editions, 95-123.

Burnett, J. (1978). A Social History of Housing 1815-1985. London: Routledge.

Butz, W. P. & Ward, M. P. (1979) Will US fertility remain low? A new economic interpretation, Population and Development Review 4, 663-89.

Caldwell, J. C. (1978). A theory of fertility: from high plateau to destabilization, Population and Development Review 4, 553-77.

Caldwell, J. C. (1982). The Theory of Fertility Decline. London: Academic Press.

Cannan, E. (1895). The probability of a cessation of the growth of the population of England and Wales, Economic Journal December 1895.

Capie, F. & Collins, M. (1980). The extent of British economic recovery in the 1930s, Economy and History 23, 40-60.

Chandna, S., Schulz, J., Lawrence, C., Greenwood, R. & Farrington, K. (1999). Is there a rationale for rationing chronic dialysis? A hospital based cohort study of factors affecting survival and morbidity. British Medical Journal 318:217-223.

Charles, E. (1932). The Practice of Birth Control. London: Williams and Norgate.

Charles, E. (1934). The Twilight of Parenthood. London: Watts & Co.

Charles, E. & Moshinsky, P. (1938). Differential fertility in England and Wales. In Hogben, L. (ed.), Political Arithmetic. London: George Allen & Unwin, 106-60.

Chen, P. S. J. & Fawcett, J. T. (1979). Public Policy and Population Change in Singapore. New York: The Population Council.

Chowdhury, A K. M. A., Khan, A R. & Chen, L. C. (1976), The effect of child mortality experience on subsequent fertility: in Pakistan and Bangladesh, Population Studies 30, 249-61.

Cleland, J. & Wilson, C. (1987). Demand theories of the fertility transition: an iconoclastic view, Population Studies 41, 5-30.

Coale, A. (1967). Factors associated with the development of low fertility: an historic summary. In United Nations, Proceedings of the World Population Conference, 1965, Volume 2. New York: United Nations Department of Economic and Social affairs, 205-09.

Coale, A. (1973). The demographic transition, International Population Conference, Liege 1973. Vol. 1. Liege: IUSSP.

Coale, A. & Trussell, T. J. (1974). Model fertility schedules: variations in the age structure of childbearing in human populations, Population Index 40, 195-258.

Coleman, D. & Salt, J. (1992). The British Population. Oxford: Oxford University Press.

Colton, C. C. (1820). Lacon; or Many Things in Few Words; Addressed to Those Who Think. London: Longman, Hurst, Rees, Orme & Brown; Budd & Calkin.

Crafts, N.F.R. (1989). Duration of marriage and women's employment opportunities in England and Wales in 1911, Population Studies 43/3, 325-35.

Crosbie, P. V. (1986). Rationality and models of reproductive decision making. In Handwerker, W. P. (ed), Culture and Reproduction. Boulder: Westview Press, 30-58.

Curry, J. & Scriven, G. (1978). The relationship between apartment living and fertility for Blacks, Mexican-Americans, and other Americans in Racine, Wisconsin, Demography 15, 477-85.

Daugherty, H. & Kammeyer, K. (1995). An Introduction to Population. London: The Guilford Press.

Davis, K. (1963). The theory of change and response in modern demographic history, Population Index. 29, 345-66.

De Gans, H. (1999). Population Forecasting 1895-1945. London: Kluwer Academic Publishers.

De Gans, H. (2000). Biological law or demographic speculation? A debate on the method of forecasting future population size in the 1920s. Paper presented to the European Social Science History Conference 2000, Amsterdam.

Dilnot, A. & Emmerson, C. (2000). The economic environment. In Halsey, A.H. & Webb, J. (eds), Twentieth Century British Social Trends. Basingstoke: Macmillan, 324-47.

Duesenberry, J. (1960). Comment on Becker's 'Economic analysis of fertility'. In National Bureau Committee on Economic Research, Demographic and Economic Change in Developed Countries. Princeton: Princeton University Press, 231-34.

Easterlin, R. (1975). A framework for fertility analysis, Studies in Family Planning.6, 54-63.

Easterlin, R. (1978). The economics and sociology of fertility: a synthesis. In Tilly, C. (ed), Historical Studies of Changing Fertility. Princeton: Princeton University Press, 57-133.

Eckstein, B. & Hinde, P. R. A. (1999), British marital fertility in the 1920s and 1930s: a study using Mass Observation. Paper presented to the Annual Conference of the British Society for Population Studies, Dublin, Ireland, September 1999.

Ermisch, J. (1979), The relevance of the 'Easterlin Hypothesis' and the 'New Home Economics' to fertility movements in Great Britain, Population Studies 33, 39-58.

Farrell, L.A. (1970). The origin and growth of the English eugenics movement, 1865-1925. Unpublished PhD Thesis, Indiana University, Bloomington.

Fawcett, J. & Khoo, S. (1980). Singapore: rapid fertility transition in a compact society, Population and Development Review 6, 549-79.

Felson, M. & Solaun, M. (1975). The fertility inhibiting effect of crowded apartment living in a tight housing market, American Journal of Sociology 80, 1410-27.

Feng, W., Lee, J. & Cambell, C. (1995). Marital fertility control among the Qing nobility: implications for two types of preventative check, Population Studies 49, 383-400.

Feyerabend, P. (1975). Against Method: Outline of an Anarchistic Theory of Knowledge. London: New Left Books.

Fisher, K. (1997). An oral history of birth control practice c.1925-50. a study of Oxford and South Wales. Unpublished Ph.D thesis, Oxford University.

Fisher, K. (2000). Uncertain aims and tacit negotiation: birth control practices in Britain, 1925-50, Population and Development Review 26, 295-317.

Frejka, T. (1980). Fertility trends and policies: Czechoslovakia in the 1970s. Population and Development Review 6, 65-93.

Frejka, T. & Calot, G. (2001). Cohort childbearing age patterns in low fertility countries in the late 20th century: is the postponement of births an inherent element? Max Planck Institute for Demographic Research Working Paper WP 2001-009.

Friedlander, D. (1973). Demographic patterns and socioeconomic characteristics of the coal mining population in England and Wales in the nineteenth century, Economic Development and Cultural Change 22, 39-51.

Gallie, D. (2000). The labour force. In Halsey, A.H. & Webb, J. (eds), Twentieth Century British Social Trends. Basingstoke: Macmillan, 281-323.

Garrett, E. (1990). The trials of labour: motherhood versus employment in a nineteenth century textile centre, Continuity and Change 5, 87-108.

Garrett, E. & Reid, A. (1994). Satanic mills, pleasant lands: spatial variation in women's work, fertility and infant mortality as viewed from the 1911 census, Historical Research 67, 156-77.

Garrett, E. & Reid, A. (1995). Thinking of England and taking care: Family building strategies and infant mortality in England and Wales, 1891-1911, International Journal of Population Geography 1, 69-102.

Garrett, E., Reid, A., Schürer, K. & Szreter, S. (2001). As Others Do Around Us: Place, Class and Demography in England and Wales. Cambridge: Cambridge University Press.

Gillis, J. R., Tilly, L. A. & Levine, D. (eds) (1992). The European Experience of Declining Fertility 1850-1970. the Quiet Revolution. Oxford: Blackwell.

Gittins, D. (1975). Married life and birth control between the wars, Oral History 3. 53-64.

Gittins, D. (1982). Fair Sex. Family Size and Structure 1900-39. London: Hutchinson.

Gittins, D. (1985). The Family in Question. Basingstoke: Macmillian.

Glaser, B. G. & Strauss, A. L. (1967). The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine.

Glaser, B. G. (1978). Theoretical Sensitivity: Advances in the Methodology of Grounded Theory. Mill Valley: Sociology Press.

Glasgow, N., Ponsonby, A., Yates, R., Beilby, J. & Dugdale, P. (2003). Proactive asthma care in childhood: general practice based randomised controlled trial. British Medical Journal 327:659-666.

Glass, D. V. (1936). The Struggle for Population. Oxford: Clarendon Press.

Glass, D. V. (1940). Population Policies and Movements in Europe. Oxford: Clarendon Press

Glass, D.V. & Grebenik, E. (1950). Reports and Selected Papers of the Statistics Committee. Volume II. London: Her Majesty's Stationery Office.

Glass, D.V. & Grebenik, E. (1954). The Trend and Pattern of Fertility in Great Britain. a Report on the Family Census of 1946. London: Her Majesty's Stationery Office.

Graham, E. (1995). Singapore in the 1990s. Can population policies reverse the demographic transition? Applied Geography 15, 219-32.

Haines, M. (1979). Fertility and Occupation. Population Patterns in Industrialisation. London: Academic Press.

Halsey, A.H. & Webb, J. (2000). Twentieth Century British Social Trends. Basingstoke: Macmillan.

Handwerker, W. P. (1986). Culture and Reproduction. Boulder: Westview Press.

Harris, B. (Forthcoming). The Origins of the British Welfare State: Society, State and Social Welfare in England and Wales, 1800 – 1945. Basingstoke: Palgrave.

Heitlinger, A. (1976). Pro-natalist population policies in Czechoslovakia, Population Studies. 30, 123-35.

Henry, L. (1961). Some data on natural fertility, Eugenics Quarterly 8, 81-91

Heberle, R. (1941), Social factors in birth control, American Sociological Review 6, 794-805.

Hinde, A. (1998). Demographic Methods. London: Arnold.

Hinde, P.R.A. (1985). The fertility transition in rural England. Unpublished PhD thesis. University of Sheffield.

His Majesty's Stationery Office (1923). 1911 Census of Fertility: Fertility of Marriage, Part II. London: His Majesty's Stationery Office.

Hobcraft, J. (1996). Fertility in England and Wales: a fifty-year perspective, Population Studies 50, 485-524

Hobcraft, J. & Kiernan, K. (1995). Becoming a parent in Europe. Paper presented at the European Population Conference, September 1995.

Hogben, L. (1938). Political Arithmetic. London: George Allen & Unwin.

Honey, F.J.C. (1937). The estimated population of Great Britain, 1941-1971, Journal of the Institute of Actuaries 68, 323-47.

Hubback, E. (1947). The Population of Britain. West Drayton: Penguin

Hutton, I. E. (1935). The Hygiene of Marriage. London: William Heinemann.

Jefferies, J. (2001). A reluctance to embrace the one-child family in Britain? Paper presented at EURESCO conference on The Second Demographic Transition in Europe. Bad Herrenald, Germany, 23-28 June 2001.

Klingender, F. (1935). The Condition of Clerical Labour in Britain. London: Martin Lawrence.

Kohler, H.-P. & Kohler, I. (2001). Fertility decline in Russia after 1990: The role of economic uncertainty and labor market crises. Max Planck Institute for Demographic Research Working Paper WP 2001-013. May 2001.

Kuczynski, R. (1928). The Balance of Births and Deaths. Vol 1, Western and Northern Europe. New York: Macmillan.

Laslett, P. (1977). Family Life and Illicit Love in Earlier Generations. Cambridge: Cambridge University Press.

Leibenstein, H. (1974). An interpretation of the economic theory of fertility, Journal of Economic Literature 12, 485-524.

Leridon, H. (1977). Human Fertility: The Basic Components. Chicago: The University of Chicago Press.

Lesthaeghe, R. (1983). A century of demographic and cultural change in Western Europe. An exploration of underlying dimensions, Population and Development Review 9, 411-35.

Lesthaeghe, R. & Meekers, D. (1986). Value changes and the dimension of familism in the European Community, European Journal of Population 2, 225-68.

Levine, D. (1987). Reproducing Families: the Political Economy of English Population History. Cambridge: Cambridge University Press.

Lewis-Faning, E. (1949). Report on an Enquiry into Family Limitation and its Influence on Human Fertility during the Past Fifty Years. Papers of the Royal Commission on Population. Volume 1. London: Her Majesty's Stationery Office.

Livi-Bacci, M. (1974). Population policy in Western Europe, Population Studies 28, 191-204

Macfarlane, A. (1986). Marriage and Love in England, 1300-1840. Oxford: Blackwell

MacKenzie, D. (1976). Eugenics in Britain, Social Studies of Science 6, 499-532.

Malthus, T. R. (1798). An Essay on the Principle of Population as it Affects the Future Improvement of Society. London: J. Johnson.

Mass Observation (1945). Britain and her Birth Rate. London: Curwen Press.

Maturana, H. (1991). Science and daily life: the ontology of scientific explanations. In Steier, F. (ed.), Research and Reflexivity. London: Sage, 30-52.

McLaren, A. (1978). Birth Control in Nineteenth Century England. London: Croom Helm.

Miles, M. B. (1979). Qualitative data as an attractive nuisance: The problem of analysis, Administrative Science Quarterly 24, 590-601.

Miles, M.B. & Huberman, A. M. (1994). Qualitative Data Analysis. London: Sage.

Ministry of Labour, (1929). Ministry of Labour Gazette, Vol 37. London: His Majesty's Stationary Office.

Ministry of Labour, (1930). Ministry of Labour Gazette, Vol 38. London: His Majesty's Stationary Office.

Ministry of Labour, (1931). Ministry of Labour Gazette, Vol 39. London: His Majesty's Stationary Office.

Ministry of Labour, (1932). Ministry of Labour Gazette, Vol 40. London: His Majesty's Stationary Office.

Ministry of Labour, (1933). Ministry of Labour Gazette, Vol 41. London: His Majesty's Stationary Office.

Ministry of Labour, (1934). Ministry of Labour Gazette, Vol 42. London: His Majesty's Stationary Office.

Ministry of Labour, (1935). Ministry of Labour Gazette, Vol 43. London: His Majesty's Stationary Office.

Ministry of Labour, (1936). Ministry of Labour Gazette, Vol 44. London: His Majesty's Stationary Office.

Ministry of Labour, (1937). Ministry of Labour Gazette, Vol 45. London: His Majesty's Stationary Office.

Ministry of Labour, (1938). Ministry of Labour Gazette, Vol 46. London: His Majesty's Stationary Office.

Ministry of Labour, (1939). Ministry of Labour Gazette, Vol 47. London: His Majesty's Stationary Office.

Ministry of Labour, (1940). Ministry of Labour Gazette, Vol 48. London: His Majesty's Stationary Office.

Mitchell, B.R. (1988). British Historical Statistics. Cambridge: Cambridge University Press.

Mowat, C.L. (1955). Britain between the Wars. London: Methuen.

Myrdal, G. (1940). Population. a Problem for Democracy. The Godkin Lectures, 1938. Cambridge, Mass: Harvard University Press.

Ní Bhrolcháin, M. (1986). Women's paid work and the timing of births: longitudinal evidence, European Journal of Population 2, 43-70.

Notestein, F. (1945). Population: the long view. In Schultz, T. (1945). Food for the World. Chicago: University of Chicago Press, 36-57.

Notestein, F. (1948). Summary of the demographic background of problems of undeveloped areas, Milbank Memorial Fund Quarterly 26, 249-55.

Notestein, F. (1953). Economic problems of population change. In Proceedings of the Eighth International Conference of Agricultural Economists. London: Oxford University Press, 13-31.

Office for National Statistics (1998). Birth Statistics. FM1 No 26. London: The Stationery Office.

Office for National Statistics (1999a). Birth Statistics. FM1 No 27. London: The Stationery Office.

Office for National Statistics (1999b). Marriage, Divorce and Adoption Statistics. FM2 No 27. London: The Stationery Office.

Office for National Statistics (1999c). Population Trends 95. London: The Stationery Office.

Office for National Statistics (2000). Birth Statistics. FM1 No 28. London: The Stationery Office.

Office for National Statistics (2000b). Social Trends 30. London: The Stationery Office.

Office for National Statistics (2001). Social Trends 31. London: The Stationery Office.

Office of Population Censuses and Surveys, (1987). Birth statistics 1837-1983. Historical Series FM1 no.13. London: Her Majesty's Stationery Office.

Office of Population Censuses and Surveys (1988). Birth Statistics. FM1 No 18. London: The Stationery Office.

Pegg, M. (1979). British radio broadcasting and its audience 1918-39. Ph.D. thesis, Oxford University.

Pitcher, G. (ed.) (1964). Truth. New Jersey: Prentice-Hall.

Political and Economic Planning (1948). Population Policy in Great Britain. London: Political and Economic Planning.

Pollak, R. A. & Watkins, S. (1993). Cultural and economic approaches to fertility: proper marriage or resilience? Population and Development Review 19, 467-505.

Reay, B. (1994). Before the transition: fertility in English villages 1800-1880, Continuity and Change 9, 91-120.

Roberts, E. (1996) A Woman's Place, an Oral History of Working Class Women, 1890-1940. Oxford: Blackwell.

Root, A. (2000). Transport and communications. In Halsey, A.H. & Webb, J. (eds), Twentieth Century British Social Trends. Basingstoke: Macmillan, 437-468.

Royal Commission on Population, (1949). Population. London: His Majesty's Stationery Office.

Rubinstein, W. (1986). Wealth and Inequality in Britain. London: Faber.

Russell, D. (1932). In Defence of Children. London: Hamish Hamilton.

Santow, G. (1995). Coitus interruptus and the control of natural fertility, Population Studies 49, 19-43.

Schultz, T. (1945). Food for the World. Chicago: University of Chicago Press.

Schwartz, A. & Hupert, J. (2003). Medical students' application of published evidence: randomised trial, British Medical Journal 326:536-538

Scott, G. R. (1938). Sex in Married Life. London: T. Werner Laurie.

Seccornbe, E. (1992). Men's marital rights and Women's wifely duties: changing conjugal relations in the fertility decline. In Gillis, J.R., Tilly, L.A. & Levine, D. (eds) The European Experience of Declining Fertility 1850-1970: the Quiet Revolution. Oxford: Blackwell, 66-84.

Silverman, D. (1985). Qualitative Methodology and Sociology. Aldershot: Gower.

Steier, F. (1991). Research and Reflexivity. London: Sage

Strauss, A. & Corbin, J. (1997). Grounded Theory in Practice. Thousand Oaks: Sage.

Strauss, A. &Corbin, J. (1998). Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. Thousands Oaks: Sage.

Swenarton, M. & Taylor, S. (1985). The scale and nature of the growth of owner occupation in Britain between the wars, Economic History Review 38, 373-92.

Szreter, S. (1996). Fertility, Class and Gender in Britain, 1860-1940. Cambridge: Cambridge University Press.

Szreter, S. & Garrett, E. (2000). Reproduction, compositional demography, and economic growth: family planning in England long before the fertility decline, Population and Development Review 26, 45-80.

Teitelbaum, M. S. (1984). The British Fertility Decline: Demographic Transition in the Crucible of the Industrial Revolution. Princeton: Princeton University Press.

Thompson, W.S. (1938). The effect of housing upon population growth, Milbank Memorial Fund Quarterly. October 1938, 363-64.

Thorpe, A. (1992). Britain in the 1930s. Oxford: Blackwell

Titmuss, R.M. & Titmuss, K. (1942). Parents Revolt. London: Secker & Warburg.

Turner, B. A. (1981). Some practical aspects of qualitative data analysis: one way of organising the cognitive process associated with the generation of grounded theory, Quality and Quantity 15, 225-47.

Van de Kaa, D. (1987). Europe's second demographic transition, Population Bulletin 42, 1-59.

Van de Walle, (1992). Fertility transition, conscious choice, and numeracy, Demography 29, 487-502.

Vining, D. (1986). Social versus reproductive success. Behavioural and Brain Sciences 9, 167-216.

Webb, S. (1907). The Decline of the Birth Rate. London: Fabian Tract 131

Wilson, C. & Woods, R. (1991). Fertility in England: a long-term perspective, Population Studies 45, 399-415.

Wilson, C. (2001). Implications of global demographic convergence for fertility theory. Paper presented at the International Union for the Scientific Study of Population Low Fertility Working Group Seminar on International Perspectives on Low Fertility, Tokyo, Japan. 21-23 March 2001.

Winship, C. & Mare, R.D. (1984). Regression-models with ordinal variables, Amercan Sociological Review 49, 512-25.

Woods, R. (1982). Theoretical Population Geography. London: Longman.

Woods, R.I. (1987). Approaches to the fertility transition in Victorian England. Population Studies 41, 283-311.

Woods, R.I. (1992). The Population of Britain in the Nineteenth Century. Basingstoke: Macmillian.

Woods, R.I. & Smith, C.W. (1983). The decline of marital fertility in the late nineteenth century: the case of England and Wales, Population Studies 37, 207-25.

Woycke, J. (1988). Birth Control in Germany 1871 – 1933. London: Routledge.

Wright, H. (1953). The Sex Factor in Marriage. London: Williams & Norgate.

Wrigley, E. A. & Schofield, R. S. (1981). The Population History of England, 1541-1871: A Reconstruction. London: Edward Arnold.

Wrigley, E.A., Davies, R., Oeppen, J. and Schofield, R.S. (1997). English Population History From Reconstitution, 1580-1837. Cambridge: Cambridge University Press.

Zakharov, S. V. and Ivanova,E. I. (1995). Fertility decline and recent changes in Russia: on the threshold of the second demographic transition. Paper presented at a conference on Russia's Demographic Crisis In Comparative Perspective, 5-6 June 1995, Santa Monica, USA.