Illegitimacy in a Handloom Weaving Community: Fertility Patterns in Culcheth, Lancs., 1781-1860

.... By G.H. Gandy

ABSTRACT

This is a study of illegitimacy in a rural industrial district in which the phenomenon became extremely common during the early nineteenth century, subsequently declining sharply in frequency from around the 1840s to levels reminiscent of the preceding century.

In the normal course of events a thesis within the field of socio-economic history will often evolve from the author having first selected a subject, then an approach to its study, and finally a location for implementing or testing his model. However in the present case the subject matter was virtually thrust at the author by his chance acquaintanceship with Culcheth's poor law papers the bulk of which, having been discovered in an attic, passed into his custody in 1965 to be dried out and sorted. The surprising volume of bastardy papers and account books led to a perusal of the parish registers and to the discovery of an illegitimacy ratio sometimes exceeding 30% of registered births. This was sufficiently odd to warrant further investigation, although four years elapsed before the author was in a position to embark on the task.

The methodology employed in the study again in large part selected itself. Where bastardy is uncommon and stigmatised the labour of family reconstitution will often prove an unrewarding approach to its study. Only a certain proportion, usually small, of a parish's population will yield statistically usable material.

And where the focus of interest is upon a group of women who are themselves few in number and liable to be harried from pillar to post the insights into their life-histories to be gained by this technique of analysis may well be negligible. In Culcheth, on the other hand, unmarried motherhood was so frequent as both to raise the hope that sufficient of these women's lives could be pieced together to justify the use of family reconstitution, and indeed to demand that this technique be employed - for the prima facie signs were that the phenomenon was too common to be regarded, statistically speaking, as aberrant behaviour which could be studied in isolation from fertility patterns more generally. On such a scale unmarried motherhood clearly had implications for the district's marital institutions as a whole and required to be studied in that broader context. It was only after this point that interpretation and the formulation of hypotheses came to play an important part in shaping the research.

At the time in 1969 when the work commenced the statistical study of illegitimacy in England's past was ill-developed. No analytical model appropriate to Culcheth's situation existed which could be followed, although the methodology of family reconstitution itself was well established. Culcheth was primarily a handloom weaving village. This was an industry which passed during the period reviewed from heady prosperity to virtual eradication. The decline was not, however, uniform with respect to time. It appeared to the author that there was a close relationship between the district's economic and demographic fluctuations and that this should be reflected in the length of cohorts selected for the analysis of the family reconstitution data, even though the use of short cohorts was a divergence from usual practice. In the original version of the thesis which was submitted

in 1975 equal cohorts of ten years' duration were employed, for three reasons: this division seemed approximately (though not precisely) to fit the periodisation of change; it permitted use to be made of census material touching migration flows; and it presented results in a form which would be readily comparable with other studies. The author now recognises that this decision involved unsuccessfully attempting to reconcile local with broader interests and was a mistake. Accordingly the present work discards the objective of comparability and ties cohorts more closely to the phasing of local conditions. It also seeks to achieve a flexibility of approach by presenting data in several different ways with respect to cohort length.

The main demographic findings of the study may be briefly summarised. Unmarried motherhood tended to be an early phase of a woman's fertility history. It was frequently followed by marriage, although in many instances not for several years. The incidence of the phenomenon was much higher than the crude illegitimacy ratio would appear to imply: for much of the period, indeed, it affected a majority of fertile women and had a correspondingly sharp effect upon mean female age at marriage. The periodisation of the growth and eventual decline of illegitimacy fits approximately with the deteriorating fortunes of the handloom and the eventual diminution of the weaving population's significance in the district, although the author suspects that the final phase, of declining frequency of illegitimacy, owed more to clerical pressures on the unmarried than to purely economic factors. Some material is also presented touching the frequency of common law marriages, which are another neglected aspect of England's past marital mores.

The interpretation offered of these developments runs fairly sharply counter to common presuppositions regarding illegitimacy, particularly when encountered at a high level during a period of socio-economic stress. It is argued that the population's fertility patterns in general displayed a strong degree of sensitivity to short-run economic change (which is not suggestive of anomie) and that the growth of unmarried motherhood should also be regarded as a rational response to straitened circumstances. It lowered childrearing costs at an economically vulnerable stage of the life-cycle, and contributed to some reduction of fertility without threatening the perpetuation of the large households of active hands upon which a premium was placed by the declining piece-rates characteristic of the early nineteenth century handloom weaving industry. At the same time, a daughter's unmarried motherhood proved a means of extending the years of economic service which parents derived from their children and thus had cross-generational implications for welfare.

No particular claims are made for the originality of this study, beyond the superficial point that methodologically and interpretively it is not directly modelled on any existing research on a similar theme. This says more about the state of historical demographic studies, which are still in their infancy in England, than it does about the intellectual achievements of the author. Although technically Culcheth was a difficult district to reconstitute the author was simply fortunate to come across the district's fertility material - material which itself seemed in large measure to dictate the methodology for its study.

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by

G. N. Gandy

1978 [i.e 1979] MF

Se non è vero, è ben trovato.

To the memory of

Esther Reynolds

Preface

The present work is a substantially rewritten version of a thesis which was examined in 1975 and referred back to the author. The examiners at that time were unhappy with the periodisation adopted in analysing the family reconstitution material upon which the study is based. Accordingly almost all of the original statistics have been recalculated employing the longer cohorts they suggested. At the same time the data have been revised to fit yet another periodisation which the author felt highlighted certain features of the district's demographic patterns which the use of longer cohorts revealed less clearly. In one section marital fertility has also been correlated with various economic indicators, in effect dispensing altogether with cohorts as usually meant. The statistics upon which the text rests have thus been substantially revised and extended.

In addition, as requested, infant mortality rates are discussed, more use has been made of census data, and an entirely new chapter has been devoted to the costs of childrearing. In consequence, and despite some economies achieved elsewhere in the work, the text is necessarily lengthier than the 1975 version and bears little more than a structural resemblance to it. My interpretation of the material, however, has not changed.

Throughout the indecently protracted period this work has been in preparation I have been sustained by the continued interest and support of Peter Mathias, my supervisor, whose patience and sane practicality appear inexhaustible. I have

also enjoyed discussions with my colleagues at Queen's, David Johnson, Liam Kennedy, Philip Dufton and Janet Trewsdale, to the two last of whom in particular I am indebted for assistance in the computational and statistical aspects of the work. The normal disclaimer regarding their responsibility for the study's weaknesses is no mere form of words in this instance, as they were none of them to hand when the calculations were made and the text written up.

Among the many vicars, librarians and archivists who assisted my researches I owe a special debt of gratitude to the late Rev. J.G. Preston, formerly Rector of Newchurch, and to Miss I. Maiden, Superintendent Registrar of Leigh, both of whom permitted me quite an exceptional degree of freedom to work on the registers in their charge. Finally my warm thanks are extended to Doris Martin for her immaculate typing of the text and statistical tables - and also my apologies for what turned out to be rather a tough summer.

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Chapter 1

Introduction

Illegitimacy as a field for investigation by historians has attained respectability with the growth of historical demography of the past two decades. The present study is based on a reconstitution of families in Culcheth, a township in a part of south Lancashire which had a particularly high incidence of unmarried motherhood during the early nineteenth century. Limitations of space preclude commencing with any detailed review of recent research on the subject which might help to place the district's experience into a wider context. The following introductory remarks will accordingly be couched in fairly general terms and will be restricted to discussing certain broad problems of the interpretation of illegitimacy in the past which are raised to an acute degree by the study of an area in which the phenomenon was notably common, but which the author believes also have a wider relevance. The fundamental question is whether unmarried motherhood is always or in all senses a mistake.

At the same time, however, it should be said that, even had space permitted, the scope for direct comparison with other research findings is reduced by the fact that to date work on illegitimacy in English parishes has tended to follow a methodology different from that of the present study, and has generally adopted interpretive assumptions which may be more appropriate to districts with a low incidence of unmarried motherhood than they are to areas like Culcheth where it was extremely high.

More specifically, where illegitimacy is comparatively rare there are sound <u>a priori</u> grounds for regarding unmarried

motherhood as in some sense deviant behaviour and, extrapolating from this, to treat a sudden growth in its incidence as an indicator of social dislocation. As W.J. Goode has expressed the point,

> 'Since the family is a prime instrumental agency through which the needs of various institutional needs /sic/ are met, and legitimacy is the keystone of the family system, an examination of family systems with high illegitimacy rates should yield useful data on the integration of societies.'[1]

The Culcheth material, however, suggests that legitimacy's functional significance is greater to some people than others and that the advancement of understanding is not aided by presuming that bastardy levels may vary inversely with social integration except, possibly, where the phenomenon is initially a rarity (which may be accepted as an indication of its social unacceptability). Detailed consideration of the significance of legitimacy - or, more strictly of illegitimacy - in Culcheth itself constitutes the focus of following chapters. But because Goode's formulation of the view that illegitimacy levels during phases of industrialisation are closely related to cultural stress exemplifies many of the strengths and weaknesses common to approaches which treat the incidence of unmarried motherhood as a 'social indicator', and have a superficial relevance to Culcheth's particular case, this chapter will briefly review his arguments and finally, in the light of certain simple methodological issues which arise from this, will make a few suggestions concerning the appropriateness of deviance models in studying illegitimacy in England more generally.

[1] W.J. Goode, 'Illegitimacy, Anomie, and Cultural Penetration', American Sociological Review, 26 (1961), 910.

Goode emphasises the difficulties of adjustment faced by urban immigrants in a period of industrialisation, they typically entering the new society in the lower range of occupations on account of which, and of their cultural origins, they are ascribed a low social status. Expected to adopt the attitudes and norms of behaviour of the new environment's dominant value-system, while deprived of rewards for conforming with them, by the very fact of migration they at the same time lose touch with the sanctions and rewards of the culture they have left. The conflict of value-systems, to neither of which are they fully acculturated, may induce a state of normlessness or anomie which is conducive to behaviour inappropriate to either the old or the new society. One expected sympton, he argues, will be a growth in the frequency of illegitimate births. In time - presumably Goode means when the new cities stabilise in size - the immigrant population will become acculturated to the urban value-system, and the stress of adjustment will shift to rural areas as they too come under pressure to adopt attitudes and behaviour patterns appropriate to the industrial society. At this point, Goode predicts, urban illegitimacy rates will fall while those in the countryside will rise.[1]

Phases of rapid industrialisation are likely to be associated with cultural stress as abnormally intense as is the economic restructuring itself. But in diluted measure Goode's arguments concerning migration and status placement could probably be extended to many other contexts, and they have therefore a wider applicability in illegitimacy studies. However, at first sight they have a particular relevance to Culcheth. For this was a

[1] Ibid., 910-25, passim.

handloom weaving village which witnessed a sharp rise in its illegitimacy ratio during the first half of the nineteenth century - a period which, as is well known, was one of recurring and deepening crisis for that trade. Indeed, had this study been initiated as an investigation of the economic decline of a handloom weaving community, and had an aggregative analysis of the parish registers been undertaken in order to detect demographic signs of the district's troubles, there can be little doubt that anomie would have figured largely in the telling of it, such is the power of interpretive assumptions.

In practice, however, the additional factual details which family reconstitution throws into relief revealed that - even if still inadequately explained in the present work - the facts of the case were somewhat more complex than a summary 'social indicator' approach could account for. Elaboration of this point must be left to subsequent chapters. At this stage, however, it may be noted first that Culcheth does not in fact fit the Goode model as closely as might at first appear, and secondly that his approach, even where empirically supported, is cloaked in assumptions the validity of which is inadequately established.

On the first point, the growth of unmarried motherhood in Culcheth commenced in the opening years of the nineteenth century. A literal interpretation of the phenomenon in Goode's terms is precluded by the fact that it occurred in a <u>rural</u> area during the early <u>urbanising</u> phase of industrialisation. Secondly, even if one took a modified version of the Goode hypothesis, it began too early within the chronology of the handloom's decline for widespread disorientation to be a compellingly probable explanation of its initiation, since the intense poverty engendered by the

diffusion of the powerloom still lay a quarter of a century in the future. Thirdly, although it could be argued that the population, being of a principally industrial character, and certainly deprived of the economic rewards accruing to workers in more modern sectors, were in some senses analogously placed to Goode's recent urban immigrants, they differed from these in the significant fact that they were not being directly subjected to an alien value-system, nor had they lost touch with their native culture and its associated behavioural sanctions and controls. The role of disappointed status expectations[1] and of culture shock which play an important part in Goode's interpretation of high levels of illegitimacy are here of much lesser significance.

Status placement is a somewhat ambiguous concept because it derives both from a society's system of social stratification and from the individual's standing among his fellows. Particularly when residential patterns are sharply differentiated along class or occupational lines the latter may well have a predominant influence over the individual's motivation and behaviour, and more especially perhaps when he belongs to a downwardly mobile group. In Culcheth the growth of illegitimacy occurred in a community which was socio-economically fairly homogeneous, where what had changed was not the immediate social or physical environment or even the technology of the dominant local industry, but merely the monetary rewards it attracted. Correspondingly the stress upon the individual's value-system can only have been at most indirect. There are thus at least as sound a priori grounds

[1] There was probably a shift locally in the relative status of women, but its significance was the reverse of that implied by a social dislocation approach to unmarried motherhood. See below, pp.293-8.

for arguing that the significant point to be inferred from the growth of bastardy in the district was that it was apparently consonant with the dominant local value-system as that it represented a deviation from national norms of behaviour - and more especially so since in Culcheth unmarried motherhood came to affect a clear majority of fertile women.

Although Culcheth may be an extreme case, Goode's general testing of his hypothesis is conducted at too broad a level. Thus he tends to treat of such extensive geographical areas - N.W. Europe, Sub-Saharan Africa, *etc*. - that any number of alternative cultural, legal or socio-economic influences could contribute to the apparent validation of his argument besides the ones he mentions. This criticism is not intended in a nigglingly negative spirit. For if one relaxes the assumption that all social groups have an equal objective interest in legitimacy, on the grounds that Goode does not establish this point, nor is it a necessary corollary of Malinowski's Principle, the validation of his hypothesis requires much tighter empirical testing than he presents. Even were one to take the individual city as the unit of analysis illegitimacy data would relate to so diverse a population that the explanatory power of Goode's arguments would be seriously in doubt unless rural-urban differentials were extremely marked. But where this is the case it may well be questioned whether in areas with high illegitimacy ratios unmarried motherhood should not more properly be viewed as a sub-norm, or as a norm among a social sub-group, rather than as normless behaviour.

In considering the historical incidence of illegitimacy in England two historians, Shorter and Levine (though strictly the former is writing of Western Europe in general), have recently

placed greater weight on the social context in which unmarried motherhood arises when assessing its significance and have both presented interpretations of particular districts or periods which avoid the a priori assumption that an increase in illegitimacy is necessarily a sign of growing normlessness. But their work thus far lacks sufficient rigour of analysis to have much advanced our understanding of divergent phases or regions.

Shorter's investigation of the eighteenth century European expansion of bastardy is essentially an exercise in imaginative writing which not all will find intuitively plausible and which in any event is not closely tested against empirical data.[1] Levine seeks to explain the varying incidence of unmarried motherhood in four English parishes in terms of greater or lesser degrees of economic uncertainty intervening to frustrate intended marriages.[2] In its rejection of imputations of promiscuity and deviance this is certainly a useful corrective to more usual approaches, but the work is weakened by an incomplete demonstration of the author's main points[3] and by the need to incorporate dubiously contrived attitudinal material to bolster the typification of local socio-economic conditions.[4] The study of illegitimacy in England's past is clearly moving towards a more value-free approach, but still lacks the methodological rigour to be found in other branches of the social sciences.

[1] For a recent formulation of his views see E. Shorter, The Making of the Modern Family (London, 1976), pp.79-98.

[2] D. Levine, Family Formation in an Age of Nascent Capitalism (London, 1977), ch.9.

[3] For example, if illegitimacy correlates with years of bad harvests this should be shown on an annual not a quarter-century basis (ibid., p.132). And nowhere does Levine test his fundamental proposition that marriages were being temporarily frustrated by indicating the proportion of bastardy cases which were rectified by marriage once conditions improved.

[4] E.g., ibid., pp.129-30.

Not surprisingly, the most illuminating research on illegitimacy in the past tends to be conducted on areas such as Bavaria where the phenomenon was commonest, for the fact of its frequency facilitates tracing the life experience of a usable sample of the individuals involved and thus justifies the use of labour-intensive but revealing techniques like family reconstitution or the analysis of household structure. English women as a whole were not prominent among Europe's bastard-bearers.[1] Serious studies of illegitimacy here have been correspondingly few in number and have tended to be minor adjuncts to analyses of broader population themes.

Moreover they have tended to employ the illegitimacy ratio to total births as a proxy measure of the frequency of unmarried motherhood instead of utilising family reconstitution. This is perfectly understandable, for where illegitimacy was uncommon returns to the labour of piecing together a parish's individual families will often seem meagre. But the practice raises interpretive problems of a more far-reaching nature than may be commonly appreciated and which, it is suggested, have inadvertently perpetuated an implicit attachment to 'social indicator' approaches to illegitimacy which may in fact be less generally applicable even to England's case than at first appears.

As is well known, the illegitimacy ratio is affected by marital mores as well as by the sexual habits of the unmarried.[2] Changes over time or geographical disparities in its level

[1] See the map for the year 1900 given in E. Shorter, E. van der Walle and J. Knodel, 'The Decline of Non-marital Fertility in Europe, 1880-1940', Population Studies, 25 (1971), 387.

[2] Ibid., 379-81.

therefore cannot be assumed invariably to reflect variations in the incidence of unmarried motherhood. Attempts to account for such phenomena in sociological terms must be regarded as suspect unless it is clear that they are not residuals of other quite unrelated demographic features of society. But furthermore, if the findings of the present study are any guide, the bastardy ratio tends to give a highly misleading impression of the rarity of unmarried motherhood. In Culcheth at least, it was often merely an early phase in a woman's fertility history. Thus when c.10-12% of the township's births were recorded as illegitimate the underlying social fact was that around one third of women were bearing their first child outside wedlock. What at first appears to have been an abnormality is suddenly revealed as having had much more than an incidental relevance to local society.

It is not improbable that historians accustomed to thinking of single-digit ratios as a proxy for the incidence of unmarried motherhood will tend to be predisposed by these misleadingly low figures to regard bastardy ab initio as an indicator of deviance, and may thereby fail to elicit whether in many districts it may not in fact have been an acceptable feature of life among certain social groups. Elucidation of this point could have wider ramifications for our understanding of past attitudes to sexual matters in general and even perhaps to love and marriage. But interest in such matters is not furthered by reliance on a measure which, by systematic understatement, almost inevitably leads the mind to seek causes of disorientation when faced with regional or chronological variations in the existence of unmarried motherhood.

That unmarried motherhood historically was in general socially stigmatised is amply attested, perhaps by the harsh treatment accorded to transgressors by the Poor Law authorities but more certainly by the fact that most women in the past undoubtedly avoided the status. But it seems probable that the phenomenon had both a strongly regional pattern and an association with certain socio-economic groups, and the first of these features in particular does not appear consistent with analysis along dislocation lines.

The regional divergencies which persistently show up in English bastardy ratios appear too substantial to be explained by local oddities in marital family size or in the other variables whose interference vitiates that measure's accuracy as an indicator of illegitimacy's true frequency.[1] Nor, obviously, is there any reason to attribute them to the varying incidence of anomie or the degree of integration of local communities - indeed, illegitimacy was frequently commoner in remote and stable agricultural districts than in mobile industrial areas.[2]

The tendency for unmarried motherhood to be inversely related to social class is so generally accepted as to be effectively untested historically. Its validity may well not be absolute: for example, poverty may often have been a residual of bearing an illegitimate child rather than strictly an associated variable. But hypothetically it has a certain general plausibility deriving from the fact that as a legal concept

[1] P. Laslett and K. Oosterveen, 'Long-Term Trends in Bastardy in England', Population Studies, 27 (1973), 255-86.

[2] Ibid., 256 and passim. See also ed. M. Flinn, Scottish Population History (Cambridge, 1977), pp.352-5.

legitimacy is primarily related to rights of inheritance. Those strata of society with sufficient worldly wealth to have a strong concern for heritability should be expected simultaneously to have more strictly stigmatised extramarital sexual encounters among their womenfolk than people who, lacking devisable property, had correspondingly less interest in avoiding illegitimate births. For in a patrilineal society what is important is to establish the identity of a child's father not that of his mother. As the former is physiologically unprovable it has to be established conventionally, by restricting sexual access to a woman to a single identifiable man - as is achieved by Christian marriage preceded by virginity.

None of these concerns were of fundamental interest to the poor. They may well nonetheless have had other, prudential reasons for avoiding illegitimate births. Childrearing as an unmarried mother was often economically difficult, particularly where local employment opportunities for women were either non-existent or lay outside the home; though conversely there were other areas - and Culcheth was one - where a domestic employment base meant that the unmarried mother was by no means necessarily disadvantaged by her status.

Again, in an age when social placement was acutely influenced by the status and attributes of one's father the establishment of social legitimacy was hindered by ignorance of his identity.[1] But it is difficult to believe that this disability would have hampered the bastard in a community where all were of humble origins as greatly as it would in reaches of society

[1] Cf. C.C. Harris, The Family (London, 1969), pp.44-49.

where the prime concern lay in discovering the nature and degree of a family's wealth. In stable, face-to-face communities, moreover, the fact of illegitimacy did not preclude a child's paternity being a matter of public knowledge.

It is suggested, therefore, not that the poorer classes lacked any concern for legitimacy but that any objective interest they had in avoiding illegitimate births derived largely from practical considerations which were less constant and imperative than was true for their legislators. Though doubtless influenced to adopt the codes of behaviour considered appropriate by landowners, the Church and other institutional agencies which impinged on their lives, they should not be presumed to have shared that degree of normative commitment to them which is epitomised in the very phrase 'sexual morality'.[1] The effective reference group for the majority of people in the past - the 'society' from which they derived most of their cultural values - was highly localised, even parochial.

Insofar as a nationwide perspective on sexual norms is appropriate it seems more fruitful to assess patterns of behaviour by reference to the position of particular socio-economic groups than to pit their mores indiscriminately against codes of normality the universal validity of which is at least questionable. Without wishing to qualify earlier remarks to the effect that with really low levels of illegitimacy it is virtually axiomatic that unmarried motherhood indicates deviance in some sense, or indeed to deny that social dislocation may underlie certain historical

[1] Cf. the interesting discussion of peasant attitudes to extra-marital sexual relations in J.M. Phayer, 'Lower Class Morality: the Case of Bavaria', Journal of Social History, 8 (1974), 79-95.

deviations from such levels, it is believed that English bastardy ratios conceal wider behavioural variations both regionally and chronologically than is commonly assumed, and that in many instances further research will indicate that the term 'divergent' is more apposite than 'deviant' when describing areas where bastardy was common. It is with one such divergent community that this study is concerned.

Chapter 2

Demographic and Economic Change in Culcheth

This chapter aims at slightly more than simply setting the scene for the reconstitution analysis which follows, at least in its third and final sections. Culcheth's location and general character of settlement will first be discussed showing briefly that the pattern of land ownership was favourable to the growth of an 'open' industrial community in the period under study. In the second section aggregative statistics are presented which indicate the outstanding demographic features of the society - the growth of illegitimacy, a declining marriage rate, marked fluctuations in the birth rate, and a developing outward flow of migration - which initially stimulated my interest in the village and elucidation of which demanded the application of the family reconstitution techniques employed in later chapters.

The third section examines in some detail what is known of the district's economic development, while the fourth employs this and other information to divide the 80-year span of study into sub-periods which are then, in later chapters, used to define demographic cohorts. These two sections therefore play an important role in shaping the general character of the remainder of the work.

I

The centre of the township of Culcheth in south Lancashire lies, as the crow flies, about seven miles north-east of Warrington and four miles south of Leigh. For most of our period it constituted a chapelry within the extensive parish of

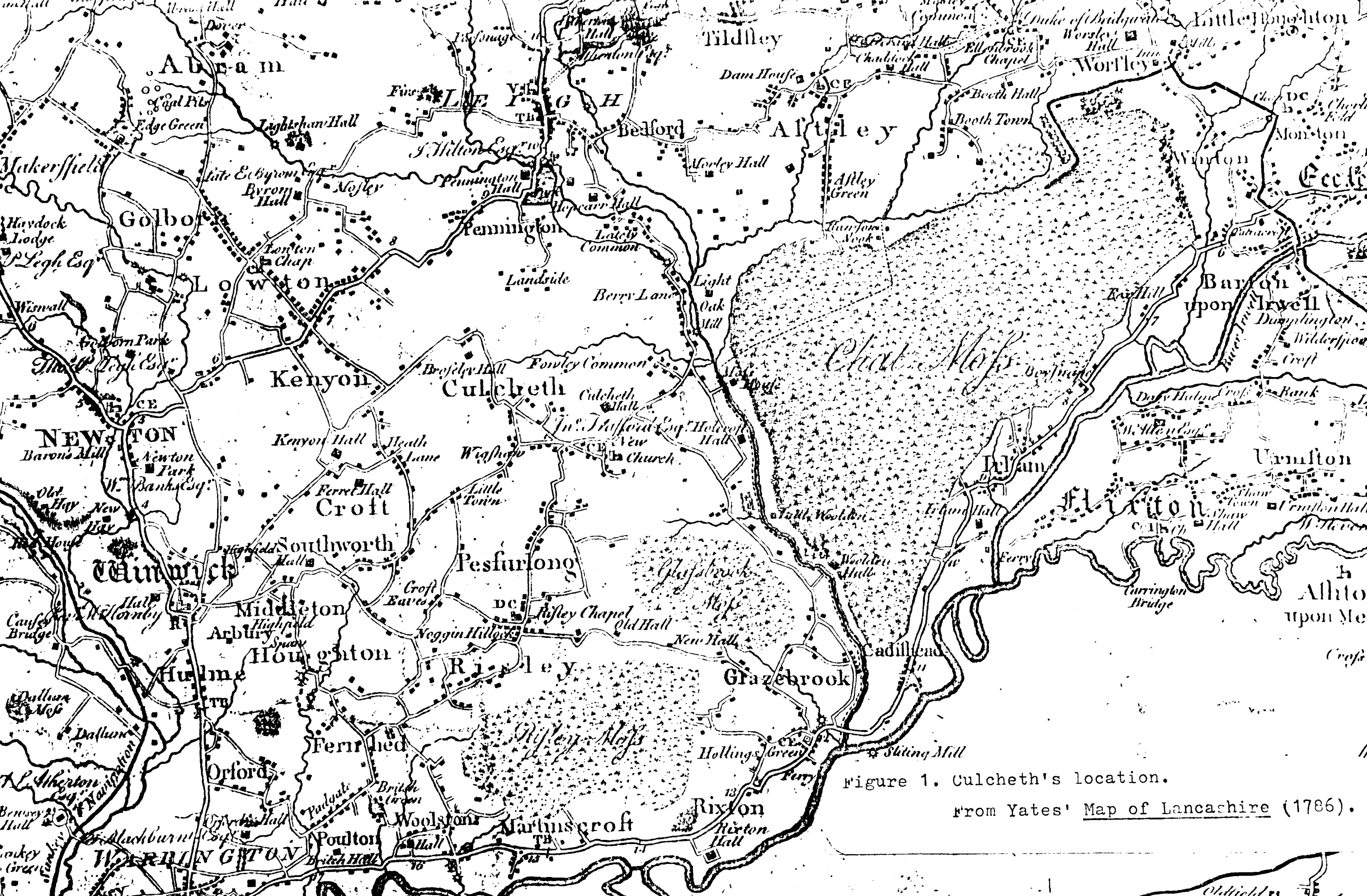
Winwick. Chapelry and township were coterminous. In 1845 the parish of Newchurch was formed from the adjacent townships of Culcheth and Kenyon. But for the purpose of this study it was convenient to exclude Kenyon, and our focus of attention remains the township of Culcheth alone throughout the period to 1860.

In 1801 Winwick parish covered an area of slightly more than forty square miles. Winwick itself was no more than a hamlet whose chief distinction was to be the setting for the church and rectory of what was reputed to be the richest living in England.[1] Much of so extensive a parish was inevitably sparsely settled and agricultural in character. It did, however, incorporate areas of denser settlement, chiefly in the north-west, and was in no way economically homogeneous. Ashton-in-Makerfield, which had a population in 1801 approaching 4,000, was described by Aikin six years previously as having 'become a thriving place of traffic, having employment both in the cotton trade, and in some branches of the hardware manufactory.' According to the same author, the small market town and borough of Newton-le-Willows was 'now but a village' but in the course of our period it expanded on the back of iron founding and a vitriol works, just as neighbouring Haydock did on the basis of coalmining. And 'throughout the whole of Winwick parish there is much spinning of cotton and flax.'[2]

Culcheth lay at the eastern extremity of Winwick parish, bordering the wastes of Chat Moss. The township comprised more

[1] J. Aikin, A Description of The Country from thirty to forty Miles round Manchester (London, 1795), p.309.

[2] Ibid, pp.309-10.


Tildsley
Dam House
Booth Hall
Booth Town
Astley
Astley Green
Morley Hall
Penn Hall
Penn Hall
Lapcarr Hall
Lately Common
Penn Hall
Penn Hall
Penn Hall

than 5,000 level-lying acres, and much of it was reclaimed moss-land. It was a somewhat isolated corner of the parish. Chat Moss to the east constituted an effective commercial barrier until the building of the Liverpool & Manchester railway in the 1820s and, to judge from Yates's map of 1786, most traffic between Warrington and Leigh must have passed by Winwick and Newton, rather than by Culcheth (Figure 1).

The township contained several hamlets, of which Culcheth itself was the chief. (To avoid confusion with the township of which it was a part, the hamlet of Culcheth will hereafter be styled Central Culcheth.) However, the pattern of settlement was more characterised by a lack of concentration than by nucleation. As can be seen from Figure 1, cottages straddled the innumerable lanes that wound towards Winwick and Warrington. Other corners of the township faced outwards in different directions. If one can judge from the frequency with which people registered their vital events outside the chapelry Risley, in the south of the township, was oriented towards Warrington, while the population of Central Culcheth looked towards Leigh. We shall see later that the district was not an economically homogeneous unit either.[1] It derived its geographical identity from manorial history, being defined by the boundaries of the four contiguous manors of Risley, Postferlong, Holcroft and Culcheth.

Manorial history is also apparent in the structure of land-ownership that obtained in our period. An enclosure award map of 1751 shows five major landowners in Culcheth (the lords of

[1] See below, pp.69-72.

Culcheth manor itself having apparently alienated part of their estates at some period).[1] The 1837 tithe apportionment indicates a scarcely altered picture. 83.7% of land was owned by five men, whose average land block approached 900 acres apiece and only one of whom, the lord of the manor of Culcheth, actually resided within the chapelry.[2]

However, this concentration of landownership was more apparent in terms of agricultural acres than in the control of the township's housing stock. A hint of this is contained in the fact that the remaining 16.3% of land was owned by as many as 69 people at an average of less than a dozen acres each. Much of the housing in Central Culcheth, where over 40% of the population resided in 1841, was built upon the small parcels of land acquired by 35 'Charterers' at the time of the enclosure award we have mentioned. The very economic weakness of these Charterers, which resulted in their receiving plots too small to constitute viable agricultural holdings, became a source of Culcheth's population growth and shifting economic base during the later eighteenth century, since the allotments were ideally suited to supporting cottage industry. One wonders whether the major landowners would have approved.

The remainder of Central Culcheth, comprising the streets adjacent to the church, and where settlement was of longer standing, was split up among 18 landlords in 1837. And landownership in the district to the northern edge of the township called Bury Lane was similarly not in the exclusive hands of the larger

[1] Lancs. C.R.O., AE/7/7.

[2] Tithe apportionment and map in the custody of the rector of Newchurch, Culcheth.

landlords. It was in Bury Lane that a powerloom mill was constructed in the 1840s which attracted a striking influx of population to the area and stimulated the building of much new housing there. It may be significant that the land affected was owned largely by non-Culcheth residents and in sizeable blocks rather than individual plots or fields.[1] The combination no doubt facilitated the district's rapid development when plans to build a mill in the vicinity were first mooted.

Elsewhere in the township the diversity of cottage ownership was less marked but sufficient to justify the conclusion that Culcheth's population growth in the second half of the eighteenth century and the first half of the nineteenth occurred - when it occurred - largely in the interstices between the five major landowners' blocks of land. These five did, of course, own numerous cottages. It has not proved feasible satisfactorily to quantify the number of properties they controlled directly, because the tithe map's list of occupiers sums to only around two thirds of the number of houses actually known from censuses and rate assessment books to have been inhabited at about that time. The implication is probably that sub-letting of cottages by tenant farmers created a further, and an important, rung in the system of influence.

But even if one cannot put the jigsaw fully together on the basis of the tithe map, it is clear that the chapelry would better fit the model of an 'open' than a 'closed' village.[2] Whether one takes the immediate landlord or the ultimate owner of

[1] Ibid.

[2] B.A. Holderness, '"Open" and "Close" Parishes in England in the Eighteenth and Nineteenth Centuries', Agricultural History Review, 20 (1972), 126-39.

property, the cottages with which this study is chiefly concerned were controlled by too substantial a number of people for any of them as individuals significantly to influence the economic or moral status of the township's population as a whole by their leasehold decisions. This was doubtless a permissive factor in the rapid growth of Culcheth's handloom weaving community in the later eighteenth century, and likewise in its continued existence despite the population's impoverishment and demographic peculiarities during the first sixty years of the nineteenth.

II

Detailed discussion of the quality of the township's registers will be left until chapter 3 so as to minimise the need for explication in this section. As a general caveat, most of the demographic material discussed here should not be regarded as strictly accurate. It is presented merely to indicate the broad patterns of change and their approximate orders of magnitude.

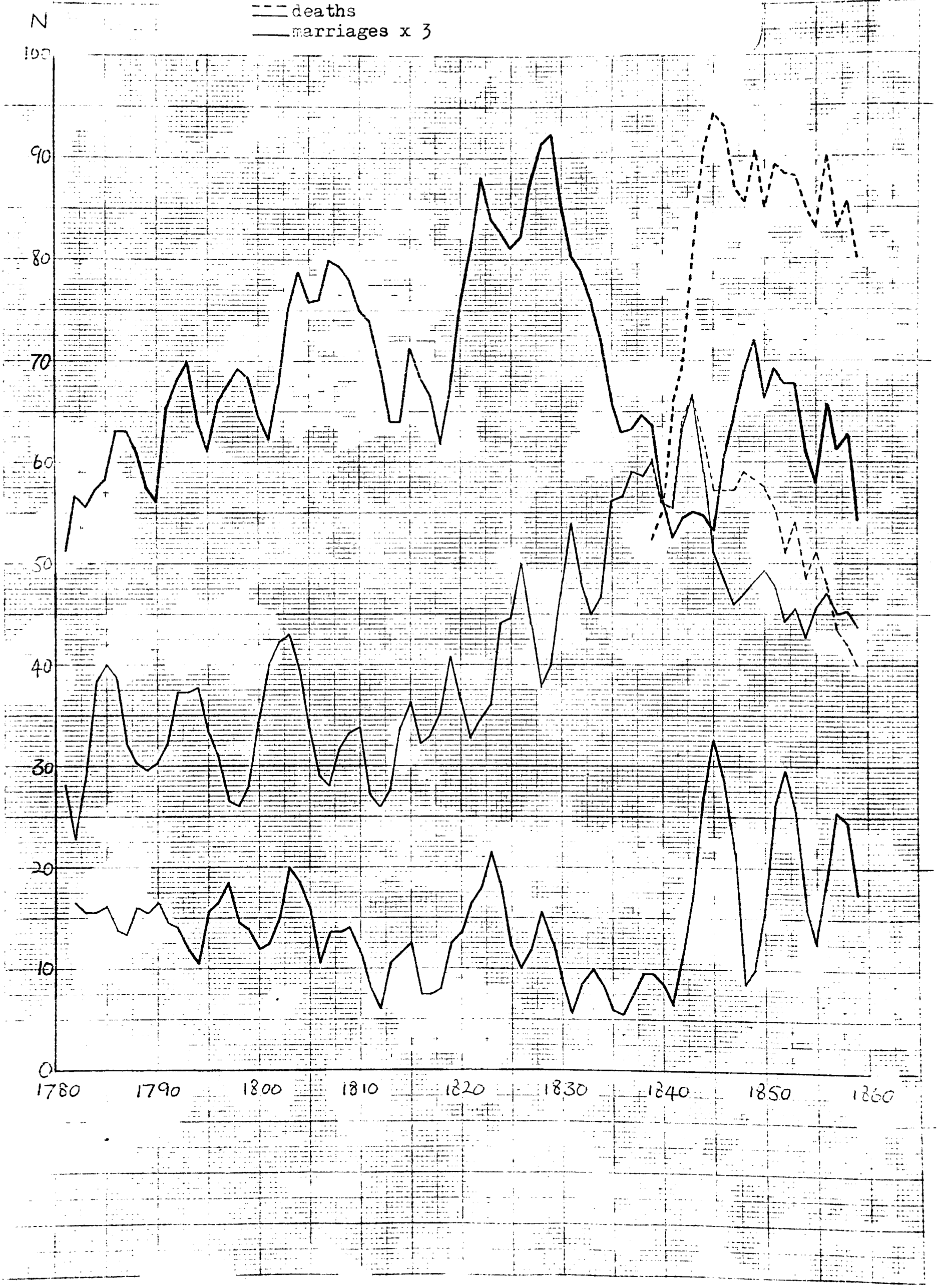
Thus the 3-year moving averages of vital events shown in Figure 2 make no allowance for changes in registration coverage.[1] Other points which should be borne in mind are first, that Culcheth's registers abound with the baptisms and, especially, burials of people who although usually natives of the district seem no longer to have been permanently resident within it. Their events have been excluded from Figure 2, which therefore describes the course of the 'net' series of baptisms and burials rather than the total numbers occurring in the registers.[2]

[1] See below, pp.119-36.

[2] The significance of the distinction between 'gross' and 'net' series is further discussed below, pp.121-3.

Figure 2. 3-year moving averages of demographic events, 1781-1860.

unbroken lines: based on ecclesiastical data
broken lines: based on civil registration



Secondly, between 1823 and 1851 the level, but probably not the trend, of deaths is raised somewhat by the presence in the district of a workhouse most of whose inmates were not from the district.[1] A countervailing influence on deaths - which does not, however, offset it - is the loss of a Catholic burial register, affecting the period 1827-37, which would be expected to have contained c.3-5 events per year.[2] The broad trend of recorded burials as shown in Figure 2 appears nonetheless, to be correct. So too is thought to be the steeply declining course of the birth curve during the 1830s, although by the early 1840s there had certainly occurred a collapse in the efficiency of ecclesiastical registration of births.[3] Finally it should be noted that the marriage series relates only to fertile unions celebrated in church.[4]

The trend in births can be seen to follow a generally upward course until the mid-1840s, interrupted by a hiatus through much of the 1790s, a significant decline from c.1810-18 (since the data are presented in 3-year average form these are not, of course, 'real' years), and a profound declivity during the 1830s. With the proviso that we cannot control for changes in the population's age- or sex-structure, these periods of pause and reversal do not seem to be simply the product of changing population levels. They were characterised by low general marital fertility rates[5] and, as can be seen from Table III, by low

[1] See below, pp.101-2.

[2] See below, pp.127-8.

[3] See below, pp.143-5.

[4] See below, pp.115-8.

[5] See Table XLV below, p.357.

birth and marriage rates also.[1] The gentler descent in numbers of births from the mid-1840s onwards, however, is more the product of a declining population level than of falling fertility. General marital fertility remained depressed, but an improved marriage rate kept the crude birth rate high.

This work's main concern is with illegitimate fertility as an aspect of marital norms. Mortality therefore plays very little part in the study although in principle it could affect fertility. The antecedent deaths of infants, for example, may do so by abbreviating lactation in the mother.[2] Moreover couples may deliberately seek to replace a child that has died by removing fertility constraints they would otherwise have exercised.[3] But neither consideration is likely to affect illegitimate fertility appreciably. A high proportion of bastards are first-born children,[4] and in Culcheth at least their mothers, even if they had more than one child, appear not to have been cohabiting with a man.[5] The involuntary raising of fertility is therefore not to be expected, and since their intergenesic intervals had a much greater variability than those of married women

[1] See below, p.31.

[2] Conversely, extended breast-feeding might be used to lower fertility. See G. Carlsson, 'The Decline of Fertility: Innovation or Adjustment Process', Population Studies, 20 (1966), 171; and M. Drake, Population and Society in Norway, 1735-1865 (Cambridge, 1969), p.70.

[3] E.A. Wrigley, 'Family Limitation in Pre-industrial England', Economic History Review, 19 (1966), 94.

[4] High rates of divorce and separation make this less true in modern Britain. See B. Thompson, 'Social Study of Illegitimate Maternities', British Journal of Preventive Social Medicine, 10 (1956), 75-87; and S.F. Hartley, 'Illegitimacy among "married" women in England and Wales', Journal of Marriage and the Family, 31 (1969), 793-8.

[5] See below, pp.391-2.

any voluntary replacement of a deceased child would be virtually impossible to detect with confidence. It is believed, therefore, that very little that could help explain the phenomenon of illegitimacy in Culcheth has been lost by the almost exclusive concentration upon fertility. The trend in deaths observable in Figure 2, however, does merit attention, and infant mortality will also be briefly examined.

It will be noticed that during the first three decades under study the curve of registered burials singularly fails to rise in line with the number of births recorded. It then commences an upward course which till the later 1820s is ambiguously related to the level of births but not overall incommensurate with it. But thereafter and until the early 1840s numbers of burials converge sharply on a falling birth level until the two series are of approximately equal magnitude. It is most unlikely that this rising level of deaths is merely a residual of the opening of a workhouse in the township. Nothing, at least, is known which would suggest that this institution suffered a continuously deteriorating mortality record independent of external conditions,[1] or that an ever-increasing number of paupers darkened its doors.[2] Moreover, both civil and ecclesiastical registers indicate that during the 1840s the continued existence of the workhouse was consistent with a falling level of deaths.

[1] Mortality under the late Old Poor Law does not appear to have been excessive: PLP Inventory of Workhouse Inmates, 1834-6; loose medical bills from same period. The standard of nutrition in the workhouse was also generally adequate. See G.N. Gandy, Poor Law Administration in the Township of Culcheth, Lancs (unpublished Oxford undergraduate dissertation, 1967), pp.101-21 and 124-9.

[2] Average numbers in the Workhouse are known for the years 1832-5, when they fluctuated between 53 and 72: PLP Workhouse Summary Account Book, 1831-5; and Gandy, op.cit., p.124. At the censuses of 1841 and 1851 they numbered respectively 85 and 69.

In fact the convergence of deaths upon births during the 1830s was partly the result of a falling birth rate. But about half the movement can be attributed to a rising death rate[1] - which prompts the speculation that it is no coincidence that this period was also one of occupational crisis for the predominantly handloom weaving population of the district.[2]

The study of mortality crises has become closely associated with the centuries before around 1750. The disappearance of famines thereafter,[3] with their associated syndrome of infectious diseases, removed one source of violent fluctuations in death rates and enabled rapid population growth to ensue. But it did not necessarily bring to an end what deserve to be known as mortality crises. The elimination of periodically heavy mortality from infectious disease, for instance, awaited the environmental improvements of the later nineteenth century.[4] And Appleby, for the early seventeenth century, has drawn attention to high death rates resulting from the effects on industrial populations of demand deficiency which was not necessarily related to local harvest conditions.[5] This was a type of crisis which could well have affected nineteenth century groups who, like the handloom weavers, were suffering a protracted decline in

[1] See Table III below, p.31.

[2] See below, pp.48-54.

[3] J.D. Chambers, Population, Economy and Society in Pre-Industrial England (Oxford, 1972), pp.92-6; ed. M. Flinn, Scottish Population History (Cambridge, 1977), pp.9-13 and 246-8; K. H. Connell, The Population of Ireland, 1750-1845 (Oxford, 1950), pp.144-6.

[4] T. McKeown, The Modern Rise of Population (London, 1976), chapters 5-7, esp. pp.110-27. Cf., e.g., P.E. Razzell, 'Population Change in Eighteenth-Century England: a Reinterpretation', Economic History Review, 18 (1965), 312-32.

[5] A.B. Appleby, 'Disease or Famine? Mortality in Cumberland and Westmorland, 1580-1640', Economic History Review, 26 (1973), 429-30.

real income even though contemporary society as a whole was prospering. If unaccompanied by infectious epidemics such crises might appear undramatic but still be real enough.

During our period Culcheth never in fact had an outrageously high death rate by the standards of the day.[1] According to the 'gross' series of events the death rate reached 37.1 during the 1830s, when it comfortably outstripped a birth rate of only 32.5. But as mentioned earlier the gross numbers of baptisms and (especially) of burials recorded in Culcheth include events which actually occurred outside the township. Non-local events were particularly common in the 1830s, when nearly one third of deaths fell into this category compared with the 15-20% found earlier in the century. The height of the 'gross' series death rate in the 1830s reflects the strong tide of emigration from the district during that decade rather than locally prevalent mortality conditions,[2] but is nonetheless a reminder that many who left during those crisis years died elsewhere shortly afterwards.

Even by the more accurate 'net' series of vital events the death rate appears to have risen by around 55% between the 1810s and 1830s,[3] and it is tempting to infer a connection with the community's deteriorating economic circumstances of the kind just postulated. In the face of the powerloom's advance the district's weavers were at this time moving out of cotton into silk, but with a chronic surplus of labour this only protracted

[1] The unweighted average for England and Wales during the 1840s was 22.4. Eds. B.R. Mitchell and P. Deane, Abstract of British Historical Statistics (Cambridge, 1971), p.36.

[2] For migration rates see Table IV below, p.34.

[3] See Table III below, p.31.

their decline without arresting it.[1]

The longevity of the rising trend in deaths during the 1830s is itself suggestive that something more than epidemics of infectious disease were at work. The district does not appear to have suffered appreciably from the 1832 outbreak of cholera, though it is possible that it was afflicted by those indeterminate 'fevers' the general incidence of which Creighton believed to have increased during the 1830s, and particularly so in the manufacturing districts of the North of England.[2]

The only guide we have to the chief sources of mortality in Culcheth comes a little too late, in the civil registers of deaths. These commenced in June 1837, but before the later 1840s the stated cause of death was not usually medically certified and was often symptomatic rather than diagnostic in character, particularly in the case of young children. For what it is worth, however, the deaths of women aged 16 or above (this being a group with which this study is especially concerned) were isolated for the period 1837-49. Of the 194 deaths recorded only 7.2% were ascribed to fevers of any sort. 4.1% died in child-birth, and 4.6% from dysentery or cholera. In 16.0% of cases old age seems to have been a primary influence, though this includes a disproportionate number of deaths attributed to 'decay' which would in the modern world have been found a more specific classification. More striking is that 36.1% of total

[1] See below, pp.50-5.

[2] C. Creighton, A History of Epidemics in Britain (2nd edn., London, 1965), ii. 188-98. Griffith believed the death rate to have risen nationally during the 1830s. G.T. Griffith, Population Problems of the Age of Malthus (2nd edn., London, 1967), pp.38-43. But cf. T.H. Hollingsworth, Historical Demography (London, 1969), pp.347-50.

deaths were ascribed to consumption, a figure which reached 47.6% among those dying below the age of 60. T.B. is, of course, a disease which, though infectious, has strong dietary implications.[1]

Table I. Infant Mortality[1]

Period	N[2]	Mortality Rate
1781-90	296	70.9
1791-1800	385	64.9
1801-10	448	60.3
1811-20	393	73.8
1821-30	506	65.2
1831-40	399	85.2
1841-50	391	125.3
1851-60	390	112.8
1781-1860	3208	81.7

Notes: 1. Deaths at less than one year of age per 1,000 live-born children whose families are under observation for the 12 months following birth.

2. In this and all subsequent statistical series 'N' denotes sample size.

Infants are the section of the population whose mortality might be expected to be most sensitive to health hazards created by overcrowding, depressed incomes and low levels of nutrition, they having the least acquired resistance to disease and the least physical strength with which to withstand it. But the causes of infant mortality are even more difficult to determine with confidence from the early civil registers of death.

[1] T. McKeown, op.cit., pp.136 and 141; cf. also ed. M.W. Flinn, op.cit., pp.411-3.

'Debility' and fits or convulsions together constituted the most commonly assigned causes (followed by T.B.) but are not particularly enlightening diagnoses. The two outstanding features of the rates given in Table I are first, the low average level prevailing in our period - in England and Wales generally rates of the order of 82 were not seen until after the First World War[1] - but secondly, the near-doubling of the rate between the 1820s and 1840s. The deterioration lagged behind that of the crude general death rate,[2] but both characteristics broadly confirm the picture given by the latter: Culcheth was not generally an unhealthy society in the period under study (indeed, one may probably infer from the mortality rate that it was fairly solicitous of infant welfare also),[3] but it witnessed an appreciable deterioration in conditions during the second quarter of the nineteenth century. Even at its height in the 1840s, however, the infant mortality rate was comfortably below the national average for those years of 154.[4] In the final judgment the possibility that Culcheth suffered from a form of 'derived' subsistence crisis in these years must be reckoned merely that.

Fluctuations in the course of the marriage curve shown in Figure 2 bear some similarity to the trends in births, at least with respect to the depressions around the 1810s and 1830s. But until the 1840s the divergence between the two series is a more notable feature of the comparison. While the average number of births rose by around 50% between the 1780s and 1820s

[1] Eds. B.R. Mitchell and P. Deane, op.cit., p.37.

[2] Cf. Table III below, p.31.

[3] Cf. below, pp.298-301.

[4] Eds. B.R. Mitchell and P. Deane, op.cit., p.36.

the number of marriages remained more or less unchanged. It will be seen from Table III that the crude marriage rate in Culcheth fell by the 1830s to only one third of its level during the 1780s.

Too much attention should not be paid to the absolute figures here. As already mentioned the rate relates only to fertile unions celebrated in church, and part of the decline was in fact compensated for by a growth in the frequency of informal or common law marriages (to distinguish which the former will hereafter be referred to as church-marriages and the latter as CLMs). Secondly, the rate given in Table III does not measure the true incidence of marriage among the population, for the numerator consists of the number of marriages celebrated not the number of Culcheth residents who married. If two local people were espoused, this would appear as one marriage; but were they both to bring a partner into the chapelry from outside they would be recorded as forming, between them, two unions. Family reconstitution of a chapelry, as opposed to a parish, can give us a minimum estimate of the proportion of spouses who were locally born, but not of those who were part of Culcheth's resident population immediately prior to their marriage, which is the measure we need - not, at least, until 1837 when the Anglican marriage registers first began to specify the partner's township of residence and not merely their parish.

However, as a crude index to Culcheth's marrying habits the trends apparent in Figure 2 and Table III will serve. They indicate that in the period reviewed the populace effectively ceased to marry in church - though the less marked decline in the birth rate suggests that fertility had not been correspondingly curtailed.

The reversion of the marriage rate in the course of the 1840s and 1850s to levels similar to those found in the later eighteenth century is also very striking. From the middle of 1837 the more detailed residence information given in marriage registers enables us, for the first time, to identify all church-marriages to which a Culcheth resident was a partner, and not only those which proved fertile. The annual totals of marriages for the period 1837-60 are given in Table II. The difference between these figures and those for fertile church-marriages as graphed in Figure 2 is not, incidentally, a measure of the frequency of infertile unions, for Table II also includes couples who set up house outside the district before their first child was born (a circumstance which necessarily affected one partner or the other whenever they were natives of different parishes.

Table II. Numbers of church-marriages (all ranks) celebrated mid-1837-1860.

Year	Marriages	Year	Marriages	Year	Marriages	Year	Marriages
1837	7	1843	19	1849	5	1855	10
1838	6	1844	18	1850	10	1856	14
1839	6	1845	23	1851	15	1857	21
1840	10	1846	25	1852	26	1858	19
1841	5	1847	10	1853	14	1859	11
1842	7	1848	6	1854	11	1860	7

What is apparent from Table II is that the number of church-marriages celebrated grew very abruptly in the years 1843-6 and declined sharply again in the three years following. Although the annual number of marriages in the 1850s never (until 1860) fell back to a level as low as had been seen before 1843 or in 1848-9, there were years when weddings were particularly common, in 1852 and in 1857-8. The jagged outline of the marriage

series strongly suggests that from time to time during the 1840s and 1850s personal pressure was brought to bear on people in Culcheth who had hitherto (or would otherwise have) avoided marriage, or at least one blessed by the Church, to mend their ways. It must be said that there is no direct evidence for this interpretation. It may, however, be significant that in the fifty five years separating 1785 and 1840 - that is, for the whole of the period during which Culcheth's population had displayed so wayward an attitude to marriage - the chapelry had had only two incumbents, the second of whom resigned in October of the latter year.[1] It could well be that a curate who, irrespective of his views in the matter, failed to convert his parishioners' mores at an early stage would find himself unable to do so subsequently. A new man had no past tolerance or ineffectualness to live down, and it is probably more than coincidental that 1843, the year in which the first spate of marriages began, was also the year in which the Reverend F.A. Bartlett assumed supervision of the chapelry, a role he filled (subsequently as rector) until 1855, by which time the township's marital customs had resumed normality.[2]

At all events, little of the district's new-found enthusiasm for marrying in church can have been due to improved economic conditions for, as we shall see, the 1840s and, particularly, the 1850s (which nonetheless saw the larger volume of weddings) were not a prosperous time for most of the township's population. Moreover, the building of a powerloom mill in Bury Lane during

[1] The Registers of Newchurch, 1599-1812, eds. W.J. and E.W.W. Kaye (Lancashire Parish Register Society, 1905), p.xiii.

[2] Loc.cit., and Newchurch baptism register no.6, 1838-65.

the 1843-5 investment boom contributed very little to the number of church-marriages celebrated in those years, in spite of the substantial immigration it brought in its train. The mill's precise date of construction is not known, but its workforce do not begin to appear in the civil registers of births and deaths until the latter months of 1844, and they provided only a handful of marriage partners in the following two years.

In subsequent chapters it will be argued that much of Culcheth's demographic behaviour earlier in the nineteenth century is suggestive of real and progressive changes in attitudes to marital institutions, developing over twenty or thirty years. In my view, the abruptness and sharply fluctuating character of the reversal evident in marriage statistics in the early 1840s makes a second attitudinal shift among the community a less likely explanation than institutional pressures from without, though there is no doubt that in time attitudes must have altered too. The greater stability from year to year in the number of marriages celebrated in the 1850s probably indicates as much: by 1860 Culcheth was once more a community of marriers, much like any other.

Table III. Crude Vital Rates (per 1,000 estimated mid-decade population)[1]

Period	Birth Rate	% Change	Death Rate	% Change	First Marriage Rate[2]	% Change
1781-90[3]	(43.7)		(22.6)		(5.1)	
1791-1800[3]	(40.6)	(-7.1)	(20.0)	(-11.5)	(3.9)	(-23.5)
1801-10	39.0	-3.9	19.0	-5.0	3.6	-7.7
1811-20	32.7	-16.2	16.4	-13.7	2.2	-38.9
1821-30	38.5	+17.1	18.0	+9.8	3.0	+36.4
1831-40	29.9	-21.9	25.4	+41.1	1.7	-43.3
1841-50	36.9	+23.4	26.2	+3.1	3.7	+117.6
1851-60	36.6	-0.8	20.6	-21.4	4.4	+18.9

Notes: 1. Employing 'net' series of baptisms and burials; workhouse population included in denominator.

2. Church-marriages where bride was a spinster

3. For basis of eighteenth century estimates see pp. 92-9.

Table III partially standardises the demographic fluctuations we have been discussing by expressing events as rates per thousand of estimated mid-decade population levels. Later in this chapter the same material will be presented using the periodisation of the cohorts adopted in the family reconstitution analysis.[1] Three points should be borne in mind in interpreting the present figures. Between December 1822 and August 1851 Culcheth possessed a workhouse which after a year of operation began to take in paupers from other parishes.[2] This institution certainly contributed to the district's totals of births and deaths and has therefore been included in the base population from which Table III's vital rates have been estimated. It was in any case impossible to weed out workhouse events relating to non-Culcheth denizens because these people were not specified as such (nor even invariably as workhouse inmates) in the registers. On the whole this is likely to mean that the estimated crude death rate during the period 1821-50 will be somewhat above its true level since this is a category of demographic event in which workhouses specialised. Conversely, the marriage rate is slightly depressed during the same years by the presence of the workhouse, for it is unlikely that many romances blossomed in such a place - with one notable exception: in 1843 the workhouse Governor married one of the inmates, she being pregnant and he losing his job in consequence.[3]

More generally, the vital rates given in Table III are likely to be under-estimates. Where the registers belonging to non-conformist sects are missing multipliers have been applied to the

[1] See Table XII below, p.99.

[2] PLP Workhouse Victualling Account Book, 1822-9; PLP loose bills (Inter-parish Agreements); G.Lei.8/4, p.199.

[3] P.R.O., MH12, 5926/2942/43.

available material in the light of what is known of these sub-groups' numerical importance in the district.[1] But no allowance has been made for people who failed to register their births or deaths anywhere. In addition there is thought to have been a slight haemorrhage of events from the southern and south-western corners of the township.[2]

Finally, the postulated birth and death rates for the late eighteenth century require explanation. These are not so much estimates as assumed orders of magnitude, for until the 1801 census we have no measure of Culcheth's population level from which to calculate crude vital rates. This is not an important deficiency in itself because the techniques of family reconstitution upon which this study is based yield much more specific measures of fertility and mortality than these. The object of the exercise was not to produce firm estimates of late eighteenth century birth and death rates but rather, by ascertaining the probable range within which these lay to be able to form an impression of the likely course of change in <u>population levels</u> during those years. The reasoning behind the estimates and the use to which they have been put are more fully explained in the next section.[3]

[1] See below, pp.134-5.

[2] See below, pp.119-21 and 123-4.

[3] See below, pp.92-9.

Table IV. Population Levels and Migration Flows[1]

Year	Pop.	% change	density[2]	migration[3]	% change[4]
1781[5]	(1261)				
1791[5]	(1621)	(+28.5)		(+66)	(+5.2)
1801[5]	1833	(+13.1)	5.69	(-162)	(-9.6)
1811	2117	+15.5	6.42	-110	-6.0
1821	2163	+2.2	6.38	-302	-14.3
1831	2433	+12.5	6.56	-203	-9.4
1841	2108	-13.4	5.86	-432	-17.8
1851	2326	+10.3	5.74	-28	-1.3
1861	2214	-4.8	4.99	-482	-20.7

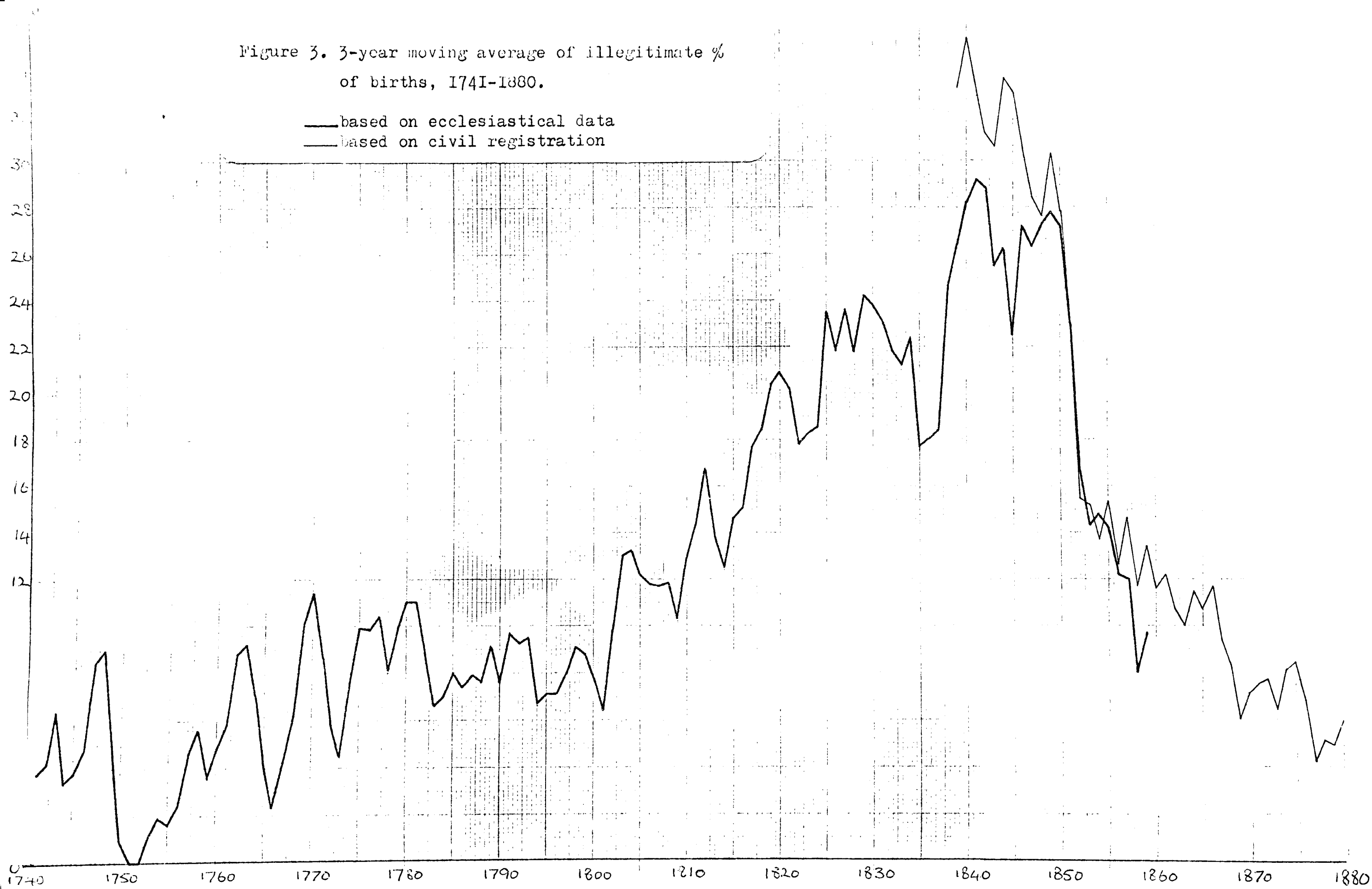
Notes:
1. Excluding workhouse population (estimated for 1831 at 70. PLP Workhouse Summary Account Book, 1831-5).
2. Population per inhabited house.
3. Derived from the 'net' series of vital events, expanded to compensate for missing nonconformist registers. See pp.134-5.
4. Related to base-year population.
5. For basis of eighteenth century estimates see pp.92-9.

The precise rates of change of population level during the later eighteenth century cannot be established. But there is no doubt at all that growth was more rapid in the 1780s than in the 1790s and that the former was the only decade of the 80-year period in which Culcheth could have witnessed a net gain by immigration.[1] Population growth was almost halted during the 1810s, and for much of the period 1831-61 was actually reversed. In net terms, as can be seen from Table IV, people were moving away from the district in every decade after 1791. The pattern was a fluctuating one, but in the result the township grew by only 4.6% in the fifty years following 1811.

[1]See below, p.98.

Figure 3. 3-year moving average of illegitimate % of births, 1741-1880.

——based on ecclesiastical data
——based on civil registration



In combination the measures so far reviewed - erratic birth rates, a declining incidence of marriage, a continuous outflow of population, and for some of the time at least a rising death rate - all suggest that from the 1790s on Culcheth was undergoing some type of stress. And it is this context which lends particular interest to the illegitimacy curve shown in Figure 3 for, as we saw in the last chapter, a rising incidence of unmarried motherhood is often regarded as a sign of social dislocation.

A heightened incidence of illegitimacy is not a necessary corollary of a declining marriage rate,[1] but it will be observed that the two coexisted in Culcheth during the first half of the nineteenth century - suggesting one reason why the township's birth rate did not collapse in the period - and that once the marriage rate began to recover during the 1840s the illegitimacy ratio underwent an extremely sharp decline. Coming as this does at the end of our period, it is perhaps regrettable that a longer time span could not have been chosen for study in order to encapsulate more fully the restoration of normality in Culcheth's marriage habits. But when the reconstitution work was embarked upon the 1861 census was the most recent to have been released for public inspection, making the decade ending 1860 the tidiest termination point. The 80-year span of the study as it stands is just adequate to embrace the three phases of illegitimacy in the district - at least, as revealed by the illegitimacy ratio, which is a somewhat crude measure. These may be characterised as normality to 1800, abnormality from 1800 to 1840, and a rapid return (particularly after 1850) to traditional levels thereafter.

[1] See, e.g., K.H. Connell, Irish Peasant Society (Oxford, 1968), pp.113-20.

In comparative terms Culcheth's illegitimacy ratio may well have been on the high side through most of the second half of the eighteenth century, but the historical norm was often higher in the North West than nationally.[1] It has been estimated that in England as a whole the ratio rose from around 4% to 6% between 1761 and 1800.[2] Over the same period in Culcheth it averaged 8.1% but, when contrasted to the levels reached in the nineteenth century, this deviation from the national norm is clearly marginal. Indeed, if Culcheth is odd in the period 1761-1800 it is in the failure of its illegitimacy ratio to rise that its oddity consists, not in its level. When the break in trend does occur, however, after 1800, the ratio is driven up extraordinarily far and rapidly.

The gap between the illegitimacy ratio as implied respectively by ecclesiastical and civil registration, which is quite marked between 1838 and 1849, should not be regarded as an index to the general deficiencies of baptismal registration in earlier decades.[3] In part at least, it reflects the New Poor Law reorganisation of 1837, after which Culcheth workhouse was often used for lying-in by unmarried mothers whose children's births would, quite properly, be registered by the governor as having occurred in the township, but whose infants might not be baptised until after they had left the workhouse and Culcheth behind them. This effect would have been especially marked from March 1844 when the two workhouses belonging to Leigh Union were divided sexually, Culcheth assuming responsibility for housing all female

[1] P. Laslett and K. Oosterveen, 'Long-term Trends in Bastardy in England', Population Studies, 27 (1973), 276-7.

[2] Ibid., Figure 1., p.260

[3] For discussion of the registers' adequacy during this period, see below, pp.143-5.

paupers above the age of seven.[1] It should be noticed, however, that at the time of this administrative decision the illegitimacy ratio's decline had already commenced (judging from the more reliable civil registers) and was not appreciably interrupted by the change.

The gap between the ratios implied by civil and ecclesiastical registers and their eventual convergence might also be consistent with the suggestion that the Church was attempting to clean up the district during the 1840s. Initially this enthusiasm might have deterred some unmarried mothers from seeking churching for themselves and baptism for their infants. This is speculative, but it does appear to be the case that although the illegitimate proportion of births began to decline during the 1840s, the marriage boom of 1843-6 made little immediate indentation on the illegitimacy ratio. If moral pressures were being brought to bear, it might be inferred that they met with some resistance for a few years. This would also square with the fact that, as we have seen, boom years for church-marriages recurred from time to time thereafter.

The collapse of the illegitimacy ratio between 1851 and 1860, however, is very striking. By the latter date it was already back to a level comparable to that found in the later eighteenth century, whereas a decade previously it had been more than twice as high. The rapidity and scale of this behavioural development - as with the recovery in the church-marriage rate to which it is obviously allied but of which it is not a direct function - strongly suggests the existence of external pressures being directed towards the individual or social group, rather than a

[1] P.R.O., MH12, 5926/3005/44.

voluntary shift in attitudes or ideals. For the movement is far less marginal, or alternatively more abrupt, than most demographic shifts with which historians are familiar.

Most demographic changes tend to affect total populations only slightly in the short run. This probably even applies to the most destructive visitations of plague during the Middle Ages.[1] It certainly does to fertility changes. Married couples who restricted fertility in an age lacking effective contraceptive aids and being characterised by high child mortality did not in general cease to have children altogether; and those who sought similar ends by delaying marriage would have tended to do so by two or three years, not ten, and would in consequence have reduced their completed family size by perhaps only 10-20%. This does not mean that such changes are unimportant, either to the individuals concerned or socio-logically, but simply that they occur at the margins of what were in general high fertility regimes. Only with the modern decline of Western death rates and the associated transition to permanently lowered fertility, which have transformed the size and character of the nuclear family over the past century, have changes of a decidedly non-marginal nature been manifested. Yet it took fifty years to halve the birth rate in England and Wales.[2] The break with the past even here, therefore, lay in the protracted continuance and diffusion of the new patterns of behaviour not in the pace of fertility change or its short-run marginality.

[1] Cf. R. Schofield, 'An Anatomy of an Epidemic', in The Plague Reconsidered (Local Population Studies Supplement, 1977), pp.105-7.

[2] Eds. B.R. Mitchell and P. Deane, op.cit., pp.29-30.

The rapidity with which Culcheth's illegitimacy ratio was restored to something like normality during the 1850s, on the other hand, was of an entirely different order. Moreover it occurred at a time when the district was far from increasing in prosperity - 20.7% of its population left the township during the decade - and if the argument of the body of this thesis is accepted these were not circumstances in which the frequency of illegitimacy might be expected to have declined. The influence of Parson Bartlett and his successor Strong should not be lightly discounted.[1]

III

The occupational structure of Culcheth, and changes within it, can only be definitively described for the period from 1841, since only then do we have census household schedules which indicate each individual's chief source of livelihood. Earlier censuses give aggregative information which, as we shall see, is often difficult to interpret. For the eighteenth century our evidence is piecemeal and indirect.

The Victoria County History asserts that linen weaving was common in Culcheth in the seventeenth and eighteenth centuries.[2] The workhouse is known to have purchased looms in 1753,[3] and articles of agreement are extant dated July 1754 which bound Robert Warburton to serve Ellis Green for six years, they both being fustian weavers.[4]

[1] For the possible effects also of changes in the Bastardy Laws see below, p.301 et seq..

[2] Victoria County History of Lancashire, (1911), iv.156.

[3] The Township Book of Culcheth, Leigh Public Library, B901.

[4] PLP loose papers.

Yates' map of 1786 (Fig.1) marks only about 130 houses in the township. This is obviously notional, since however inaccurate our eighteenth century population estimates may be they cannot conceivably be so far out only fifteen years from their 1801 starting point as any credible estimate of occupants per house would imply if one treated Yates' house-count as accurate.[1] But however impressionistic its detailed surveying, the map does indicate the presence of cottages by that date on the land in Central Culcheth which had been enclosed in 1749-51. More specifically, it is clear from the six-inch Ordnance Survey map of 1845 that the cottages in question were situated on those plots of land which were too small to constitute viable agricultural holdings.[2] Of the 35 Charterers who were awarded plots at the time of the enclosure, none received as much as an acre. The 24 smallest of them, indeed, were given areas equivalent on average to only 20 yards square. Since the Charterers came from all over the township it may be presumed that not many of them, if any, could have run these acquisitions in with the land they had previously subsisted upon. And purchase of one's neighbours' allotments would typically have produced holdings far too narrow to be useful agricultural units.[3] In short, the enclosure award invited housing development and doubtless gave a fillip to whatever place cottage industry already occupied in the township.

Pauper apprenticeship indentures are another indirect source.[4] Throughout the eighteenth century boys were

[1] See Table IV above, p.34.

[2] See above, p.17.

[3] 1751 enclosure award map, Lancs. C.R.O., AR/7/7.

[4] PLP Apprenticeship Indentures, 1728-1833; Apprentice Register, 1802-42.

predominantly apprenticed to weavers (of unspecified type) but until c.1770 five sixths of all apprentices known were being sent out of the township to serve their term. Because of the influence of the laws of settlement this does not, of course, imply any lack of weavers in Culcheth itself - rather the reverse. But changes in the pattern after this date suggest that the indigenous weaving population was growing in significance and prosperity. Between the 1770s and 1815 roughly half of the extant indentures bound children to local residents, as it were despite the fact that this confirmed their place of legal settlement as Culcheth and thereby failed to avert the risk of bringing further financial burdens on the township's ratepayers at some future date should the trade of weaving suffer a decline. From c.1790 boys virtually ceased to be apprenticed to husbandry or to any other calling than weaving, and after 1800 over half the girl apprentices were sent the same way. In the eighteenth century they had usually been bound to learn the 'Art and Mystery' of housewifery.

The volume of surviving indentures is too small at a year-to-year level, and their significance as economic indicators too indirect, for turning points in Culcheth's economic development to be discernible through them. But the fact that it is from the 1770s that children began with much greater frequency to be bound locally suggests that a nucleus of cotton weavers was quick to develop among the fustian workers. The prosperity of cotton weavers in the early days of machine spinning was of just the heady sort to persuade poor law officers to ignore the dictates of caution over questions of settlement.[1] The evidence also appears to imply that weaving continued to gain in local

[1] D. Bythell, The Handloom Weavers (Cambridge, 1969), p.100.

importance after 1800. We have seen that Aikin reported 'much spinning of cotton and flax' in Winwick parish as late as the mid-1790s,[1] and the apprenticeship indentures certainly suggest that women turned to the cotton loom much later than men. Between 1750 and 1799, 9 of the 35 employers who took girls as apprentices were weavers, though in each of these cases housewifery was the stated occupation to be pursued. However, in the period 1800-19, 11 of the 24 girls apprenticed were to become weavers, a further 9 were bound to weavers though with the girl's intended occupation left blank - itself probably an indication that repetition was considered unnecessary - and only 4 appear to have been committed to acquire the skills of the housewife. It is fair to add that there is indeed a deal of mystery surrounding the practical meaning of 'housewifery' as used in eighteenth century indentures. It no doubt covered spinning as a casual occupation, and could have embraced weaving too. But at face value the indentures place the typicality of weaving as a female employment as dating only from around the turn of the century. We cannot go further except to state that spinners left no trace at all on local baptism registers from the time, at the beginning of 1813, when these begin to state parental occupation.

It is also impossible to say for how long fustian weaving coexisted with cotton. A fustian manufacturer is listed by Baines as residing in Culcheth as late as the 1820s, but this is presumably one of the many examples in textile history of a term changing its meaning.[2] Aikin dated the phenomenal growth

[1] Aikin, op.cit., p.310.

[2] E. Baines, History, Directory, and Gazetteer, of the County Palatine of Lancaster (Liverpool, 1825), ii.718. Cf. Oxford English Dictionary (compact edn., Oxford, 1971), i.624.

of cotton weaving in Tildsley, which was only half a dozen miles from Culcheth, as occurring after 1780. But that, by his own account, was a township which was virtually without a population of any description before that date.[1] In Culcheth we know there to have been a core of fustian weavers in the middle of the century, and the apprenticeship indentures suggest that they began to switch to cotton in the 1770s. As Bythell has pointed out:

> '[The fustian weavers'] mixed cotton goods had always been little more than a substitute for those real cottons which technical shortcomings had previously made it impossible to manufacture. The changeover to cotton was both natural and easy.'[2]

We can probably assume that Culcheth's existing pool of male weavers had made the transition to cottons by the commencement of our period in 1781, and that the industry's continued growth thereafter was met by recruitment from outside the weaving trade, finally tapping female labour by the early nineteenth century.

The censuses from 1801-31 inclusive divided each district's population into three broad occupational groups: those for whom respectively agriculture, manufactures (with which were included all trades), or 'other' employments were their chief source of livelihood. The township of Culcheth, fortunately, constituted an enumeration district in its own right. The census data are given in Table V.

The tiresome ambiguities of this material are well known, but bear reiteration. The 1801 enumerators in many districts,

[1] Aikin, op.cit., p.299

[2] Bythell, op.cit., pp.41-2.

including Culcheth, elicited information on the employment of individuals whereas in subsequent censuses it was stressed that what was wanted was the chief source of income of each family.[1] The information given in 1801 is thus not uniform with that of later censuses.

The new focus of classification creates its own interpretive problems because of the vagueness of the terms 'family' and, even, 'house'.[2] The Culcheth enumerators regularly listed more families than there were inhabited houses in the township, so they must have recognised a distinction similar to that drawn by the Cambridge Group between the 'household' and 'houseful',[3] but how consistently they did so, whether within or between successive counts, and on what basis, cannot be known. Furthermore, a family's (even more than an individual's) sources of income would often be mixed and, on top of that, variable over the calendar year. One suspects that enumerators would usually have entered the occupation of the household head rather than waste time estimating the possibly more crucial contributions of familial by-employments, the unpaid assistance of children, and so on. In two respects this is likely to have exaggerated the economic significance of agricultural employment. First, the description 'farmer' had a social cachet which 'weaver' distinctly lacked. Culcheth contained many smallholdings which were in themselves inadequate fully to support a family,

[1] E.g., Parl. Papers 1812, xi(138), p.x.

[2] Parl. Papers 1833, xxxvi(149), pp.viii-ix.

[3] P. Laslett, 'Introduction: the history of the family', in ed. P. Laslett, Household and Family in Past Time (Cambridge, 1972), pp.28-39.

sometimes indeed merely supplementing incomes chiefly derived from weaving, but the possessors of which would undoubtedly have styled themselves as though members of the agricultural interest. Secondly, paid agricultural employment as opposed to the assistance of kin) was virtually a male preserve,[1] and as household heads also tended to be males any typification of family earnings which used the head's occupation as proxy would overstate that sector's importance.

Table V. Census data on occupational structure, 1801-31[1]

Year	Nos. in agriculture	% of total	Nos. in manufactures	% of total	Nos.in other occupations	% of total
1801	171	9.33	1105	60.28	557	30.39
1811	91	25.00	265	72.80	8	2.20
1821	106	25.73	305	74.03	1	0.24
1831	112	27.05	280	67.63	22	5.31

Note: 1. The enumerators' questions related to the occupations in which people were 'chiefly employed'. In 1801 they classified every individual in the population. In subsequent censuses they returned the occupations in which 'families', not individuals, were chiefly employed.

This effect can be clearly seen in the widely divergent portrayals of agricultural employment apparent in Table V. Consistently, around a quarter of families were held to be chiefly dependent on agriculture between 1811 and 1831, although at the beginning of the century fewer than 10% of individuals apparently had any association with it. Nor had there been any sharp growth in agricultural employment over the years in question

[1] See below, pp.65-9.

(farmers and labourers over the age of 20 were said to number only 168 in 1831). Correspondingly the true significance of manufactures, the district's other main occupational category, will tend to have been understated by the censuses of 1811-31.

Whether such was the case in 1801 also is less clear, for it will be noticed that an extraordinarily large proportion of the population in that year was classified as following 'other' occupations. In what appears to have been a naive enthusiasm for presenting the semblance of truth, no matter how implausible in fact, the enumerators of the first census carefully accounted for the whole population within the three occupational categories allowed them, with the result that mere babes in arms appear as equal contributors to the national product with their elders. If young children were the only sizeable group of unemployed in the community, it could be fairly plausibly argued that the 1801 enumerators must have classified them as part of the 'other' category. Children in a handloom weaving village could have been casually employed from a very early age. Bythell implies that by the 1830s it was quite a common thing in the Colne district for a child of eight to be working his own loom (though this is not supported by Culcheth evidence).[1] If one supposed for the sake of approximation that children would have become significant contributors to household income by the age of ten, and that those younger than this would have been around one quarter or slightly more of the population (in Culcheth they represented 26.1% in 1851) one would estimate the number of young children to be excluded from the workforce at c.450-500. This would leave an 'other' category of very similar weight to that

[1] B. Bythell, op.cit., p.63.

accorded it by later censuses. Such an adjustment would also suggest that, of those in employment, 80% or more were already by 1801 in the manufacturing sector, compared with only 12-13% in agriculture.

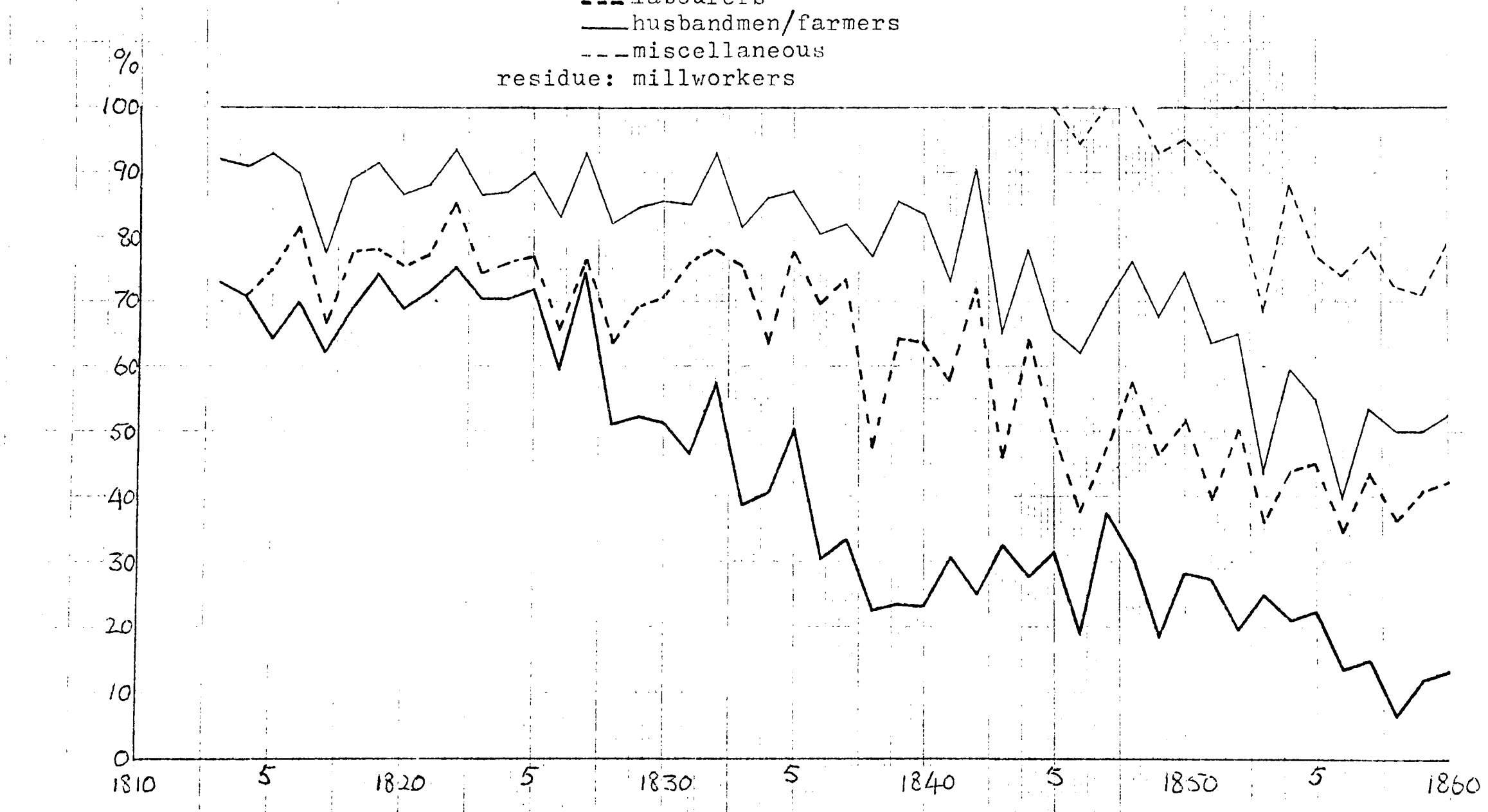
Perhaps this is how the 1801 enumerators worked, but it is impossible to feel confident. Indeed, on the basis of the censuses of 1851-61 one should expect that a further 10% or so of the population, chiefly comprising married women, would not have been regular members of the workforce. Perhaps these were grouped occupationally with their husbands - certainly, it is impossible that <u>both</u> they and young children should have been concealed in the 'other' category. Sadly, it seems impracticable to make much analytical use of the 1801 data on occupations beyond reiterating the obvious point that Culcheth was plainly already a strongly industrial district.

For subsequent censuses, however, it is worth making adjustments to the enumerators' classifications.[1] A glance at the fluctuating proportion of families classed under 'other' occupations raises a suspicion that this group was not consistently defined. More importantly, by no means all those whom enumerators treated as manufacturers were textile workers. Joiners, blacksmiths, millers, shoemakers and so on, would all have been classified under this heading. Fortunately, baptismal evidence, which has the added advantage of yielding an annual flow of information, enables us to construct a more sensitive profile of occupational change than the census abstracts alone provide.

[1]For a summary of these adjustments see Table X below, p.73.

Figure 4. Occupational structure, 1813-60.
Normalised distribution of the occupations of the fathers of legitimate children baptised in Anglican churches.

reading
from foot: ___handloom weavers
- - - labourers
___husbandmen/farmers
- - - miscellaneous
residue: millworkers



Anglican baptism registers were standardised by Act of Parliament with effect from the beginning of 1813, and the format which was instituted required a statement of the father's occupation.[1] Figure 4 gives an unadjusted percentage distribution of this information. It is not, of course, a guide to the whole population's occupational structure. There was little sexual competition in the world of shoemakers, farmers, labourers, bricklayers and blacksmiths, and this means that, like the censuses, the source will tend to understate the importance of weaving for the township's working population as a whole. Again, questions of social prestige may result in a slight exaggeration of the number of farmers proper, although this effect could well be nullified by the fact that the Culcheth registers' coverage of the most agricultural corner of the township is less complete than it is for the areas where other occupations predominated.[2] The graph is also biased by religion, fertility and age, but in its broad configuration probably not to any great effect.

A further obvious point is that the occupational mix of families having a child baptised in any single year is fortuitous. The jerkiness of the graph on an annual basis should not in general be regarded as a visual indication of occupational mobility, although occasionally (for example in the depressed years of 1817 and 1826) short-term crises may have driven some men to make an abrupt switch in the sources of their livelihood.

[1] 52 Geo.III, c.146.

[2] See below, pp.119-21.

This raises a more fundamental source of distortion. Just as there were more occupations open to men than to women and children, so by extension were they better placed to move out of weaving when conditions there deteriorated than was true for the working population as a whole. A graph of the occupational structure of fathers will therefore not only tend to understate the general importance of weaving in the community, but will probably also antedate and foreshorten the chronology of the trade's decline in significance for income earners as a whole. The more detailed censuses of 1841-61 allow us to observe at least the latter tendency. It will be seen that the occupational differentiation of fathers and others had an age component and not merely a sexual one: in 1841 a markedly higher proportion of youths were still at the loom than Figure 4 implies for their (married) elders.[1]

With these provisos, the main features of Figure 4 are straightforward enough. Between 1813 and 1825 a fairly steady 70% of fathers described themselves as weavers. Bearing in mind all that has been said on the matter, this might imply that 80% or more of the working population were so engaged.

As might be expected, (married) men began to shift out of weaving with the slump of 1826. Figure 4 shows the movement to have been unequivocal if protracted. In the space of a little more than a decade, the proportion of fathers styling themselves as weavers fell by around two thirds. There followed, however, roughly fifteen years of stability from the late 1830s to the middle 1850s, when the decline was once more resumed.

[1]See below, p.66.

The disappearance of cotton weaving occurred much sooner than Figure 4 suggests, for by 1841 those who remained at the trade had switched, almost to a man, to the weaving of silk. Baptism registers are no assistance to us in dating this transition. Baines's Directory of 1825 does not mention silk weaving in the Leigh area at that time, but Bythell asserts that it spread quickly in the district after 1827.[1] No doubt this was true of Culcheth also, as Leigh would have been the population's supply source and marketing outlet.

The English silk industry expanded quite rapidly following the virtual abolition of import duties on raw, and the substantial reduction of duties on thrown, silk between 1824 and 1829. But its growth was based on a shift to cheaper, simpler qualities of cloth in which the reduction of labour costs played a key role.[2] Its introduction to the Culcheth area must help explain the protracted survival of weaving in the district - the population may be presumed to have been better off weaving this type of product than they would have been had they clung to cotton - but it is no accident that the industry's expansion was most rapid in areas like the North West and East Anglia where there were pockets of underemployed labour. Hickson concluded at the close of the 1830s that, 'on the whole, the silk-weavers are in a more prosperous state than the rest of the body', but also that: 'One fact may be presumed as certain. The condition of the great body of weavers has deteriorated'.[3] In the Norwich

[1] E. Baines, op.cit., ii. 43-52 and 703-5; D. Bythell, op.cit., pp.260-1.

[2] D.C. Coleman, Courtaulds, an Economic and Social History (Oxford, 1969), i. 66-9.

[3] Parl. Papers 1840, xxiv (636), p.645.

area silk weavers' wages fell by 20% between 1829 and the 1840s.[1] The net effect of the switch to silk in the Culcheth district must have been to soften the blow of the powerloom's invasion of the cotton industry in the 1820s, but it is the rate of decline in the handloom weaver's economic status which was affected, not the fact itself.

In the first instance, the weavers moved not into the skilled crafts, of which the miscellaneous employments category largely consists, but into labouring. This is, again, much as one might have anticipated. General demand deficiency, quite apart from the lack of requisite skills, would probably have made the craft occupations an insecure source of livelihood for men attempting to free themselves from the loom. The township may have mopped up some of the new supply of labourers by employing them on the roads. But parochial involvement in highway construction was certainly not an inauguration of these years and, given a certain patchiness in the survival of account books and the total lack of Vestry Minutes, it is only possible to voice not affirm this suspicion. The effect in any event could only have been marginal considering the scale of the problem, and very likely seasonal also.

What is interesting is that the construction of the Liverpool & Manchester railway, which was opened in 1830, and which ran across the northern edge of Culcheth, left no impression on the parish registers in terms either of putative fathers of illegitimate children or, as is our interest here, of employment for displaced handloom weavers from the Culcheth district.

[1] D.C. Coleman, op.cit., p.100.

In the former case the registers' silence may owe something to the mobility and anonymity of the navvy gangs. But the absence of contact with the railway by local men during the early stages of the handloom's decline suggests that the two communities, navvies and weavers, may simply have had values and ways of life which were incompatible. In their marital habits they were superficially similar, but whereas with the navvies avoidance of marriage sprang from rootlessness,[1] we shall find repeated evidence that Culcheth's behaviour can be best understood in the light of a determination to stay where they were.

It would seem that the great majority of those men who switched from weaving to labouring in the later 1820s and the 1830s were absorbed by agriculture. Given a fairly stable demand for regular agricultural labour this would appear to imply a growth of concealed unemployment. But we must recall that Figure 4 is a percentage distribution chart, not an index to the numbers of men in any particular occupational category. In net terms 17.8% of the population enumerated in 1831 had left the district a decade later, and most must have been weavers. This migration accounts for part of the expanded share of labouring. But there was also absolute growth in agricultural employment. The nature of the census and aggregated baptismal data does not permit us to calculate the respective contributions of the two movements, because a comparison of two stocks of people at different points in time will not accurately describe the 'flow' of individuals migrating or changing jobs for which, loosely, we take it as a proxy. But the material will give us a rough impression of what happened.

[1] T. Coleman, The Railway Navvies (London, 1965), pp.167-8.

While the average annual number of weaver-fathers covered by Figure 4 fell from 45 in 1823-5 to a mere 9 by 1838-40, those in labouring and farming increased from 11 to 23, with scarcely any change in the miscellaneous category. At face value this suggests that approximately one third of the distributional shift observable in the period arose via absorption of displaced weavers into other forms of employment, chiefly agricultural, the remainder being attributable to emigration. However a comparison between the 1831 and 1841 censuses suggests that the degree of restructuring of the local labour market may have been greater than this. The 1831 enumerators gave a more detailed break-down than usual of the occupational distribution of males aged 20 and above - incidentally denying, in Culcheth's case, that there were any who did not participate in the labour force - which may be contrasted with the evidence of the 1841 household schedules. The comparison has to be a little approximate, however, for the 1841 enumerators were lax in entering the occupation of family dependents even when, as is quite clear from the 1851 and 1861 censuses, they would have been members of the workforce in fact. But if we assume that those of unstated trade in 1841 (19.4% of males aged 20 or over) followed the same distribution as those of known occupation, the following trends are apparent between 1831 and 1841. Estimated numbers of male handloom weavers declined by 127 (or 42% of their numbers in 1831), while those in agriculture rose by 76 (an expansion of 45%). This would imply that occupational shift, as opposed to emigration, may have absorbed as many as 60% of the displaced weavers.

The two comparisons employ different terminal dates, and as already explained neither can claim to describe the processes

involved accurately. The Figure 4 material, in particular, is open to the influence of a number of possible biases. But the overall position is clear enough. During the ten or fifteen years following the mid-1820s boom in powerloom construction Culcheth's menfolk made a determined effort to get out of hand-loom weaving. No other technological or entrepreneurial transformation of the district's employment opportunities came to their aid. A substantial number were forced to emigrate. But a sizeable residue - possibly of comparable proportions - flooded the agricultural and general labouring market of the township rather than vacate it altogether.

In the longer-term Figure 4 suggests some growth in the miscellaneous category of occupations. The censuses of 1841-61 and the civil registers of birth give specificity to this impression. By the 1850s one finds a few men prepared to migrate several miles to work - coalmining (probably in Leigh or Bedford) for example, and foundry work perhaps at Warrington or Newton-le-Willows) each employed around half-a-dozen Culcheth men by 1861. Locally there was some growth in the numbers of tradesmen, especially in the Bury Lane district of the township, and a substantial expansion of those employed on the railway - rising from 6 in 1841, to 17 a decade later and to 45 by 1861. If one isolates from Figure 4's miscellaneous category those occupations of a non-traditional (for the district) and 'modern' nature so as to exclude, for instance, tradesmen and wheelwrights but include policemen, warehousemen, miners and so on - a somewhat arbitrary exercise, admittedly, but not without interest - one finds that they employed a growing proportion of the male population aged 15 or above at each of the three censuses spanning

1841-61: respectively 2.9%, 3.8% and 10.9%. But it will be noticed that the major shift, largely accounted for by the expansion of employment on the railway, appears to have occurred only in the 1850s, roughly a generation after the need for occupational differentiation had first become apparent in the district.[1]

What really transformed Culcheth's aggregative occupational structure was not this gradual process of industrial diversification and the growth of services, but the construction during the 1843-5 boom of a powerloom weaving mill adjacent to the railway in Bury Lane, in the north of the township. In 1851 the mill employed 388 people, although their composition is not stated in that census. In 1861 the 386 employees were said to consist of 134 men, 238 women, 11 boys and 3 girls. The mill's importance to the township as an employer does not show up adequately in a graph of fathers' occupations which is based on Anglican baptism registers, because too few of the mill folk could be persuaded to walk the two miles to the chapel in Central Culcheth. The Bury Lane community's own chapel, All Saints', Glazebury, was consecrated in April 1852,[2] which is why in Figure 4 the mill's significance seems to grow thereafter. In fact, the mill's workers first appear in civil registers late in 1844 and, as the census data quoted above indicate, its full direct effect on employment had already been realised by 1851. Fortunately, the censuses of 1841-61 have left us with household schedules which enable us to examine the mill's impact on the township in some detail and to gauge something of the fate of those who continued to work in the neighbourhood's two traditional sectors.

[1]But <u>cf</u>. Table X and accompanying comments below, p.73.
[2]MS in possession of incumbent.

For this analysis the chapelry was divided geographically into three areas according to the balance between the occupational groups found within them. First, the Bury Lane district was isolated since this became not only the location of the mill itself, but also virtually the only corner of the township from which the enterprise drew its workforce though, being sited close to the border with Bedford, it also attracted labour from outside Culcheth altogether. Central Culcheth, the district stretching westward from the church and which contained the core of the handloom weaving population, formed a second readily identifiable unit. South Culcheth, by which is denoted the remainder of the township, is a term of convenience rather than of strict accuracy, for it includes Holcroft and thus curls around Central Culcheth to its east and north-east sides. As I have defined it, Southern Culcheth was strongly agricultural in character, although it contained a concentration of handloom weavers in cottages straddling the North-South road running from Central Culcheth into Risley, and also that stretching westward from Risley towards Croft. With the exception of this industrial vein, Southern Culcheth comprised a population more than two thirds of whose households had some involvement with agriculture, in more than a half indeed it being the sole source of income.

Table VI. Geographical distribution of population by district, 1841-61

	Bury Lane			Central Culcheth			Southern Culcheth		
Date	pop.	% of total	% change[1]	pop.	% of total	% change	pop.	% of total	% change
1841	468	22.2		924	43.8		716	34.0	
			+57.5			-10.8			+7.0
1851	737	31.7		823	35.4		766	32.9	
			+10.2			-9.4			-14.4
1861	812	36.7		746	33.7		656	29.6	

Note: 1. Change in population level within each district

Table VI shows the changing population level in each district between 1841 and 1861, and the implied shifts in the geographical distribution of population. It will be seen that in 1841, before the building of the Bury Lane mill, more than 40% of the township's population lived in the compact Central Culcheth district, and that in net terms this area lost roughly 10% of its inhabitants in each of the two decades following. If population growth carries implications for prosperity, it should therefore be noted that Culcheth's overall expansion during the 1840s was very largely the product of Bury Lane's experience, though Southern Culcheth also grew somewhat.

Total employment at the Bury Lane mill grew no further between 1851 and 1861, and the district's population growth rate declined sharply in the 1850s. Labour demand had risen so rapidly here during the 1840s that one might have expected a gap in the provision of services to have developed,[1] which in turn might have kept up the population growth rate in the 1850s to a level beyond that directly deriving from the reproductive histories of those employed at the mill itself. On the whole, it is surprising that the fall in Bury Lane's growth rate was so sharp, since natural increase alone could more than explain it. In any event, it is Bury Lane's deceleration of growth which permits the continued haemorrhage of population elsewhere in the township to show up as a fall in Culcheth's total population during the 1850s.

[1] *E.g.*, Bury Lane registered levels of population density per inhabited house in the three census years spanning 1841-61 of 5.64, 6.41 and 5.60 respectively, indicating an initial lag in the provision of housing.

During its first years of existence the mill made a considerable impression on the township's total occupational structure. Not all the jobs it offered went to Culcheth residents, but those that did numbered 223 in 1851 and 256 ten years later. Put into perspective this represented an addition to employment equivalent to roughly half the size of the existing agricultural sector, including farmers' working wives and children, or to 17.5% of the township's 1851 population aged 15 or above, rising to 21.4% in 1861.

Several important qualifications, however, arise. The mill's overall employment policy was, as we have seen, to take on more women than men. In the remarks which follow we can only discuss the mill's impact on those who lived within Culcheth (57.5% of employees in 1851, 66.3% in 1861). Initially, the firm's sexual bias in employment was scarcely apparent amongst that section of the workforce residing locally, for in 1851 only 52.5% of the latter were women. But during the 1850s Culcheth's youths seem to have opted more for general labouring, especially upon the railway: 20.7% of males aged 15-19 had worked at the mill in 1851, and only 2.2% in non-agricultural labouring jobs. This contrasts with 12.6% in each category ten years later, and a similar shift occurred in the age-group 20-29. As a result, by 1861 barely more than a third (36.7%) of the locally drawn mill-force was male.

Because a smaller proportion of women regularly worked than men, these figures understate the differential impact of the mill upon those members of either sex seeking employment. Expressing the material in another way: in 1851 the mill employed 18.9% of working women aged 15 or above compared with only 10.6% of men;

and by 1861 these proportions had become respectively 25.6% and 8.9%. Insofar as men were primary breadwinners the mill served the community less well than at first appears.

It also offered proportionately more employment to the young than to those who, being older, were likely to be bearing the chief financial responsibility for supporting a family. Juveniles, whose participation was restricted by legislative control, were not a particularly important section of the workforce: 14.8% of employees were aged under 15 in 1851 (13.3% a decade later). But at both dates over half were aged less than 25 (54.3% and 58.5% respectively).

There are two even more telling qualifications to be made. The first concerns the near-exclusiveness with which the mill's Culcheth-resident workforce hailed from Bury Lane itself. One should, of course, expect that the mill's pull would be greatest in its immediate vicinity, but considering the township's general dependence on the handloom it is surprising that none at all of the inhabitants of the Central and Southern districts appear to have taken up employment at the mill by 1851. The corollary is that at this date the mill made a very substantial contribution to occupational structure in Bury Lane itself, where it employed 70.8% of those aged 15-19 and 41.8% of the 20-24 age-group. By 1861 the position had changed slightly, with 7.4% of the mill's Culcheth workforce hailing from outside Bury Lane. But there remains a strong impression, to which we shall return, that the inhabitants of Central Culcheth, the segment of the township most committed to handloom weaving and hence most in need of alternative employment opportunities, were markedly slow or unsuccessful in pressing their claims to a share of the new jobs created.

The second point, allied to the first, is that initially at least notably few of the mill's employees were natives of the area. In 1851 only 39% of the locally resident workforce had been born in Culcheth. If one were to include the 40-odd% whose domicile lay outside the township the overall figure would undoubtedly have proved substantially lower still.

Table VII. Culcheth-born % of locally resident mill workforce in 1851 and 1861 (1861 figures in parentheses)

Age:	Under 15	15-19	20-29	30/over	All ages
Males	50 (89)	50 (71)	30 (52)	10 (29)	30 (48)
Females	59 (60)	64 (64)	48 (64)	17 (47)	48 (59)
Total	55 (68)	58 (66)	42 (60)	12 (38)	39 (55)
% Distribution of workforce:	15 (13)	29 (24)	27 (27)	30 (36)	

The position is shown in Table VII. Amongst women the native-born took almost half the available work by 1851, but for men the share was less than a third. This difference would no doubt be partly explained by a higher proportion of male jobs being skilled or of a supervisory nature (as engineers or overlookers, for example) for which experience and technical knowledge of the machinery would have been required. But the sexual differential also affected the younger and therefore less skilled age-groups, which is suggestive of mistrust of the mill in local society - on the time-honoured principle that what men find intolerable for themselves and their kind they may simultaneously construe as acceptable for their womenfolk.

The apparent strengthening of the native-born males' position by 1861, particularly at younger age-groups, is somewhat misleading and does not appear to indicate any marked change of attitude to mill employment, for it represents merely holding a larger share of a smaller market: in absolute terms the number of male mill-workers under the age of twenty fell from 44 to 22 over the decade to 1861. By the latter date the share of all jobs going to natives of Culcheth had become a bare majority of those offered to residents of the district: not an impressive degree of penetration after about fifteen years of the mill's existence.

One consequence of these features of the mill's workforce - its geographical concentration, and the low participation rate among denizens of the township - was the development of a degree of socio-economic polarisation between Bury Lane and adjacent Central Culcheth. Divergencies quickly appeared in the social origins of the two populations.[1] In 1851, for example, four fifths of the inhabitants of Central Culcheth were said to have been born in the township, and roughly one half of the remainder originated in nearby rural areas. In Bury Lane, by contrast, although the great majority hailed from Lancashire, almost exactly a half of the population had been born outside Culcheth, and of these three quarters came either from towns or from distant rural areas (typically in central or northern Lancashire, or in Yorkshire). About one tenth of the Bury Lane immigrants were from Ireland - not a large number in view of the fact that the only locally resident partner in the mill enterprise in 1851 was himself Irish, and several of his compatriots in the district

[1] For their occupational differentiation see Table IX below, p.70.

were, to judge from their shared surname, simultaneously his relatives.

The intriguing feature of Bury Lane's immigrant population is the high frequency (though not actually preponderance) of urban Lancashire names among the places of origin of the non-rural millworkers. They came not only from Leigh and Warrington, but from Rochdale, Bury, Bolton and Manchester itself. These were second generation townsmen at the least. And no doubt many of those immigrants who had been born in distant rural districts had also moved in the immediate past from an urban environment.

The wide catchment area of the mill community's origins and the strong urban element within it suggest that most of the work-force had been recruited by newspaper advertisement in areas of Lancashire where the population already possessed the mechanical and other skills which were required in Bury Lane. The mill-owners being, it may be supposed, businessmen before philanthropists would probably have been keener to establish an experienced core to the workforce than to start from scratch with what they found in Culcheth, irrespective of the latter population's tractability and readiness to work. They might also have considered the older handloom weavers' notoriously independent and wayward approach to work inappropriate to their needs.[1]

But it is equally clear that any such preference they may have had for employing those brought up to millwork did not amount to a refusal to take on former handloom weavers. Bury Lane was the only district of Culcheth in which the number

[1] D. Bythell, op.cit., pp.116-8 and 131-2.

of households operating handlooms actually declined between 1841 and 1851 - it fell indeed by as much as a half. This was partly the product of emigration, but also of direct transference of labour to the mill. And even those few households in the district which retained their looms tended also to draw some income from the mill. A similar pattern can be observed among the agricultural labouring population of Bury Lane. As we have seen, this section of the labour market had become seriously overstocked during the 1830s as handloom weavers sought to abandon their trade. In the succeeding decade, however, the number of Bury Lane families engaged in agriculture fell by around one quarter, much of which again represented transference of labour to the mill.

This shows that the local population, including former handloom weavers, could get employment at the mill if they wanted it. That some of the indigenous inhabitants of Bury Lane took that course while those around them did not may be indicative of the greater pressures lying on the former. It is easy to imagine that increasingly hemmed in by a foreign population (many of whom were from urban backgrounds) and subjected to the high housing density and noise level which accompanied the invasion, they would also daily have been forced to witness tangible evidence of the superior wealth of their new neighbours and could hardly have avoided becoming conscious of a loss of social standing in the greatly altered community in which they now found themselves. For the handloom weavers, whose depressed condition was dialectically related to the prosperity which surrounded them, the personal choice must often have been stark: join the mill or quit the district.

By contrast, those living in Central Culcheth, a mile or two away, were close enough to take work at the mill - as a handful were doing by 1861 - but sufficiently distant, should they so choose, to preserve their self-esteem and ways of life by avoiding direct contact with the mill community. This they did.

The mill therefore left less of a mark on the indigenous population's employment structure than at first seemed possible. To see how the majority of handloom weaving families in the district did fare we must therefore retrace our steps to the 1841 census. For technical reasons - the civil registers do not distinguish between silk and powerloom weavers - it has not been possible in the reconstitution exercise to analyse the demographic experience of Culcheth's mill workforce separately from that of the rest of the community. In line with this, therefore, the following summary of the occupational shifts characteristic of the years 1841-61 will be related to the township as a whole (though we shall also take one final glance at the picture on a district basis). The ensuing remarks should also be understood as relating exclusively to the population aged 15 or over. And except where the sense otherwise dictates they will discuss the break-down of the workforce not of the age-groups as a whole.

The household schedules of the censuses of 1841-61 were supposed to enumerate the occupations of everybody who was employed. In fact, in 1841 the Culcheth enumerators did not do this consistently in the case of familial dependents.[1] As a result the apparent participation rates for both men and women are way below the levels which later censuses show to have been characteristic

[1] This was evidently a national phenomenon. Eds. B.R. Mitchell and P. Deane, Abstract of British Historical Statistics (Cambridge, 1971), p.59.

of the society. At this census, therefore, the proportions engaged in particular sectors are liable to a margin of error.

Table VIII requires more serious amplification. In all three censuses there was a tendency for the relatives of farmers, tradesmen and skilled craftsmen to be designated 'farmer's wife/son' etc., rather than to be allotted a specific economic role in their own right. The decision taken in this analysis was to regard the wives and children of farmers and retailers as aiding the household head in his occupation unless, of course, they were specifically denoted as following some other line of employment. The same holds for the male children, but not the female relatives, of craftsmen (such as wheelwrights, bricklayers and blacksmiths). The broad case for these interpolations is obvious enough. Culcheth's farms had a predominantly pastoral character and, except possibly on the largest of them, a farmer's wife would have played an important part in the day-to-day affairs of at least its dairying work (although here, together with their children, they are considered as labourers, not as farmers in their own right: the intention being to avoid exaggerating the numbers of farmholdings in the township). Obvious too, I think, is the assumed involvement in the family business of farmers' and of craftsmen's sons (when described as 'blacksmith's son', etc.), and of the kin of either sex of such as beersellers and grocers.

But these assumptions are generally less plausible for females than males. In particular, farmers' wives may have worked, and their daughters very likely did work, at the loom in addition to any agricultural duties they performed. And the better off among them may indeed have been entirely unemployed.

For these reasons the proportion of females ascribed to agricultural employment in Table IX is almost certainly overstated, usually at the expense of handloom weaving. In 1841 the problem is particularly acute because, with so many dependents' occupations left blank in the returns, accrediting farmers' relatives with active employment while failing to do so for the wives and children of weavers and others would have led to a grossly distorted picture of the relative importance of agriculture to women. In the case of this particular census, therefore, the rules just outlined for treating the kin of farmers were applied to males, but only women of stated occupation were incorporated into the statistics. The results may exaggerate the importance of the handloom somewhat. For this reason, the female occupational break-down for 1841 has been printed in brackets, and no attempt has been made to calculate an aggregate employment profile of the township in that year.

It will be noticed that in 1841 - before the mill was built - male dependence on the handloom was far from negligible and somewhat greater than Figure 4 suggested. Weaving in fact was commoner amongst the under-30s (38.2%) than their elders (30.8%), thus belying the common view - which may well have substance in areas with wider alternative employment opportunities - that it was the older age-groups which remained longest in the trade. This result, though, is actually a statistical residual of the fact that in the farming classes men tended to come into possession of a holding only after age 30. If farmers are excluded, handloom weaving claimed c.40% of both age-groups in 1841.

Table VIII. % occupational distribution of population aged 15 and above, 1841-61[1]

		1	2[2]	3	4	5	6	7	8	9	10	Participation Rate
Males:	1841	33.3	—	16.4	30.3	3.4	10.5	3.2	—	0.4	2.4	(75.2)
	1851	24.2	10.6	10.4	33.6	4.3	10.1	3.4	—	2.0	1.3	96.4
	1861	12.2	8.9	11.8	34.9	12.7	10.1	4.2	—	3.3	1.8	97.4
Females:	1841	(62.5)	(0.4)	(4.8)	(10.4)	(0.8)	—	(11.6)	(3.6)	—	(6.0)	(57.4)
	1851	42.2	18.9	1.7	22.7	1.3	1.3	4.9	6.1	—	0.8	75.3
	1861	35.1	25.6	1.5	22.2	1.9	2.4	5.8	3.9	—	1.7	77.7
Total:	1841	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1851	31.7	14.1	6.8	29.1	3.1	6.5	4.0	2.5	1.2	1.1	86.3
	1861	22.5	16.4	7.2	29.2	7.8	6.7	4.9	1.8	1.8	1.8	87.4

Key:
1: Handloom weavers.
2: Powerloom weavers, winders, dyers, etc.
3: Farmers.
4: Agricultural labourers.
5: General labourers.
6: Skilled and semi-skilled crafts (excluding millworkers).
7: Retail.
8: Domestic servants.
9: Blue-collar grades (overlookers, book-keepers, police, etc.).
10: Professional and rentier classes.

Notes:
1. Results considered untrustworthy are in parentheses. See discussion in accompanying text.
2. A few millworkers are classified as 5 or 9.

The mill created an opening for the young, and as many as 21.4% of males under 20 were employed there in 1851, only slightly fewer than the numbers still at the handloom. But when, in the 1850s, alternative (non-agricultural) labouring jobs became available, they moved from the mill as well as from handloom weaving to take these up. This category of labouring (particularly on the railway) had barely existed in 1841. But by 1861 almost as many (17.6%) of the under-30s were engaged in general labouring as in mechanised and handloom weaving combined (20.0%). This is what largely explains the shift during the 1850s in the overall male employment structure. At this point the handloom was beginning to become the preserve of older men, who were presumably unfitted for mining and foundry work and even railway platelaying. But this ageing of the handloom workforce lay a full generation after the onset of the industry's initial crisis, and once again it is noteworthy that the Bury Lane mill played little part in its final solution.

Culcheth women had a participation rate approximately double the national average in Britain.[1] But the range of occupations open to them was always more restricted than for men - a fact reinforced by the difficulty of combining child-rearing with employment away from the home. Domestic service was an inconsistent but generally negligible element in the picture, dependent on the establishment maintained at Culcheth Hall and on the whims of the occasional widows who alighted transitorily in the district. Openings for employment in paid agricultural service were also relatively few - in 1841 this sector absorbed only

[1] Nationally in 1851 employed women represented 40.3% of those aged 15 or over, but the numerator includes workers younger than this. Eds. B.R. Mitchell and P. Deane, op.cit., pp.12-13 and 60.

4.2% of all women, for example. As we have indicated, the substantial proportion of women shown as having an involvement in agriculture is largely a presumption based on kin relationship to a farmer.

These circumstances would seem to explain not only why women in 1841 were more heavily concentrated in handloom weaving than were men, and why they turned with greater alacrity than the latter to the jobs offered thereafter at the mill - but also why, nonetheless, as late as 1861 female handloom weavers outnumbered their steam-assisted colleagues by nearly 40%: indeed among those aged over 20 the margin was around 80%.

To place these findings, which relate to individuals, on to a familial basis which would render them comparable with the information derived from pre-1841 censuses is a difficult task. In the absence of income figures for each occupational group or a knowledge of the time-input and levels of skill of domestic workers, the categorisation of households according to their degree of dependence on particular sources of income is necessarily a hazardous exercise. But it is worth attempting loosely. In drawing up Table IX notice was only taken of subsidiary employments when it seemed likely that these made a material contribution to household income. The intention was, imitating the earlier censuses, to find the proportion of families 'chiefly dependent on' agriculture, etc., and households were described as of mixed income only where their lack of occupational specialisation was such that a patent distortion would arise if they were allotted to one particular sector. The results, being so impressionistic, are expressed in fractional terms rather than percentages in order to avoid attracting that near-automatic trust which the latter tend to invite.

Table IX. Estimated occupational distribution of households by district, 1841-61[1]

District	date	Proportion wholly dependent on: agriculture	handloom	mill	other	Proportion wholly/partially dependent on: agriculture	handloom	mill	other
Bury Lane	1841	1/4	1/3	-	1/5	2/5+	1/2	-	1/5
	1851	1/10	1/40	1/3	1/7	1/4	1/5	2/3	1/4
	1861	1/12	1/30	1/3	1/6	1/4	1/15	2/3	1/3
Central Culcheth	1841	1/5	1/2	-	1/5	3/10	3/5	-	1/5
	1851	1/10	2/5	-	1/5	3/10	2/3	-	3/10
	1861	1/10	1/4	-	1/4	3/10	3/5	1/30	2/5+
Southern Culcheth	1841	1/2	1/5	-	1/5	3/5	1/3	-	1/5
	1851	2/5	1/5	-	1/6	3/5	2/5	-	1/4
	1861	2/5	1/10	-	1/5	2/3	3/10	-	1/3
Whole township	1841	3/10	1/3	-	1/5	2/5+	1/2	-	1/5
	1851	1/5	1/4	1/10	1/6	1/3+	2/5+	1/5	1/4
	1861	1/6	1/8	1/7	1/5	1/3+	1/3	1/4	1/3+

Note: 1. For caveats see accompanying text. The fractions used are not minima, simply approximations. Thus 2/5+ indicates a value somewhere near the middle of the fifth decile.

The most obvious and expected features of Table IX are first, the impact of the mill on employment in the Bury Lane district - in less than a decade the prosperity of a clear majority of the population had become dependent on the fortunes of a single employer - and secondly, the shrinking proportion of families in each district which subsisted entirely by the handloom. But during the 1840s there was actually an expansion in both the proportion and absolute numbers of households in Central and Southern Culcheth which had a <u>partial</u> dependence on domestic weaving. Contemporaneously a contraction can be perceived in the agricultural sector. The two phenomena are probably associated. We have already seen that men seeking to withdraw from handloom weaving initially had little alternative to turn to except agricultural labouring. The full extent to which this shift had distorted the township's occupational structure by 1841 can be gauged from Table X. The physical labour requirements of local agriculture are unlikely to have grown substantially in the fifteen years between 1826 and 1841. It appears likely therefore that the economic position of labourers would have been threatened by the influx of ex-weavers, and that employment in the sector would have become increasingly casual - in short, that precious little would have distinguished the two groups economically. As late as the 1840s it seems possible that some labour was even flowing back into weaving.

At all events it is clear that while increasingly few families depended entirely on domestic weaving, the decline in those drawing some income from it was (outside Bury Lane) much less marked. In Central Culcheth it was non-existent. Here the fortunes of a majority of families were still tied to the

handloom as late as 1861, and in the township generally its influence remained much more pervasive than an analysis of the occupations of males or of household heads would have implied.

The simplest way of placing into longer-term perspective the occupational shifts we have been examining is to revise the census enumerators' classifications to show the estimated distribution of families 'chiefly dependent on' the particular sectors which most affected Culcheth's economic development during the early nineteenth century. This is done in Table X. The baptismal information on which Figure 4 was based has been used to estimate the size of the 'other' sectors before 1841. Accepting the enumerators' judgment of the importance of agriculture thus leaves the size of the handloom sector as a residual. How the enumerators in 1811-31 determined the classification of families with mixed incomes is not known. For 1841-61 the procedure adopted was to take the numbers of mixed-income households, find their distribution as between 'agriculture + other', 'handloom + other' and so on, and to assume that the major source of these families' occupational dependence followed a similar distribution. Rough though this method undoubtedly is, its results cannot be very wide of the mark.

Table X. Estimated % distribution of households by sector, 1811-61[1]

Year	Agriculture	Handloom	Mill	Other
1811	25.0	67.0	-	8.0
1821	25.7	63.7	-	10.6
1831	27.1	60.8	-	12.1
1841	37.8	42.4	-	19.9
1851	28.8	33.0	15.5	22.7
1861	27.6	23.2	19.7	29.5

Note: 1. For method of construction see text.

Sources: For 1811-31, census abstracts (for agriculture) and Anglican baptism registers (for the 'other' category); for 1841-61, census household schedules.

At first glance these figures suggest a society undergoing a fairly smooth process of occupational diversification as the handloom declined. In fact, as we have seen, the proffered opportunities for diversification came late and (with the exception of general labouring) were spurned by the mass of the indigenous population when they did. The changed nature of the source material between 1831 and 1841 may distort the relative size of the shifts to agriculture or 'other' occupations to which displaced handloom weavers turned, but can only do so very slightly. The stress to which a still traditional structure of employment was subjected by the efflux from weaving is clearly apparent in the expansion of the agricultural sector during that decade, which we have shown was by no means exclusively a residual of emigration on the part of weavers. Much of the observed transformation of Culcheth's occupational structure over the thirty years 1831-61 was the product of migration - into the district as well as away from it - but those who remained showed

a stubborn refusal substantially to alter their ways of life which might appear irrational to economists but which was too persistent and pervasive in the handloom weaving core of the township to be considered disoriented behaviour. A strong adherence to prescribed rules of behaviour or values would seem a more plausible interpretation.

IV

The fertility data discussed in succeeding chapters have been grouped by sub-periods to form cohorts. Several different ways of arranging the material chronologically suggested themselves, however, depending on the particular aspects of behaviour under study at any one time. Accordingly, three different groupings of cohorts have been employed.

As we saw earlier in this chapter Culcheth's illegitimacy ratio followed a pattern which could be described as trend-dominated rather than fluctuating: it was comparatively low in the eighteenth century, rose more or less continuously in the first forty or fifty years of the nineteenth, and thereafter fell back rapidly towards its traditional level. Several other and allied fertility measures described a similar course. In such cases a division of the eighty-year period into three sub-periods, or phases, seemed appropriate: 1781-1800; 1801-50; and 1851-60. This was also the schema strongly preferred by the examiners of the original version of this thesis although, as explained more fully below, it has its limitations. One of these is that in aggregating the experience of the first fifty years of the nineteenth century (and indeed the last twenty years of the eighteenth, which were not strictly homogeneous in

character) it appears to indicate fairly sharply differentiated periods without illustrating either the length of time over which the new mores became diffused in the district, or the full scale to which they were eventually adopted. So, for graphical purposes only, this '3-phase approach', as it will be termed, is supplemented on occasion by a decadal break-down of the material (1781-90, etc.) which, by taking shorter periods of equal length, remind the reader by visual means that the social processes summarised by the tripartite division of the period <u>are</u> processes with a 'flow' or time dimension.

There are other aspects of Culcheth's fertility patterns, particularly concerning marital as opposed to pre-marital behaviour, which are characterised by fluctuations rather than long-term trends. To illustrate these - and even in some instances to highlight the absence of change in variables where, in context, this might have been expected - somewhat shorter cohorts, five in number and of variable length, have been employed: 1781-92; 1793-1817; 1818-28; 1829-42; and 1843-60. In addition it has sometimes been illuminating to sub-divide the second of these five periods into cohorts 2a - 1793-1801; 2b - 1802-10; and 2c - 1811-17. Finally, in some instances, such as age at first conception and general marital fertility, data proved sufficiently numerous if grouped in three-year moving average form to be plotted on a year-to-year basis and submitted to short-term trend analysis within the 5-cohort structure just outlined or to regression analysis against selected economic indicators.

To avoid confusion, wherever cohorts are referred to for brevity by <u>numbers</u> in the text of following chapters it will

be this division of the period into five cohorts which will be indicated, not the sub-periods of the 3-phase approach.

Most of the remaining pages of this chapter will be devoted to explaining how the divisions of the 5-cohort approach were arrived at. But as the use of relatively short cohorts may prove controversial some preliminary discussion is called for of the more general role of cohort analysis in the study of past societies.

Demographic data, like any other time-series, can be analysed on an annual or in some instances even a monthly basis - if the number of observed events is sufficient to impart reliability to the findings. Family reconstitution, however, is a peculiarly labour-intensive, time-consuming form of study and demographic historians correspondingly tend to work upon areas of restricted population size, such as the individual parish, which in practice usually yield too few data for any but the simplest measures (numbers of births or deaths, for example) to be handled statistically over such short periods of time as these. For this reason alone the results of an individual's labours will invariably require aggregation over several years, and thus the formation of cohorts: that is to say, groups of people - let us take brides - who as individuals may have married years or even decades apart but who are analysed statistically as a single stock and regarded in effect as though each had married on the same day. The employment of cohorts also has a theoretical justification inasmuch that family formation typically extends over a period of anything up to thirty years and when, as is usually the case, it is the entirety of this process which is the focus of study, different women's experiences of the 'real world' will have considerable overlap even

though they may have married several years apart. The question, though, is how long should the demographer's cohorts be?

The first requirement must be that the periods chosen have a demographic homogeneity (which could be a matter of a consistent trend, not merely unchanged values in the variables). Otherwise statistics purporting to reflect the experience of a period as a whole simply will not do so and may even on occasion amount to an artefact, untrue to any segment of the period in question. Most demographic material, however, presents itself to the researcher on a year-to-year basis in the form of distributions, not of single values. If, for example, everybody in society married at the same age, it would be immediately apparent that a change in social behaviour had occurred if age at marriage moved from 25 in one year to 27 in the next. But in the real world the ages of people who marry are likely to be spread over a range of twenty years or more, and changes in the mean of their ages can be effected by the altered behaviour of relatively few members of society (broadly, those in their teens and those in their later 30s and beyond).

For this reason, exacerbated in the case of most reconstitution analyses by small sample sizes - socially significant changes in demographic behaviour can seldom be pinpointed to a particular year. Where at all possible, therefore, the dating of cohorts should take account of the phasing of any other variables which are susceptible to more precise dating and to which there are grounds for supposing demographic behaviour to be related. Economic conditions in the community being studied would be the most obvious example, because all vital events have economic implications and most historical population studies

are intrinsically (if not always explicitly) also contributions to economic history. Earlier or later marriage tends to affect completed family size; births mean an extra mouth to feed, perhaps the accompanying loss of a wife's earnings; deaths may involve the reverse, or the removal of a breadwinner, the transmission of property to a younger generation, and so on. At a wider level, changes in a community's fertility or mortality schedules will affect the whole balance between population and resources. Conversely, changes in the economic environment (affecting the resources side of the equation) may prove to be stimuli to demographic adjustment. In fact one of the commonest preoccupations of demographic historians lies in assessing the extent to which past populations suited their reproductive behaviour to their economic circumstances.

Not all demographic changes can be closely related to their economic context. The sharp fluctuations in mortality characteristic of pre-industrial populations <u>can</u> be so related - despite the general weakness of correlation between the timing of epidemics and contemporary economic circumstances,[1] and the fact that human agency played no wilful part in their causation - because mortality crises affected that balance between population and resources already alluded to. But the spreading use of contraception in western European society over the past century or century and a half, for example, has been so protracted a development that no really convincing tie-up between economic change and the reduction of fertility has been established. Intuitively there would seem to be a connection but, as Habakkuk

[1] J.D. Chambers, <u>Population, Economy and Society in Pre-Industrial England</u> (Oxford, 1972), pp.90 and 94-6.

has pointed out, the economic circumstances commonly adduced to account for the onset of the trend could in some instances be as plausibly deployed to 'explain' its reverse.[1]

Nor should all fertility behaviour be expected to be perceptibly responsive to changes in the economic environment. The role of legislation, and of cultural values (affecting, for instance, ideas of the 'proper' age at which to marry, or the age-specific pattern of courtship customs) has been little studied by demographers although these might be capable of generating or perpetuating economically inappropriate demographic behaviour,[2] of limiting societies' capability for reacting to altered economic circumstances or their willingness to do so, and might indeed explain much of the observed divergencies in fertility regime between socio-economically differing societies which are usually attributed to purely economic factors.

But insofar as socially significant changes in the aspects of demography over which people have some control - namely, those associated with fertility - are susceptible to causational interpretation, as a lowest common denominator (as it were, whatever else may be involved) it is generally to changes in economic variables that one should expect them to be related. This can be of great assistance when determining the appropriate length of demographic cohorts to be employed in the analysis of data.

[1] H.J. Habakkuk, Population Growth and Economic Development since 1750 (Leicester, 1971), pp.56-7.

[2] Ibid., p.98; J. Knodel, 'Law, Marriage and Illegitimacy in Nineteenth-Century Germany', Population Studies, 20 (1967), 279-94.

Nonetheless, it must be stressed that there are no empirically established ground-rules of either demographic or economic behaviour suggesting that any particular length of cohort merits generalised application. The particular circumstances of the community concerned can be the only guide. Industrial areas like Culcheth (and Colyton?) are likely to have experienced more rapid changes in their economic fortunes than, let us say, pastoral upland districts, and might require the use of shorter cohorts to mirror this. On the other hand, since relatively static rural communities are probably the easiest to reconstitute it may be the case that in practice most studies could appropriately employ longer cohorts - perhaps of 50 or even 100 years' duration, although as the economic environment is somewhat unlikely to maintain a uniform character for so long even this may be doubted. As a general proposition the longer the cohorts chosen the less closely can demographic behaviour be related to specific external conditions.

Most reconstitution studies do in fact deploy long cohorts of this type, but the reasoning behind their use is seldom specified. In practice the prime motive is often, I suspect, the achievement of statistically respectable 'sample' sizes. To this we shall return. To some extent the fashion also probably reflects the influence of Henry's pioneering work on the Genevan bourgeoisie.[1] But it is important to remember that the cohort lengths (50-100 years) which Henry used were determined by what he was studying and not by criteria which can be generalised to apply to all subsequent studies of other communities. The most striking facet of the society in question was the diffusion of

[1] L. Henry, Anciennes Familles Genevoises (Paris, 1956).

contraceptive practices, a process which was evidently continuous but extremely gradual. The particular periods chosen to define his cohorts were selected not, it may be supposed, because these century and half-century terminal dates marked behavioural turning points, but first because the very gradualness and continuity of the demographic change whose course Henry was describing would not have justified taking shorter sub-periods and secondly, within that rubric, for simple convenience. No point of general principle emerges here unless it is claimed that all socially significant changes in fertility patterns will tend to follow a similarly extenuated pattern.

So far as I am aware no one has made any such claim. It would be curious were they to do so, since it certainly cannot be maintained that fertility only reacts to economic change slowly or after a considerable time lag. At the beginning of this century Hooker demonstrated the sensitivity of the marriage rate to conditions of trade, while between the Wars Thomas's much more ambitious study of the later nineteenth century found systematic relationships to subsist between a wide range of social and demographic variables and the business cycle, findings which have subsequently been amplified by others.[1] At first it might be more plausibly argued that fertility shifts conform to

[1] R.H. Hooker, 'Correlation of the Marriage-Rate with Trade', Journal of the Royal Statistical Society, 64 (1901), 485-92;
D.S. Thomas, Social Aspects of the Business Cycle (London, 1925);
D.V. Glass, 'Marriage Frequency and Economic Fluctuations in England and Wales, 1851 to 1934', in ed. L. Hogben, Political Arithmetic (London, 1938), pp.251-82;
M. Silver, 'Births, Marriages, and Income Fluctuations in the United Kingdom and Japan', Economic Development and Cultural Change, 14 (1966), 302-15.

both short- and long-term patterns, but that because of the need to aggregate several years' experience when reconstituting a parish this technique is only suited to illuminating the latter. But this is still a weak position if it is intended to justify the use of cohorts stretching over half a century or more as intrinsically the best analytical approach. The use of longer cohorts will in fact mask trends, not reveal them, unless the latter are of at least the same duration as the cohorts selected. Here we return to our starting point and to the criterion of statistical respectability alluded to earlier. Unless the periods chosen have a relatively homogeneous demographic character the statistical results of the analysis will have no interpretive value whatever, and the achievement of usable 'sample' sizes will be futile. Large numbers in themselves do not constitute a sample. It has to be demonstrated first that they are drawn from the same population, which in this instance means demographic regime.

We <u>know</u> that fertility sometimes reacts in the immediate term to short-run changes in the economic environment; and we may <u>think</u> we know that long-term demographic adjustments to the economy occur as well. But there are no <u>a priori</u> grounds for supposing that either economic or demographic developments should follow a double or quadruple kondratiev cycle. Should a society be undergoing fluctuations of an intermediate length the use of long cohorts may entirely obscure them. Indeed the surest way of validly establishing the existence of longer demographic trends is initially to use shorter cohorts which enable the researcher to detect whether or not phases of intermediate length also occur and hence whether the use of long cohorts in

fact isolates genuine behavioural trends or merely, and confusingly, aggregates several partially offsetting changes lying within the period studied. The identification of any longer-term patterns there may be should thus be helped, not hindered, by initially working with shorter runs of years.

As a behavioural science historical demography in its reconstitution branch has so far made a negligible contribution to its sister fields. In the opinion of the present writer its behavioural hypotheses have been few and often trivial in large part because researchers have pursued the chimera of statistical respectability (via over-long cohorts) at the expense of tying their demographic analyses to the tempo of economic change in the real world - or indeed to sunspot phases or anything else which might help explain the phenomena under study. Statistics are a prop to the historian. They are not a substitute for judgment and can on occasion prove a positive obstruction to the elucidation of a community's mores when, as seems often to be the case, what are misguidedly conceived of as sampling considerations are given primacy in dictating the length of cohorts over the phasing of the behavioural patterns ostensibly being described.

To bring the discussion closer to home: in neither economic nor fertility terms was the first half of the nineteenth century in Culcheth homogeneous in character. The period could <u>loosely</u> be described as that of the handloom weavers' decline, for as Bythell has shown and the poor law figures shortly to be discussed confirm, their difficulties commenced long before the spread of the powerloom in the 1820s and even as early as the 1790s.[1]

[1] D. Bythell, <u>The Handloom Weavers</u> (Cambridge, 1969), chapter 5.

But the deterioration did not progress at a consistent pace. There appear, for example, to have been remissions during the 1800s and 1820s which, in line with the argument presented above, are worth isolating in order to test whether they were accompanied by fertility changes. On *a priori* grounds, moreover, I think such adjustments should be expected in a society if it was demographically responsive to changes in its environment, and that were this point established it would lend *prima facie* support to the view that, however unusual its demographic profile, Culcheth was not as a society disoriented or anomic in the period reviewed. So sub-division of the first half of the nineteenth century has more than a statistical purpose.

Let us take the *a priori* reasoning, though. Only a very mechanistic view of fertility responsiveness to economic conditions would posit a linear relationship between, for instance, age at marriage and absolute standards of living - such that, perhaps, a 10% fall in real earnings in each decade across a period of half a century or more would be matched on each occasion by a rise of one year in the mean age of brides. It is surely more likely that individuals' marital decisions would be influenced primarily by their personal experience of economic conditions and their expectations for the future - this, probably, to a lesser extent since the future holds no morals for the present - and scarcely at all by the age at which, according to hearsay, people of their grandparents' generation had married, albeit in more prosperous times. Their first-hand and informed knowledge of the course of economic change in the district would barely extend back beyond their teens - that is, no more than

ten and probably fewer years before they were first in a position to contemplate matrimony. In this context of fairly short time-horizons experience of even a few uninterrupted years of marginally better circumstances would be likely to have more significance to the individuals concerned than it might appear to warrant to the historical demographer to whom, from his vantage point a century or two later, the passing of a decade might seem as the blinking of an eye. It might not even be necessary that conditions should actually improve. A mere break in the course of a longer-term deterioration might restore a modicum of optimism and lead to an upward revision of expectations for the future.

At all events, Culcheth's population behaved in certain respects as though this was how they saw things - which is in itself a sufficient but not a necessary justification for isolating these sub-periods - though being creatures of habit and not automata they did not adjust their mores in all respects, nor as markedly over short periods of time as Henry's bourgeoisie learnt to do in the space of a century.

Finally to take the interpretive relevance of using short cohorts in studying Culcheth's fertility patterns. The technical propriety of doing so has already been discussed at length. But it should be added that even <u>if</u> the district's economic and demographic history had divided neatly into two parts (the late eighteenth century and the first half of the nineteenth) analysing the material in this way would not have been interpretively illuminating. For one would have had a simple juxtaposition - good times in the late eighteenth century combining with a low incidence of illegitimacy; bad times

thereafter accompanied by a high incidence - from which there is logically no way of inferring the nature of the relationship subsisting between the two variables. With more sub-periods to compare one at least stands a chance of detecting whether in certain respects the population displayed consistencies of behaviour in relation to changes in the environment which an economist would consider rational. This in turn could be an interpretive aid when assessing the probability that the growth of unmarried motherhood - itself an aspect of marital norms - was merely a symptom of social dislocation. We must be thankful that Culcheth's economic past does indeed break down into more than two blocks. If it did not, reconstitution would offer very little insight into the causation of the demographic changes brought to light.

The use of short cohorts does, however, inherently raise one interpretive problem and runs a risk of involving another. The first limitation is one of overlap in the 'real world' years spanned by the fertility histories of people classed as belonging to different cohorts. With cohorts of fifty years duration or more the entire history of the bulk of a cohort's members can be expected to fall within the years defining the cohort, whereas in Culcheth most women marrying, let us say, in cohort 3 (1818-28) will have spent part of their fertility careers in the period covered by cohort 4 (1829-42) and in some instances part also in that of cohort 5. The problem, however, can be put another way. The longer are cohorts the less can such measures as age-specific fertility be related to women's experience of actual 'real-world' years. With short cohorts somewhat greater specificity is possible, but care is

required to avoid giving the impression that the whole of a marriage cohort's career is spent in the period used to define its membership.

Secondly, the problem of small sample sizes, given Culcheth's developing aversion for marriage, is fairly persistent in cohort 4. It also affects cohort 2 (1793-1817) on those occasions when it proved otherwise advisable to subdivide it into cohorts 2a-2c and, depending on the type of analysis in hand, traces of its baleful influence may be detected elsewhere in the study as well. The fact is to be regretted, but nothing can be done about it. Where the problem arises it does not mean that the statistical results are in some sense wrong - enough of the village's population has been caught by the reconstitution exercise for one to be fairly confident that the figures reflect what actually happened in the township[1] - but there is a somewhat higher risk of their having been arrived at by chance rather than as a product of real behavioural trends. From an interpretive point of view it is suggested that the chances of observed results being flukes are substantially reduced where there is a consistency of behaviour within a cohort between variables which are at least partially independent of one another (very few fertility measures are wholly so); and that the same applies in some degree where there is a consistency of direction in demographic change between different periods which share a similar economic characterisation - that is to say, results based on small sample sizes need to be judged against the consistency of the total profile.

[1] See below, pp.148-52.

Economic data which could serve as sensitive indicators of changes in welfare in Culcheth, and thus be employed to define demographic cohorts, are few. The use of national statistics describing the course of the business cycle, such as those produced by Gayer, Rostow and Schwartz for the period 1790-1850,[1] can be immediately dismissed as inappropriate. First, this series of index numbers would have had to be extended by a decade at either end.[2] Secondly, it is by no means indisputable that all of the cycles those authors detected in the period of the French Wars were real, and in almost all cycles there is room for disagreement over the precise timing of turning points in economic activity.[3] Any hoped-for objectivity which might attach to such a series is thus questionable. Thirdly, it is difficult to see why an index which incorporates national statistics covering such matters as the percentage of iron-founders unemployed, the value of inland bills created, the production of bricks and the behaviour of share prices (whether these included mining shares or not),[4] should prove any guide at all to changing conditions in a single handloom weaving village - moreover one where for most of the period the dominant

[1] A.D. Gayer, W.W. Rostow and A.J. Schwartz, The Growth and Fluctuations of the British Economy, 1790-1850 (2nd edn., Hassocks, 1975), 2 vols..

[2] Hughes does not attempt to produce an index for the 1850s, and Rostow's delineation of cycles is much too imprecise for our purposes.
J.R.T. Hughes, Fluctuations in Trade, Industry and Finance (Oxford, 1960);
W.W. Rostow, British Economy of the Nineteenth Century (Oxford, 1948).

[3] See the review articles by E.V. Morgan, Economic Journal (1953), esp. 859; and R.C.O. Matthews, Oxford Economic Papers (1954), 1-32.

[4] A.D. Gayer, W.W. Rostow and A.J. Schwartz, op.cit., i.354.

form of employment was, unlike its parent sector the cotton industry, undergoing not secular expansion but protracted decline. And finally, because family reconstitution handles demographic events as stocks not flows it is ill-suited to comparison with annual data of this sort. Any attempt to wed the two would require the use of cohorts only three to six years in length if they were to fit the upturns and declivities of the trade-cycle, and would thus worsen any existing sampling problems. Fortunately the trade-cycle does not appear to have been the sole economic influence on local fertility.

Some of the above remarks would apply also to the statistics of net retained raw cotton imports, or alternatively of manufactured cotton exports, which might suggest themselves as other possible yardsticks. In particular, it is a fairly well-established fact that labour flooded into handloom weaving at such a rate in the later eighteenth century and early years of the nineteenth that piece-rates were already falling despite the phenomenal growth of demand for cotton goods.[1] The expansion of the industry as a whole is not a sensitive index to the welfare of its workforce - a fortiori with the spread of the powerloom.

Even the use of piece-rates as an economic indicator will not bear scrutiny. Bythell, in addition to collating such published series as exist in long runs, demolishes any hopes there might be on this score.[2] Without rehearsing his

[1] D. Bythell, op.cit., pp.40-53, 100 and 102-3.

[2] D. Bythell, op.cit., chapter 6, in which he also criticises Wood's estimates of handloom weavers' earnings.
G.H. Wood, The History of Wages in the Cotton Trade during the past hundred years (London, 1910).

arguments in full, there are two particular sets of circumstances which preclude the employment of such material in this study. The first is that the evidence is too sparse. From eight separate sources Bythell has constructed indices of piece-rates relating to two types of cloth.[1] From the period in the 1810s when the two series overlap it is clear that piece-rates for different qualities of cloth could decline at different rates over the same set of years. Very little is known about the qualities of cloth woven in the Culcheth district except that they were varied and changed from week to week or piece to piece.[2] Even the contours of Bythell's series for muslin and calico weaving in Bolton and north-east Lancashire, therefore, cannot be assumed to reflect local experience in Culcheth. Indeed, if the instability of product mix alluded to were typical of the industry as a whole, it seems unlikely that long runs of piece-rates relating to a single type of cloth would accurately reflect the position of any weavers at all.

More crucially, piece-rates are no guide to the incidence of unemployment or, most importantly, to the value of household earnings - which is the measure we are really interested in. Evidence from the later 1830s suggests that at that stage looms might be idle for one quarter or a third of the time.[3] No doubt a notional allowance could be made on that score. But

[1] D. Bythell, op.cit., pp.98-9 and 105.

[2] PLP Workhouse Weaving Account Book, 1822-30, shows that in the House at that time output comprised tabby, velveteen and sateen cloths, of varying quality and weight. See also Lowton Weavers' Delivery Book, 1818-29, Lancs. C.R.O., PR/353.

[3] E.g., Parl. Papers 1840, xxiii (43-I), p.330; (43-II), p.379.

nothing can circumvent our inability to estimate the labour input of each household. Apart from subtleties like controlling for families' life-cycle stage and dependency ratios - which might be held constant for the community at large - it is clear that handloom weavers as a body displayed the classic symptoms of a backward sloping labour supply curve: they worked shorter hours when piece-rates were high and longer when they were low.[1] Moreover, since the industry was cottage-based and relatively unskilled, especially in its ancillary branches such as warping and bobbin winding, it could draw upon the more or less occasional assistance of children and the elderly as occasion demanded, and there can be no doubt at all that part of the secular diminution of piece-rates was offset by increased individual and familial output.[2] This is not, of course, to say that real household earnings did not decline precipitously in the first half of the nineteenth century, but simply that we could not sensitively plot the progression on the basis of piece-rates even if they existed in the detail required. Besides, they do not.

The most obvious indicator of local economic conditions we possess is poor law expenditure. For reasons which will be explained below, it ceases to be a reliable guide to variations in the incidence of poverty among Culcheth's handloom weavers after the late 1820s, and thereafter cohorts have been defined by reference to more general considerations touching the township's changing socio-economic structure. But before that

[1] D. Bythell, op.cit., pp.131-2 and 137-8.
[2] Ibid., loc.cit., also pp.116-8 and 130.

date it is a perfectly adequate source for our purposes and has been used to delimit the study's first three cohorts, extending from 1781-1828.

The overall pattern of poor law expenditure in Culcheth is not greatly affected by changes in population level because the contours are fairly sharply defined. But to minimise ambiguity the figures are expressed in estimated per capita form. Before discussing the construction of the expenditure index it is necessary first to explain how annual estimates of population level were arrived at - particularly with regard to the eighteenth century years.

For the period from 1801 onwards the broad outline of Culcheth's changing population level is readily discernible from census material. Before that date, however, no degree of precision is possible because of an inability to measure migration flows into or away from the area. Most migration in the past was short-distance.[1] It follows that in general the larger the region studied the better the chance that migration flows will have had a negligible effect on population change within the area.[2] In these circumstances, and given good

[1] See, e.g., J. Patten, Rural-Urban Migration in Pre-industrial England (University of Oxford School of Geography Research Papers, No.6, 1973); A. Redford, Labour Migration in England, 1800-1850 (2nd edn., Manchester, 1964).

[2] Among the more celebrated aggregative studies of eighteenth century population change, Eversley's district comprised 15 parishes, Sogner took 17, and Chambers no fewer than 100 communities. D.E.C. Eversley, 'A Survey of Population in an Area of Worcestershire from 1660-1850', Population Studies, 10 (1957), 253-79; S. Sogner, 'Aspects of the Demographic Situation in 17 Parishes in Shropshire, 1711-60', Population Studies, 17 (1963), 126-46; J.D. Chambers, The Vale of Trent 1670-1800 (Economic History Review Supplements, No.3, 1957).

registration, one can estimate eighteenth century levels of population from which vital rates may be derived by the simple expedient of subtracting the surplus of baptisms over burials from the enumerated population of 1801. But the procedure is simply inapplicable at the level of the single parish which was seldom if ever a 'closed' community.[1]

Applying the technique to Culcheth's registers, with varying assumptions concerning the completeness of their coverage, yielded results which were implausible in two respects. First, they seemed to imply that birth rates were falling by at least three or four points per thousand in each of the last four decades of the eighteenth century; secondly, and allied to this, working back to the 1760s generated birth rate estimates of between 50 and 65 per thousand. Both phenomena are theoretically possible, but are much more likely to indicate that through most of the last forty years of the century Culcheth was in net terms gaining by migration - which is consistent with the fact that this period was also that in which the district shifted from an agricultural to an industrial base.

However, 1781, the date of commencement of this study, is sufficiently close to the census of 1801 for it to be possible on certain specified assumptions to estimate within fairly narrow limits the likely range within which late eighteenth century birth rates must have lain. The period was sub-divided

[1] Even when relatively isolated: C.F. Kuchemann, A.J. Boyce and G.A. Harrison, 'A Demographic and Genetic Study of a Group of Oxfordshire Villages', Human Biology, 39 (1967), 251-76; T. Dobson and D.F. Roberts, 'Historical Population Movement and Gene Flow in Northumberland Parishes', Journal of Biosocial Science, 3 (1971), 193-208.

into 1781-92 and 1793-1801, to fit with the 5-cohort approach followed elsewhere.[1]

A given birth rate over a stated period implies a certain average level of population. With the usual simplifying assumption of straight-line change between benchmark years, it is thus possible to arrive at estimates of annual population levels which are sufficiently approximate to serve as deflators of the sums expended in poor relief.

The procedure adopted rests on four assumptions. The first is that, after some adjustment has been made to allow for certain sects' registers which are missing for part or all of the period in question,[2] recorded baptisms can stand proxy for actual births in the district. This is never a safe assumption, particularly in the late eighteenth century,[3] but in the early nineteenth century, when our knowledge of population levels is better, Culcheth's recorded birth rates were respectably high.[4] So too were general marital fertility and completed family size.[5] These measures are all dependent on the quality of registration and appear to vindicate it in this instance.

[1] This form of dating means that the starting point is actually the estimated population in 1802, not that enumerated in 1801.

[2] See below, pp.134-5.

[3] Although Krause's argument merits more critical attention than it has received. J.T. Krause, 'Changes in English Fertility and Mortality, 1781-1850', Economic History Review, 11 (1958), 52-70.

[4] See Table XII below, p.99.

[5] See Table XXXVII, p.328, and Table XLV, p.357.

Secondly, it is assumed that the birth rate in 1793-1801 lay below that of 1781-1792 and that the latter cannot have been lower than that observed in 1802-10, which was 40.6 per thousand. This may sound like a determined rigging of the evidence. But it will be clear from later chapters that this ordering is implied by such measures as age at first conception, general marital fertility, and the marriage rate[1] (the last is, of course, a function of estimated population size but the conclusion would not be invalidated unless the latter was actually greater in the later eighteenth century than it was by 1801 - a supposition which cannot be entertained without accepting absurd levels of migration).

Thirdly, it is reckoned that the net gains or losses by migration implied by particular combinations of postulated birth rates in the two sub-periods are implausible if they much exceed 10-15% of each period's base population, and particularly if they lie in opposing directions. This is a subjective judgment, but the reader can assess its intuitive sense from the figures presented in Table XI.

Finally, it is assumed that in the period 1781-92 the population cannot have suffered a net loss by migration. This too is less extreme a requirement than it may sound, for this period has been described as the Golden Age of the handloom weaver.[2] It lay before the war years of inflation, and was locally characterised both by high fertility as alluded to above, and by a low and falling absolute level of poor law expenditure.[3] Had

[1] See Table XVI, p.203; Table XVII, p.207; and Table XLVI, p.359.

[2] E.g., D. Bythell, op.cit., p.94.

[3] See Figure 5 below, facing p.106.

conditions in the district been such as to induce a net movement of population away from it one might have expected this (in sectoral terms inexplicable) deterioration to have been reflected at the least in an initial sharp rise in pauperism for, quite unlike the situation in the 1830s, the long-term prospects of the industry had never looked better. By the latter date there are some grounds for thinking that appreciation of the inevitability of their trade's eventual demise induced weavers to migrate before they had fallen on the parish (much less the Union), but in the 1780s they could only have foreseen temporary depressions of trade.

The actual statistical procedure, given these 'controls', is simple: first to postulate a birth rate for 1793-1801; to apply this to the recorded (and expanded) numbers of baptisms in the period, deriving therefrom a mean population size; on the assumption of straight-line change between benchmark years to derive from this an estimate of the population level in 1793; to record the estimated net gain or loss by migration implied by a comparison of the surplus of births over deaths across the period with the estimated total change in population level, expressing the migration flow as a percentage of the base year (1793) population; and finally, working from this 1793 estimated population figure, to repeat the procedure for the years 1781-92.

Mathematically - that is, accepting as given the assumptions already made - the plausibility of the exercise depends in the first instance upon taking fairly short time-periods. Otherwise, for example if one took fifty-year blocks, it would prove impracticable to gauge the plausibility of the migration

flows implied by different postulated levels of the birth rate, since fluctuations within the period could not be even approximately controlled for. It also depends on taking a small number of sub-periods. Each implies a range of individually credible birth rates, the plausible combinations of which increase more or less geometrically the larger the number of time-units which have to be compared with preceding (from a strictly chronological point of view, following) ones. Splitting the twenty-one years between 1781 and 1801 into two sub-periods of twelve and nine years seems defensible by both criteria.

Table XI. Migration flows implied by given levels of birth rate, 1781-92 and 1793-1801[1]

1793-1801: Birth rate		37	38	39	40	41
		-18.8	-14.3	-9.6	-4.6	+0.7
1781-92: Birth rate	37	-1.8	-13.6	-23.7		
	38	+4.3	-8.6	-19.5		
	39	+10.8	-3.3	-15.1	-25.0	
	40	+17.8	+2.4	-10.5	-21.1	
	41	+25.2	+8.4	-5.6	-17.0	-26.8
	42		+14.9	-0.3	-12.7	-23.2
	43		+21.8	+5.2	-8.2	-19.4
	44		+29.3	+11.2	-3.3	-15.4
	45			+17.5	+1.8	-11.2

Note: 1. For explanation see text.

Table XI indicates the migration flows into or out of the district in each of the two sub-periods which are implied by the selection of particular birth rates. Thus the first column shows

that if the birth rate had been 37 per thousand in 1793-1801 the implied population level for 1793 would have been such, when contrasted with the recorded surplus of births over deaths, as to indicate that the period witnessed net emigration equivalent to 18.8% of the 1793 population. It also shows that accepting this 1793 population estimate implies a range of migration rates for the years 1781-92, depending on the particular birth rate postulated for those years. In some instances migration rates were too extreme to be worth calculating.

The first point to emerge from Table XI is that the haemorrhage of population characteristic of Culcheth in the nineteenth century was already apparent also in the years 1793-1801. For this period to have seen a net gain by migration its birth rate would have had to lie above 40, which in turn implies an absurdly high birth rate for the 1780s. At the other end of the scale the corollary is that the lower the birth rate between 1793 and 1801 the greater is the implied loss by migration and the more violent and implausible the reversals of migration flow when contrasted with the years 1781-92. On the assumptions we have made the birth rate in the later period must almost certainly have lain at around 38-9 (the crudeness of the exercise only warrants dealing with whole integers).

At these values there are three plausible levels for the birth rate in 1781-92. Viewed chronologically, the possible combinations would be: 41 with 38, 43 with 39 or 44 with 39. The first and last of these both imply fairly sharp discontinuities in migration patterns. In estimating the course of population change in the last two decades of the eighteenth century, therefore, the combination employed was 43 with 39. The decision

was influenced by the consideration that a birth rate of 39 in 1793-1801 implies a more rapid growth of population during the period than one of 38 (146 *cf.* 52). This has the effect of partially offsetting rather than possibly exaggerating the rise in per capita poor law expenditure which characterised those years. The effect on population growth in the earlier period, 1781-92, is of course the reverse, but is very slight (432 *cf.* 476).

Finally the eighteenth century vital rate estimates given earlier in Table III were based upon the annual movements in population level we have just derived. They may now be restated in 5-cohort form.

Table XII. Crude Vital Rates (per 1,000 of estimated mid-cohort population)[1]

	Cohort	Birth Rate	Death Rate	First Marriage Rate[2]
1	(1781-92)[3]	(43.0)	(22.6)	(4.97)
	2a (1793-1801)[3]	(39.2)	(19.7)	(3.79)
	2b (1802-10)	40.6	19.2	3.71
	2c (1811-17)	32.5	14.7	1.86
2	(1793-1817)	37.5	17.9	3.16
3	(1818-28)	36.7	18.4	3.13
4	(1829-42)	29.9	24.5	1.63
5	(1843-60)	37.6	23.1	4.38

Notes: 1. Employing 'net' series of baptisms and burials; workhouse population included in denominator.

2. Church-marriages where bride was a spinster.

3. For basis of eighteenth century estimates see accompanying text.

For the nineteenth century the existence of censuses (the accuracy of which is assumed in this study) somewhat eases the estimation of annual movements in population levels, although the resultant figures are not necessarily much more accurate in fact. The procedure adopted here was simply to calculate the annual surplus or deficit of baptisms over burials, and then within each inter-census decade to adjust these figures downwards by the average annual net loss by migration applicable to the period in question. In practice, of course, census points do not delimit discrete phases of migration, and occasionally absurdities will result. For example, the low overall rate of emigration during the 1820s almost certainly signifies that the net flow of migration was inward during the first half of the decade and more sharply outward from c. 1827 on. But the methodology employed here, which distributes net decadal loss evenly across the period, thereby imputes a loss of only one person per year during 1827-30 followed abruptly by a haemorrhage of 20 per year during the decade commencing in 1831. The growth in per capita poor law expenditure indicated for the later 1820s in Figure 5 is thus very probably understated, and the true rate of decline in the years following 1817 similarly.

But these are errors in the appropriate direction, and the object has been the construction merely of an approximate population control on expenditure figures. The resulting estimates are unlikely to be far from the truth except conceivably in the middle years of each decade, and it has been found by experiment that inaccuracies of the order of c.50 people, recurring in opposing directions in successive years, would be needed to effect substantive alterations to the short-run movements in

Figure 5. The chances of such sharp fluctuations in population size being sustained over a sufficient period to affect the broad configuration of the graph are too remote to merit further consideration.

The construction of a series of poor law expenditure figures was straightforward because documentation in the district is good, at least before the introduction of the new poor law administration in 1837.[1] Some interpretive problems, however, do arise. They are most conveniently discussed chronologically.

Until a Select Vestry was established in Culcheth in 1821 under the Sturges Bourne Act,[2] it was common for overseers to double as constable and it has proved impossible to disentangle their respective accounts through most of the period 1781-1817, when they are therefore amalgamated. To judge from the few individual years when the constables' expenditure can be distinguished, it was actually less than one fifth of the total and considerably more stable than the overseers' expenditure. Combining the two will therefore tend marginally to understate the amplitude of fluctuations in relief expenditure before 1818, but certainly could not generate unreal trends in the graph.

The homogeneity of expenditure figures is threatened more by the fact that Culcheth did not always possess an operational workhouse in our period. It had one in the 1750s,[3] which

[1] Interpolation was necessary with respect to 10 weeks' out-relief in 1818 and to in-relief in 1827.

[2] PLP loose memoranda.

[3] The Township Book of Culcheth (1716-1817), Leigh Public Library, B.901.

closed at an unknown date before 1804.[1] But this appears to have been a certain modest cottage[2] (to which the nineteenth century institution was later attached) - in short, nothing more than a poorhouse the existence or abandonment of which would have left barely a ripple on expenditure one way or another.

However, in 1822 the township opened a much enlarged workhouse which could on occasion house upwards of one hundred paupers.[3] The problem here is twofold. On the one hand, the unit costs of maintaining the severely destitute in the workhouse must have been reckoned lower than paying them out-relief, settling their rent arrears and so forth, or the institution would probably not have been opened. Its existence may thus mean that relief expenditure thenceforth understates the incidence of poverty relative to preceding periods. This effect is compounded by the fact that from 1824 onwards the Vestry embarked on a policy of taking in paupers from other townships in S. Lancashire and N. Cheshire (expenditure on whom has been deducted).[4] In terms of the workhouse's current account this was a profit-making enterprise which served to subsidise the township for the support of its own poor.[5] But it is difficult to see how the impact of these events could have been

[1] Parl. Papers, 1803-4, xiii (175), pp.248-9.

[2] Enclosure Award Map (1751), Lancs., C.R.O., AE/7/7.

[3] In 1842 capacity was stated to be 135, after the ratio of 2 adults and 1 child to each bed. P.R.O., MH12, 5926/3920/42.

[4] PLP loose bills (Inter-parish Agreements).

[5] See G.N. Gandy, Poor Law Administration in the Township of Culcheth, Lancs. (unpublished Oxford undergraduate dissertation, 1967), pp.14-17 and Appendix A, p.122.

other than marginal or could result in Figure 5 materially distorting true trends in the incidence of poverty in the community. Per capita costs when the workhouse was opened were already down 50% on the crisis years surrounding the end of the wars. And thereafter, in the years 1823-30, out-relief accounted for as much as 80.8% of total expenditure, so that the proportion of spending which <u>might</u> (and it is only a hypothetical question) require inflating to render it comparable with earlier periods as an indicator of poverty was itself fairly small. Finally, any slight subsidisation effect consequent upon taking paying guests from other districts could only have become significant from 1825 whereas it is only intended to employ poor law spending as an economic indicator up to 1828 - its distorting effect touches very little of the period.

In addition to these minor problems of construction, possible changes in relief <u>policy</u> should be considered. The institution of a Select Vestry in 1821 occurred too late to account for much of the post-war decline in costs. Its minute books have not survived, but there are hints in the extant poor law expenditure papers of a toughening up of policy commencing in around 1831, possibly under the dual influence of the current debate on the whole existence and moral effects of the poor law system and the growing awareness that prosperity would never again return to the cotton handloom. The quality of workhouse account books, which in the early years had been messily and somewhat haphazardly kept, was transformed in that year by the appointment of the Vestry clerk as book-keeper, a man who made it his business meticulously to itemise distinct sources of income and classes of expenditure in different

accounts, presumably to facilitate control by enabling an eye to be kept on specific areas. Also from that year the workhouse began to account for a much larger share of total expenditure, chiefly because of an extension of the practice of contracting to house the poor of other townships. Including outgoings attributable to this group, the workhouse proportion of total relief costs rose from an average of 28.0% for the years 1823-30 to 50.3% in 1831-35 - another indication of cost-consciousness. By this time the administration of poor relief had changed quite markedly from pre-workhouse days.

The switch to the New Poor Law, which in this district occurred in February 1837,[1] further complicates the picture. The Leigh Board of Guardians, under whose aegis Culcheth fell, were not always in sympathy with the harsher directives issued by their London masters,[2] but once again one must presume that the relationship between poor relief and the incidence of poverty shifted sharply from around 1837, with recorded expenditure substantially understating the extent of the latter relative to earlier periods. Moreover, the Union's annual statements of expenditure do not distinguish the shares of individual townships - an important limitation in a Union which was partially urban and whose industrial structure, extending to cotton mills, coal mines and iron foundries, was far more varied and industrialised than was Culcheth's. Quarterly Abstracts

[1] Wigan Borough Record Office, Leigh, G.Lei. 8/1.

[2] E.g., they resisted implementing the 1852 General Order relating to the giving of out-relief in kind. P.R.O., MH12, 5927/37314/52 and 5927/5703/53.

of relief were prepared at the township level, but only a handful have survived.[1] The only approximate guide to Culcheth's relief costs in these years lies in the 'Tables of Averages' which were periodically drawn up to indicate the equitable share which each township should bear of the Union's common expenses, and which were altered from time to time, presumably to reflect shifts amongst the constituent districts in the demands made upon the system.[2] The Tables express each township's average expenditure over a period of three years on particular (but unspecified) items.

The sums used for estimating Culcheth's expenditure under the New Poor Law are derived from these Tables of Averages. The township's percentage share (which incidentally tended to increase over time) of the Union's total spending on the items in question has been applied to gross Union expenditure after removing from the latter the rising sums devoted to the remuneration of officials and other miscellaneous non-relief items. The Tables of Averages were usually produced every four years, expenditure in the missing years therefore being interpolated by simply splitting the difference between Culcheth's share of spending in the three years either side of the gap. For reasons already discussed the results cannot stand proxy for an index of the incidence of poverty comparable to the expenditure figures before c.1830, but they are given in Figure 5 to indicate the probable periodicity of fluctuations and the gradually rising trend of the last two decades of our period.

[1]Three are extant in Lancs. C.R.O., PR 2853/1/20.

[2]P.R.O., MH12: 5926/3081/42; 5926/3495/42; 5926/7649/45; 5928/22032/54; and 5930/31965/58.

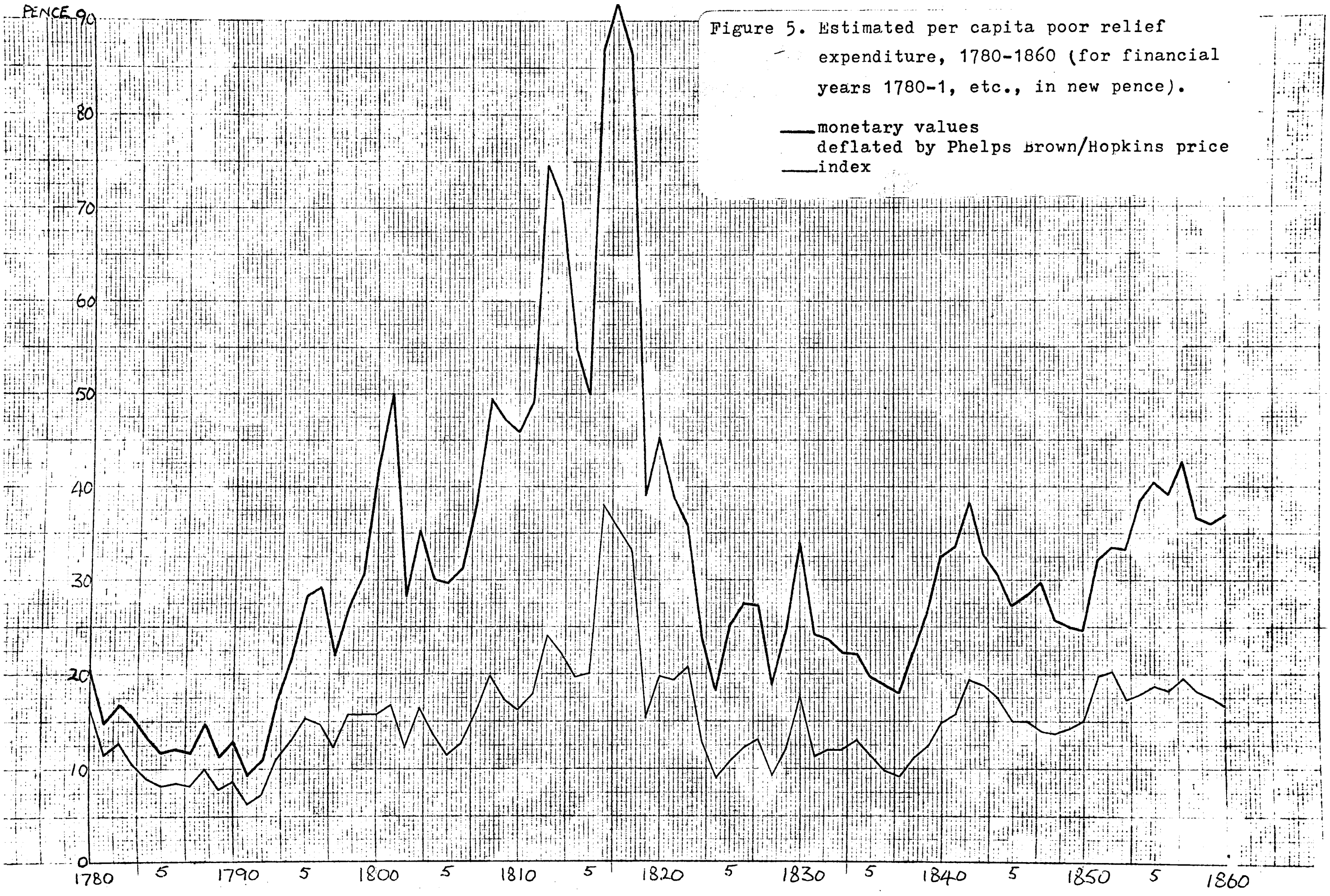


Figure 5. Estimated per capita poor relief expenditure, 1780-1860 (for financial years 1780-1, etc., in new pence).

——monetary values
deflated by Phelps Brown/Hopkins price
——index

There is, finally, a more theoretical reason for discarding poor law expenditure after the late 1820s as an indicator of weavers' welfare. Its applicability depends on the weaving community representing a high and more or less fixed proportion of the township's total population. Once weavers began, en masse, either to quit the district or to change their trade, the resulting and continuous shift in the township's occupational structure renders total relief expenditure nugatory as a guide to the wellbeing of those weavers who remained. As we saw from Figure 4 this development commenced in the later 1820s.

It is, therefore, only up to this point that the per capita poor law expenditure figures graphed in Figure 5 can be used to define periods of approximate homogeneity and, hence, demographic cohorts. As a further control on the significance of trends and fluctuations, the graph also shows the data deflated by the Phelps Brown-Hopkins price index, although less weight should probably be given to the series expressed in this form than to the raw, monetary figures, because the basket of goods upon which the price-deflator is based bears no necessarily close relationship to the expenditure patterns of Culcheth's denizens in the period.

Figure 5 shows clearly that there was a very strong periodicity to pauperism in Culcheth in our first five decades. The years 1781-92 were distinguished by a level which was both low and declining: hence the dating of cohort 1. The threat of war in 1793 caused widespread commercial dislocation,[1] and its

[1] T.S. Ashton, Economic Fluctuations in England, 1700-1800 (Oxford, 1959), pp.168-9.

onset marked the commencement in Culcheth of an extraordinarily steep and protracted rise in poor law expenditure, culminating in the post-war recession of 1816-17. Thereafter, and even more abruptly, the level fell back again to the extent that in the middle years of the 1820s it bore a closer resemblance in level and trend to the 1780s than to any intervening group of years.

Cohort 2 has been defined as spanning the years 1793-1817. Others might have selected as its terminal dates 1792 and 1818. The establishment of turning-points in time-series is seldom a simple matter - as the debates on Britain's industrial 'take-off' and climacteric illustrate - but the justifiable alternatives in this instance are blessedly close together.

However, the secular deterioration of these years was definitely interrupted for a while during the 1800s. The return of peace in 1802 brought revival to handloom weaving generally. And though the initial effects of the 'continental system' were disruptive, and are reflected in the rising level of poor law expenditure in 1807-8, the following two years saw some relaxation of the system in Northern Europe and expansion in Iberian and South American markets. Bythell notes that from the vantage point of 1812, when recession had again taken hold of the industry, 1810 was looked back on as a year of great prosperity in the trade.[1] In the light of preceding remarks concerning peoples' likely time-horizons, and their inability in this period to foresee the eventual triumph of the powerloom, it was thought worthwhile to isolate the years 1802-10 (cohort 2b) to

[1] D. Bythell, op.cit., pp.100-1.

see if they displayed more 'optimistic' fertility patterns than the sub-periods surrounding them. Never in these nine years was per capita poor law expenditure quite as high as it had reached in 1801; in six consecutive years, 1802-7, it lay markedly below that level and fluctuated within fairly narrow limits. In this the period differed both from the 1790s, when expenditure had been driving upwards virtually continuously, and from subsequent years when spending became extremely erratic as well as attaining unprecedented heights.

Dividing cohort 2 in this way also has the elucidatory point that, as we saw in Figure 3 and shall see again in chapter 4, during the first decade of Culcheth's economic deterioration the population's demographic response was not an increase in unmarried motherhood but on the contrary a diminution in its incidence.[1] From certain viewpoints, therefore, the period 1793-1817 is not demographically homogeneous and so warrants sub-division when particular aspects of behaviour are under focus.

After the post-war depression had lifted, cotton weaving was restored to relative prosperity for a few years.[2] The slump surrounding 1826 was a symbolic turning-point in the history of the industry, marking as it did the final coming of age of the steamloom. As Figure 5 indicates, however, the immediate effects of the reversal were less dramatic in Culcheth than the subsequent significance of these years might lead one to have expected. The end-date 1828 was selected for cohort 3

[1] See Figure 7 below, facing p.187.

[2] D. Bythell, op.cit., p.104.

as being the last year before movement away from the handloom became really marked in which poor law expenditure per capita was at what may be judged a genuinely low level. 1829-30 witnessed a sharpish rise and, as we have just seen, the likelihood is that subsequent figures bear a less realistic relationship to actual levels of poverty among the district's weavers. In casual support of this one could add that national indicators point to a deterioration of conditions in 1831-2, even specifically in the cotton industry, and not to the improvement which Figure 5 appears to imply;[1] and secondly, that annual numbers of removal orders affecting the Culcheth district lend support to the view that local conditions were in fact deteriorating perceptibly in these years.[2]

Cohorts 4 and 5 have had to be delimited without reference to poor law expenditure. 1829-42 was selected to define the former because the evidence on migration and occupational shifts presented in Section III of this chapter clearly show the 1830s to have been a decade of structural crisis in the district. The history of handloom weaving generally in these years points indisputably in the same direction.[3] 1842 was an obvious termination point. Nationally it marked the trough of one of the worst depressions of the century. Locally it immediately preceded the construction of the Bury Lane mill. During the period covered by cohort 4 the predicament of the handloom

[1] R.C.O. Matthews, A Study in Trade-Cycle History (Cambridge, 1954), pp.129-34.

[2] Of 73 extant orders for the period 1821-35, 64 or 80% fall in the years 1829-35. PLP Removal Orders.

[3] D. Bythell, op.cit., chapter 11 and passim.

weavers was exacerbated by the absence of new sources of labour demand which might not only absorb them but improve their living standards. The years 1843-60 (cohort 5), by contrast, saw a genuine diversification of the district's occupational structure and could be styled a period of reconstruction.

The truth, however, is not quite so simple. The mill workforce was in many ways separate from the indigenous community. Demographically it cannot be analysed as a discrete population, but its high rate of mobility means in any case that relatively few families having a close connection with employment at the mill have in practice contributed much family formation data to the reconstitution statistics the body of which, even in cohort 5, continue to relate chiefly to families of local origin which still drew most of their income from traditional sources. We have seen that this group moved between 1841 and 1861 from a high degree of entire dependence on the handloom to a lessened, but still appreciable, <u>partial</u> dependence on it. Perhaps it may be inferred that, with the growing availability of general labouring for youths and millwork for girls, the decline in real income facing families which had any involvement with the handloom came to an end in the years covered by cohort 5. But it would be wrong to suppose that the economic conditions of those with whom this study is primarily concerned were transformed for the better in the period.

There is the added complication that, if the interpretation of it offered earlier is correct, the restoration of the institution of marriage in Culcheth, which was also inaugurated in

1843, occurred under a degree of duress. If people were being persuaded to restructure their fertility mores by marrying earlier than they would by choice have done (indeed by marrying at all, in some instances) their subsequent marital fertility might reflect their reactions to this fact as well as to their economic environment.

It is difficult to believe that the generality of Culcheth families covered by the reconstitution exercise did not witness some improvement in their economic standing in the years 1843-60. But it can have been little more than that, and its effect on their fertility is difficult to predict because of the suspicion that external pressures of a wholly non-economic nature interfered with whatever relationship might normally have existed between fertility patterns and economic change.

As already mentioned, there are certain aspects of behaviour in Culcheth which were trend-dominated, tracing the path of diffusion of altered fertility strategies and of attitudes to marriage. These were extra-marital elements in the society's fertility profile. They appear to have reacted scarcely at all to short-run economic fluctuations, although it will be argued that they had an economic rationale in the context of a handloom weaving industry undergoing stress and decay. It should be remembered also that extra-marital liaisons in themselves constituted a form of fertility control via the lessened exposure to risks of conception they entailed when contrasted with marital relations and secondly that, since illicit pregnancies occurred in any case with much greater irregularity than conceptions within marriage, it is almost impossible for reconstitution analysis to establish whether the sexual behaviour of the

unmarried responded to short-run economic changes or not. We can only say that in certain respects which we can measure fluctuations are less apparent than longer-run trends, but these trends in extra-marital behaviour themselves have implications for overall fertility including the history of marriage. The two populations, unmarried and married, are in fact one.

Nonetheless, for the reasons given it is primarily among the married that one may hope to be able to identify whatever responsiveness characterised the district's fertility in relation to short-run economic change. Predicting how this responsiveness might manifest itself can never amount to more than anticipating the broad direction of adjustments, for there are a good many ways in which fertility controls may be exercised or relaxed. But in a genuinely responsive as opposed to an anomic society one would expect to find more signs of deliberate fertility control in economically deteriorating periods and some relaxation of them when conditions in the short-term improved or stabilised. 'Good' times in this relative sense would be the periods covered by cohorts 1, 2b and 3; 'bad' times would cover cohorts 2a, 2c and 4, and given the preponderance of economic deterioration through most of the years 1793-1817 one might expect that cohort 2 in aggregate would likewise be characterised by some degree of demographic retrenchment. As already indicated, predictions for the behaviour of cohort 5 are more difficult to make. The period has a demographic consistency but not, so far as I can see, a clear economic homogeneity. Here it is distinguished by being occupationally more varied than preceding periods without having a sharply

delineated character of its own. In addition, the demographic homogeneity appears to derive from external pressures of a non-economic nature. For this cohort we must simply see what happened.

Chapter 3

Sources and Conventions

I

Statistics fail to convey the nuances of the written word. They constitute a language which has limited syntactic possibilities and is bereft of synonym and metaphor. Numerical expressions are ideally suited to the making of precise and unequivocal statements. It does not follow, however, that statistics by their very form will possess this power. The objective, let alone interpretive, significance of the historical demographer's figures is no less ambiguous than the quality of the parish registers he employs in their production dictates. We must, therefore, review the demographic sources used in this study of Culcheth and assess their completeness of coverage.

The nature and precision of the information which statistics impart is one thing. The power of fertility data to convey an unambiguous impression of the attitudes and ways of life from which they derive is quite another. Culcheth has yielded very little literary evidence of a personal or descriptive character which might aid our interpretation of the township's demographic parameters, and what there is is disappointingly unhelpful from an explanatory point of view. That any contemporary comments should have come down to us at all, however, is too remarkable a circumstance for them to be ignored. This chapter will therefore conclude with a discussion of the viewpoint of the Reverend Joseph Jones, whose tenure of the perpetual curacy of the chapelry extended over much of Culcheth's high-illegitimacy period.

As indicated, the following remarks on the sources and methods used in reconstituting Culcheth are addressed to those already familiar with the technique.

First, an ambiguity of nomenclature demands removal. Ecclesiastically Culcheth is and was commonly known as Newchurch. This term was also applied to that part of the township which lay adjacent to the church and which was sometimes (to add further confusion) simply referred to as Culcheth. The latter ambiguity, that of styling a hamlet with the same title as that which denoted the township as a whole, has already been expunged by our decision to refer to the hamlet as Central Culcheth.[1] To avoid misunderstandings on the other score, the term Newchurch will be used to refer only to the Anglican church building itself. Since the ecclesiastical district in which we are interested was identical in extent to the township of Culcheth, we shall continue to call it by that name.

Culcheth had possessed a church since the sixteenth century,[2] but since, until 1845, the district constituted only a chapelry within Winwick parish, no marriages were celebrated at Newchurch between Hardwicke's Act of 1753 and the Marriage Act of 1836 which came into force in July of the following year.[3] Culcheth people in the intervening period had to marry in the mother church of the parish at Winwick. This is the source of a most

[1] See above, pp.16 and 56.

[2] The Registers of Newchurch, 1599-1812, eds. W.J. and E.W.W. Kaye (Lancashire Parish Register Society, 1905), p.vii.

[3] 26 Geo.II, c.33, and 6 & 7 W.IV, c.85.

important limitation on the present study, for the format of marriage registers under Hardwicke's Act required a statement of no more than the parish of each partner's abode. In Winwick's registers someone said to be 'of this parish' could have been resident anywhere within an area of forty square miles. Culcheth, it is true, accounted for almost a quarter of the parish by acreage, but in 1801 it contained only 14.9% of its population. Winwick, with its 50-100 or more marriages per year, was much too large to reconstitute. But an inevitable difficulty in piecing together the families residing in only one corner of the parish is the securing of evidence establishing whether or not either party to a marriage hailed from Culcheth itself.

The identification within Culcheth of possible parents for either spouse would have been an extremely unsafe basis of judgment given Culcheth's small population in relation to that of the parish as a whole. The only practicable policy was to limit attention to marriages which within three or four years of their formation left indications through the registered births or deaths of young children that the couples in question had resided since their wedding in Culcheth. The burial without issue of either spouse at Newchurch would not generally have sufficed to indicate that a particular marriage at Winwick had involved Culcheth residents, for with such apparently childless unions there would always be the suspicion that the couple had lived out the early days of their marriage elsewhere in the parish, and might very well not have been without issue in fact. It is, therefore, only with fertile marriages that this study is concerned. As a rough order of magnitude, one might expect

5-10% of church-marriages to have been lost on this account,[1] but only those involving the union of widows with widowers should be seriously undercounted thereby.[2]

Secondly, however, we shall also lose the marriages of people who were born in Culcheth and married at Winwick but who moved elsewhere before the birth of their first child. In partial compensation the study does pick up the marriages of those who originated elsewhere in the parish but who moved into Culcheth in analagous circumstances, but given that the drift of population was away from the township for most of our period the two flows are unlikely to offset each other. Such a source of leakage is also regrettable because of its effect on the completeness of our knowledge of individual families' life experience. In studying a parish one would at least know that particular children had married, if they had done so locally, even if they had immediately thereafter removed elsewhere.

More generally, Culcheth's persistent loss of population by migration in the nineteenth century will have had a similar impact on our ability to recover completed families and to follow all their children through life. This, however, is a problem which inevitably impinges upon all reconstitution work in some degree and does not affect the validity of the statistics which can be drawn from the experience of those who did remain in the district. Indeed, a population which is growing rapidly by

[1] Cf. the Irish data used by D.V. Glass and E.Grebenik, The Trend and Pattern of Fertility in Great Britain : A Report on the Family Census of 1946 - Part I : Report (Papers of the Royal Commission on Population, Vol.VI, 1954), ch.7, Appendix 2, p.271.

[2] See below, pp.313-6.

immigration is in many ways more difficult to reconstitute because in this case registers cease to yield a maximal picture of the pool of residents to which future recorded events relate, and thus become a less reliable guide to the correct identification of people who marry are baptised or die in the locality.

We must, however, conclude that Culcheth's status as a chapelry involves this study in understating the true incidence of church-marriages among the people actually born in the township. Migration flows may or may not have a similar effect: we have no way of comparing the life-chances of those who left or remained in the district.[1] But the only major identifiable source of omission will be the loss of infertile unions.

For the period 1837-60 we should be better placed to assess the true frequency of infertile marriages, because the new register format enables one at a glance to isolate the marriages of Culcheth residents from all the others celebrated at Winwick. However, it was decided to persist in restricting the study's scope to fertile unions during these later years, both for the sake of consistency of approach and because the signs that marriage was being pressed on women who might not otherwise have married at all would be likely to have increased the frequency of older (and therefore less fertile) brides to a level above what would have been typical in earlier decades, and would thus render these cohorts an unreliable guide to the incidence of truly infertile women in the period as a whole. For the purposes of this study, therefore, only fertile

[1] In relation to unmarried mothers this question is further discussed below, pp.227-31.

marriages have been selected and it has not been thought possible to devise a sensible estimate of the number of marriages which have thereby been missed.

For most of our period the population of Culcheth had, as we have just seen, no single church to which allegiance was owed in registration matters. The great majority of their baptisms and burials were recorded at either Newchurch or Winwick, but by no means all. In searching Anglican registers the net was thrown over a fairly extensive district - although one deliberate but possibly misjudged gap was left, to which we shall return in a moment. Culcheth people, and more particularly the farmers among them, were partial to burial at Winwick, presumably for prestige reasons. For most of our period they showed a similar predilection for baptising their children at Leigh, although this practice ceased abruptly in 1841 with the arrival in that parish of the Rev. James Irvine, whose reluctance to marry, bury or baptise his parishioners resulted eventually in a petition to the House of Lords signed by more than 6,000 of them.[1] Until this time between 10% and 20% of Culcheth's births had typically been recorded at Leigh.

Newchurch was not the only chapel within Winwick parish in 1781, and others were built during the following eighty years. The registers of those lying within about three miles of Culcheth were consulted. But so few Culcheth events (eight in all) were found at Lowton that it did not seem worthwhile to push the search further westward, for example to Ashton or Newton. To the east of the township, twenty baptisms were recorded across

[1] Leigh Chronicle and Monthly District Advertiser, June 1852.

Chat Moss at Hollinfare - again, too few to justify extending the catchment area in that direction.

Where the gap in the net occurs is to the south of Culcheth. A selective search (covering the years 1827-31) of baptisms recorded at the parish church, St. Elfin's, in Warrington showed first, an average of around 550 baptisms per year and secondly, that in the period in question only five Culcheth couples, all of them from the Risley edge of the township, recorded events there. I must admit to cutting losses at this juncture. As we saw in the last chapter the population of Risley, in the southern corner of Culcheth, was much more agricultural in structure than was the township as a whole.[1] In view of this it was decided that the costs of tying up this corner of the net outweighed its likely benefits in contributing to an understanding of the marriage habits of what was, for the most part, a handloom weaving population.

Risley people, however, are by no means excluded from the reconstitution exercise. Nor, of course, is the agricultural population generally. Risley residents whose vital events were registered within our catchment area are treated on exactly the same basis as any other section of the population. 'Recovery rates', by which is loosely meant the proportion of the locally born population whose familial history has been successfully picked up by reconstitution, will be discussed below.[2] For the moment it is sufficient to note that the deficiency of coverage of the Risley population which results

[1] See Table IX above, p.70.

[2] See below, pp.148-52.

from our decision does not appear to have made the reconstituted sample of agricultural families untypical of Culcheth's farming community as a whole. An analysis of the acreage distribution of Culcheth's farmers as revealed by the 1851 census does not suggest that those who are known through the reconstitution exercise differed significantly in socio-economic terms from those who were not known. Nonetheless, it is probably the case that the reconstituted population will be biassed towards the district's industrial sector.

Less importantly but more obviously the loss of coverage of a proportion of Risley events affects the validity of aggregative statistics of the sort presented in the last chapter, since it inevitably means that the vital rates presented there will be understatements. But aggregative analysis of parish registers is not a sensitive guide to demographic behaviour in any case and, besides, the leakage from our catchment area which we are considering was on a marginal scale and could not substantively affect the extreme fluctuations in the numbers of vital events, and in the crude rates per 1,000 of the population associated with them, which were described in chapter 2.[1]

The validity of those aggregative statistics is called in question much more by another registration problem which has already been alluded to several times, and which derives from the fact that a proportion of baptisms and burials recorded at Newchurch related to demographic events which either did not take place within the township at all or else should more properly have been ascribed to other townships or parishes in which at the time in question the people affected had their regular abode.

[1] See above, Figure 2 facing p.20, and Table XII, p.99.

Wives who had married out of the township would return to have their children, and especially their first-born, baptised in the district of their origins. Women about to become unmarried mothers were no doubt sometimes forced to return to Culcheth to bear a child conceived elsewhere - although it must be said that of this there is only slender evidence[1] - in order to indemnify the parish in which they then lived from becoming the place of legal settlement of the expected bastard. From whatever personal cause, typically from 5% to 10% of baptisms recorded at Newchurch during the nineteenth century gave a parental abode other than the hamlets which made up the township of Culcheth. And the custom of being carted back to Culcheth for burial was even more disruptive for the trustworthiness of aggregative analysis: the proportion of the demised buried at Newchurch which ostensibly hailed from elsewhere varied from 20% to 40% of events recorded there. The disparity between the proportion of nominal foreigners found respectively in the baptism and burial registers suggests that it was the strength of personal and kinship ties with Culcheth which produced this pattern rather than Poor Law authority and vigilance, for paupers tended to be removed to their place of legal settlement before they gave birth to illegitimate children or, in the other case, when they first became pauperised, not when they died - although it is obviously the case that occasionally funeral expenses could in the absence of locally resident kin make a pauper in death of someone who while living had been self-supporting but without savings.

[1] See below, pp.303-4, on the infrequency with which Culcheth's overseers used the settlement laws against pregnant single women. The absence of a control group of emigrees prevents assessing traffic into the township.

In the aggregate analysis of chapter 2 only the 'net' series of events was employed because it seemed a generally safer guide to the numbers of births and deaths which actually took place in the township. Family reconstitution, on the other hand, permitted some use to be made of events which occurred elsewhere. Nonetheless, such greater uncertainty of attribution and of completeness of coverage applies to baptisms and burials associated with people not continuously domiciled in Culcheth that comparatively little of this information has been susceptible to integration with the family histories of local residents, although very many of the individuals concerned undoubtedly had indigenous origins.

One further problem of definition should be mentioned. The hamlet immediately west of Risley, called Croft, lay partly within and partly without the ecclesiastical chapelry which we have styled Culcheth. Registers of baptisms and of burials, however, do not differentiate between one part of the hamlet and the other. To have totally excluded Croft events from the aggregative analysis would further have weakened the validity of our estimated vital rates. It would also not have been feasible without losing a substantial proportion of Risley events at the same time, for between 1816 (when the Rev. Joseph Jones assumed the cure of Culcheth) and 1833 (when Christchurch, Croft, was consecrated and when in consequence most people from the south of Culcheth ceased to attend the more distant Newchurch) the Newchurch baptism registers fail to distinguish between Croft and Risley, everybody from that southern part of Culcheth being described as residing in Croft. The rule adopted was to accept as part of the (net) Culcheth population

all Croft events which were recorded at Newchurch, on the grounds that this created a presumption of residence within the township and to exclude them when they were found in the registers of any other Anglican church - for example at Winwick. This convention is likely to have resulted in understating Culcheth's true birth and death rates, but to an unimportant degree since the portion of Croft which belonged to Culcheth contained fewer than 10% of the township's population all told.

II

The validity of the aggregative statistics presented in the last chapter is more critically affected by the extent of non-conformity in the locality, or rather by extant registers' coverage of the prevalent sects. The group of longest standing and greatest numerical significance was the Roman Catholic congregation. This was a corner of the country in which the old faith seems never to have completely disappeared after the Reformation, although the suffusion of popular attitudes to Catholics with political suspicions gave its survival a clandestine character ill-suited to ensuring continuity of baptismal registration. It was chiefly through the medium of chapels attached to private houses that Recusancy found expression and thus upon the vagaries of descent, commitment and wealth in particular families that it ultimately depended for its continuity of formal presence in a parish.[1]

In 1767 the bishop of Chester returned the number of Catholics in Winwick parish as 796.[2] This figure would have

[1] J.A. Bossy, The English Catholic Community, 1570-1850 (London, 1975), pp.168-81.

[2] Lancs. C.R.O., EDA/6/5.

constituted 6.5% of the enumerated population in 1801. For 1767 it must represent something of the order of 10% of the parish's residents. In Culcheth itself and in the adjacent hamlet of Croft the Catholic community received protection from the local squirearchy during much of the eighteenth and early nineteenth centuries.[1] The Culcheth family themselves had been Catholics, and when their direct line died out in 1747 Culcheth Hall passed through the hands of a succession of related lines (the Stanleys, Dicconsons and Traffords) of a like persuasion. On the death of John Trafford in 1815 the Hall was apparently left uninhabited for about five years[2] - incidentally provoking an attack against absentee landlords by the local Anglican curate.[3] An auction prospectus of 1824 suggests that it was in February of that year that the Hall and manor of Culcheth were sold to a Protestant family, th- Withingtons, who took up residence within the next two years and in whose hands the estates remained throughout the rest of our period.[4] A succession of Catholic priests provided a ministry at Culcheth Hall for most of the second half of the eighteenth century, although the only register of baptisms extant does not commence until 1791. It breaks off in 1814, and recommences in 1820, its entries finally ceasing in 1825.[5]

[1] Most of the information in this and the following paragraph is drawn from notes by J. Gillow on the Catholic registers of Culcheth and Croft, Catholic Record Society, 13 (1913), chs. XV-XVI.

[2] Ibid., p.373; and Lancs. C.R.O., RCCu/1.

[3] J. Jones, Cottage Conversations... (London, 1821), p.74.

[4] Leigh Public Library, B333. Peter Withington died at Culcheth Hall on 7 February 1826.

[5] Lancs. C.R.O., RCCu/1.

To the south-west of Culcheth Southworth Hall, in the township of Southworth with Croft, was likewise in Catholic hands during the later eighteenth century and was for much of the period the home of a Jesuit mission. Their first surviving baptism register begins in 1795,[1] and after each of the two closures of the chapel at Culcheth Hall it is clear that Culcheth Catholics joined the congregation in Croft. The uniting of the two communities became conclusive with the arrival of the Protestant Withington family at Culcheth Hall and was followed by the construction of a new Catholic church, St Lewis's in Croft, which was opened in 1827.

To judge from the number of baptisms registered at Culcheth Hall in the 1790s and 1800s, the Catholics constituted between 10% and 15% of Culcheth's total population at that time, for their share of known births was 12.7%. The Rev. Thomas Heyes who was curate at Newchurch put their numbers at 'about 155 of the lower Class' in an episcopal visitation return of 1804.[2] This implies a presence amounting to only around 8.5% of the township's population. It is not my impression that the Catholics had appreciably higher fertility than the Protestants in Culcheth. The disparity between the two estimates is more probably due to the assumption behind the interpolation approach that each baptised child at Culcheth Hall was of wholly Catholic parentage. In fact, mixed Protestant-Catholic marriages were common - returns to a Catholic visitation indicate that in 1857 no fewer than 39 of the 73 married couples nominally returned as Catholics had made mixed marriages[3] and the reconstitution

[1]Lancs. C.R.O., RCCr/1.

[2]Lancs. C.R.O., EDV/7/3/364

[3]Lancs. C.R.O., Visitation Return RCLv.

exercise suggests that in such cases children were more usually baptised as Catholics, whatever became of them in later life, but also that siblings were occasionally baptised in different faiths. There was thus a certain ambiguity over the religious affiliation of young children. Some who were baptised as Catholics may not have been brought up as such, and no simple head-count of the numbers of children in the household of a mixed marriage would yield an unequivocal statement of the size of the Catholic population. Interpolating their numbers from the baptisms recorded at Culcheth Hall certainly overstates their importance, but Heyes' estimate should also be treated as an approximation.

Culcheth Catholics appear to have fluctuated between about 8% and 10% of the total population throughout our period. As they appear in the censuses of 1841-61 they were concentrated in a corner of Central Culcheth, that industrial district for which it was a priority that demographic coverage should be as complete as possible. Moreover, the frequency of mixed marriages already alluded to meant that the Catholics were not a separate population in familial terms. The correct attribution of Anglican events therefore depended to some extent on knowing who made up the Catholic population. For these reasons it was decided that this section of the community was too important to be ignored for reconstitution purposes, and aggregative analysis certainly required that some allowance be made for their presence.

However, integration of the Catholic material with the Anglican raised two types of problem. In the first place not only were their baptisms not recorded as such until 1791, but

no burial register is extant till 1856, although surviving headstones indicate that St Lewis's graveyard was opened at the same time as the church itself was built. Until this time, in the later 1820s, the registration deficiency is by no means complete, for the necessity of being buried (and married) somewhere led to many Catholic events being recorded at Winwick and Newchurch. Thirty seven fertile Catholic marriages were celebrated at Winwick between 1781 and 1836, which is 10.1% of the total of 366 for Culcheth residents as a whole over the same period and thus suggests the completeness of Winwick's coverage of Catholic marriages. The absence of burial registers for the period 1827-56 is nonetheless a serious deficiency and one for which the gravestones at St Lewis's in no way compensate since most of the known Catholics left no memorial. But as usual it is the validity of our aggregative statistics which is chiefly affected. The completeness of our knowledge of reconstituted Catholic families also suffers, of course, but their FRFs (family reconstitution forms) are often usable in analysis of age at marriage, completed family size, intergenesic intervals and so forth, notwithstanding.

The second problem raised by the Catholic registers lies in determining which baptisms should be ascribed to Culcheth people and which to the inhabitants of Croft or other districts, for the registers scarcely ever name the place of residence. In essence the procedure adopted was as follows: first, to assume that all people baptising children at Culcheth Hall between 1791 and 1825 were from Culcheth itself, except those who transferred allegiance to Southworth Hall when its register commenced in 1795. The closure of the Culcheth chapel between

1815 and 1820 and again after 1825 created no loss of continuity because the Culcheth community then attended the chapel in Croft. In the longer term, however, the amalgamation of the two congregations required that a more rigorous means of distinguishing the two communities be employed. Fortunately, by the later 1820s one was dealing with families many of which had members who were still resident in Culcheth at the time of the 1841 census. In this later period, therefore, the procedure was to treat as Culcheth couples those who were either themselves found to be living in Culcheth in 1841 or subsequent censuses or had direct descendants who were. Others, no longer alive or in the district in 1841, were attributed to the Culcheth population if they were known to be lineal descendants of members of the former Culcheth Hall congregation, or the parents of Catholics found to be living in the township in the 1841-61 period. A few others were identified by having had an event registered at Newchurch. Finally, the civil registers of births, introduced in 1837, were employed to uncover Culcheth residents who stayed too short a time in the district to be picked up in the censuses, and to help identify Roman Catholic unmarried mothers whose children were not with them in the censuses and about whose true identity there would consequently have been some doubt.

In any such exercise there are bound to be cases of uncertainty. A few couples seem to have been indifferent as to which Catholic chapel they attended, for example, and the mothers of illegitimate children were always difficult to place. The net result, however, divides the two districts' residents plausibly, roughly two thirds of all Catholic baptisms between

1791 and 1860 being attributed to Culcheth's population. In a visitation return of 1825 the Newchurch curate wrote of Culcheth's and Croft's Catholic communities being of similar size, numbering respectively 152 and 'about 150' people, but he included in the latter district that portion of Croft which was strictly speaking a part of the township of Culcheth, which suggests that the former's Catholic community was somewhat the larger of the two.[1]

In reconstitution terms, the recovery of the Catholic population has provided useful fertility data to supplement the Anglican material. However at any one time the Catholic families were too few to warrant direct comparison with the Church of England majority. Like the Protestants, they were chiefly weavers and numbered no men of substance other than their squirearchical patrons. The incidence of illegitimacy among their unmarried women was somewhat lower than among the Protestant population - in the thirty years 1821-50 the Catholic illegitimacy ratio averaged only 14.5%[2] - but when considered from the standpoint of the life-chances of individual women this difference is not sufficiently marked to indicate a sharply differentiated community.[3] The Catholic FRFs were therefore merely added to the rest of the statistical material.

A second sect of long standing in Culcheth was the Presbyterian. They had a chapel in Risley, reputedly built in 1707,[4] possibly under the Five Mile Act and for a Warrington

[1] Lancs. C.R.O., EDV/7/7/356.

[2] Cf. Figure 3 above, facing p.35.

[3] See below, pp.186-91.

[4] Victoria County History of Lancashire (1911), iv.165.

congregation,[1] although in the nineteenth century it drew support chiefly from its immediate agricultural environs. In 1825 the curate at Newchurch branded the chapel as Socinian[2] and in 1836, after an appeal to the Court of Chancery, its minister was ejected and, with like-minded members of his congregation, built a Unitarian chapel just over the ecclesiastical border into Croft proper.[3] It is popularly supposed that on leaving Risley the Unitarians petulantly set fire to the old chapel's registers. In a sense I hope they did, for the picturesque touch is a small compensation for the undoubted fact that the registers can no longer be traced in either Unitarian or Presbyterian circles. Nor, unhappily, can the registers of the new (but now defunct) Unitarian chapel, although the Presbyterian registers of births and deaths are extant for the period 1838-60. Gravestones from both chapels have provided information on a few individuals,[4] but very little material usable for FRF purposes has been salvaged from this turbulently nonconformist corner of the township.

At the 1804 visitation Culcheth was said to hold 'about 70 Presbyterians of the lower Rank of people....whose Number I believe to be upon the Decline'. In 1829, though now described as Unitarians, they were said to number sixty eight.[5] At both

[1]Suggested to me by Canon Longbottom of St Elfin's, Warrington.

[2]Lancs. C.R.O., EDV/7/7/356.

[3]V.C.H., loc. cit.

[4]I am indebted to J.R. Bulmer of Kenyon Hall, via Croft, Warrington, for permission to employ in this study his typed transcriptions of the graveyard memorials attaching to the Presbyterian, Unitarian, Catholic (St Lewis's), and Anglican (Newchurch) communities in Culcheth.

[5]Lancs. C.R.O., QDV/9.

points in time they would have accounted for only 2.5-3.5% of the township's total population. To judge from the Presbyterian register of baptisms during the 1840s and 1850s (and if we assume a birth rate of 30-40 per 1,000 of the population) Culcheth's Presbyterians would have numbered between about forty five and sixty five, giving them a local importance which was probably somewhat less than they had earlier enjoyed when a single congregation. No doubt their loss was the Unitarians' gain, but it is unlikely that even in combination the two sects could have accounted for more than 5% of Culcheth's inhabitants. Moreover in the later decades few of the Presbyterians at least hailed from the central part of the township in which we are chiefly interested and our inability to reconstitute more than a handful of their marital histories is on this score also of less critical importance than would have been a similar impotence in the case of Culcheth's Catholics.

Other traces of nonconformity can be found in the township. Occasionally private houses would be licensed for the holding of religious meetings.[1] One suspects that such groups were merely devotional and often ephemeral and that the participants would not typically have ceased to register their demographic events in orthodox churches. Only one, the Independent Methodists, grew strong enough in the course of our period to establish a chapel (which they did in 1845). According to their historian, the Independent Methodist movement in Culcheth became established in around 1833 with meetings in a local farmhouse, and he adds that 'during the decade, 1833-1843, the life of the small

[1]Examples occur, for instance, in 1796, 1806 and 1815. Lancs. C.R.O., QDV/4.

community of worshippers appears not to have been robust.... ' He goes on to say that 'there is record of a stirring revival' in 1843, though he declines to specify the nature of his source.[1] In any event Mr. Broadhurst can seldom be suspected of understating the prosperity of the Independent Methodist community in Culcheth, and by his own description it flourished only within the period of civil registration. This means that the absence of any Methodist register of baptisms before 1853 will not have created a serious deficiency in the aggregative analysis of births and deaths. In the 1850s, and again assuming a birth rate of 30-40, the baptism register implies a population of between seventy and ninety Independent Methodists in the township.

In the context of nonconformist movements which may have left no registers (or none that have survived) because they had no formal chapel, but the existence of which could have distorted the accuracy of our aggregative analysis, a more serious doubt is raised by an 1829 return to the government relating to 'The Numbers of Places of Worship, not of the Church of England, in each parish ....'. Culcheth made an independent return, constructed by the township's constable who may not have been well tutored in doctrinal niceties but whose report is nonetheless intriguing. He mentioned no fewer than 204 Primitive Methodists, as well as 25 Baptists (and the 68 Unitarians we have already mentioned) while at the same time recognising the existence of not a single Roman Catholic in

[1] W. Broadhurst, The Culcheth Independent Methodist Church: a Semi-historical Survey, 1845-1945 (Leigh, 1945), pp.2-3.

the district.[1] In 1825 the Newchurch curate had briefly stated, and with no very obvious concern, that 'Methodists [etc.] have no chapel, but teach in some houses'. He had also averred 'no augmentation or diminution' in the size of his own congregation.[2] No Primitive Methodists were returned in 1829 from any other district of Winwick parish, nor from Leigh or Warrington, and I find their localised growth, only four years after the curate's remarks, to a point where they would have accounted for more than 8% of Culcheth's population difficult to believe. So too, perhaps, is the sect's subsequent evaporation. Obviously there were Methodists of some kind in Culcheth at the time, but the likelihood is that the constable for reasons best known to himself, threw together perhaps thirty or forty Methodists with the Catholics of whom we can be confident there were in excess of 150 in the township during the 1820s. This makes the potential threat to the completeness of registration much less serious than at first appears.

From the aggregative viewpoint, the only persistent and statistically important nonconformist sources of under-registration are considered to be the Catholic and Presbyterian communities, with the Unitarians being a somewhat unknown quantity but probably of even less numerical weight than the Presbyterians. To estimate credible vital rates, or at least to offset the effects on those rates of changing register coverage, it was necessary in the pre-civil registration era to 'expand' the recorded numbers of events to allow for these sects' missing registers. The general principle followed was to

[1] Lancs. C.R.O., QDV/9

[2] Lancs. C.R.O., EDV/7/7/356.

assume that nonconformists contributed births and deaths in proportion to their numerical importance in the district's population. Visitation evidence implied the gradual diminution of Presbyterian presence in the township. This factor, plus increasing numbers of extant nonconformist registers over time, is reflected in recorded baptisms being reckoned as 95% of the true total in the 1780s, rising to 97.1% by the 1830s. The position with burials was complicated by the fact that until 1827 The Catholics had no graveyard of their own, while thereafter no register of their deaths survives. For the earlier period it was assumed that three-quarters of Catholic deaths were picked up in Anglican registers - it was clear from reconstitution that not all were - but that all were missing thereafter. As a result recorded burials, which were estimated to have fluctuated around 94-5% of the true total before the 1820s, when they rose to 96.9%, fell sharply in the 1830s to an estimated 90.9% of the district's total number of deaths.

These unsophisticated manipulations have a limited purpose and are not, of course, intended to correct for under-registration as generally meant. Consequently, both vital rates will be too low until the period of civil registration.

The reconstitution study was based in the first instance on the ecclesiastical sources we have described. These, however, were amplified by census information between 1841 and 1871 which occasionally demonstrated the incompleteness and very rarely the actual inaccuracy of the data on particular families. The civil registers of births and deaths were not brought into play until the Anglican material had been fully

exploited, but were then used first to check the history of all couples who had children after 1837, and secondly to build up further FRPs based on the experience of couples and unmarried mothers who seemed to have avoided baptising their children in any faith. The collection of ecclesiastical registration data was, of course, pushed back before 1781 as occasion required in pursuit of the date of birth of people who married or otherwise bred within our period but who were born before it, although this was only done for the major sources of registration, the Anglican churches at Newchurch and Winwick. No use of the ecclesiastical material was made for the years following 1860 except to trace the marriages of children born before our terminal date. The civil registers, however, were employed to complete the fertility history of couples whose childbearing span was still incomplete by 1860.

III

The format of Church of England marriage registers, and also baptism and burial registers from 1813 onwards, were standardised and require no special comment here. It is in the period before 1813 that the quality of vital registration can vary widely not only because of differing standards of care devoted to the keeping of the books (a crucial consideration in any period) but because of the latitude permitted to clerks to determine the type of information the registers should give. At Winwick, where in the 1780s around one quarter of Culcheth's burials took place, the age of the deceased was given throughout the period 1781-1812. At Leigh and Hollinfare it was never stated before 1813, though fortunately these churches accounted for less than 4% of Culcheth's inhabitants' burials

between them over these years. It is of greater relevance that at Newchurch itself age at death was not given until 1799 - although it is of some assistance that before this time relationships were specified (wife/son/daughter of) and residence was entered when not local. Nor, until 1807, was the nother named as well as the father in the baptism registers, though again the identification problems this can pose are somewhat mitigated by the practice adopted in 1801 of usually naming the part of the township in which the couple in question resided. The upshot, however, is that the Newchurch registers of baptisms and burials in the eighteenth century part of our period are far from ideal source material for a reconstitution exercise.

Moreover, the Culcheth district was one in which a small number of surnames were extremely common. Whether south Lancashire is untypical in this respect, or whether the impression is the jaundiced product of working on registers which simply, in the eighteenth century, give too little information for the task in hand I am unsure. But practically 20% of the FRFs relate to only six surnames, and this situation obviously made reconstitution in the eighteenth century, when the information requisite to enable one to distinguish between different people bearing the same Christian and surnames was largely lacking, particularly difficult. This problem constituted the chief reason for not taking the study farther back before 1800 than seemed essential to get a run-in to the period when the illegitimacy ratio began to look abnormal. FRFs from the eighteenth century decades will inevitably contain more inaccurate and uncertain attributions than those from later

cohorts - it would, of course, be fraudulent to pretend that reconstitution from parish registers ever completely avoids errors of misattribution - but none was accepted as statistically usable without the most serious consideration of possible alternative arrangements of the material.

The Catholic baptism registers used in this study never followed the pattern imposed by law on the Church of England and only adopted a printed format at all with the volume which was in use after 1856. However, the registers of both Culcheth Hall and Southworth Hall (subsequently continued as the baptism register of St. Lewis's, Croft) name the child's mother as well as father. The Culcheth Hall volume adds her maiden name and also indicates whenever either parent was a Protestant.

An aspect of the form of registration which is of particular relevance to the subject of this study is the manner in which illegitimate births were described, for on this depends the chances of wrongly treating as a bastard a child whose mother was, perhaps, recently widowed or whose husband happened to be away from home at the time of the birth and christening. One can with ingenuity contrive other circumstances in which, through error or ignorance, only the wife's name might be entered at the baptism of a legitimate child. From the registers of a parish in which illegitimacy was a rare occurrence and conventions for its denotation consequently ill-established, in which the young men were perhaps deep-sea fishermen, and the malice or inanity of the parish clerk boundless, one might indeed gain a totally false impression of the true incidence of illegitimate births if one were to judge

them by the frequency with which only a woman's name was entered as the parent. But family reconstitution is well adapted to spotting illogicalities of this sort.

It is my impression from the Culcheth district that (as one should, after all, expect) clergy and parish clerks were well aware of what they were recording. At Newchurch it was quite common through most of the eighteenth and nineteenth centuries simply to name the child's mother without specifically denoting the birth as illegitimate. From 1813 onwards when the registers were written up by the clergyman who had officiated at the ceremony, we can compare the style of entry employed by the same minister on different occasions. I have been quite unable to detect the least significance in the variations of expression they turned their hands to despite, through the FRFs, having a fair idea of who the women were whose behaviour they might most have wanted to stigmatise. The use or omission of words such as 'illegitimate' or 'base' seems to have been determined by the cleric's mood at the time and nothing more. They were superfluous terms, for the status of the child's birth was quite apparent from the mother alone being named or, if the father was also listed, from the difference in the two parents' surnames. Legitimate children born after the death of their father were rare in Culcheth, but their legitimacy is immediately apparent from the naming of both parents (or, before 1807, the father only) as though their genitor were still alive.

The basic convention was thus very simple and unambiguous. Possibly it was less so elsewhere in the country, though if our forbears considered the legal status of births important it would be surprising if this proved generally the case. At all

events the pedantic rules which have recently been suggested by members of the Cambridge Group for the identification of illegitimate births in English parish registers would simply have failed to indicate what was happening in Culcheth had they been applied to the Newchurch registers.[1] The real problem in assessing the historical frequency of illegitimacy must surely be not that real or supposed ambiguities of registration, if treated uncritically, may lead one to exaggerate the incidence of the phenomenon by misallocating the occasional posthumous child, but that stigma fosters under-registration of illegitimate births. Fortunately for us, in Culcheth in the first half of the nineteenth century the recorded frequency of illegitimacy was so high that it is difficult to believe that shame can materially have affected the accuracy of registration.

This raises the fundamental question of the general reliability of the registers used in reconstituting Culcheth, and particularly with regard to births since baptism was more easily avoided than burial in hallowed ground. As can be seen from Table III in the last chapter, the births actually recovered, adjusted slightly to allow for missing Roman Catholic and Presbyterian events during periods for which their registers are missing, yield plausible birth rates.[2] This is not, of course, to say that they are accurate - we have already indicated that they are not[3] - nor even that they are homogeneously inaccurate, although we have attempted by means of the

[1] P. Laslett and K. Oosterveen, 'Long-term Trends in Bastardy in England', Population Studies, 27 (1973), 285-6.

[2] See above, p.31.

[3] See above, pp.32-3.

adjustments mentioned to approach this state. The levels of birth rate suggested for the eighteenth century are hypothetical.[1] In the nineteenth, although the state of our knowledge is much improved by the existence of censuses the population denominator is still something of a fiction, being simply the mid-point between decadal enumerations (even, in the case of the 5-cohort approach, being further 'bent' by the incorporation of interpolated migration data). Thus even in the census period the accuracy of baptismal registration is not the sole source of uncertainty. This makes it difficult to use the plausibility of estimated birth rates as a test of the efficiency of registration.

However, the lowest birth rate recorded occurs in and around the 1830s,[2] when the 1841 census household schedules and the commencement of the civil registration system provide some check on the accuracy of ecclesiastical sources - and one to which they stand up pretty well (a point to which we shall return shortly). Secondly, the levels of birth rate postulated for the late eighteenth century are close to or above Deane and Cole's estimate for the North West in the same period, while those of the nineteenth century are of the same order of magnitude as Hollingsworth's suggestions for the country as a whole (which have the advantage of not being based on ecclesiastical material).[3] Finally, Culcheth's reconstituted families

[1] See above, pp.92-9.

[2] See above, Table XII, p.99.

[3] P. Deane and W.A. Cole, British Economic Growth, 1688-1959 (2nd edn., Cambridge, 1967), p.127; T.H. Hollingsworth, Historical Demography (London, 1969), Figure 6, p.350.

registered appreciably higher marital fertility through most of the period when they were pieced together from ecclesiastical sources than they did in the civil register era.[1] These are all points which lend some credibility to the quality of Culcheth's registration and to the vital rates derived from them.

The extant Newchurch registers commence in 1599, although it was not before 1608 that they seem to have been regularly kept, and there are three further breaks in the following fifty years. From the mid-1660s onwards the only gap occurs in 1752-3, following a serious fire in the nave of the church.[2] In our period no breaks in registration are apparent. And it should be added that the general state of the other Anglican registers employed, and particularly those at Winwick and Leigh which were the most important sources of leakage from Culcheth, showed no obvious signs of disorganisation either.

Volume 3 of the Newchurch registers covers the years 1775-1812 and has baptisms entered at one end and burials at the other. It was kept by a parish clerk. The defective literacy common in such people may (I think often wrongly) arouse wider suspicions as to their competence. As a generalisation, I would be inclined to be more sceptical of the completeness of post-1812 registers when the entries were usually made by the officiating minister who may be presumed to have been less in awe of the task of book-keeping than the parishioner raised temporarily to the status of a quasi-dignitary of the Church. At any rate, the two clerkly hands

[1] See below, Table XLV, p.357.

[2] The Registers of Newchurch, eds. Kaye and Kaye, pp.vii, 56-7.

discernible in the Newchurch register between 1781 and 1812 seem, despite imperfect spelling and laboured script, to betoken studious dedication to the job in hand. Occasionally, an entry is made at the wrong end of the book, but that is all.

However, by the mid-1840s at the latest the registration of baptisms, taking all ecclesiastical sources into account, had entirely broken down as a guide to the numbers of births occurring in Culcheth, as is made very clear by Figure 2.[1] In the three years 1844-6 ecclesiastical sources tapped only an average of 53 births, when the civil registers suggest a true figure of around 94 per year. The question is whether ecclesiastical registration collapsed before or after the introduction of civil registration. A substitution effect is to have been expected, with some couples who might formerly have taken their children to be baptised now being content with fulfilling the minimum legal requirement of registering births with the civil authorities at Leigh. But we must ask whether the gross inadequacy of ecclesiastical registration by the mid-1840s could have arisen over such a short period, or whether part or even all of the fall in recorded baptisms during the 1830s should not rather be considered spurious, the result of an already deteriorating ecclesiastical system.

No definitive answer to this problem can be given. But we know that Culcheth lost 13% of its population during the 1830s and that its church-marriage rate had fallen by over 40% in the same decade.[2] Later we shall also see that those who

[1] See above, facing p.20.

[2] See Tables III and IV above, pp.31 and 34.

did marry in cohort 4 had a markedly low general marital fertility rate.[1] This particular measure is not, of course, independent of the completeness of registration, but this cohort's history was susceptible to census checks and is not in doubt. There are then several reasons for supposing the sharp decline in ecclesiastically registered births during the 1830s to be, at least in outline, a reflection of the true course of affairs over those years.

Accurately to assess the point in time by which the civil registers' coverage approached completeness would require a more detailed cross-checking of the composition of civil births and baptisms than has been attempted.[2] Our primary interest was in the completeness of the families already on FRF. But my impression is that by some time in 1841 virtually all children who were baptised with a Culcheth address also had their births registered at Leigh. At this time - let us take the mean of 1841-2, since to go later would include the first crop of births resulting from the church-marriage boom which commenced early in 1843 - there were 65 births civilly registered annually, exactly the same average number as was picked up from ecclesiastical sources during the first three calendar years of the new system's operation, 1837-9. This does not prove, of course, that either system was fully functional at the dates compared. But it suggests, since

[1] See Table XLVI below, p.359.

[2] Recent work suggests that Lancashire's civil registration in the 1840s was of a high order of efficiency. See M.S. Teitelbaum, 'Birth Underregistration in the Constituent Counties of England and Wales: 1841-1910', Population Studies, 28 (1974), 329-43, esp. 332-3. Cf. D.V. Glass, 'A Note on the Under-registration of Births in Britain in the Nineteenth Century', Population Studies, 5 (1951), 70-88.

these groups of years were close together, that at the times in question both were of comparable efficiency. Tentatively we may infer that the decline in births bottomed out in around 1836-7, as indicated by the 'net' baptism series; that the collapse of ecclesiastical registration occurred largely over the years c.1840-1; and that the true course of the birth curve was probably stable or only slightly rising between c.1838 and c.1843-4, after which it turned up more sharply under the dual influence of a boom in church-marriages and heavy immigration to the Bury Lane district of the township.[1] In short, with the exception of the years 1840-1, when neither system of registration was functioning effectively, I see little reason to mistrust the baptism series during the 1830s or the civil thereafter.

But if the adequacy of ecclesiastical registration bore up surprisingly well until the end of the so-called parish register period, there is at least one respect in which its quality had begun to deteriorate much earlier. After 1810 Culcheth people became progressively more tardy in getting their children baptised. The modal birth-baptism interval at Newchurch was already of the order of three weeks in the later eighteenth century. But by the 1850s it was around seven. Given that infants were the most mortality-prone section of the population this creeping dilatoriness would increasingly have depressed the calculated birth rate below its true level - though as it was a progressive development it would not, of course, account for the rate's marked fluctuations.

[1]See Tables II and VI above, pp.29 and 56.

By the same token it could have produced, as a statistical residual, some of the apparent rise in the incidence of infant mortality during the early years of the civil registration system which we observed in Table L. For most of the nineteenth century the parentage of deceased children is not stated in the Newchurch registers. Unbaptised infants were often in consequence impossible to place. This will not necessarily have had the effect of lowering our calculated infant mortality rates below their true levels - and increasingly so over time, as the birth-baptism interval became more protracted - for the rules of observation which determine the selection of children in the assessment of infant mortality ensure that the families in question are not suspect with regard to their recorded birth intervals. But some slight tendency in this direction is possible, in which case part of the heightened levels of recorded mortality in the period 1841-60 could be attributed to the increased promptness with which births were recorded under the civil system, on the one hand, and the practice of naming deceased children's parents in those registers on the other.

It is very difficult to assess the likely scale of the accidental under-registration of births resulting from children having died before they could be baptised. Not all apparent chrisoms will in fact have been born in the capelry; some may have been baptised elsewhere. The irregularity of a wife's intergenesic intervals is not in itself an indication of anything in particular and should not automatically be treated as evidence that there have been unrecorded births. From a registration point of view the Catholics' practice of baptising a child on or very soon after the day of birth is no doubt

exemplary, but if they foreshortened the infant's life in the process the net effect on recorded mortality rates might not have been so very different to that produced by Anglican procrastination (though as the Culcheth Catholics left no burial registers before 1856 this cannot be tested for our period).

One suggestive, though ambiguous source of information has been found in a baptism register at Lowton, a township within Winwick parish which lay almost adjacent to Culcheth. Here in the later eighteenth century the register gave not only baptisms but also the name of every woman who had been 'churched' - that is, for whom prayers of thanksgiving had been offered for the survival of childbirth. Over the seven years 1780-6 between 3% and 4% of women who were churched appear not to have presented a child to be baptised. Ambiguity arises because the figures presumably cover stillbirths and possibly even miscarriages as well as the live births of children who had died before they could be baptised. But the data do suggest (if warning were needed) that a source of involuntary under-registration exists and one, moreover, which has as great an impact on the validity of reconstitution work as it does on aggregative analysis.

In view of the length of interval between birth and baptism which was typical even in the eighteenth century, precision in the reconstitution study required that dates of birth be employed in preference to baptism. For the whole of the period before 1841, except between 1823 and 1828, the Newchurch baptism registers do give each child's date of birth. So too do the Church of England registers at Winwick and Croft, the Roman Catholic registers and the Presbyterian. Those at Hollinfare do so only before 1813, while the registers at Leigh and Lowton

at no time give more than the date of baptism alone. After 1840 it was uncommon for the ecclesiastical registers to state date of birth but by that stage the civil system can fill the gap. For the earlier period approximate modal birth-baptism intervals were estimated for each decade, on the basis of the registers which did give dates of birth, which were then applied to all baptisms for which this information was lacking. Thus the statistics appearing in subsequent chapters have been based on dates of birth which are usually known precisely but occasionally inferred. The only exception to this rule is that in calculating bridal pregnancy rates the date of baptism of the marriage's first child was employed whenever exact date of birth was not known in order to understate rather than run the risk of exaggerating the extent of the phenomenon. The inferred birth-baptism intervals employed are as follows:

1781-1810, 21 days; 1811-20, 28; 1821-30, 35; 1831-50, 42; and 1851-60, 49. Further sophistication would not have been justified.

Before drifting too far from questions associated with under-registration, it is appropriate to consider the 'recovery rate' which the reconstitution exercise has achieved. The simplest procedure is to take the 1841 household schedules and see what proportion of the enumerated population also appear on FRF. 1841 seems more appropriate than would a later census for in principle it provides a better test of the efficiency of the ecclesiastical registration upon which the reconstitution of the previous sixty years is based. However, 1841 does not enable one to control for migration, since only county of birth was given and the census cannot in practice therefore be used

as a serious check on the adequacy of registration. There was thus little to be gained from checking FRFs for the birth of every person found in the census. The simpler course was adopted of assessing the proportion of 'houseful'[1] heads of 1841 who also appeared on FRF as the heads of 'breeding units' (whether they had been born in the district or not). This uncouth term, or something like it, is needed in describing Culcheth because of the frequency of common law marriages and of illegitimacy. Where a 'houseful' head was known or appeared to be unmarried (and, in the case of women, to have had no issue) the question was whether his or her birth was recorded on FRF. The same criteria as appropriate were also applied to the heads of subsidiary households and finally to kinless individuals residing within any household. Subsidiary households were deemed to exist whenever two or more people with the same surname did not appear to be related by blood or affinity - and it must be remembered that the reconstitution work was a guide here[2] - to the 'houseful' head with whom they resided. Kinless individuals were identified in the same fashion. Conversely, the main households were liberally defined to include married children, illegitimate grandchildren and so forth.

The findings constitute no check on the adequacy with which these breeding units' demographic history was recorded. They are simply a rough indication of the size of the FRF

[1] The existence of lodgers forming households economically distinct from that of their landlord requires use of a term such as 'houseful' to denote the total number of residents in a house. See also above, p.44.

[2] Cf. M. Anderson, Family Structure in Nineteenth Century Lancashire (Cambridge, 1971), ch.5, esp. notes 2 and 51, pp. 204, 206.

sample relative to the whole population of such units as it existed in June 1841. It should be noted that the recovery rate, as the term is used in this context, understates the true position first because, as will be further explained below, not all breeding units caught within my registration net were ever put onto FRF, and secondly because I undertook this census check before integrating Catholic, Presbyterian and other less important material with the original Church of England-based FRFs. For these reasons the findings do not merit tabulation or description with greater specificity than is conveyed by fractions. They are, however, minimum orders of magnitude.

Briefly, one half of 'houseful' heads in the 1841 census were 'known' to the reconstitution study by the criteria we have just outlined; so too were one third of the kinless individuals, and a quarter of subsidiary household heads. This indicates that the families caught by the FRFs make up a sizable sample of the total population.[1] Some disparity in the three groups' respective recovery rates is to be expected. Subsidiary households are, prima facie, where one is likely to find recent immigrants who have not yet found a place of their own.[2] But it is interesting that the recovery rate for kinless individuals should have been somewhat higher than for subsidiary household heads. Single people might be expected to be the most mobile group in society and therefore to have included the highest proportion of foreigners. Moreover, it is always more difficult to identify an isolated individual

[1] Cf. T.H. Hollingsworth, 'Historical Studies of Migration', Annales de Demographie Historique (1971), 93.

[2] M. Anderson, loc. cit.

than a married couple, and particularly in 1841 when the age information given in the census was rounded down in the case of those aged fifteen or above to the nearest five years. It may be that one has here another small indication of the Culcheth population's reluctance to emigrate from the area.[1] Kinless individuals accounted for almost one tenth of Culcheth's non-workhouse population (though this is bound to be an over-statement). Their agricultural bias is indicated by their accounting for an eighth of all men aged twenty or above and by their greatest concentration lying in the Risley end of the township.

In view of the decision not to search the Warrington registers and also of the extent of nonconformity in the area, it comes as no surprise that the FRF recovery rate should have been lowest in this southern, agricultural corner of Culcheth. Here only one third of houseful heads were 'known', a quarter of kinless individuals, and one fifth of subsidiary household heads. Elsewhere in the township the recovery rate for houseful heads was of the order of three fifths. The central, industrial area of Culcheth which, as we have seen, had the highest density of population per inhabited house in 1841,[2] nonetheless had, by a slight margin, the lowest incidence by the same measure of subsidiary households. These were found overall in c.1/8 of inhabited houses, but in fewer than 1/9 of those in the central area of the township. And the ratio of kinless individuals per inhabited house in the district, at

[1] See above, pp.52-4, 63-4 and 71-4.

[2] Bury Lane and Southern Culcheth both recorded 5.64, Central Culcheth 6.16.

just under one in two, was lower by a margin of more than 10% than that found in the remainder of Culcheth. In a superficial census analysis of this sort it would be improper to draw wide-ranging conclusions. Part of the differences mentioned will probably be the result of our having a more complete knowledge of kin ties in the industrial belt of the township. But the implication is probably that families in the weaving community - illegitimate grandchildren included - held together for a larger portion of the parental marriage's life cycle than was typical of the community as a whole.[1]

The reconstitution study, however, does not differentiate the population by district. Nor, more importantly, does it do so by occupation. The group from whom weavers would have been economically most sharply distinguished would have been the larger local farmers. But it was found that those identified from the 1837 Tithe Apportionment Award[2] and the 1851 census had very little representation on FRF. Given the importance of weaver-farmer households in the area, some control on land-holding size was required which these sources provided for the period in question. They indicated that at any one time there would have been around forty men farming in excess of thirty acres. But acreage is not an adequate guide to economic status. Quite apart from the distinction between owning and renting land, which could equate the means of men farming very different areas, a considerable part of Culcheth's agricultural land consisted of only recently reclaimed or partially undrained moss of low rental value. Most of this

[1]This question is pursued from a slightly different angle in chapter 6 below, esp. pp.268-70.

[2]MS in the custody of the rector of Newchurch.

was farmed in blocks of up to 70 acres or more by men who, to judge from their reconstituted histories, had sometimes emerged from the ranks of labourers and whose children might well once again appear as labourers or weavers in the parish registers. Acreage had therefore to be tested against location if the real men of substance were to be picked out. A further rough check, back to the early 1820s, was provided by membership of the Select Vestry which is known not directly, since no Vestry Minutes survive, but from the signatories to the poor law annual accounts[1] - though in practice few of these men could be distinguished from others of the same name. From a collation of these sources it appeared that, again at any one time, the true core of substantial farmers numbered only around twelve or fifteen. But partly it seems because of their preponderance in the south of the township where our demographic coverage was poor and partly because the children of larger tenant farmers tended to marry out of the district and seldom tenanted a farm through several generations, barely a dozen of these men in the last thirty years of our period left any trace on the reconstitution statistics. In consideration of any single fertility trait the numbers would have been fewer still. It must be concluded that though the only really well-to-do men in Culcheth cannot be demographically differentiated from the weaving community they hardly impinge upon the reconstitution findings either.

The reconstitution does, of course, catch many men who described themselves as farmers. Many of them on other occasions would be termed labourers or even weavers.[2] But

[1] PLP Overseers' Account Books, 1822-9.

[2] Changes in individuals' occupations are further discussed below, pp.270-1.

even those for whom the appelation 'farmer' was consistent - and one would need to devise new and somewhat arbitrary rules of observation to determine who these were, since individuals differed widely in the number of times that they appear in the sources - cannot as a group be considered wholly distinct from the weavers. 40% of Culcheth's nominal farmers in 1851 worked less than 20 acres apiece. We saw in the last chapter that many of them had mixed incomes.[1] Moreover, it would not be possible on the basis of reconstitution evidence to distinguish those who did from those who did not, for baptism registers inform us only of the occupation of the household's head.

Much the same applies to the families of craftsmen. In generational terms they were a much more stable group in Culcheth society than the wealthier farmers. In occupational terms, also: sons tended to follow their fathers. But the wives of bricklayers and smiths did not pursue these trades. Nor had they usually been born into families that did. If they had ever had an occupation it must usually have been that of weaver, as this was the trade in which female work opportunities were concentrated in the district. We do know that whenever the daughters of craftsmen, or indeed of farmers, appeared in the parish registers as unmarried mothers - in the pre-1841 period the only source on women's employment - it was as weavers that they were listed.[2] In censuses they may appear as 'wheelwright's daughter', as 'farmer's daughter', or as though wholly unemployed. But we may infer from the

[1] See above, pp.69-70.

[2] See below, pp.212-3 and 270-1.

parish register evidence either that even the later and more informative censuses understate the true role of weaving in such households, or that illegitimacy only cropped up in those families where weaving was an ancillary source of family income. The former is in fact much the more likely explanation, for the families of Culcheth's farmers and craftsmen which can be traced in any line over more than a generation in the first half of the nineteenth century are but rarely untainted by illegitimacy at some point in their histories.

IV

We may now turn to the conventions adopted in constructing the FRFs. The standard procedures set out by Dr. Wrigley were followed,[1] using extraction slips and FRFs of the types which were recommended by the Cambridge Group when this study was embarked upon in 1969. Two series of FRFs were built up, one consisting of the families of 566 couples whose date of church-marriage was known and the other, containing about 900 FRFs, comprising variously the illegitimate offspring of unmarried mothers, and the legitimate children both of immigrants whose date of marriage was not known and of couples who were regarded as having made a common law marriage. The precise number of these 'secondary' FRFs is not important. The breeding units they describe do not constitute a separate population of families from those on 'primary' FRFs, for unmarried mothers often eventually married.[2] Moreover, only material which was thought might prove statistically usable in some context was

[1] In ed. E.A. Wrigley, An Introduction to English Historical Demography (London, 1966), pp.96-159.

[2] See below, p.231 et seq..

put onto FRF. This selectivity may arouse fears of possible bias in the statistics, deriving from the researcher's unconscious preferences for attractive surnames, large families and so forth. But such concern is misplaced. All material which was discarded to save time when making out FRFs was fully utilised at the analysis stage in whatever context it could be, though such occasions arose rarely. It is strictly only in the sense that some registration data remained in the form of bundles of extraction slips instead of being transcribed onto FRFs that any of it was discarded.

More important is to explain the conventions adopted for handling cases where there was uncertainty over an individual's precise date of birth. For people not born or baptised in the district one will often have information drawn from other points in his life (his stated age at a census or at death, for example) from which his date of birth may be inferred with a greater or lesser degree of approximation. Not all such information can be treated as being of equal reliability; for instance, the further the informant stands from the birth the less trustworthy will in general be his testimony. Nor, a fortiori, will all sources be equally precise. To take an extreme but common example, a baptism which records a child's age as being two weeks pinpoints the sought-for date to within a few days, whereas a burial register which informs us that the deceased was 83 years old even if it is reliable only locates the date of birth as lying somewhere within a 12-month period. (Inferred birth dates are reckoned to lie in the middle of the time-span indicated: in these instances they would lie respectively 2½ weeks and 83 years 6 months previous to the sources of information.)

In reconstituting families it is essential to record the degree of approximation attaching to inferred dates of birth because inexact information may be sufficiently accurate to be used in some calculations but not in others. If, for example, the birth of a couple's first child is known to lie somewhere within the first ten months of the marriage the FRF cannot be used in calculations of the frequency of bridal pregnancy since this requires precise knowledge of the month in which conception occurred. However, if the date of the child's own marriage is known his inferred birth date may be used in calculations of age at marriage, in certain circumstances without any chance of error and in others without risk of serious distortion, since the unit employed in such statistics is a year not a month.

The simplest means of indicating on an FRF the degree of precision of such information is to flag inferred birth dates with a number denoting the time-span within which the true date must lie. Thus *104 might signify that the date of birth is known to lie between two points which are more than a month but less than two months apart, *105 that the interval's span is more than two but less than three months, and so forth. These examples are drawn from a typewritten schedule of date weights recommended in 1969 by Dr. R.S. Schofield of the Cambridge Group, which was followed in the present study. The actual numbers used have only a conventional significance so there is nothing to be gained from reproducing the system in full here. But the degrees of approximation for inferred birth dates which were accepted in constructing the statistics of following chapters need to be stated.

Relevant to this is a problem which arose from there being instances of conflicting evidence. In the parish register era age at burial is usually the only source from which an unknown date of birth can be inferred. The Culcheth study, however, caught many people several times in censuses. In principle this expansion of information is, obviously, helpful. But it also increases the risks of inconsistencies appearing in the data which ironically make the inference of date of birth more, not less, difficult than in pre-census periods. Culcheth people were not very accurate in their assessments of their own ages, as an instance drawn from the 1851 census will illustrate.[1] Taking as a sample 331 adults who gave their age as being twenty or above and whose true date of birth was known, it was found that 109, or almost exactly one third, had given their age inaccurately. The proportion was the same for both sexes and, interestingly, men proved more likely to understate their true age than women. For both sexes together, this was the direction of error in nearly two thirds of cases. Understatement by up to three years was the norm among those aged over thirty. Not surprisingly the younger people, those in their twenties, were inaccurate to a lesser degree than some of their elders. Nonetheless, 29% of those whose true age lay between 20 and 29 gave it wrongly - errors thus began early in life. And two thirds of these understated their true age despite being in an age-group with little social motive to mislead. One might infer that imprecise information about one's date of birth was a more important source of error than forgetfulness or deceit,

[1] They were, however, twice as often correct as their counterparts in contemporary Colyton! See E.A. Wrigley, 'Baptism Coverage in Early Nineteenth-Century England: the Colyton Area', Population Studies, 29 (1975), 303.

but that in some measure all three sources of inaccuracy played a part.

Furthermore, data on individuals drawn from different censuses were often irreconcilable. Where the conflict of evidence was slight, a few weeks or the odd month, the date weight corresponding to the span of time covering all known possible dates of birth was used (although the information's true degree of accuracy must often in fact have been rather less than this implied). But when on occasion it was clear that someone was becoming increasingly inaccurate with age - for example if he believed himself to have experienced eleven years of life between each census - date of birth was inferred from the earliest pieces of information available, and the later were simply ignored. The approach was thus not wholly consistent but was dictated by a concern for accuracy nonetheless, each instance of conflicting data being treated on its own merits.

Somewhat more difficult were cases where inconsistencies implied a possible range for the location of the true birth date extending over several years. It was decided that where the span was no greater than three years (and on average therefore the actual date of birth should have lain within 18 months either side of the inferred date) the material could be used in calculations employing the year as the unit of measurement. This decision was taken despite the fact that the time-span covering mutually contradictory sources of information on age does not in reality define the period within which a person must have been born (though he may have been). But the choice was either to exclude from study people who in an earlier age

would usually have been accepted because, lacking more than one source of information on their age, no inconsistencies in the data could become apparent; or to include them, on the grounds that the problem arises not from any deteriorating accuracy of mid-nineteenth century age assessments but from the paucity of such material in the parish register period. The latter course was adopted.

This group is therefore included in statistics relating to age at first conception and age at marriage which otherwise only cover people whose age is known to the nearest year. Their data are also incorporated in the analysis of age-specific fertility, it being argued that since this measure deals in units of five years' duration the significance of a small proportion of cases being out of phase by one or even two years is insubstantial - particularly as the substantive question is not so much the inaccuracy of these women's ages as the extent of untraced error among others'. In the case of no fewer than 30% of spinster brides, for example, date of birth had to be inferred from a single piece of evidence and, if the inaccuracy of age statements made in 1851 may be taken as a rough guide, errors might be expected to affect 9.10% of observations on their account alone. By contrast the women we have been considering account for only 5% of brides.

In studying bridal pregnancy, where calculations are made in months, only women were included the birth of whose child could be dated to the nearest week. And the same rule was followed with regard to intergenesic intervals. When reckoning the period elapsing between the birth of an illegitimate child and the subsequent marriage of its mother, the calculation was

also made in months. But here controls on accuracy could afford to be less stringent, as observed intervals ranged up to 142 months and all that was needed was an order of magnitude. Accordingly all cases were accepted which could be dated to within three months.

Certain other conventions and procedures adopted are worth mentioning. The notion of completed family size and the tests for continuity of observation of a family which are appropriate to its assessment, does not bear quite the same relevance to the situation of unmarried mothers that it does to the married state. Theirs was often a temporary status and one, besides, to which the concept of continuity is somewhat inappropriate from the point of view of fertility. Furthermore, in the absence of a regular flow of illegitimate children the normal rules for testing continuity of residence are usually inapplicable and would, if employed, produce an absurdly distorted profile of the experience of unmarried mothers, since it would in practice be restricted almost entirely to those who died young, those who married shortly after giving birth, and those who reared a brood of illegitimate children until close to the age of menopause. The experience of the average unmarried mother was less starkly dramatic than is suggested by these archetypes. Nor in many cases is it possible to hold an unmarried mother under observation before she attains that status within one's catchment area. Certainty over the completeness of a woman's illegitimate family size is simply, for the generality of unmarried mothers, unattainable. In consequence, in treating illegitimate family size all unmarried mothers' data was accepted at face-value irrespective of for

how long the women were held under observation in the conventional sense: the statistics are thus, in aggregate, minimum estimates of the number of children women in Culcheth bore out of wedlock.

These observational problems could also affect the validity of the infant mortality statistics presented in aggregate form in chapter 2 and, distinguishing between legitimate and illegitimate children, in chapter 6.[1] Since unmarried mothers did not as a rule marry, die or bear another illegitimate child within the three- or four-year period following a particular birth which would in the case of legitimate children have been a normal requirement before the family in question could be accepted as being under continuous observation, they were accepted as meeting observational criteria if they could be located within the district (in a context independent of infant mortality) less than ten years after the birth in question. On balance it is probable that this leads to understating illegitimate (and total) infant mortality, since such children could die outside our catchment area if their mothers emigrated temporarily from Culcheth - as we know from the 1841-61 censuses they did.[2] However, it also appears that bastard children tended to leave with their mothers only if the migration was intended to be or became permanent, if then, and not as a matter of course.[3] Insofar as this was the norm the calculated mortality rates need not be wide of the mark, nor understated significantly more than for legitimate children, whose parents also might

[1] See Table I above p.26, and Table XXXI below p.299.

[2] See also p.298 below.

[3] See also pp.229-30 below. Because chapter 6 studies households containing unmarried mothers instances where bastards were reared by their grandparents are not highlighted.

remove themselves from the township for a year or two and who, though they were probably less mobile than unmarried mothers, would have been more likely on such occasions to have taken their brood of children with them (if only because the latter, being usually more numerous, could less easily be left with kin).

When calculating the age-specific fertility of unmarried mothers only those women were included for whom evidence independent of their unmarried motherhood suggested their continuous presence in the township. If an unmarried mother was known to have been born in Culcheth, or from her parents' marital records or census evidence was known to have moved into the district before reaching the age of fifteen, she was deemed to be under observation from her fifteenth birthday in the absence of evidence to the contrary. To be included in the fertility analysis she also had to have been picked up at some later stage of life, in a census or when she married or died. It should also be said that child immigrants of the sort described are, if they became unmarried mothers, treated as part of the native-born population on the grounds that they spent a critical part of their formative years in Culcheth society. Obviously, in any context in which place of birth is specifically the point at issue these women are regarded as foreigners, but in discussing illegitimacy the term foreigner is restricted to women who are thought to have moved into Culcheth after the age of fifteen.[1]

The question of how to define observation also affected analysis of marital completed family size. The idea was

[1] But *cf.* below, pp.218-20.

adopted of a notional menopause occurring on the wife's attainment of age 45, such that a marriage known to have reached this point is reckoned complete even though the union's termination cannot be dated. Similarly, on the grounds that very few first marriages occur after menopause, unmarried mothers who were held under observation until age 45 but subsequently lost sight of (a problem usually arising from inability to follow them past the 1871 census) were deemed to have died unmarried.

All marriages which survived until the wife reached her 45th birthday were termed, for family size purposes, Class I marriages. Unions which, though in themselves complete, were terminated by the death of either spouse before this point in time have been styled Class II and separately analysed. In 21 instances of such prematurely ended marriages (18.9% of all Class II first marriages) the surviving spouse was lost sight of. Strictly speaking, this means that one cannot date the end of the union and should not use such FRFs in calculations of completed family size. These 21 (which have been termed Class II(a) marriages) have nonetheless been included because in each instance the spouse whose death is known died less than four, and typically no more than two years, after the birth of the marriage's last known child - which, in my view, creates little risk of error.

One further category of completed family was distinguished. 17 first marriages which lasted until the wife's 45th birthday have been designated as Class III. They constitute 9.7% of all such first marriages. Their distinguishing feature is either that the couple in question is known not to have been in Culcheth when a particular census was taken, although in the

absence of that information one would have had no reason to suspect the completeness of their families as recorded in the registers; or that the couple's fertility patterns display irregularities or peculiarities (such as an unusually early termination of childbearing) without displaying any other signs suggestive of under-registration, such as the existence of chrisoms among their children or an unduly tardy baptism record. The inclusion in completed family size statistics of the first category of marriages requires little justification: in a pre-census age they would have been accepted as complete without question. Couples in the second group were not admitted for analysis without careful consideration. Insofar as one can be in such circumstances, I was confident that these particular families were complete, and I considered that one risks doing an injustice to demographic history in insisting too rigidly upon a regularity of fertility behaviour which may not reflect the actual range of physiological and personal histories one purports to study. The completed family size statistics are therefore based upon an amalgamation on the one hand of FRFs classed as I and III, and on the other of those designated II and II(a).

In measuring intergenesic intervals the usual procedure was followed of treating separately each couple's last birth when the marriage was classified as I or III; but this was not done in cases of II or II(a), on the assumption that fertility was not systematically related to age of decease. One can imagine situations in which this would not have been a reasonable assumption, but as a general rule it seems fair enough.

Before 1837, during the period when all church-marriages were celebrated at Winwick, some difficulty was faced in deciding how long an interval between marriage and first birth should be reckoned permissible before one should begin to suspect that a birth was missing because it had occurred elsewhere in the parish and before the couple had migrated to Culcheth. No hard and fast rule was thought reasonable, though in any event such cases were few. My judgment was based on what was known of the origins of the partners and on their subsequent fertility behaviour, but as a general rule FRFs were discarded where the interval to first birth was four years or more and, in proportion to the number of cases, not infrequently when it was less than this.

Problems of identification arise in all reconstitution studies. They are particularly severe whenever a parish's registers name only one parent at a child's baptism as is, in effect if not always in fact, the case with illegitimate births. In Culcheth's case, the problem is exacerbated by the high incidence of a small number of surnames, and it sometimes happened that six or more girls of the same name were known who could have been the mother of a particular illegitimate child. The censuses from 1841 onwards were a help because, even where the child was not living with its mother the household within which it resided was often sufficient to establish parentage. Occasionally use was also made of Christian names which were slightly unusual but which recurred in particular families.

It will be seen in chapter 5 that the problem of identifying putative fathers (when their names were known) was even greater. They could be of almost any age and marital status

and were unlikely to be found residing with the child in the censuses unless they had in the meantime married the mother. In practice I sought to identify only those who did just this. The study is thus very much one of unmarried mothers.

A further difficulty in studying a district with a high incidence of illegitimacy is the number of opportunities for de facto legitimation to which it gives rise. There is ample evidence that this occurred in Culcheth, although in many cases legitimation was not universally recognised. For example, a child might be listed in a census as though the legitimate offspring of his (by now) married parents, yet when in later life he married the parson might style him by his mother's maiden name. No consistent rule, however, was found applicable to legitimation beyond the fact that it was likely to occur in at least some registration contexts whenever an illegitimate child's parents married one another. The risk to a reconstitution exercise from this practice derives from the fact that because legitimation was neither automatic nor necessarily permanent, it has to be positively looked for, and the people concerned have to be picked up in a context which enables one to establish their original identity. Both requirements imply that in practice cases of legitimation will often have been missed, with the result that on occasion other events in the township entirely independent of the bastardy case in question may have been wrongly ascribed. A bride with the name Mary Thomason may be thought to be the daughter of Andrew Thomason because no other girl of that name is known to have been born in the township in the previous forty years. In fact she may turn out to have been christened Mary Warburton

and to have been legitimated by the subsequent marriage of her parents. In the absence of this information not only will the bride called Mary Thomason have been wrongly identified, but the population of women bearing the name Mary Warburton will also be inaccurately known with similar implications for the possibility of establishing false connections between FRFs.

Legitimation was therefore a matter which could not be ignored, and many tedious weeks were devoted to its study. Not surprisingly, the censuses were found the best guides, for in them anomalously named members of a household were immediately apparent. Before 1841 the practice when seeking to identify an unmarried mother or marriage partner of either sex was to scan for a period of about thirty years a chronological list of the births of illegitimate children not known to have died in childhood, looking for the individual's Christian name. The next step was to see if the mothers of children with this name were known to have married or died or were thought to have left the district. By such means people who could have been legitimated bastards were picked out, and evidence drawn from their adult life - such as the part of the township in which they lived, the names they gave their children, the households in which the latter turned up later in life, and so on - was adduced to test the probability of the connection. If in doubt it was naturally preferred to identify an adult as a legitimate child where a plausible set of parents was known. Given the potential for dislocating the accuracy of linkages between FRFs which the practice of legitimation gave rise to, the surprising thing is that among the population which survived to be picked up in the 1841 or later censuses (amongst whom I

think it could be said that virtually all cases of legitimation were identified) the number of FRFs where the lineage originally ascribed to the heads of breeding units had to be revised could be counted on the fingers of one hand. And they were all cases where the original ascription had been made in pencil denoting uncertainty because of the impreciseness or implausibility of the postulated linkage.

This implicit confirmation of the lack of damage which legitimation had in practice inflicted on the original reconstitution exercise was the more fortunate in that a good many cases of legitimation in fact came to light almost by chance. The existence of common law marriages in Culcheth, which neither left any trace in the marriage registers nor showed up self-evidently for what they were in the censuses, enormously increased the difficulty of establishing cases of legitimation. Independently of this, of course, these unions constituted another source of error when it came to estimating the number of people in the community at any one time who bore the same name.

The precise significance of informal marriages and the methods used to identify and define them may be better left to chapter 9, where their characteristics are discussed in some detail. They are by their nature unions the existence of which family reconstitution is ill-adapted to test and the definition of which, once they are identified, does not lend itself to the objective measurements and agreed rules with which that technique is properly associated. There are aspects of the methodology adopted for identifying and quantifying the experience of common law marriages which are necessarily

subjective, and that my judgments should be fresh in the reader's mind when their statistical attributes are discussed requires that the two facets of the subject, definitions and characteristics, be treated together.

For the moment, it is enough to mention that stable cohabitation was a feature of Culcheth society in our period and it appears that in general people who lived together were treated as man and wife, at least to the extent that their children were baptised as if legitimate (and are treated as such in this study). The existence of consensual unions does not, to my knowledge, contribute directly to the illegitimate births with which the parish registers are studded. In this sense illegitimacy and common law marriages are distinct phenomena. But unmarried mothers were as likely as anyone else to drift into consensual unions, and when they did so it is obvious that the problem of correctly spotting instances of <u>de facto</u> legitimation will be substantially increased. That the women involved in these marriages changed their surnames without leaving formal traces of the fact is also, of course, a nuisance but has the less dangerous effect of merely removing someone from the nubile pool without adding to it anyone bearing a different name.

In the foregoing remarks I have attempted to emphasise and not to gloss over the particular problems which reconstituting Culcheth brought to light. It must, however, be admitted that I would probably have adopted a more judiciously abstract approach to these questions had I not been modestly confident that the labour devoted to unravelling the district's convoluted genealogies has met with a modicum of success. The weakness of the resulting FRFs lies rather in the frequency with which a

linkage could not be established where one existed in fact than in the inaccuracy of those which have been postulated and relied upon in the construction of statistics. Errors there will assuredly be; but the core of the township is there.

V

Before passing to the reconstitution statistics, however, some attention should be given to the writings of the Reverend Joseph Jones, Perpetual Curate of Newchurch from August 1816 to October 1840,[1] for his comments on the marital mores of those in his charge are the only surviving contemporary evidence of a non-numerical nature touching on the subject which I have been able to locate. There is a sense, besides, in which persistent sexual irregularities in a village owe their existence to the relations subsisting between parson and people, both because of the nature of authority relations within the community which is implied and because, in his institutional contact with people he considers offenders - as shown, for example, in the severity or otherwise of his attitude to the churching of unmarried mothers, or the status of the children of consensual unions - the cleric inevitably affects the social respectability of their behaviour.

Culcheth's Jones was a bookish man. During his career he published nearly fifty works of varying length and character, fifteen of them while curate at Newchurch.[2] Practically the whole of his literary output was of a religious nature. It included a few theological treatises, but largely comprised

[1] The Registers of Newchurch, eds. Kaye and Kaye, p.xiii.
[2] See B.M. General Catalogue.

collections of his own sermons, hymns, prayers and psalms. One more secular work, however, was dedicated and specifically addressed to his parishioners in Culcheth. This was 'Cottage Conversations; or Good Advice to the Poor', which was published in London in 1821. The book takes the form of a collection of twelve imagined conversations between six men who are intended to represent not the whole gamut of personality types as they will be found in a village but those, however misguided in their ways, who are nonetheless susceptible to reasoned argument. The characters range from the thoughtful, prudent Robert Wilkins whose views invariably win the day, to Richard Carter, 'one of the thoughtless, and careless, and giddy young men, who are found everywhere'.[1] Each conversation is devoted to a particular theme: 'Poverty', 'Sunday', 'The Tavern', 'Gossiping', are some of them. Most of Jones's social preoccupations as revealed in these discussions were those of any early nineteenth century clergyman. The irrationality of spending one's wages in pubs or of marrying without first accumulating savings are both exposed.[2] Interestingly, in considering Sabbath Observance, Jones's complaint seems to be not that his parishioners were irreligious but, on the contrary, that some neglected their children by attending church too often.[3]

But it is in the eighth chapter, entitled 'Marriage', that the 'Conversations' depart from the mainstream of contemporary literature of the type and come to have an indubitably specific

[1] J. Jones, Cottage Conversations, p.16.
[2] Ibid., pp.28, 112-26 passim, and p.189.
[3] Ibid., pp.44-60 passim.

relevance to social mores in the Culcheth district. Parts of the discussion are worth quoting *in extenso*.

> 'Wilkins. It is a melancholy thing to consider, that some do not think of marriage, but are perfectly satisfied to live in the vilest profligacy; that others do not regard marriage as they ought, but rush into it, to speak so, with giddiness and carelessness, full of silly fancies, or as indifferent as so many blocks, as to what the result may be ....
>
> 'Barton. I fear the case is as you say; and you have touched on a most melancholy and frightful subject. It is really a sad, and I may say a dreadful thing, to consider how some are living, both young and old. In this part of the country, I hope it may be better in other places, there is no disgrace, or at least but little, in having children while unmarried. Many young men care not how many girls they debauch; nor do the girls seem to mind much about it. Many men and women also who are past the mid-day of life are guilty of the grossest wickedness.
>
> 'Weston. This is a disgusting, affecting, and awful subject. What do people mean by such proceedings? But it is altogether useless to reason on the point. It is much to be pitied, that those who are guilty of these things are not shunned by all around them ....
>
> 'Wilkins. Viewed in reference to God, /the evil of which we speak/ is a dreadful sin: and as a personal, family and social concern, it is attended with misery, poverty, and disgrace .... No one can express himself too strongly. God has appointed marriage; and he has pronounced it in his word to be honourable in all. As to those who are living in this sin, they must be abhorred of heaven; they ought to be abhorred of men: what are they indeed but the rational beasts of human society? ... As for whoremongers and adulterers, he has said in expressive terms, that he will judge them. They have an awful place in the last chapter of the Bible.[1]
>
> 'Weston. Dreadful as the evil is in all respects, I fear, it is an increasing one: indeed I know not what I feel, when I hear now of one and then of another having children.
>
> 'Wilkins. It is most painful to see and hear how people go on in this matter. One cannot go along the street of the village in the twilight on a Sunday evening without seeing some suspicious work or other.

[1] Presumably Revelation xxii.15 is indicated.

> 'Weston. What guilt lies at the doors of parents! To them, to the bad education they give their children, to the want of every thing that deserves the name of family government, to the utter forgetfulness of all instructions of a religious nature, we must ascribe, in a large degree, the crime, and folly, and wretchedness that we see on every side from the improper intercourse of the sexes.'[1]

There are two aspects of these passages which I think merit attention. First and most obviously, they provide what may be accepted as factual details of the way in which an unspecified proportion of people in Culcheth lived in the early 1820s; secondly they provide an insight into one man's interpretation of the significance of these behaviour patterns - an interpretation which is at first sight suggestive of social dislocation and irrationality of the sort which appeals to many sociologists but which, I believe, is more indicative of Jones's personal bewilderment and lack of understanding of what was going on.

On the first point we must be very careful to distinguish between factual description and the spuriously empirical constructions Jones is prone to place upon them. What I would consider the social facts to emerge from the conversation are first, the confirmation that Culcheth's peculiarity is not restricted to a high frequency of illegitimacy. The words used, it is true, are not free from ambiguity, but the wickedness of people past middle age cannot have lain in the bearing of illegitimate children, and the references to 'those who are living in this sin' and to those who 'do not think of marriage, but ... live in the vilest profligacy' are suggestive of the existence of cohabitation. Secondly, Jones implies that the phenomena he

[1] J. Jones, Cottage Conversations, pp.183-7.

deplores are not peculiar to Culcheth, for he uses the phrase 'in this part of the country'. As far as illegitimacy is concerned this is easily confirmed. Both the short- and long-term chronology of change and the peak levels of illegitimacy found differed from one district to another in a manner the elucidation of which would require individual studies of the socio-economic structure of each township. But as an indication that Culcheth was not a distinct demographic unit it suffices to note that over the three years centring on 1841, when Culcheth's illegitimacy ratio averaged 33.2%, levels in certain nearby townships were: Pennington, 14.5%; Westleigh, 16.9%; Bedford, 17.4%; Astley, 20.0%; and Lowton, 28.8%. Finally, it is clear from the passage quoted that unmarried motherhood and cohabitation (if this was what was being described) attracted little disapproval from among the general population.

There is also a grey area of quasi-factual information imparted in the conversation the truth of which I would regard as doubtful or at most unproven on the grounds that its establishment would demand more than the casual observation of an outsider although some of what his characters assert may in fact have been the case. It is here that Jones passes imperceptibly from description to opinion. In this category of remarks we should probably place the suggestion that the frequency of illicit sexual relations was on the increase. We should certainly treat with scepticism the imputation that poverty was increased by the bearing of illegitimate children. An extra mouth to feed obviously had this effect, but we do not know how frequently and to what extent costs of upkeep were offset by assistance from the child's father or the Poor Law authority.

Besides it is arguable that the comparison should not be between the girl's poverty before and after having the child, but between the costs of rearing it as an illegitimate child in her parents' household on the one hand, and rearing it within marriage on the other. It is by no means obvious that the former arrangement would have imposed greater poverty than the latter.[1]

Through the mouthpiece of Barton (and later of Wilkins, in a passage not quoted)[2] Jones also speaks as though it was the men in Culcheth society whose casual and unprincipled behaviour was the *fons et origo* of the trouble. In fact, the only inference one is justified in making from what he tells us is that the arrangements seem to have been about as acceptable to women as to men.

Another example of ill-evidenced assertion lies in Weston's final speech, which could be interpreted as indicating that illicit sexual relations sprang ultimately from a break-down of parental authority. In the context of the handloom weavers' declining economic and social status this might obviously have important interpretive implications. Elsewhere, indeed, Jones expressed himself even more clearly on the subject of fathers no longer being masters in their homes and reprimanded parents for 'giving the power of self-regulation to their children at a too early period', adding that 'we are almost continuously compelled to hear very strange intelligence about the ungovernable spirit of children and servants; or we see the most unequivocal

[1] See below, chapter 6.

[2] *Op.cit.*, p.185.

proofs of what we may, perhaps not inaptly, call domestic republicanism'.[1] Now, it may be that the handloom weavers' crisis did upset traditional authority relations - it will be suggested later in this study that the bargaining power of women *vis à vis* men may have been improved[2] - but it certainly need not follow that the control exercised by parents as a team over the behaviour of their children should have been in any way affected. There is much that is tautological in discussions of parental authority. Arguably, if parental control appears stronger in a stable society than in a rapidly changing one it is because of the absence in the former of value conflicts which might require it to be overtly exercised. Jones on this reading was not really describing the break-down of parental authority. On the contrary, he was bemoaning the fact that parents did not appear to find themselves (as he did) in conflict with their children's behaviour.

An interesting aspect of this particular conversation which emerges more clearly when the chapter is read in its entirety and in context, but which is apparent particularly in the first speech by Weston which we have quoted, is that Jones was somewhat at a loss either to understand why his parishioners behaved as they did or to expose the practical irrationality of their actions. He speaks of sexual irregularities being 'attended with misery, poverty, and disgrace', though by his own admission 'there is no disgrace, or at least but little,

[1] J. Jones, Hints towards the Right Improvement of the Present Crisis, (London, 1822), pp.86-8

[2] See below, pp.295-8.

in having children while unmarried'. More generally, bewilderment shows up in the dependence upon rhetoric and church doctrine in place of reasoned argument of the type which gave the book its raison d'être. In part his inability to make sense of what was going on derived quite simply from his faith in the practical rationality of Christian principles, which it was perplexing to see widely infringed and unstigmatised. 'Christianity', he once wrote, 'is not a theory to employ the speculative powers of the intellect, but an authoritative system of truth for the instruction of the mind and the regulation of conduct ....'[1] But we may also be fairly confident that Jones was not in daily contact with many of his parishioners and was not well placed to perceive any rationale that may in fact have underlain their mores. When asked by his bishop whether he offered to visit the sick in his chapelry he replied, 'I do what I can: no great deal: a painful answer but a very true one'.[2] And in the Dedication of 'Cottage Conversations' he wrote of the book that

> 'It will give you my sentiments on many points; you will be able to review them at leisure; and many with whom I can have no personal intercourse, may learn what my views respecting the poor really are.
>
> Some of you may laugh at my performance; others may throw it aside with indifference or disgust ....'[3]

A more subtle but no less important interpretive question is whether the blanket condemnation of the behaviour of certain of his parishioners to which Jones gave expression in 'Cottage Conversations' really betokens that degree of lack of sympathy

[1] J. Jones, Hints, p.viii.

[2] Lancs. C.R.O., EDV/7/7/356.

[3] Op.cit., p.4.

for their condition which might give substance to suspicions that their viciousness was irrational in any wider sense than Jones had in mind - that it was not merely morally distasteful to a clergyman but a patently inappropriate and disoriented response to their material situation. We have half an answer in the difficulty Jones seems to have had in demonstrating the practical evils associated with illegitimate births, and we may also note that he himself baptised as legitimate the children of consensual unions and that his moral repulsion towards Culcheth's goings-on does not seem to have deterred many of his wayward parishioners from seeking baptism for their offspring. It can also be shown that the tone which Jones adopted in his writings varied with the audience to whom he was addressing himself. In 'Cottage Conversations' he wrote as a curate to his congregation and was inevitably concerned to emphasise how people ought to behave not to justify the way in which they actually lived. When he wrote for the wider public he could be more uncompromising still in his criticisms of the poor.[1] But in addressing his bishop he came close to defending them, and was certainly more matter-of-fact. When asked whether the Lord's Day was observed with decency in Culcheth, his reply was a muted 'We must not say much: we are a rough set'. He was somewhat less guarded in the opinions he expressed of the more respectable members of his congregation. His response to the question 'Do you take the Chair at Vestry Meetings?' was 'I do not like farmers and cash matters, and so I leave the sade /sic/ gents always to themselves ....'.[2]

[1] E.g., J. Jones, Hints, p.29, but cf. pp.108-112.

[2] Lancs. C.R.O., EDV/7/7/356.

I would not pretend that Jones's writings or registration conventions give us much insight into Culcheth's marital peculiarities, much less demonstrate that they possessed a socio-economic rationale. But I would dispute that they describe a disoriented society. At most - and it is a not insignificant fact - they portray a clergyman of an academic bent who was simply out of touch with his parishioners. Tacitly his behaviour towards them was more tolerant than his writings would suggest, but as a permissive factor in the growth of illegitimacy and common law marriages in Culcheth I would rank more highly the intellectual frame of mind which placed him at such a distance from the day-to-day life of the community.

Chapter 4

First-born Children

The general framework of the demographic analysis set out in this and following chapters is dictated by the life-cycle of the women under study. Teasing social attitudes out of demographic data is a regrettably indirect approach to the subject, and the reader's forbearance is asked for the fact that it not infrequently means that points arise in the evidence the significance of which may not be fully apparent until other pieces of the jigsaw have been added subsequently.

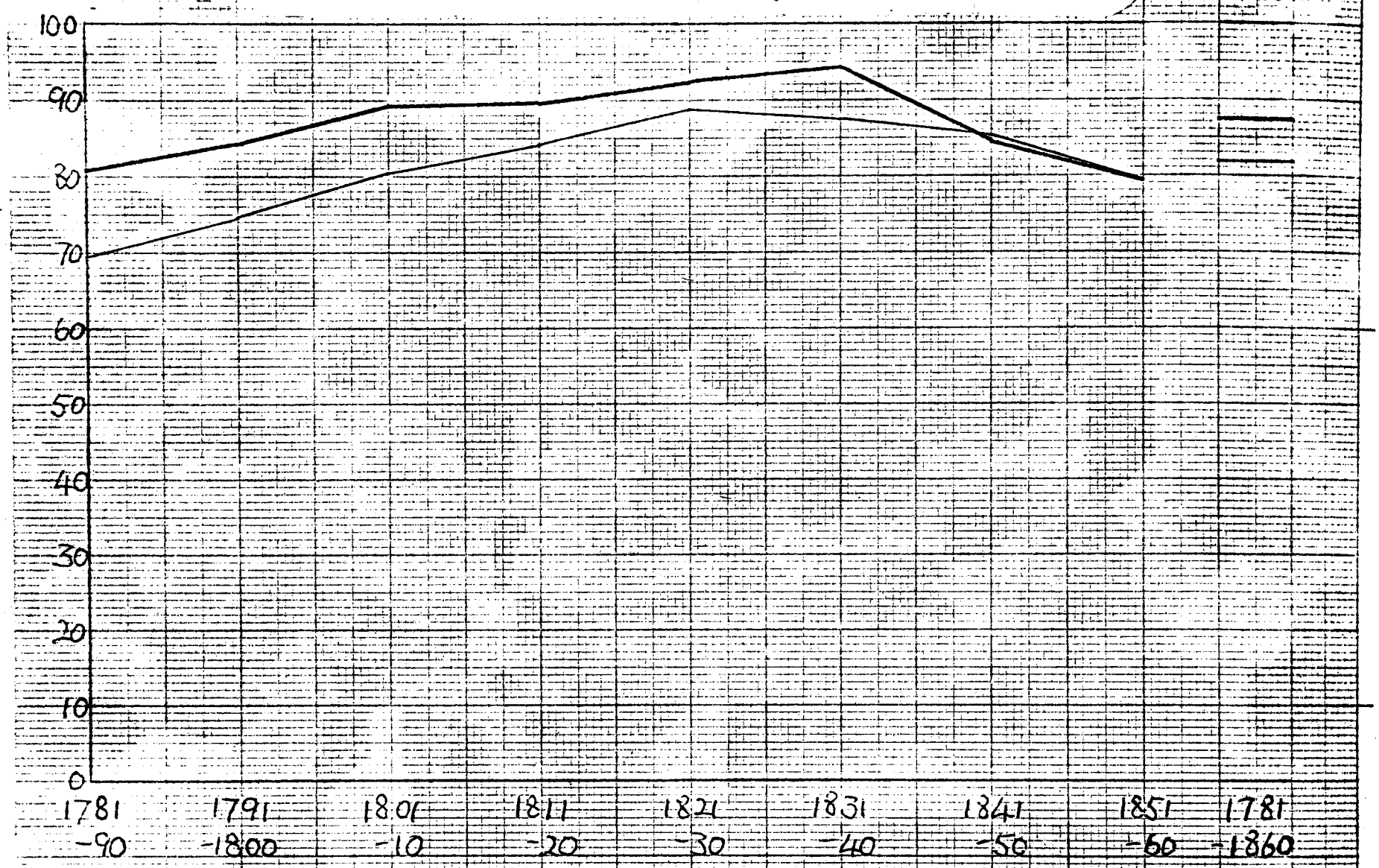
To place the incidence of unmarried motherhood in its rightful context it is necessary to examine the institutional setting within which Culcheth women in general conceived their first-born children. Figure 6 and Table XIII indicate the proportion of fertile women whose first child was conceived out of wedlock.

The results are given for two overlapping samples of women, the smaller being restricted to those whose age at conception is known. It thus contains a higher proportion of native-born women. It will be noticed that the extramarital conception rate amongst this group appears to have been greater than was true for women as a whole. In principle this difference could reflect a behavioural divergence between the indigenous population and newcomers to the district. It is much more probable, however, that it derives chiefly from incompleteness of information regarding the early adult experience of foreigners, whose celibacy before arriving in Culcheth is simply assumed in the absence of evidence to the contrary.[1] It is also likely that

[1] See also below, pp.218-20.

Figure 6. Percentage of first births conceived extramaritally, by decade of child's birth.

___all women (N=854)
___women of known age (N=719)



the slightly differing shape of the two curves in Figure 6 has its origins in variations in our knowledge of events rather than in the behavioural facts of the case. The further into the period one goes the greater the chances of picking up foreigners in those later censuses which, because they have left household schedules, can on occasion indicate the presence of an illegitimate child born before the woman in question arrived in Culcheth whose existence in an earlier period might well have gone undetected.

These considerations are raised at this early stage of the analysis to forewarn the reader, first that in general the information is most accurate which relates to the native-born members of the community, and secondly that the improvements in the quality of information which the censuses from 1841 onwards bring about can also occasionally generate unreal statistical movements. When an interpretive point is affected by such matters they will of course be discussed in the text; otherwise not.

Table XIII. Percentage of first births extramaritally conceived.[1]

	(a) all women		(b) women of known age	
Cohort[2]	N	%	N	%
1781-1800	164	72.0	114	82.5
1801-50	556	85.4	493	90.1
1851-1860	134	79.1	112	79.5
1781-1860	854	81.9	719	87.2

Notes: 1. CLM brides are regarded as conceiving first child outside wedlock.

2. Except where otherwise indicated this study employs fertility cohorts, membership of which is defined not by the date of a woman's own birth but by that of her marriage, or her first child's birth if a UM.

The most impressive feature of the two sets of data presented in Table XIII and Figure 6 is their general agreement that throughout our eighty-year period it was the normal thing for women to conceive their first child outside marriage. In the period as a whole over 80% of them did so. We are, of course, only measuring the experience of women whose first conception resulted in the birth of a live-born child who (in most cases) survived long enough to be baptised. Allowing for the existence of spontaneous abortions, miscarriages and still-births, for some loss of fecundity among older brides-to-be, and for the assumed intermittency of sexual relations between the betrothed generally, the truly virgin bride must have been a most unusual person in Oulcheth.[1]

It should be noticed that this was evidently the case even in the eighteenth century, before the illegitimacy ratio began its striking growth.[2] It is true that by both measures of the phenomenon given in Figure 6 the extramarital conception rate rose by around 10% between the 1780s and the 1800s and did not reach its peak until the 1830s, after which it declined. But shifts of this order are probably largely explained by changes in the church-marriage rate which began its decline in the 1790s and its eventual recovery in the 1840s.[3] For in a society with such a high incidence of sexual relations outside wedlock, marriage may be viewed as terminating the risks of extramarital pregnancy. The decline of church-marriages simply placed women at risk for longer, unless they became more circumspect in their behaviour.

[1]But cf. below, pp.324-5.

[2]See Figure 3 above, facing p.35.

[3]See Table III above, p.31.

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[2]See Figure 3 above, facing p.35.

[3]See Table III above, p.31.

The indications are, therefore, that there was no substantive change in this particular aspect of fertility behaviour in Culcheth between 1781 and 1860. The consistency and pervasiveness of the pattern described in Figure 6 plainly indicates the existence throughout our period of a courtship custom which made sexual relations among the unmarried a normal and acceptable thing. The precise code of conduct (and any sanctions against its infringement which may have existed) is not known but is of less concern for this study than its practical outcome. In the original version of this thesis I was taken to task for referring to Culcheth's courtship conventions as 'bundling'. I accept the reproof, for S. Lancashire is not a part of the country normally associated with the Night Visit (although Hole claims to have found evidence of its existence formerly in Cheshire);[1] nor was Culcheth primarily an agricultural community with a large population of farm servants left to their own devices after darkness.[2] But bundling is itself a term which covers a multitude of sins, from the highly formalised customs which Rees found in Llangfihangel yng Ngwynfa to the more entrepreneurial activities of individual farm servants in parts of Scotland.[3] And in its structural essentials, if not in its formal charm, courtship in Culcheth must have had a good deal in common with the pure breed of the species as found in Llangfihangel.

[1] She calls the custom 'sitting-up'. C. Hole, Traditions and Customs of Cheshire (London, 1937), pp.3-4.

[2] Cf., e.g., A. Myrdal, Nation and Family (paperback edn., Cambridge, Mass., 1968), pp.42-4; and T.C. Smout, 'Illegitimacy', in ed. M.W. Flinn, Scottish Population History (Cambridge, 1977), pp.349-67.

[3] A.D. Rees, Life in a Welsh Countryside (Cardiff, 1950), pp.85-7; and T.C. Smout, 'Aspects of Sexual Behaviour in Nineteenth-Century Scotland', in ed. A.A. MacLaren, Social Class in Scotland Past and Present (Edinburgh, 1976), pp. 65-6 and 72.

The district possessed (and still does) several fine barns, and it had its quota of ditches and of hay-fields in due season. But there was no perceptible seasonality to illicit conceptions in Culcheth, and only the first of these facilities would have been an attractive proposition in the winter months. Even the barns, it may be supposed, would have suffered from excess demand since extramarital conceptions on the observed scale, unless actively willed by the participants, presuppose on average a fairly long history of love-making. The most likely inference is that 'goings on' were chiefly conducted indoors.

In Culcheth as in Llanfihangel almost all the girls involved would have been residing with their parents.[1] Even if the love-making went on in byres and ditches this latter circumstance makes it certain that in general events occurred with the connivance, tacit or positive, of the parental generation (as in Montgomeryshire). In areas where bundling or night-courting in its classic form was associated with the prominence of living-in farm servants, largely free of adult supervision, the peer-group's control of proceedings would have been an important feature, and in certain circumstances it might be justifiable for the historian to sense in this situation a whiff of anarchy or even of anomie. But where, as is fairly plain was true of Culcheth, the existing customs met with at least the tacit acceptance of parents, one has either to suppose that the latter found themselves completely unable to prevent their teenage or adult children from embarking on a disadvantageous course of conduct - which is possible, admittedly, although the parents had themselves trodden the same path in their youth without

[1] See below, p.285.

obvious detriment to their life-chances - or to stretch the definition of the anomic population to comprehend virtually all from the age of ten or fifteen upwards - which raises the question of whether or not normlessness can sensibly be identified in practices condoned by an entire community. Otherwise one has to accept that in Culcheth's own terms the set of customs - whatever they were - was not considered by either parents or participants inconsistent with the priorities of life and the maintenance of cherished values. This, not the terminology by which the courtship conventions are known, is the important point. The existence of these customs on such a scale made a high level of illegitimacy possible, but in itself is evidence not of a dislocated society but if anything the reverse, a well integrated one.

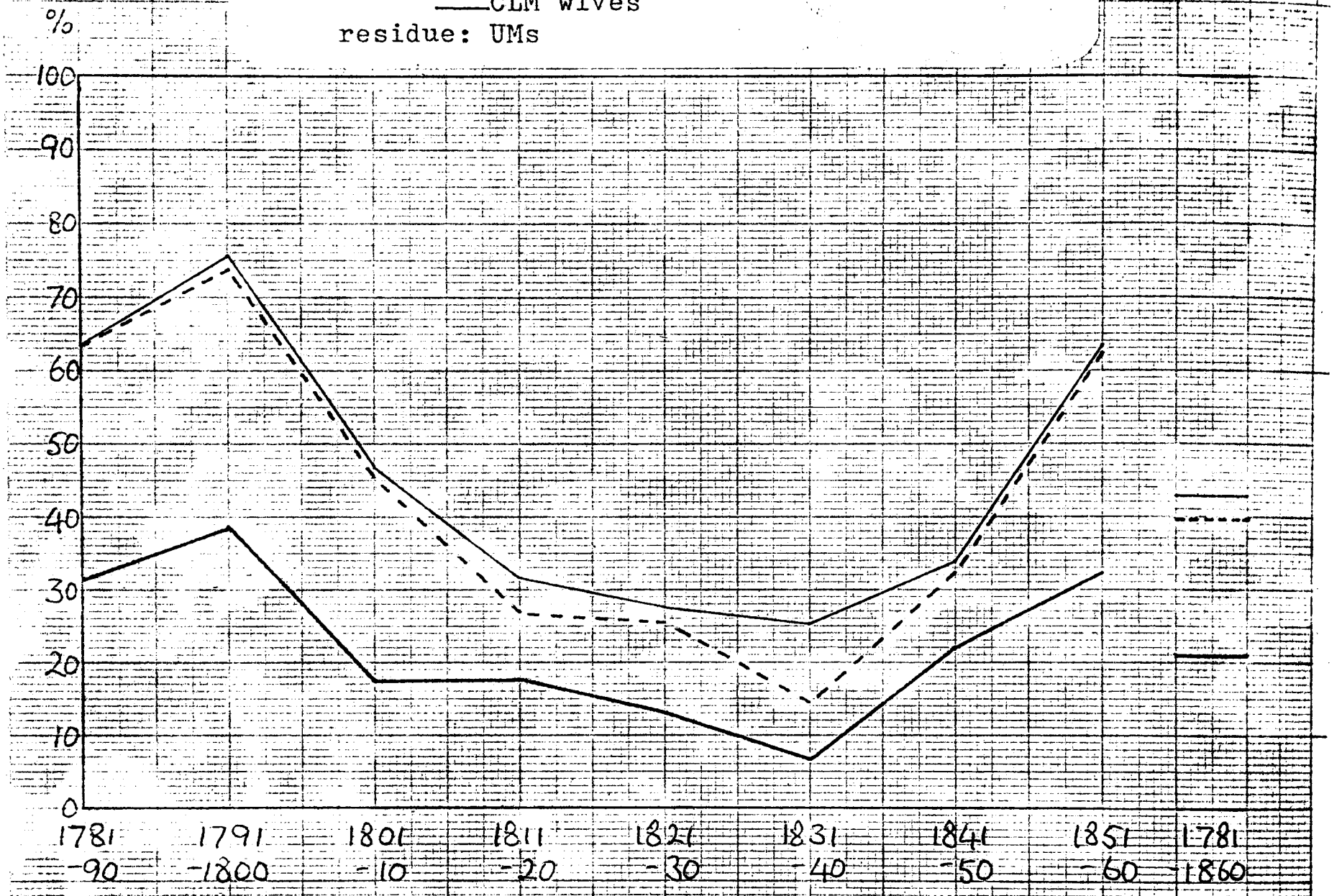
Given what we have already seen of Culcheth's illegitimacy ratio and church-marriage rate in the nineteenth century, it will occasion no surprise to find that the stability apparent in the district's courtship pattern did not extend to the ends it served. Figure 7 and Table XIV show the institutional setting within which women's first births took place.

One convention employed here is to distinguish between non-UM church-marriage brides who were pregnant on their wedding day by three months or more and who are referred to as 'badly pregnant', on the one hand, and those who were either pregnant by less than this or were not so at all on the other. These will be called 'virgins' - not, of course, because they were, but simply to avoid the repetition of lengthy sample definitions. Because of the normality of unmarried motherhood in Culcheth it is of no great moment to know the percentage of

Figure 7. Outcome of first conception by decade of child's birth.

Normalised distribution of women by status at time of first child's birth (women of known age only: N=719).

reading from foot: ___wives married in church ('virgins')
___ditto ('badly pregnant')
___CLM wives
residue: UMs



brides who were pregnant - though we shall look at this in due course.[1] From an interpretive viewpoint it is probably of more use to differentiate between brides the known existence of whose pregnancy could have been an influence on the timing and perhaps the existence of their marriage, and those whose wedding day must have been set either before they had conceived or, at least, before they can have been certain that they were indeed pregnant. It is this latter group which is denoted by the term 'virgins'.

Table XIV. Outcome of first conception. Percentage distribution of women by status at time of first child's birth (women of known age only).

Cohort	N	UMs %	Wives: Church-marriages (a)[1] %	Wives: Church-marriages (b)[2] %	CLMs %
1781-1800	114	30.7	35.1	33.3	0.9
1801-50	493	68.0	15.2	12.8	4.1
1851-60	112	36.6	32.1	30.4	0.9
1781-1860	719	57.2	21.0	18.8	3.1

Notes: 1. Women either not pregnant at marriage or pregnant by <3 months.
2. Women pregnant by 3/> months at marriage.

Figure 7 therefore divides women at the time of their first child's birth into those who were safely married (differentiating those who were 'virgins' from those who were 'badly pregnant' on their wedding day); those who, though they had not married in church, were cohabiting sufficiently stably for their child to be baptised as legitimate (these common law marriages are referred to for brevity as CLMs); and finally those women whose first child was born illegitimate.

[1] See below, pp.323-5.

An illegitimate birth was the outcome of a woman's first conception in over 50% of cases if one takes the eighty-year period as a whole. But the graph has a clear periodisation, moving from a comparatively low incidence of illegitimacy in the eighteenth century through a period of very rapid growth in the first two decades of the nineteenth; between the 1790s and the 1810s the chances of a first birth being illegitimate more than doubled. Further growth continued thereafter, but at a slower rate. The general configuration of this illegitimacy curve during the first half of the nineteenth century is reminiscent of the classic pattern of diffusion of new technology or the course of economic growth in the early stages of industrial 'take-off' familiar to economic historians. But, commencing in the 1840s and proceeding at an accelerating rate thereafter, the incidence of illegitimate births was by the end of the period reverting rapidly to a level very similar to that of the 1780s.

The corollary of the diffusion of unmarried motherhood was the declining frequency of marriage duly celebrated in church as the context within which a woman's first child was born. Table XIV, in aggregating the experience of the first fifty years of the nineteenth century, understates the full extent of this development. But as Figure 7 indicates, by the 1830s fewer than one-sixth of first-born children were blessed with this indisputable stamp of legitimacy, although a further tenth were born into CLMs. Two decades later the situation was very different, with CLMs again reduced to insignificance and with around 60% of first-born children arriving after the marriage of their parents in church.

The frequency of illegitimacy in the context of a woman's first birth was on a scale in nineteenth century Culcheth which might not have been suspected from a perusal of the illegitimacy ratio. The technical short-comings of that measure are well known,[1] although some historians persist in ignoring them.[2] In particular, in relating illegitimate births to total births the illegitimacy ratio is as much a function of marital fertility as it is of extramarital behaviour. It also treats a community's fertility as a stock concept. This is inappropriate in studying the incidence of illegitimacy because unmarried motherhood tends to be only an early phase in a woman's total fertility history - a point which is lost sight of unless fertility is viewed as a flow. To do otherwise results in much the same type of understatement as one is liable to make when assessing the occupational importance of servants in the past. Because of the age-specific nature of much domestic service, to know that perhaps fifteen percent of the occupied labour force were at any one time in service is in fact to know that a much higher proportion of the population must have been so at some point of their lives.

Simple demographic measures, such as crude vital rates, are often well worth compiling because they may at least partially illuminate what was going on in a community. But the

[1] See the effective discussion in E. Shorter, J. Knodel and E. van de Walle, 'The Decline of Non-Marital Fertility in Europe, 1880-1940', Population Studies, 25 (1971), 379-81.

[2] Curiously, though he is co-author of the above-cited article, Shorter has recently attempted to circumvent these problems by doing without statistics altogether. E. Shorter, The Making of the Modern Family (London, 1976), pp.80-5; cf. pp.352-5. See also P. Laslett and K. Oosterveen, 'Long-term Trends in Bastardy in England', Population Studies, 27 (1973), 255-86.

bastardy ratio is too unreliable an indicator of the incidence of that phenomenon to fall into this category. Indeed the risk is, more seriously, that the temptation to cut research time by studying the changing frequency of illegitimacy in the past by means of this easily collected statistic is already creating positively misleading myths. It seems, for example, to have fostered an intellectually bankrupt enthusiasm for the elaboration of dubious sociological hypotheses intended to explain (generally small) fluctuations in the ratio over time which may in fact be partly or wholly a residual of changes in marital behaviour or society's age-structure and which at a parish level are often in any case the outcome of very small changes in the actual numbers of illegitimate children being baptised.[1] Simultaneously, however, use of the ratio has led to what is probably a systematic understatement of the true incidence of unmarried motherhood in the past, possibly too of the scale of changes which may actually underlie movements in the ratio, and has thus reinforced the presupposition that the phenomenon constituted social deviance, rather than - as may often have been the case - a fairly common situation among particular socio-economic sub-groups, and one which deserves to be examined in terms of their situation rather than by reference to some external moral standard or sociological premise.

But if it is the normality of unmarried motherhood in Culcheth during the first half of the nineteenth century which is the most striking feature of Figure 7, we should notice that even in the 1780s as many as one third of first-born children

[1] In addition to the works last cited see, e.g., D. Levine, Family Formation in an Age of Nascent Capitalism (London, 1977), chapter 9.

were illegitimate. A courtship custom characterised by extra-marital sexual relations carries an inherent risk of producing illegitimate children. One should, I think, expect to find such practices only in a society which is either so economically stable and normatively committed to a certain value system that in practice these risks are seldom realised; or (and perhaps this is a necessary condition) is one in which the technical legitimacy of a child is not of crucial importance to the solution of at least some of the problems of childrearing and social placement, and where the transmission of property between generations is of small account.

Industrial Culcheth could have conformed only to the latter model. But the historical origins of the courtship pattern which is apparent by the late eighteenth century cannot be established as the quality of local registers precludes reconstituting the district farther back into that century or beyond. In popular mythology bundling, which Culcheth's practices seem superficially to resemble, is usually associated with stable agricultural communities and is said to have had its rationale in the testing of fecundity, upon which both the working and the transmission intact of the kin-line's property ultimately depended.[1] Possibly the weaving population which grafted itself onto Culcheth's agricultural economy in the course of the second half of the eighteenth century adopted a courtship pattern which had long anteceded it in the district. Perhaps too the system had traditionally resulted less frequently in illegitimate births than it did in the economically less stable weaving community which had emerged by the later decades of the century.

[1] E.g., A. Myrdal, op.cit., p.44.

But it seems equally possible that courtship marked by sexual relations originated locally with the weavers themselves. The view that customs of this sort are quintessentially associated with peasant agriculture's dependence on fecundity seems to ignore the probability that controls must typically have operated to ensure that a couple never reached the point of making love until some sort of personal commitment had been made which was thus sealed (rather than preceded) by sexual relations. Protracted inability to conceive might constitute grounds for dissolving the engagement, but this should not cloud appreciation of the fact that sexual relations were primarily a symbol of betrothal and as such might easily be found in many other types of community as indeed might an interest in proving fecundity. If bundling or similar courtship conventions were historically most characteristic of agricultural districts one may suspect that this was probably more because of their stability than because of any particular objective in which farmers had a unique interest. More positively, a district of spinners and weavers like Culcheth was one in which a woman's ability to support herself economically was not severely curtailed by the responsibilities of having a child to rear.[1] From this point of view at least, the costs of unmarried motherhood were lower than they would have been in other types of community and the existence of courtship conventions which risked this outcome was correspondingly less socially disruptive.

But whatever the origins of Culcheth's courtship patterns may have been, by the later eighteenth century they were clearly not operating in such a way as to guarantee legitimacy to first-

[1] See below, chapter 6, esp. pp.289-93.

born children. Nor were many of these bastards merely technically illegitimate, born before the marriage of their parents. In a society in which sexual relations are confined to the marriage-bed the length of engagement can be varied to suit the couple's economic position, the availability of housing and so on. But in one marked by extramarital relations and where the timing of betrothal is not itself determined by the feasibility of marrying in the near future, a technically illegitimate birth is a not unlikely eventuality. We shall see in the next chapter that 'delayed marriages' which took place shortly after the birth of a couple's first child did occur in Culcheth. But even in the eighteenth century they were much too uncommon to explain the already high frequency of illegitimacy resulting from a woman's first conception. Most of it was illegitimacy pure and simple.[1] Yet this is the period commonly known as the 'golden age' of the handloom, when social dislocation among the weavers is not an issue. We must conclude that the technical legitimacy of children was simply considered as less than essential even in the hey-day of Culcheth weavers' prosperity.

This in itself should caution us against making hasty judgments of the significance of the increase in illegitimacy which occurred during the first half of the nineteenth century. Any interpretation which regarded this expansion as evidence of social dislocation would be difficult to reconcile with the fact that a third of Culcheth's fertile women were unmarried mothers at a time when the local cotton industry's prosperity was at its historic peak. It will also be noticed that the period of most rapid growth in the incidence of unmarried

[1] See below, pp.241-5.

motherhood had occurred before the 1820s and thus somewhat before the depths of immiseration accompanying the spread of the powerloom which decimated the handloom weaving population and which on *a priori* grounds would be the period in which one would most expect symptoms of anomie to have emerged. If there are scant grounds for explaining the initial prevalence and early expansion of unmarried motherhood in this way it would be illogical so to account for its continuance in later decades. In passing it should be added that, as a comparison between Figures 3 and 6 indicates, the growth in unmarried motherhood in nineteenth century Culcheth was actually less marked than the illegitimacy ratio suggested.[1] This was because it was accompanied on the one hand by an increase in the proportion of UMs who bore more than one bastard,[2] and on the other by a declining marriage rate and a contraction in legitimate family size.[3]

The above remarks are not, however, intended to deny that the opening decades of the nineteenth century witnessed a marked change in Culcheth's fertility patterns, but merely to place them in interpretive perspective. The configuration of the illegitimacy curve in Figure 6 was earlier likened to the path of diffusion of new technology. In this instance it is not the spread of a productive technique but of an altered attitude towards the relationship between childbearing and marriage which is probably described by this curve. Ideals and attitudes

[1] Figure 3 above, facing p.35.
[2] See below, Table XX, p.220.
[3] See below, Table XXXVII, p.328.

can only be dimly perceived in demographic data. But where the relationship between normally associated variables such as these shifts progressively in the observed fashion and without reference to short-run variations in economic conditions to which in other respects the population remains sensitive, it may be inferred that attitudinal change is occurring and a new set of normative assumptions permeating society.

It will be noticed that the 1790s were marked by a contraction in the incidence of unmarried motherhood. In the language of the 5-cohort approach 33.8% of first-born children were illegitimate during the prosperous years of cohort 1 (1781-92), but only 24.5% during the deteriorating conditions of cohort 2a (1793-1801). Too little is known of the earlier eighteenth century to be entirely confident that the 1780s and 1790s can be taken as representative of 'traditional' society, though the course of the illegitimacy ratio lends superficial support to this view. But it is tentatively suggested that this was so and that in 'traditional' Culcheth the typical response to straitened economic conditions was greater caution in exposing oneself to the risks of rearing a child outside marriage, and that the decline in marriage rate during the 1790s should also be regarded as reflecting this prudential set of attitudes, rather than inaugurating a new code of behaviour. Thereafter, however, the advance of unmarried motherhood follows a secular pattern, unresponsive to short-run fluctuations in economic conditions. It is suggested that this is indicative of an attitudinal shift, not necessarily vis à vis marriage per se but certainly with regard to the desirability of a woman's commencing her fertility career within wedlock.

We should not, however, be overawed by the growth of illegitimacy in the nineteenth century to the extent of ignoring that never fewer than a quarter of first pregnancies continued to terminate within a marriage of some sort in the first half of that century. For a shrinking but persistent minority the commitment to marriage as the proper context for child-rearing remained strong enough. It will also be seen in the next chapter that although almost half of Culcheth's native-born UMs disappeared (that is, were lost sight of in the records used in this study before it could be established whether they married or died single) 70% of the remainder eventually contracted a church-marriage or CLM.[1] Unmarried motherhood of itself certainly did not imply that for the generality of women marriage ceased to be the ideal as an ultimate end.

Some further insight into the nature of unmarried motherhood as it developed in the early nineteenth century is gained from relating the material on pregnancy outcome to the age of the mother when she conceived. This is done in Table XV for the same sample of women who made up Table XIV. From this it can be seen that there was a general tendency for the chances of bearing an illegitimate child in the nineteenth century 'high bastardy' phase of Culcheth's history to be related inversely to age at first conception. Conversely, although it is not a corollary, the chances of having secured a marriage partner before any known pregnancy had occurred ('virgin' brides) rose with increasing age. It should be noticed that the inverse relationship between age at first conception and chances of becoming an unmarried mother was a nineteenth century

[1]See below, pp.228 and 231-7.

development. Youthfulness and unmarried motherhood had been much less obviously related during the years of handloom prosperity in the 1780s. In cohort 1, 37.0% of women who first conceived after having attained the age of nineteen bore an illegitimate child; but the same was true of only 21.4% of younger conceivers.

Table XV. Outcome of first conception. Percentage distribution of women first conceiving in particular age-groups by status at time of child's birth.

Cohort	Status	Age 18/<	19–22	23–6	27/>
1781–1800	(1) UMs	33.3	38.5	20.0	16.7
	(2) Church-marriage wives (a)[1]	16.7	34.6	40.0	55.6
	(b)[2]	45.8	26.9	40.0	27.8
	(3) CLM wives	4.2	-	-	-
	(N)	(24)	(52)	(20)	(18)
1801–50	(1)	80.2	66.2	64.0	55.9
	(2)(a)	4.1	12.2	24.0	33.9
	(2)(b)	11.6	16.4	9.0	8.5
	(3)	4.1	5.2	3.0	1.7
	(N)	(121)	(213)	(100)	(59)
1851–60	(1)	87.5	31.5	25.8	18.2
	(2)(a)	6.25	27.8	51.6	36.4
	(2)(b)	6.25	38.9	22.6	45.5
	(3)	-	1.9	-	-
	(N)	(16)	(54)	(31)	(11)
1781–1860	(1)	73.9	55.8	50.3	43.2
	(2)(a)	6.2	18.5	31.8	38.6
	(2)(b)	16.1	21.9	15.9	17.0
	(3)	3.7	3.8	2.0	1.1
	(N)	(161)	(319)	(151)	(88)

Notes: 1. Women either not pregnant at marriage or pregnant by <3 months.
2. Women pregnant by 3/> months at marriage.

What appears to have been happening during the early nineteenth century is that marriage at a young age became increasingly viewed with disfavour. Where in another society with courtship conventions which stigmatised extramarital sexual relations this would have been reflected simply in a rising age at marriage, in Culcheth this same phenomenon was accompanied by a rising incidence of unmarried motherhood.[1] If a woman happened to conceive at a young age she avoided marriage at least temporarily and became a UM. And the progressively developing age-relatedness of 'virgin' marriages is not without significance in this connection. In the eighteenth century some general primacy of allegiance had attached to marital institutions, and we have seen that the ideal of marriage was by no means overthrown during the high bastardy phase of Culcheth's subsequent history. It might therefore be expected that even in the first half of the nineteenth century a discovered pregnancy would have been interpreted as in certain respects constituting a motive to marry. The area where one may expect most clearly to detect a change in attitudes is rather in the frequency with which women married who lacked this residual incentive: 'virgin' brides. 'Virginity' in this sense had always been commoner among older women - in the last two decades of the eighteenth century 47.4% of women conceiving above the age of 23 were 'virgins', compared with 16.7% of those aged under 19 - but the disparity became more marked as church-marriages declined during the early nineteenth century: in 1801-30 the respective proportions averaged 29.9% and only 4.5%. To all intents and purposes a church-marriage not preceded by pregnancy became an exceptional event amongst the youngest group

[1] For changes in age at marriage see below, pp.317-8.

of first-time conceivers while it remained relatively common for their elders. The interpretive point is that the latter were women whose potential fertility had already been curtailed, whether by design or good fortune, and who therefore had economically less to fear from marriage.

It will be argued in subsequent chapters that the avoidance of marriage when conception occurred at a young age was an economically rational decision, and that it became the norm in Culcheth primarily because with the gradual decline of the handloom weavers' real income per hour worked the economic implications of fertility assumed a peculiar and increasing importance in the community. This is not the place to outline the argument in detail - since it is largely inferred from demographic behaviour it has to emerge gradually from discussion of each piece of evidence. But essentially it is that a mother who reared her child in her parental home, rather than setting up house with her lover, thereby somewhat reduced her fertility and remained a member of an economically more powerful household. The benefits of such an arrangement were greater for young girls because their potential fertility was greater and because they were the most likely still to have parents and unmarried but working sibs with whom to reside.

With the passage of time the age below which pregnancy usually implied a spell as an unmarried mother itself increased, and even those women who had successfully avoided conceiving up to their middle twenties came much less often to the altar as 'virgin' brides. Thus in the 1810s 36.0% of those whose first conception occurred after age 23 were 'virgins' who opted to marry without the pressure of a discovered pregnancy. But by

the 1830s this proportion had fallen to 12.8%. By this point what might be regarded as purely voluntary marriage had virtually ceased in the district, only 6.8% of all first conceptions arising from this institutional context.

It should finally be noted that when, during cohort 5 (1843-60) marriage became once again the usual setting for a woman's first birth (for 50.7% of them, at least) this was not the case for the youngest group of conceivers, those aged under 19. In moving from cohort 4 to cohort 5 all age-groups saw some increase in the frequency with which a first pregnancy terminated after contracting a church-marriage, though in the case of women aged less than 19 this shift was at the expense of CLMs not of unmarried motherhood, and whereas the proportion of their children born within a church-marriage increased only from 4.9% to 11.8%, for older age-groups the shift was from 20.0% to 57.1%. The restoration of marriage in church thus almost exclusively affected those who had avoided conceiving in the youngest age-group. If the overall decline in unmarried motherhood which occurred during those same years had been related to a marked improvement in economic conditions one might have expected it to have affected the histories of those younger conceivers for whom the economic arguments for avoiding marriage had previously been greatest. The fact that this did not happen is probably another indirect indication that the persuasions of the clergy underlay the locality's shift towards a reduced overall incidence of unmarried motherhood. Because the force of the economic argument against marriage remained their efforts were less effective amongst the youngest conceivers.

It may, however, be inferred that the Church succeeded up to a point. In cohorts 3 and 4 (spanning 1818-42) when unmarried motherhood had been at its height, 27.7% of first-time conceivers had been aged under 19. This proportion fell in cohort 5 to 16.2%. If women conceiving below 19 could not be persuaded to marry, it would seem that some could at least be deterred from placing themselves at risk of pregnancy at that age and thereby contribute to the district's falling incidence of unmarried motherhood. One result was that although there was by the close of our period a superficial similarity to the later eighteenth century in Culcheth's overall incidence of illegitimacy, the age-profile of UMs was rather different. In the 1780s only 9.5% of first-born illegitimate children's mothers had been aged under 19, whereas in the 1850s the proportion was 41.5%; in the earlier period only 18.2% of all mothers conceiving in this age-group became UMs, a figure which by the later date had risen to 87.5%.

Thus far we have considered age at first conception only from angles which help illuminate the complex diffusion of unmarried motherhood in Culcheth. The pattern we have observed traces the progressive adoption of a preference for avoiding marriage as the context in which the childrearing phase of a woman's life should commence. Such attitudinal shifts, though made easier in this instance by the fact that unmarried motherhood was already far from exceptional in the locality, should not be expected to permeate a society overnight. And in fact in Culcheth the process of diffusion spread over the first forty-odd years of the nineteenth century. The growth of unmarried motherhood does not appear to have been influenced by

short-run fluctuations in the economy. Rather, it is suggested, it was related to the general employment structure of the district and the secular pressure on piece-rates which was beginning to require longer hours of labour to maintain a given cash income from perhaps as early as the 1790s.[1]

This entire area of analysis, however, has been concerned solely with the outcome of first pregnancies. Throughout our period, as we have seen, the overwhelming majority of first-born children were extramaritally conceived. The attitudinal changes we have been examining only affected the setting in which birth occurred - they were an institutional not a demographic phenomenon. It still remains to be seen whether demographically the pool of first-time conceivers showed themselves sensitive to those short-run economic fluctuations which characterised the district's history.

[1] See above, pp.106-8. The position in Culcheth is complicated by the fact it was apparently only from around the turn of the century that women there turned from spinning to weaving. See above pp.41-2 and below pp.295-8.

Table XVI. Mean and median age at first conception

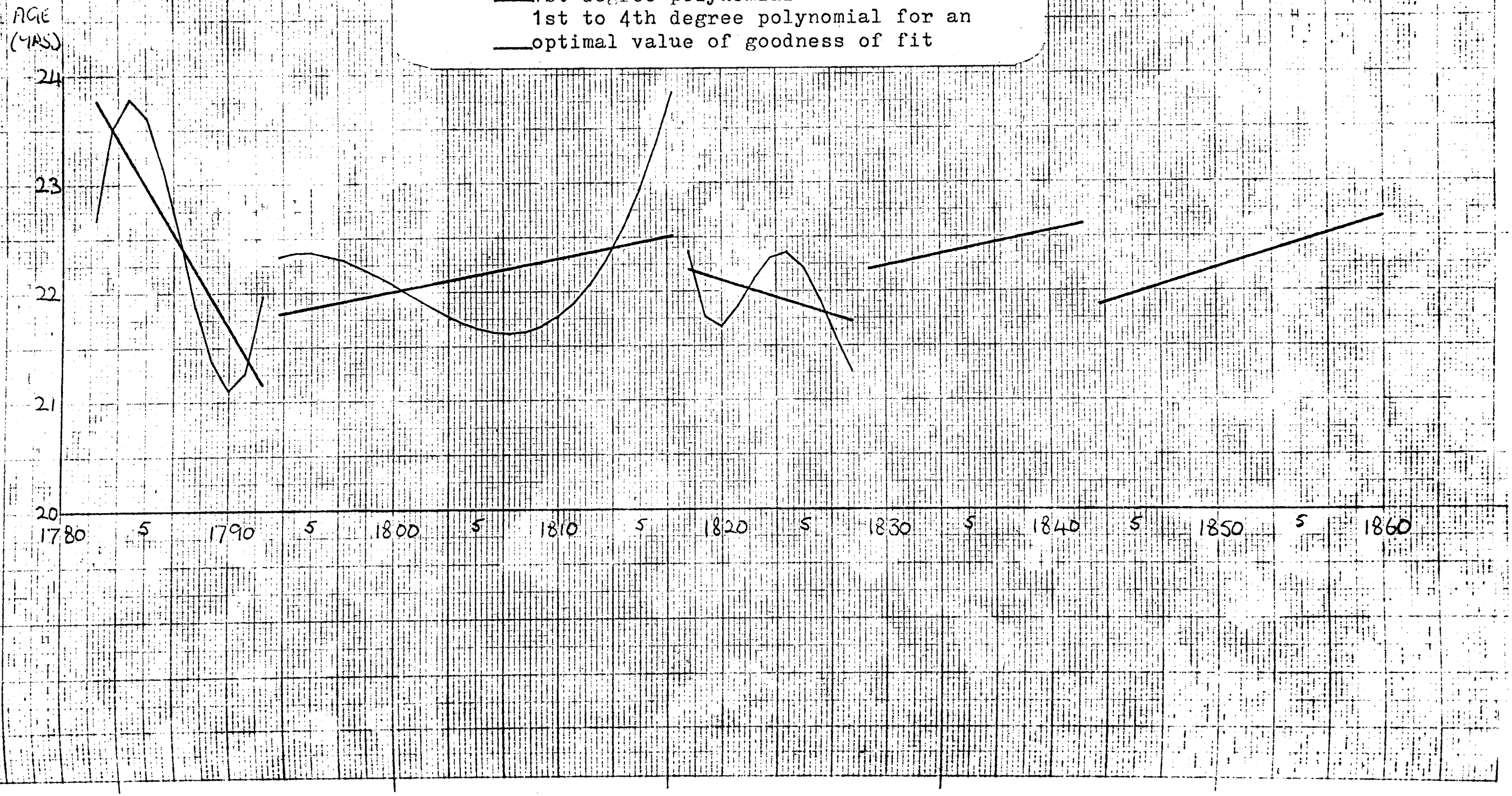
	Cohort	N[1]	Mean	Median
	1781-1800	114	22.32	21.50
	1801-50	497	22.14	20.92
	1851-60	113	22.47	21.96
1	1781-92	68	22.26	21.25
	2a 1793-1801	53	22.46	22.05
	2b 1802-10	68	21.76	20.80
	2c 1811-17	43	22.57	20.94
2	1793-1817	164	22.20	21.13
3	1818-28	135	21.98	21.13
4	1829-42	147	22.35	20.83
5	1843-60	210	22.28	21.48
	1781-1860	724	22.22	21.19

Note: 1. Total includes 5 non-UMs excluded from previous Tables because their pregnancy status at marriage is unknown.

Table XVI sets out the course of change in mean and median age at first conception in Culcheth. At first sight the findings are inauspicious for any interpretation of the district's mores which would emphasise the responsiveness of the population to contemporary economic conditions. If the eighty-year span is divided into only three sub-periods it would seem that age at first conception actually fell during the 'high bastardy' phase of the first half of the nineteenth century when on any objective assessment of the state of the weaving trade one might have expected a rational population to have exercised a degree of sexual caution. But this is a somewhat misleading result,

Figure 8. Least squares fit for 3-year moving average of age at first conception, by cohort.

—— 1st degree polynomial
1st to 4th degree polynomial for an
—— optimal value of goodness of fit



deriving from aggregation of sub-periods of varying demographic and economic character, as can be seen from the second half of the Table which employs the 5-cohort division of the period. The means here do in general fluctuate from one cohort to the next in the manner which one might predict of a society responsive to economic conditions, rising in the bad periods (2a, 2c and 4) and falling back somewhat in the economically more prosperous times of cohorts 2b and 3. In particular the value of sub-dividing cohort 2 is demonstrated. However, the differences of means are not strongly significant (only the fluctuations within cohort 2 have z values as high as 0.85) and it will be noticed that the median values do not invariably move as predicted.

These results are in fact an interesting example of the shortcomings of the 'stock' measures employed. First-time conceivers are fortunately sufficiently numerous for their ages to be analysed in 3-year moving average form. This information was computerised and the results are given in Figure 8. Little comment is needed. It is clear that means whose differences are slight can conceal the existence of appreciable behavioural changes. In the timing of their first conceptions, and presumably also of their amours, Culcheth women may be said to have displayed a marked sensitivity to changes in their economic environment.

It was suggested in chapter 2 that the actual levels observed in such variables are less important than changes in them.[1] All the same, it will be noticed that the economically poor periods were marked by trend lines which not only rose

[1] See above, pp.84-5.

over time but also generally commenced at a higher absolute level than had marked the concluding years of the preceding cohort. Though not conclusive, this suggests both that response to altered conditions was fairly immediate, and that the particular years selected to define each cohort come very close to delimiting periods of a discrete demographic character.[1]

The high age at first conception observed early in cohort 1 is difficult to explain. It follows rather than accompanies what was for the period a peak in per capita poor law expenditure.[2] But it might be the outcome of an ageing of the nubile pool resulting from avoidance of conception in the difficult years surrounding the opening of the decade.[3] The economic remission of the 1800s is clearly discernible in the third degree polynomial which provides the best fit for cohort 2. But for this the linear trend during the period of the French Wars generally would have been more sharply upward. The post-war recovery can be seen to be reflected in an abrupt and immediate reduction in age at first conception, as well as in a declining trend in the years thereafter. The slump of the middle 1820s induced an appreciable hiccup but, as explained earlier, its immediate effects in the locality were not particularly severe and it is not surprising to find that age at first conception reverted to its declining trend for a year or two after the depression had passed.[4] For the years covered

[1] Cf. above, p.77.

[2] See figure 5 above, facing p.106.

[3] T.S. Ashton, Economic Fluctuations in England, 1700-1800 (Oxford, 1959), pp.76 and 162-3; cf. also H.J. Habakkuk, Population Growth and Economic Development since 1750 (Leicester, 1971), p.97.

[4] See above, pp.108-9.

by cohorts 4 and 5 the computer declined to select a second to fourth degree polynomial equation. It will be noticed, however, that although the economic recovery following 1842 seems to have been associated with a lowering of age at first conception, taken more generally the years which saw a reversion of the incidence of unmarried motherhood towards traditional levels do not appear on the present evidence to have been viewed with favour by the population, for the secular trend in this variable was thereafter upward.

We have only been examining the histories of women who were fertile. A shortcoming of the present study is that the frequency of celibacy in the community cannot be very accurately assessed. Infertile marriages cannot be picked up until 1837;[1] and problems of selection bias plagued attempts to construct samples of childless unmarried women.[2] The adoption of celibacy might seem the most obvious way of reducing the economic burdens of childrearing, if indeed this concern played a major role in shaping Culcheth's mores in the nineteenth century. The point, however, is not as obviously true as it sounds. A virtually dispeopled household would not necessarily have been economically stronger than one overrun with young children; and infants, after all, eventually became earners. A <u>via media</u> aimed at spacing their births rather than entirely eliminating them would appear more likely to have optimised long-run economic welfare.[3] Some insights into what occurred can be gained by examining the first conception rates shown in Table XVII and the most complete

[1]See above, pp.115-9.

[2]See below, p.413.

[3]See below, chapter 6.

estimates of Culcheth's marriage rate (incorporating both series of 'apparent' marriages) to which they are juxtaposed.[1]

Table XVII. First conception and first marriage rates (including all 'apparent' marriages) per 1,000 of estimated mid-cohort population.

	Cohort	first conception rate	% change	first marriage rate	% change
	1781-1800	5.68		4.95	
	1801-50	5.59	-1.6	3.84	-22.4
	1851-60	6.03	+7.9	4.95	+28.9
1	1781-92	6.23		5.31	
	2a 1793-1801	4.99	-19.9	4.49	-15.4
	2b 1801-10	5.93	+18.8	4.62	+2.9
	2c 1811-17	4.11	-30.7	3.12	-32.5
2	1793-1817	5.06		4.11	
3	1818-28	6.45	+56.9[1]	4.25	+3.4[1]
4	1829-42	4.56	-29.3	2.52	-40.7
5	1843-60	6.26	+37.3	5.01	+98.8

Note: 1. Cohort 3 is contrasted with cohort 2c.

With relatively short cohorts it is difficult to distinguish between a fall in marriage rate and a rise in age at marriage on the one hand, or between permanent and temporary celibacy on the other. Nor can we control for changes in society's age- and sex-structure, or for the possibly varying frequency with which recourse was had to abortion or contraception. But taking the

[1] 'Apparent' marriages are divided into two Series. Series A comprises unions which are almost certainly CLMs, Series B those where the point is uncertain, it remaining possible that the couples in question married in a church outside this study's catchment area. They are discussed in detail in chapter 9.

figures at face-value, division of the period into three phases, as in the first part of the Table, seems to imply that there was comparatively little change in the ratio of first-time conceivers to population level between the eighteenth century and the first half of the nineteenth. This is not quite conclusive for, in addition to the deficiencies inherent in these crude measures, the first phase of the period might be considered too short to yield a reliable estimate of the incidence of permanent celibacy at that time. But the likeliest inference one could draw from this evidence is that there is no sign that a life entirely devoid of sex or childbearing was a popular solution to economic woes.

Celibacy - or avoidance of childbirth - on a temporary basis, however, is clearly implied by the substantial movements apparent in the first conception rate when this is analysed in relation to the 5-cohort structure. The frequency with which women placed themselves at risk of inaugurating a career as mothers bore a strong relationship to concurrent economic trends. The one apparent exception is in cohort 5 which we have seen was marked by a rising trend in age at first conception and yet which also had a high conception rate. Part at least of the explanation is probably that moral suasion, which seems to have been responsible for raising the proportion of children born to 'virgin' brides from 5.1% in cohort 4 to 29.1%, had the effect of bringing forward pregnancies which would otherwise have occurred later, or in some instances not at all, and thus of raising the overall first conception rate.

The technical considerations which make differentiation between permanent and temporary celibacy difficult apply much

less to the analogous case of distinguishing genuine movements in the marriage rate from the effects of changes in age at marriage, for the scale of recorded change in the first half of the nineteenth century was so substantial that there can be no doubt about the population's altered habits. Because attention in this chapter has been focussed on first conceptions the avoidance of marriage identified in the first half of the nineteenth century has been related only to the early stages of a woman's fertility history. The first part of Table XVII, however, indicates that the period was also marked by a more general reluctance to marry at any point in life, whether in church or less formally. The weaknesses of the form of marriage rate used here have already been discussed.[1] Their upshot is that we should not expect a precise overlap between marriage and first conception rate series even in a population with a strong attachment to marital institutions. But in the absence of a sharp change in the proportion of marriages to which both partners were local residents (for which there is no evidence) one might expect to find a fairly stable relationship between the two series over time. This is noticeably absent. In cohort 2a the first conception rate lay only 11.1% above the first marriage rate. As one approaches 1841 and the introduction of improved censuses, one's ability to identify informal marriages is greatly improved.[2] Nonetheless, the gap between conceptions and marriage widened progressively until by cohort 4 the former exceeded the latter by 81.0%. The absolute figures, of course, cannot be regarded as factually correct, but there

[1] See above, p.28.

[2] See below, pp.385-6.

can be no doubt that - for some women - marriage at any stage of life had become divorced from childrearing.

Two final points should, however, be noticed. We are dealing here with <u>first</u> conception rates. The adoption of a more or less permanently celibate life after this point is a possibility which the present evidence simply does not test, but which the subsequent histories of UMs could be interpreted as evincing.[1] Secondly, in passing, it should be noticed that when 'apparent' marriages are added to church-marriages, as in Table XVII, the secular decline in the marriage rate which we noticed in chapter 2 turns out to have been modified by fluctuations of the sort which are now becoming familiar in Culcheth's fertility patterns. An indirect indicator that marriage of some sort remained a common ultimate ideal in the district lies in the fact that more marriages were contracted in the economically healthier cohorts than in the depressed periods surrounding them.

[1]See below, pp.236 and 333-4; <u>cf</u>. also pp.373-6.

Chapter 5

Unmarried Motherhood

Demographic research offers only a narrow perspective on the experience of unmarried motherhood. Culcheth's UMs would not recognise themselves in these pages, while their children and lovers are only mentioned as incidentals to our attempts to understand illegitimacy as a social phenomenon. Something of the incidence of unmarried motherhood has already emerged from the material examined in the last chapter. In this a few further details will be brought to light but the discussion will concentrate chiefly on the numbers of illegitimate children UMs bore, what happened to the women in later life and, finally, on the light thrown by the experience of those who eventually married on the significance of illegitimacy in the district.

The group of women studied comprises 704 spinster-UMs. Six widows are known to have borne bastards in Culcheth (one of them was also a UM before she married). Too few to be treated separately or to qualify the impression that unmarried motherhood was essentially an early phase in a woman's fertility history, they have accordingly been excluded from the analysis altogether. So too have all women giving birth to an illegitimate child in the workhouse who are thought not to have been born in the township themselves. The intention was thus to rid the sample of UMs locally resident only for the duration of their confinement. The group of 704 also necessarily excludes the mothers of children whose parentage was considered indeterminable (usually cases where there was no indication as to which of two or more women bearing the same name a birth might most plausibly be attributed.)

During the high bastardy phase of Culcheth's history UMs were overwhelmingly handloom weavers. No occupational information is contained in the baptism registers before 1813, or in the few extant bastardy orders of those years. But in the period 1813-45, of the 284 baptisms which recorded the UM's occupation 260, or 91.5%, described her as a weaver. In the remaining 24 cases the appellation was usually 'servant', but in no fewer than 10 of these the women concerned are known at other points of their lives to have been weavers. As occupational information is not available for women generally in the parish register period it is unfortunately impossible to measure whether the incidence of unmarried motherhood was strongly biassed towards handloom weaving, but on this evidence it appears extremely likely.

After the mid-1840s the position becomes even less clear. On the one hand there is a deterioration in the quality of occupational registration, while on the other the picture is complicated by the construction of the Bury Lane mill. In the decade 1846-55 (after which they ceased to state UMs' occupations) baptism registers continued to record over 90% of mothers as weavers (62 out of 69) but did not differentiate between handloom and powerloom workers. There is reason, besides, to believe that ecclesiastical sources failed to catch most of the latter population during the early years of the mill's existence.[1] Nor will civil registers of births supply this deficiency, for until early 1845 they recorded only the father's trade, and thereafter nothing at all. The civil registers of deaths are marginally more useful, for here the mother's occupation was given in the case of the deaths of illegitimate children. Too frequently

[1] See above, p.55.

the term 'weaver' was employed without qualification, but even reckoning all such cases as handloom weavers and without operating controls on the ages of the children concerned (which, given the mill's shorter existence and the greater youthfulness of its workforce, should exaggerate the size of the domestic sector) the results are nonetheless suggestive. In the years 1838-50 handloom weavers + 'weavers' accounted for 115 of the mothers of 140 children who died (82.1%), but in the decade 1851-60 for only 17 out of 35 (48.6%). Deaths are not a good proxy for births, but it appears not unlikely that as the incidence of unmarried motherhood in general declined its near-exclusive association with the handloom diminished as well.

This is not, however, to say that domestic weavers ceased to be the most bastardy-prone group in society, or even that their statistical importance was diluted by the growth of a mill workforce with similar inclinations. On the contrary, what evidence there is suggests that, by virtue of the difficulty of reconciling work with child-rearing, mill girls were less prone to become UMs than were handloom weavers. The occupational incidence of unmarried motherhood will be further examined in chapter 6, but here it may be noted that at the time of the 1861 census the proportion of unmarried handloom weavers aged less than 45 who had children to support was more than twice as high as for the corresponding group of millworkers.[1] The diminution of illegitimacy in Culcheth owed something to the fact that the mill locked up a sizeable proportion of the township's stock of vulnerably aged women, at the same time freeing them from the full rigours of the economic circumstances which inclined domestic weavers

[1]See also below, Table XXVIII, p.290, for the position in 1851.

towards unmarried motherhood. In 1841 the mill had not existed; by 1851 it employed 24.0% of the township's unmarried female population aged 15-29, and a decade later 34.8%.

As the proportion of young women who were handloom weavers diminished so too, it would seem, did their significance as bearers of illegitimate children. This occupational contraction is indeed one contributory factor in the overall decline of unmarried motherhood in Culcheth during the 1840s and 1850s (although it explains neither the township's rising marriage rate, nor the falling frequency with which those handloom weavers who remained became UMs). But even by the close of our period in 1861 domestic weaving remained the most bastardy-prone occupation in the district.

Given the wider range of occupations open to men in Culcheth it is not surprising to discover that the putative fathers of illegitimate children (hereafter referred to as PFs) were less frequently handloom weavers than their lovers. Information culled from bastardy orders, baptism registers and censuses is available on 328 individuals. With the exception of a few early bastardy orders evidence (as for UMs) exists only from 1813 and becomes insufficiently specific and increasingly scanty in the last fifteen years of the period.

Taking the recession of 1826 as marking the end of one occupational era and the inauguration of another, 60 out of 129 PFs of known occupation before 1827 were handloom weavers (46.5%), compared with 51 out of 199 (25.6%) in the period post-1826, the remainder in both periods being chiefly labourers. The later figure corresponds very approximately to the frequency of handloom

weavers among adult males in general for the period concerned, but the earlier lies markedly below the level which would be expected if PFs had been drawn randomly from the population for the indications are that before 1827 something nearer 70% of adult males were handloom weavers.[1] However, there are several biasses in the PF data which tend to understate the significance of weaving, particularly in the period of the handloom's predominance. First, PFs are usually picked up only once. Research on married men (who, rearing a family over a number of years, can be identified occupationally on several occasions) indicates that it was not uncommon, especially after the mid-1820s, for men to shift to and fro between labouring and weaving, being more likely to be picked up in the latter occupation the longer they are held under observation.[2] Probably the same would apply to PFs. Secondly, some of the occupational information regarding pre-1827 PFs dates not from the birth registration of the child in question but from later marital data deriving from the years when men were seeking to rid themselves of dependence on the loom. Most importantly, bastardy orders appear to yield seriously biassed evidence. This effect is most distorting in the pre-1827 period when filiation orders constitute the source of information in 37.2% of cases (in contrast to 16.6% thereafter). The bias consists in the twin facts that bastardy orders were particularly applied to PFs who were not locally resident (27.1% of orders related to outsiders compared with 11.4% of baptismal entries,

[1] See Figure 4 above, facing p.48.

[2] See the discussion of UMs' fathers' occupations below, pp.270-1.

the difference having a 98% probability of significance);[1] and that 81.8% of foreigners in this sense of the term were not weavers - residing in other districts there is no reason why they should have been.

On the evidence available, non-Culcheth-resident PFs accounted for only 17.1% of known cases before 1827. Excluding them implies that 52.3% of local PFs were handloom weavers. But baptismal registers by no means invariably stated a PF's place of residence. If, for purposes of illustration, the true proportion of outsiders was not 17% but around one quarter - which is highly plausible - the handloom percentage of local PFs would rise to c.60%; and if only 10% of non-weavers would have displayed a connection with the loom given fuller information, the proportion would be increased to around 70% - or about the same figure characteristic of the workforce as a whole. In short, the patchy quality of the available records creates a substantial margin for possible error in assessing the true distribution of PFs' occupations. The majority lived locally and were probably drawn more or less randomly from the general male population.

[1] Throughout this and subsequent chapters a single standard statistical test of the one-tailed type has been applied when assessing the probability that sample means or proportions are drawn from different populations. What is significant in the sense of being interpretively enlightening varies with the material under consideration, and is ultimately a matter for judgment not statistical method. Accordingly, no particular value for z or t has been taken as separating results which have meaning from those which may be dismissed. Instead using as appropriate the sampling distribution of the differences of means or proportions, the probability of the population means or proportions differing from the observed sample values will be given, when considered important, in parentheses in the following form: '(probability of significance = x%)'.

[2] On the broader role of the Poor Law and of bastardy orders in influencing the pervasiveness of unmarried motherhood in Culcheth see below, pp.301-11.

In considering the numbers of illegitimate children born per UM we can only make minimum estimates, since the normal rules for judging whether a family is complete cannot be applied to this case. With a married couple a knowledge of, for example, their dates of demise could be regarded as *prima facie* evidence of continuity of observation and in the absence of unusual irregularities in their intergenesic intervals their recorded births could then be taken as describing the entirety of their fertility experience. With UMs, however, births tended to be chance and irregular events and continuity of observation can by no means be inferred from their spacing even when independent evidence such as a date of marriage or death indicates the UM's presence in the township at a particular point in time. The only practicable course was therefore to accept at face-value however many children a woman was known to have had.

It was explained earlier that women who were not born in Culcheth are treated as though they were if they are known to have moved into the district before the age of fifteen.[1] Any other woman whose birth was not recorded locally is assumed to have been an adult immigrant and thus a foreigner. It is important to distinguish between the experience of foreign and Culcheth-born UMs for, as Table XVIII suggests, their fertility profiles were rather different.

[1] See above, p.163.

Table XVIII. Mean illegitimate family size, by date of UM's first birth.

	Culcheth-born UMs		Foreign UMs		All UMs		Culcheth-born % of UMs
Cohort	N	Mean	N	Mean	N	Mean	
1781-1800	43	1.35	45	1.22	88	1.28	48.9
1801-50	365	1.88	182	1.37	547	1.71	66.7
1851-60	41	1.63	28	1.54	69	1.59	59.4
1781-1860	449	1.81	255	1.36	704	1.64	63.8

It is unfortunately impossible to assess the comparative incidence of unmarried motherhood among native-born and foreign women for, until 1851 - which is too late in relation to the district's high bastardy phase - we can form no serious estimate of adult immigrants' statistical significance among the nubile population. We can, however, be fairly confident that the initial growth of illegitimacy in the early nineteenth century had its roots in the situation of the indigenous population. The high proportion of foreign UMs indicated for the eighteenth century decades is a substantial exaggeration, deriving from the fact that almost all UMs of the period had been born before 1781, when relatively few churches' registers were consulted for reconstitution purposes.[1] Hence the decline in the numbers of foreign UMs indicated in Table XIX for the 1800s is probably spurious. Their significance as bastard-bearers in the 1820s probably reflects renewed immigration to the district in the early years of that decade,[2] but there can be no doubt that the spectacular growth of

[1] See above, p.136.

[2] Cf. above, p.100.

unmarried motherhood during the first two decades of the nineteenth century owed nothing to the foreign population of women. This disposes of the possibility that the district's 'open' character, in tenurial terms, can have played a major role in the spread of illegitimacy by attracting the dregs of society into the neighbourhood - though indirectly the inability of the township's major landowners to influence the behaviour of the generality of the industrial population by the threat of eviction has already been suggested as a potent permissive factor in the routinisation of unmarried motherhood in Culcheth.[1]

Table XIX. Mean annual number of UMs commencing fertility history, 1781-1830.

Period	Culcheth-born	Foreigners
1781-1800	2.15	2.25
1801-10	4.50	1.70
1811-20	5.30	2.00
1821-30	6.00	4.30

Overall, foreigners recorded much smaller mean illegitimate family sizes than native-born UMs - although in the eighteenth century the difference was relatively slight, confirming the suggestion above that at that time a good many nominal foreigners had in fact been born within the township. This persistent tendency, however, is more likely to reflect the comparative brevity of foreigners' residence in Culcheth than any real behavioural divergencies between the two populations. Thus the 36 foreign UMs for whom information exists had a recorded mean age at first conception of 22.89 years, compared with 21.56 among their

[1] See above, pp.16-9.

native-born counterparts (probability of significance = 94%), which raises the suspicion that some might have had a birth previous to their arrival in Culcheth. Secondly, foreign UMs who disappeared from the district had a mean illegitimate family size which fell short of the figure for the analogous Culcheth-born group (respectively, 1.29 children and 1.70; probability of significance = 99%) by a much greater margin than was true for those who married or died while still in the township (respectively, 1.70 and 1.89; probability of significance = 89%). Most of the difference between the two populations therefore appears to lie in the fact that foreigners were typically sojourners in the district - an impression confirmed by the fact that 83.1% of them disappeared before marrying or dying, compared with 43.7% for the native-born sample.[1]

Table XX. Percentage distribution of illegitimate family sizes, by date of UM's first birth (Culcheth-born UMs who married or died single only).

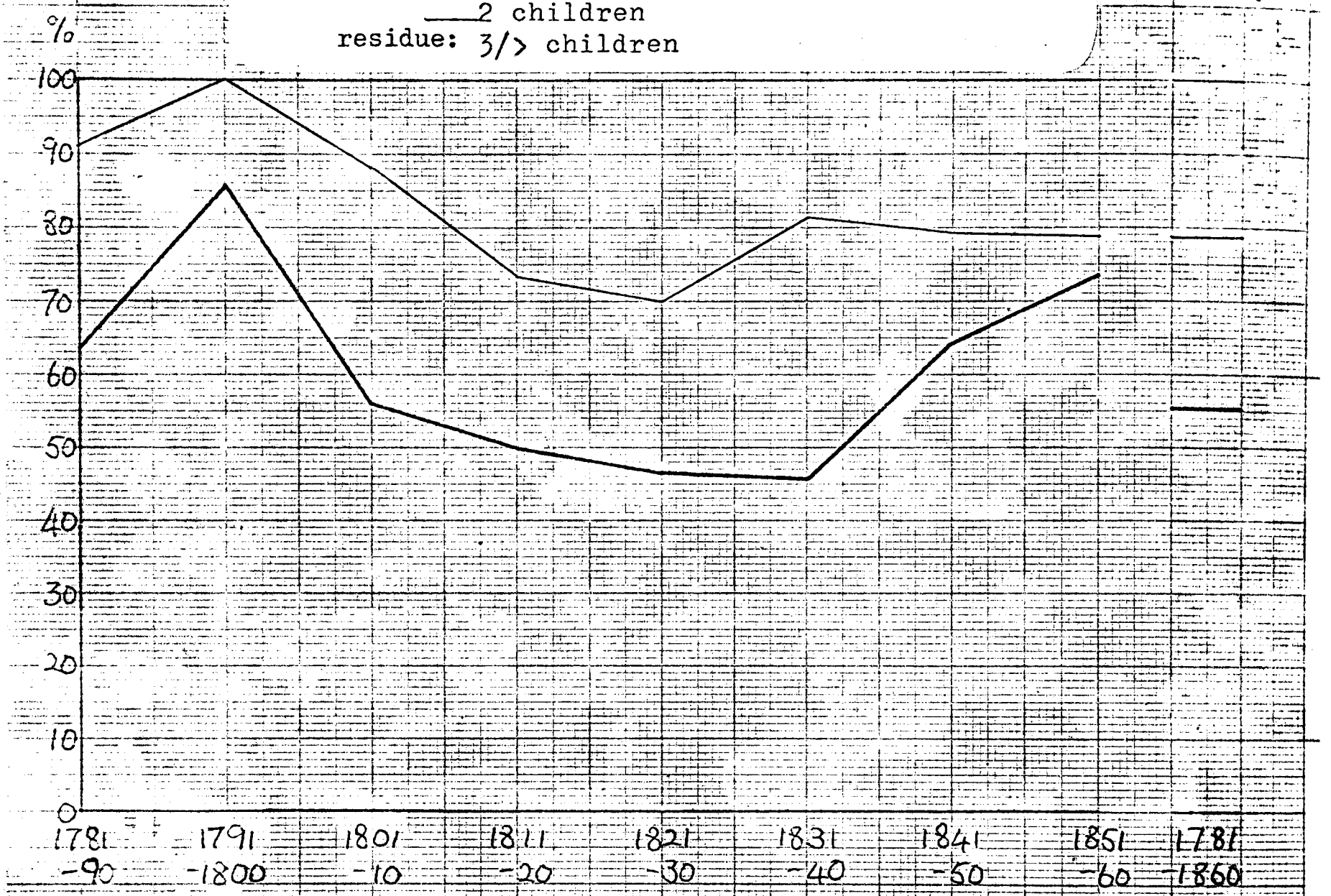
Family size:		1	2	3/>
Cohort	N	%	%	%
1781-1800	18	72.2	22.2	5.6
1801-50	216	52.3	25.0	22.7
1851-60	19	73.7	5.3	21.1
1781-1860	253	55.3	23.3	21.3

In view of these observational problems attention will hereafter be concentrated on Culcheth-born UMs, and particularly on those who did not disappear. This is the group whose life

[1] See Table XXI below, p.225.

Figure 9. Normalised distribution of illegitimate family sizes, by decade of first child's birth (Culcheth-born UMs known to have married or died unmarried only: N=253).

reading
from foot: ___1 child
___2 children
residue: 3/> children



experience is most fully documented. Table XX indicates that over the period as a whole 44.7% of these UMs bore more than one child. From Figure 9 it can be seen that this was a development of the early nineteenth century, and one which followed a very similar diffusion path to the changing context in which first births took place which was discussed in the last chapter.[1] As ever more women separated child-bearing from marriage at the onset of their fertility histories, so also an increasing percentage of them prolonged the divorce through one or more subsequent pregnancies. The routinisation of bearing a second child outside marriage was quickly such that by the 1810s (and for a further twenty years thereafter) fully a half of UMs did so.

The proportion of UMs bearing three or more bastards is also of interest. There is nothing magical about the number three, in the context of illegitimate family size at least. But whereas a girl could be deserted by a lover once and might even, given the prevalence of sexual relations in courtship, be innocently caught out again it is scarcely credible that, intending marriage, she would put herself in a vulnerable position a third time. It may be presumed that women with three or more illegitimate children had either never intended to marry before bearing them, or had at some point given up the idea if they had ever been inclined to it. And it is enough to note that the relative as well as the absolute frequency of illegitimate families of such a size began to increase in the 1800s and although reaching a peak in the 1820s never thereafter fell much below one fifth of any decade's total. Since the acquisition of families of from three to nine illegitimate children demanded

[1] See Figure 7 above, facing p. 187.

application over a fairly lengthy period the 1820s figure (which relates to women who began breeding in that decade) in fact signifies that avoidance of marriage was most pronounced during the depressed 1830s. Most of the decline thereafter probably reflects the success of the clergy's marital crusade which, by getting UMs to the altar after their first misfortune, reduced the pool of women from whom large illegitimate families might otherwise have sprung.

These figures, of course, yield a minimum estimate of the proportion of Culcheth-born UMs whose commitment to marriage was generally weak or who at least were prepared to separate child-rearing from wedlock for a substantial period of time. In this context it will be noticed from Table XX that in the last decade of our period a polarisation of UMs appears to have emerged. Unlike in earlier periods when the numbers of UMs declined with increasing family size, in the 1850s a high percentage of UMs who bore two children also bore a third or subsequent bastard. The proportions bearing either one or two differed substantially from the experience of the previous fifty years (probabilities of significance = 96% and 97% respectively), which suggests on the one hand the application of external pressures on UMs to rectify their behaviour, and on the other that few dared to repeat the offence of bastardy who had not a strong determination not to marry - at least before the process of family formation was fairly well advanced. At the close of our period there was evidently still a hard core of women prepared to resist the Church's imprecations.

Any illegitimate birth implies wilful avoidance of marriage, at least for the time being, by one or other parent. There are

good grounds when considering England as a whole for presuming that in general UMs were women deserted by their lovers. Among the interlocking values associated with the patriarchal character of educated nineteenth century society was the primary importance attached by well brought up girls to the acquisition of a husband. At the same time the importance which the English law of inheritance had always placed on the establishment of a child's genetic paternity - a point which could not be proven in fact and had therefore to be demonstrated conventionally by the exclusiveness of a husband's sexual rights in his wife - gave men not a lesser interest in marriage as such (for their involvement in the transmission of property and other rights associated with the institution, though different, was no less keen) but the possibility of indulging in extramarital sexual relations without threatening the position of their patriline by recruiting to it unwanted members. For the converse of insisting on the identification of genetic paternity in establishing a child's membership of a patriline was the denial of obligations towards children born out of wedlock. The consequential 'dual morality' which seems so unjust to a less patriarchal and less inheritance-oriented society such as today's was not in fact illogical. It was doubtless, however, attended with the callous infliction of much personal misery (particularly at points, like domestic service, where the middle and working classes came into close and regular contact) and gives credibility to the common assumption that an illegitimate birth generally implies avoidance of marriage by the father, not the mother.

But this premise is inappropriate to the case of illegitimacy in Culcheth. We have seen that at least a fifth of UMs

bore a child in circumstances which effectively preclude their having had any strong inclination to marry before its birth, and later in this chapter we shall see that delayed marriages were a rarity in the district[1] (which seems to imply that innocently borne bastards were also). In addition, the material touching first conceptions examined in the last chapter indicates that in the fifty years spanning 1811-60 an average 22.3% of first conceptions occurred at ages below 19 despite the fact that in none of the five decades concerned was there a probability as great even as one in four that a child conceived at such an age would be born within wedlock. To explain the persistency of this pattern (at least before the 1850s)[2] one has to suppose either that young girls, though desirous of marriage, were gulled with such frequency as to betoken a naivety verging on imbecility or - more plausibly - that their becoming unmarried mothers indicates that they had no strong wish to marry. It is difficult to reconcile such evidence with any idea that Culcheth's UMs were usually mere victims of male self-interest. They themselves would seem to have played a more active role in shaping their marital futures than would be expected in a more property-conscious section of a patrilineal society.

So far in this chapter, however, we have only observed the wish to remain single at a certain stage of life - albeit one which became increasingly extended in the course of the first half of the nineteenth century. If we now follow through the subsequent careers of UMs it should be possible to get a more accurate picture.

[1] See below, pp.241-5.

[2] See above, p.201.

Table XXI. Disappearance rate : number and percentage of UMs lost trace of before having married or died unmarried.[1]

	Culcheth-born		Foreigners		All UMs	
Cohort	N	%	N	%	N	%
1781-1800	25	58.1	35	77.8	60	68.2
1801-50	149	40.8	152	83.1	301	54.9
1851-60	22	53.7	25	92.6	47	69.1
1781-1860	196	43.7	212	83.1	408	58.0

Note: 1. For the appropriate denominators see Table XVIII above, p.218.

The study of UMs' life-chances, though, is not without interpretive hazard, for a substantial proportion are lost track of: they neither died single nor contracted a church-marriage within our catchment area. Table XXI indicates the proportion of each cohort of UMs who disappeared in this sense. It should be noted that the measure is in no way an index to the rate of population turnover in the township, nor even to the proportion of UMs who emigrated from the district at some point of their lives. Our attention is only on them while they were unmarried. Furthermore, some women who 'disappeared' will probably not actually have left Culcheth at all. A seriously inaccurate statement of age at death in a burial register may occasionally mean that a woman's demise has not been picked up. More importantly, a certain number of CLMs will almost certainly not have been identified. But there is little doubt that the great majority of UMs who disappeared did so in fact as well as name.

Overall 408 of our 704 UMs, or 58.0%, have been classed as disappearing. It will be noticed that there was a marked divergence between the rate for foreigners (83.1%) and that for the native-born sample of UMs (43.7%). The comparatively footloose character of women immigrants to Culcheth is evident. The 43 who are known to have married or died in the district are too few to contrast with native-born UMs at any chronologically detailed level. Accordingly, as with illegitimate family size, discussion of UMs' life-chances will concentrate on the Culcheth-born population.

First, though, the rise in the disappearance rate of both groups during the 1850s requires comment. It has a (possibly purely) technical origin, deriving from the cessation of burial register searches at the end of our reconstitution period in 1860. The deaths of some women after that date are known from gravestone evidence and the marriages of others were followed through, but there is an inherent tendency for people to 'disappear' among the loose ends of a terminated reconstitution exercise.

The eighteenth century disappearance rate for Culcheth-born UMs was somewhat above the levels typical of the nineteenth century. The sharpest change (ignoring the spurious movement of the 1850s) occurred in the 1800s, when it fell to 44.4%. It is tempting to infer from this shift that although, as we have seen, unmarried motherhood was quite common in the eighteenth century social acceptance of the phenomenon was more qualified then than it became after 1800.

Rearranging the material shown in Table XXI on a 5-cohort basis indicates that the disappearance rate for foreign UMs was

remarkably steady at between 73% and 79% until the crisis years of cohort 4, when it rose to 90%. Among the native-born sample, however, the rate shifted slightly downward between cohorts 3 and 4 (from 44% to 42%). This seems to confirm the impression gained from the material examined in chapter 2 that the indigenous weaving population tried hard to stay put during the years of the powerloom's main advance.[1] It is more consistent with the idea of a community cohering in adversity than with that of one undergoing normative and physical dissolution.

However, even if we restrict our attention to UMs who were born or brought up in Culcheth we are in all periods faced with a disappearance rate too high to be ignored in any consideration of UMs' life-chances. We have to decide whether those who left the district did so voluntarily or under a cloud, and whether in either case they were likely to have done better for themselves than those who remained in the township.

Needless to say our observations can only be highly speculative. We cannot assess statistically whether UMs had a greater tendency to emigrate from the district than unmarried non-UMs. The net migration flow estimates given in Table IV are not a measure of the indigenous population's rate of turnover since they conflate movements both away from and into the district.[2] Moreover, the information we would require would need to be specific with regard to age, marital status and sex or occupation, as there are sound a priori grounds for expecting young unmarried adults to have been the most mobile section of

[1]See above, pp.52-4, 63-4, 71-4 and 150-1.

[2]See above, p.34.

the population, and from among these particularly those most directly affected by the atrophy of the handloom sector. Family reconstitution forms (FRFs) cannot be used to measure emigration rates for unmarried non-UMs as there is usually no independent check on such people which could indicate at what point after their birth any who left the district did so. And at the other end, for the UM population, the disappearance rates we have been considering are themselves not specific with regard to age (indeed it is worth noting that the apparent stability of the rate for Culcheth-born UMs in the first forty years of the nineteenth century probably conceals an actual decline on this score since the period was marked by a growth in the frequency with which UMs bore several illegitimate children).[1]

But in the context of Culcheth's continuous haemorrhage of population that 253, or virtually 60%, of native-born UMs in the first half of the nineteenth century can be identified as having died or married in the district does not seem to indicate a suspiciously high rate of turnover. Furthermore, the fact that of these 177, or 70.0%, are known eventually to have married suggests that as a group they did not lose marriageability in the eyes of others (or an attachment to marital institutions themselves).

Those who disappeared cannot on this evidence have been systematically expelled or socially repudiated. In this sense they left voluntarily. This does not necessarily make them an unbiassed sample, however. As the age at which UMs married was typically well below that at which unmarried UMs died it

[1] See Figure 10 below, facing p. 231.

follows that on average to pick up a UM as having died single while still in Culcheth requires a longer period of observation than in the case of one who is identified as marrying and that therefore, ceteris paribus, a higher proportion of UMs who in fact died single will have left the district before this happened than was true with regard to the change of status among those who married.

Secondly, the UMs who remained in Culcheth must contain most of those for whom bastardy signified merely that marriage was being delayed until a cottage was found, a living-in service contract run to term, or whatever. A few in this situation might have moved out of the district with their fiancé in search of accommodation or work and so have married elsewhere; but more likely that he would have made the quest on his own and returned to his native parish to marry the girl before taking her off to a new home elsewhere. Others again might have made a delayed marriage to a lover who lived at some distance, but the evidence is that most young adults who stayed in Culcheth until they married found a partner within the locality.[1] It is unlikely that many delayed marriages are concealed by the disappearance rate from this cause.

Finally, a more indeterminate question is whether women who wanted to marry at some stage of life were more or less likely to find a husband if they left Culcheth than if they stayed there. Part of the problem is that until the last two decades of our period, when we have the census household schedules to help us, we have no direct evidence as to whether or not UMs who

[1] See below, p.384.

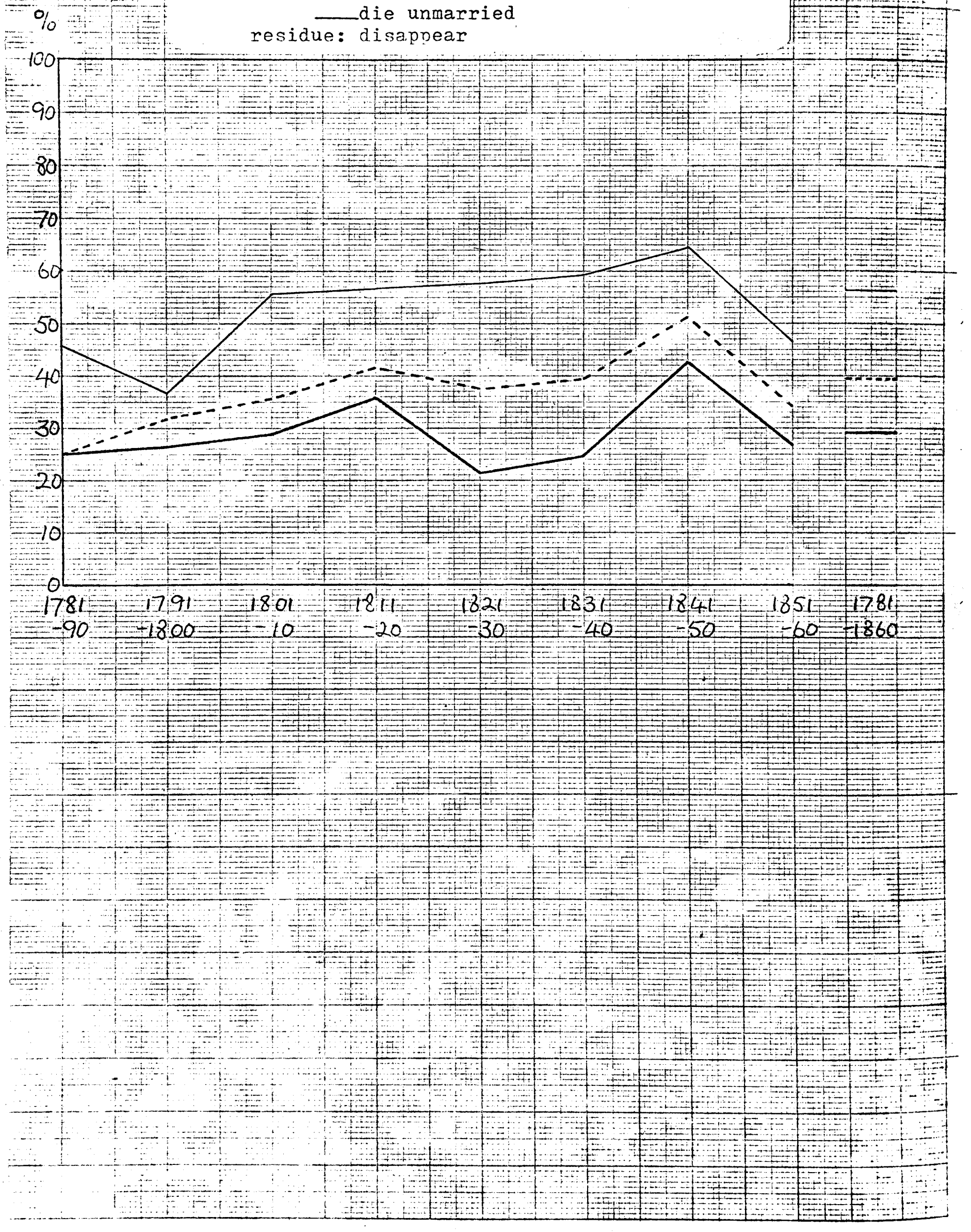
made a new life for themselves outside the district took their illegitimate children with them. By the 1840s and 1850s it appears that they by no means invariably did so, for it is not uncommon to find illegitimate children being brought up by their maternal grandparents (though absence from a census is not an indication that a UM has permanently left the neighbourhood). In the parish register period, however, it is rare for an illegitimate child whose mother disappears to be picked up in the township later in life. In general it seems that when the mother left the child went too. In these circumstances it is difficult to believe that UMs' long-term chances of marrying would have been as good away from Culcheth as in it, though if they moved short distances and thus to districts with a similar frequency of illegitimacy to Culcheth's the difference might have been slight.[1]

Foreign UMs who settled in Culcheth long enough to die or marry were at least as likely to do the latter as the analogous group of native UMs. 37 out of 43 married, or 86.0%. But the experience of foreigners in Culcheth may not be a precise mirror-image of what awaited local women who moved elsewhere, for the former actually bore illegitimate children in their newly adopted neighbourhood and would typically have had a local lover whereas Culcheth-born UMs who emigrated were more likely to be leaving their lovers behind them and to be starting off in the outside world with a physical disadvantage. It is, moreover, quite possible that the apparently high marriage chances of foreign UMs who did not disappear from Culcheth (in the sense in which we are using the term) should really be interpreted as an

[1] *Cf.* above, p.175.

Figure 10. Normalised distribution of UMs' life-chances by decade of first child's birth (Culcheth-born UMs:N=449).

reading from foot: ____contract a church-marriage
_ _ _ contract an apparent marriage
____die unmarried
residue: disappear



indication of how frequently they stayed long enough in the area for us to be able to pick up those who died single.

Since they appear to have been under no direct pressure to leave Culcheth on account of their unmarried motherhood we certainly cannot suppose that native-born UMs who migrated lived out wretched and disadvantaged lives as a result. Many indeed may have moved to a secure existence in the households of kin living in districts with a sounder employment base than Culcheth provided through much of the nineteenth century. But speculation at this level is pointless, and in considering the life-chances of those native-born UMs who stayed in the district we should bear in mind that on balance they are likely to contain a higher proportion of women who eventually married than would the whole population. The strength of the probable bias, however, is not so obvious that one can suspect them of being seriously untypical of Culcheth-born UMs as a whole - they do after all comprise a majority.

The life-chances of Culcheth-born UMs are shown in Figure 10. The significance of fluctuations in the proportion dying single is affected by the age at which a woman became a UM and by variations in mortality as well as by change in attitudes either towards marriage as such or to UMs as acceptable spouses. There are too many variables here for the significance of the curve's configuration to be disentangled. It is worth remarking, however, that if we ignore the distorted 1850s the proportion of women known to have married (in some sense of the term) was at its lowest in the eighteenth century. Given that, as we saw from Figure 7, marriage was still the norm among first-time conceivers, this may indicate a slight degree of ineligibility

attaching to UMs in that period rather than wilful avoidance of marital ties on their part.[1]

This impression receives some support from the fact that the improvement in UMs' marital prospects in the nineteenth century occurred despite a secularly falling incidence of fertile first marriages in the population as a whole.[2] The concommitant spread of illegitimacy among Culcheth women and the growth in the proportion of them who bore more than one bastard can intimate no developing commitment to marriage as such. It must indicate that in the first twenty to thirty years of the nineteenth century the social acceptability of marrying a UM was shifting in their favour.

A further point of interest arising from Figure 10 is the fall in the frequency of church-marriages among the UMs of the 1820s and 1830s and the failure of a slightly falling disappearance rate to push up the proportion of women who are known to have married in any sense. It should be remembered that the material is arranged by the decade in which a woman bore her first illegitimate child and that her marriage, disappearance, or death could occur several decades later. But at face-value the pattern confirms the growing disparity between the incidence respectively of first pregnancies and of first marriages which was revealed in Table XVII.[3] Neither set of data is free of ambiguity, but Figure 10 is probably the more meaningful. It is suggestive that the UMs of the 1821-40 period included some

[1]See Figure 7 above, facing p.187.

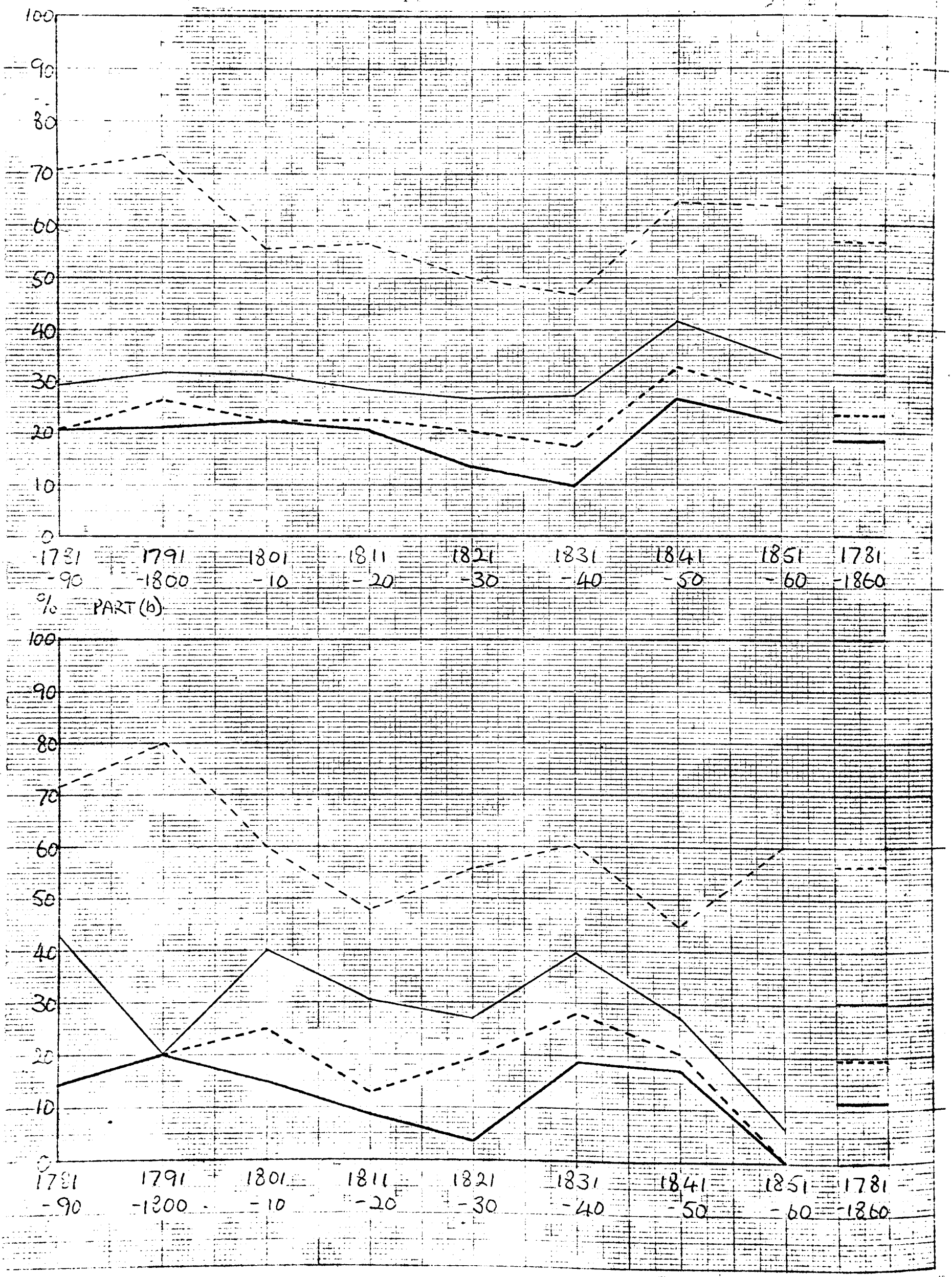
[2]See Table III above, p.31.

[3]See above, p.207.

Figure 11. Normalised distribution of UMs' life-chances after bearing: (a) one child (N=449); (b) two children (N=194). Sampling as in Figure 10.

reading from foot:
- ___ contract a church-marriage
- _ _ _ contract an apparent marriage
- ___ die unmarried
- _ _ _ bear another illegitimate child

residue: disappear



(or a larger proportion than previously) who had little wish to marry at any stage and rather more who preferred the informality of a consensual union to a wedding celebrated in church. It will be recalled that it was in the later 1820s and 1830s that the fortunes of the handloom suffered their sharpest reversal.[1] For the moment we can do no more than note the coincidence of these phenomena.

Figure 10 regards UMs as a homogeneous stock, viewing their life-chances without regard to how many children each of them had had. The two parts of Figure 11 attempt to correct for this by presenting their experience in flow terms, distinguishing the proportions who married, died or disappeared after bearing a single illegitimate child from those who went on to have a second, and similarly showing how many of the latter group are known to have had a third or subsequent bastard. The largest illegitimate family formed by Culcheth-born UMs contained nine children (a tenth was narrowly avoided by marriage) but only 37, or 8.2%, of the total 449 ran to four children or more. With such numbers further flow diagrams indicating life-chances after the birth of each child would rapidly have ceased to have meaning.

If it is accepted, as argued above, that cases of delayed marriage are less likely to be found among UMs who disappeared from Culcheth than among those who remained there, Figure 11(a) clearly demonstrates that even in the eighteenth century illegitimacy cannot predominantly have been the product of this type of situation, for barely more than 20% of UMs are positively known to have married in church after the birth of a single child

[1] See above, pp.109-10.

before the period in the last two decades when Mr Bartlett's influence was brought to bear on the issue.

The graph also illustrates a surprising stability before the 1840s in the percentage of UMs known to have terminated their extramarital childbearing after having only a single child. Shifts in the distribution of careers at this stage of life occurred chiefly between the proportions who either left the township or had a second bastard. This might create a suspicion that the only important behavioural change in the district in the sixty years to 1840 lay in a tendency for nineteenth century UMs to stay longer in the neighbourhood than had been typical during the eighteenth, with the implication that true illegitimate family size in the 1780s and 1790s might have been higher than, on the basis of women who stayed in Culcheth long enough to die or marry, we have hitherto supposed. This is not, however, very likely. We know that illegitimacy became more general in the decades following 1800. It is much more likely that the same attitudinal shifts are apparent in all the indicators we have been examining: the growth of illegitimacy among first-time conceivers, the decline in the proportion of single-bastard UMs who felt constrained to leave the district, and the increased frequency with which on the contrary they went on to have a second illegitimate child.

Figure 11(b) indicates that the chances of a UM marrying after bearing a second illegitimate child were not substantially lower than was true of women with a single bastard. Women who had a second child, however, seem to have been more likely to have contracted a CLM instead of a church-marriage - we must say 'seem' because Series 'B' apparent marriages, of which the true

status is uncertain, are here combined with known CLMs (apparent marriages Series 'A').[1] It will also be noticed that the church-marriage curve in Figure 11(b) has an outline similar to that in Figure 11(a) but leads it by a decade. This is a reflection of the fact that a woman marrying after bearing two illegitimate children was more likely to wed in the decade following that in which her first birth occurred.

The extinction of marriage among the 1850s' crop of UMs with two children is of some interest. In part, of course, it results from the greater incompleteness of our coverage of this final group of UMs' experience. But this weakness affects the recovery of deaths much more than marriages. Besides, 3 of the 6 UMs from this decade who bore more than two illegitimate children are known eventually to have married. The evidence appears to confirm the impression gained from Table XX, that at the close of our period there was some polarisation of UMs in Culcheth.[2] Those who bore more than one illegitimate child at this time evidently did so not out of indifference to marriage but from a determination not to marry early in their fertility history despite pressures on them to do so. Some of these women may - as the divergence between the disappearance rates of Figures 11(a) and (b) suggests - have withstood the Church's pressures only by leaving the parish altogether. Rearranging the material slightly, we find that whereas 50.9% of UMs bearing more than one bastard in the period 1801-50 are known to have married eventually, this was true of only 20.0% in the 1850s (probability of significance = 98%). Probably this substratum of UMs had

[1] For the definition of Series A and B see below, pp.379-82.

[2] See above, p.220.

existed between 1801 and 1850 also, and may indeed have been commoner then.[1] They show up in the 1850s because of the Church's success in persuading others whose attitude more nearly approached indifference between the married state and that of unmarried parenthood, or who had not lost all attachment to the former, to opt sooner rather than later for marriage. It is, incidentally, a moot point whether women whose resistance to marrying was wholehearted should more properly be regarded as incorrigible harlots or as exercising a preference for (partial) celibacy. Indeed, where sexual relations are the norm in courtship and the area for choice is, if accepting this convention, restricted to determining the institutional context in which births should take place rather than whether they should occur at all, there is a sense in which all UMs displayed a measure of chastity for as long as they declined to marry.

UMs bearing three or more bastards are usually too few for their histories to be worth graphing at a decadal level. 56.5% of the 85 women concerned commenced the formation of their families during cohorts 3 and 4 (1818-42). The experience of the great bulk of these would have spanned part of the period of structural crisis during the 1830s when Culcheth's marriage rate was at its lowest (the precise proportion is unascertainable because of uncertainty over the date at which UMs left the district). Bearing in mind also the effects of age on mortality, and the fact that this group of UMs must include a disproportionate number of any women who were disenchanted with marriage as such, it is not surprising to discover that UMs who bore three or more children stood a higher chance of dying single

[1] See Table XVII above p.207, and pp.411-2 below.

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[1] See Table XVII above p.207, and pp.411-2 below.

(23.5% did so) than those who bore only one (13.7%). Nonetheless, the proportions known eventually to have married scarcely differed at all between the two groups, being respectively 40.0% and 41.2%. There could be no clearer demonstration that marriageability was not appreciably affected by the persistence of a woman's disavowal of respectability, nor illustration (if we may assume that some at least of those UMs with large families who disappeared similarly married in due course) that avoidance of marriage was for most a temporary expedient, despite the traces we have found of a contrary attitude.

It should be added that no important difference has been detected between the life-chances of those UMs with more than one illegitimate child all of whose offspring had the same father and those on the other hand who are known to have had more than one lover. As we shall see shortly our knowledge of putative fathers is sadly deficient. Samples for this particular test, drawn from the whole period, consist of only 19 UMs whose children had the same father and 35 where this was not so.[1] (There need, incidentally, be no 'real' significance in the relative sizes of the two groups. For selection to the former the father of each child had to be known. In the latter case the names of two might suffice.) But for what it is worth, the proportions known eventually to have married, respectively 31.6% and 28.6%, are of the same order.

Of the aspirations of UMs who disappeared or died unmarried we can say very little. But in the context of Culcheth's high frequency of illegitimacy it is not unreasonable to suppose that

[1] Evidence of a bastard's legitimation was here accepted as identifying the PF as the UM's eventual husband. Cf. below, pp.240-1.

those who married (before the 1840s at least) did so because they wanted to, and that the timing of their nuptials and their choice of spouse will have some bearing on attitudes to marriage and childrearing more generally. The expectation of finding significance in these patterns has to be expressed in an understated fashion for even people who seek to plan their lives come adrift and we should not presume that long-term projections of anticipated intergenesic intervals and life expectancy, or even of wage rates and price levels, occupied the minds of many in Culcheth.

Most aspects of marriage among UMs will be considered in the next chapter. In this we are concerned only to relate marital decisions to the antecedent phase of unmarried motherhood. Moreover, because of the difficulties of dating the inception of CLMs our discussion will be restricted to UMs who married in church.

After long avoidance of the issue we are at last faced with having to consider the men in UMs' lives - the numbers of lovers they had before they married and whether their husbands were also the fathers of their illegitimate children. Indeed ideally this study should have divided attention equally between the sexes throughout. We can in fact say something of those men who eventually married their UMs, but it would be as well here to explain why a more general study of PFs has been impracticable.

The identification of PFs raises greater problems than does that of UMs. For most of the period 1800-37 PFs were named in the Newchurch baptism registers, as they were usually in the early years of civil registration until the start of 1845. Over

this span of 44 years we know the names of roughly two thirds of PFs - incidentally, prima facie evidence that promiscuity, as colloquially meant, was not a feature of this society. In later years our formal knowledge of PFs is non-existent and in earlier it is practically so, with the result that overall we know the names of little more than one third of them. But a married man in his seventies could in principle become a PF, and it was found that even a knowledge of the man's name made his identification possible in too small a proportion of bastardy cases for a general exercise of this nature to be worthwhile.

Rather more, however, can be done in the case of PFs who eventually married the woman in question, for then they can be identified by normal reconstitution methods, from their age at burial or in a census, and in the knowledge that they had been recruited from the unmarried population as it existed at the time of their marriage. Moreover, the practice of legitimating bastards on the marriage of their parents has made it possible, with some degree of confidence, to distinguish marriages where a woman's husband was the genitor of her illegitimate children from those where this was not so, in cases where no formal record exists of a PF's identity.

PFs therefore enter this study in only an incidental way, in helping to elucidate the behaviour of UMs who married in church. Over the eighty years 1781-1860 141 spinster-UMs (not all of them native-born) made a fertile church-marriage in Culcheth. They accounted for almost exactly one quarter of the 554 first church-marriage brides. The names of 41.5% of their illegitimate children's PFs are known from register or Poor Law

evidence. But because a woman with, say, four bastards only need have one whose father is not known for our information regarding her premarital career to be incomplete, it is not surprising that we only know the fathers of all of a woman's children in a smaller proportion of cases, 31.2% - in numerical terms the PFs of a mere 44 illegitimate families (including those containing only one child) are fully documented. In a further proportion of cases, of course, even incomplete evidence is sufficient to indicate that a woman's husband was not the PF of all of her illegitimate children. But the situation would still be pretty parlous were it not for the use which can be made of the evidence of legitimation which has been found for just over half the illegitimate children who survived their mothers' marriages by long enough to have been picked up in later sources.

That an illegitimate child whose mother later married should appear in a census bearing the same surname as his mother's husband might not seem good evidence that the latter was indeed the bastard's PF. Enumerators had little reason to care about the precise blood connection existing between people who stood in practical terms in the relationship of parent and child. Nonetheless, the terms 'stepson' or 'wife's daughter' do occur in the Culcheth censuses and very seldom does it appear that a husband would lend his name to a child who was not his own. Legitimation was of a de facto not a de jure character and, as explained in chapter 3, it was sometimes of an impermanent nature.[1] Perhaps it would be more correct to say that its recognition depended on the knowledge and attitudes of the

[1] See above, p.167.

observer. In consequence when a child eligible to be legitimated (in the sense that his parents are known to have married each other) is not accorded that status in any of the sources in which he has been picked up we cannot treat this as incorrect practice of the sort which, if widespread, would cast doubt on whether legitimation had any real meaning when it did occur. The only test of this is the frequency of cases in which a child was legitimated despite the known absence of blood relationship between him and his mother's husband. In fact no more than 2 families out of 47 for which the requisite information existed, or 4.3%, yielded examples of wrongful legitimation. This, it was felt, justified regarding evidence of legitimation in cases where a bastard's PF was not named at his baptism as indicating that the UM had indeed married the child's father. Conversely, the consistent refusal to legitimate has been considered indicative that she married someone else. If one also takes into account women who made infertile marriages, or who are known to have married outside our catchment area or after 1860, knowledge of whether their husbands were the fathers of all their illegitimate children becomes available by this means in no fewer than 119 cases.

We have already seen from Figure 11 that the classic form of delayed marriage, with which courtship conventions condoning sexual intercourse were inherently likely to be associated, cannot have been the experience of most UMs in Culcheth and will much less 'explain' the majority of illegitimate births. Table XXII gives some specificity to this impression. Part (a)(i) shows the proportion of each cohort of UMs who had only one bastard and who subsequently married the child's father

in church. (Strictly speaking it only compares the size of two populations, women first bearing an illegitimate child in a certain decade, on the one hand, and a particular subgroup of church-marriage brides marrying in the same years on the other.) The figures will tend to understate the phenomenon both because of the incompleteness of our information regarding PFs and because other UMs could have married outside our catchment area. For the latter possibility we can make no allowance, but the second column in Table XXII makes a maximum adjustment to compensate for the former source of error by assuming that in all cases where the PF is not known he was in fact the man she eventually married. If a UM seldom left the district to marry her PF then the true frequency of delayed marriages of the classic type should lie somewhere between the two series of figures.

Table XXII. Delayed marriage estimates : percentage of UMs marrying sole or most recent PF in church, by date of UM's first birth.[1]

Family size:	(a) one child		(b) one/more children	
Cohort	(i)[2] %	(ii)[3] %	(i)[2] %	(ii)[3] %
1781-1800	13.6 (12)	17.0 (15)	14.8 (13)	19.3 (17)
1801-50	6.9 (38)	8.9 (49)	13.3 (73)	16.4 (90)
1851-60	7.4 (5)	11.8 (8)	8.8 (6)	13.2 (9)
1781-1860	7.8 (55)	10.2 (72)	13.1 (92)	16.5 (116)

Notes:
1. Numbers of women in each sub-group in brackets. The denominator comprises all UMs (N = 704).
2. (i) Relates to UMs the name of whose most recent PF is known.
3. (ii) Assumes UM married most recent PF in all cases where his identity is not known.

There is a case, however, for regarding as delayed marriages all unions in which a UM married the PF of her most recent child, irrespective of how many previous births she had had by him or anyone else. The concept of a delayed marriage is not a tidy one. Part (b) of Table XXII accordingly incorporates the experience of brides who had had more than one bastard with the data presented in Part (a), again employing minimum and maximum assumptions regarding the identity of PFs whose names are not known. Column b(ii) is the closest we can approach to setting an upper limit to the frequency of delayed church-marriages, liberally defined, among spinster-UMs resident in Culcheth. It should be added that 12 women had had their sole or most recent illegitimate child baptised as though it were legitimate and they themselves already married. Normally in this study any child baptised as legitimate is treated as such and his parents regarded as having formed a CLM. Exception was made in these particular instances only because the couples in question subsequently went through a formal marriage service (and accordingly they will not appear in our analysis of CLMs).[1]

If it is accepted, as argued earlier, that the number of delayed marriages taking place outside our catchment area was probably insubstantial, it would seem that no more than one sixth of UMs at the outside could be regarded as having borne a child whose illegitimacy was, as it were, accidental. But the proportion was not constant over time. Although illegitimacy was never typically the tolerated but unintended consequence of having to put off the date of a wedding, part (a) of Table XXII - which covers what might be regarded as the more innocent cases -

[1] See below, chapter 9.

suggests that such occasions were commonest when illegitimacy generally was least prevalent. This may be another indication of the normative commitment to childrearing within marriage which was still in evidence before 1800, though it could also be read as signifying that in the eighteenth century a UM faced greater difficulty in securing a husband if she failed to marry the father of her illegitimate child.[1]

The infrequency of delayed marriages however defined is placed in perspective by considering how often a UM married someone other than her PF. With the aid of legitimation evidence we know the identity of the most recent PF - a term intended to embrace one-child families - in the case of 119, or 84.4%, of the UMs contracting fertile church-marriages within our period. In 84 instances (70.6% of the marriages for which we have the relevant information) he became the woman's husband. In the remainder, approaching one third of the total, he did not.

The uneven distribution of the latter cases is of some interest. None occurred during the eighteenth century. At that time UMs appear either to have married their PF or not at all. Again the signs are that the social acceptability of UMs, even if 'deserted', shifted once and for all around 1800, for in only one cohort after that date did the proportion of UMs marrying someone other than their PF fall below one third. The exception lay in the marriages celebrated during the depressed years of cohort 4 (1829-42), only 11.8% of which fell into this category compared with 37.2% in the remainder of the nineteenth century (probability of significance = 97%). Inference from

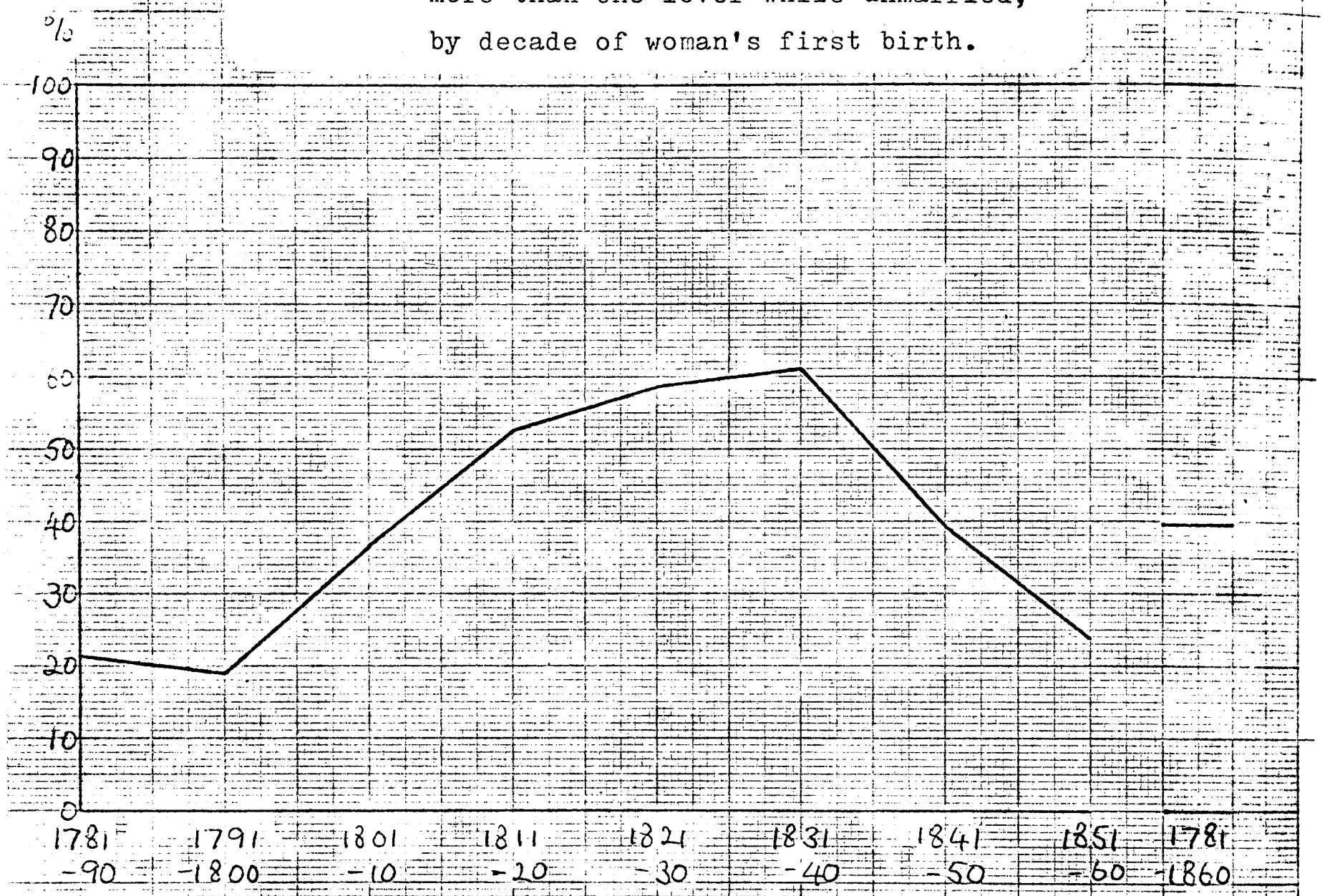
[1] *Cf.* above, pp.195, 226 and 231-2.

such material must be speculative, but it suggests a reluctance on the part of men during this critically difficult period to saddle themselves with the support of someone else's progeny - a reminder that UMs were not, as our reconstitution approach is in some danger of implying, entirely free agents. Nonetheless, the overall frequency with which they married a man who was not the father of their existing children undoubtedly confirms the view expressed earlier that unmarried motherhood as such did no great damage to a woman's marital prospects in the nineteenth century.

From one viewpoint the identity or otherwise of husband and PF tells us something of the lack of stigma surrounding unmarried motherhood. Regarded from a different angle the same material is revealing of the impermanence of sexual relationships in Culcheth. If we take the 854 women the context of whose first conceptions was studied in the last chapter (the larger of the two samples we used there, that which contains some women whose age at first conception is unascertainable) the information we have on PFs permits us to make an estimate of the proportion of fertile women who experienced at least one terminated love affair during their lives. It is a conservative estimate in that by the term 'affair' we mean a liaison which resulted in the birth of a child and also inasmuch that we are precluded from passing judgment in certain cases where information on PFs is incomplete.

One problem is to decide how to treat the experience of UMs who disappear from Culcheth. They constitute almost a quarter of the total sample (196 out of 854) so that the rule of thumb one adopts here has important implications. While admitting that some of these native-born UMs could have married their PF

Figure 12. Terminated affair rate. Percentage of fertile women (N=854) who either did not marry their first lover or who had more than one lover while unmarried, by decade of woman's first birth.



outside our catchment area, it was decided to regard a woman's disappearance as *prima facie* evidence of the termination of sexual relations with the man in question and all such women have been classified accordingly.

Table XXIII. Terminated affair rate : number and percentage of first-time conceivers who either did not marry first lover or who had more than one lover while unmarried.[1]

Cohort	N	%
1781-1800	33	20.1
1801-50	275	49.5
1851-60	32	23.9
1781-1860	340	39.8

Note: 1. Denominator comprises all first-time conceivers (N = 854). For individual cohort populations see Table XIII above.

Figure 12 and Table XXIII, if considered as expressing orders of magnitude, indicate the proportion of first-time conceivers in each decade who may be presumed either not to have married their first lover or to have had more than one lover while unmarried. A less inelegant title for the measure might have been a 'desertion' rate, but the implication of obligations not honoured which this term carries is not warranted. Somewhere among the experiences of these women will lie instances of matrimonial expectations disappointed, but the frequency of broken relationships will only justify us in inferring that couples became lovers without (presumably) intending the impermanency of the arrangement but with a mutuality of expectations regarding its terminability.

The shape of the curve shown in Figure 12 requires no comment being, in inverted form, so similar to that observed in Figures 7 and 9.[1] The frequency of broken affairs is, of course, related to the incidence of illegitimacy among first-time conceivers, inasmuch that without the existence of bastardy no terminated love affairs would be discernible to us at all. But avoidance of marriage is not synonymous with infidelity, and when considering an earlynineteenth century population in which for around a generation it was the experience of most fertile women that they would break with the first man who gave them a child, or vice versa, one must ask anew whether this (if not illegitimacy in itself) is not a sign of dislocation evidenced by affectionlessness.

The question, of course, cannot be answered directly. But a slant on it is gained by examining the timing of marriage in relation to childbirth. Part (a) of Table XXIV indicates the mean and median numbers of months elapsing between the birth of a UM's sole or last illegitimate child and the date of her marriage. We are chiefly interested in the experience of women who married their most recent PF because what we really want is a conservative measure of the longevity of affairs - something that cannot be estimated when our only information is that a woman's husband was not the PF of her illegitimate children. Numbers of wives in the latter category are, besides, rather small for detailed analysis. Nonetheless, the mean intervals between last birth and marriage where the husband was not the PF of the latest illegitimate child were significantly longer, both overall and in the sub-periods 1801-50 and 1851-60, than

[1] See above, facing pp.187 and 221.

Table XXIV. Timing of church-marriage among Culcheth-born UMs, by date of marriage.[1]

Months since:	(a) last illegitimate birth						(b) commencement of courtship[2]		
Husband :	PF			not PF			PF		
Cohort	N	Mean	Median	N	Mean	Median	N	Mean	Median
1781-1800	12	8.25	6.50	0	-	-	13	17.12	15.50
1801-50	57	23.61	20.13	32	51.72	45.50	61	46.91	36.50
1851-60	14	35.71	21.13	5	82.30	63.50	15	62.17	49.50
1781-1860	83	23.43	18.50	37	55.85	49.50	89	45.13	34.25

Notes: 1. Sample consists of UMs the name of whose sole or most recent PF is known

2. Defined as date on which UM conceived the first child known to be by the PF she eventually married.

Figure 13. Frequency distribution of intervals between last illegitimate child's birth and UM's marriage, 1781-1860.

——UMs known to marry most recent PF(N=83)
——UMs known not to do so (N=37)

in cases where he was (probability of significance in each instance = 99%). It is no great cause for surprise that in cases where the parents of a child, for whatever reason, did not marry after its birth the mother should on average have remained single for a longer period of time than in those where they did. In personal terms the fact admits of too many possible circumstances to merit speculation - not least because one has no way of knowing when, in relation to the child's birth, the mother's relationship with its father came to an end - but it is something to have one's expectations confirmed.

The same information is presented in the form of a frequency distribution in Figure 13. It should be remembered that we are only concerned with the interval between the birth of a UM's most recent child and her marriage, and that no allowance is made for mortality among the children concerned. But a plausible interpretation of the fact shown in this diagram that a majority of UMs who married someone other than their PF waited over four years before doing so is that their marriageability in the eyes of others was reduced until their child was old enough to be of casual assistance in the weaving trade, and thus less of a financial burden. At the same time the woman might by this stage be devoting less time to mothering and more to earning.

Part (b) of Table XXIV is the more interesting. It measures for 89 UM-brides known to have married their most recent PF the minimum length of time for which they must have been consorting with the man in question. In this calculation <u>minimum</u> estimates have been incorporated touching six women who do not appear in the corresponding column of part (a) of the Table because their interval between last birth and marriage was only known to fall

somewhere within a twelve-month period. When measuring courtship longevity a lesser degree of accuracy is unavoidable but also analytically acceptable where, as is ensured here, the bias is towards understating the true length of such relationships. Courtship (though with its conventional implication of a commitment to marriage this may not be an appropriate term) is dated from the inferred day on which the woman conceived the first child known to have been fathered by the man she eventually married. Variations over time in the completeness of our knowledge of the identity of PFs cuts both ways in this context. On the one hand our chances of knowing the name of a particular child's PF do not seem to be related in any systematic way to the number of previous births its mother had recorded. Hence the more children a woman bore the greater likelihood that our knowledge of her PFs will be incomplete and our estimate of the period of time over which the couple had been courting an understatement. This effect would be chiefly found in the first half of the nineteenth century when families comprising several illegitimate children were commonest. But on the other hand it is in the eighteenth century, taking register and legitimation evidence in combination, that our ability to identify PFs in general is weakest. It is considered that on the whole these circumstances roughly balance each other and that we may treat the material presented in Part (b) of Table XXIV as understated but, so far as one may judge, uniformly so over time.

Two associated but distinct phenomena are being described in Table XXIV. First, delayed marriages were becoming more delayed as they became less frequent. Secondly courtship, as we have liberally defined it, was being prolonged to a roughly

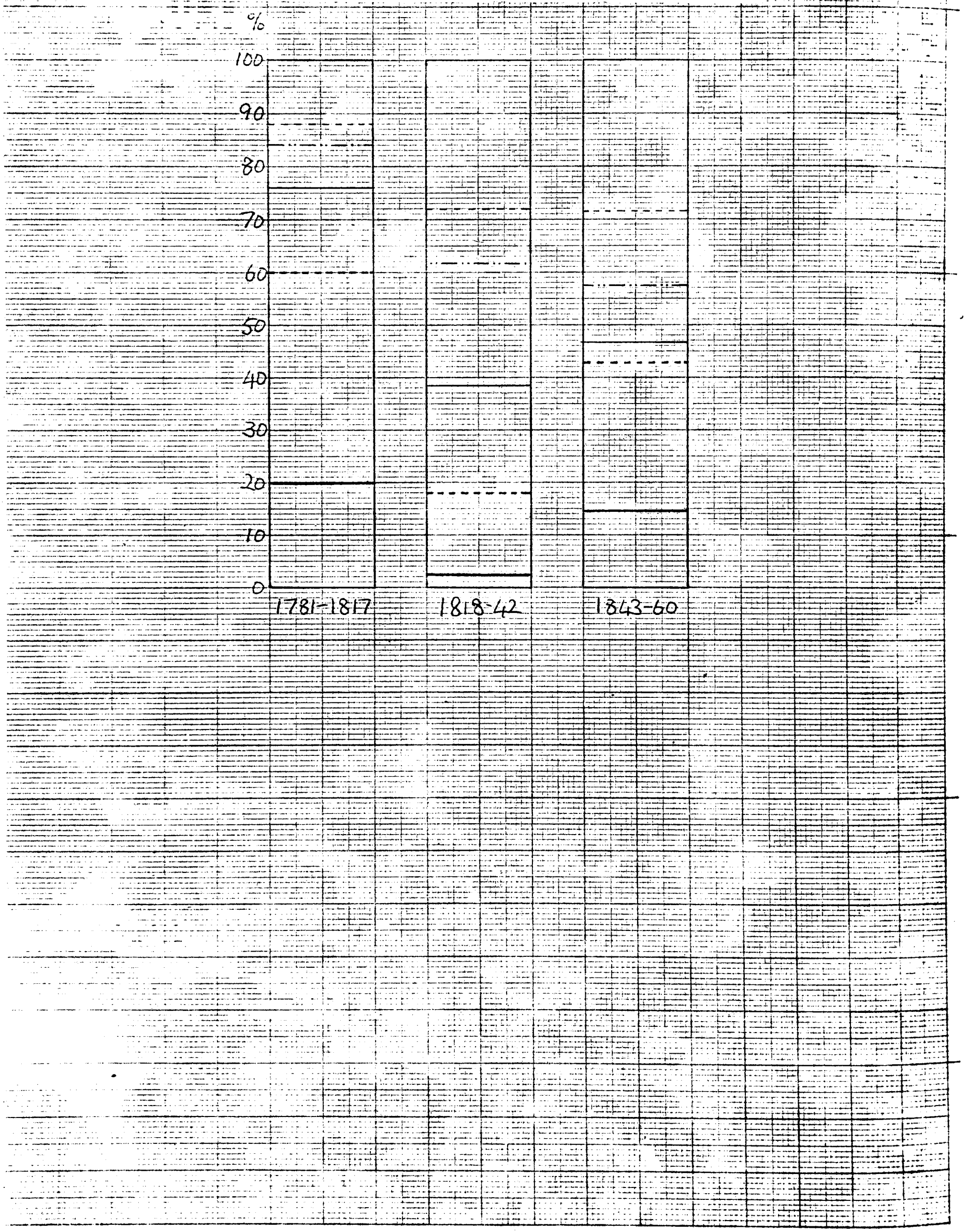
proportionate extent, reflecting the growing frequency with which UMs bore more than one illegitimate child. Nineteenth century UMs were, to judge from these results, consorting with the man they married for from two to three times as long as had been typical of such cases during the eighteenth century.

These two series of statistics belie the social dislocation interpretation of the 'terminated affair' graph, Figure 12. Broken love affairs were becoming more common because, even among couples who remained faithful to one another, the timing of marriage in relation to the onset of courtship was being increasingly postponed. Fidelity within marriage, where the couple have their own home and their attitudes may be presumed conditioned by social expectations and the binding legal status of their union, receives support from institutional conditions independent of personal affections. In the context of Culcheth's type of courtship conventions, the institutional pressures experienced by the unmarried - typically still living and working in their parental household - were more diffuse and may even have militated against the maintenance of relationships by dividing loyalties between parent and lover.[1] At the least, prolonged engagements or avoidance of marriage in the short run imply a longer period of time in which things can go wrong. It may have been less common in the nineteenth century for UMs to marry their most recent PF. Nonetheless 67.0% of them did so between 1801 and 1860 and, as can be seen from Table XXIV(b), despite a greatly extended period of courtship. The median length of engagement - or at least of premarital fidelity - among these women rose at a very conservative estimate to three or four years.

[1] See below, pp.268-70, for the parental economic interest in daughters' unmarried motherhood.

Figure 14. Percentage distribution of estimated duration of courtship among uMs (N for sub-periods respectively=25;39;28).

reading from foot: ——<12 months _.._36-47 months
---12-23 months _ _ _48-59 months
——24-35 months residue: 5/> years



A better indication of what was typical is given by the bar charts of Figure 14. Smallness of numbers in the first few decades have made it necessary to amalgamate certain cohorts' material, but the character of the nineteenth century shift is not obscured. Whereas in the years preceding 1818 a fifth of couples had married within a year of the woman's conception (since we are entirely concerned with UMs this means that marriage occurred within three months of the birth of the couple's only known illegitimate child) during the next quarter century this proportion more than halved. The 60.0% of couples who had courted (on our definition) for less than two years became a mere 18.0%. By contrast the proportion consorting for over four years before marrying had more than doubled to around two fifths (in each instance probability of significance = 97/>%).

In the experience of the last cohort can be seen both a reversion to shorter periods of courtship (as one would expect, given the declining frequency with which these UMs bore more than one bastard and the ecclesiastical pressures to which they appear to have been subjected) and at the same time a perpetuation of lengthy engagements, reflecting the polarisation of UMs discussed earlier.

These developments do not bear the stamp of a society suffering a breakdown in the strength of personal commitments or affections. Disorientation of this sort would lead us to have expected not only the growth in the frequency of terminated affairs which in fact occurred, but also a brevity of courtship among those whose relationships did lead to marriage. For in a world of fleeting attachments marriage at any stage between a UM and her PF would only be likely if it took place early in

their child's life. That the reverse movement characterised experience in Culcheth during the high bastardy years indicates that the origins of the growing frequency of broken love affairs lie elsewhere. We are once again witnessing a consequence of the felt need to avoid marriage during the early years of a woman's childbearing span.

The growth of unmarried motherhood can be viewed as a residual of this reordering of priorities rather than as a behavioural deviation in itself. That it was so regarded by the handloom weavers themselves cannot be demonstrated beyond all reasonable doubt. But consideration of the relative costs of rearing children within and outside marriage does suggest why women <u>might</u> have wished to delay marrying. It is, therefore, to this complex problem that we should now turn.

Chapter 6

The Social Economics of Childrearing

This chapter is chiefly concerned with answering two related questions. First, should we expect that an economically sensitive population facing the type of problems which confronted Culcheth's handloom weavers in the nineteenth century would have opted for the formation of large or small families? And secondly, can the observed pattern of unmarried motherhood be regarded as economically sensible?

Despite the chapter's somewhat grandiloquent title, its actual pretensions are modest enough, for we have no empirical data bearing directly on the costs or returns associated with childrearing in Culcheth. Moreover, although the burgeoning theoretical literature on the subject has succeeded in applying economic concepts to aspects of marriage (sometimes misleadingly describing this process as 'explaining' them)[1] which were previously considered to lie primarily within the domain of the sociologist, there is as yet no comprehensive economic theory of fertility which stands up well to observed facts.[2] Nor, for that matter, has empirical research in the contemporary world

[1] Cf., e.g., Becker's 'explanations' of why attractiveness is positively related to marriageability, and why people marry someone they care for in preference to someone they do not. G.S. Becker, 'A Theory of Marriage', Part I, Journal of Political Economy, 81 (1973), 822; and ibid., Part II, Journal of Political Economy, 82 (1974), Supplement, 16-17 and 23.

[2] See, e.g., W.J. Goode's selective criticisms of Becker in ibid., 82 (1974), Supplement, 28-33. For a critical survey of the theoretical literature see W.C. Robinson and D.E. Horlacher, 'Population Growth and Economic Welfare', Reports on Population/Family Planning, No.6 (1971). On the inappropriateness of macroeconomic perspectives to the individual's situation see also A. Schnaiberg and D. Reed, 'Risk, Uncertainty and Family Formation: the Social Context of Poverty Groups', Population Studies, 28 (1974), 513-33.

generated sufficient data to test the economists' more detailed abstract suggestions - to the analytical difficulties of imputing costs to individual members of a household[1] are added theoretical objections to the derivation from cross-sectional material of longitudinal inferences.[2] Much of the work done to date is suggestive, but more of the complexity of the 'real' world than of analytically simple ways of describing and explaining it.[3] With regard to Culcheth, since we lack most of the objective information needed to get any complex model of behaviour onto the road, we are in the fortunate position of being compelled to side-step most of the thornier theoretical questions currently concerning economists in the field of marital behaviour although we must, correspondingly, confine ourselves to posing relatively simple questions about welfare and rationality in narrowly materialist senses.

The bearing and rearing of children inevitably subject parents to certain costs. These are usually analysed under three headings: direct, opportunity and non-economic costs. It is not intended here to examine the third category, within which is subsumed the time and effort of rearing children which do not

[1] E.g., S.J. Prais and H.S. Houthakker, The Analysis of Family Budgets (2nd impression, abridged, Cambridge, 1971), chapter 9.

[2] T.J. Espenshade, 'The Price of Children and Socio-Economic Theories of Fertility', Population Studies, 26 (1972), 207-21.

[3] For the weaknesses of relatively simple measures of dependency, for example, see the debate aroused by D.R. Kamerschen, 'On an Operational Index of "Overpopulation"', Economic Development and Cultural Change, 13 (1965), 169-87; especially the comments of E. van de Walle, ibid., 14 (1965), 91-93, and of B.M. Walsh, ibid., 17 (1968), 95-98. See also A. Schnaiberg, 'The Concept and Measurement of Child Dependency: an Approach to Family Formation Analysis', Population Studies, 27 (1973), 69-84. For a sample of the mathematical abstruseness now typical of fertility theory see Journal of Political Economy, 81 (1973), Supplement, 'New Economic Approaches to Fertility'.

compete with parents' economic activity but eat into what would otherwise be leisure hours. There is little to say on the subject beyond noting in passing that the growing intensity of work effort which seems to have been forced on handloom weavers as their piece-rates declined might technically have lowered the burden of childrearing on this account by reducing the time parents had to devote to their children's needs; although common-sense would suggest that this effect would have been more than offset by loss of the pleasures of playing with children and by increased tiredness during whatever hours were allocated directly to childminding and associated household chores. But this is an area where inference will not carry us far.

By the opportunity costs of childrearing is meant the income foregone by a wife whose ability to earn is deleteriously affected by the raising of a family. Some analysts in fact have taken this as a proxy for total childrearing costs when assessing the relationship between income and family formation,[1] on the grounds that the direct costs attributable to children of a given parity affect all parents similarly, so that the income side of the equation is the critically important one. But in fact there is a well established relationship between income and expenditure on each child,[2] and it is difficult to avoid the conclusion that the emphasis frequently given to opportunity costs owes more to the difficulty of measuring direct costs than it does to theoretical considerations. With respect to Culcheth there are grounds for supposing that the opportunity costs associated with childrearing were not insignificant in particular stages of the life-cycle.

[1] T.J. Espenshade, op.cit., 208-9.

[2] A. Schnaiberg, op.cit., 76-84.

But clarity of exposition dictates that, however improper from a theoretical standpoint, this aspect of family formation should be discussed separately from and subsequently to the direct costs of raising children in terms of expenditure on food, clothing and so forth.

Without empirical data we can only make a few assertions. As already mentioned, there exists empirical evidence from modern developed economies which supports the commonsensical view that children in general share the standard of living of their parents, and thus that for a given parity the direct costs of their maintenance vary directly with income. In absolute terms, relative to more prosperous contemporaries, nineteenth century Culcheth's impoverished handloom weavers would have been producing children at a low direct cost. Moreover, the returns to scale which may affect modern families[1] have a much more obvious relevance to low income households of the past. In such a community the idea of all eating from the same pot would have had more than figurative significance. Broadly speaking it must have been part of contemporary working class expectations that the more people who sat down to dinner the less would each of them eat. Again, the poor of the past were no strangers to sharing sleeping quarters, or indeed bedding.[2] Similarly articles of clothing would have been passed from one child to the next as a matter of course. Children's clothing is notoriously subject to wear and tear, but in poor families considerations of comfort or appearance would probably have been given lower priority than durability. There

[1] Ibid., loc.cit..

[2] See, e.g., E. Gauldie, Cruel Habitations: a History of Working-Class Housing, 1780-1918 (London, 1974), pp.22-6, 82-5 and 91-100.

are in any case several stages of childhood when physical growth would likely have outstripped the destructiveness of the article's occupant. It is therefore suggested that the most reasonable starting point for our analysis of family formation strategies is to assume that in contemporary terms the direct average costs of childrearing were low, and that in general marginal costs declined as family size grew.[1]

Today the offsetting benefits which parents might anticipate from having children are largely of a psychic, non-economic nature - the pleasure derived from playing with them and from watching them develop, the mutuality of affections, enjoyment of the responsibilities of socialising them, and so on. This contrasts sharply with Shorter's imaginative though surely overdrawn portrayal of the virtual absence of affective bonds within pre-modern families.[2] He might himself predict that early nineteenth century Culcheth would have exemplified the transition towards the intimacy of the modern family, for on the lines of his analysis its proto-industrial, bastardy-ridden character should have made the place a hotbed of emotional liberation among the young (although it is less clear how he would interpret parent-child relationships in the district).[3] Nonetheless one suspects that among the English working classes generally the rise of the nuclear family 'as a state of mind'[4] was much more a feature of

[1] See also below, pp.292-3.

[2] E. Shorter, The Making of the Modern Family (London, 1976), esp. chapter 2 and pp.168-75.

[3] Sexual freedom seems to be related in Shorter's argument to rebellion against parental authority, which is difficult to reconcile with the evidence of this chapter. Cf. also L.A. Tilly, J.W. Scott and M. Cohen, 'Women's Work and European Fertility Patterns', Journal of Interdisciplinary History, 6 (1976), 447-76.

[4] E. Shorter, op.cit., p.205.

the later nineteenth century and has very little to do with illegitimacy.[1] Certainly, we might expect that the vie intime of Culcheth families in the period we are considering would have had some pre-modern features.

Infant and child mortality were still high enough to make the investment of much love in babies and young children an emotionly taxing experience, because so frequently rewarded with deprivation of the object.[2] There is probably also something to the idea that when a large brood survived childhood a degree of dilution of affections was unavoidable, particularly as their births came in rapid succession so that pride of place in the hierarchy of maternal attentions was quickly lost. It was in any case the experience of most children that both their parents had to work to support them, so that to an important degree children would have brought each other up. This is not at all to imply the absence of mutual affections between parents and children in Culcheth, and thus some psychic returns to parenthood. Indeed in the midst of increasingly unrewarding toil the value of children as a diversion may well have been enhanced. But the reverence accorded mother-love today is a luxury which can only be afforded by a relatively high-income, low-fertility, low-mortality society. We should expect that in Culcheth whatever benefits children were anticipated as bringing their parents would have had a relatively higher economic content.

[1] This is much too large a theme to explore here. An important facet of it is discussed in B. Laslett, 'The Family as a Public and Private Institution: an Historical Perspective', Journal of Marriage and the Family, 35 (1973), 480-90.

[2] On the ambiguities of parent-infant relations in pre-industrial times cf. also D. Hunt, Parents and Children in History (New York, 1972), chapters 6 and 7.

In assessing the changing economic value of children to their parents it is common to take the self-sufficient peasant farming family as representative of the traditional state of things, where children from an early age began to contribute to their keep; and to contrast this with the legislation- and education-bound urban society of today, where children's dependence on their parents is so protracted as to have created a new conceptualisation of personal development, divided into many more stages than our forbears would have recognised (itself a reflection of the intensification of affective relations between parent and child that has occurred). In fact it is not unlikely that in a domestic industry like handloom weaving young children could be of even greater utility than on a farm. In arable farming, at least, many labouring tasks require a certain strength to be performed at all. In weaving, however, the key quality was probably stamina and, though a young child might not be able to work a loom for long at a stretch, by the age of eight or nine he might at least be able to ensure continuity of production while either of his parents rested or turned to other chores.[1] Younger children still could wind bobbins or learn to dress a warp - services which, though simple, could be of real economic value to their elders, the opportunity cost of whose time when devoted to such tasks was high.

The age at which children in Culcheth actually began to be productive is impossible to establish, though we can set approximate upper limits for the later years of our period. The census of 1851 and applications for out-relief during the 1850s[2] agree

[1] D. Bythell, The Handloom Weavers (Cambridge, 1969), p.63.

[2] P.R.O., MH 12/5927-9, passim.

in appearing to indicate that for both sexes entry to the labour market typically occurred between a child's tenth and thirteenth birthdays. The latter source is likely to be biassed by the interest which supplicants had in understating their true income. But the validity of both is presumably affected also by the difficulty parents faced in determining at what point a child's more or less casual efforts became sufficiently important to merit his admission to full nominal membership of the workforce. As long as a child's labour amounted to intermittent assistance parents are unlikely to have imputed a monetary value to it - however much they recognised its utility to themselves - as it would not have resulted in a discrete addition to the household's income. For this reason, where children are registered as becoming winders around the ages of ten or eleven, and weavers by twelve or thirteen, it may be suspected that they had in fact been contributing to their parents' income for several years before this stage - in the case of weavers, indeed, the recorded age of entry to the labour market is more likely to mark the point at which they first took sole charge of a loom.

One interesting point is that although the 1851 census sometimes describes farmers' sons as such (or as agricultural labourers) by the age of ten, hired labourers were all aged 14 (and that exceptionally) or above. It thus appears that children in the wage-earning sector became productive at a significantly earlier age in the handloom trade than they did in agriculture.

It is also probable that, independently of their standard of living, handloom weaving parents would have been more sensitive to the productive utility of their children than would farmers. The notion of the self-sufficient peasant farm has always been

something of a myth in the context of English agriculture. The land was seldom owned by the family in question, and some involvement in the market is implicit in the existence of monetised rents. But if Myrdal's description of Swedish peasants' insensitivity to the costs attributable to dependents[1] would not be precisely paralleled in an English setting, there is still an intuitive plausibility to the idea that, where labour is not hired, agriculture's roundabout system of production (final output, even if marketed, being only distantly related to the productive efforts in specific tasks of individuals) is likely to lead to an undervaluation of the contribution of (family) labour. Handloom weavers, by contrast, lived from hand to mouth, and by the output they could market each week. Returns to labour were immediate and the contribution of each household member to the family's welfare much more readily apparent.[2]

The economic returns to childrearing were, of course, strongly related to the length of time over which children worked for their parents. This is a matter of some importance in accounting for the growth of unmarried motherhood in Culcheth, and so we shall return to it later in the discussion. For the moment it suffices to say that as a rough rule of thumb parents typically had the use of their children's labour until they married.[3] Although in the mid-nineteenth century Culcheth farmers still hired living-in servants these were typically adult men;

[1] A. Myrdal, Nation and Family (paper edn., Cambridge, Mass., 1968), p.59.

[2] Cf., H. Medick, 'The Proto-industrial Family Economy', Social History, 3 (1976), 298-301.

[3] See below, pp.284-5.

and the existence of domestic employment in weaving meant that daughters do not appear usually to have been sent out to service (though even if they had been it is probable that their parents would have continued to take part of their wages).

The degree to which parents depended on their children's support once the latter had left their family of origin, and especially in old age, must remain largely an open question. During the crisis of the 1830s handloom weavers as a body were acknowledged to be extremely open-handed towards friends in need.[1] And where the strength of neighbourhood ties was so apparent to outside observers it is most unlikely that links between ageing parents and their adult children would have been any weaker[2] - provided, of course, that the latter remained in the neighbourhood. Weavers in general had a reputation for occupational endogamy[3] which, _ceteris paribus_, would have tended to have this effect by reducing geographical mobility. On the other hand, we know that in the first half of the nineteenth century the declining prosperity of the handloom weaving industry resulted in a variable but persistent migration away from the district, which it is not unreasonable to assume would particularly have affected young adults, although this cannot be adequately measured.[4] What we can say, however, is that a high degree of residential propinquity characterised the different branches and generations of weaving families which remained in the township, and that it was highly unusual for the elderly to lack locally resident kin

[1] _E.A._, _Parl. Papers 1840_, xxiv (636), p.538.

[2] _Cf._ M. Anderson, _Family Structure in Nineteenth Century Lancashire_ (Cambridge, 1971), chapter 7.

[3] H. Medick, _op.cit._, 304.

[4] See Table IV above, p.34,and pp.227-8.

of a younger generation upon whose support they might draw as occasion required.

The question of propinquity has not been subjected to statistical analysis. Culcheth, being rural, had an irregular pattern of settlement to which it is difficult to apply standard distance measures.[1] But the handloom weaving core of the district as it existed towards the close of our period was so geographically concentrated that it would have been difficult for any married adult child to have avoided daily contact not only with parents, if still living, but also with uncles, cousins, in-laws and so forth.[2] In scale it was a sufficiently face-to-face community for avoidance of such involvements to have required moving from the area altogether, and however common this was the high prevailing levels of fertility appear to have ensured a strong degree of generational continuity.

We may presume, then, that parents could anticipate support in old age from some at least of their children, though whether this would typically have been monetary is impossible to say. The censuses of 1841-61 indicate that a widowed parent would sometimes move in with a married child. But more usually it appears to have been the case that after marriage children preferred to live close to their parents rather than with them.[3]

The points discussed thus far suggest that Culcheth's handloom weaving families were likely to be large - as indeed they

[1] Cf., e.g., M. Anderson, op.cit., pp.56-62.

[2] See above, pp.56 and 70-2.

[3] Cf. M. Young and P. Wilmott, Family and Kinship in East London (London, 1957), p.20.

were, with an average of 7.5 children.[1] The direct average costs of 'producing' children were low and benefited from economies of scale, while economic returns were palpable, fairly immediate and (since they in large part were realised while the child was still a 'dependent') near-certain.

It is instructive here to compare Culcheth with another high-fertility regime. Friedlander's interesting discussion of the economic rationale underlying the high fertility of later nineteenth century coalmining districts lays particular stress on the anticipated benefits accruing to parents from their children's support during retirement.[2] For the period and districts concerned this seems the appropriate interpretation, but it would not fit the Culcheth situation earlier in the century. Children in Friedlander's study did not become economically productive as young as in Culcheth; women in his communities contributed very little to household income; and men retired from mining at an early age. In these circumstances sons were needed who might follow their father into the pits at as early a stage of the latter's life-cycle as possible and thus insure the parents' longer-term future.[3]

In Culcheth, however, the incentive to commence childbearing at a comparatively young age must have derived rather from the proximity of a young child's productiveness. The position of

[1] See Table XXXVII below, p.328.

[2] D. Friedlander, 'Demographic Patterns and Socioeconomic Characteristics of the Coalmining Population in England and Wales in the Nineteenth Century', Economic Development and Cultural Change, 22 (1973), 39-51.

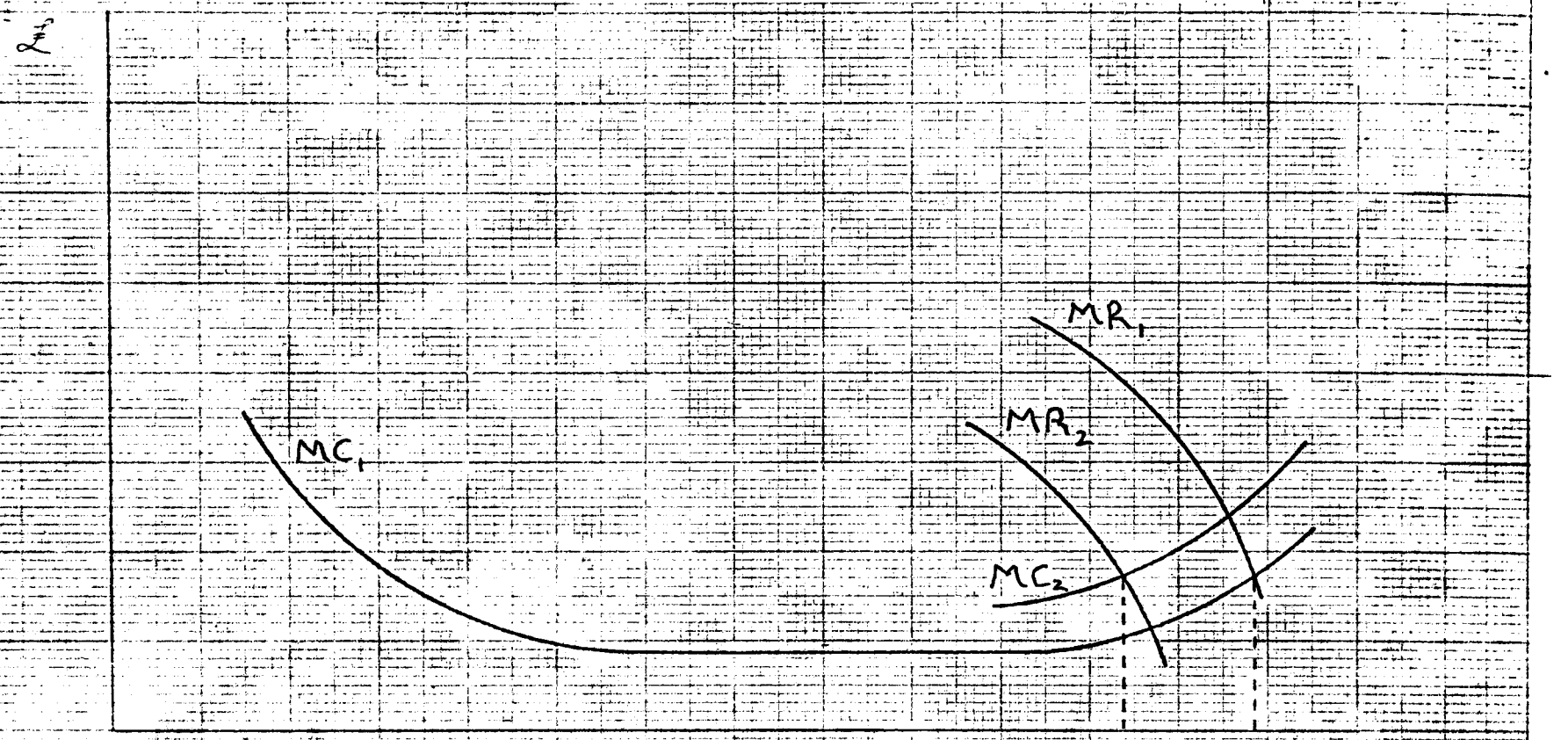
[3] Loc.cit.; cf. E.A. Wrigley, Industrial Growth and Population Change (Cambridge, 1961), pp.154-6.

the elderly was not as vulnerable as in Friedlander's districts for, although long association with the handloom was attended by the risk of bent and rheumatic limbs, weavers could and did practice their trade into their seventies and it was, of course, an occupation open to either sex. It could be added that the uncertainty attaching to distant returns in old age would in general have made the more immediate and certain income which Culcheth parents could anticipate as flowing from children who were still under their roof and control the superior good.

Whether, even in the prosperous times of the later eighteenth century, children's earnings <u>in fact</u> compensated their parents for the cost of their upbringing is a very interesting question, but not strictly relevant to the present discussion since assessment of the economic rationality of their fertility patterns has to take as a starting point parents' <u>ex ante</u> expectations and what they believed their cost-benefit position to be (in the light of the best information available) rather than what actually transpired.[1] The likelihood, however, is that Culcheth parents would have been unduly optimistic, for benefits were generally easier to identify than costs. A significant proportion of parents' expenditure would have benefited several or all members of the family, and not necessarily in equal measure, so that the total true costs to the household of individuals would have been difficult to impute. Weavers' involvement as producers for the market, on the other hand, made the results of productive effort at once more visible and more easily attributed to particular members of the family. We shall also see shortly that economic conditions in the nineteenth century encouraged the pursuit of

[1] <u>Cf</u>. E.A. Wrigley, <u>Population and History</u> (London, 1969), pp.161-2.

Figure 15. Returns to childrearing. Hypothetical illustration of changes in optimal completed family size.



relatively short-run gains and that this in itself may well have led to some overshooting of whatever family size might have maximised economic welfare in the longer term.

However, it is worth considering the family as though it were a profit-maximising firm, in which rational parents will continue to 'produce' children up to the point where their marginal cost and marginal revenue curves intersect. Lacking empirical data we cannot tell at any one time whether parents should have been aiming for families of six, ten or whatever number of children, but a simple model may assist us in judging whether or not in the deteriorating conditions of the first half of the nineteenth century prudence should have dictated a marked contraction in the sizes of completed families, even if they remained substantially larger than today.

The position in time period 1 as shown in Figure 15 is intended to represent approximately the conditions of the 1780s. To some degree the decline in marginal costs with additional children might have been offset by rising opportunity costs in terms of a wife's foregone earnings (which we shall see bore increasingly heavily in the later stages of family formation).[1] Taking the first half of the nineteenth century generally the major development was the secular tendency for piece-rates to decline which, by reducing the income derived from a given labour input, would have shifted the marginal revenue curve downwards, let us say from MR_1 to MR_2. During the years covered by cohort 2c the depressive effect on family size would have been exacerbated by price inflation which would simultaneously have

[1] See Table XXIX below, p.291.

shifted the marginal cost curve upwards to MC_2. The deflationary period which followed the end of the Napoleonic Wars however, and which may be envisaged as particularly affecting the years spanned by cohort 3 (1818-28) would have had a contrary effect, though whether entirely offsetting the impact of declining piece-rates we cannot say.

Of much more critical importance is the course of labour productivity. For the handloom weaving industry generally it is known that as conditions deteriorated hours worked were protracted and children were put to the loom at younger ages.[1] This would have tended to push the MR curve outward again - although as there is little doubt that the secular trend was for weavers to become increasingly impoverished, one might still expect that the returns to childrearing remained lower than in the eighteenth century and that the net effect of these developments was some reduction in the number of children which a rational couple would, from this vantage point, have sought to bring into the world.[2]

However, in Culcheth the position was radically affected by the growth of unmarried motherhood. We have already seen that UMs tended to be drawn particularly from among the youngest conceivers in the district.[3] Had they married at this point they would thus have contributed economically the least of all children to their parental households' costs. In fact, though,

[1] See above, pp.46 and 91 and references there cited.

[2] On the other hand we do not know for certain that daughters were as frequently occupied (as spinners) in the eighteenth century as they became (as weavers) in the nineteenth. See below, pp.296-7.

[3] See above, pp.196-201.

as a group they married later than other women. In the low bastardy era of cohort 1, mean female age at first marriage was 22.3 years. We shall see in the next chapter that among nineteenth century non-UMs the mean fluctuated inversely with prevailing short-run shifts in the economic climate but showed no secular tendency to rise.[1] UMs, however, had a mean age at marriage over the three cohorts spanning 1818-60 of 27.7 years. Of course they were simultaneously adding to their parents' costs part or all of the burden of supporting their illegitimate children. But something of the impact of unmarried motherhood on the parental generation's returns to childrearing can be gauged by supposing - what must be an exaggeration - that girls typically entered the labourforce as fully productive workers on their eleventh birthday. In the later eighteenth century, if for the sake of simplicity we take mean age at marriage as defining the point at which parents lost their earnings, they would have contributed around eleven years of service to their family of origin. Nineteenth century UMs, who on average delayed marriage until they were approaching 28 years of age, contributed c. 16.5 years of labour, or an increase of around 50%.

One could add that an eleven-year-old would not have been as skilled or strong as a woman in her twenties and that, since the marriage rate in Culcheth suffered an overall decline in the first forty years of the nineteenth century,[2] to judge things by age at marriage probably understates the true elongation of daughters' 'dependency' - although part of the latter effect

[1] See Table XXXV below, p.318.

[2] See Tables III and XVII above, pp.31 and 207.

might have been offset by an increased rate of emigration among the young unmarried population. We are dealing with crude extrapolations. But their import is clear: whether by accident or design the growth of unmarried motherhood must markedly have shifted outward the marginal revenue curve associated with their parents' 'production' of children.

It would be as well at this juncture to reiterate the empirical linkage between handloom weavers and the incidence of unmarried motherhood. A farmer's or a shopkeeper's daughter might well be able to combine motherhood with some degree of active involvement in the family enterprise and, allowing for some demonstration effect among the youth peer group, we certainly should not anticipate that <u>all</u> UMs would have been weavers or that their parental households would have been exclusively dependent on the handloom. Indeed, it was argued in chapter 2 that in the nineteenth century men's involvement with the trade was generally less than women's and by 1841 had moved fairly sharply away from it. Nonetheless, we saw in the last chapter that UMs were almost exclusively weavers during the high bastardy period, and the reconstitution material strongly suggests that their fathers were occupationally biassed in the same direction.

In the years following the mid-1820s the occupational history of married men, who can usually be picked up several times in baptism registers, indicates that they frequently drifted between labouring and handloom weaving unable, one supposes, to procure secure employment in either sector. This instability of occupation (which diminished over time as the range of non-weaving employment opportunities expanded, but which was very marked during cohort 4) means that a man's occupation at any one

time is a weak indicator of the occupational type of the household he headed - though it may be presumed that when he himself was registered as a weaver his family as a whole would have had a strong connection with the loom. Information on the occupations of UMs' fathers was therefore collected from as many reference points as possible. Notwithstanding the fact that some of the evidence was drawn from the censuses of 1841-61, when male handloom weavers were greatly diminished, it was found that of 212 fathers 174, or 82.1%, had been handloom weavers for at least part of their married lives (65.6%, indeed, had never been anything else). The remaining 38 were fairly evenly distributed between farmers, labourers and others. Further, in the case of 23 of the latter either the UM herself or some other member of her immediate family can be identified as a weaver, so that the proportion of UMs' fathers who headed households with no known connection with the handloom appears to have been no higher than 7.1% - and might well in fact have proved lower still were our information more complete.

But it is certainly an oversimplification to suppose, as our present model does, that all members of the household would have been weavers. Nor, even where this was the case would all children have extended their residence in the parental home by as much as nineteenth century UMs did. It is worth contrasting the position of UMs with that of their lovers or brothers, although here we can be somewhat less confident of the changes which the growth of illegitimacy brought in its train. Whereas the great majority of unmarried women in the high bastardy years (and this was particularly true of UMs) may be presumed to have been handloom weavers, the same is less true of young men in the

vicinity.[1] And it is unfortunate that the frequency with which men shifted to and fro between weaving and labouring (especially following the turning-point of the middle 1820s) precludes a trustworthy occupational differentiation of them by the age at which they married - that is to say, it cannot be shown that the protracted 'dependency' of handloom weaving daughters extended similarly to sons brought up to the trade. That this was so to some extent seems likely. We know that, at least until the mid-1820s, a majority of PFs were handloom weavers,[2] and that most UMs who married seem to have been espoused to their most recent PF.[3] It was also the case that the high age at which UMs married was paralleled by a relatively high age at first marriage among their spouses - overall the husbands of UMs had a mean age at first marriage of 27.0 years compared with 25.2 among other grooms (probability of significance = 99%).

It should be noted that in general men in Culcheth married at an older age than women, the respective overall means being 25.7 years and 24.3 (probability of significance = 99%). To this extent, and with consideration to their greater physical strength, it may be supposed that in absolute terms parents earned higher returns from their sons' labour than from that of their daughters (though in a rigorous assessment of this question allowance should also be made for the commonly observed tendency for males to receive preferential treatment in the distribution of scarce familial resources which might make them more costly to support in relation to their output). However, whereas the

[1] See above, p.39 et seq..

[2] See above, pp.214-6.

[3] See above, p.244.

influence of the spread of unmarried motherhood in raising the age at which women in general married was substantial - from a mean of 22.3 years in cohort 1 it rose to an average of 24.9 between 1818 and 1860 (probability of significance = 99%) - any effect which delaying marriage may have had on handloom weaving men was too slight to impart a shift upwards in overall male age at marriage. From a mean of 25.8 years during cohort 1 this rose only to 25.9 during the period 1818-60. Indeed male age at marriage in Culcheth had no strong temporal pattern. It was not even consistently related to short-run economic fluctuations.[1]

Two reasons may tentatively be suggested. First, insofar as unmarried motherhood aimed partially at restraining a woman's total fertility - by reducing her exposure to the risks of further pregnancies to lower than marital levels - the key to control lay in raising the woman's age at marriage, not the man's. In practice UMs who married (an important qualification) had overall a mean completed family size to menopause only 0.4 children fewer than non-UMs.[2] But since they included a high proportion of the village's youngest conceivers the likelihood is that had they married before their first child's birth they would have formed larger than average families. Secondly, it may be that since sons already in the eighteenth century devoted their labour services to their parental household until they were in their mid-twenties (using mean age at marriage as a loose proxy for what was typical) their parents were less able to exert pressure on them in the nineteenth century to protract their

[1] See Table XXXV below p.318, and pp.321-2.

[2] See Table XXXVIII below, p.332.

'dependency'. At the least, where daughters brought an illegitimate child into the household parents had material grounds for exacting a *quid pro quo* in the form of extended labour services. Regarded in another light, parents were attempting to equate actual returns to childrearing with *ex ante* expectations formed in days when piece-rates had been higher, and their bargaining position was stronger *vis à vis* their UM daughters than their other children.

Sons may therefore have been in absolute terms more rewarding to their parents than daughters. But it seems likely that the incremental labour which nineteenth century couples drew from their 'dependent' children came chiefly from those girls who became UMs. Taking both sexes UMs constituted a minority of children surviving to adulthood. It must remain an indeterminate question whether the extra years of productive service they gave to their parents, in conjunction with earlier entry to the labour market and generally increased working hours, would in fact have left the intersection of MC and MR curves associated with childrearing in approximately its later eighteenth century position during the years of the handloom's decline.

Two points, however, are clear. First, on the basis of the simple model we have used there are no grounds for supposing that nineteenth century conditions dictated a really sharp decline in total family size. None in fact occurred. We shall see in the next two chapters that although fertility appears to have reacted to short-run changes in the economic environment, there was no sustained contraction in completed family size during the first half of the century.[1] Secondly, though, any degree of stability

[1] *Ibid*..

which may have characterised the number of children which profit-maximising parents should have aimed at 'producing' must be seen as a somewhat fortuitous outcome. It seems to have depended importantly on being able to extract additional years of service from adult daughters, and this in turn appears to have been most feasible (for whatever reason) if the latter conceived at a relatively young age and opted to become UMs. It is true that as unmarried motherhood became routinised in Culcheth parents with a rudimentary knowledge of probability theory might have developed a quiet confidence that they would at some future date become potential beneficiaries of some such course of events. But they can hardly be held directly responsible for the fact or timing of their daughters' impregnation, and in the context of their own family formation strategies such eventualities lay remotely in the future - even the sex of the unborn child, let alone her potential libidinous proclivities, would have been unknown. In the absence of a daughter's unmarried motherhood (or, less certainly, a son's putative fatherhood) - and quite possibly where these did occur - the family size which would have maximised economic welfare must almost certainly have been <u>somewhat</u> lower in the nineteenth century than in the eighteenth. It seems highly unlikely, therefore, that the observed maintenance of high fertility in nineteenth century Culcheth can have owed much to parental calculations touching the intersection of marginal revenue and marginal cost curves.

Nor does the simple model we have utilised help us in making much sense of the spread of unmarried motherhood. From the girl's parents' point of view it would seem to have been preferable that she should remain not only at home but chaste,

since part of their own profits from childrearing were absorbed by the maintenance of her progeny. However, the model has serious shortcomings as a predictor of welfare-maximising behaviour in the context of family formation for it assumes perfect knowledge of costs and returns and an absence of uncertainty. We have already seen that parents were likely to be better informed concerning the benefits than the direct costs of childrearing and were thus inherently likely to overshoot the profit-maximising position. But more importantly, the financial returns to be anticipated from a given child's birth were spread over a period stretching perhaps a quarter of a century into the future. It is quite unrealistic to suppose that parents could have accurately foreseen the future course of piece-rates over such a period. Even after the advance of the cotton powerloom, when long-term expectations for the handloom generally must have been revised downwards, the silk industry to which Culcheth weavers turned was marked as much if not more by short-run instability as by any continuous decline in prosperity.[1] Nor, of course, could parents 'produce' at will to match whatever the unpredictably moving target of future earnings might have suggested to them was a welfare-maximising level of output. We have just seen that the quality or value of output (children) was neither homogeneous nor finely susceptible to prediction. Even had they had complete control over their fertility as normally meant, they had little over the sex of their children, their mortality chances or - and it must be remembered that we

[1] Cf. the course of raw silk imports with the long-run stability of wage rates discussed in D.C. Coleman, Courtaulds, an Economic and Social History (Oxford, 1969), 1.15 and 239-40. The industry was subject to much speculative stockholding. See R.C.O. Matthews, A Study in Trade-Cycle History (Cambridge, 1954), pp.12 and 17.

are considering the point of conception - the age at which survivors might eventually leave home. Their value as seers when predicting the final shape of the family which was to earn them economic returns can have been little better than that of haruspices.[1] We must set standards of rationality capable of fulfilment. Uncertainties regarding the future were considerable from both the economic and the family formation sides. We should expect therefore that distant costs and returns would be highly discounted and a higher priority placed on more immediate objectives.

The dominant economic constraint upon welfare in handloom weaving households was the general tendency for piece-rates to decline (even if their future behaviour could not be predicted closely). The protection of a given standard of living depended correspondingly on the expansion of output. In the nineteenth century technological advances were concentrated on the factory-based side of the industry - far from raising the handloom weaver's productivity they were tending to deprive him of his livelihood altogether. Moreover, there were physical limits to the individual's ability to expand output by increasing the hours of work, as well as opportunity costs in terms of leisure foregone. It made sense, given low childrearing costs, to maximise the size of the household's workforce - through high

[1] In the light of somewhat similar considerations Wrigley has proposed the general rationality of substantially uncontrolled fertility for preindustrial populations of the past. But his equation of individual and societal interests is weak on economic grounds, since it does not answer the ceteris paribus argument that large families are positively associated with poverty and therefore to be avoided. His discussion of 'unconscious rationality' also uses misplaced analogies with animals deficient in cognition. E.A. Wrigley, 'Fertility Strategy for the Individual and the Group', in ed. C. Tilly, Historical Studies of Changing Fertility (Princeton, 1978), pp.135-54.

fertility within marriage, the bunching of generations *via* an early commencement of childbearing, and even perhaps the substitution of illegitimate grandchildren for elder children who had left the parental household.

It may also be suggested that alternative forms of consumption or investment were few in such a district. The range of ordinary consumer goods (let alone durables) available to the early nineteenth century working classes was comparatively limited,[1] and must have been particularly so in rural areas. Friendly societies provided a savings mechanism, but their strictly limited objectives lay in staving off penury during critical life situations not in enabling their members to raise their living standards by accumulating a nest egg. Apart from protecting his family against sickness, unemployment and funeral expenses, the individual had little to save for, and few luxuries existed other than alcohol on which any surplus current income might be lavished. Hence the opportunity costs of children in terms of consumption or possessions foregone were relatively slight. Against the prudence of putting money aside for a rainy day - which may, of course, have happened notwithstanding the existence of large families - must be placed the fact that, while the economic environment was extremely insecure, the returns to rearing children were relatively certain and proximate.

The role of unmarried motherhood in this fecund environment demands closer examination. We have seen that parents could benefit from the phenomenon inasmuch that it seems to have enabled them to retain their daughters' earnings for longer than

[1] *Cf.* C. Wilson, 'Economy and Society in Late Victorian Britain', *Economic History Review*, 18 (1965), 183-98.

would otherwise have been the case. But there is no logical necessity for UMs in general to have married at a later age than non-UMs since, on average, they bore their first child below the prevailing age at which the latter were espoused. Moreover, since UMs tended eventually to depart from their household of origin, taking their offspring with them, their parents shared the burden of supporting illegitimate grandchildren while seeing little if any of the economic returns which their labour would eventually yield. Although such charges may have been necessary to secure a girl's delayed departure from home, unmarried motherhood in itself nonetheless entered her parents' childrearing accounts as a cost not a benefit. Any economic rationale it may have had should therefore be sought within the family formation process which the UM was herself initiating.

The fact that age at first conception in Culcheth, though fluctuating in the short run, showed no overall tendency to rise during the first half of the nineteenth century[1] is consistent with the present argument that a high-fertility regime remained economically advantageous in that period. The sooner a woman commenced childbearing the sooner would there be an extra pair of productive hands in the household. But if that was the ideal, why compromise it by becoming a UM, which in fact had the effect of reducing total fertility?

[1]See Table XVI above, p.203.

Table XXV. Birth intervals, in months, among church-marriage brides, 1781-1860.

Interval to birth no:	Non-UMs N	Non-UMs Mean	Non-UMs Median	UMs[1] N	UMs[1] Mean	UMs[1] Median
2	277	25.33	23.14	112	43.29	34.06
3	234	26.90	25.60	104	33.93	28.57
4	193	29.32	26.50	84	32.99	28.33
5	154	28.60	26.71	66	30.20	27.80
6	133	28.67	26.81	51	27.40	25.38

Note: 1. Including premarital fertility.

Part of the explanation may be that the population was in fact more sensitive to the possibility of raising too large a family than we have allowed. In addition, UMs who eventually married had achieved what was from an economic viewpoint a better spacing of their early births. Table XXV, which treats women's fertility history as a continuum - that is, without differentiating premarital from marital experience - shows, as one might expect, that the first intergenesic interval was particularly long in the case of UMs. But the differences, though slighter thereafter, were cumulative. Using the mean values as an approximate guide, roughly nine years from the commencement of their fertility histories - when an eldest child might be becoming economically productive - a UM would be bearing her fourth child, a non-UM her fifth, with obvious implications for their respective dependency ratios.

But these longer-term considerations aside, it is suggested that the crucial influence on women's preferences for unmarried

motherhood lay in questions of household structure. UMs residing with their parents reared their early children more cheaply than they could have done had they married. If for the moment one assumes for the sake of simplicity that newly married couples established their own households while UMs continued to live with their parents and sibs, the latters' advantages may be briefly summarised by examining the costs they were avoiding or reducing.

First, married couples might face certain one-off items of expenditure (on furniture, crockery, cooking utensils, looms, and so forth) which UMs did not. Secondly, a bride and groom had to shoulder between them the entire burden of the household's fixed costs (relating to lighting, heating, rent, etc.) whereas, as we shall see, in UMs' households these were typically spread over a larger number of productive workers. Again, a couple's early children probably involved them in higher direct expenditure than their later offspring, while initially they yielded no offsetting income at all - indeed, since the prospective bride was almost invariably pregnant,[1] the immediate prospect was usually that the marital household's income would decline, at least for a time.[2] In both respects the UM's position was superficially similar. But from a cost point of view her child constituted an increment to her parents' household. Indeed, so extended was the family formation process that a UM in her early twenties might often have siblings still below the age of ten, and in such cases there is more than theoretical convenience to regarding her child as

[1] See Table XIII above, p.182.

[2] For an interesting study of the impact of bridal pregnancy and birth spacing on material welfare see R. Freedman and L. Coombs, 'Childspacing and Family Economic Position', American Sociological Review, 31 (1966), 631-48; and ibid., 'Economic Considerations in Family Growth Decisions', Population Studies, 20 (1966-7), 197-222.

though it were the last of her parents' offspring, with the low marginal costs attaching to that position. And though every childbirth had the effect, at least temporarily, of reducing income its impact on the more productive households in which UMs resided would have been less critical than where half the work-force was made idle, as in an isolated conjugal family unit (CFU) at an early point in its development.

It is not possible to specify a certain point in the child-rearing cycle at which an economically rational UM should have changed her status for that of wife. This could depend on a large number of variables, including the spacing of her children's births, their mortality experience, and even that of her parents and other kin. We saw in the last chapter that courtship became increasingly protracted during the nineteenth century,[1] which suggests that UMs were reluctant to expose themselves to the high fertility of marriage until their existing children were approaching an age at which they might be at least marginally useful - perhaps in winding bobbins or simply watching over younger brothers and sisters - and the intergenesic intervals just considered are consistent with this interpretation. The burden of dependency quickly became excessive if childrearing commenced within marriage, but if this were avoided until returns from one's earlier progeny were at least within sight of realisation there was less reason for a couple to deny themselves their preference for living together. It may also be tentatively suggested that UMs tended to remain unmarried for as long as their household of orientation maintained an economically advantageous structure - which in the nature of the life-cycle was

[1] See above, pp.247-53.

unlikely to be the case indefinitely. But to this we shall return.

What actually determined the conscious decisions of individuals is impossible to establish. And in the absence of hard data on household costs we can only examine whether their observed sizes and age-structure conform broadly to the interpretation just suggested. With the aid of family reconstitution we know sufficient of the marital status of the population to be able to contrast the households of UMs - with whom, and not their fathers, illegitimate children invariably resided - and comparably placed wives at the time of the 1841 census, which lay still within the high bastardy phase of the township's history. Attention will be focussed on women below the age of 45 as this broadly defines the population of UMs for whom marriage was still in principle an available option. The term wife is here used to encompass widows, and women have been selected for study only if they had children below the age of twenty to support. There were 61 such UMs and 140 wives. Finally it should be noted that in defining 'household' the census enumerators' subdivision of housefuls into distinct though co-residential households has been respected except where the known existence of kinship or affinity across these divisions suggested that they should be ignored.

Table XXVI. Mothers' residential patterns, 1841 : proportion sharing house-room with adults other than family of procreation.[1]

Woman's age		did not share[2]	shared only with non-kin	others[3]
Wives	N	%	%	%
25	16	25.0	18.8	56.3
25-9	24	58.3	12.5	29.2
30-4	39	53.8	23.1	23.1
35-9	27	66.7	22.2	11.1
40-4	34	76.5	14.7	8.8
Total	140	59.3	18.6	22.1
UMs	N	%	%	%
25	16	-	12.5	87.5
25-9	16	12.5	12.5	75.0
30-4	14	7.1	14.3	78.6
35-9	11	-	-	100.0
40-4	4	25.0	-	75.0
Total	61	6.6	9.8	83.6

Notes: 1. Ever-married women and UMs aged less than 45 and having at least one living child below age 20. 'Adults' here signifies aged 15 or above. Spouses are excluded.

2. I.e., resided in isolated CFU.

3. I.e., shared with kin/kin+non-kin.

We shall first examine the types of houseful which predominated. Inevitably reality conspires to have been more complex and ambiguous than predicted. As Table XXVI indicates, the youngest group of wives were not typically living in isolated CFUs, and it might therefore appear that the theoretical comparison of marital and UMs' costs outlined above is thereby invalidated. This finding, however, is actually interpretively neutral, as it could well arise from the very costliness of forming an independent CFU at an early stage in childrearing, compelling those who were determined

to marry to become or take in lodgers or else to share with kin. In fact only 18.8% of wives below age 25 resided with their or their husband's parents, and the figure fell away in subsequent age-groups. Among all wives aged 15-44 the proportion was only 8.6%. By contrast for UMs it was 65.6% overall (probability of significance = 99%) and declined only from 75.0% to 60.0% between the under-25s and those aged 35-44.[1] Not surprisingly, 70.0% of these families of origin also contained siblings of the UM in question.

If one considers housefuls from which their parents were absent UMs were not very differently placed from wives. They (meaning <u>all</u> UMs) were about as likely to share with non-kin of a productive age - here held to mean age 15 or over - the proportions being respectively 23.0% and 24.3%; and similarly with respect to siblings (8.2% and 5.7%), and to other kin (4.9% and 5.0%). Our original postulate is therefore broadly sustained. The major difference between the two groups resided in the frequency with which they lived with their parents - UMs did so while married couples had to fend for themselves. If young wives nonetheless frequently shared with kin of some sort - typically siblings - it may be that marriage was associated with the dismemberment through death of the original parental households, and that this simply occurred earlier for some (who married) than others. But the numbers of cases where sufficient knowledge exists to test this hypothesis properly are too few to build confidently upon.

When examining families' relative productive strength the focus will be on kin-defined households. It should be recalled

[1] The high mobility of foreign UMs is implicit in these figures. <u>Cf</u>. above, pp.219-20.

that a UM's lack of a spouse placed her in principle at a disadvantage. With the 1841 census there is the odd instance where it is impossible to distinguish between widowhood on the one hand and a husband's desertion or merely temporary absence from home on the other. At the outside 14.3% of wives lacked a husband's support; among those aged less than 35 the proportion was only 6.3%. Yet despite married couples' initial advantage on this score their households contained a mean number of inhabitants aged 15 or over of only 3.27 compared with 4.05 for those in which UMs resided (probability of significance = 99%). And the difference was apparent through all age-groups: for example, below age 25 the means were respectively 3.50 and 4.13 (probability of significance = 87%).

Since household size could vary over quite a wide range it is probably preferable to examine the proportion of women residing in households of a certain structure. Overall, 33.6% of wives' households held only one or two inhabitants aged over 15 (including themselves), while 32.9% contained four or more such people. The more productive structure of UMs' households is indicated by the fact that in their case the figures were respectively 16.4% and 65.6% (probability of significance in both comparisons = 99%). Nor was this solely or predominantly a function of life-cycle stage. The larger households affected 37.5% of wives aged less than 25, but 68.8% of UMs; at ages 25-29 the proportions were 29.2% and 75.0%, and so on. Irrespective of age UMs tended to be living in households with a larger number of fully productive hands.

Ideally we should want to describe households as they existed when children, and particularly a woman's first, were

actually born. However, numbers of births occurring close to a given census were too few to be controlled for parity. Instead, two groups of marital households were isolated. One containing all wives below the age of 35 was taken as covering women who were, like UMs, at a comparatively early stage of their family formation cycle. The second (and there is, of course, some overlap between the two) covered all wives whose households contained a child below the age of two. Smaller numbers of illegitimate births demanded that to the UM households containing bastards aged less than two years should be added those in which an illegitimate birth occurred within the two years immediately <u>following</u> the taking of the census (information on which was available from the reconstitution material). Although it is recognised that neither group of married women is strictly comparable to the UMs selected, they may serve our approximate purposes.

Table XXVII. Age-structure of mothers' kin-defined households, 1841.[1]

Age:	<5 %	5-9 %	10-4 %	15-9 %	20/> %
UMs[2]	25.8	12.6	10.5	8.8	42.2
Wives (a)[3]	30.8	16.5	5.9	3.3	43.5
Wives (b)[4]	29.9	17.4	9.6	6.4	36.7

Notes:
1. Women aged less than 45.
2. UMs with a child aged less than 2 yrs, or who gave birth within 2 yrs following census.
3. Ever-married women aged below 35.
4. Ever-married women with a child aged less than 2 yrs.

Whichever way the sample is drawn similar broad features emerge. As Table XXVII shows, the households into which bastards were born did not have the overwhelming advantage predicted by our initial hypotheses. But they were, economically speaking, better distributed than those of married women, particularly if one considers that the productiveness of older individuals was likely more than to offset the net consumption of the very young. If, loosely, one reckons all those below the age of ten as dependents UMs' households, 38.4% of whose members fell into this category, were appreciably better placed than those of either group of wives, for both of which the proportion was 47.3%. Correspondingly, the former were biassed not only towards the marginally productive younger teenage group but more especially towards those who, being aged over 15, may be presumed to have been at or near physical maturity.

If one broadens the analysis once again to the generality of mothers (aged less than 45) only 27.9% of UMs' households contained two or more children below the age of five, compared with 47.1% for married women. And if one controls for a woman's age certain interesting anomalies appear in the UMs' position. It is not perhaps surprising that the continuity of wives' fertility kept the proportion of their household members who were in the dependent 0-9 years age-group fairly high as they themselves progressed through the childbearing cycle (when the wife was aged less than 30 the proportion was 43.1%; between the ages of 35 and 44 it still averaged 36.7%); nor that in UMs' households they should have diminished in significance from 33.0% to 17.3% across the same years of a woman's life. But wedded to this development was another which increased the UM's advantage, for while the proportion of

wives' household members who were in the fully productive age-group (15 or above) declined steadily from 60.3% when the woman was aged less than 25 to 46.8% among those aged 40-44, in UMs' households the income-earners increased from 52.3% to 73.3%.

This consistently and increasingly productive character of UMs' households runs counter to expectations respecting mortality among their parents and nuptiality among their siblings. And it is this which prompts the suggestion that UMs may have tended to perpetuate their status for as long as they had surviving families of orientation which continued to possess structural economic advantages over the households they would have had to enter if they moved out and married. On the face of it, indeed, the fact that 60.0% of UMs aged 35-44 still resided with either or both of their parents might seem to imply that support in old age was, despite our earlier reasoning, an important element in parents' anticipated returns to childrearing in Culcheth, and the district's declining marriage rate in the nineteenth century could also be interpreted in this light. However, relatively few UMs protracted their 'dependency' to this degree, only 15 of the present sample being aged 35-44 in 1841.[1]

Thus far we have said nothing of the opportunity costs of childrearing in terms of the earnings foregone by women in their guise as mothers. It is, of course, analytically contrived to treat the costs and benefits of raising children in this split fashion. But discussion of opportunity costs has been left to this stage because in Culcheth their relevance pertained particularly to <u>marriage</u> as the context of childbearing, not to

[1] See also above, p.269; Table XXXV, p.318 below; and Figure 16, facing p.320.

childrearing as such, and the topic is therefore properly an element in the elucidation of unmarried motherhood.

The 1841 census is deficient in its assignment of occupations, and particularly with respect to women.[1] We shall therefore have here to use the 1851 enumeration despite the fact that, lying just within the period of illegitimacy's decline and following the construction of the Bury Lane mill, the picture it yields both of occupational structure and of the incidence of unmarried motherhood will not be quite true of the high bastardy years.

The critical variable when assessing a woman's ability to work would appear to be the number of <u>young</u> children she has to look after, rather than her total family size. Attention will therefore be concentrated on women, whether ever-married or unmarried, who had co-resident children under the age of ten years to rear. Table XXVIII shows the occupational distribution of UMs in this position at the time of the 1851 census.

Table XXVIII. Occupational distribution of UMs aged 15-44 having a child below age 10, 1851.

Occupation	(1) N UMs	(2) % of UMs	(3) N single women	(4) (1) as % of (3)
handloom	33	64.7	103	32.0
mill	7	13.7	62	11.3
agric./labouring	4	7.8	44	9.1
domestic service	2	3.9	24	8.3
retail/other	1	2.0	12	8.3
unoccupied	4	7.8	27	14.8
Total	51	99.9	272	18.8

[1] See above, pp.64-6.

The data, of course, relate to current occupation, not that at the time of a child's birth. It is possible that women who began in some other line of employment were compelled to adopt domestic weaving as a result of becoming UMs. Nonetheless on the face of it the association between handloom weaving and bastardy, though presumably weaker than it would have been earlier in the century, was still paramount. If one excludes the unemployed the proportion of single women in other occupations who were UMs was only 9.9%, or less than one third of the level among the domestic weaving population. It will also be observed that few UMs were precluded from working by their condition - their participation rate, indeed, being slightly higher than for single women generally.

The domestic nature of the dominant trade in Culcheth also meant that marriage by no means necessarily terminated a woman's ability to earn. It is true that 78.6% of those women aged 15-59 who were <u>not</u> accredited with an occupation in 1851 were, or had been, married. Nonetheless, and although the handloom's employment potential had already declined substantially by this date,[1] 68.3% of ever-married women in this same age-group were registered as occupied (compared with 88.8% for unmarried women).

Table XXIX. Distribution of unoccupied women by age and marital status, 1851.

	unmarried		ever-married	
Age	N	% unoccupied	N	% unoccupied
15-9	106	10.4	1	-
20-9	123	8.9	81	22.2
30-9	29	10.3	88	31.8
40-9	26	11.5	86	37.2
50/>	23	39.1	138	42.0

[1] See Table VIII above, p.67.

Table XXIX indicates that among married women the ability to work bore a strongly inverse relationship to age which was not apparent among the unmarried population until ages above 50. The term 'ability' is used because although a woman might voluntarily cease work once her eldest children were earning this, if typical, would produce a fairly abrupt rise in the proportion of women unoccupied in middle age and not the gradual increase before that stage of life which is in fact apparent. These data can, however, be viewed in two ways. One could argue that on the whole the opportunity costs of marriage as such appear slight when Culcheth is compared with other societies lacking a domestic industrial base.[1] At no stage until their seventies was a majority of married women registered as unoccupied, and in the youngest age-groups (when women might be deliberating between marriage and unmarried motherhood) barely a fifth of wives were unable to contribute to their household's income. Alternatively one could say, with a glance at Table XXVIII, that in practice UMs nonetheless seem to have found it easier to work than wives, and that in a society forced to be acutely sensitive to income flows and dependency ratios this marginal advantage could have weighed in people's minds.

Table XXX. Percentage of mothers at work, 1851.[1]

Children	ever-married		UMs	
Aged <10	N	% working	N	% working
1	34	73.5	33	87.9
2	57	59.6	12	100.0
3/>	56	53.6	3	100.0
any	147	60.5	48	91.7

Note: 1. Women aged less than 45 having a child below age 10. Excludes women in agriculture.

[1] See above, p.68.

That this is not implausible can be seen if the focus is brought back specifically to women who had young children to raise, as is done in Table XXX. (Farmers' wives and their UM-daughters are here excluded on the grounds that we cannot know when their census entry was an occupational as opposed to status description.) The inverse relationship between work and a wife's childrearing responsibilities is immediately apparent from these figures, as is the contrast with UMs' earning abilities. The findings incidentally dispose of the possibility that UMs' generally higher labour participation rate was merely a residual of their lower fertility, since all those with more than one young child were actively engaged in earning their living.

This suggests that although UMs were doubtless aided by the wide spacing characteristic of their births, their major source of advantage lay once again in the economically superior structure of the households in which they resided. They contained more potential childminders than their marital counterparts - teenagers or adults who could share in the responsibilities of looking after children while they themselves were not working, thereby realising a different aspect of returns to scale in childrearing to those discussed earlier. The qualification should be added, though, that in the heyday of the handloom when a larger proportion of men were themselves weavers and therefore working at home, the diseconomies of marriage in terms of opportunity costs might have been somewhat less significant than they appear to have been by 1851.[1]

Just how important a wife's earnings might be to a family can only be conjectured. There is substantial evidence from the

[1] See also the discussion of marital fertility in cohort 5 below, pp.371-3.

nineteenth century that they often played a critically important role in keeping a household above the breadline.[1] In absolute terms women's wages do not in general appear to have offset regional disparities in male earnings, since they were frequently determined in relation to the latter.[2] In domestic weaving, where payment was by the piece, there can have been no formal sexual differential, but wives must usually nonetheless have contributed less to family income than their husbands because of their additional domestic duties and very likely also their lesser muscular strength. In a sense, indeed, the latter restriction on their earning power justified the former since the income foregone in allocating most childrearing tasks to women was correspondingly lower than when these roles were filled by men.

However, the absolute value of a wife's earnings was probably less important than the fact that they topped up a man's wages, could help carry the family through periods when the chief breadwinner was sick or unemployed (though this effect would have been slight where both were weavers),[3] and could enable a careful woman to put a few pennies aside for treats or emergencies without being accountable for them to her husband. Where families were seldom prosperous in any case even a marginal reduction of total income could have been of marked significance for their welfare, and particularly since in practice a wife's withdrawal from the labourforce occurred as a direct result of events which increased the household's expenditure.

[1] I. Pinchbeck, Women Workers and the Industrial Revolution, 1750-1850 (London, 1930), passim.

[2] E.H. Hunt, Regional Wage Variations in Britain, 1850-1914 (Oxford, 1973), chapter 3.

[3] The importance of complementarity of employment, especially where production was seasonal, is tellingly described in G. Stedman Jones, Outcast London (paper edn., London, 1976), chapter 2.

It should incidentally be noted that even where wives remained nominally members of the workforce the comparatively short-staffed character of their households is likely to have meant that on average they would have been able to devote less time to paid employment than their UM counterparts. In sum, though the opportunity costs of marriage in Culcheth were probably lower than in many other districts, in the hard times of the first half of the nineteenth century they can scarcely be regarded as having been negligible. And it is analytically significant that they affected wives more than UMs.

On the other hand, it is by no means impossible that later on in the life-cycle the combined earnings of a woman and her elder children could have exceeded those of a man even if individually he worked the longest hours or wove the more specialised qualities of cloth. This distant prospect would scarcely constitute a direct influence on the prevalence of unmarried motherhood - particularly as UMs were for the most part married by that stage of life - but the relative economic power of men and women weavers may have played a part in accounting for the initial growth of bastardy in the opening years of the nineteenth century. For this phenomenon seems to have coincided approximately with a switch in women's employment from spinning to weaving.

No other specific event in the township's history is known which could have sparked off the growth of unmarried motherhood - as with the abstract workings of the trade cycle, what keeps events moving in a certain direction is often easier to explain than behavioural turning-points. But equally it is not in fact clear that a <u>deus ex machina</u> is required, any more than it would be in accounting for the discovery of fire or the invention of the wheel.

Culcheth already had a fairly high frequency of unmarried motherhood and it was perhaps only a matter of time before people began to notice that as an institution it had economic advantages. It may seem perverse or dim-witted that they appear to have done so not during the inflationary 1790s but only after c. 1800 when economic conditions had temporarily stabilised, but this does not necessarily demand special explanation. Moreover, the initial growth of bastardy in the 1800s could have been in part the unintended consequence of a temporary housing shortage in the district. We shall see in the next chapter that one of the most prolific groups of brides in our period was that marrying in cohort 1,[1] a good many of whose children reached adulthood in the first decade of the nineteenth century. That the supply of housing lagged behind this boom in potential marriage partners may perhaps be inferred from the fact that population density per inhabited house increased from 5.69 to 6.42 in the decade 1801-11, or a growth of 12.8%. Nonetheless this is unlikely to have been a primary influence on illegitimacy, for as we saw earlier few of the decade's UMs bothered quickly to rectify their situation.[2]

The possibility that the growth of illegitimacy was related to women's shift out of spinning and into weaving should therefore be considered. It is not possible to date this change at all closely,[3] nor even is it known whether later eighteenth century women typically found continuous employment of any sort. By 1813, however, the consistency with which UMs are described as

[1] See Table XXXVII below, p.328.

[2] See Table XXII above, p. 242. Cf. D. Levine, Family Formation in an Age of Nascent Capitalism (London, 1977), chapter 9, which is discussed above, p.7.

[3] See above, pp.40-2.

weavers creates a strong presumption that females' participation in the labourforce was by that stage substantial. The expansion of women's employment in weaving cannot be assumed to have increased the individual's earning power, but there must be a strong probability that it did so and the possibility that to some women it brought work (or an ample supply of it) for the first time, as a result of which their social as well as economic independence may have been enhanced. Perhaps as important would have been the effect on the authority position and general status of men, who now in a sense competed with women industrially. Since we know so little of eighteenth century female employment opportunities we cannot assert that a father's role as sole provider for his family was threatened by women's adoption of weaving - the chances are that he had never been in this position - but his relative advantage as an income earner could have suffered, and unless he were a weaver of fancy work[1] he would no longer be able to claim any monopoly of knowledge or skills with which to bolster his status as pater familias. 'Men's work' was now women's work too.

Moreover, given the long-run tendency for piece-rates in the industry to decline, a desire to protect living standards would have made the achievement of marginal increments to output of growing importance, thereby increasing families' dependence on the labour of those who had previously been most underemployed or who had not worked at all. In the context of a young marital household this could only mean an increased economic role - and perhaps also improved status - for the wife. Quite possibly it was this developing set of circumstances which initially inclined

[1]Culcheth weavers are not known to have had any specialism.

women to question the marriage norm.[1] Men were no longer sure providers on whom they could depend for their and their children's support. To some extent, on the contrary, the reverse was appearing to be the case.

Shifting our focus somewhat, it might be supposed that if the growth of unmarried motherhood was related to gaining economic advantage, the benefits of this foresight would be reflected in markedly lower infant mortality rates than those which, by virtue of their commonly disadvantaged upbringing, are normally associated with illegitimate children. Table XXXI reclassifies the material originally presented in chapter 2 to a 5-cohort basis, distinguishing legitimate from illegitimate infant mortality. Continuity of observation in the case of married couples, since they raised larger families and so left more trace of their presence in the township, is usually easier to establish than it is for UMs. Illegitimate children were included in the analysis if their mothers were 'sighted' in the district within ten years following the relevant birth. As a result their true mortality levels may be somewhat understated, for observation cannot really be said to be continuous in such instances. This is by no means necessarily the case, however, for married couples could also disappear undetected by reconstitution techniques over long enough periods for the mortality of their infant children to be similarly underestimated.

[1] Cf. G.S. Becker, 'A Theory of Marriage', Part I, Journal of Political Economy, 81 (1974), 822, who suggests that an increase in women's wages relative to men's is likely to decrease the incentive to marry.

Table XXXI. Infant mortality per 1,000 live-born children, by status of birth.

Cohort	legitimate N births	legitimate mortality rate	illegitimate N births	illegitimate mortality rate	total N births	total mortality rate
1. 1781-92	348	69.0	22	136.4	370	73.0
2. 1793-1817	943	65.7	87	46.0	1030	64.1
3. 1818-28	443	63.2	92	119.6	535	72.9
4. 1829-42	411	65.7	140	107.1	551	76.2
5. 1843-60	535	114.0	187	144.4	722	121.9
1781-1860	2680	75.4	528	113.6	3208	81.7

Taking the period as a whole it is clear that illegitimate infants suffered higher mortality than legitimate children (probability = 99%). Nor are these results affected by controlling for parity. Bastards were more likely to be first-born children and might on this account have had higher mortality chances independent of their mother's status at confinement. But in fact rates among the first-born differed very little from those of children generally: 70.3 per 1,000 for legitimate children and 113.3 for bastards (probability of significance = 99%).

It would, however, be naive to suppose that cases of unmarried motherhood were not on occasion attended with real deprivation. Indeed one should expect that a high proportion of infants whose premature death was attributable to neglect or poverty would have been born to unmarried women, deserted perhaps by a lover, lacking locally resident kin to supportthem during and after childbirth, and possibly hounded also by the Poor Law. Virtually by definition the kin-based households which have been described in this chapter as offering to indigenous women an attractive alternative support system to marriage were not

available to the substantial numbers of foreigners who nonetheless may be presumed to have participated to some extent in the culture of the district and to have run corresponding risks. Some margin between legitimate and illegitimate mortality must be anticipated on this score.

It may here be significant that the years 1843-50 were marked by particularly high mortality amongst the latter (215.1, compared with 105.3 for legitimate infants). These were years, we have seen, when pressures appear to have been brought to bear on the population to adopt matrimony as the proper context in which to bring up children.[1] Whether the social stigma of illegitimacy could be so radically intensified by the denunciations of the Church as to result in a sharp increase in mortality among the unfortunates so castigated may be strongly doubted. More likely perhaps that a change in relief policy on the part of the Poor Law authorities prejudiced the position of UMs - in which case it may be to them rather than to the activities of the Rev. F.A. Bartlett that Culcheth's renewed attachment to marriage should be largely accredited. This may indeed have been the case. But against it is the fact that no record of any such policy change has been uncovered in the Leigh Board of Guardians Minute Books (which are admittedly singularly uninformative) or in their voluminous correspondence with the Poor Law Commission or Board in London,[2] as is also the fact that during the decade 1851-60 illegitimate infant mortality was actually lower than among legitimate children (respectively their levels were 78.1 and 119.6), which by

[1] See above, pp.29-31, 200, 222 and 235-6.

[2] Wigan Borough Record Office, Leigh, G.Lei. 8/1-3; P.R.O., MH 12/5926.

the same argument would seem to imply that bastardy began as abruptly to be accorded privileged status by relief officers.

The experience of the years 1843-50 may therefore be fortuitous. If they are abstracted, the respective rates for illegitimate and legitimate infants during the remainder of the period 1781-1860 become 92.0 and 72.8 (probability of significance = 95%). In other words these eight years result in the overall figures appreciably exaggerating the gulf that divided the two groups of children's mortality experience. But even without this adjustment the mortality of UMs' infants did not exceed that of legitimate children by anything approaching the factor of two which would normally be expected. It lay indeed around one third lower than the national average for general infant mortality as it existed in the min-nineteenth century. Deprived these children may have been, but not in general on account of the illegitimacy of their births.

Particularly in view of the above remarks concerning the 1840s one further aspect of unmarried motherhood in Culcheth which should be examined is its relationship with the Poor Law. Unmarried motherhood was not in itself a criminal offence in England. But as defences against it were likely to be weakest amongst those who had least interest in matters of heritability and who for similar reasons were those most likely to fall on parish relief - compounded in the case of UMs by their frequent inability to combine the twin roles of childrearing and supporting a family - there had long existed a tendency for UMs and their progeny to become entangled with the Poor Law authorities who, as protectors of parish rates, as predictably found their dependency an unwelcome embarrassment. After all, the original

Elizabethan statutes had, in effect, been framed to aid those rendered underemployed by the unseen hand of general population growth, not those who unnecessarily and wantonly brought this fate on themselves. And the UM remained thereafter tainted by her association with the 'undeserving' poor.

This position was reinforced rather than qualified by the early nineteenth century tide of abolitionist thought concerning the Poor Laws. As though most UMs did not already suffer enough from existing legal and social prejudices it was argued by the Poor Law Commission, supported by many of the guardians of parochial rates and morals whom they consulted, that UMs commonly used the existing affiliation laws to secure a dishonest livelihood from the bearing of bastard children.[1] The charges themselves would almost certainly not bear scrutiny in terms of the paltry sums which UMs commonly received, let alone with regard to the circumstances by which they typically arrived at their condition - though no doubt common whores found bastardy orders a useful supplement to their income - but this is not in any case the place to embark on a critique of the Commission's purported findings. It is, however, worth examining the likely effects of changes in the law upon the incidence of unmarried motherhood in Culcheth, and also the frequency and nature of transfer payments to UMs which occurred via the township's overseers, although it is not proposed to discuss the fine-tuning of the laws on bastardy which punctuated our period.

[1] The Commission's aims and achievements, and also the intentions and effects of subsequent legislation within our period, are well summarised in U.R.Q. Henriques, 'Bastardy and the New Poor Law, Past and Present, 37 (1967), 103-29.

The single most important legal problem appears to be to explain why so many women who were not locally born were permitted to bear their illegitimate children in the district (whereby, until 1834, the latter gained a local settlement and thus a claim on the rates) without being previously removed to their parish of legal settlement. Some of the UMs known to this study as 'foreigners' would actually have been locally born, their births simply having left no record in the baptismal registers. And some others would probably have acquired a local settlement by means which cannot now be established. But the total number of foreign UMs was substantial and is most unlikely to be explained away by either of these means.[1]

The only plausible explanation for parochial lassitude in these cases would appear to be that overseers calculated that to remove such women would prove more expensive than permitting them to remain and bear their (potentially chargeable) children locally. In net terms nineteenth century Culcheth was a persistent loser by migration. We cannot establish whether emigrees were as likely to become UMs as those who remained in the township; nor whether, having migrated, they remained handloom weavers and therefore prone to poverty. Constraints affecting occupational and geographical mobility would probably have worked in this direction, and either of the conditions mentioned above would have sufficed to cause an expensive action aimed at having them removed, at Culcheth's expense, to their native township. At all events, the tide of migration flows was such that unless those who left sharply improved their status and behaviour elsewhere any policy of removing pregnant foreign women from the district would have

[1]See Table XVIII above, p.218.

run the risk of provoking retaliatory and more than offsetting action from other townships in the region.

When assessing how the laws touching affiliation and relief were actually applied in Culcheth we have as usual to work inferentially, for want of contemporary comment and memoranda. Briefly it appears that under the Old Poor Law bastardy orders were usually obtained at the instigation and for the indemnification of the township, and were not therefore instruments by which avaricious women could enrich themselves at the expense of naive lads and innocent gentlemen. Several pieces of indirect evidence point in this direction. A particular study was made of affiliation practice regarding illegitimate children born in the years 1826-34, as this period has left rich documentary evidence in the form both of bastardy orders and, more importantly, parish bastardy account books.[1] Between them these sources constitute a reasonably complete record of parochial involvement with UMs at a time when official 'interference' in such matters was evidently at its height in the district.

The material shows first that the proportion of illegitimate children affiliated declined from 45.9% in 1826-8, through 29.6% in 1829-31, to 11.5% in 1832-4. Since the period in question was generally one of economic deterioration this pattern is less likely to reflect UMs' personal interests than those of the parish in avoiding administrative expense. Secondly, of 25 PFs known to have married women who were UMs in these years, six had orders placed upon them. Although this is, at 24.0%, a much lower proportion than among PFs in general (52.9% of whom received bastardy orders) it nonetheless suggests parochial rather than maternal

[1] PLP Affiliation Orders and Confirmed Orders, 1745-1842; PLP Bastardy Account Book, 1831-8; Lancs. C.R.O., PR 2853/1/11-12.

action. Thirdly, in 18 out of 32, or 56.3%, of cases where a UM is known to have had two successive children by the same PF the first child was affiliated despite the fact that the couple had patently not parted from each other at this point (one cannot, after all, regard the bastardy order as forcing an unwanted match on the men in question since no wedding resulted from it). It may be added that, as we shall see, some UMs at least received bastardy 'pay' from the parish without possessing an affiliation order, so that women need not have seen their instigation of proceedings against the father as a necessary condition of their receiving supportive income - nor, of course, was possession of an order a guarantee of its fulfilment.

If it was, then, generally the parish which took upon itself the task of bringing culprits to book, it must logically be accepted that the existence of a bastardy order tells us little of the relations subsisting between UM and PF, but rather more about changes in administrative zeal or public policy. The proportion of illegitimate children affiliated in the later 1820s seems to have been much higher than in the period generally. Despite probable lacunae in the records surviving from the 1790s and 1800s it seems unlikely that the number of orders taken out typically affected more than one quarter to a third of illegitimate births taking the period of the Old Poor Law generally (consonant with the new principles it was a much lower proportion than this thereafter), which in itself suggests that the township did not feel unduly threatened by the prevalence of unmarried motherhood. The alternative interpretation, that they were simply overwhelmed by the phenomenon, is arguable. But even in the period of concerted administrative action overseers appear to have involved

themselves selectively, and at no time under the Old Poor Law does their relief policy appear to have been informed by antagonism to the plight of UMs - as might, for example, have been evidenced by having them sent to Kirkdale House of Correction as 'lewd women', or by terminating their bastardy pay when the stipulated sums had not been received from the PF (though, selectively again, they did this on occasion).

The overseers' discrimination is revealed in the following ways. First, they less frequently took out orders for foreign women's progeny than for Culcheth-born UMs' - in the years 1826-34 the proportions being respectively 19.2% and 43.4%. This may have been related to consciousness of foreign UMs' semi-vagrancy - the highly mobile were as likely to quit the village as become an encumbrance upon it, and the transactions costs involved in transferring money from PF to UM were higher where the latter had a rootless disposition. But it probably also reflects the social indivisibility of poverty, which pertained to households rather than individuals. A foreign UM's bastard might be locally settled, but if its mother was not the simplest procedure was to regard the child's poverty as affecting its mother and so to get her own parish to reimburse Culcheth for whatever relief she required (<u>via</u> the agreements which existed between many townships and which aimed at the avoidance of removal expenses), however frequently this need in practice arose from her UM status. The fact that around one fifth of foreign UMs' children <u>were</u> affiliated between 1826 and 1834 may reflect no more than that their PFs were known and to hand.

Secondly, there was a slight tendency for second and subsequent children more frequently to receive the benefit of an

affiliation order than a woman's first child. In the years 1826-34 the proportions were respectively 33.8% and 26.9% (probability of significance only = 83%). The differences may be too small to warrant sociological interpretation. Certainly, the possibility that UMs who bore more than one bastard were considered whores against whom the parish found it necessary to take protective action is scarcely borne out. But if the differences have some behavioural significance it is likely to be that overseers calculated, quite simply, that a woman with two or more young dependents was more likely to fall on the parish than if she had but one. That this was their approach to things is broadly supported by the circumstances surrounding those affiliation orders which, contrary to general practice, were not made out until some time had elapsed since the birth in question. 57.4% of orders obtained under the Old Poor Law between 1781 and 1834 where the child's approximate date of birth is known were taken out before it had reached six months of age. But in 14 out of the 61 cases (23.0%) the interval was more than two years. In six of the latter two children were affiliated on a single father on either the same or proximate dates. These circumstances suggest that it was the imminent or recent arrival of a second birth which prompted administrative action, not a PF's desertion of the elder child. In a further six of these fourteen cases, however, it is known that the second child was by a different father than the one being affiliated - which despite small numbers may be an indication that overseers acted particularly when it was clear that an erstwhile love affair had come to an end. This facet of administration cannot be more closely pinned down with available data. But if the interpretation were correct it would imply that PFs would normally have given some form of support, either a regular sum or

as need and ability arose, without the prompting of the law - which is probably better viewed in any case as a net to protect the vulnerable than as an instrument of social engineering.

Finally it appears that PFs not resident in the district were more frequently in receipt of bastardy orders than those who were. As we saw in the last chapter this was not merely a feature of the zealous years of the later 1820s,[1] and in itself it is inconsistent with a regime which had permitted events to pass beyond its control, since the transactions costs of enforcing orders against distant PFs must have been high and not lightly entered into. In the years 1826-34 children of non-local PFs were affiliated in 64.7% of cases, while for those whose fathers resided in Culcheth the proportion was only 46.7%; and in the period more generally the difference was substantially greater than this. The parish officers' reasoning here had several possible sources. On the one hand men who were not locally resident could not usually fall on the township's rates as paupers, so there was nothing to be lost by extracting as much from them as possible. Secondly, the PFs concerned were seldom weavers and may have been considered better able to pay than local men on that account.[2] Finally outsiders no doubt needed official prompting more frequently than Culcheth residents who were open to kin and neighbourhood pressures 'voluntarily' to fulfil obligations to their offspring.

But affiliation orders do not encompass the overseers' financial dealings with UMs. Surviving accounts[3] indicate that

[1] See above, pp.215-6.

[2] Loc.cit.

[3] PLP Bastardy Account Book, 1831-8.

under the late Old Poor Law at least the following were also features of the regime. First, the township sometimes continued for several years to pay a UM money due on a bastardy order which the PF had ceased to honour. Secondly, they sometimes paid a UM bastardy 'pay' in cases where no order had ever been made out. Thirdly, regular payments were occasionally made to a UM even after she had married someone other than the relevant PF and was no longer strictly a UM at all. And finally the township sometimes paid UMs at up to half-yearly intervals - which involved the transmission of sums of the order of 26/- or more at a single transaction. All four practices suggest that the sums involved were considered as being by way of a UM's (or child's) right, a form of pay rather than of relief.

However, this is almost certainly a misleading impression. Family reconstitution suggests that only a minority of UMs were on the parish's books - for example, the Bastardy Account Book from which the preceding facts were gleaned seems to have covered no more than perhaps a quarter or fewer of those UMs who would have had young children to support during the years in question. Nor, when closely examined, do the account books suggest a consistent payments policy with regard to UMs who <u>were</u> in receipt of public funds. Even controlling for child mortality where known, there was no apparent uniformity in the length of time during which payments were made (though it would often be until the child was aged between six and ten years); or in their level (bastardy orders were typically for less than 2/- per week - in practice sums recovered were usually markedly below those directed - while parish 'pay' ranged between 6d. and 2/-); or even in the regularity with which they were made (a circumstance which affected

parish 'pay' almost as much as receipts in respect of bastardy orders). In other words, a UM's 'right' to pay was actually much more circumscribed than a casual reading of the account books might suggest. In practice, as with any other form of poor relief, it seems most likely to have depended primarily on her needs.

None of this suggests that the generality of Culcheth's UMs either in fact benefited financially from the public purse as a matter of course or bore illegitimate children with that intention in mind. Nor on present evidence can it even be suggested that they were more advantageously placed with respect to poor relief than their married counterparts who also had young children to support. For poverty, and pauperism, were fundamentally household not individual matters. Whether UMs in receipt of pay from the township (or *via* bastardy orders from a PF) were thereby precluded from claiming ordinary poor relief, which it was open to married couples to avail themselves of, cannot be established because the township's general disbursement books give too few personal details for many of the recipients to be identified. But it is possible.

In any event poverty was perceived at a family level and however the account books were organised transfer payments through the poor law must also be presumed to have benefited household members generally. Possibly UMs who did not appear in the township's account books *qua* UMs were nonetheless supported partly through ordinary relief paid to their parents. Ultimately it is quite artifical to identify individual beneficiaries or to use bastardy papers to measure the scale of public subsidies to unmarried motherhood, let alone as an index to their material welfare compared to other women.

For this reason, taken in conjunction with the likelihood that most UMs had never previously instigated bastardy proceedings in any case, the alterations to the law effected by the 1834 Poor Law Amendment Act, which were intended particularly to discourage the affiliation of illegitimate children, cannot of themselves have made much difference to Culcheth's UMs. Their households remained entitled to ordinary relief even where their need of it may on occasion have owed something to the existence of illegitimate children. What could have made a difference was the tightening of control on the granting of out-relief more generally, since this could have prejudiced the position of the households of which UMs were members. But the timing of the eventual downturn in the frequency of illegitimate births in the township does not coincide with any known policy development on this front.[1] The law, it has been suggested, was invoked against unmarried motherhood, but chiefly in its marital not its economic aspect.

Chapter 7

Marital Outlines

In Culcheth as elsewhere the contraction of a marriage was typically marked by a wedding in church, and it is the demographic outlines of these church-marriages with which we shall be concerned in this and the next chapter. For a substantial minority, however, marriage had a less formal and, to the historian at least, a more ambiguous significance. In chapter 9 we shall therefore examine separately the evidence relating to CLMs in the township. For the present our attention will be focussed on the terminal points of church-marriages: the demographic characteristics of partners at the inception of their unions and the numbers of children born to them in subsequent years. What may be regarded as the internal history of marriages as viewed narrowly by the demographer - the fertility measures from which he seeks to infer the existence or absence of contraceptive practices in a community - constitute a sufficiently distinct bundle of perspectives to warrant a chapter of their own.

As in other corners of this work, widows and widowers will be weeded out of the discussion. Table XXXII indicates the frequency with which remarriages occurred in Culcheth during our eighty-year period. 6.5% of fertile church-marriages are thought to have involved widowers and 2.1% widows. These estimates will almost certainly be understatements since it was not until the new format introduced in 1837 that marriage registers recorded each partner's status anterior to the occasion. Before then ignorance of the marital history of immigrants to the district precludes identifying any who had been previously married. A

further source of understatement lies in our inability before 1837 to pick up infertile marriages, for it is plain that widows in general are more likely by virtue of their age to make infertile brides than are spinsters.

Table XXXII. Fertile remarriages : the widowed percentage of brides and grooms.

Marriage cohort	total marriages	widows		widowers	
		N	%	N	%
1781-1800	144	4	2.8	6	4.2
1801-50	318	6	1.9	20	6.3
1851-60	104	2	1.9	11	10.6
1. 1781-92	91	4	4.4	4	4.4
2. 1793-1817	156	3	1.9	9	5.8
3. 1818-28	79	1	1.3	3	3.8
4. 1829-42	55	1	1.8	5	9.1
5. 1843-60	185	3	1.6	16	8.6
1781-1860	566	12	2.1	37	6.5

This expectation doubtless explains part of the greater frequency of widowers than of widows among the FRF population of spouses. Of the 45 or 8.0% of fertile church-marriages in which at least one partner had been previously married, 33 were unions of a widower to a spinster. In eight cases a bachelor married a widow, and in the remaining four both partners were widowed. The true relative frequency of the last two combinations is most unlikely to have been as indicated here, with bachelor-widow marriages twice as common as the union of widower with widow. The former are simply more easily picked up in Culcheth because the widows who married bachelors were usually younger (and hence more likely to be fertile) than those who married widowers, as can be seen from Table XXXIII. On the other hand, the preponderance of fertile widower-spinster marriages over bachelor-widow unions may

well reflect the true relative frequency of such arrangements, since the mean ages of the fertile brides in these two groups were not dissimilar, and were well below the age of menopause.

Table XXXIII. Mean age at marriage in years, where either partner widowed, 1781-1860.

Class of marriage:	F mean (N)	M mean (N)
widow-widower	38.75(4)	37.00(4)
widow-bachelor	29.88(8)	27.10(5)
spinster-widower	31.22(29)	42.66(25)
all widows/widowers	32.83(12)	41.88(29
2nd marriages only	33.23(11)	40.87(27)

A point which, in view of the numbers involved, can only be regarded as of minor interest is that between 1843 and 1850 four of the six spinsters who married widowers were UMs. Expressed in another way, 10.0% of spinster UM church-brides during these years married widowers, while the same was true of only 5.0% of their non-UM peers. This was a period, as we have seen, in which there appear to have been attempts to correct the district's fertility mores, and it may be that in the short term clerical enthusiasm for getting UMs married off ran up against a shortage of eligible bachelors.[1] An alternative possibility, that this pattern is a pointer to the frequency with which unmarried motherhood was the outcome of adulterous relationships, is not borne out by the evidence to hand. In none of the cases is it demonstrable that the man had fathered a child on his future UM bride while he himself was still married to another woman, and in only one case does this seem at all likely.

[1] See the discussion of Table II above, pp.29-31; but *cf.* Table XXXVI below p.322.

For the years following the middle of 1837 the proportion of widows and widowers among Culcheth's marriage partners as a whole can, for the first time, be assessed with accuracy since the explicitness of marriage registers with regard both to status and domicile enable us to identify Culcheth people whose unions were infertile. Over the period from mid-1837 to the end of 1860, in 43 (or 13.4%) of the 321 church-marriages involving at least one Culcheth resident which were found in our catchment area, or one or both partners had been previously married.

Given the tightening up of marital institutions in these years (which one would have expected to have affected the marriage-avoiders in the population more than the widowed) it may be that the true proportion of matches in which one or other partner was remarrying had been even higher than this during the first sixty years of our period. But we must remember that Joseph Jones levelled his strictures against the behaviour of 'many .... who are past the mid-day of life' as well as against the immorality of the young:[1] the marriage rate among the widowed population during the 1840s and 1850s might have shared the upward pressure being exerted on UMs and PFs in these years.

In any event, the material for the period following 1837 confirms the impression that women did not remarry as often as men in Culcheth. During this period 10.9% of grooms were widowers, but only 4.7% of brides widows. It also supports the suspicion that our inability until 1837 to identify infertile marriages leads especially to understating the true frequency with which both partners had been previously married. Between 1837 and 1860

[1] See above, p.173.

there were seven such unions (16.3% of our 43 cases of remarriage, compared with the four out of 45, or 8.9%, found in the period as a whole when only fertile marriages are considered). Finally the data from mid-1837 onwards confirm that widower-spinster unions were much commoner than bachelor-widow ones. Where there were 28 marriages of the former type there were only eight of the latter.

As was explained in chapter 3, the desire for a homogeneity of approach to the Culcheth demographic material has led to the exclusion of infertile unions from this study in the post-1837 period in order to render these years directly comparable to those which preceded them.[1] Thus to concentrate entirely on fertile marriages reduces the sample of remarriages on FRF to numbers which are too small at a cohort level to be worth treating with or against the rest of the marital data. Hereafter it should be understood that our focus is therefore upon the 554 fertile marriages in which the bride was a spinster. The status of husbands, having a much lesser impact on the fertility of unions, will be ignored.

Table XXXIV. UM percentage of spinster brides.

Marriage cohort	N brides	N UMs	%
1781-1800	140	16	11.4
1801-50	312	102	32.7
1851-60	102	23	22.5
1. 1781-92	87	10	11.5
2. 1793-1817	153	24	15.7
3. 1818-28	78	27	34.6
4. 1829-42	54	17	31.5
5. 1843-60	182	63	34.6
1781-1860	554	141	25.5

[1] See above, pp.118-9.

Overall around one quarter of spinster church-marriage brides had formerly been UMs. The proportion reached 47.5% during the marriage-boom years of 1843-6, but thereafter declined as the offending population itself diminished in significance.

As we have seen, unmarried motherhood became not only commoner in the first half of the nineteenth century but also an increasingly protracted phase of the life-cycle.[1] The effect of these twin phenomena on the age at which women in general married was appreciable. Mean and median ages rose by almost three years in the half century between the prosperity of cohort 1 and the structural economic crisis of cohort 4. At the same time, of course, the marriage rate during the later period was less than half the level of the earlier.[2]

In the eighteenth century UMs actually had a somewhat lower mean age at marriage than their non-UM counterparts, although small numbers of the former reduce the trustworthiness of the comparison (probability of significance = 86%). One influence here was that as avoidance of marriage became more general it increasingly affected the lives of older conceivers, whereas in the low bastardy phase unmarried motherhood had been more concentrated amongst the youngest girls.[3] Another was probably the slight degree of ineligibility attaching to UMs in the early decades, such that they were only likely to marry at all if they wed their PF, which in turn tended to imply a fairly prompt rectification of affairs.[4] In the high bastardy years of the

[1] See above, pp.247-52 and 268-9.
[2] See Table XVII above, p.207.
[3] See Table XV above, p.197.
[4] See above pp.195 and 231-2, and the Tables on pp.246 and 248.

Table XXXV. Mean and median age at first marriage, in years.

Marriage	Non-UMs			UMs			All Women			Men		
Cohort	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
1781-1800	79	22.91	22.06	9	21.17	20.50	88	22.73	21.83	90	25.17	24.00
1801-50	148	23.30	22.08	92	27.26	25.36	240	24.82	23.46	222	25.91	24.09
1851-60	71	23.49	22.58	23	27.63	25.75	94	24.50	23.18	84	25.65	24.45
1. 1781-92	46	22.50	21.21	5	20.50	20.50	51	22.30	20.94	55	25.81	24.90
2. 1793-1817	85	23.70[1]	22.21	20	24.65	24.13	105	23.88	22.61	97	25.17	23.53
3. 1818-28	36	22.89[1]	21.97	23	27.20	27.25	59	24.57	22.92	55	24.99	23.35
4. 1829-42	26	23.77[1]	23.25	15	27.57	24.50	41	25.16	23.64	39	26.63	24.56
5. 1843-60	105	23.09	22.34	61	27.86	26.13	166	24.84	23.48	150	25.99	24.63
1781-1860	298	23.21	22.26	124	26.89	25.47	422	24.29	23.07	396	25.69	24.16

Note: 1. Differences between these values and the immediately preceding cohort's mean are significant at the following levels: cohort 2: 92%; cohort 3: 80%; cohort 4: 77%. If only the youngest 50% of brides in each cohort are considered the figures become respectively 99%, 86% and 98%.

nineteenth century these circumstances changed as UMs more frequently bore several children outside wedlock without, apparently, seriously affecting their marriage chances.[1] The timing of their wedding was probably more a matter of personal convenience than had been true of their eighteenth century predecessors.

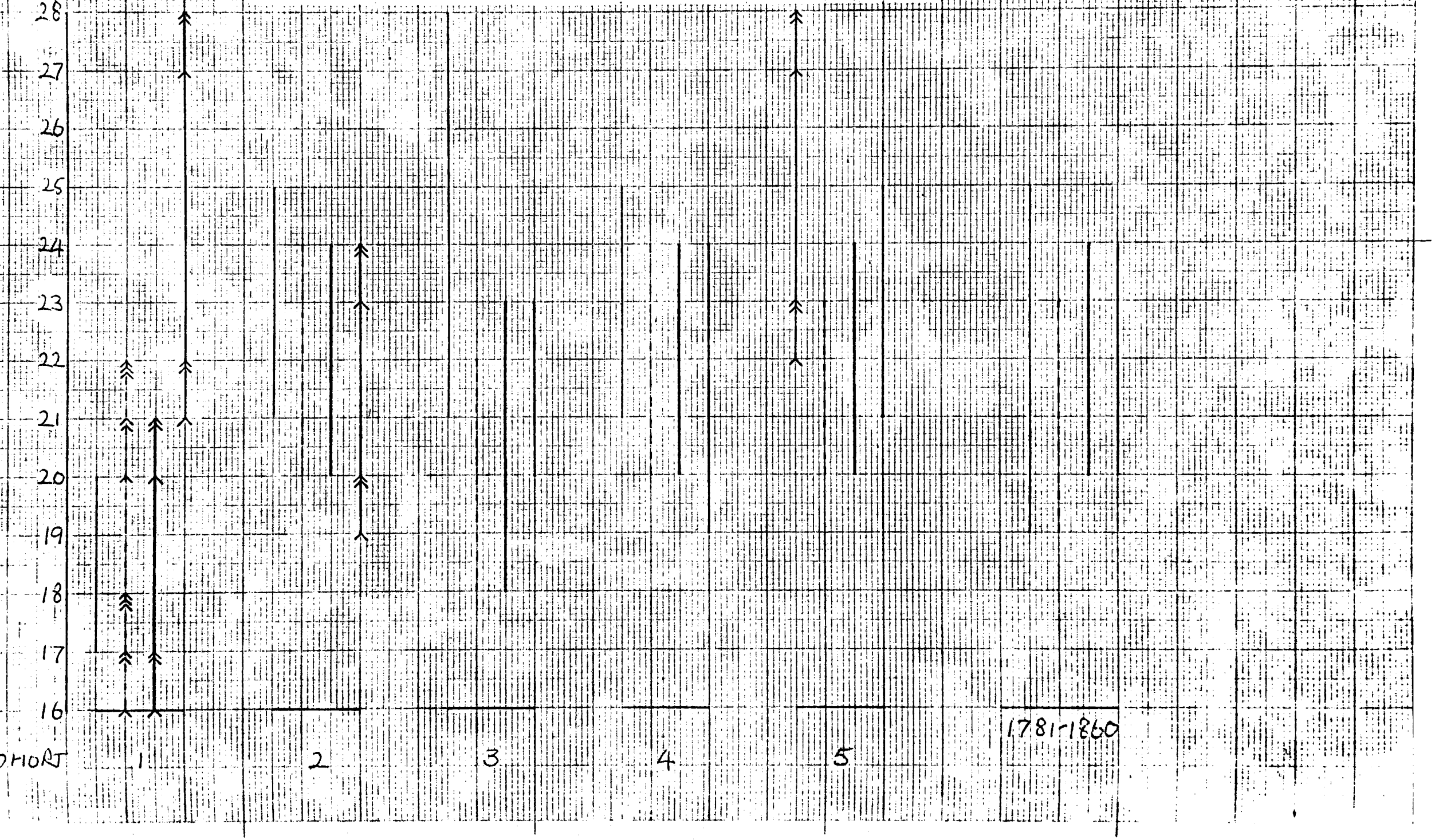
In contrast to non-UMs, the age at which nineteenth century UMs married was partly a function of their previous fertility histories - in effect, of earlier decisions not to marry - and thus could have been related only rather remotely to current economic externalities. UMs' circumstances were too varied from a life-cycle viewpoint to permit any influence which these may have had on the timing of their marriages to be isolated. It is thus chiefly in the ages of the non-UM population - women at the outset of their fertility careers - that we may hope to identify responsiveness to immediate economic circumstances. Among this group it will be observed that although the society's general interest in a high-fertility regime[2] seems to be reflected in the absence of any marked raising of age at marriage in the first half of the nineteenth century, both mean and median ages fluctuated across the first four cohorts in line with expectations. The declivity in cohort 5 is, as with so much else in that period, of indeterminate significance. The existence of non-economic pressures on the unmarried doubtless resulted in a good many marriages occurring at an earlier age than would have reflected the actors' preferences, for this cohort of non-UMs must include a number of women who would in an earlier period have borne their first child outside wedlock.

[1] See Figure 11 above, facing p. 233.

[2] See above, pp.267-74.

Figure 16. Modal groups for age at first marriage, by marriage cohort.

reading from left:
——UMs
- - - non-UMs
——all women
——men



In the short run the practice of delaying marriages during hard times can have effects on the age-structure of the nubile population which may make mean (and even median) ages at marriage a poor guide to a society's actual responsiveness. The unmarriageable young of the depression may become an untypically large stock of spinsters in their later twenties or early thirties when marriage again becomes popular. For this reason it is not surprising to find that the inter-cohort adjustments occurring among the youngest 50% of brides are statistically more significant than those of non-UMs as a whole.

Even when account is taken of dispersion, however, the mean is not a good indicator of what was typical in the sense of being behaviourally most frequent. Women's ages at marriage were spread over a span of around thirty years, and in any single cohort did not tend to be indisputably unimodal in distribution. The application of Tippett's formula is thereby rendered inappropriate.[1] Figure 16 has therefore been constructed to show the 'modal group' - that is, the smallest range of adjacent class intervals (in this instance ages expressed in years) which between them cover at least 50% of observations in each cohort. Where more than one identically sized group of years met the criterion that which covered the largest proportion of brides has been employed, and where any two similar spans yielded the same coverage both have been indicated as lying between parallel arrows. Thus the modal grouping for UMs' age at marriage during cohort 5 spanned the ages 22-27 or 23-28. This form of

[1] M.R. Spiegel, Theory and Problems of Statistics (New York, 1961), p.48. Presumably the Colyton data were unimodal: cf. E.A. Wrigley, 'Family Limitation in Pre-industrial England', Economic History Review, 19 (1966), footnote 3, p.86.

presentation has certain advantages over the mean although it does not lend itself to further mathematical treatment. It can be seen that among non-UMs inter-cohort movements were quite appreciable.

The youthfulness of non-UM brides in cohort 1 is particularly striking. 34.8% of them were aged less than twenty, which compares with only 16.5% during cohort 2. The deceptive return of prosperity after the end of the Napoleonic Wars raised the proportion again to 27.8%, while the subsequent economic collapse during cohort 4 reduced it once more to a mere 11.5% (in each instance the inter-cohort shift's probability of significance = >90%). Where entry upon matrimony was concerned it is clear that responsiveness to short-run economic conditions was not solely found among those already in their early or middle twenties who might be expected to be the most likely to have acquired habits of frugality and prudence - although it should be added that in Culcheth, of course, the corollary of protracted spinsterhood was rarely a matching deferment of parenthood.

None of this economic sensitivity is apparent in the ages at which men in Culcheth married. As noted in the last chapter their scope for adjustment was arguably less than was true for women, since even in cohort 1 bachelorhood typically extended into the middle twenties. Perhaps more importantly, male age at marriage had a negligible impact on fertility.[1] The consequential narrowing of the age differential between the sexes is consistent with the idea that fertility considerations played a larger part in calculations concerning the proper time to marry

[1] See above, pp.273-4.

than did the accumulation of savings or household stock,[1] for in the latter case one might have expected their ages to have moved approximately synchronously. The observed pattern, whereby women shouldered the entire burden of adjustment to economic circumstances, increased the proportion of brides who were older than their grooms. Taking only the 93.9% of marriages in which spouses' ages differed, the wife was the older in 21.3% of cases before 1800 but in 32.2% during the following fifty years (probability of significance = 94%). At no stage, however, did this become the norm, even where the bride was a UM (33.3% of whom were older than their husbands over the period as a whole, compared with 27.6% for non-UMs). It must be concluded that the raising of female age at marriage brought about by the spread of unmarried motherhood did not greatly strain traditional norms touching lovers' relative ages.

Table XXXVI. Sex-structure of population, 1801-61.[1]

Census year	Number of males per female: (a) in total population; (b) at age 15-29	
1801	0.995	n.a.
1811	1.012	n.a.
1821	1.046	n.a.
1831	1.062	n.a.
1841	1.073	1.169
1851	1.044	1.041
1861	0.980	0.989

Note: 1. Population excludes workhouse except in 1831

A further possible influence on the stability of male age at marriage lies in the township's sex-structure, which is given in Table XXXVI. It appears that in the first forty years of the nineteenth century the district was developing a growing excess

[1] Cf. also above, p.278.

of males (although in the absence of household schedules before 1841 it is impossible to know whether the same was more or less true of the nubile younger adult age-groups). It may be that competitive pressures among men made for somewhat earlier marriages than would otherwise have been the case. With the caveat already mentioned, the imbalance in the sex ratio also seems to dispose of the possibility that the growth of unmarried motherhood was related to there being a surplus of women whose bargaining position vis à vis men was thereby weakened.[1]

One final aspect of the timing of marriage which requires consideration lies in the incidence of bridal pregnancy. Because illegitimacy is commonly thought to have been fairly exceptional historically through most of England historians' attempts to interpret the sexual mores of the past in terms which would reconcile them (the historians as much as the mores) with the present have tended to highlight the frequency with which wives were pregnant on their wedding day.[2] For an understanding of Culcheth the measure is of less than fundamental interest since a quarter of brides and a much larger proportion of fertile women generally had already borne a child before they approached the altar.

43.9% of brides were pregnant by three months or more, while a total of 58.2% were gravid in some degree. As one would expect

[1] Cf. e.g., A. Marino, 'Family, Fertility and Sex Ratios in the British Caribbean', Population Studies, 24 (1970), 159-72. The situation in Culcheth also differed fundamentally from that in the Caribbean today in that unmarried motherhood was associated with the girl's continued residence in her parents' household and not at all with a need to find a man to support her.

[2] But two useful articles on the subject are: P.E.H. Hair, 'Bridal Pregnancy in Rural England in Earlier Centuries', Population Studies, 20 (1966), 233-41; and ibid., 'Bridal Pregnancy in Earlier Rural England further Examined', Population Studies, 24 (1970), 59-70.

in view of the type of courtship custom which was characteristic of Culcheth society throughout the period,[1] there was relatively little inter-cohort variation in these proportions and no difference was apparent between low and high bastardy phases of the district's history. UMs were slightly less likely to be badly pregnant (i.e. by 5/> months)[2] than non-UMs, the proportions being respectively 39.4% and 45.4% (probability of significance = 87%). As a general proposition it seems reasonable to suppose that a woman who had already flouted proprieties by bearing at least one child outside wedlock would be less likely than others to regard pregnancy as an overriding inducement to marry. But the marginality of the observed difference between UMs and non-UMs suggests that on the whole the former were about as likely as the latter to be influenced by such considerations.

Where the two groups of women differed markedly was at ages below twenty. 64.8% of non-UM brides in this age-group were pregnant in some degree, compared with only 20.0% among UMs (the latter were few in number, but probability of significance = 99%). However, the explanation here is a technical not a sociological one, arising from the fact that brides in this age-group who were already mothers had usually only become so comparatively recently. Many, perhaps most, would still have been breast-feeding their child at the time of their marriage, with the limitation on their fertility which this implies.

After age 30 the incidence of pregnancy among non-UM brides contracted sharply to 42.9% whereas among UMs it remained 56.3%,

[1] See Figure 6 above, facing p. 182 and p. 183.

[2] Cf. above, pp.186-7.

which was much the same as in younger age-groups (probability of significance = 82%). This finding suggests a minor qualification to the generalisation made in chapter 4 that there can rarely have been virgin brides in Culcheth,[1] for if declining fecundity were the only determining influence on the age-specificity of bridal pregnancy one would not have expected such a divergence between UMs' and non-UMs' histories. However, the difference is not very strongly significant, and in a sense the experience of these older non-UM brides serves merely to emphasise the point made in that chapter, for the 57.1% of them who were not pregnant at marriage and which might have included a few genuinely virgin brides constituted only 1.7% of the women the circumstances of whose first conception (including their age) is known.

Changes in the number of children women bore in the course of their lives is the most obvious index to the extent to which past societies adjusted their demographic behaviour to match their economic resources. It is well, however, to remember the obvious truth that variations in completed family size are not an ideal indicator of how seriously our forbears sought to achieve this balance. For we are only measuring the number of live births accruing to each woman in the community, not those children's longevity. Because of the fertility effect of the premature termination of lactation and the desire to replace a child who has recently died a frequent succession of baptisms will sometimes reflect a couple's failure to attain their desired family size and not, as might otherwise be suspected, their indifference to the number of mouths they had to feed. Moreover, it is reasonable to suppose that the age- and sex-structure of a

[1] See above, p.183.

couple's surviving children at any one time would influence their future plans.[1] We should therefore expect that in a truly responsive population desired family size, even in an unchanged objective economic environment, would itself vary over time. It should be unnecessary to add that an economically rational being is not an automaton. On the one hand women vary in their physiological childbearing capabilities; on the other married couples have been known to get on badly and to differ in their tolerance of the bedlam and housework surrounding childrearing - and, for that matter, of the privations undergone in avoiding that situation. Though it is pointless to seek to list the non-economic parameters, this should not serve as an excuse for ignoring their real influence on those desired family sizes the rationality of which the demographic historian somewhat impudently attempts to infer from the number of children people actually brought into the world.

When contrasting the experience of successive cohorts of women there are three further respects in which we should expect the link between completed family size and prevailing economic conditions to be tenuous. First, UM brides had not infrequently commenced their fertility history in a cohort anterior to the one in which they married. Secondly, most women in Culcheth who survived to the age of 45 were (whether married or not) 'at risk' of bearing children for perhaps twenty five years of their lives. Economic conditions fluctuated quite sharply over such a period of time, and one should not therefore anticipate that the mean family size of women who married in an economically depressed period would closely reflect conditions obtaining at that time, or that it would be sharply differentiated from that of the next

[1] *Cf.* above, pp.274-7.

cohort of brides. Both groups would have lived through good and bad times and would often, indeed, have experienced (albeit at different stages of their familial life-cycle) many of the same years of economic crisis and prosperity. Finally, we have seen that although a deterioration in economic conditions might induce caution regarding the age at which a woman first put herself at risk of motherhood, or married, the general environment during the first half of the nineteenth century was still favourable to a high-fertility regime.[1]

In the next chapter we shall examine the fertility of all married women living through each of our five cohorts, irrespective of when they had married. This will provide a better test of whether or not contraceptive precautions were taken in response to short-run economic fluctuations.[2] For the moment it suffices to note that insofar as completed family size did move in line with the economic character of the cohort in which the wedding took place, this is most likely to be apparent in the history of non-UM brides and will probably reflect the effects of shifts in age at marriage rather more than controls on fecundity exercised thereafter.

Tables XXXVII and XXXVIII summarise the mean and certain median values for each cohort of brides' completed family sizes. Unions described as I/III are those which lasted until the wife reached the age of 45; those classified as II/II(a) were from a fertility point of view incomplete in the sense that they were terminated by the death of either spouse before the woman had reached the age which notionally is assumed to have been that of menopause.[3]

[1] See above, pp.260-75.

[2] See below, pp.356-70.

[3] See above, pp.163-4.

Table XXXVII. Legitimate and total family size, by class of marriage.[1]

Class:[2]	I & III					II & II(a)			All completed marriages		
		(a)legit.		(b)legit.+ illegit.			(a)legit.	(b)legit.+ illegit.		(a)legit.	(b)legit.+ illegit.
Marriage cohort	N[3]	mean	median[4]	mean	median	N	mean	mean	N	mean	mean
1781-1800	40	7.60	9.29	7.65	9.29	30	5.23	5.40	70	6.59	6.69
1801-50	105	6.51	7.04	7.44	9.13	64	4.81	5.45	169	5.87	6.69
1851-60	30	6.83	7.50	7.33	8.29	17	3.71	4.18	47	5.70	6.19
1.1781-92	24	7.79	9.20	7.83	9.20	21	5.48	5.62	45	6.71	6.80
2.1793-1817	45	7.42	8.17	7.71	8.58	29	5.48	5.72	74	6.66	6.93
3.1818-28	29	7.17	7.90	7.90	8.83	17	4.88	5.59	46	6.33	7.04
4.1829-42	18	6.17	6.50	7.50	8.25	10	3.20	4.00	28	5.11	6.25
5.1843-60	59	5.98	5.85	6.92	7.17	34	4.09	4.79	93	5.29	6.14
1781-1860	175	6.82	7.42	7.47	8.25	111	4.76	5.24	286	6.02	6.60

Notes:
1. No distinction is made between non-UMs and UMs, the focus being upon each cohort's overall fertility experience.
2. Class I/III marriages lasted until the wife reached the age of 45; Class II/II(a) unions ended before this point. See above, pp.164-5.
3. Numbers of women, not marriages, although only one of the 286 women under study married more than once.
4. This information is given only for marriages of Classes I and III because of their greater analytical importance.

Table XXXVII gives the aggregate position. It shows that marital family sizes underwent a persistent decline between cohorts 1 and 4, but that this was substantially the product of the growth of unmarried motherhood is suggested by the greater degree of stability apparent when allowance is made for wives' premarital progeny. Strictly speaking this is, of course, the truest picture of the overall experience of each cohort, but as prescience of the required order can hardly be credited to those who met a premature demise it must be assumed that class II/II(a) completed family sizes were unplanned. It is really only among women whose marriages lasted until they were 45 that one can hope to detect the existence of any family formation strategy.

It is, however, worth noting in passing the substantial reduction in mean family size among marriages of class II/II(a) which occurred during the last two cohorts (for the difference of means between cohorts 3 and 4 probability of significance = 94%). This may in part reflect the district's heightened crude death rate during the period,[1] but one would expect this to have increased the proportion of marriages which terminated prematurely (even if it also involved adults dying at earlier stages of the life-cycle) whereas in fact marriages of class II/II(a) formed a slightly lower proportion of the general corpus of completed unions during the last two cohorts than they had done previously (36.4% compared with 40.6%). In the next chapter we shall see that couples in cohort 4 - and the same was true to a lesser extent in cohort 5 - appear to have exercised constraints on their fertility during the early years of marriage.[2]

[1] See Table XII above, p.99.

[2] See below, Tables XLIII-XLVI, pp.346-59.

It is very likely this, rather than change in mortality conditions, which largely accounts for the observed decline in family size among class II/II(a) unions of the period, for the impact of such a fertility strategy would be especially marked on the families of those who died young.

A few sources of bias in the statistics are worth noting at this point. It will be observed that illegitimate children contributed slightly less to the overall mean completed family size of women making class II/II(a) marriages than they did to other women. The former group bore an average of 0.48 bastards to the latter's 0.65 - a difference which appears slight in absolute terms but which amounts to a shortfall of around one quarter. The divergence (which would be difficult to account for behaviourally) probably arises from the fact that a bride with several illegitimate children would tend to marry at an older age than other women, so having fewer years of marriage to survive before her 45th birthday and thus a greater chance of being selected for analysis as a class I/III bride. By the same token UM wives in general had less time in which to emigrate from the district and their marriages are thus more likely to be observed to completion than those of other women, whether they fell into classes II/II(a) or I/III. It is not surprising, then, that while UMs accounted for respectively 29.7% and 36.0% of the unions which can be used in analysis of completed family size in these two categories, both figures are higher than UMs' representation among brides as a whole (25.5%). Mortality chances will also have contributed to making this last proportion no higher than it was, for in effect a UM had to live to a greater age than a non-UM if she was to appear as a bride.

38.8% of completed church-marriages were terminated before the wife reached age 45 - and others, of course, ended while children were still quite young - so the experience of being brought up within a single-parent family was by no means restricted to illegitimate children. Where this happened, indeed, the analysis of the last chapter would suggest that semi-orphans whose parents had been married would typically have been worse placed from an economic viewpoint than UMs' children[1] (although these would presumably have stood a higher chance of being rendered totally parentless). In reality, though, the true proportion of prematurely terminated marriages must have been somewhat lower than the present data suggest, for - one final source of bias in the statistics - couples whose marriages lasted until the wife reached age 45 would on average have had a longer period during which to emigrate from the township than those whose unions were short-lived, and thus a lower chance of yielding completed family size information.

To distinguish those families whose sizes could be regarded as in some degree intentional we must concentrate on those classed as I/III, and among these particularly those of non-UMs. In the light of foregoing remarks we should not anticipate that the net outcome of twenty years or so of childbearing would be greatly affected by the economic conditions obtaining at the onset of marriage. The observed inter-cohort shifts in means and medians among non-UMs are certainly often fairly slight. But as can be seen from Table XXXVIII they are consistently in the anticipated direction during the first four cohorts. This is true even if one subdivides cohort 2 into sub-cohorts 2a-2c, when the mean first fell to 7.18, then rose to 7.91 and finally declined sharply to 6.84 children among those who had married during the inflationary later years of the French Wars.

[1] See above. pp.285-9.

Table XXXVIII. Completed family size among women whose marriages lasted to age 45 (i.e. Classes I and III).

Marriage cohort	Non-UMs N	Non-UMs Mean	Non-UMs Median	UMs N	UMs (a) illegit; mean	UMs (b) legit; mean	UMs (c) total mean	UMs median
1781-1800	38	7.66	9.29	2	1.00	6.50	7.50	-
1801-50	54	7.59	8.39	51	1.90	5.37	7.27	7.70
1851-60	20	7.60	8.50	10	1.50	5.30	6.80	7.00
1. 1781-92	23	8.00	9.30	1	(1.00)	(3.00)	(4.00)	-
2. 1793-1817	34	7.35[1]	8.33	11	1.18	7.64	8.82	8.83
3. 1818-28	17	8.53[1]	9.17	12	1.75	5.25	7.00	7.00
4. 1829-42	10	7.40[1]	8.50	8	3.00	4.63	7.63	7.88
5. 1843-60	28	7.14	8.13	31	1.77	4.94	6.71	6.90
1781-1860	112	7.62	8.58	63	1.81	5.40	7.21	7.70

Note: 1. Differences between these values and the immediately preceding cohort's mean are significant at the following levels: cohort 2: 76%; cohort 3: 93%; cohort 4: 87%.

These movements in family size are roughly in line with changes in mean age at marriage, which one would expect to have been one influence (not so much *via* the effect of increasing age on fecundity as by reducing or increasing the number of years' exposure to risks of pregnancy). But this is clearly not a sufficient explanation of all the changes which occurred. Whereas, for example, mean age at marriage among non-UMs was only 0.2 years higher during cohort 5 than it had been in cohort 3, mean completed family size was 1.39 children fewer (probability of significance = 96%). At least during the period when handloom weaving came under greatest pressure and was eventually substantially displaced by other forms of employment, therefore, there are *prima facie* grounds for supposing that variations in completed family size are not explained by changes in age at marriage alone.

Despite the fact that on average they had attained a much higher age when they wedded, UMs whose marriages lasted to the age of 45 had a mean family size only slightly lower than non-UMs and in two cohorts, indeed, appear to have been the more fertile group. As pointed out in the last chapter, though, this does not mean that unmarried motherhood did not have the effect (whether intended or not) of significantly reducing a woman's fertility, for UMs' generally younger age at first conception would usually have placed them among the most fertile of women had they married when first pregnant.[1] Moreover, a slight bias affects the comparison. To be counted as fertile wives UMs had to have borne at least two children (one of them illegitimate) to a non-UM's single birth. Excluding non-UMs with only one child raises their overall completed family size to 7.86 children, or 0.66 more than

[1] See above, pp.273 and 280.

for UMs (probability of significance = 92%).

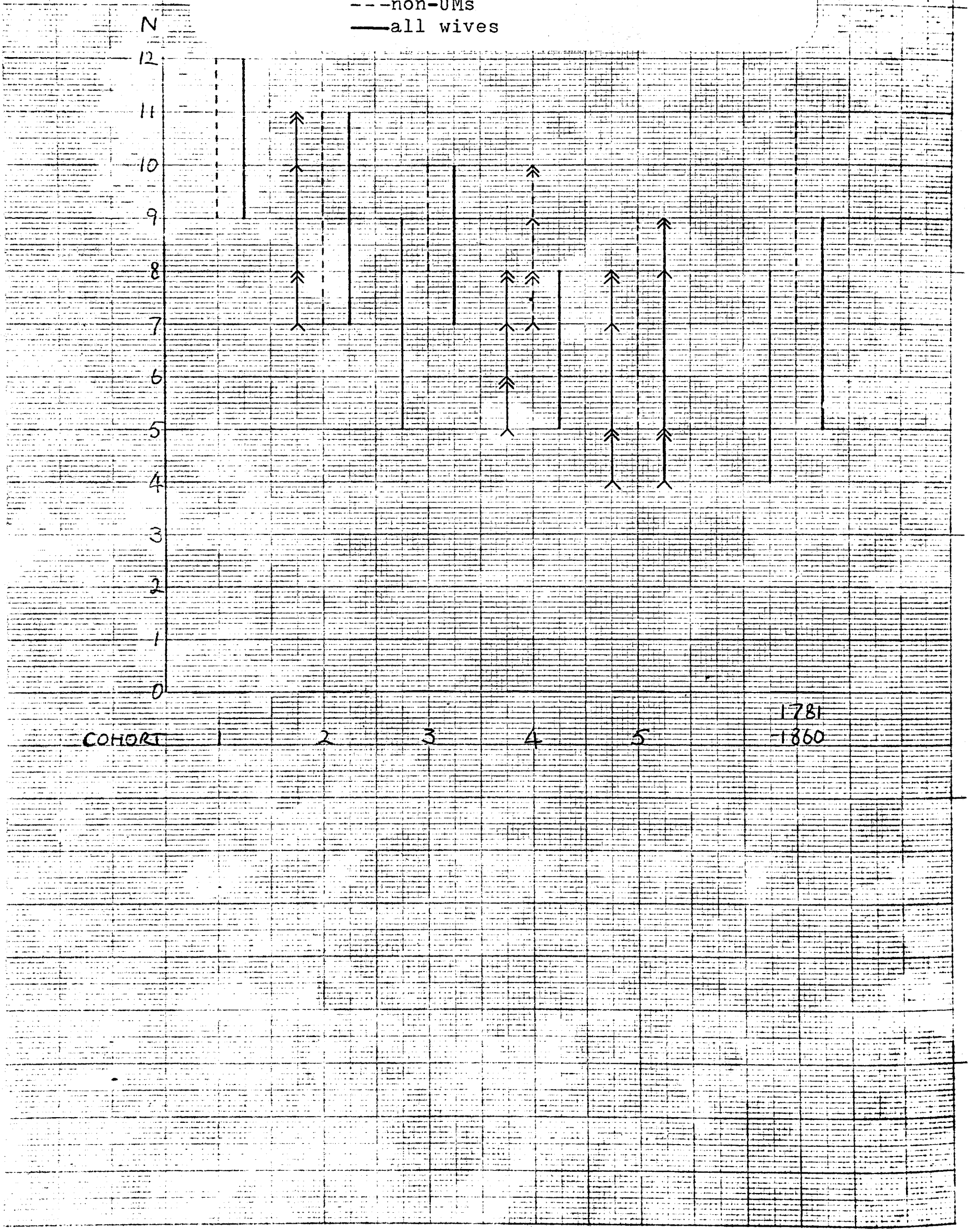
But more importantly it should also be recalled that not all UMs married, whether in church or informally. The present group of 63 whose church-marriages lasted till age 45 represents only 8.9% of the original 704 UMs discussed in chapter 5, or 58.3% of the 108 who are known to have survived to age 45 while remaining (so far as one can tell) continuously within the district. The residue of this latter group of UMs either lived out their days as spinsters or formed an 'apparent' marriage.[1] If the experience of the entire 108 is contrasted with that of the 142 non-UMs whose marriages (whether celebrated in church or not) also lasted to menopause, the following differences emerge. The UM group had a mean through-life completed family size of 5.81 children, compared with non-UMs' 7.68 (probability of significance = 99%). Although a half of UMs bore 6 or more children the same was true of 73.2% of fertile non-UMs. More tellingly, whereas completed family size among the former had a modal grouping of 3-6 children, for the latter it was 7-10.

The experience of church-marriage UM brides, therefore, should not be allowed to mask the substantially divergent completed fertility paths of the two groups of women. Given what we already know of the frequency with which UMs and their lovers parted company[2] it would be naive to suppose that these women could invariably marry at will. Nor is it clear that the restraint of total fertility played a fundamental role in nudging conceivers towards unmarried motherhood - it was suggested in the

[1]For the significance of this term see below, pp.379-82.
[2]See Figure 12 above, facing p.246.

Figure 17. Modal groups for completed family size, by marriage cohort but including pre-marital experience.

reading from left:
——UMs
- - -non-UMs
——all wives



last chapter that shorter-term considerations were probably more important.[1] But insofar as either group of nineteenth century women was responding to the economic pressures tending to shift the marginal revenue curve associated with childrearing to the left,[2] it was the UM section of the population rather than their non-UM counterparts whose experience is most suggestive of this degree of sensitivity.

Nor in fact was this tendency to bear smaller completed families absent from the UMs who formed church-marriages of class I/III. Means and medians we have seen before can be misleading indicators of trends and of typicality.[3] Figure 17 shows the modal groups for both sets of wives' completed family sizes. Apart from during cohort 1, when only a single UM bride was represented, it can be seen that women who bore at least one child extramaritally had completed family sizes bunched well below the modal position for non-UMs.

This particular perspective also serves to qualify the impression given by Table XXXVII that there was no secular tendency for families to diminish in size during the nineteenth century, for the upper border of the modal group covering the totality of wives can be seen to be falling progressively between cohorts 1 and 4, from 12 to 8 children - by no means an insignificant adjustment. And if modal groups are assessed by the 3-phase approach (again including illegitimate children as appropriate) the relevant figures for wives whose marriages lasted till they

[1] See above, pp.265-6 and 279-98; cf. also pp.274-8.

[2] See above, pp.267-8.

[3] Cf., e.g., above, pp.203-4.

were 45 tell a similar story - those marrying in 1781-1800: 9-12 children; 1801-50: 5/6-9/10; 1851-60: 4-8.

Table XXXIX. Percentage distribution of completed family sizes, including extramarital histories, where marriage lasted until wife was aged 45.[1]

Marriage cohort	N women	% <6 children	% 6-9 children	% 10/> children
1781-1800	40	30.0	32.5	37.5
1801-50	105	27.6	49.5	22.9
1851-60	30	43.3	33.3	23.4

Note: 1. Underlined proportions differ significantly at the 90% level or above from the immediately preceding period's value.

Regarding family size from a percentage distribution (rather than a mean or median) viewpoint has similar implications. Table XXXIX shows how the high incidence of families of 10 or more children in the later eighteenth century gave way in the subsequent fifty years to a bulge at 6-9 children, and how in the last decade of the period this in turn was apparently displaced by a preference for fewer than half a dozen children (though as this periodisation does not distinguish periods of a discrete and homogeneous demographic character - and the observations do not therefore constitute samples in a proper sense - it should not be regarded as defining the timing of change in behaviour at all closely).[1] While unmarried, UMs were not exercising their full fertility potential. This does not, of course, mean that they invariably ended up with smaller completed family sizes than non-UMs. But we should expect that the growth of unmarried motherhood

[1] *Cf.* above, pp.77-80.

would effectively have reduced the proportion of women whose exceptional fecundity could in practice have led to the formation of unusually large families. On the face of it this might seem a sufficient explanation for the decline in the frequency of completed families of 10 or more children. But once again this is not the whole explanation, for the phenomenon affected non-UMs as well. Before 1800 36.8% of these women bore families of such a size, but in the succeeding half century the proportion was only 24.1% (probability of significance = 90%). Clearly, underlying the trendlessness of mean values were shifts in marital fertility which require closer examination.

Chapter 8

Marital Fertility

It was suggested in chapter 6 that even in the secularly deteriorating conditions of the first half of the nineteenth century Culcheth's handloom weavers would in general have pursued a high-fertility strategy. If this argument is correct it would not be anticipated that they would have sought to control their total fertility by aiming at a certain number of children and then, as their target was met, applying fertility controls intended to prevent overshooting it - although we shall examine the district's marital profiles to assess this possibility. Rather it might be expected that any deliberate interference with fertility would manifest itself on an ad hoc basis in response to current circumstances, such as particularly high prices or a sharp rise in unemployment.

We have already seen hints of such precautionary behaviour in the ages at which the (chiefly) unmarried population first conceived a child,[1] but the fertility patterns of women who were unmarried were intrinsically too irregular to be worth analysing in the hope of detecting the use or absence of deliberate contraception. It is proposed therefore to study the histories of church-marriage brides, first as a whole and subsequently distinguishing former UMs from non-UMs.

The existence of contraception is seldom self-evident in reconstitution material unless it is both pervasive and persistent enough to effect a sharp change in the 5-year groupings of

[1] See Figure 8 above, facing p.204.

data conventionally used in cohort analysis. The measurement of fertility by reference to a woman's age or the duration of her marriage is also only likely to reveal the existence of fertility constraints where their operation was specifically related to those variables - a point to which we shall return.[1] But more fundamentally, attempts to infer the facts of the case from oddities in observed fertility are bedevilled by ignorance of the true historical variability of natural fecundity. It is by no means clear, for example, that the experience of twentieth century Hutterites or Irish women can be accepted as setting approximate standards against which to judge historical populations.[2] Certain aspects of the question, such as the influence of diet or physique, are imponderable in the sense that, depending on circumstances, they might render one historical population either more or less fit for childbearing than another. On the other hand, advances in medical knowledge and practice are likely in themselves to result today in a lower incidence of miscarriage, still-births or puerperal scars or infections which might affect future fecundability.

Demographic historians therefore tend to place rather less emphasis on the absolute levels of fertility apparent in the communities studied than on variations in them over time, on the implicit assumption that local levels of natural fecundity can be assumed to remain constant. Whether or not this is a valid premise, the approach is open to the criticism that it is better

[1] See below, pp.353-6.

[2] E.g., J. Knodel, 'Two and a half Centuries of Demographic History in a Bavarian Village', Population Studies, 24 (1970) 368-9; J. Matras, 'Social Strategies of Family Formation: Data for British Female Cohorts Born 1831-1906', Population Studies, 19 (1965), 167-81.

suited to isolating changes in the frequency or intensiveness with which contraception was practised than its existence as such. It also, of course, leaves unaffected the problem of how one decides whether an observed change in fertility is fortuitous or deliberate.

Following Henry's work on the Genevan bourgeoisie[1] it has become popular to test for the existence of contraception by subjecting the later fertile years of marriage to tests designed to highlight any decline in the age at which women ceased childbearing, any rise in the mean interval separating their last two births, and any kinks which might appear in their age-specific fertility schedules.[2] The hypothesis tested by these means is basically a demographic not an economic one. It is, at its simplest, that couples embark on marriage with a desired completed family size in mind. Lacking the ability to foresee deaths among their children, or sensitively to space their births, they will tend to avoid controlling fertility until they approach the later years of the childbearing span. Most of the children they might ever raise will by then already have been born and, if still living, have survived the most mortality-prone early stages of life. At this point the couple are able to assess their position in the light of their ambitions.

Those who have overshot their desired family size (for example, because fewer of their progeny have died than might have been anticipated) or who are in some danger of doing so, may then

[1] L. Henry, Anciennes Familles Genevoises (Paris, 1956), esp. chapter IV.

[2] E.g., E.A. Wrigley, 'Family Limitation in Pre-industrial England', Economic History Review, 19 (1966), 82-109; R.V. Wells, 'Family Size and Fertility Control in Eighteenth-Century America: a Study of Quaker Families', Population Studies, 25 (1971), 73-82.

adopt contraception: hence the decline in mean age at last birth when contrasted with a population which is not controlling fertility. Some, however, may subsequently revise their plans - perhaps in order to replace a child who has died - and others may make mistakes (the chances of which presumably increase with coital frequency and thus with the passage of time): hence the anticipated rise in the interval elapsing between their penultimate and their last child's birth. In addition, any raising of a fertility constraint is likely to be visible as an interruption of the smooth convexity of decline of age-specific fertility which would be characteristic of a society in which natural fecundity was the only variable factor: thus a concavity is likely to appear in the age-group affected by contraception.

In view of the uncertainties already alluded to surrounding the absolute levels of fertility which a non-contraceptive-using population might display it is customary to compare the experience of younger with older brides, on the supposition that because women marrying comparatively late in life in general have less chance of approaching their desired family size their fertility may be regarded as a rough proxy for natural fecundity - or may, at any rate, help to highlight the greater frequency of contraception among other women. We too shall adopt this convention, but it should be noted that at best it only circumvents the problem in question if contraceptive practices fit the Henry life-cycle-stage model (if then).[1]

A high proportion of Culcheth's older brides were UMs. Since any marital family formation strategy these women may have had might well have been affected by their preceding fertility history it was decided to exclude them from samples of older

[1] *Cf.* below, pp.343 and 354.

brides. Non-UMs marrying above age 30, however, were too few at a cohort level to be used statistically. The division between younger and older brides was therefore drawn at age 25, with the former group including UMs and non-UMs alike. This last decision is not completely satisfactory, but the UMs in question were those with small existing illegitimate families and still having most of their fertility careers before them: that is, their position at marriage was more analogous to that of similarly aged non-UMs than was true of those of their colleagues who married at a more advanced age. For brevity, women marrying below age 25 and non-UMs marrying at 25/> will be referred to respectively as group 1 and group 2 wives.

Over the whole period group 1 wives had a mean intergenesic interval between their first and penultimate births of 27.97 months, to group 2's 26.20. Although a similar difference was apparent in the experience of each cohort, a divergence on this scale cannot be regarded as likely to betoken marked behavioural differences between the two populations. Nor was there much inter-cohort variation in the group 1 values, which ranged only between 27.30 months and 29.63. Tacitly these unspectular findings are in fact consistent with Henry's hypothesis inasmuch that they are unsuggestive of important fertility changes occurring before the later stages of childbearing.

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Table XL. Mean length in months of final intergenesic interval.

Marriage cohort	Group 1 wives[1] N	Mean	Group 2 wives[2] N	Mean
1. 1781-92	16	34.56	7	45.07
2. 1793-1817	27	35.31	9	45.94
3. 1818-28	14	33.14	3	34.17
4. 1829-60	11	38.50	1	(31.50)
5. 1843-60	27	50.39	6	38.00
1781-1860	95	39.52	26	41.96

Notes: 1. Women marrying below age 25.
2. Non-UMs marrying aged 25/>.

Turning to the crucial final intergenesic interval, we are constrained to restricting coverage to marriages of class I/III, because where unions were terminated before the wife reached menopause their last birth interval cannot be regarded as having been intended to be such, and to include such marriages would therefore hamper attempts to distinguish active fertility strategies. As can be seen from Table XL the removal of class II/II(a) wives reduces the number of group 2 observations to a mere 26. They are presented in cohort form nonetheless, however, to indicate that the overall difference between the two groups' means is as slight as it is primarily because in the course of the period their relative positions were reversed. If the tendency for older brides to have the longer last birth intervals during the first two cohorts has any behavioural significance (probability of significance respectively = 85% and 95%) it is not explained by Henry's model.

Although no alternative comes to mind, it is quite possible that control is being exercised over the wrong variable (age at

marriage) or that the results are fortuitous. Crafts and Ireland have recently argued on the basis of computerised simulation games that the length of the final birth interval can be 'perverse', and particularly where older brides are concerned.[1] That being the case, attention should be focussed on group 1 wives (with the caveat that any indication of the use of contraception they may yield may in fact also have relevance for older brides and cannot strictly be employed to validate the hypothesis that fertility controls were specific to those with a long history of childbearing behind them). The most striking development among group 1 wives is the marked extension of their last birth interval during cohort 5. Across the first four cohorts only 14.7% of group 1 final birth intervals exceeded 50 months' duration, but thereafter the proportion was 40.7% (probability of significance = 99%).

Table XLI. Mean female age at last birth, in years.

Marriage cohort	Group 1 wives N	Group 1 wives Mean	Group 2 wives N	Group 2 wives Mean
1. 1781-92	16	40.00	7	42.07
2. 1793-1817	23	41.89	12	41.08
3. 1818-28	15	41.70	3	45.17
4. 1829-42	12	40.75	1	(42.50)
5. 1843-60	21	38.88	7	40.50
1781-1860	87	40.63	30	41.63

[1] N.F.R. Crafts and N.J. Ireland, 'Family Limitation and the English Demographic Revolution: a Simulation Approach', Journal of Economic History, 36 (1976), 604-6 and 615.

Table XLI gives mean age at last birth for the two groups of wives. Again the difference between their overall means is in the anticipated direction but of slight value, and small numbers of observations preclude assessing whether older brides underwent any behavioural changes of importance between one cohort and another. But mean age among group 1 wives was 2.82 years lower in cohort 5 than it had been in cohort 3 (probability of significance = 95%). And here, more clearly than in the context of birth intervals, the change seems to have commenced with cohort 4.

Table XLII. Modal grouping of female age at last birth.
(All marriages of Class I/III.)

Marriage cohort	N	Age
1. 1781-92	23	40-43
2. 1793-1817	41	41-46
3. 1818-28	28	38-42/39-43/40-44
4. 1829-42	17	39-41
5. 1843-60	58	40-45
1781-1860	167	40-45

This is rather more apparent if age at last birth is analysed by modal group as in Table XLII, which indicates both a somewhat greater variability in the experience of the first four cohorts than was suggested by the preceding Table and, in particular, the tendency for women marrying during cohort 4 to finish childbearing sooner than had been generally true of their predecessors.

Table XLIII. Fertility at ages 30-49, and during the first 10 years of marriage.
(All ranks of marriage; woman-years observed in brackets.)[1]

Marriage cohort		Age 30-4	35-9	40-4	45-9	Years of marriage 0-4	5-9
1. 1781-92	Group: 1	361 (122)	269 (119)	167 (96)	37 (80.5)	518 (177.5)	413 (152.5)
	2	422 (45)	255 (47)	293 (37.5)	57 (35)	500 (50)	295 (47.5)
2. 1793-1817	1	362 (177)	384 (161.5)	232 (129.5)	78 (116)	497 (241.5)	376 (205)
	2	359 (39)	397 (63)	149 (67)	50 (59.5)	449 (78)	303 (66)
3. 1818-28	1	367 (120)	309 (87.5)	214 (70)	33 (60)	534 (140.5)	366 (128.5)
	2	480 (12.5)	400 (20)	432 (18.5)	133 (15)	600 (20)	450 (20)
4. 1829-42	1	340 (73.5)	347 (60.5)	183 (60)	18 (56.5)	442 (99.5)	327 (85.5)
	2	500 (10)	471 (8.5)	200 (5)	- (3.5)	467 (15)	414 (14.5)
5. 1843-60	1	337 (255)	283 (194.5)	142 (176)	28 (140.5)	452 (383)	334 (308.5)
	2	381 (52.5)	293 (41)	139 (36)	74 (27)	471 (70)	337 (47.5)
1781-1860	1	352 (747.5)	316 (623)	183 (531.5)	42 (453.5)	484 (1042)	361 (880)
	2	403 (159)	340 (179.5)	213 (164)	64 (140)	481 (233)	332 (195.5)

Note: 1. Figures have been adjusted to suppress the effect of bridal pregnancy. See accompanying text, pp.349-51.

Table XLIII distinguishes the two groups of wives' marital fertility at ages above 30, and for the first ten years of marriage. During the second five years of marriage we might anticipate that some wives in group 2, entering the last ten years of the childbearing phase of life, would be experiencing a diminution of natural fecundity, thereby depressing older brides' aggregate fertility. But it is noteworthy that in the opening years of their unions group 2 wives were about as fertile as younger brides had been at a similar point in their histories, and that in the period as a whole their age-specific fertility was consistently higher than the latter group's - as the Henry hypothesis would lead one to expect.

Comparisons at a cohort level are really only feasible for cohorts 1, 2 and 5, because of the small numbers of woman-years observed among group 2 wives who married between 1818 and 1842. The only one of these three which is manifestly odd is cohort 1. Here group 2 wives' fertility displays a temporary declivity at ages 35-9. If this is an indicator of the use of contraception (and it appears consistent with their protracted last birth intervals) it would seem to follow that group 1 wives were controlling fertility between the ages of 35 and 44. However, one may reasonably suspect that the experience of women in their forties would be more variable than previously with respect both to their fecundity and to their frequency of exposure to pregnancy risks, in which case the kink in group 2's curve may have no behavioural significance at all.

On the other hand, if cohorts are compared with one another group 2's high fertility at ages 30-4 in cohort 1 might seem to imply the existence of fertility constraints at this age among

all cohorts of group 1 wives (particularly during the last two cohorts), and similar controls among group 2 wives during cohort 2 and possibly also cohort 5. Again, at age 35-9, if group 2's peak fertility in cohort 2 is taken as the yardstick, both groups of wives have the appearance of restricting fertility during cohorts 1 and 5, while group 1 may also be suspected of doing so in cohort 3, and perhaps also cohort 4.

This basis of arguing therefore suggests first that there was a general tendency for group 1 wives to have lower age-specific fertility than older brides; secondly, that signs of an age-specific pattern to fertility restraint, especially in the early 30s, are more persistent through time among group 1 wives than the tests relating to the timing of their last births would lead one to have supposed; but thirdly, that group 2 wives also on occasion adopted contraceptive measures. The second point is worth dwelling on. It could indicate that group 1 wives were following a life-cycle-related fertility strategy which was not precisely as predicted by Henry. We should therefore extend our examination of fertility to younger age-groups to see whether controls are also apparent before age 30.

Before doing so, however, the precariousness of the inferential method of analysis we are forced to employ deserves emphasis. In the first place, even if the peak group 2 fertility levels in each age-group could be regarded as corresponding approximately to natural fecundity, we cannot know how much of the observed deviations from these values could be the result of factors other than deliberate fertility restraint - such as random variations in the quality of personal relations between man and wife, or in the frequency of infant mortality. The scope for such uncontrolled

variables affecting the results is the more apparent if one considers that the number of individuals observed in each cohort or sub-group is substantially smaller than the number of woman-years employed in the calculations.

Related to this is a second point. It might appear that while natural fecundity can be understated by age-specific fertility it can scarcely be exaggerated, and that we may therefore accept peak group 2 fertility levels as at least constituting minimum estimates of the former. But this is not in fact the case. Insofar as the number of individual women observed in group 2 is generally on the low side we can by no means assume that from a fecundity viewpoint they constitute a cross-section of the population. More importantly (for this affects all studies of the type) age-specific fertility is a measure based not merely on actual experience across each age-group but also on extrapolation. In <u>effect</u>, if not by intention, where a woman is under observation for only part of a 5-year age-grouping her experience during that section of the period is generalised to its entirety. The resulting fertility estimate may be either higher or lower than she would actually have experienced had she been under observation for the whole 5-year span.

Although in the Tables so far discussed a rough control has been exercised for this, a particularly distorting influence in this connection is the frequency of bridal pregnancy.

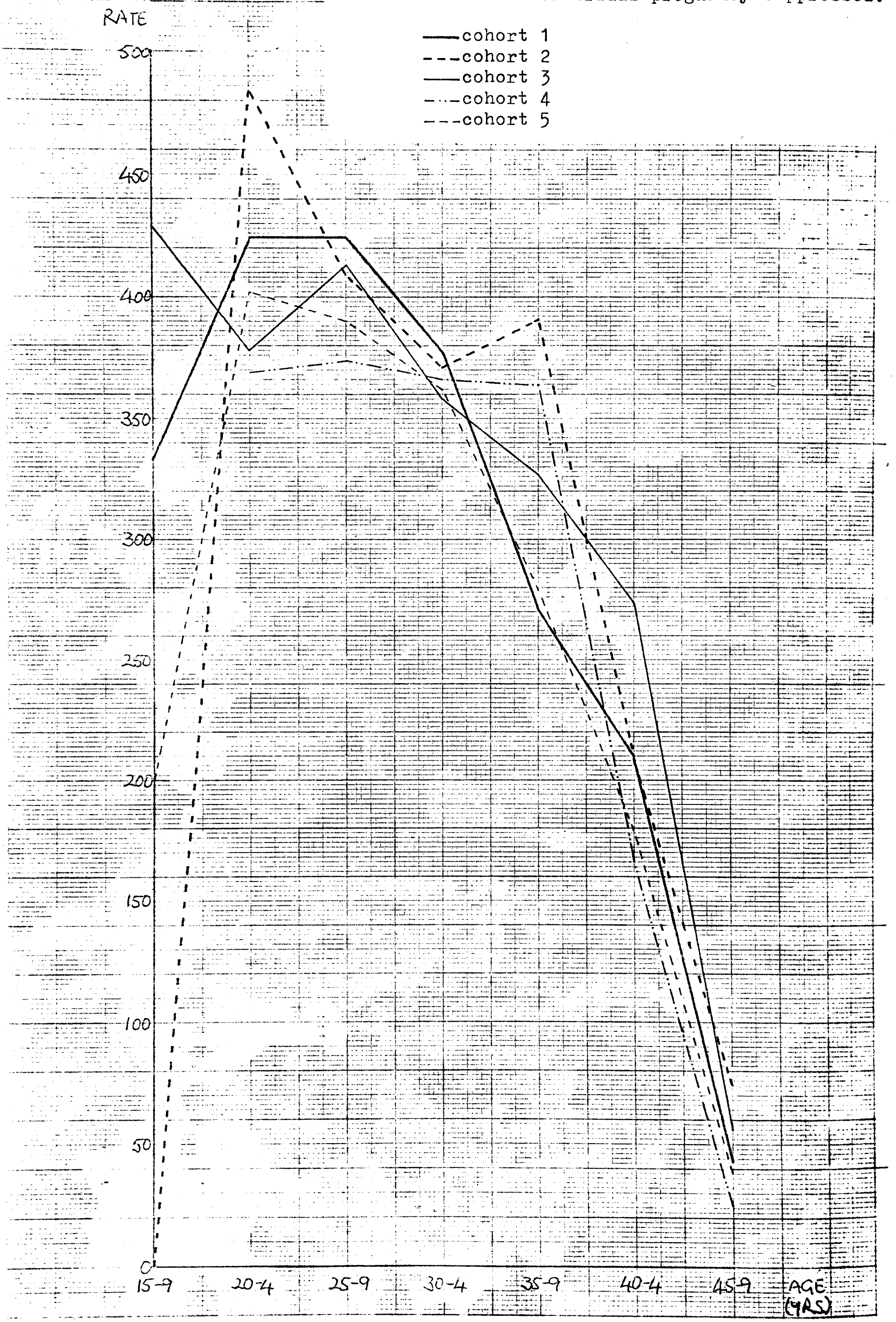
Table XLIV. Age-specific marital fertility (a) unadjusted, (b) with the effect of bridal pregnancy suppressed. (All wives; woman-years observed in brackets.)

Marriage cohort		15-9	20-4	25-9	30-4	35-9	40-4	45-9
1. 1781-92	(a)	700(20)	477(109)	437(151)	383(169.5)	271(166)	210(133.5)	43(115.5)
	(b)	333(9)	424(82.5)	424(139)	377(167)	" "	" "	" "
2. 1793-1817	(a)	667(10.5)	554(144.5)	433(233)	387(261)	391(261)	210(229)	74(204)
	(b)	- (5)	484(80.5)	409(200.5)	371(245.5)	" "	" "	" "
3. 1818-28	(a)	828(14.5)	490(96)	430(151)	370(178.5)	327(159)	274(142.5)	56(125)
	(b)	429(7)	378(63.5)	413(143)	358(173)	" "	" "	" "
4. 1829-42	(a)	667(3)	490(51)	374(101.5)	379(95)	364(93.5)	166(90.5)	25(80)
	(b)	- (-)	369(32.5)	" "	366(93)	" "	" "	" "
5. 1843-60	(a)	667(7.5)	472(216)	422(409.5)	365(414)	283(353.5)	183(328)	38(265)
	(b)	200(5)	402(107)	390(361.5)	362(412)	279(347.5)	179(323.5)	" "
1781-1860	(a)	721(55.5)	496(616.5)	424(1046)	375(1118)	322(1033)	206(923.5)	49(789.5)
	(b)	269(26)	409(386)	401(945.5)	366(1090.5)	321(1027)	205(919)	" "

Table XLIV shows age-specific fertility for church-marriage wives in general. It also indicates the position when women who were pregnant at marriage are excluded from the analysis of the particular age-group in which they married. The exaggeration of fertility in the first part of the Table arises from the fact that a pregnant bride is wrongly treated as though she was at risk of pregnancy only after her wedding day. The effect of the consequential understatement of the true number of woman-years during which she was sexually active is further compounded by the process of extrapolation already mentioned. This can be most clearly illustrated by reference to the age-group 15-19, where it will be observed that the divergence between unadjusted and adjusted fertility rates is especially striking. 47.7% of brides marrying in this age-group were in fact aged 19. Extrapolating from the experience of any of these who, being pregnant at marriage, gave birth within the few months during which they were ostensibly under observation before their twentieth birthday gives a highly exaggerated impression of the fertility they would be likely to have manifested across the 5-year period had they actually been married for the whole of it and not merely the abbreviated segment which happened to catch the birth of their first child.

The method used to excise the effect of bridal pregnancy achieves only rough justice and has the effect of reducing observations to too low a level in the youngest age-group for inter-cohort comparisons to have any meaning. But the corrective is needed. Figure 18 graphs the resulting fertility estimates for each cohort. Following the procedure adopted earlier we shall first examine the angularity of individual cohorts' profiles, and then the inter-cohort variations affecting particular age-groups.

Figure 18. Age-specific marital fertility, with effect of bridal pregnancy suppressed.



On the first score, points to observe will be briefly listed. Insofar as fecundity diminishes somewhat even in the course of the twenties, one may suspect that cohort 1 exercised some fertility restraint at age 20-24. Cohort 2, it will be noticed, had a pronounced kink at age 30-34 (as the evidence examined earlier would lead one to expect)[1] while cohort 3 reveals one at age 20-24. Finally, cohort 4 displays a remarkably flat profile between age 20 and 39, for the first fifteen years of which we may therefore suspect the use of family limitation.

If for the moment we suppose that each of these features constitutes prima facie evidence of the use of contraception and, further, that true levels of natural fecundity did not vary significantly over time for a given age-group, a comparison between one cohort and another permits further inferences. First, cohort 2's high fertility at age 20-24 appears to confirm that cohorts 3 and 4 were restricting fertility in that age-group. If we are correct in our suspicion that the same was true of cohort 1, it would seem to follow also for cohort 5. Secondly, it will be noticed that values for all five cohorts were closely grouped at age 30-34. Since it is suspected that cohorts 2 and 4 were restricting fertility at this point, the same would appear to apply to the remaining cohorts as well. Thirdly, the range of values observed at age 35-39 is so considerable that we may strongly suspect the application of controls in cohorts 1 and 5, and possibly also to a lesser extent in cohort 3. Finally, despite what was said earlier about the 'innocent' variability of fertility above age 40,[2] the disparity between cohort 3's

[1] See above, pp.347-8.

[2] See above, p.347.

performance at age 40-44 and that of the other four cohorts may constitute a *prima facie* case for supposing that all of the latter interfered with fertility at this stage.

The uncertainties surrounding this method of analysis have already been emphasised. They would, of course, be less apparent if Culcheth's fertility patterns conformed more closely to the standard model of how contraception-using populations are expected to behave. The reader may well find the foregoing unimpressive as evidence of fertility restraints. The purpose of the present exercise, however, is not to suggest that all the peculiarities which have been discussed in fact point to the existence of contraception - though some of them very probably do - but rather to make a simple point. When Culcheth's fertility is analysed by these conventional measures the results, while suggestive perhaps that *something* was going on, are extremely inconclusive, for no very consistent pattern emerges either temporally or by reference to life-cycle stage. Indeed, indicators of the possible existence of fertility restraints appear in about as many cohorts during the younger twenties as when women were more advanced through their childbearing years. It is suggested therefore that any appearance of occasional conformity with the Henry model of family formation strategy - such, for example, as was identified in the timing of cohort 5 wives' last births - may be merely coincidental, or at any rate may signify only the presence of a sub-theme. If Culcheth couples indeed resorted to contraception with any regularity few of them can have been aiming at a target family size in the predicated fashion.

Before proceeding further it is important to clear up a possible misapprehension. There appears to be a tendency among

demographic historians to regard the fertility measures which Henry found to be useful explicatory devices for revealing his Genevan population's family formation strategy as constituting primary tests for the very existence of contraception *per se*.[1] This is doubly regrettable. For on the one hand it may - very tentatively - be suggested that most pre-industrial populations' recourse to fertility restraint may not have followed the Genevan pattern, while on the other the analytical techniques commonly deployed in testing for the existence of such a strategy in some instances themselves tend to hinder the identification of communities which *were* actually controlling their fertility but were not doing so in conformity with this particular behavioural model.

Neither is a point for dogmatism. In particular no slight is intended on Henry's technical mastery of the analysis of fertility,[2] which it is beyond the present author's capabilities to criticise (although details of the Genevan strategy appear a little unsatisfactory - why, for example, should those who marry late be presumed to have had similar desired family sizes in mind to younger brides when historians often cite delaying marriage as a means of restricting total family size?). But Geneva's bourgeoisie may be presumed to have been more impervious to the price of bread, and to underemployment or abrupt fluctuations in income, than the generality of pre-industrial couples. Sensitive to broad economic trends they may have been - although Henry's long-cohort structure effectively precludes testing any possible

[1] *E.g.*, R.V. Wells, *op.cit.*, 79-80.

[2] See *e.g.*, L. Henry, *On the Measurement of Human Fertility* (New York, 1972).

economic aspects of fertility change[1] - but they can scarcely ever have felt themselves to be under a constraint to refrain from full sexual intercourse out of concern that the wife's earnings would be lost as she neared term and had subsequently to nurse her child, or that any member of the household might actually go hungry should a particular birth occur. Insofar as these Genevan families interfered with fertility, therefore, it is scarcely surprising that they did so in a strategic fashion, aiming to influence the total number of children raised to adulthood, rather than on an *ad hoc* tactical basis of reacting to immediate circumstances which arose on the way - or, given their inability to foretell mortality among their children, that they implemented this strategy relatively late on in the fertile age-span. But most pre-industrial people were far from being in this comfortable position.

If in practice most couples either had no such strategy or through force of circumstances were repeatedly deflected from it, being induced to respond instead to more immediately pressing considerations, the tail-end of their fertility histories would not be expected to reflect the luxurious restraint of the bourgeoisie. Those who had a target family size might, indeed, be hastening to complete their quota throughout the later fertile years of marriage. In either case, in focussing his analysis on this stage of life the historian would derive a false impression of the concern which the community in question in fact accorded to fertility matters.

Nor, of course, are the standard 5-year groupings employed in studying age-specific fertility and fertility by duration of

[1] *Cf.* above, pp.77-81.

marriage well designed to bring to light responses to temporal economic pulses. On the one hand, times of particular hardship seldom endure for such a protracted period. On the other, cohort analysis presents as a single stock the experience of women living through widely separated points in time, thereby jumbling any relationship between fertility and immediate circumstances which may in fact have existed.

It was therefore decided to rejig Culcheth's marital fertility data to an annual (or in several instances, a 3-year moving average) basis, retaining the original cohort datings but bringing into the analysis all wives who were of fertile age during the years in question irrespective of their date of marriage. Although referred to in the following pages as 'fertility' the material in fact relates to the timing of conceptions not of births.

It will be found that the considerable variability affecting the chronological frequency of marriages in Culcheth, compounded to some extent by changes in the ages of brides, can make it difficult to distinguish genuine movements in marital fertility from shifts resulting from alterations to the age-structure (and therefore fecundity) of the married population. But as an indicator of the existence of a relationship between general fertility and short-run economic change this way of arranging the material is considerably more illuminating than the measures so far reviewed.

Table XLV. General marital fertility below age 45 (a) unadjusted, (b) with the effect of bridal pregnancy suppressed.

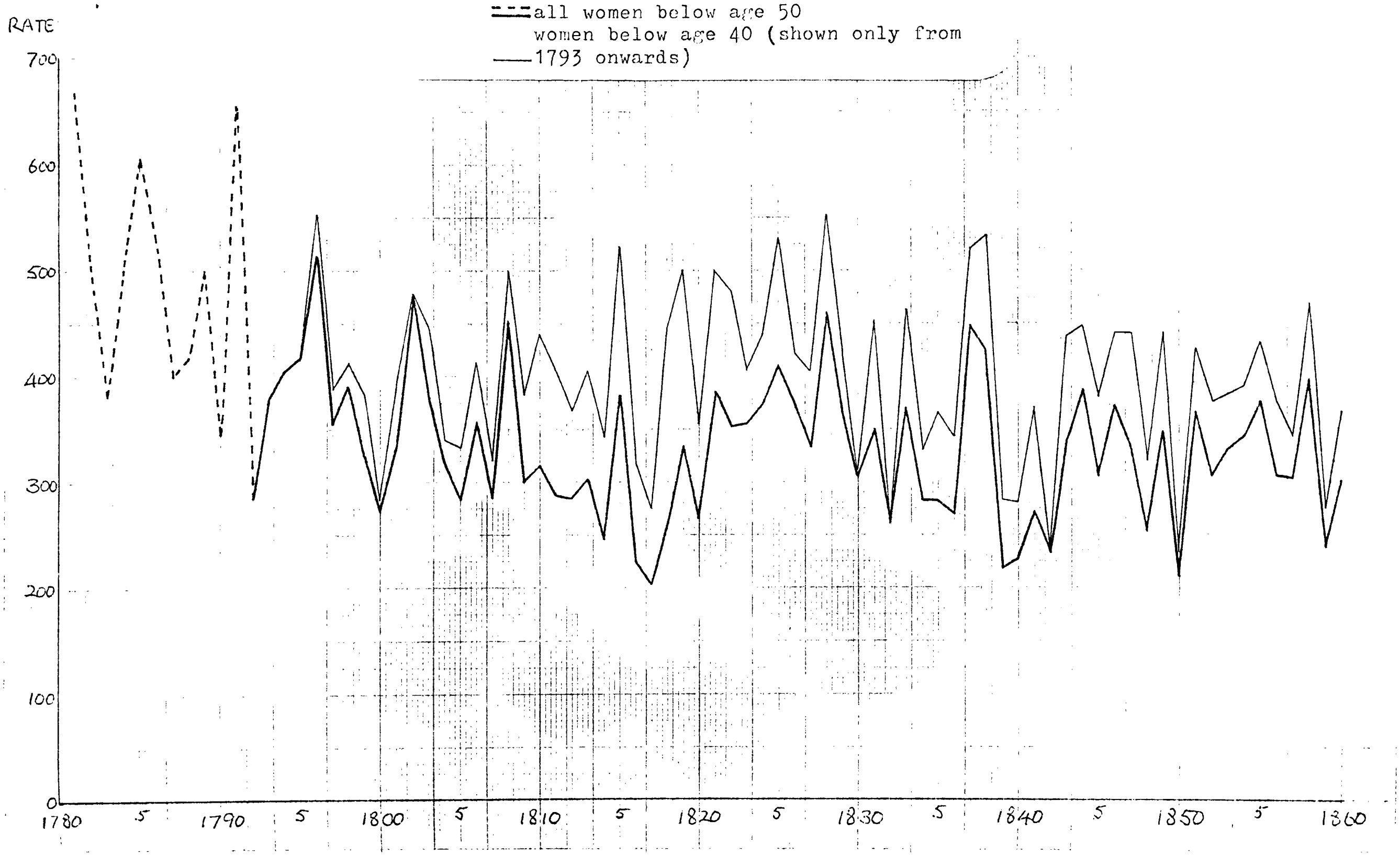
Marriage cohort	(a)	(b)
1. 1781-92	461	392
2a. 1793-1801	382	343
2b. 1802-10	382	356
2c. 1811-17	324	303
2. 1793-1817	366	337
3. 1818-28	415	370
4. 1829-42	353	339
5. 1843-60	355	320
1781-1860	372	339

Table XLV shows average levels of general marital fertility at ages below 45 for each of the five cohorts. The figures which are adjusted to control for bridal pregnancy indicate movements across the first four cohorts which are very much in line with expectations. It will be observed incidentally that values were always in excess of 300, and averaged a level which is not strikingly below the range which Carlsson associated with unrestricted fertility.[1] In itself this is not, of course, evidence of the absence of contraception but it confirms Culcheth's general commitment to a high-fertility regime.

Shorter-run trends, and something of the influence upon them of changes in age-structure, are apparent from the annual data presented in Figure 19. During the years covered by cohort 1,

[1] G. Carlsson, 'The Decline of Fertility: Innovation or Adjustment Process', Population Studies, 20 (1966), 149-74.

Figure 19. Annual movements in general marital fertility, 1781-1860 (by year of conception).



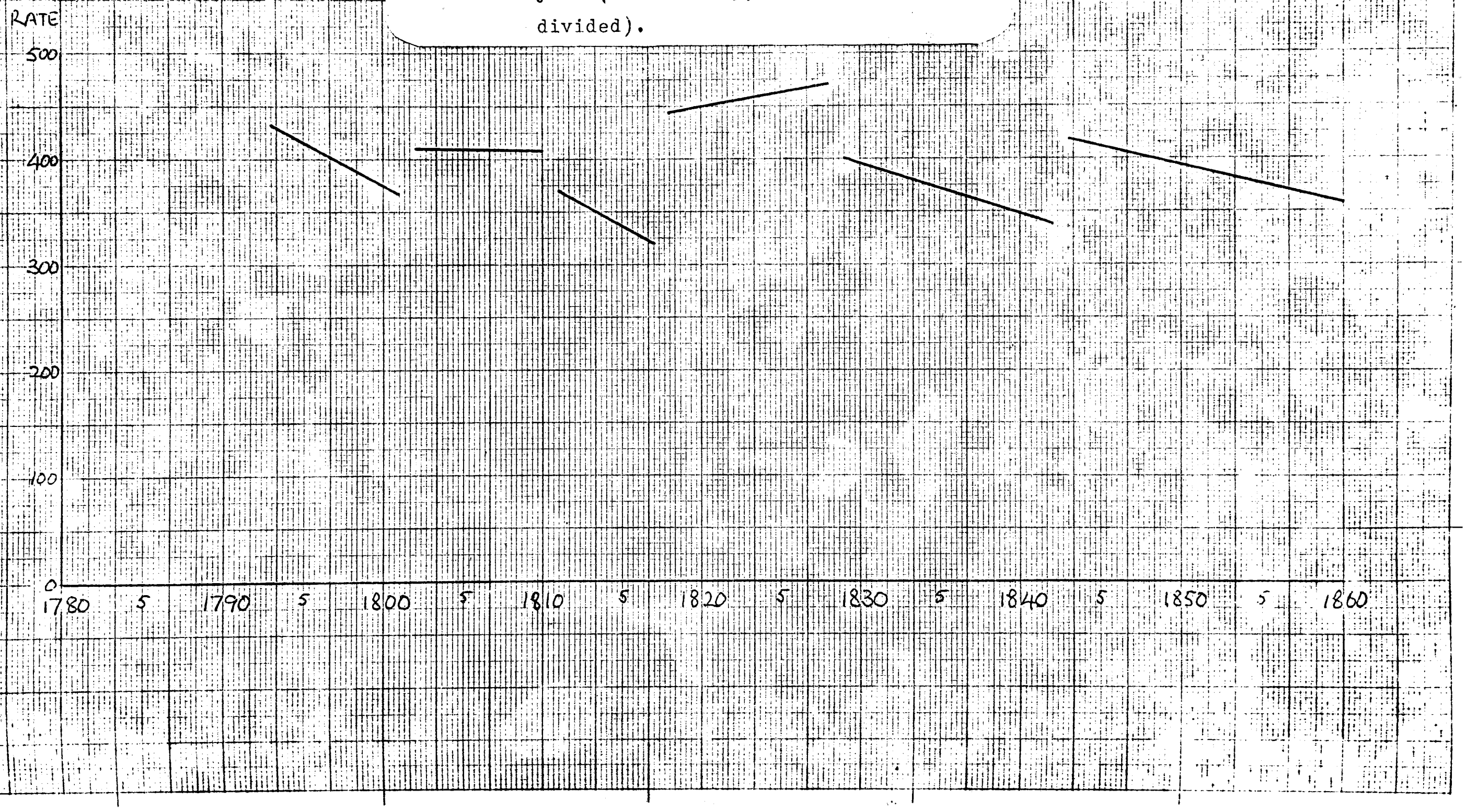
when the reconstitution exercise was being 'run in', the numbers of woman-years observed were initially too few for genuine trends to be apparent - which, together with its incomplete age-profile, prevents us employing this period in statistical tests. In the course of cohort 2a, however, the series approaches completeness from an age-structure point of view as women married during the 1760s and 1770s (and whose families lie outside the reconstituted period) would progressively have ceased childbearing. Nonetheless, during this sub-cohort also the material must be considered to yield a somewhat incomplete profile of actual general marital fertility.

One technical point worth noting is that a woman who conceived in the course of one year would often have been physiologically incapable of doing so also during the year immediately following. A certain instability is thereby imparted to the graph (at least with respect to the maintenance of high levels of fertility) which one would expect to be greater the more responsive the population was to current economic conditions.

Although visually the trends of the early decades are somewhat unclear it will be observed that a marked declension in fertility occurred during the years covered by cohort 2c, followed by a protracted recovery in cohort 3. This in turn was succeeded by a period of generally downward movement during cohort 4; and though there was some raising of fertility levels in the immediate aftermath of the 1842 slump they never again approached the heights of earlier periods.

The strength of these trends can be seen to be in part a function of the changing age-structure of the married stock of

Figure 20. Linear least squares fit for general marital fertility below age 40 weighted for numbers of observations in each year (cohorts 2-5, with cohort 2 subdivided).



women. For example, the overall decline from 1808, which saw the last substantial peak of cohort 2c, to the nadir of 1817 was more marked among the entirety of married women below age 50 than it was among those aged less than 40; while conversely the recovery of the 1820s lifted general levels of fertility by more than was true for the latter sub-group. Nonetheless, if as a partial control on age-structure one takes only wives below age 40, Figure 20 indicates that the breaks in trend were appreciable.

Table XLVI. Marital fertility below age 30, with the effect of bridal pregnancy suppressed. (Woman-years observed in brackets.)

Marriage cohort	fertility
1. 1781-92	421(230.5)
2a. 1793-1801	363(146)
2b. 1802-10	490(104)
2c. 1811-17	508(31.5)
2. 1793-1817	426(281.5)
3. 1818-28	403(213.5)
4. 1829-42	373(134)
5. 1843-60	391(473.5)
1781-1860	404(1333)

As a further control Table XLVI shows the course of fertility at ages below 30, where changes in age-structure can have had negligible effect on natural fecundity. The data are given in average form because the restricted coverage correspondingly reduces the number of woman-years observed and thereby increases the instability of the annual series. Even so the figure for cohort 2c should be regarded with scepticism, as it is based on the

experience of only five women. With that exception, changes over time during the first four cohorts are all in the anticipated direction. The particularly high fertility level during cohort 2b is somewhat surprising. We shall return to it later in the discussion.[1] More generally, the variability of these younger wives' fertility is extremely striking and flatly inconsistent with the Henry model of family formation strategy.

It should be noted, incidentally, that the arguments presented earlier against the applicability of the Henry hypothesis to a community like Culcheth do not preclude there being a life-cycle-stage facet to their application of fertility restraints, and one should therefore be wary of judging the flexibility of marital fertility as a whole from the behaviour of a particular age-group of wives. It could for example have been the case that the high costs associated with the inception of marriage and childrearing[2] would have induced some caution at that point, and/or that as family size began to force wives out of the labour market at a later stage of the cycle[3] prudence yet again was called for. These are suggestions not assertions. Data relating to wives' participation rates are not available in the flow form needed to test the latter hypothesis, although the age-specific fertility material examined earlier appears broadly consistent with both ideas as it threw up fewer signs of interference with fertility during a woman's later twenties than either earlier or subsequently. But the general point is simply that couples' sensitivity to a given economic pulse might well have varied across the life-cycle.

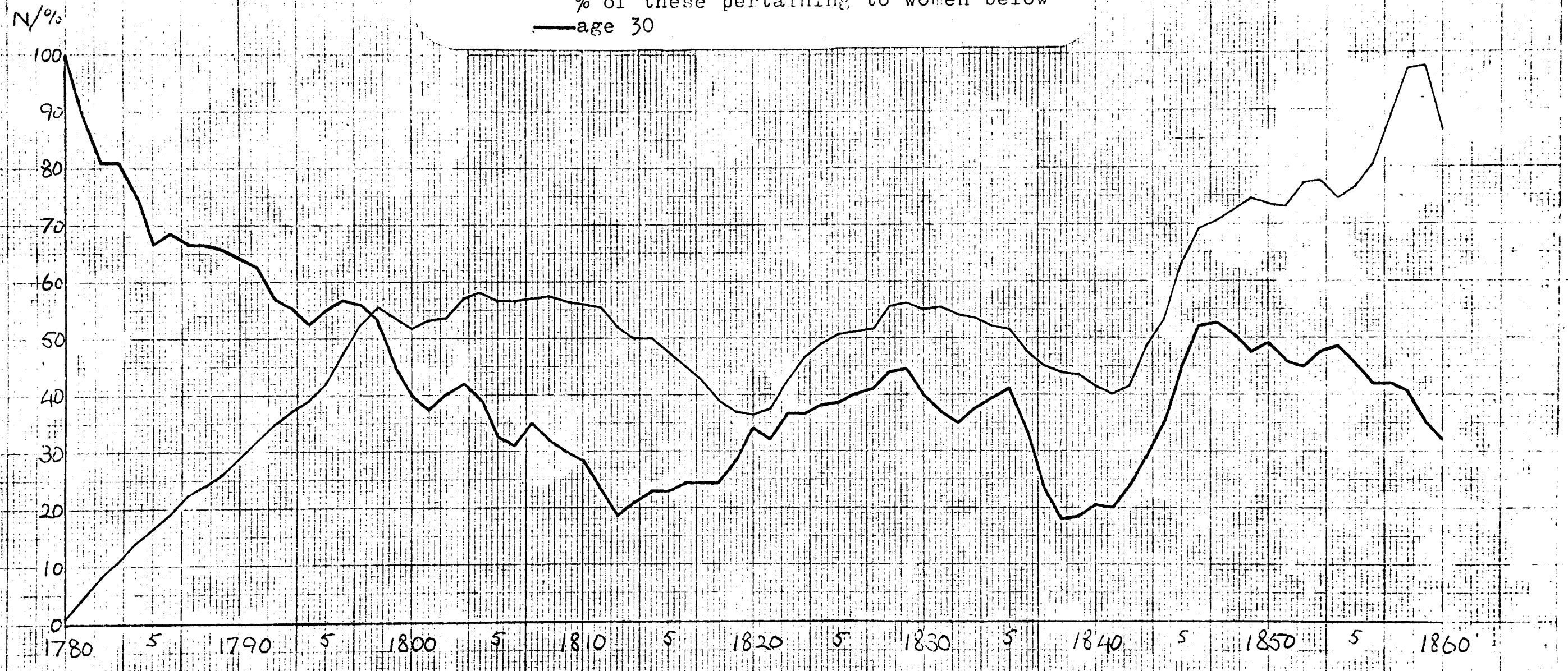
[1] See below, pp.366-7.

[2] See above, pp.257-8, 281-2 and 293.

[3] See above, pp.291-3.

Figure 21. Fluctuations in woman-years observed for marital fertility calculations, and shifts in age-structure of observed population.

——nos. woman-years observed below age 45
% of these pertaining to women below
——age 30



The evidence so far reviewed permits the conclusion that changes in marital fertility were not solely the result of alterations to the age-structure of the married population. Nonetheless, variations in the frequency of marriage and in the ages at which they took place undoubtedly reinforced the observed trends. This can be clearly observed in Figure 21 which graphs on the one hand the number of fertile woman-years observed, and on the other the proportion of them which related to women below the age of 30 - that is, in the most fecund age-groups. The readiness with which Culcheth people restricted entry to marriage when times were bad and relaxed their controls when they improved is readily apparent, as is the impact these patterns had on the age-structure (and hence fecundity) of the married population. From a technical standpoint it would render the analysis of marital fertility simpler had this not been the case. But it serves as a potent reminder that in this district the <u>vie intime</u> of marriage saw, so to speak, only the end game of fertility strategy.

That there was a broad relationship between marital fertility trends and the course of economic change in the district is plain enough. It is manifested both directly in the fertility of married couples and indirectly through changes in the fecundity of the married pool effected by alterations in the frequency and timing of marriage itself. But to discover whether behavioural responsiveness could be related at a year-on-year level to specific economic externalities, fertility data were correlated with a series of economic indicators. 3-year moving averages were utilised in order to remove the instability from fertility data which derives from purely physiological factors.

First, a trend line of the form $y = (88.3)(1.018)^x$ was fitted to the Gayer, Rostow and Schwartz index of business activity for 1790-1850[1] (hereafter referred to as GRS), and a 3-year moving average of percentage deviations from trend was derived from it. Correlating a 3-year moving average of fertility below age 40 with these data yielded the values for r indicated in Table XLVII. It will be observed that with a lag of one or two years fertility appears to have responded sensitively to this measure of the trade cycle only during the closing seven years studied. Although the improvement in the coefficient of correlation was abrupt, it will also be seen that the relationship between the two variables shows a general tendency to become progressively weaker the further back in time one goes and increasingly likely to turn negative.

Table XLVII. Correlation of fertility below age 40 to business activity, 1793-1850 (values for r).

Period	Fertility lagged by: no lag	1 year	2 years
1793-1801	-0.645	-0.101	+0.541
1802-10	-0.053	-0.449	-0.730
1811-17	-0.342	+0.286	+0.190
1818-28	+0.344	+0.410	+0.184
1829-42	+0.404	+0.397	+0.191
1843-49[1]	+0.619	+0.806	+0.822

Note: 1. The period ends in 1849 because of the 3-year average form of the calculations.

It is suggested that three factors between them probably account for the observed pattern. First, the general weakness of any relationship between fertility and the GRS index before the

[1] A.D. Gayer, W.W. Rostow and A.J. Schwartz, The Growth and Fluctuations of the British Economy, 1790-1850 (2nd edn., Hassocks, 1975), 1.354.

1840s reflects both the untrustworthiness of the latter as a macroeconomic indicator in the later eighteenth century and the early years of the nineteenth[1] (which is consistent with the slight improvement in the correlation coefficients over time and probably indicates that the single high coefficient found in the 1790s is a fluke), and also the fact that, as mentioned in chapter 2, the GRS index is weighted towards aspects of economic activity which can have had only an extremely remote impact on Culcheth's handloom weavers.[2] Finally, the sharp improvement registered during the 1840s presumably reflects the construction of the Bury Lane mill and the concomitant shift in the district's occupational structure towards more modern and trade-cycle-sensitive sectors.[3]

In principle the Hoffmann industrial output index might come closer to measuring economic fluctuations which had some bearing on local conditions, but it is not generally regarded as being of high quality. A trend line of the form $y = (133.5)(1.017)^x$ was fitted to this series[4] over the period 1800-60 (that is, excluding the earlier years which are thought to be particularly weak in construction),[5] and once again a 3-year moving average of percentage deviations from the trend was abstracted. In this instance it was decided to employ marital fertility below age 30 in the correlation analysis in order to minimise the effect of

[1] See above, p.88.

[2] See above, pp.88-9.

[3] See above, p.54 et seq..

[4] Eds. B.R. Mitchell and P. Deane, Abstract of British Historical Statistics (Cambridge, 1962), p.271. Building was excluded.

[5] See the review article by P. Deane, Economic Journal, 66 (1956), 493-500.

changes in the age-structure of wives and thus, as far as possible, to isolate genuine fluctuations in marital behaviour, at least with regard to one age-group. Probably, however, the resulting restrictions on numbers of woman-years observed render the fertility series somewhat suspect and contribute to the poor results of the correlation. At all events, as with the GRS exercise, values for r when fertility was unlagged were negative before cohort 3, and only reached a level as high as +0.409 in the years 1843-59. There was thus a broad chronological conformity in the pattern of fertility's relationship to these two macroeconomic series, but the Hoffmann comparison proved particularly unconvincing of its strength.

In searching for an economic indicator more closely related to local conditions, retained raw cotton imports were rejected on the grounds that industry's phenomenal growth path was singularly weakly related to the wellbeing of its workforce. As is well known, while the expansion of aggregate output suffered few checks, it was accompanied by an intermittently downward pressure on piece-rates.[1]

The course of *per capita* poor law expenditure in the township was therefore selected. The existence of a broad relationship between trends in this variable and fertility behaviour more generally has been established in earlier chapters and may be checked by comparing some of the marital fertility measures discussed in the preceding pages with the progression of poor law spending in Figure 5.[2] But its applicability as an indicator is

[1] See also above, pp.83 and 89-90.

[2] See above, facing p. 106.

restricted to the first three cohorts,[1] and in correlation analysis to rather a shorter period even than this in view of the incompleteness of fertility coverage in cohort 1.

Table XLVIII. Correlation of fertility below age 40 to *per capita* poor law expenditure, 1793-1828 (values for r).

Period	Fertility lagged by: no lag	1 year
1793-1801	-0.260	-0.188
1802-10	+0.580	+0.713
1811-17	-0.925	-0.048
1818-28	-0.907	-0.461

It is not surprising to find that, as Table XLVIII indicates, changes in fertility appear to have been most closely related to current levels of *per capita* poor law expenditure. The lag between economic impulse and demographic response which was apparent in the GRS comparison reflects the time taken for macroeconomic forces to feed through to the locality rather than the slowness of fertility response. Poor law expenditure, on the other hand is, like fertility, a residual not an input.

It will be noticed that during cohorts 2c and 3 there was a close and immediate fertility response to fluctuations in relief expenditure (in this instance, of course, the anticipated relationship is negative), but that in the first two sub-periods of cohort 2 the coefficient was either of negligible value or even perversely positive in direction. Two possible influences here are first, that the poor law data follow the financial not the

[1] See above, pp.103-6.

calendar year (although this does not seem to have obscured the relationship between the two variables subsequently); and secondly, that during cohort 2a a slightly lesser degree of confidence attaches to population estimates (and thus *per capita* spending) than is true after the 1801 census. But neither, it is thought, could account for much of the weakness of the observed coefficients. More probably a genuine behavioural phenomenon is highlighted in these figures - namely, that in the period of initial reversal of the handloom weavers' fortunes during the 1790s reactions on the fertility front were ill-coordinated. The population was generally inclined to curtail fertility,[1] but did not as a body do so instinctively at the first sign of crisis. Moreover, it appears to have over-compensated for its privations once a measure of prosperity returned during the years covered by cohort 2c, when not only were short-run economic fluctuations not reflected in any inverse movement in fertility but, as we saw in Table XLVI, younger wives at least *appear* to have given full rein to their fertility as in no other period.[2]

The interpretive problem besides goes further, as can be seen if the material is disaggregated by age. Dividing married women into those aged less than 30 and those aged 30-39 leaves the strong relationship between economic trends and fertility during cohort 2c virtually unaffected, for the two groups' fertility recorded correlation coefficients respectively -0.889 and -0.880, with fertility unlagged. Evidently the extremely sharp deterioration of economic conditions in these years was sufficient to induce a coordination of married couples' behaviour to the point where as a whole they responded immediately to fluctuations

[1] See Figure 20 and Table XLVI above, p.359.

[2] But *cf.* above, pp.359-60.

in their material circumstances. But during cohort 3 these values were reduced respectively to -0.405 and -0.271. In other words, in the latter period the high correlation coefficient relating general marital fertility below age 40 to contemporaneous movements in poor law expenditure was essentially the result not of behaviour within marriage but of changes in the married population's age-structure.

This does not lead to general rejection of the hypothesis that marital fertility was responsive to economic change, but it reinforces the impression that Culcheth's general predisposition towards a high-fertility regime meant that the population's resort to contraceptive measures was largely restricted to periods of evident crisis, or perhaps whenever economic welfare and prospects declined below a (presumably subjective) threshold. When the immediate outlook appeared to be set fair the experience of cohorts 2b and 3 suggests that their inclination was towards an insensitivity to minor fluctuations - and the age-differentiated results for the latter period provide another reminder that much of what responsiveness there was was manifested in changes in the behaviour of the nubile population, which is probably in itself an indication of the unmodernity of the community.

One final economic indicator against which it seemed relevant to correlate marital fertility was the volume of retained imports of raw silk, knubs and waste. The growth path traced by this series over the years 1821-60[1] was sufficiently linear to justify fitting a trend of the form $y = 5148.9 + 77.6x$. Culcheth appears to have switched to silk only after c.1827 and we have seen that although, once established, the trade dominated domestic weaving locally until the close of our period its adoption

[1] Eds. B.R. Mitchell and P. Deane, op.cit., p.207.

coincided with a movement away from the handloom in general, a process which was accelerated by the construction of the Bury Lane mill in the middle 1840s.[1] The period of its peak influence over employment in general was thus comparatively restricted and chiefly concentrated in cohort 4.

Table XLIX. Correlation of fertility below age 40 to retained imports of raw silk, 1829-60 (values for r).

Period	Fertility lagged by: no lag	1 year
1829-42	+0.426	+0.798
1843-54	-0.031	+0.313
1843-59[1]	-0.140	+0.016

Note: 1. The period ends in 1859 because fertility data are not available for 1861.

Taking 3-year moving averages in both instances, marital fertility at ages less than 40 was correlated to percentage deviations from trend in the silk series, yielding the coefficients shown in Table XLIX. The sub-division of cohort 5 in 1854 was suggested by a visual comparison of the two series which indicated a much weaker relationship thereafter. A glance at Figure 4 suggests that the occupational shift out of handloom weaving did indeed receive a new impulse around the middle of that decade.[2] But of more importance is the sharp differentiation between cohort 4 and cohort 5 as a whole. As changes in raw silk imports

[1]See above, pp.50 and 66-72.

[2]See above, facing p.48.

necessarily took time to feed through to altered levels of production it is not surprising to find the relationship strongest when fertility is lagged by one year - indeed, it might be argued that as the industry was peculiarly subject to speculative variations in stockholdings[1] raw silk imports were more casually related to manufactured output in the short run than was true of the majority of industries, and that the degree of fit between the two series, even with a year's lag, is therefore surprisingly close.

To summarise thus far: when economic indicators are selected which might plausibly relate to contemporaneous circumstances in the township a fairly strong degree of responsiveness on an annual (strictly, a 3-year moving average) basis is discernible in marital fertility from c.1811 onwards. Various data suggest that sensitivity to economic conditions was also apparent during cohort 2a, although at this stage the population reacted to economic pulses in only a diffused and uncoordinated fashion. In the course of the first half of the nineteenth century each phase of renewed assault on the handloom weavers' standard of living was met with a lowering of fertility. Although it is not possible to distinguish strictly between the roles played in these shifts by nubile as opposed to married couples, the broad indications are that adjustments to both extramarital and marital behaviour were involved. An overall judgment, taking consideration of the incidence of unmarried motherhood as well as of alterations to the marriage rate, would probably lay greater weight on the fertility restraints which were achieved by the avoidance or timing of marriage than on the restrictions manifested within marriage

[1] See above, p.276.

itself. But if the behaviour of the unmarried had a material impact on fertility this may validly be regarded as an aspect of family formation tactics.

The marriage cohort data which were assessed at an earlier point in this chapter can be seen to have been confusing because inappropriately drawn. Nonetheless, certain features of that material are worth returning to briefly.

It was pointed out earlier that in four out of five cohorts fertility at age 20-24 fell some way short of the level recorded in the remaining sub-period (cohort 2). This is not conclusive evidence of the use of contraception. But it will be noticed from Table XLIV that fertility over the period as a whole, when controlled for bridal pregnancy, was virtually the same at age 25-29 as at 20-24 (in only two out of five cohorts was it actually lower). This reinforces the earlier impression, and again raises the possibility that there existed a perceived vulnerability to economic circumstances in the early stages of marriage - which would not be inconsistent with the interpretation offered in chapter 6 of the economic rationale behind unmarried motherhood.

Secondly, the experience of the last two marriage cohorts merits particular attention. That of cohort 4 - the women who married during the harshest phase of the handloom's crisis - shows the profile most obviously indicative of interference with fertility. By this time it seems likely that marital fertility registers not only couples' perceptions of the present but also, more acutely than in earlier periods, their expectations of the future. For although the survival of the handloom had been ensured for the time being in the district around Leigh by the establishment

of the silk industry, the transformation of the cotton sector by steam must have nullified any hopes that a secure prosperity would ever accrue to the domestic workers who remained. Not only was there a superabundance of former cotton weavers ready to flood into the nascent silk industry, but the demonstration effect of the application of steam to their former employment raised the prospect that in time all domestic weaving would pass the same way. Analytically, these developments are likely to have lowered the anticipated returns to childrearing and may have contributed something to the depressed fertility which Table XLIV shows to have been particularly characteristic of the younger age-groups of this cohort - and which, it will be recalled, also showed up in low completed family sizes among couples from this period whose marriages ended prematurely.[1]

Cohort 5 is also interesting. From both a marriage-cohort and a temporal point of view this period showed the most depressed fertility profile of all bar its immediate predecessor. In part, of course, this probably reflects the perpetuation of a lack of economic security among the remnants of the handloom weaving population. But the two periods are not directly comparable. Cohort 4 had been marked by an especially sharp shift away from entire household-dependence upon the handloom,[2] and although the reconstitution exercise continues thereafter to be biassed towards families originating within the domestic weaving sector,[3] the latter's overall dominance of the statistics is inevitably weakened during the final cohort (as the high correlation coefficient

[1]See Table XXXVII above, p.328.

[2]See Figure 4 above, facing p.48.

[3]See above, p.110.

between marital fertility and the GRS index during the 1840s indicates).

Two points arise from the occupational divergence between cohorts 4 and 5. First, the reduction in dependence on the handloom may also have meant a reduction in the 'average' couple's interest in a generally high-fertility regime. Thus, though the present study cannot validate this point, the lower overall fertility of cohort 5 when compared with the first three cohorts may in fact represent a permanent shift and not merely a tactical one towards a measure of fertility restraint. The anticipated income to be derived from child-labour at the newly constructed mill might well not have offset this change, for - apart from local antipathy to the mill itself[1] - earnings from this source only accrued to parents relatively late on in a child's upbringing.

As a sub-theme to this plot it should be recalled that the movement out of handloom weaving was especially marked among men.[2] This meant that a smaller proportion of fathers worked at home and thus, ceteris paribus, that the opportunity costs of child-rearing would have risen as wives, deriving less benefit from the assistance of their husbands in childminding, would more prematurely have been forced out of the workforce themselves in order to concentrate on such tasks. These structural developments, of course, took place to an important degree in the course of cohort 4, and probably constitute another depressive influence on those brides' fertility. But their full impact was felt only with cohort 5. A final point is that insofar as many of this

[1] See above, pp.58-64.

[2] See above, Table VIII, p.67.

cohort's couples were prevailed upon to marry at an earlier stage of life than would have happened had they been left to pursue a fertility strategy of their own devising, their historically low levels of marital fertility may partially reflect an offsetting adjustment designed to take account of this interference.

The much greater degree of occupational diversification which characterises cohort 5 when contrasted to its predecessors has proved a constant source of analytical difficulty, but its fertility history at least raises specific problems which can be formulated if not satisfactorily answered.

Lastly, and briefly, we should differentiate the marital experience of UMs from that of non-UMs. Table L distinguishes their overall fertility from age 25 upwards and during the first ten years of marriage. The pattern noticed earlier for younger brides to have lower fertility than older is here repeated, with one exception, at each age-group. But it will be noticed that irrespective of the age at which they married UMs tended to have lower marital fertility than their non-UM counterparts. This was the case with respect to all age-groups among the younger brides, and was generally true also when considering women who married above age 25 (particularly if duration of marriage is included in the assessment).

Table L. Fertility above age 25, and during the first 10 years of marriage, 1781-1860, distinguishing (a) non-UMs from (b) UMs. (The effect of bridal pregnancy suppressed; woman-years observed in brackets.)

Age at marriage		Age: 25-9	30-4	35-9	40-4	45-9	Years of marriage 0-4	5-9
< 25	(a)	416(681)	363(578)	336(476)	206(398.5)	46(345)	508(750.5)	383(645.5)
	(b)	334(185.5)	319(156.5)	259(123.5)	128(101.5)	37(81.5)	429(205)	322(174)
25/>	(a)	429(28)	403(159)	340(179.5)	213(164)	64(140)	481(233)	332(195.5)
	(b)	449(44.5)	380(184)	307(224.5)	242(223.5)	51(196)	449(280.5)	292(253)
all wives	(a)	416(709)	372(737)	337(655.5)	208(562.5)	52(485)	501(983.5)	371(841)
	(b)	357(230)	352(340.5)	290(348)	206(325)	47(277.5)	441(485.5)	304(427)

If women are grouped without reference to age at marriage it is not surprising, given their generally later entry to matrimony, that UMs had appreciably lower fertility in relation to the duration of their marriages. But despite their pattern of higher age at marriage they were fairly persistently the less fertile group at all ages below 40.

Shades of the Henry thesis also reappear if UMs' and non-UMs' final intergenesic intervals are considered. For the former had an overall mean of 45.20 months to the latter's 37.89 (probability of significance = 96%).

It is not, however, intended to argue that unmarried motherhood had as its primary objective a limitation of total fertility which UMs, once married, continued ruthlessly to implement. It was suggested in chapter 6 that their extramarital behaviour is best understood as having served fairly immediate economic ends. For the longer-term costs and benefits of rearing a given number of children were so uncertain as to make it unlikely that this pattern of family formation would have commonly been initiated chiefly to limit completed family size - even if one accepts that the advantages of a woman commencing childbearing while young and still possessed of a favourably structured parental household might have ruled out the more obvious means to this end, which was protracted celibacy.

It seems more likely that the same sensitivity to economic considerations which, it has been argued, characterised women who became UMs did not simply evaporate once they had married. In fairness it should be said that the statistical data just presented, by virtue of being aggregated over the whole period

(material on UMs being in some cohorts too restricted to justify a chronologically more refined analysis), could as easily distort reality as illuminate it.[1] But superficially at least they reinforce the arguments of earlier chapters which emphasised the plausibility of a socio-economic rationale as having underlain UMs' behaviour. As a group, indeed, within marriage as without, they appear to have been among the community's foremost fertility controllers.

[1] *Cf.* above, p.77.

Chapter 9

Common Law Marriages

One of the most intriguing aspects of Culcheth's familial past lies in the prevalence of common law marriages (CLMs). The term may never have been heard in the township, and there is no reason to suppose that people would have been cognizant of its precise legal implications even if it had been. As will become apparent, its employment in the present context is for the sake of convenience and is not intended to imply the existence of any particular set of values among Culcheth people which might be associated with the phrase. It will, indeed, be suggested that informally instituted unions may not have been regarded in the district as legally binding marriages at all.

The term CLM is applied here to cohabiting couples whose domestic arrangements, had the matter ever been tested in a court of law, would - so far as one can judge on the evidence and at this distance of time - have been deemed to constitute legally valid marriages, with all associated rights and obligations, despite the fact that the couples in question had not been married by a parson and might even have denied having any marital intentions towards one another.[1] Today social workers and others sometimes confuse cases of stable cohabitation with CLMs. Legally speaking, the two phenomena are distinct, although rather after the fashion of maggot and fly. It is not

[1] The best work I know on the complicated evolution of English law's attitude to marriage forms, and in particular on the inconsistencies between ecclesiastical and temporal doctrines, is W. Hooper, The Law of Illegitimacy (London, 1911).

living together for any particular period of time which establishes the existence of a CLM, but having the public reputation of being married. Typically this reputation would involve the woman coming to be known by the man's surname. But it has sometimes been deemed sufficient that a man recognised his paternity of children born to the woman with whom he resided, for example by maintaining them or by allowing them to bear his surname.[1]

The roots of CLM lie in the common law's extreme reluctance to bastardise children, in consequence of which it would generally not permit either parent of a child to give evidence which would have this effect. Hence their denial of the existence of a marriage between them was notadmissible as evidence in a case which turned upon the issue of a child's status.[2] If the reputation of marriage were found to exist then the law held that at some unspecified time in the past the couple had exchanged vows _per verba de praesenti_ or _de future_, and however hotly they might deny the fact that was that.[3]

In the nature of things the existence of a CLM could only be definitively determined retrospectively and by a competent court of law. CLM is thus a term describing a status of the

[1] _Ibid_, pp.147-50.

[2] _Ibid_.,pp.141-3, but _cf_. pp.202-17

[3] For the technical distinction between these two forms of irregular marriage and the legal wrangles to which they could give rise, see the discussion of current Scottish practice (still dominated by common law doctrines) in the Report of the Royal Commission on the Laws of Marriage, _Parl. Papers 1867-8_, xxxii(4059), pp.16-20. However, when antecedent vows were presumed by legal fiction it is unclear to me whether there was any substantive difference between the two formulae. _Cf_. W. Hooper, _op.cit_., pp.33-5.

existence of which the parties affected may be entirely unaware. In a district like Culcheth where the scope for litigation in respect of inheritance disputes was negligible, it would only have been their acquaintance with the Poor Law which was ever likely to alert couples to the possibility that their manner of living might carry the full legal implications of marriage. But conflicts of opinion important enough to reach Quarter Sessions and a judicial ruling which might have affected the treatment and status of consensual unions generally in the township are only likely to have arisen from cases of disputed settlement. These by their nature are unlikely to have challenged the position of most of the couples with whom we are concerned, for they would have shared a local settlement. Where this was the case the question of whether paupers were legally married is unlikely to have been of more than casual interest to local overseers - if, indeed, even they were aware of the possibility - for the matter would not have affected their right to relief. But the attitude of Poor Law officers and its influence upon the local status of CLMs must unfortunately remain indeterminate. In the present state of knowledge the practical significance of consensual unions in the township is not self-evident, and the description of them in these pages as marriages is not intended to prejudge the issue.

Any demographic historian will appreciate immediately that family reconstitution techniques are ill-designed to identify CLMs where these exist (or, for that matter, to demonstrate their absence from a community's domestic patterns). The presumption when one finds baptisms and burials attaching to a couple for whom no wedding is known to have occurred within one's

catchment area is naturally to suppose that they were immigrants to the neighbourhood who had married in a church elsewhere. And in fact it cannot be proven that the unions here treated as CLMs had not been ecclesiastically solemnised in the normal way outside the district. This problem has been tackled by regarding as CLMs only the unions of those couples for both of whom there is evidence either of having been born in Winwick parish or of having been resident in Culcheth before the marriage first manifests itself in baptism or burial registers or in the census household schedules from 1841 on. These are all couples for whom there is a very high chance - amounting to a presumption - that had they married in church they would have done so within the parish. These CLMs, for reasons which will become clear in a moment, have been designated 'apparent marriages, Series A'. 68 fertile first marriages of this type have been found in Culcheth between 1781 and 1860, and two involving widows. As Table LI indicates, the former group accounted for 10.9% of all fertile first marriages over the eighty-year period and for virtually one third of cohort 4's brides. It should be added that in 66 of the 70 cases of CLMs both partners were known to have been born locally - that is, in only four cases was it necessary to fall back on the second and weaker criterion of selection, that of known residence in Culcheth prior to marriage.

Table LI. Apparent marriages as a proportion of all fertile first marriages, on alternative extreme assumptions.[1]

If all Series 'B' marriages:
(1) = church-marriages;[2] (2) = CLMs.[3]

Cohort	(1) total marriages	(1) CLMs. N	(1) CLMs. %	(2) total marriages	(2) CLMs.[4] N	(2) CLMs.[4] %
1781–1800	143	3	2.1	156	16	10.3
1801–50	371	59	15.9	426	114	26.8
1851–60	108	6	5.6	114	12	10.5
1. 1781–92	1	88	1.1	93	6	6.5
2a. 1793–1801	2	62	3.2	71	11	15.5
2b. 1802–10	7	72	9.7	81	16	19.8
2c. 1811–17	7	35	20.0	407	19	40.4
2. 1793–1817	16	169	9.5	199	46	23.1
3. 1818–28	12	90	13.3	106	28	26.4
4. 1829–42	25	79	31.6	90	36	40.0
5. 1843–60	14	196	7.1	208	26	12.5
1781–1860	68	622	10.9	696	142	20.4

Notes:
1. For general explanation of Table see accompanying text.
2. In this case they must have been celebrated outside our catchment area and are therefore excluded from the total of marriages formed within the district.
3. Assumed to have been formed within Culcheth.
4. In all other contexts in this work, the term CLM is used to refer exclusively to Series 'A' apparent marriages.

A second collection of apparent marriages styled Series B comprises a further 74 fertile first marriages and one remarriage. It consists of couples one of whom but not the other is known to have been born in Culcheth. Had these unions all in fact been consensual, the CLM proportion of fertile first marriages in the district would have been as high as 20.4% over the period as a whole. In fact, however, in 27 out of the 75 Series B marriages, or 36.0%, one partner is positively known <u>not</u> to have been born in Culcheth, and in such cases there is obviously a strong possibility (in any other parish it would be considered a near certainty) that the couple had married in the non-local partner's parish of origin. The same could also have been true of all the remaining Series B marriages, since our ignorance of one partner's birth-place is <u>prima facie</u> evidence that it was not Culcheth (though it could easily have lain elsewhere in Winwick parish, in which case we would still expect to have picked up any weddings which in fact occurred). Obviously, Series B marriages cannot be treated as consisting entirely or even largely of CLMs, and they in fact play no part in our study of consensual unions in Culcheth. The series was constructed because when following a woman's career through from birth the known prevalence of CLMs in the district rendered it necessary to avoid the presumption that her marriage had been blessed by the Church when one had no evidence that this was actually the case.

It should be noted that the marriage registers consulted in the search for Culcheth people who married in the normal way but out of the district cover quite an extensive area beyond the township's confines. Winwick itself lay more than four miles to the south-west of Newchurch, and in a north-westerly direction

the parish extended for several miles further still. The home parish thus constituted an adequate catchment area with regard to short-distance migration to Culcheth's west. The origins of migrants to Culcheth suggested that Chat Moss to the township's east constituted something of a social barrier. The registers of Eccles and Flixton, the closest parish churches beyond the Moss, lying 7-10 miles from Newchurch by road, were not in fact checked; but the baptisms and burials registered at the Anglican chapel at Hollinfare (just over the Moss from Culcheth) were insubstantial in number[1] and it is inconceivable that there can have been a regular flow of Culcheth people marrying farther afield who then returned to live in their native township. It must be remembered that, taking both series of apparent marriages together, we are dealing with a postulated haemorrhage equivalent to one fifth of total marriages.

To the north of Culcheth the registers at Leigh, where it will be recalled that many Culcheth children were baptised,[2] yielded only one marriage partner who could be identified as hailing from the township during the whole of the eighty-year period, and to the south the parish church at Warrington threw up only another two. It is, of course, possible that someone marrying out of the mother parish of Winwick might misinform the cleric conducting the wedding service as to his or her true abode. But it is difficult to see why many should have bothered to do so. The surprising conclusion would thus appear to be that while only three Culcheth people raised families in the township after marrying in adjacent parishes, at least 75 (the

[1] See above, pp.119-20.

[2] Loc. cit..

number who make up our Series B apparent marriages) would seem to have done so after marrying further afield. The alternative interpretation, which I am inclined to favour, is that Series B does in fact include quite a number of CLMs. Although the exercise has no objective value it may be worth presenting a rough estimate of the proportion of which this might be expected to be the case.

As a broad generalisation one at least of the partners to any marriage may be assumed to be a resident of the parish in which the wedding takes place. When, from 1837, marriages came to be celebrated at Newchurch rather than at Winwick and the registers began to record the precise township of each marriage partner's abode, it was found that both partners were local residents in 258 of the 303 marriages celebrated in the period to the end of 1860 (if one excludes a handful in which both hailed from Kenyon),[1] that is in 85.1% of cases. If one assumed that the couples involved in apparent marriages A+B constituted a similarly structured group one would predict that c.123 such marriages would have involved two locally resident partners and would thus meet our criteria for the identification of CLMs. 70 of these have already been identified (in Series A), which implies that Series B should contain c.53 CLMs. This may seem too high a figure in view of the fact that in 27 of the Series B marriages one partner is definitely known not to have been born in Culcheth. But place of birth is not the same thing as residence at time of marriage and there is nothing intrinsically implausible about the estimate. Were it somewhere near the truth, CLMs in Culcheth would have accounted over the period as

[1] See above, p.15.

a whole for c.18% of fertile first marriages.

However crude this estimate, it should not be considered as in any way a maximum order of magnitude. The only point of which one may be fairly certain is that the 10.9% of fertile first marriages which our Series A CLMs proper represent is a minimum.

The difficulty of identifying CLMs has led not only to an inevitable understatement of their incidence but, no less importantly from an interpretive viewpoint, to two major types of bias affecting the unions which have been found. Briefly, they were more easily identified the longer they lasted and the more fertile they proved. Other sources of bias exist, but to less important effect.

The scope for missing such unions is enormous, and particularly so before the introduction of civil registers of births (which, unlike Anglican baptism registers, stated the wife's maiden name) and the census household schedules which survive from 1841 onwards. In the censuses, for example, one can sometimes spot a wife with one or more children whose Christian names seem familiar but who cannot be located in FRF material under the surname they claim for themselves. To be able to identify them correctly as a former UM and progeny demands close acquaintanceship with the district's baptism records as well as getting a lead from a census, but without the latter one would scarcely ever have any indication that the woman had married at all. She and her children would simply be assumed to have disappeared from the township.

The censuses do not solve all problems. The identification of CLM brides who had not been UMs and who had ceased to bear children before the civil registration period can be very difficult even if one picks them up in a census, for then one has no direct evidence bearing on their maiden names at all. For this reason Series B apparent marriages contains almost twice as many wives whose origins are unidentifiable than husbands, and even in Series A there are 11 cases where although the woman is known to have been born in Culcheth her maiden name and parentage cannot be determined.

Nonetheless the information on ages and place of birth given in the later censuses, and the frequency with which people lived within a few doors of their relatives or had individual kin residing with them, has meant that relatively few CLMs which survived to 1841 or were formed after that date can have escaped detection. In one or two cases in the late eighteenth and very early nineteenth centuries burial registers helpfully identified a deceased wife by naming her father and place of birth. But effectively CLMs have only been identified if they left some trace on the censuses of 1841 and later years. Thus their true frequency will almost certainly have exceeded present estimates by more the further back towards the beginning of the period one goes. And if there was any tendency in the pre-census period for consensual unions to be regarded as temporary arrangements those which we have, because of their longevity, been able to identify might have been highly untypical of the <u>genre</u>.

But quite apart from this bias in the evidence it must be obvious that CLMs are never self-announcing and only come to light at all when the researcher's suspicions are aroused by

some oddity or half-perceived familiarity about a family. When we come to discussing their demographic characteristics it will be noticed that they appear as a group to have been more fertile than church-marriages. It is strongly suspected that this is not a real phenomenon at all but largely the product of having too readily assumed that couples known only from a single child's baptism, or even from two or three, were simply temporary sojourners in Culcheth, with the result that no attempt was made to establish their true identity. (In most such instances the search would have been fruitless in any case.) It is also probably a reflection of the fact that the more demographic evidence of its existence which a marriage leaves behind it the more chance that, for example, one will be alerted by the appearance of a local family's favourite Christian names, or that a census will reveal a child living with an uncle or grandparent whose stated relationship one to another implies the identity of the child's mother. For such reasons the CLM families which it has proved possible to reconstitute tend (at least with respect to former UMs) to be larger than those of couples who married in church and give what may be a misleading impression of the solidity and permanence of consensual unions. This is, however, an interpretive question which is better left until the demographic characteristics of CLMs have been considered at their face-value.

Couples who marry in church can be readily grouped into cohorts by reference to the date of their wedding. But the dating of the inception of a CLM is necessarily arbitrary. For convenience it was assumed that each union had been in existence for precisely 18 months before the birth of the first child to

be baptised as legitimate, since the gaining of a reputation of being married presupposes passing through a period when the couple were not accorded this status. In six out of 68 first-marriage CLMs the wife had been a UM within this period, and in these cases the marriage was assumed to have commenced mid-way between the two births in question. We shall see that the 18-months rule probably has the effect of antedating the time at which most CLM couples in fact set up house together, but its object is merely to permit approximate standardisation of their (doubtless varied) experience. The two widows have been excluded and our discoussion will therefore relate only to fertile first marriages.

Given that CLMs are probably more under-represented in earlier decades than later, but to an unknown extent, one cannot say for certain whether the phenomenon's varying frequency as indicated in Table LI fits better with the short-run economic oscillations which characterised the township's history or with the secular growth and eventual decline displayed by the incidence of unmarried motherhood. That there was an economic dimension is powerfully suggested by the peaks which occurred during cohorts 2c and 4 and the intervening declivity. On the other hand, that CLMs may have been part and parcel of the same set of attitudinal changes to marriage and childrearing which seems to have underlain the nineteenth century growth of illegitimacy and which are not explicable in terms of short-run economic conditions is perhaps implied first by the fact that, on the face of it at least, consensual unions appear to have been less common in the eighteenth century than later and secondly, by the rapid decline in their frequency between 1843 and 1860 (which is

undoubtedly a genuine trend, for it is then that our ability to pick up CLMs is at its greatest). Both features are reminiscent of the incidence of unmarried motherhood.[1]

For whatever reason, in most sub-periods the numbers of fertile CLMs recovered are too small for the series to be usefully subjected to detailed analysis at a cohort level. We shall therefore have to concentrate on defining the unions' characteristics in general terms.

31 of the 57 first-marriage brides whose maiden name is known, or 54.4%, had been UMs before they married. As we saw in chapter 7, the same was true of only 25.5% of women whose first marriage was celebrated in church.[2] Possibly women who had lost their respectability in one sense placed less of a premium on the formalities of a wedding when they eventually married. But it is suspected that the true difference between the two groups of wives was substantially less than indicated by these figures, which more probably point up another source of bias in the construction of the CLM series of marriages. For it was often the fact that a wife had been a UM which permitted the establishment of her maiden name and local origins - either directly, as when her marital household as enumerated in a census contained unlegitimated bastards, or indirectly when it held apparently legitimate children whose baptisms were not known by their present surname but whose ages and christian names permitted identification of their mother from the illegitimacy records. In other words, a history of unmarried motherhood was of material assistance in revealing the existence of CLMs.

[1] See Figure 7 above, facing p.187.

[2] See Table XXXIV above, p.316.

The more striking circumstance is the corollary that at least 45% of CLM brides, and very probably a clear majority, had not been UMs. For if the bona fides of people who set up house together without the benefit of a formal wedding service were to acquire social acceptance one might have expected that proven fidelity over a period of some time would have been of the essence, and that in the meantime recognition of the legitimacy of their issue would have been withheld - and all the more so since we are dealing with a small community in which the existence or absence of wedding festivities would unquestionably have been a matter of common knowledge. In this we have a first sign that the gaining of the reputation of being married may not in fact have depended on establishing a public 'character'.

Another is apparent when we look at the intervals between CLM brides' births. Of the 26 UMs among them for whom our data are sufficiently precise only four, or 15.4%, bore their first legitimate child less than two years after their most recent bastard. For exactly double this proportion the gap was four years or more. Such evidence is not conclusive but suggests that at the time of the illegitimate birth in question couples typically had not yet set up house together. This in turn would imply that the phase of unmarried motherhood through which a good many CLM brides passed had nothing to do with the status of their consensual unions being, as it were, on probation.

Table LII. Birth intervals, in months, by status of mother at time of birth : 1781-1860.

Interval :	child 1-2;			child 2-3.		
Status	N	Mean	Median	N	Mean	Median
Non-UM church-marriage wives:	277	25.33	23.14	234	26.90	25.60
CLM wives :	40	27.28	26.25	32	25.81	25.67
UMs :	222	47.37	38.80	88	46.82	40.31

Table LII compares the mean and median intervals elapsing between a woman's first three births within the institutional settings respectively of church-marriage, CLM and unmarried motherhood. Ideally the UM group should include only women all of whose first three illegitimate children are known to have been by the same PF, but this information is available in too small a proportion of cases for use. It is also smallness of numbers which precludes taking the comparison beyond the third birth. It will be noticed that CLM brides' birth intervals were very similar to those of women who had married in church. In other words (and though the point may seem too obvious it is as well to establish it statistically) CLMs certainly involved cohabitation. The same, however, does not appear to have been true of UMs who bore more than one child. Once again this is not conclusive in itself because of our inability to isolate UMs who had a stable relationship with one man throughout the period in question, but in the light of the two other pieces of evidence we have reviewed which point in a similar direction, it can leave very little room for doubt. So far as one may judge, in the eyes of the Church in Culcheth (and it is essentially their criteria for deciding the legitimacy of births which we are trying to disentangle) a

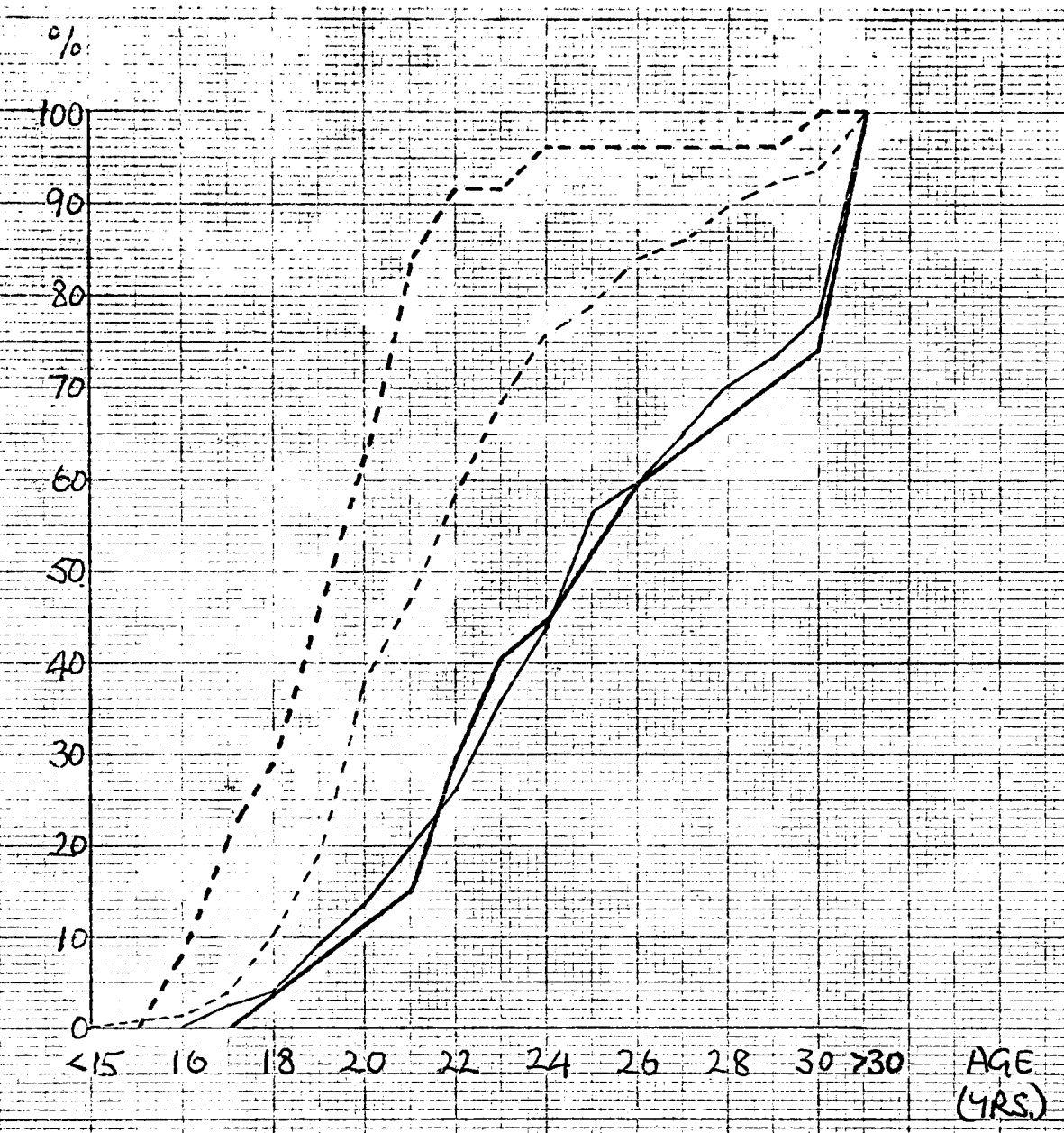
CLM came into existence quite simply whenever a couple established a household together. And when they were not cohabiting their children were baptised as illegitimate.

The issue of interpretive interest here is the negative one that, since cohabiting couples do not appear to have had to aspire behaviourally to any social standard of respectability to be treated (at least by the Church) as man and wife, we cannot infer from their being accorded this status that people in the township generally believed them to be legally married. The quality of a couple's relationship, in particular the observed steadfastness of their obligations to each other, was subjected to no test perceptible from our vantage point as a result of which the match passed from being regarded as a trial marriage to a permanent and binding one.

The usefulness of statistics relating to the age at which CLM brides married is vitiated by our not knowing precisely when a marriage can be said to have been instituted. Employing the arbitrary 18-months rule for dating CLMs gives brides a mean age at first marriage of 23.60 years over the period as a whole, with a median of 22.31 years. These figures compare with 24.29 and 23.07 years respectively for women who married in church. But if we are correct in thinking that CLM brides did not in fact have to acquire a reputation in the accepted sense it is likely that their entry upon cohabitation would typically have been significantly less than 18 months before the birth of their first legitimate child, and in this case the difference between their average age at marriage and that of church-brides might well disappear. The two groups were, however, differently constituted for, as we have seen, our CLM sample of brides contained a

Figure 22. Cumulative distribution of female ages at first marriage.

unbroken lines: UMs; broken lines: non-UMs
CLM brides
church-marriage brides



higher proportion of UMs, who in general married later than non-UMs. To see whether there were real differences between church-marriage and CLM brides it is therefore necessary to disaggregate the material. This is done in Table LIII and Figure 22.

Table LIII. Female age at first marriage in years, 1781-1860, comparing CLM and church-marriage brides.[1]

	CLM brides			Church-marriage brides		
	N	mean	median	N	mean	median
Non-UMs	24[2]	20.42	20.25	298	23.21	22.26
UMs	27	26.87	25.75	124	26.89	25.47
All brides	59	23.60	22.31	422	24.29	23.07

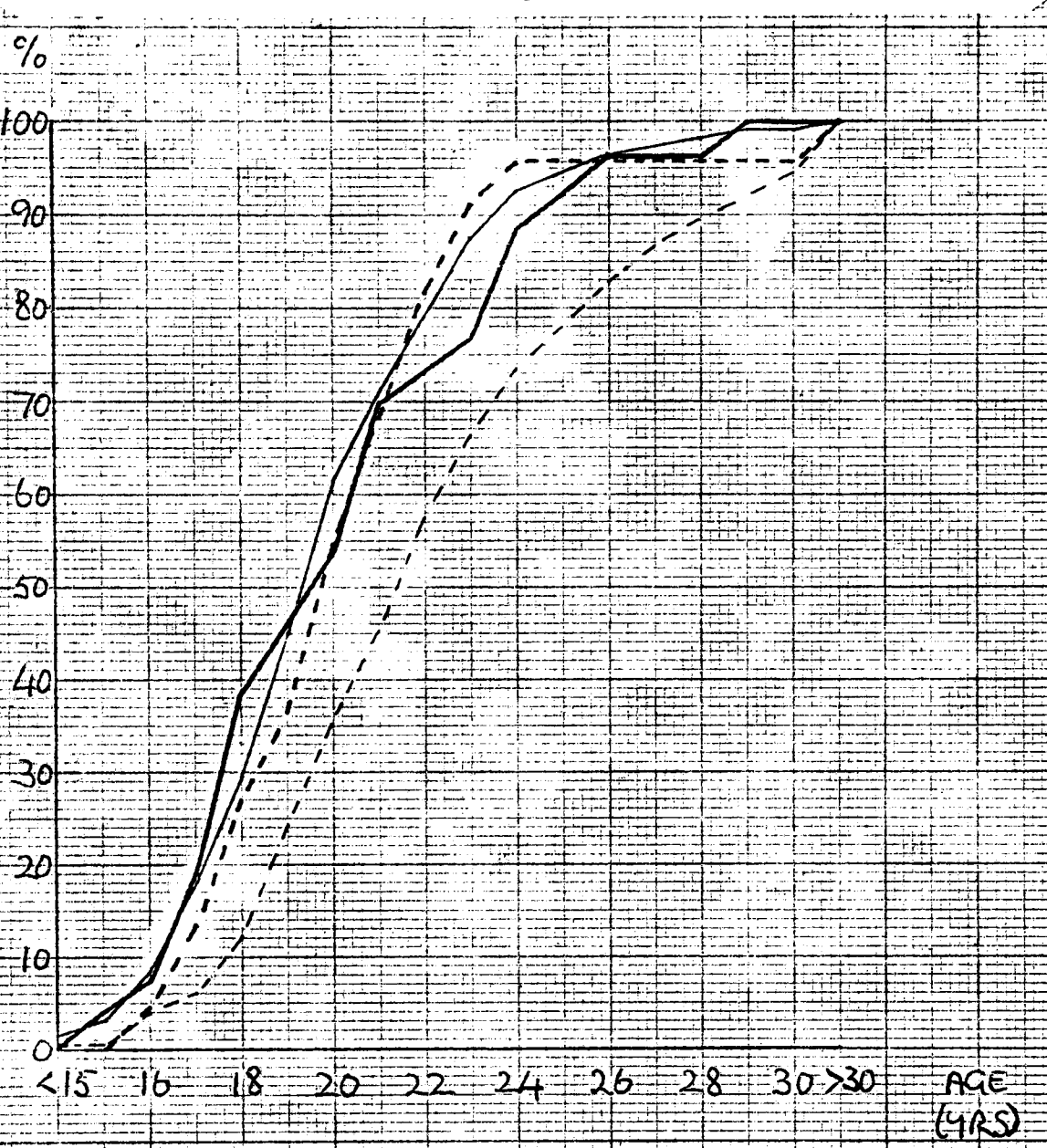
Notes: 1. CLM brides are assumed to have married 18 months before first legitimate birth. See accompanying text for comments.

2. Excludes 8 women who are not known to have been UMs but whose maiden names are unknown so that the possibility cannot be ruled out.

Figure 22 contrasts the distribution of age at marriage for UMs and non-UMs among CLM and church-marriage brides, retaining use of the 18-months rule for the dating of CLMs. On the face of it whereas UMs in both groups of wives were very similarly structured non-UM CLM brides were somewhat younger than their church-marriage counterparts. 11.2% of non-UMs marrying below the age of 23 formed CLMs, but only 1.6% of those marrying at an older age did so. And this difference does not seem to be entirely explicable in terms of the arbitrary method by which the commencement of CLMs has been determined. For even if one assumed that they came into being not 18 but only 6 months before the birth of a couple's first legitimate child - which amounts to supposing

Figure 23. Cumulative distribution of ages at first conception.

unbroken lines: UMs; broken lines: non-UMs
═══CLM brides
- - -church-marriage brides



that cohabitation always followed conception - the proportions would still have been respectively 10.3% and 3.1% (probability of significance = 99%). Although it should be added that their apparent youthfulness is probably exaggerated (there being in general an inverse relationship between family size and age at marriage) it would seem that non-UMs were only likely to form CLMs if they did so at a comparatively young age.

In view of the problem of how to date CLMs, a better way of comparing the behavioural characteristics of CLM and church-marriage brides is to contrast the ages at which they first conceived a child. This is done in Figure 23. It can be seen that non-UM CLM brides form, from a behavioural point of view, part of the same population from which UMs were also drawn. They differed from the latter not in the age at which they first conceived but rather in having set up house with their man at some point before their child was born. Over 90% of those non-UMs who entered CLMs had conceived a child before their 24th birthday. The corresponding date for those who married in church and who might be considered the epitome of respectability was their 30th birthday. It might be added that had the establishment of a CLM depended on a union's acquiring social acceptance it is unlikely that young women would have so predominated among these non-UM brides, for recognition of a couple's firm intentions to one another would surely have been more readily granted to those old enough to have some standing in local society.

Table LIV. Completed family size, comparing CLMs to church-marriages, 1781-1860 (marriages of Classes I and III only).

	Non-UMs			UMs				
					(a) illegit.	(b) legit.	(c) total	
	N	mean	median	N	mean	mean	mean	median
CLMs :	16	8.56	9.80	9	1.44	7.44	8.89	10.17
church-marriages:	112	7.62	8.58	63	1.81	5.40	7.21	7.70

	All wives				
		(d) legit.		(e) total	
	N	mean	median	mean	median
CLMs :	25	8.16	9.13	8.68	10.06
Church-marriages :	175	6.82	7.42	7.47	8.25

Only 25 CLMs are under observation until the wife had reached the age of 45, too few to build confidently upon. Table LIV contrasts the mean and median completed family sizes for such women with those of analogous groups of church-marriage brides. Table LV shows their percentage distributions. It will be noticed that both UM and non-UM CLM brides appear to have borne more children on average than their church-marriage counterparts. In the case of non-UMs the difference appears to be explained by the older ages at which church-marriage wives in general tended to marry, for the 75 of these who married below age 25 had a mean completed family size of 8.73, with a median of 9.47 - as can be seen from Table LIV close to the values recorded by non-UM CLM brides, all but one of whom had married by their 25th birthday. But the numbers of legitimate children borne by UM CLM brides was significantly greater than for the analogous group of church-marriage wives (probability of significance = 99%), despite having

a very similar distribution of age at marriage (indeed, if the 18-months rule tends to antedate the true commencement of the typical CLM a glance at Figure 22 or Table LIII shows that CLM wives tended to be slightly the older of the two groups of former UMs). In this instance we must strongly suspect biassed selection, and having found evidence suggestive of it here it would be illogical to rule out the possibility that the identification of non-UM CLM brides is similarly distorted be a preponderance of the untypically fertile or most permanent unions, despite the absence of clear evidence to this effect.

Table LV. Percentage distribution of completed legitimate family sizes, comparing CLMs to church-marriages, 1781-1860 (marriages of Classes I and III only).

	CLMs		Church-marriages	
Family Size	N	%	N	%
3/<	2	8.0	31	17.7
4-6	4	16.0	49	28.0
7-9	10	40.0	56	32.0
10/>	9	36.0	39	22.3

Similar suspicions attach to CLM brides' registered fertility, which is given in Table LVI and contrasted with that of church-marriage brides. No sociological explanation for the observed differences springs to mind whereas, given the haphazard way in which CLMs have necessarily come to light, there will certainly have been a tendency for less fertile unions to have escaped detection. It will be seen that CLM brides' age-specific fertility was generally higher than church-marriage wives' above age 30, but lower before this point. The latter trait is the consequence of our procedure for dating the inception

of CLMs from a point 18 months before the birth of the marriage's first child. Whereas church-marriage brides were usually pregnant on their wedding day, with the result that in aggregate their true marital age-specific fertility is exaggerated in those younger age-groups in which most of them married, CLM brides are automatically precluded from being pregnant at marriage and even from conceiving during the first nine months of married life by the 18-months rule.

That they were in fact the more fertile group of wives even in the younger age-groups is suggested by Part (b) of Table LVI which indicates that, despite being assessed over a foreshortened period, CLMs were not much less fruitful than church-marriages during the first five years of marriage as we have defined it. And they were appreciably more so in the fifteen years following.

Table LVI. Marital fertility, comparing CLMs to church-marriages, 1781-1860.
(All ranks of marriage included:[1] woman-years in brackets.)

(a) Age-specific fertility:

	15-9	20-4	25-9	30-4	35-9	40-4	45-9
CLMs	400(12.5)	429(77.0)	402(132.0)	419(126.5)	388(121.0)	237(109.5)	29(102.0)
Church-marriages	721(55.5)	496(616.5)	424(1046.0)	375(1118.0)	322(1033.0)	206(923.5)	49(789.5)

(b) Fertility by years' married:

	0-4	5-9	10-4	15-9	20-4	25-9	30-4
CLMs	426(169.0)	405(148.0)	340(129.5)	333(114.0)	100(90.0)	67(44.5)	-(6.5)
Church-marriages	479(1555.5)	346(1328.5)	304(1092.0)	238(865.0)	125(591.0)	31(257.5)	-(20.0)

Note: 1. In practice, all usable CLMs are first marriages.

Loosely discounting the effect of biassed selection in the identification of CLMs in Culcheth, we might suppose from the foregoing evidence that there was very little to distinguish these unions behaviourally from church-marriages in the district except as to the manner of their institution, and might conclude from this that they were indeed regarded as marriages proper. No evidence has come to light which would disprove such a supposition, but it should be emphasised that it does not follow from the material we have been considering. For the real question is not how typical were our 25 completed CLMs of those unions which lasted until the wife was aged 45, but how common it was for consensual unions to acquire any degree of permanency at all. That some of them did is already apparent, and it must be admitted that there is no indication in the census material of 1841-71 that any were regarded as terminable associations (although whole families do disappear from the district between censuses). However, this was the period in which adherence to marriage as the proper context for childrearing and to the formality of wedding in church were both becoming firmly re-established in Culcheth, and it would be surprising if the Church had been any more tolerant of waywardness among that declining number of couples who continued to avoid a church-marriage than it was towards unmarried motherhood. The permanency of CLMs in these later years may well not be indicative of the experience of earlier generations. And it is certainly the case that our ability to identify CLMs which were formed before 1841 is directly related to their longevity.

It is at this point that our statistical evidence ceases to illumine the true social significance of consensual unions. We

have perforce to speculate from first principles as to why people might have decided to set up house together without first having a formal wedding ceremony. Fundamentally the question is whether they considered that by so doing they were marrying each other or forming a relationship terminable at will. If CLMs were regarded as, and entered into in the belief that they were, legally binding marriages we have to ask why when, so far as we can tell, most marriages in Culcheth were celebrated in church a significant but probably variable proportion was not.

One possible explanation, or rather suggestion, is that one simply may occasionally find communities or sub-groups in which unmarried motherhood or consensual unions have the appearance of being habitual within particular families and where their perpetuation across several generations defies analysis which is couched in terms of economic rationality or deliberate decision-taking. If they ever had an economic rationale it was probably permissive rather than imperative, and no particular significance can be attached to minor variations in their incidence over time.

It is true that there is a trace of inter-generational continuity of practice with regard to apparent marriages in Culcheth. But the dominant feature, as with illegitimacy, is that they crop up in all sorts of families. Moreover, although there may have been a history of social acceptability of CLMs in southern Lancashire before our period (though no evidence of this is to hand), the fluctuations in their frequency in the nineteenth century are sufficiently sharp to indicate that something more than unconscious social habit was at work.

Most plausible explanations must surely focus on why CLM partners deliberately chose to dispense with the formality of a wedding service. One obvious possible reason lies in the expense involved, an interpretation which would be consistent with the peak frequency of CLMs lying in the economically depressed years of cohorts 2c and 4. But there is no indication that the economic position of handloom weavers in Culcheth materially improved in the 1840s or 1850s, in spite of which they were persuaded to marry in church in large numbers.[1] Furthermore the major item of expenditure on a wedding must have been the variable cost of celebrating the event, not the fixed costs surrounding the ceremony itself. One might argue that since weddings were one of the two types of occasion (the other being funerals) upon which scattered families were reunited, such expenses could not in practice have been easily tailored to circumstances without giving offence. But though this might be an argument for delaying a wedding in order to build up the necessary savings, it is not one for dispensing with the occasion altogether - better a select reunion than none at all if that were really the issue.

The burden of wedding expenses must have derived largely from the fact that they were incurred all at once. But if we want to gauge whether comparatively poor people could afford 'lumpy' expenditure of this type we have only to look at their funerals to see that they could and did. Culcheth's workhouse account books under the Old Poor Law testify that even pauper funerals paid for out of the rates were thought to call for

[1] See above, Table II p.29.

liquid refreshments.[1] And Dr. Max Goldstrom has accumulated evidence of the considerable attention to detail (contemporary observers unanimously styled it extravagence) typical of funerals among the Victorian working classes.[2] Burial clubs, which cushioned families against the fixed costs of funerals, were not of course paralleled by wedding clubs. But weddings could be foreseen and money put aside in preparation for them. And no doubt credit would usually have been available where needed. The benign concern for the proper observation of decencies which persuaded publicans to act as treasurers to friendly societies[3] would probably have manifested itself also in the extension of credit where a proposed wedding offered the prospect of a good bit of business.

One may envisage the wish to avoid the expense of a wedding as influencing the incidence of CLMs where other more fundamental considerations inclined young couples in the same direction, but scarcely as a prime cause of their frequency in nineteenth century Culcheth.[4] Besides, for all we know, CLMs might themselves have been celebrated in some way. They would certainly have been attended by the same costs of furnishing and equipping a cottage which faced couples who married in church, and it

[1] E.g., PLP Workhouse Victualling Account Book, 1828-30, folios 1, 23, 25, 26, etc.

[2] Details of Dr. Goldstrom's findings were presented in a paper at Queen's, Belfast, in the summer of 1975.

[3] The Culcheth 'Union Society', the Risley 'Frugal Female Friendly Society', and the 'Virtuous Women Associated Together in Croft' all entrusted their funds to publicans. Warrington Public Library, P.1259, P.1313, and P.1166.

[4] Mayhew's evidence is not inconsistent with this interpretation. Cf. eds. E.P. Thompson and E. Yeo, The Unknown Mayhew: Selections from the 'Morning Chronicle' 1849-1850 (London, 1971), pp.169-77.

would be unsafe to assume that they amounted to marriage on the cheap.

There remains the possibility that a section of society was developing a distaste for the Church, either as an institution or in the person of an unpopular minister. Bitter quarrels between clergy and laity are not unknown.[1] Although such personal animosities are more likely to result in the transference of allegiance to other places of worship than in wholesale disregard for the Church's sacraments, there was little choice for Culcheth people but to marry at Winwick until the Marriage Act which came into force in 1837 since it was the only church in the parish at which weddings could legally be held. Moreover, Winwick's palatial rectory and the wealth of its inhabitant[2] might well have provoked mistrust and resentment among local weavers in their poverty. However, no such rift is known to have occurred, or is hinted at in Joseph Jones's 'Cottage Conversations' or visitation returns. More importantly, the fluctuating frequency of CLMs in Culcheth bears no obvious relationship to the comings and goings at the rectory.

Changes in attitudes to the Church as an institution are at first sight more plausible. Contempt for - or at least a lack of interest in - everything the Church stood for might seem implicit in the growth of illegitimacy in Culcheth over much the same period. But 51.8% of Culcheth-born UMs whose end is known married in church eventually, and we have Joseph Jones's word for it that though his parishioners were rough, in the matter of

[1] Cf., e.g., the controversial career of the Rev. Jas. Irvine of Leigh, referred to above, p.119.

[2] See above, p.15.

church attendance at least they were not irreligious.[1] It need hardly be added that if UMs had not had their children baptised this study would not have been possible.

In short it is difficult to believe that the generality of CLM couples in Culcheth were avoiding a wedding as such. The obvious alternative is that they believed themselves to be avoiding marriage - as, indeed, in the short term they undoubtedly were if they did no more than share quarters. The legal concept of common law marriage arose ultimately from a failure to eradicate customs favourable to informally instituted unions, but its continued relevance into the nineteenth and even twentieth centuries derives not from the quaint survival in folk memory of pre- and early-Christian forms of marriage but from the practical fact that when people simply set up house together it is usually because one or other (if not both) of them wishes to avoid the legal ties and obligations associated with that institution.

That the children of CLMs were baptised as legitimate in Culcheth would have strongly influenced any court of law which ever had to determine the legal status of consensual unions in the district (which is why we have called them CLMs) and so too, had lawyers access to such evidence, would have the practice among CLM couples of describing themselves in censuses as married. But as no court can in practice have had any concern with squabbles over inheritance among this impoverished population, we would do better to presume instead - as indeed would be appropriate in considering a similar phenomenon in our better educated society today - that people were quite unaware of the legal implications of these conventions.

[1]See above , p.172.

Besides, in a face-to-face community like Culcheth the terms 'Mr' and 'Mrs' would probably have been reserved for addressing older people than the young CLM brides with whom we are concerned. They are more likely to have been referred to colloquially by some such form as 'John Thomason's Jane', it being in effect left to the curate to decide definitively whether Jane should be credited with bearing John's surname.[1] Conversationally, the distinction of status between a girl who was merely courting, one who had moved in with her lover and one who had married in church might well have been less evident than in a less ascriptive society, and there might have been few occasions upon which the question of whether or not a couple were married in the full sense of the word required determination among the population at large.

It was a different matter for the Church. But their ready acceptance of the children of any couple who had recently set up house together should probably not be regarded as implying recognition of the legitimacy of the union as a marriage. Culcheth's clergymen can hardly be supposed to have approved of such arrangements. They were simply operating a rule of thumb intended to distinguish in the registers between the progeny of couples who had blatantly flouted Church doctrine and social convention (if one looked beyond south Lancashire) by declining to marry before the birth of an expected child, and the children of couples who had at least established the semblance of a

[1] Cf. F. Thompson, Lark Rise to Candleford (Oxford, 1945), p.90. But Miss Thompson was writing of what was probably a more status-conscious rural society late in the nineteenth century. A verbal emphasis on the use of Christian names in Culcheth may be inferred from the fact that the workhouse account books invariably give paupers' full names, not merely their initials and/or surnames. Cf. also M. Anderson, Family Structure in Nineteenth Century Lancashire (Cambridge, 1971), p.83.

conjugal household. In this tempered tolerance of what was in principle disliked, the Church in nineteenth century Culcheth was adopting a stance very similar to that taken more generally by the early Christians a millenium and more earlier.[1]

Whether or not the Church's formal view of the matter as expressed in the baptism registers was intended by implication to confer the character of a legal and valid marriage on the relationship of couples who had set up house together - and this is doubtful - it certainly did not invariably have this effect, for no fewer than twelve cases are known of couples who, despite having already had a child baptised as legitimate, subsequently married in church. They have not been included in our analysis of CLMs, but if they had been they would have represented 15.0% of fertile first-marriage consensual unions. The proportion is not particularly important. What is significant is that these were couples who evidently distinguished between moving in with each other and a 'proper' marriage, even though in its conventions for registering births the Church itself did not. It highlights the need to avoid the presumption that when people are described as being married, whether by themselves or by a public body with some authority to determine such matters, they in fact consider themselves to be so.

If the foregoing argument be accepted despite the paucity of its empirical foundation it remains to decide why couples who had the financial resources to set up home together should have balked at the idea of being married to one another. Once again there are no factual data to guide us. But it is suggested, at

[1] F. Pollock and F.W. Maitland, The History of English Law before the time of Edward I (Cambridge, 1895), ii.367-8.

the broadest level of generalisation, that when economic prospects were bleak even couples who were financially able to embark on the forms of married life - the establishment of an independent household and the bearing and support of dependents - were more than usually sensitive to the possibility that the domestic unit might become economically unviable and that in those circumstances the interests of all parties might be better served by a return to their respective parental households and the adoption of the form of upbringing typical of illegitimate children. The presumption here is the simple one that on the whole lovers preferred to live with each other if this was possible. In cohort 3 the return of economic prosperity no doubt led people into marrying in the traditional manner much as it led to a fall in the age at which girls first got pregnant.[1] But in cohorts 2c and 4 the same considerations which lowered the church-marriage rate would have bred caution in those who did want to live as man and wife were that feasible.[2] And it occasions no surprise that it was especially the young among non-UMs who formed CLMs instead of marrying in church, for it was the young (presumably with the lowest savings, whatever their current income, and certainly with the highest fertility potential) whose need for flexibility was greatest.

Quite possibly CLMs typically became permanent associations like those of them we have been examining, indistinguishable to the historian's eye from ordinary marriages. The accumulation of children and household stock, not to mention affections and habituation to a way of life, might be expected to have inclined

[1] See above, Figure 8 facing p.204.

[2] See Table XII above, p.99.

couples to perpetuate an arrangement initiated in a less committed frame of mind - in which case our completed families may not have been as untypical of the species as we have been inclined to suggest. One cannot now know. But eventualities should not in any case mould our judgments of causes. It is strongly suspected that a number of temporary associations, productive of only one or two children, have evaded our net. But whether this was the case or not, it seems unlikely that vows per verba de futuro played even a figurative role in the formation of the majority of CLMs.

The implication of this interpretation is that CLMs were in fact as well as in appearance more common in the nineteenth century than in the eighteenth. Their observed frequency suggests that they were essentially part of the same attitudinal developments which were manifested in the growth of unmarried motherhood in Culcheth, except that in non-UM CLM brides we are seeing women who were perhaps more highly motivated towards marriage and who therefore adopted its forms in circumstances when other women simply became for the time being UMs. That in such areas I am stating opinions rather than demonstrating social attitudes does not bear reiteration. But the folk-memory of supposedly traditional mores is a poor alternative premise from which to embark upon a study of a community in crisis.

Chapter 10

Culcheth in Perspective

The picture which reconstitution gives us of a parish is a reflection of what the technique is capable of picking up and nothing more. That it is far and away the best method we have of elucidating the sexual mores of the past is neither here not there if it remain inadequate for all that. The labour behind reconstitution gives the researcher some interest in the acceptance of his findings not only as valid in their own terms, but also as being implicitly of greater significance than those characteristics of the society in question which his methodology does not illumine. Such may indeed be the case. But we should not presume as much. It seems appropriate, therefore, to conclude with some suggested qualifications to the findings presented in earlier chapters.

Reconstitution, for example, is not well suited to specifying the proportion of a population who never marry - a feature which could in principle account rather more readily for variations in the pace of population growth in the past than could changes in the birth rate which were the product of shifting patterns in the age at which those who married did so. Nor, as we have seen, is the methodology likely to bring to light the existence of common law marriages, however prevalent they may have been. It may lead to the understating of individual peculiarities, such as the onset of infecundity at an age which would be considered unusually young by modern standards. It certainly encourages concentration upon the history of couples whose marriages lasted until the wife had reached menopause. In such

ways is the mind led to focus upon variables and magnitudes the specification of which may be technically accurate - though anyone who has reconstituted a parish should have his reservations even here - but the supreme importance of which is rather assumed than demonstrated.

Certain of the statistics in this study undoubtedly distort or exaggerate the demographic and institutional changes witnessed in Culcheth during the early nineteenth century. The incidence of unmarried motherhood, for example, increased less strikingly than the course of the crude illegitimacy ratio would have encouraged us to suppose. In the long term it may be considered that it is the near normality of the condition during the later eighteenth century, when the district was to all intents and purposes free of economic strain, which raises the largest questions about the conjugal household in pre-industrial Britain, rather than the subsequent extension of the custom in the more trying circumstances of the nineteenth.

Again, the incidence of marriage probably fell during the early nineteenth century decades by somewhat less than crude marriage rates of the sort used here imply. A fair number of common law marriages have certainly gone undetected, though how many of them were unions of an impermanent character is impossible to say. The marriage rate is also restricted to fertile unions, and its course of change is affected critically by variations in the proportion of people who took spouses from outside the district. Moreover, since the flow of migration was outward from the township over the same decades during which female age at marriage was rising, a growing proportion of the nubile population may simply have left the area before they had married. And

Figure 24. Normalised life-chances for fertile women by their decade of birth (N=644).

non-UMs: ——church-marriage brides; - - -CLM brides
UMs: ——church-marriage brides; — — —CLM brides
—·—·—die unmarried; residue: disappear

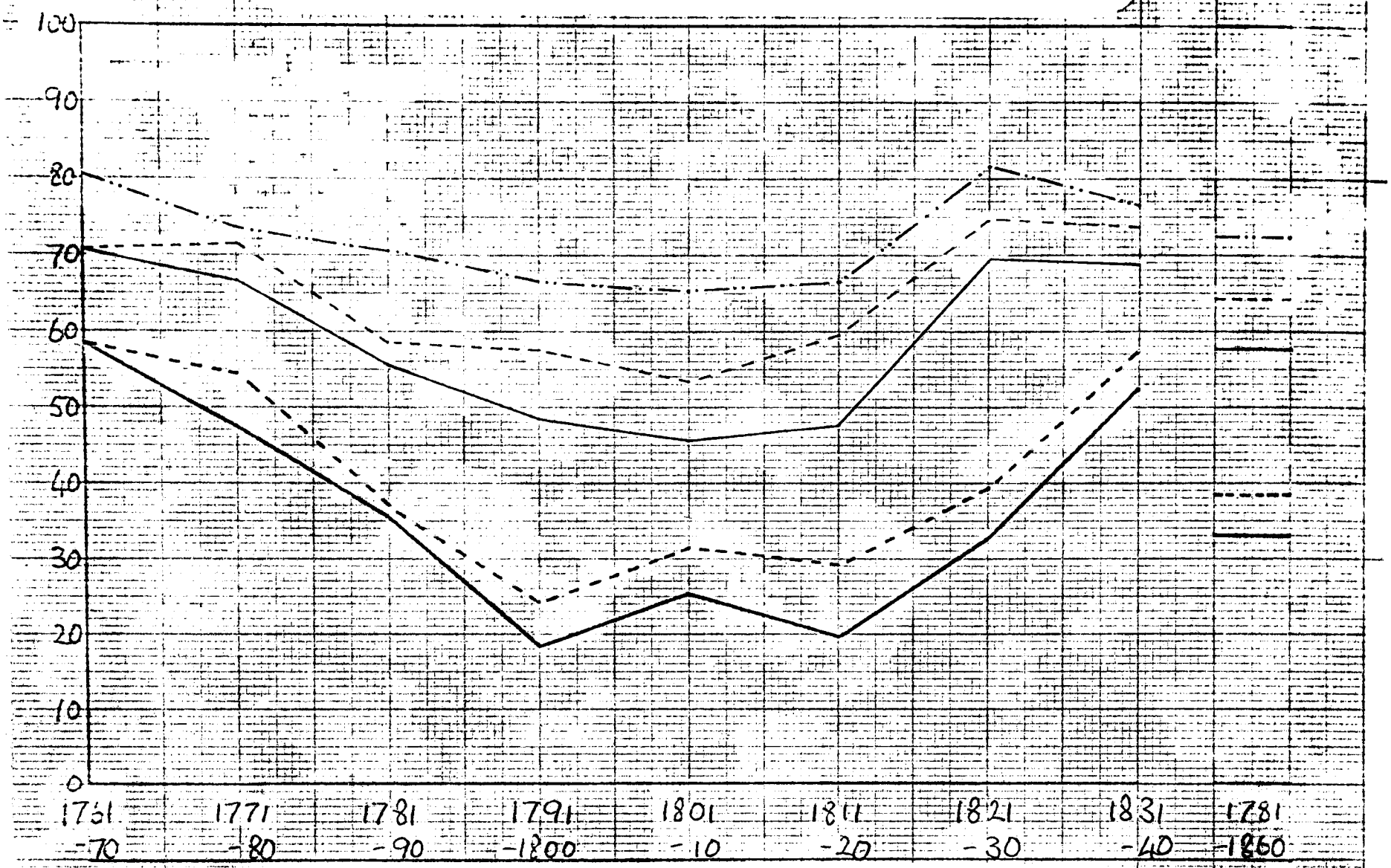
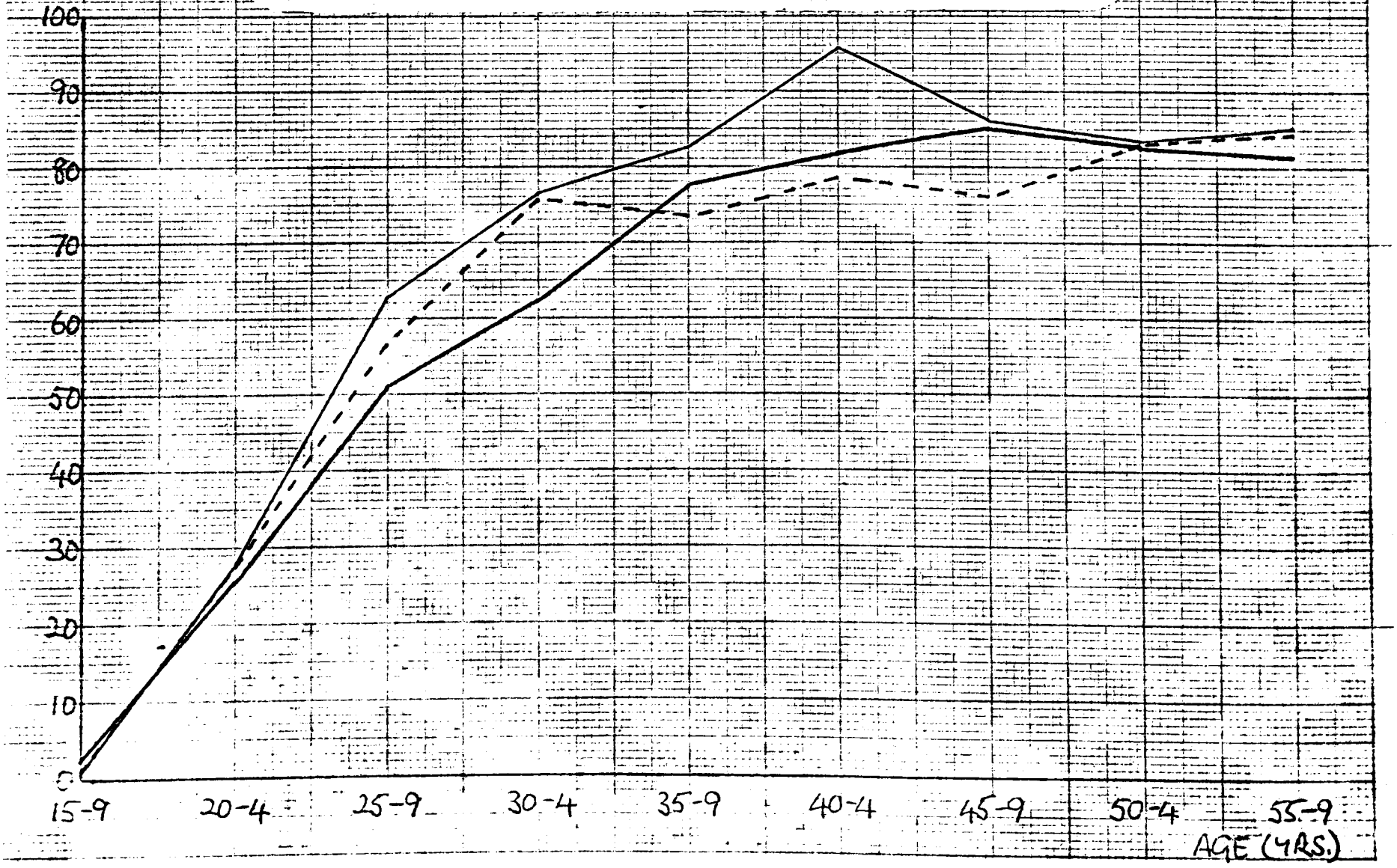


Figure 25. Proportion of women married/widowed at census points, by age-group.

——1841
- - -1851
——1861



the presence of substantial numbers of foreign UMs who appear in general to have remained in the district for too short a time to have married there suggests the existence of an element which was likely to contribute more to the population base than to the marriage numerator.

One could find further sources of distortion in the series. A corrective is to consider the life-chances of fertile women born or bred in Culcheth and who are known to have survived to the age of fifteen. Figure 24 regards them from the standpoint of their decade of birth, thereby removing much of the influence of short-run economic fluctuations on marital conditions which have played such a part in our previous discussions of the district's mores. It can be seen that although, as expected, the graph shows a sharp fall in the percentage of women bearing their first child after having married in church, it also suggests that the proportion who married in some sense of the term and at some stage of their fertile life declined much less markedly. What changed was chiefly the timing of marriage, not commitment to the institution as such. Indeed, if allowance be made for the fact that a rise in the age at which people typically marry increases their chance of dying or of migrating before they have exercised their preference in the matter, it might appear that the incidence of marriage can have suffered no voluntary decline during the early nineteenth century at all.

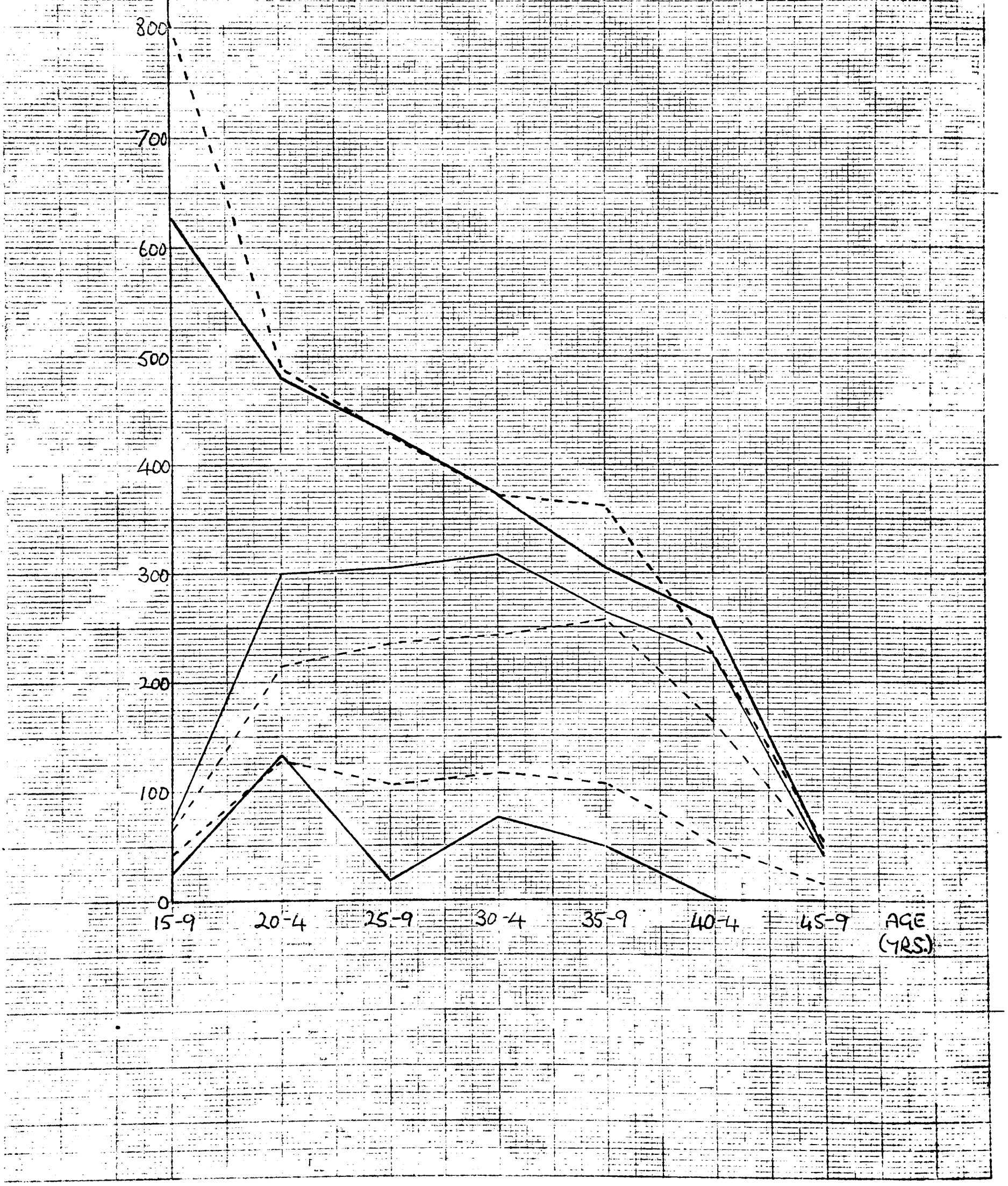
This would itself be an exaggeration, however. At several points in the foregoing chapters we have had reason to suspect that for a proportion of Culcheth women marriage as such lost its appeal. Much the same is implied by Figure 25 which indicates the percentage of women in each age-group who were said to be

married or widowed at the time of the three censuses between 1841 and 1861. This graph confirms the impression that the overwhelming majority of women eventually married, but equally it shows that the substantial growth of church-marriages during the 1840s and 1850s did more than displace the consensual union in the district's marital repertoire. Women aged between 35 and 59 in 1841 had been born between 1781 and 1806. Their fertile years thus fell almost entirely within the period 1801-40 when attitudes to illegitimacy and to the timing of marriage appear to have been transformed. That more than timing was affected, however, is surely indicated by the fact that only 81.5% of them had ever been married, whereas by 1861 the same was true of 95.8% of women in their early forties. There was, too, a sharp difference between the middle-aged groups who had survived to 1841 and women aged 60-69 in that year, although there has not been space to graph the fact. For as many as 94.7% of the latter had been married. Born between 1771 and 1781, these were the last generation to have grown up in the days of Culcheth's prosperity.

If there was some total avoidance of marriage during the early nineteenth century decades we have also seen evidence to suggest that illegitimate children were not, so to speak, highly prized commodities desired for qualities intrinsic to the status of their birth. Even when unmarried motherhood was considered preferable to a hasty marriage both the age and numbers of women first conceiving in a given cohort showed a sensitivity to prevailing economic conditions which would appear to reflect a realisation that children constituted an initial expense in whatever circumstances they were born. Both points raise the question of whether part of Culcheth's response to economic

Figure 26. Age-specific fertility by decade of woman's birth (fertile women only; N given first for 1761-80).

unbroken lines:1761-80; broken lines:1781-1810
===married women (incls. Series A+B)(N=40;89)
- - -unmarried women (incls. widows)(N=46;161)
===total (married+unmarried)(N=48;166)

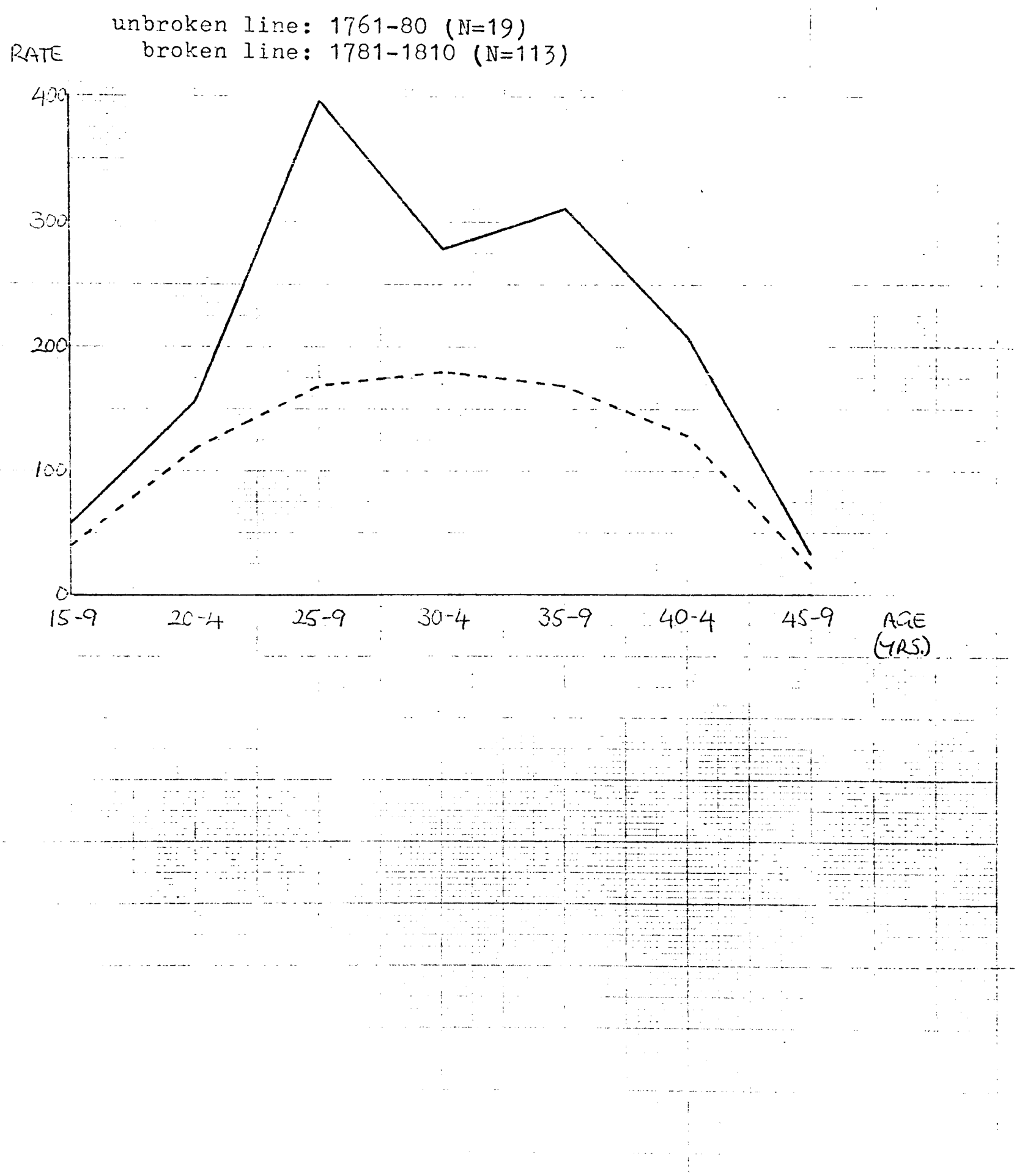


deterioration may not have taken the form of celibacy. Unfortunately, the incidence of infertility is a matter which the Culcheth material does not satisfactorily describe. We have seen that infertile marriages cannot be picked up in the district before 1837. More importantly, it has been found that the construction of an unbiassed sample, giving equal chances of appearance to both fertile and infertile unmarried women, reduces the usable numbers per decade to levels too small to be relied upon, and particularly so if one attempts to control for variations in mortality by restricting coverage to women who reached particular ages.

For what it is worth Figures 26 and 27 give estimates of fertility, both married and unmarried, on the one hand for those who did prove fertile and on the other for all women whether fertile or not. The population has been divided between those born before and after 1781 in order to point up the change in fertility patterns which occurred in the opening years of the nineteenth century. And the last cohort to be used was that born in the 1800s, since women born in the 1810s would not all have reached menopause before the close of our period in 1860.

It will be noticed that the growth of unmarried motherhood in Culcheth did have the net effect of lowering through-life fertility among the fertile group considered in Figure 26, but that on the face of it the inclusion of infertile women throws the contrast between the two sub-periods into even sharper relief. The numbers of women covered in the 1761-80 period in Figure 27, however, are far too small to convince. The graphs are presented as a matter of record only and to indicate that the adoption of celibacy among a proportion of Culcheth's women in the early

Figure 27. Age-specific fertility by decade of woman's birth (fertile+infertile women)



nineteenth century is a possibility which should not be ignored simply because untestable on present evidence. Unmarried motherhood and the postponement of marriage in order to spread the costs of childrearing may thus not be the whole of the story. The long-run stability of the first conception rate during the first half of the nineteenth century does not suggest that permanent celibacy was a common recourse. But the history of UMs after they had borne their first child could be regarded as indicative of sexual abstention, for the group as a whole had appreciably smaller completed family sizes than non-UMs.

It remains to ponder briefly whether Culcheth's development between 1781 and 1860 has wider implications for our understanding of English historical demography. With regard to the specific character of its population the answer, I fear, must be no. I have no doubt that unmarried motherhood was commoner nationally than crude illegitimacy ratios might suggest and that Culcheth was in no way unique. But that it was an abnormal condition in most districts seems unlikely to be controverted by future research. The paramountcy of the nuclear family is not seriously in question.

It is hoped, however, that the Culcheth material may encourage historians both to think more flexibly about the functional appropriateness of particular familial forms and, particularly, to develop caution in their interpretation of illegitimacy as recorded in parish registers. We know too little of the relevance of technical legitimacy to the comparatively propertiless - and with our total ignorance of the incidence of consensual unions and of how clerics varied in their attitude to the status of their progeny, it may be said that we have little idea of how

common illegitimacy actually was in even that narrow legal sense - for it to be other than irresponsible to elaborate instant sociological explanations for variations in crude illegitimacy ratios. The subject calls for serious research and rather less popular mythologising.

Bibliography

(A) Manuscript Sources

(i) Registers

Sole/parish church/chapel is referred to in each instance. Unless otherwise indicated, all registers are in the hands of parish clergy or their appointed custodians.

District	Register type and period studied: Baptisms	Marriages	Burials
(a) Church of England.			
Newchurch	1781-1860	1837-1890	1781-1860
Winwick	1733-1860	1781-1860	1750-1860
Croft	1833-1860	1845-1860	1834-1860
Glazebury	1852-1860		
Lowton[1]	1781-1860		1781-1860
Leigh	1781-1860	1781-1860	1781-1860
Bedford	1840-1860	1843-1860	1841-1860
Hollinfare	1781-1860	1845-1860	1781-1860
Warrington	1827-1831	1781-1860	
(b) Roman Catholic.			
Croft	1795-1860[2]	1857-1860	1856-1860
Culcheth Hall	1791-1825[3]		
(c) Independent Methodist.			
Culcheth	1853-1860		
(d) Presbyterian.			
Risley	1838-1860		1838-1860
	Births		Deaths
(e) Civil Registers.[4]	1837-1892		1837-1900

Notes: 1. Registers up to 1859 are in Lancs. C.R.O., PR 336-9 and PR 2915/1.

2. Register for 1795-1856 is in Lancs. C.R.O., RCCr/1.

3. Lancs. C.R.O., RCCu/1.

4. Registry Office, Leigh.

(ii) Census household schedules.

1841: P.R.O., H.O.107/524.
1851: P.R.O., H.O.107/2204.
1861: P.R.O., R.G.9/2801.
1871: P.R.O., R.G.10/3912.

(iii) Culcheth/Leigh Union Poor Law Records

(a) Lancs. C.R.O., PR2853/1/1-20.
Leigh Public Library, B901.
P.R.O., MH12/5926-5930.
Wigan Borough Record Office, G.Lei.8/1-4.

(b) The bulk of Culcheth's Old Poor Law papers (abbreviated in the text to PLP) are uncalendared, having been in the author's custody until 25/10/1978 when they were deposited in Lancs. C.R.O. Those used directly in the present study comprise:

Affiliation Orders and Confirmed Orders, 1745-1842.
Apprentice Register, 1802-42.
Apprenticeship Indentures, 1781-1833.
Bastardy Account Book, 1831-38.
Inventory of Workhouse Inmates, 1834-36.
Miscellaneous loose papers, 1754-1837.
Out-Townships Account Books, 1824-38.
Overseers' Account Books, 1815-37.
Removal Orders, 1781-1858.
Workhouse Summary Account Book, 1831-35.
Workhouse Weaving Account Book, 1822-30.
Workhouse Victualling Account Books, 1822-30.

(iv) Miscellaneous.

Calendar of Dissenting Meeting House Certificates, Lancs, C.R.O., QDV/4.

Enclosure Award Map (1751), Lancs. C.R.O., AE/7/7.

Episcopal Visitation Returns,

1767: Lancs. C.R.O., EDA/6/5.
1804: Lancs. C.R.O., EDV/7/3/364.
1825: Lancs. C.R.O., EDV/7/7/356.
1855: Lancs. C.R.O., RCLv.

G. N. Gandy, Poor Law Administration in the Township of Culcheth, Lancashire: a study of some relevant sources (unpublished Oxford undergraduate dissertation, 1967; copies in Lancs. C.R.O., Culcheth Public Library, and the library of CCC Oxford).

Listings of Churchyard Memorials for the following chapels:

Church of England, Newchurch.
Presbyterian, Risley.
Roman Catholic, Croft.
Unitarian, Croft. (All in typescript, loaned by Mr J. R. Bulmer, Kenyon Hall, Croft, via Warrington.)

Lowton Weavers' Delivery Book, 1818-29, Lancs. C.R.O., PR/353.

Ordnance Survey Six-Inch Map (1st edn., 1845), Lancs. C.R.O., O.S.102/1845, and O.S.109/1845.

Return of the Numbers of Places of Worship, not of the Church of England (1829), Lancs. C.R.O., QDV/9.

Tithe Apportionment and Map (1837), in hands of incumbent, Newchurch.

Yates' Map of Lancashire (1786), Lancs. C.R.O.

(B) Printed Sources referred to in text.

(1) Primary Sources.

Auction Prospectus, Culcheth Hall Estates (1824), Leigh Public Library, B333.

Census Enumeration Abstracts:

1801: Parl. Papers 1801, vi(140).
1811: Parl. Papers 1812, xi(138.316.317).
1821: Parl. Papers 1822, xv(502).
1831: Parl. Papers 1833, xxxvi(149).
1841: Parl. Papers 1843, xxii(496).
1851: Parl. Papers 1852-3, lxxxvii.
1861: Parl. Papers 1862, l.

Friendly Society Rules (c.1795-1830), Warrington Public Library, P 1166, P 1259 and P 1313.

J. Jones, Cottage Conversations: or Good Advice to the Poor (London, 1821).

J. Jones, Hints towards the Right Improvement of the Present Crisis (London, 1822).

W.J. and E.W.W. Kaye, eds., The Registers of Newchurch, 1599-1812 (Lancashire Parish Register Society, 1905).

Leigh Chronicle and Monthly District Advertiser, June, 1852.

Miscellaneous Parliamentary Papers:

Handloom Weavers: Parl. Papers 1840, xxiii(43-I&II); xxiv(636).

Laws of Marriage: Parl. Papers 1867-8, xxxii(4059).

Poor Law: Parl. Papers 1803-4, xiii(175).

2nd to 14th Annual Reports of the Poor Law Commission; 1st to 14th Annual Reports of the Poor Law Board.

B. R. Mitchell and P. Deane, Abstract of British Historical Statistics (Cambridge, 1971).

(2) Secondary Sources

J. Aikin, A Description of The Country from thirty to forty Miles round Manchester (London, 1795).

M. Anderson, Family Structure in Nineteenth Century Lancashire (Cambridge, 1971).

A.B. Appleby, 'Disease or Famine? Mortality in Cumberland and Westmorland, 1580-1640', Economic History Review, 26 (1973), 403-32.

T.S. Ashton, Economic Fluctuations in England, 1700-1800 (Oxford, 1959).

E. Baines, History, Directory, and Gazetteer, of the County Palatine of Lancaster (Liverpool, 1825), ii.

G.S. Becker, 'A Theory of Marriage', Part I, Journal of Political Economy, 81 (1973), 813-46; Part II, ibid., 82 (1974), Supplement, 11-26.

J.A. Bossy, The English Catholic Community, 1570-1850 (London, 1975).

W. Broadhurst, The Culcheth Independent Methodist Church: a Semi-historical Survey, 1845-1945 (Leigh, 1945).

D. Bythell, The Handloom Weavers (Cambridge, 1969).

G. Carlsson, 'The Decline of Fertility: Innovation or Adjustment Process', Population Studies, 20 (1966), 149-74.

Catholic Record Society, 13 (1913).

J.D. Chambers, The Vale of Trent 1670-1800 (Economic History Review Supplements, No.3, 1957).

J.D. Chambers, Population, Economy, and Society in Pre-Industrial England (Oxford, 1972).

D.C. Coleman, Courtaulds, an Economic and Social History (Oxford, 1969), i.

T. Coleman, The Railway Navvies (London, 1965).

K.H. Connell, The Population of Ireland, 1750-1845 (Oxford, 1950).

K.H. Connell, Irish Peasant Society (Oxford, 1968).

N.F.R. Crafts and N.J. Ireland, 'Family Limitation and the English Demographic Revolution: a Simulation Approach', Journal of Economic History, 36 (1976), 598-623.

C. Creighton, A History of Epidemics in Britain (2nd edn., London, 1965), ii.

P. Deane, 'The Growth of British Industry,' Economic Journal, 66 (1956), 493-500.

P. Deane and W.A. Cole, British Economic Growth, 1688-1959 (2nd edn., Cambridge, 1967).

T. Dobson and D.F. Roberts, 'Historical Population Movement and Gene Flow in Northumberland Parishes', Journal of Biosocial Science, 3 (1971), 193-208.

M. Drake, Population and Society in Norway, 1735-1865 (Cambridge, 1969).

T.J. Espenshade, 'The Price of Children and Socio-Economic Theories of Fertility, Population Studies, 26 (1972), 207-21.

D.E.C. Eversley, 'A Survey of Population in an Area of Worcestershire from 1660-1850', Population Studies, 10 (1957), 253-79.

M. Flinn, ed., Scottish Population History (Cambridge 1977).

R. Freedman and L. Coombs, 'Childspacing and Family Economic Position', American Sociological Review, 31 (1966), 631-48.

R. Freedman and L. Coombs, 'Economic Considerations in Family Growth Decisions', Population Studies, 20 (1966-7), 197-222.

D. Friedlander, 'Demographic Patterns and Socioeconomic Characteristics of the Coalmining Population in England and Wales in the Nineteenth Century', Economic Development and Cultural Change, 22 (1973), 39-51.

E. Gauldie, Cruel Habitations: a History of Working-Class Housing, 1780-1918 (London, 1974).

A.D. Gayer, W.W. Rostow and A.J. Schwartz, The Growth and Fluctuations of the British Economy, 1790-1850 (2nd edn., Hassocks, 1975), 1.

D.V. Glass, 'Marriage Frequency and Economic Fluctuations in England and Wales, 1851 to 1934', in L. Hogben ed., Political Arithmetic (London, 1938), pp.251-82.

D.V. Glass, 'A Note on the Under-registration of Births in Britain in the Nineteenth Century', Population Studies, 5 (1951), 70-88.

D.V. Glass and E. Grebenik, The Trend and Pattern of Fertility in Great Britain: A Report on the Family Census of 1946 - Part I: Report (Papers of the Royal Commission on Population, Vol. VI, 1954), chapter 7, Appendix 2.

W.J. Goode, 'Illegitimacy, Anomie, and Cultural Penetration', American Sociological Review, 26 (1961), 910-25.

W.J. Goode, 'The Economics of Nonmonetary Variables', Journal of Political Economy, 82 (1974), Supplement, 27-33.

G.T. Griffith — Population Problems of the Age of Malthus (2nd edn., London, 1967).

H.J. Habakkuk, — Population Growth and Economic Development since 1750 (Leicester, 1971).

P.E.H. Hair, — 'Bridal Pregnancy in Rural England in Earlier Centuries', Population Studies, 20 (1966), 233-41.

P.E.H. Hair, — 'Bridal Pregnancy in Earlier Rural England further Examined', Population Studies, 24 (1970), 59-70.

C.C. Harris, — The Family (London, 1969).

S.F. Hartley, — 'Illegitimacy Among "Married" Women in England and Wales', Journal of Marriage and the Family, 31 (1969), 793-8.

U.R.Q. Henriques, — 'Bastardy and the New Poor Law', Past and Present, 37 (1967), 103-29.

L. Henry, — Anciennes Familles Genevoises (Paris, 1956).

L. Henry, — On the Measurement of Human Fertility (New York, 1972).

B.A. Holderness, — '"Open" and "Close" Parishes in England in the Eighteenth and Nineteenth Centuries', Agricultural History Review, 20 (1972), 126-39.

C. Hole, — Traditions and Customs of Cheshire (London, 1937).

T.H. Hollingsworth, — Historical Demography (London, 1969).

T.H. Hollingsworth, — 'Historical Studies of Migration', Annales de Demographie Historique (1971), 87-96.

R.H. Hooker, — 'Correlation of the Marriage-Rate with Trade', Journal of the Royal Statistical Society, 64 (1901), 485-92.

W. Hooper, — The Law of Illegitimacy (London, 1911).

J.R.T. Hughes, — Fluctuations in Trade, Industry and Finance (Oxford, 1960).

D. Hunt, — Parents and Children in History: the Psychology of Family Life in Early Modern France (New York, 1972).

E.H. Hunt, — Regional Wage Variations in Britain, 1850-1914 (Oxford, 1973).

D.R. Kamerschen, — 'On an Operational Index of "Overpopulation"', Economic Development and Cultural Change, 13 (1965), 169-87.

J. Knodel, — 'Law, Marriage and Illegitimacy in Nineteenth Century Germany', Population Studies, 20 (1967), 279-94.

J. Knodel, — 'Two and a half Centuries of Demographic History in a Bavarian Village', Population Studies, 24 (1970), 353-75.

J.T. Krause, 'Changes in English Fertility and Mortality, 1781-1850', Economic History Review, 11 (1958), 52-70.

C.F. Kuchemann, A.J. Boyce and G.A. Harrison, 'A Demographic and Genetic Study of a Group of Oxfordshire Villages', Human Biology, 39 (1967), 251-76.

B. Laslett, 'The Family as a Public and Private Institution: an Historical Perspective', Journal of Marriage and the Family, 35 (1973), 480-90.

P. Laslett, 'Introduction: the history of the family', in P. Laslett, ed., Household and Family in Past Time (Cambridge, 1972), pp.1-89.

P. Laslett and K. Oosterveen, 'Long-term Trends in Bastardy in England', Population Studies, 27 (1973), 255-86.

D. Levine, Family Formation in an Age of Nascent Capitalism (London, 1977).

A. Marino, 'Family, Fertility and Sex Ratios in the British Caribbean', Population Studies, 24 (1970), 159-72.

J. Matras, 'Social Strategies of Family Formation: Data for British Female Cohorts Born 1831-1906', Population Studies, 19 (1965), 167-81.

R.C.O. Matthews, A Study in Trade-Cycle History (Cambridge, 1954).

R.C.O. Matthews, 'The Trade Cycle in Britain, 1790-1850', Oxford Economic Papers, 6 (1954), 1-32.

T. McKeown, The Modern Rise of Population (London, 1976).

H. Medick, 'The Proto-industrial Family Economy', Social History, 3 (1976), 291-315.

E.V. Morgan, review of Gayer, Rostow and Schwartz, op.cit., Economic Journal, 63 (1953), 858-60.

A. Myrdal, Nation and Family (paper edn., Cambridge, Mass., 1968).

'New Economic Approaches to Fertility', Journal of Political Economy, 81 (1973), Supplement.

J. Patten, Rural-Urban Migration in Pre-industrial England (University of Oxford School of Geography Research Papers, No.6, 1973).

J.M. Phayer, 'Lower Class Morality: the Case of Bavaria', Journal of Social History, 8 (1974), 79-95.

I. Pinchbeck, Women Workers and the Industrial Revolution, 1750-1850 (London, 1930).

F. Pollock and F.W. Maitland, The History of English Law before the time of Edward I (Cambridge, 1895), ii.

S.J. Prais and H.S.Houthakker, The Analysis of Family Budgets (2nd impression, abridged, Cambridge, 1971).

P.E. Razzell, 'Population Change in Eighteenth-Century England: a Reinterpretation', Economic History Review, 18 (1965), 312-32.

A. Redford, Labour Migration in England, 1800-1850 (2nd edn., Manchester, 1964).

A.D. Rees, Life in a Welsh Countryside (Cardiff, 1950).

W.C. Robinson and D.E. Horlacher, 'Population Growth and Economic Welfare', Reports on Population/Family Planning, No.6 (1971).

W.W. Rostow, British Economy of the Nineteenth Century (Oxford, 1948).

A. Schnaiberg, 'The Concept and Measurement of Child Dependency: an Approach to Family Formation Analysis', Population Studies, 27 (1973), 69-84.

A. Schnaiberg and D. Reed, 'Risk, Uncertainty and Family Formation: the Social Context of Poverty Groups', Population Studies, 28 (1974), 513-33.

R. Schofield, 'An anatomy of an Epidemic: Colyton, Nov. 1645 to Nov. 1646', in The Plague Reconsidered (Local Population Studies Supplement, 1977), pp.95-126.

E. Shorter, J. Knodel and E. van de Walle, 'The Decline of Non-Marital Fertility in Europe, 1880-1940', Population Studies, 25 (1971), 375-93.

E. Shorter, The Making of the Modern Family (London, 1976).

M. Silver, 'Births, Marriages, and Income Fluctuations in the United Kingdom and Japan', Economic Development and Cultural Change, 14 (1966), 302-15.

T.C. Smout, 'Aspects of Sexual Behaviour in Nineteenth-Century Scotland', in A.A. MacLaren, ed., Social Class in Scotland Past and Present (Edinburgh, 1976), 55-85.

S. Sogner, 'Aspects of the Demographic Situation in 17 Parishes in Shropshire, 1711-60', Population Studies, 17 (1963), 126-46.

M.R. Spiegel, Theory and Problems of Statistics (New York, 1961).

G. Stedman Jones, Outcast London (paper edn., London, 1976).

M.S. Teitelbaum, 'Birth Underregistration in the Constituent Counties of England and Wales, 1841-1910', Population Studies, 28 (1974), 329-43.

D.S. Thomas, Social Aspects of the Business Cycle (London, 1925).

B. Thompson, 'Social Study of Illegitimate Maternities', British Journal of Preventive Social Medicine, 10 (1956), 75-87.

E.P. Thompson and E. Yeo, eds., The Unknown Mayhew: Selections from the 'Morning Chronicle' 1849-50 (London, 1971).

F. Thompson, Lark Rise to Candleford (Oxford, 1945).

L.A. Tilly, J.W. Scott and M. Cohen, 'Women's Work and European Fertility Patterns', Journal of Interdisciplinary History, 6 (1976), 447-76.

Victoria County History of Lancashire (1911), iv.

E. van de Walle, 'On An Operational Index of "Overpopulation": a Comment', Economic Development and Cultural Change, 14 (1965), 91-3.

B.M. Walsh, 'Another Look at the Concept of "Overpopulation"', Economic Development and Cultural Change, 17 (1968), 95-8.

R.V. Wells, 'Family Size and Fertility Control in Eighteenth-Century America: a Study of Quaker Families', Population Studies, 25 (1971), 73-82.

C. Wilson, 'Economy and Society in Late Victorian Britain', Economic History Review, 18 (1965), 183-98.

G.H. Wood, The History of Wages in the Cotton Trade during the past hundred years (London, 1910).

E.A. Wrigley, Industrial Growth and Population Change (Cambridge, 1961).

E.A. Wrigley, 'Family Reconstitution', in E.A. Wrigley, ed., An Introduction to English Historical Demography (London, 1966), pp.96-159.

E.A. Wrigley, 'Family Limitation in Pre-industrial England', Economic History Review, 19 (1966), 82-109.

E.A. Wrigley, Population and History (London, 1969).

E.A. Wrigley, 'Baptism Coverage in Early Nineteenth-Century England: the Colyton Area', Population Studies, 29 (1975), 299-316.

E.A. Wrigley, 'Fertility Strategy for the Individual and the Group', in C. Tilly, ed., Historical Studies of Changing Fertility (Princeton, 1978), pp.135-54.

M. Young and P. Wilmott, Family and Kinship in East London (London, 1957).