

THE TOTAL RECONSTITUTION METHOD: A TOOL FOR CLASS-SPECIFIC STUDY?

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Introduction

I have recently completed a 'total reconstitution' of the parish of Colyton in Devon.¹ Colyton is likely to be familiar to readers since the parish registers were used for the first family reconstitution undertaken by Tony Wrigley. My project aimed to enhance the database about the population in Colyton by adding other sources of documentary information to the demographic details given on the FRFs (Family Reconstitution Forms). This produced a 'total reconstitution' along the lines described by Alan Macfarlane for his study of Earls Colne in Essex.² One of the reasons for this was that it is theoretically possible to divide the population by class in order to analyse any differences in demographic profile according to social status.

Several aspects of this methodology will be considered in this article. I will describe my version of the method of 'total reconstitution' and discuss the method's applicability for class-specific study. I will then go on to examine some of the results of the class-specific analysis which emerged for Colyton's nuptiality pattern. One of the major discoveries made in the analysis of the original reconstitution was significant changes in female age at marriage over time. Women married in the second half of the seventeenth century at over two years later than those who married in the 1550-99 cohort. After the 1650-99 'high' there was a steady fall in marital age, so that by the early nineteenth century women married a full five years earlier than their seventeenth century counterparts.

Nuptiality trends are an indicator which can be readily examined in present day populations. Yet, at present in social history projects, class-specific categorisation tends to be an ambiguous process. Historical demographic research could do with the analytical possibilities used in other social science studies. But there is a school of thought which would consider it anachronistic to define 'class' differences in a pre-nineteenth century population. While the English population was undoubtedly stratified by wealth and cultural affinity this may be better described by a dichotomous division of the population into 'low orders' and 'better-off sort'. Unfortunately, these are not suitable categories for comparative analysis.

Apart from some recent exceptions,³ present work often related the demographic behaviour of an entire community to economic factors which

probably only affected a section of that community.⁴ Hopefully, the results presented here take us one stage towards providing a picture for past society which is comparable with contemporary research, as well as highlighting the pitfalls along the way. In the last resort, what I have aimed to produce for this parish, is an accurate description of the population according to local economic and social conditions.

A socio-economic classification

In the case of Colyton, a four part social division seems to reflect the local circumstances in the period 1538 to 1837 which was covered by this project. This three hundred year period saw no major social upheaval which called for any re-ordering of the hierarchy. At the top of the social scale was a group of local nobles, wealthy yeomen and self-made wool manufacturers and merchants. They owned the larger farms and town properties, held the reins of local government and maintained a staunch loyalty to the Anglican church. Further down the scale were the middling orders, generally town-based craftsmen of reasonable means. Some of them were political and religious radicals who formed a Presbyterian community in opposition to the Anglican church in the seventeenth century. This group joined 'Monmouth's rebels' at Sedgemoor in 1685. The labouring population consisted of farm and textile workers. Due to the prevalence of pastoral agriculture and lacemaking for much of this period, this group contained a preponderance of females. As a result of their low waged and spasmodic work pattern, these labouring women shaded into the poor group. Additionally, a group of widows, elderly people, ill people and orphaned children formed a self-evident group of 'poor' who were maintained by the generous relief structures in Colyton. In contrast to those who have written that Colyton consisted of a largely 'peasant' population, of owner-occupiers who lived off smallholdings,⁵ I would suggest that along with the craftsmen who maintained family businesses, there was a broad band of landless proletarian workers.

The economic picture was not quite as straightforward. There were major economic changes over this three hundred year period which have not so far been given detailed analysis in connection with demographic changes in Colyton. Farm leases and parochial records suggest that the early seventeenth century saw a switch from a wool and wheat based farm economy to one based on dairy production. While wool finishing and arable agriculture used a mixed or a somewhat male orientated labour force, from the onset of pastoralism, waged work was increasingly for women.⁶ This was reinforced by patterns in the lace industry, a domestic trade which mainly employed women. Lacemaking appeared in Colyton in the early seventeenth century, and employed some twenty per cent of the entire population in 1698 (and by definition therefore, almost all of the adult females).⁷ The trade seems to have gone into decline in the second half of the eighteenth century, not to be revived until the 1840s when Queen Victoria's wedding dress was commissioned to be made of Honiton lace. While female employment prospects dwindled in the second half of the eighteenth century, there was another change in agriculture. Farmers turned over to arable again, and the result was a revival in men's work.

The result of these economic patterns was sex-specific migration when the work opportunities were not there. There is evidence, in settlement examinations and poor relief documents, that young men left Colyton to work elsewhere in the second half of the seventeenth century and early eighteenth century. An underlying problem with the total reconstitution is already apparent, because the reconstitution is based on family units, and offers little information on people who did not marry. Yet in the case of Colyton the behaviour of the young (and sometimes not so young) unmarried people is all-important. This adds an extra twist to the results of the class-specific analysis of demographic behaviour, for any present day study would be in a better position to tailor its questions to the given society, instead of trying to piece together the jigsaw of that society first, and then analyse it by inflexible criteria.

Towards a total reconstitution

The total reconstitution process involved four stages. The first was collation and assessment of sources for their quality and usefulness. Sources which did not mention any names could be excluded immediately. Eighty documents, or sets of documents, were included in the Colyton project. Priority was given to documents which mentioned occupations and wealth levels. Tax assessments for example, were an ideal source. Wills and inventories are excellent to use in total reconstitution, but none of these for Colyton survived the bombing of Devon Record Office in 1942. No record apart from the parish register spanned the entire three hundred year period. Overall, the balance of the records did change over time. The gentry were much better recorded in the first century of the 1538-1837 period, whereas by the last century the poor and labouring classes are better recorded than the gentry. There is a shortage of craft and labourer designations in the period 1650 to 1749.

Secondly, the information from the documents was put onto index cards. These were sorted according to surname sets into rough cohort groupings. In the cases where several people had the same name, they were put into chronological order. Thirdly, the index cards were linked to their respective FRF and surnames were standardised to the form they took on the FRF to avoid further confusion. The cards of two people who had the same name and lived at the same time, such as fathers and sons could now be sorted out. Family index cards were grouped together as they appeared on the FRF. At this point cards were collected into final cohort groups according to the FRF date which is either the date of marriage, or in the case of 'dummy' FRFs, the date of first child's baptism.

Lastly the FRF/card conjunctions were put into 'status' groupings. The population was divided into the following groups;

- Gentry and landed wealth
- Craftspeople and middling wealth
- Labourers
- Poor
- Status and occupation not known

Preferably the group chosen was based on a wealth indication, but where this was not available, occupation attributes were used. After that the definition of group could depend on more tentative indications. The preferred defining characteristics were: an indication of amount of land owned or leased, a list of possessions such as would be found in an inventory, a comment on wages received, a note of the amount of tax paid, or an entry that the person in question received poor relief or their children were made pauper apprentices. Failing these an assumption of social grouping would be made from a source where occupation was mentioned. At the last resort more subjective indicators, such as a description of a person as a 'poor man', would have to be considered.

Clearly the choice of the class-specific groupings embraced a welter of methodological problems. There is no precedent for this type of analysis, and any division runs a risk of oversimplification. The underlying problem, of course, is that while people can be socially mobile during their lives, this analysis is static. The point at which the social classification was frozen here, was at marriage. While for some people a status categorisation had to be based on a single incidence in the records, others had several entries. If there was a conflict in the information, for example, between a man who is recorded as a 'craftsman' on marriage but as a 'labourer' later, the attribute nearest to his marriage defined his grouping since the behaviour of the young adult age group were seen as most crucial in this study. This requires qualification however, since a young couple were likely to enter a period of lifecycle poverty in the few years after marriage. This happened when the couple had children who were below the age when they could start to contribute to family resources. Lifecycle poverty is certainly evident in hearth tax records and has been delineated as a special case which would not, on its own, cause an FRF to be deemed poor.⁸

A typical example of a card is presented here. They contain extra information which, while not concerning the individual's status grouping directly, was considered to be useful for some part of the study.

ISSAC DROWER

1663 Feoffees Bailiff's Accounts 'pd for mending of ye plantchent in Joseph Mayett's own chamber'

1674 Hearth Tax 'Pauper'

1678 Bailiff's Accounts Apr. 13th 'pd for stocking parish musketts 2d'

Aug. 10th 'pd for making ye shoolhouse court and mending others as of his bill 6. 5d'

1681 July 26th 'pd for his work and his boy 3 days to mend parish chamber 6s 6d'

1682/83 Poor Account. Contributed 3s.

Feoffee document 18/1 (40 'Issac Drower's Bill; works at 18d per day together with Zarkey')

Issac Drower was a carpenter and he was literate because he wrote and signed his own bill. 'Zarkey' we find from the attached card is likely to be his son, Zachariah, a joiner, and a rebel at Sedgemoor in 1685. The Hearth Tax

Table 1 Number and percentage of Family Reconstitution Forms with status designation 1538-1837

Cohort	Total number of FRFs	Number with status designation	% with status designation
1538-49	202	86	42.6
1550-99	786	228	29.0
1600-49	1168	473	40.5
1650-99	773	350	45.3
1700-49	669	344	51.4
1750-99	739	425	57.5
1800-37	494	279	56.5

Table 2 Distribution of Family Reconstitution Forms with status by cohort 1538-1837

Cohort	Gentry		Crafts		Labour		Poor		Total	
	N	%	N	%	N	%	N	%	N	%
1538-49	61	70.9	19	22.1	6	7.0	-	-	86	100
1550-99	67	29.4	35	15.4	85	37.3	41	18.0	228	100
1600-49	132	27.9	129	27.3	81	17.1	131	27.7	473	100
1650-99	113	32.3	49	14.0	37	10.6	151	43.1	350	100
1700-49	65	19.0	56	16.3	44	12.8	179	52.0	344	100
1750-99	94	22.1	131	30.8	136	32.0	64	15.1	425	100
1800-37	78	28.0	79	28.3	107	38.4	15	5.4	279	100

attribution of 'Pauper' probably reflects a temporary stage of lifecycle poverty and it would seem to be fairly safe to put Issac Drower into the craftsperson category. Turning to the FRF number 10683, there is something of a shortage of demographic information about Issac. No baptism is recorded for him or his wife Mary and they did not marry in Colyton. But Issac appears in a marriage bond of September 1663.⁹ He was a joiner born in Topsham who married Mary Trawle, a spinster from Colyton. They had three children, baptised from 1664, and Zachariah married in Seaton in 1691 at the age of twenty six.

It was generally difficult to give women a status attribute since they are rarely given occupational labels and the social and legal system effectively precluded them from appearing in many of the documents which indicate land holding. It was regrettably necessary then in the classification for demographic analysis, to give women their father's status group until marriage and their husband's group at marriage and thereafter. If a woman was recorded as a wool spinner, or lacemaker for example, or if she appeared in the records as a pauper, this

was entered on to computer indexes of the female population and used in analysis of factors outside the scope of the reconstitution such as illegitimacy patterns.

Going beyond this, the number of individuals who could not be given a status or occupational group of any type is large. Table 1 shows the number of FRFs in each category which could be given a status group. As might be anticipated, in general the proportion follows an upward trend over time. Table 2 shows the distribution of all the FRFs which can be given a status grouping.

Problems of linkage

All Colyton records were linked by hand with the aid of computer produced indexes of the FRFs. The reconstitution was punched into a computer some twenty years ago. Since the technology available then was less sophisticated than today, only certain aspects of the FRFs were entered. However, alphabetical indexes of husbands, wives and children by surname were used in this project. Total reconstitution of historical records cannot yet be accurately effected by computer methods.¹⁰ The process is clumsy and costly by machine and the diverse spelling of names is a particular problem. The Russell SOUNDEX code has been the most promising method of nominal linkage by machine. SOUNDEX is appreciably quicker than hand methods. Katz and Tiller found it took only a tenth of the time it had taken to link the 1861 Hamilton, Ontario census by hand.¹¹ However, the code is not satisfactory for the linkage of names further back in the past. When tested on Colyton by hand methods, Schofield identified 986 spellings comprising 244 different christian names in the Colyton register over the period 1538-1640. SOUNDEX failed to assign fourteen per cent of the spellings and erroneously conflated thirty-five per cent of names. This was obviously found to be 'an entirely unacceptable error rate'.¹²

However, name problems still exist when documents are linked by hand. Spellings are even more diverse than in the parish registers in seventeenth century parish documents like poor law accounts. To help overcome this, a system of phonetic linkage was used in this part of the Colyton project. This aimed to take the linguistic development of the west country dialect into account and certain idiosyncratic patterns could be identified. From this some name 'rules' could be drawn up and applied loosely.

For instance, surname shortening is a frequently encountered name change in the Colyton data. Thus over time, 'Batstone', a very common Colyton surname became Battey, then Batt. Presumably there was an element of sheer laziness in this but the variations on this name served to distinguish different family branches. Other examples of the 'y' shortening are Clotworthie becoming Clittery, Goulsworthy becoming Gollsey, Husway or Hussey becoming simply Hooy and Killander becoming Kelly. Some names are just shortened. For example, Hooper became Hoop and Quinton became Quint. Some permutations certainly reflect local dialect, Cauley and Cawley are the same as Calie and Calley as are Lowde and Lewd. Other names could change completely. While Ticken, Tigon and Tirken are recognisable as species of the same names: the links between Turle, Tirrel, Tyall and Turvell are perhaps not so obvious.

Similarly Salway or Zalway became Samwayes or Zamwayes and eventually just Samis.

Changes in the first letter of the surname provide much confusion in linking. Not surprisingly aitches may or may not appear, thus Alston, Halson and Halstone are all the same name. Similarly 'C' and 'K' were interchangeable. Kerby could be Corby or even Corky. Abbreviation sometimes started from the beginning of the name, hence Spurway became Purway in some cases. In the nineteenth century the common name in Colyton of Restorick went to Restadick and then just Stadick. Some letters were often reversed, so Crocker and Corker were the same names. Another problem is 'alias' names, as in the case of 'Tucker alias Baker' or 'Kerby alias Pyper' either surname might be used without the other. The reason for these names is not clear. Some female christian names were interchangeable; for example Joan, Joanne and Jane; and also Hannah, Joanna and Susannah.

Nuptiality and social class

The analysis of demographic behaviour by social grouping carried out for the Colyton reconstitution shows that nuptiality behaviour was indeed variable according to 'class'. This is shown in tables 2 and 3. There are minor differences in the number of marriages considered from those analysed by Wrigley and Schofield (plus or minus 6) as a few marriages which took place in another parish, or which have been found in documents other than parish records, have been added, and a few cases were removed as it was discovered that a woman's baptism had been incorrectly linked to a marriage. The last cohort, 1800-37, is well short of cases and represents only a section of the FRFs for this period.

Although the sample was small it is clear from tables 2 and 3 that women in the higher social groups married at an earlier age than those who were less well off. The opposite situation prevailed for men, since poorer men were likely to marry earlier than gentry or 'middling' status men. This seems to have been the effect of the local economy, since the changeover from a predominantly wool and wheat based economy to one based on dairy production in the first half of the seventeenth century had a major effect on local labour supplies. The outcome of gender-specific labour demand was a skewed sex ratio so that the population was decidedly feminine from the 1620s. By the 1650s there were four women to every three men in Colyton, the opposite situation to that which prevailed in the 1550s when there were four men to every three women in the parish. The variation in marriage ages must then, to some extent reflect the availability of partners, as well as emphasising the economic constraints on marriage. There is a shortage of data on women's wages in the past, but it seems fairly certain that the level at which women were paid for a day's labour was well below the level which could be earned by men. As marriage in the past depended on the couple's ability to command a level of economic viability, in areas in which openings for male employment were limited it was a prospect confined to those partnerships where the potential husband was able to find local employment.

Table 3 Age of women at first marriage by status group of Family Reconstitution Form 1550-1837

Cohort/ Group	N	Mean	Standard deviation	Lower quartile	Median	Upper quartile	Tri-mean
1550-99							
Gentry	15	24.6	5.2	21.0	23.0	27.0	23.5
Crafts	11	25.4	5.0	22.0	23.0	29.0	24.3
Labourer	14	25.6	4.4	21.8	25.5	28.3	25.3
Poor	13	25.2	4.6	21.5	24.0	29.0	24.6
Unknown	68	27.7	6.3	23.0	27.0	30.5	26.9
Total	121	26.6	5.8	23.0	25.0	29.0	25.5
1600-49							
Gentry	32	24.1	3.6	22.0	24.0	27.0	24.3
Crafts	31	25.7	5.6	22.0	24.0	27.0	24.3
Labourer	18	24.2	4.4	21.0	24.0	26.3	23.8
Poor	47	26.5	5.0	23.0	26.0	29.0	26.0
Unknown	118	27.5	6.5	23.0	26.0	31.0	26.5
Total	246	26.4	5.8	22.0	25.0	30.0	25.5
1650-99							
Gentry	13	27.8	5.9	24.5	26.0	33.5	27.5
Crafts	5	-	-	-	-	-	-
Labourer	4	-	-	-	-	-	-
Poor	35	29.5	6.9	24.0	28.0	35.0	28.8
Unknown	45	28.6	6.8	24.0	28.0	34.0	28.4
Total	102	28.8	6.7	24.0	27.0	34.0	28.0
1700-49							
Gentry	12	28.4	8.2	23.0	26.5	34.3	27.6
Crafts	11	22.6	4.4	20.0	22.0	27.0	22.8
Labourer	3	-	-	-	-	-	-
Poor	28	28.6	6.3	23.5	28.5	33.8	28.6
Unknown	27	28.4	6.2	24.0	28.0	31.0	27.8
Total	81	27.5	6.7	23.0	26.0	31.5	26.6
1750-99							
Gentry	24	26.2	5.2	22.0	24.5	30.0	25.3
Crafts	40	26.8	7.5	21.3	25.0	29.8	25.3
Labourer	27	26.8	4.1	24.0	26.0	30.0	26.5
Poor	23	28.0	7.8	23.0	28.0	31.8	27.7
Unknown	50	25.2	5.7	20.0	24.5	29.0	24.5
Total	164	26.4	6.3	22.0	25.0	30.0	25.5
1800-37							
Gentry	14	26.4	5.2	21.8	25.5	29.5	25.6
Crafts	22	24.8	5.4	20.0	23.0	26.5	23.3
Labourer	11	24.4	5.0	19.0	23.0	27.0	23.0
Poor	4	-	-	-	-	-	-
Unknown	47	25.1	6.6	21.0	23.0	28.0	23.8
Total	98	25.3	6.1	21.0	23.0	28.0	23.8

Table 4 Age of men at first marriage by status group of Family Reconstitution Form 1550-1837

Cohort/ Group	N	Mean	Standard deviation	Lower quartile	Median	Upper quartile	Tri-mean
1550-99							
Gentry	16	29.6	6.6	25.3	28.5	32.0	28.6
Crafts	8	26.5	3.6	23.0	26.5	28.8	26.2
Labourer	13	28.5	5.5	25.0	28.0	30.0	27.8
Poor	5	-	-	-	-	-	-
Unknown	28	27.5	5.0	23.0	28.0	30.8	27.4
Total	70	28.1	5.5	24.0	28.0	31.0	27.8
1600-49							
Gentry	18	26.1	5.8	21.8	23.5	31.5	25.1
Crafts	31	26.6	5.6	23.0	25.0	30.0	25.8
Labourer	21	24.1	2.9	22.0	24.0	25.5	23.9
Poor	28	25.6	5.3	22.0	24.0	28.5	24.6
Unknown	82	28.2	7.1	27.0	23.0	30.5	26.9
Total	180	27.0	6.6	23.0	25.0	29.0	25.5
1650-99							
Gentry	10	28.0	6.4	22.8	27.0	33.8	27.6
Crafts	7	27.3	6.9	23.0	25.0	29.0	25.5
Labourer	5	-	-	-	-	-	-
Poor	20	26.4	4.9	22.3	25.0	30.3	25.6
Unknown	30	27.1	5.1	23.0	26.5	30.3	26.6
Total	72	27.2	5.7	23.0	25.5	30.8	26.2
1700-49							
Gentry	8	28.8	8.0	21.5	25.0	38.8	27.6
Crafts	9	27.3	5.9	23.5	25.0	31.0	26.1
Labourer	7	25.1	5.6	20.0	24.0	31.0	24.8
Poor	42	26.5	6.9	22.0	25.0	28.0	25.0
Unknown	25	30.6	8.3	25.5	30.0	33.0	29.6
Total	91	27.5	8.0	23.0	26.0	31.0	26.5
1750-99							
Gentry	21	27.1	5.2	22.0	27.0	31.0	26.8
Crafts	42	26.1	3.9	23.8	26.0	29.3	26.3
Labourer	27	27.3	6.3	22.0	25.0	32.0	26.0
Poor	19	27.1	5.6	22.0	27.0	30.0	26.8
Unknown	26	29.8	8.3	23.8	26.5	35.3	28.0
Total	135	27.4	6.0	23.0	27.0	32.0	27.3
1800-37							
Gentry	7	26.3	5.6	21.0	26.0	31.0	26.0
Crafts	18	25.2	6.3	20.8	23.0	29.0	23.9
Labourer	11	24.8	5.1	21.0	24.0	28.0	24.3
Poor	2	-	-	-	-	-	-
Unknown	16	28.0	6.5	23.5	27.0	29.8	26.8
Total	54	26.3	6.2	21.0	26.0	29.8	25.7

These results are, necessarily, tentative and therefore only suggestive in their scope. As has been explained there are particular problems with the sampling methods of the total reconstitution method. In a community which is of a manageable size for analytical purposes, the number of cases in each section are too small to bear the weight of an interpretation of any great significance. However, as far as they go, they confirm a close association between economic and demographic patterns. They reinforce at a local level, the association made by Wrigley and Schofield between the male real wage level and marriage ages. We are only left wondering how much more we could learn, if we could specify from the reconstitution details of those who did not marry.

Conclusion

The groundwork for the total reconstitution of Colyton, the linking together of disparate documentary sources to form a picture of the social grouping of every inhabitant, took eighteen months. I was fortunate because the basic family reconstitution was already complete. Although automated methods of family reconstitution are being developed, it seems unlikely that total reconstitution will ever be able to be carried out in a short period. At present the method is tedious and time-consuming. Ultimately, it is simply not cost-effective for the single researcher to undertake. The future lies either with the further exploitation of modified reconstitution projects, linking one or two good quality documents to a completed reconstitution, or alternatively, with total reconstitution projects being executed by an interested group of researchers, such as a local history group, who are able to use the finished product for genealogical purposes as well as furthering their knowledge of the past of their community.

NOTES

1. P. Sharpe, 'Gender-specific demographic adjustment to changing economic circumstances: Colyton 1538-1837', unpublished Ph.D. thesis, University of Cambridge, 1988.
2. A.D.J. Macfarlane, S. Harrison and C.J. Jardine, **Reconstructing historical communities**, Cambridge, 1977.
3. B. Derout, 'Une demographie differentielle: cles pour un systeme auto-regulateur des populations rurales d'Ancien Regime', *Annales E.S.C.*, 35, 1, 1980, pp.3-41 analysed demographic behaviour in France by comparing better-off with poorer peasants. E. Jutikkala, **Social differences in pre-industrial demography: a case study on a middle sized town**, 1987 has used parish registers to differentiate the population of Turku in Finland by socio-economic class for the years 1826-44. He found no differences in fertility factors and some slight differences in mortality factors. J.E. Knodel, **Demographic behavior in the past**, Cambridge, 1988 used the Ortsippenbuch genealogies to produce reconstitution of fourteen different villages in diverse districts of Germany. He was then able to analyse demographic change by occupational groups.
4. I consider that D. Levine, **Family formation in an age of nascent capitalism**, London, 1977 is guilty of this in his study of the communities of Shepshed, Bottesford, Colyton and Terling.
5. Levine *ibid.*, pp.103-15.
6. K.D.M. Snell, **Annals of the labouring poor**, Cambridge, 1985 argues for gender differentiation in agricultural employment, although in a later time period.
7. Victoria and Albert Museum 43/AZH Case of the Lacemakers in Relation to the Importance of Foreign Lace. Also G.F.R. Spenceley, 'The origins of the English pillow lace industry', *Agricultural History Review*, 21, 2, 1973, pp.81-93.

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