National Sample from the 1881 Census of Great Britain 5% Random Sample

Working documentation version 1.1

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Preface

The principal reason for producing this sample of the 1881 census is twofold. First, it has been created as an intrinsic part of a major research programme. The 'Future of Work: an historical perspective' research project based within the History Department at the University of Essex, is part of the umbrella 'Future of Work' programme of research funded by the Economic and Social Research Council (ESRC). In short, this research project has aimed to provide an historical contextualisation necessary of work by the examination of a number of key aspects of occupation and employment in the nineteenth and early twentieth centuries, thus providing a fuller understanding of present day concerns regarding the 'future of work'. Second, the sample has been created as a research resource in its own right. Information from the nineteenth-century census enumerators' books (CEBs) has formed a central pillar to a variety of research on social and economic aspects of Victorian Britain.[1] Indeed, the CEBs are probably one of the most heavily used sources relating to the nineteenth century.[2] Unfortunately, however, due to the lack of a national sample, most research using the CEBs has been limited to the analysis of small-scale local studies. In order to investigate social and economic behaviour at a national or even regional level researchers have invariably to rely on the aggregated census statistics published in the various reports following each decennial census. The single exception to this is the two per cent national sample of the 1851 census of Great Britain created by Professor Michael Anderson of the University of Edinburgh.[3] Thus it is hoped that the creation of this research resource will generate a new stream of research on issues at a national and regional level that only the richness of the individual and household level CEBs can address. Indeed, in order to facilitate both temporal and cross-national comparative research, as a by-product of this project it is important to mention that a new version of Anderson's 1851 sample will be made available containing identical enriched variables and coded according to the same classification schemes. Also, working in collaboration with the Universities of Minnesota and Ottawa, comparable datasets will be made available of the 1880 censuses of the United States and Canada.

This guide to the 1881 census national sample has been authored by Kevin Schürer and Matthew Woollard. However, many others have contributed to the creation of this data file. In particular thanks are due to Raivo Ruusalepp who generated the

1 For an overview of the research uses to which the CEBs have and can be put see Mills and Schürer (1996b).

2 An indication of the extent of research based substantially on the CEBs is given by Mills and Pearce (1989), unfortunately now out of date.

3 M. Anderson, *et al.*, *National sample from the 1851 census of Great Britain* [computer file]. Colchester, Essex: History Data Service, UK Data Archive [distributor], 1979. SN: 1316.

numerous tables included in this guide and helped program the standardisation of the place of birth information. In addition, Mark Allen undertook most of the initial work on assigning the numerous variants in birthplace, and Wayne Diamond who parsed the original raw data and reconciled them to the parishes of enumeration. Assistance was also gained from Julie Gammon and Max Fox.

The creation of this sample was made possible by the generous support of awards from the Leverhulme Trust, the ESRC and the University of Essex Research Promotion fund, which we gratefully acknowledge.[4]

[4] 'The nineteenth-century censuses collection: a computerised resource for research and teaching', Leverhulme Trust Award F213/R; 'The Future of Work: an historical perspective' ESRC Award L212252994.

Section 1: the 1881 census

Brief history of the 1881 census

The ninth census of Great Britain was held on Monday 4 April 1881, after two Acts of Parliament received Royal Assent on 7 September 1880: one relating to England and Wales and the Islands in the British Seas, the other relating to Scotland.[5] Most of what follows in this section relates primarily to the taking of the census in England and Wales. This is because most of what is known about the administrative history of the census relates to these countries. The only published description of the administration of a census in Scotland is for 1851, before the establishment of the Scottish Register Officer in 1854. This said, the administration of the Scottish census was broadly similar to that of England and Wales, and it is clear that two General Register Offices (GRO) were in close contact with one another both during the planning stages for the census and whilst the returns were being analysed in preparation of the publication of the official reports to be placed before Parliament. In the case of England and Wales 34,711 enumerators were recruited in the period between those dates to distribute schedules (during the week of 28 March 1881) to each household or tenement and to collect those completed schedules on either 4 or 5 April. Enumerators then had six days (i.e. until 11 April) to enter the details recorded on the schedules into their enumeration books, 'in strict conformity with the rules given therein'. Slightly different procedures were carried out in Scotland and for vessels at sea, larger institutions and members of the Royal Navy. Details of these enumerations can be found elsewhere.[6]

The instructions given to the householders who had been given the schedules were laboriously printed on the reverse of that form (see Figures 1.1 and 1.2). Despite the exhortation to the public to read these instructions before filling in these forms, it will be clear to all users of the enumerators' books that these rules were not carried out to the full. Once the householders had completed these schedules, or had required assistance in completing them from the enumerator (or indeed their neighbours), the enumerator collected up all the schedules he had delivered an proceeded to copy them out into his enumeration book (hereafter known as a CEB).[7] Thus, even at this stage in the census collection process the CEBs are a recension of the original householders' schedules. It is clear that enumerators made five types of

[5] 43 & 44 Vict. c.37. (Census Act, 1880) for England and Wales; 43 & 44 Vict. c.38.(Census Act, 1880) for Scotland.

[6] Higgs (1996), 35–47. One point to note is that in 1881 the tabulations for fishermen included all those on shore on census night and all those who came into port in the following two weeks, unlike in the preceding and the successive censuses.

alterations in their 'copying' process. First, minor errors, such as spelling mistakes, were corrected (though they were probably introduced as well). Second, given that enumerators were responsible for the completion of a substantial proportion of schedules, information was certainly altered reflecting their own local knowledge. Third, information which would not have occurred on the householders' schedule, was added by the enumerator. For example at Ayott St. Lawrence in Hertfordshire a comment was added in the occupation column that 'A Tramp slept in Mr Pavitts Barn But Left Before the Enumerator Called'.[8] Fourth, it was not beyond the enumerator to falsify information, though this is hardly likely to be significant.[9] The fifth alteration made by the enumerators was a form of standardisation. In the instructions in each enumeration book enumerators were told that 'such contractions may be used as "Ag. Lab." for agricultural labourer, but care must be taken that the contractions used are such as will be readily understood'. An example of an ambiguous abbreviation commonly used is 'C.M.' which can refer to people in Cotton Manufacturing (or Carpet Manufacturing) or to a Coal Miner. There is little information on the editing process undertaken by the enumerators in the process of transcribing information from the schedules to the CEBs as almost no schedules remain. It is possible to gain some light from a series that exist for some areas of the sub-district of Llandyrnog in Denbighshire for 1851. Comparison of the schedules completed by the enumerator and those completed by the householders suggest that comprehensive standardisation took place in the occupational column in the CEBs, especially for those employed as agricultural labourers or domestic servants. In these cases the occupational detail seems to have been too great, even for those whose schedules were completed by others on the behalf of the householder. On the other hand those schedules completed by the enumerators were said to conform 'quite closely with the instructions on the back'.[10] These alterations are unlikely to have critically affected the final census reports, though it would not be extravagant to suggest that in many cases they enhance rather than degrade the quality of information in the CEBs.[11]

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7 The numbers of schedules completed by enumerators ranged from 18 to 55 per cent in four Somerset parishes in 1871. Letter from D. McCallum in *Local Population Studies*, 26 (1981), 63.

8 PRO RG 11/1428 f.62, 5. Another hand has added the age of this tramp as 60.

9 R*eport of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q1850. (Evidence of Charles White.) His diligence in getting a shoeblack (one who polishes shoes, generally working at an inn or a hotel) to describe himself thus rather than falsify his schedule testifies to the single-mindedness of some enumerators.

10 See the articles on the schedules for the sub-district of Llandyrnog in Denbighshire. We are grateful to Mr and Mrs Benwell for allowing us to see a revised version of the second of these papers.

11 See Mills and Schürer (1996a) 18, n.6.

It is important to note that the information reported in the CEBs is not necessarily the same as that found in the householders' schedules. Furthermore, there is evidence to suggest that the information in these schedules is sometimes incorrect.[12] This is not the place to examine the growing literature which evaluates the quality of the CEBs, but there is evidence which shows that age reporting varies according to sex and age,[13] that birthplace reporting varies across censuses,[14] that relationships to head of household, especially for servants, may be inconsistently reported,[15] and that occupations when doubly enumerated may differ.[16]

Once the enumerator had copied out the schedules and filled in the opening pages of his enumeration book, both were dispatched (in England and Wales) to the one of the 2,175 local registrars, the officer in charge of the Registrar-General's operations in each registration sub-district, along with his memorandum book.[17] After 'examination and *revision* by the registrar [they] were submitted to the superintendent'.[18] The registrar was specifically instructed to ensure that the occupation column was filled in correctly.[19] The superintendent registrar approved and countersigned the enumeration books and then forwarded them to the Census Office, a temporary office in Craig's Court, Charing Cross, London, where the next checking procedure was carried out. Scottish schedules and CEBs were not sent to London but to the General Register Office in Edinburgh.[20] The completed schedules followed a similar route, but by-passed the superintendent. Thus, both the registrars and the superintendents had the opportunity to revise and correct the enumeration books though there is little evidence to suggest that this occurred comprehensively.[21] Tillott has inferred that one Sheffield registrar carefully corrected the enumeration books from the schedules. He cites the entry for a Matthew Parker which gives his occupation as 'Humbug'. This was altered to give what was presumably on the original schedule—'Angel or Bishop of the Catholic and Apostolic Church, Victoria Street, Sheffield'.[22] However, we should note that it is by no means clear, in this case who altered the enumeration book. Again, we presume that these alterations

12 For an overview of the quality of the nineteenth-century census enumerations see Higgs (1996). and Mills and Schürer (1996a)
13 Perkyns (1996a) and Thompson (1996).
14 Perkyns (1996b).
15 Anderson (1998).
16 Woollard (1997).
17 On memorandum books, see Higgs (1996), 14.
18 1881 Census of England and Wales, *Vol. IV, General report and tables*, BPP 1883 LXXX, 3.
19 PRO RG 27/5, Item 27, Instructions to the various officers, 20.
20 See Collins and Anderson (1978).
21 William Ogle in his evidence in the *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q84, suggested that only a few registrars made corrections and that most were made by the abstractors.
22 Tillott (1972), 84 and 87.

enhance rather than corrupt the original data. One registrar gave evidence to a Treasury Committee saying that registrars were unable to completely check the CEBs against the schedules.[23]

The enumeration books were subject to further scrutiny at the Census Office—in England and Wales, a process which took some 60 clerks around three months.[24] The instructions 'respecting the revision of the enumeration books' are emphatic in the purpose for which this was carried out: [25]

> The Registrar-General expects that the revision of the enumeration books will be conducted in so careful a manner as to render the discovery of errors in the future stages of the work of exceedingly rare occurrence.

During this process a number of annotations and alterations were made in the enumeration books, especially under the column containing information pertaining to occupation. Though we cannot be certain that some further amendments and alterations were made later, it was probably at this time that information relating directly to the classification of occupations were made. For example, there are occupational titles recorded in the database which include the actual code used by the GRO. These annotations may have been added during the process of abstraction either as a reminder to the abstractor or as a means for checking decisions, but it seems more probable that they were added at this stage. The problem of identifying the authors of these corrections was as hard at the event as at present. On being presented with an enumeration book with the word 'indoor' added to the occupation 'Farm Servant', William Ogle, the Superintendent of Statistics in 1881, was unsure whether it would have been made by a registrar or an abstractor. On balance he thought the former, but it seems much more likely to have been made at this checking stage, or possibly by an abstractor, as the classificatory importance of the addition would have been lost on the registrar.[26] However, though, as has been noted above, the enumerators may have standardised occupations, these annotations often resolve ambiguity.[27]

Returning to the abstracting process, armed with the index of occupations, the abstractors ticked each person to their correct category on the abstracting sheet, produced totals for sub-districts, which were ultimately aggregated to produce the

[23] *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q1021. (Evidence of Mr Tupper).
[24] *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q76. (Evidence of Dr Ogle).
[25] PRO RG 27/5, Item 52, Instructions Respecting the Revision of the Enumeration Books, 1.
[26] *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q87. (Evidence of Dr Ogle).
[27] This occurred in the 1921 Census where schedules were classified as a precursor to the information being punched onto cards for analysis using a Hollerith card sorting and counting machine.

totals for each registration county and published in the census reports.[28] A further problem occurs at this stage, and at all subsequent stages. However detailed the instructions laid down to enumerators, registrars and clerks were, it is always possible that they were interpreted differently by different people performing the same task. This is especially pertinent in the process of abstraction where it seems most likely that the abstracting clerks were responsible for one (or part of a) county. Their inconsistency in interpreting individual occupations could have seriously affected the final published totals for counties.

Before ending this discussion of the processes affecting the data within the enumeration books, it is well worth examining the role of the clerks in the process. First, the office in which they worked was described by Ogle as: [29]

> very low, fearfully unventilated; they were foetid by the time day was over, quite horrible to go into … we had perpetual complaints of illness … two of our staff at the present time [1890] declare that their health was permanently ruined by the foul air ….

A further practicality must be dealt with here. The abstracting clerks were not paid a salary, but by the number of ticks they made on the abstracting sheets. The instructions recommended that the abstractor learn the classification as: [30]

> the more completely he fixes them in his memory, the more rapidly will he be able to do the work of abstraction; and as the remuneration will be in proportion to the amount and accuracy of the work done, larger will be his earnings.

How it was possible to check their accuracy is unknown, though the process may not have changed from 1861, when William Farr wrote that the extraction of data from the enumeration books and their classification was not checked. This can be illustrated by the following passage from the 1861 census report written by William Farr: [31]

> To have ensured perfect accuracy in all the details, the whole of the abstracts of occupations should have been repeated in duplicate and compared; but with the force at our disposal, this could not have been achieved in the prescribed time. Considerable pains were taken to correct evident errors of nomenclature; to instruct, assist and check the abstractors in their work; so that, notwithstanding the difficulties in the way, we look with confidence on all the general results of their labours.

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[28] The occupational tables for 1881 can be found in 1881 Census of England and Wales, *Vol. III, Ages, Conditions as to marriage; occupations and birthplaces of people*, BPP 1883 LXXX, Table 10. For Scotland they can be found in 1881 Census of Scotland, *Ninth Decennial Census Vol. II, Ages, Education, Civil Condition, Birthplaces, General Index*, BPP 1883 LXXXI, Table 15.

[29] *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q282. (Evidence of Dr Ogle.)

[30] *Instructions to the clerks employed in classifying the occupations and ages of the people*, 1.

[31] 1861 Census of England and Wales, *Vol. III, General Report*, BPP LIII pt. I, 27–8.

And in the same vein, in 1889 William Ogle wrote the following about the 1881 Census: [32]

> ... I think it desirable that I should make some remarks upon the institution of comparisons between the occupational figures of successive censuses, because I cannot but feel that persons who have no intimate knowledge of the conditions under which the occupational tables are framed are not unnaturally inclined to ascribe to them very much greater accuracy than in my judgment they deserve. I am not here alluding to the differences in the headings introduced at various times, for such changes are so palpable that no one who is justified in using the tables at all is likely to overlook them; but I mean that, even when a heading has remained throughout unaltered, and has always been intended to denote precisely the same group of occupations, a very considerable amount of difference may nevertheless underlie this apparent identity. For inasmuch as the householders' schedules are filled up by the householders themselves, a preponderating proportion of whom are extremely ignorant men and utterly incapable of accuracy, there are always, even in the case of the most simple industries, a large number of returns so carelessly worded that it is very doubtful under what heading they should be placed; and it is very probable that the views taken as to the tabulation of these doubtful cases may have differed at different censuses, taken as these have been at long intervals, and therefore necessarily to a great extent by fresh hands. Again, irrespective of this cause of possible difference, there is another and more important one. Though precise rules for the tabulation are of course laid down by those in charge of the census, the carrying out of these rules, which cannot but be minute and intricate, has in the main to be left to clerks actually employed in the process of abstraction, and requires on their part great care, considerable intelligence, and scrupulous honesty; and it must be confessed that the mode in which the numerous temporary clerks are gathered together and supplied to the census authorities is scarcely such as to ensure these necessary qualifications. Every effort is made to check the abstractors' work, and in the simpler processes of the census such checks can readily be devised and are sufficiently detective, but in the more complicated processes, such as the abstraction of occupations, no sufficient check other than working the whole occupational abstraction in duplicate can be devised, and such a duplicate abstraction is impracticable on the grounds of time and expense. There is always therefore a considerable risk that in the unchecked portion of the abstraction some unscrupulous clerks may have scamped their work, or some careless dullards have made unintentional but serious blunders. When the entire country is taken into consideration, or the occupational heading is one under which a very large number of workers is included, the mistakes and misplacements, which may be made equally well on one side as on the other, may be assumed to right themselves sufficiently; but in small areas, or in occupations with comparatively few persons engaged in them, such counterbalancing cannot be relied upon; and consequently much caution is necessary in the use of the figures.

The checking which Ogle alludes to above is possibly more a check on the abstractor. Abstractors were paid a piece-rate for their work. At the end of a months grind, a sample of their work was reworked by other clerks. If a fixed error rate per thousand

[32] Ogle (1889), 216–7.

was exceeded the abstracting clerk had his salary docked.[33] It is not clear, however, if the work of a particular clerk was re-done if too high an error rate was found.

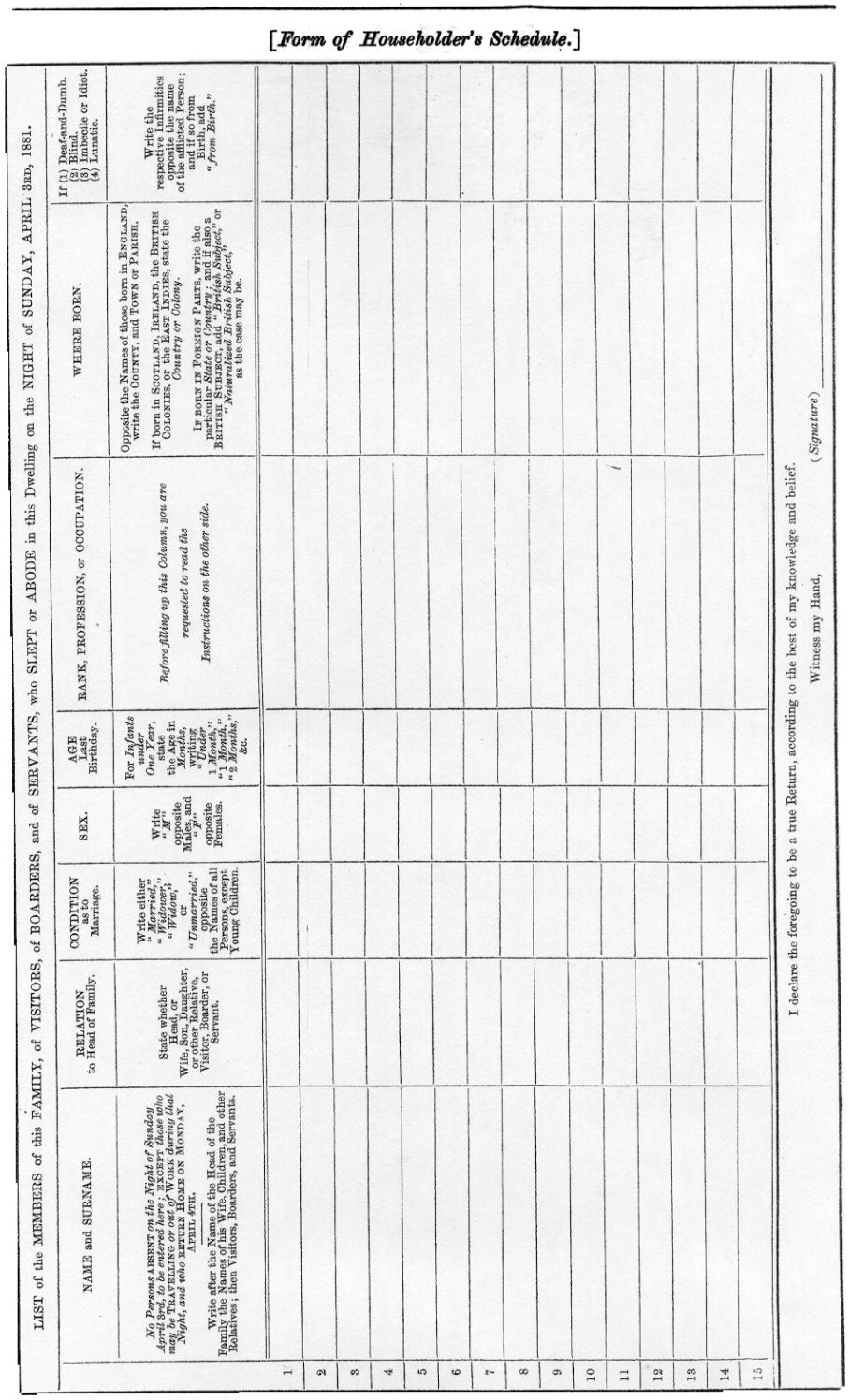
In summary, from the householders' schedules to the census report, information, and especially that relating to occupation, was susceptible to alteration and correction from a number of people. These alterations were in the main beneficial, but they also damaged the integrity of the data. No one, as far as is known, has suggested that the published returns are infallible, but to recognise their imperfections, it is necessary to understand the process by which they were created.

Lastly, it is important to say something about the quality of the transcription process. Although it is not possible to demonstrate the accuracy of the transcription with any clear measure of certainty without matching the transcribed data against the original CEBs, an exercise which was beyond the scope of this project, it is believed that a high level of accuracy was achieved during the transcription process, despite the fact that some of the information recorded in the CEBs was not transcribed. As is detailed in the following section, the information contained within the original CEBs was first manually transcribed onto *pro forma* transcription sheets. This was done twice and any significant differences were verified against the original CEBs. Then the checked transcription sheets were said to have been typed into the computer twice, with any differences again being checked. Such a high level of internal verification is unusual in the case of most historical data creation projects, and as such it is felt that the overall accuracy and integrity of the data is equal to, or indeed surpasses, that of similar exercises.[34]

[33] *Report of the Committee appointed by the Treasury*, BPP 1890 LVIII, Q238. (Evidence of Dr Ogle.)

[34] See Woollard (1999), 22–29 for a comparison of the published occupational tabulations and tabulations from a different section of the database.

Figure 1.1 Obverse of householders' schedule, 1881 Census of England and Wales.



[*Form of Householder's Schedule.*]

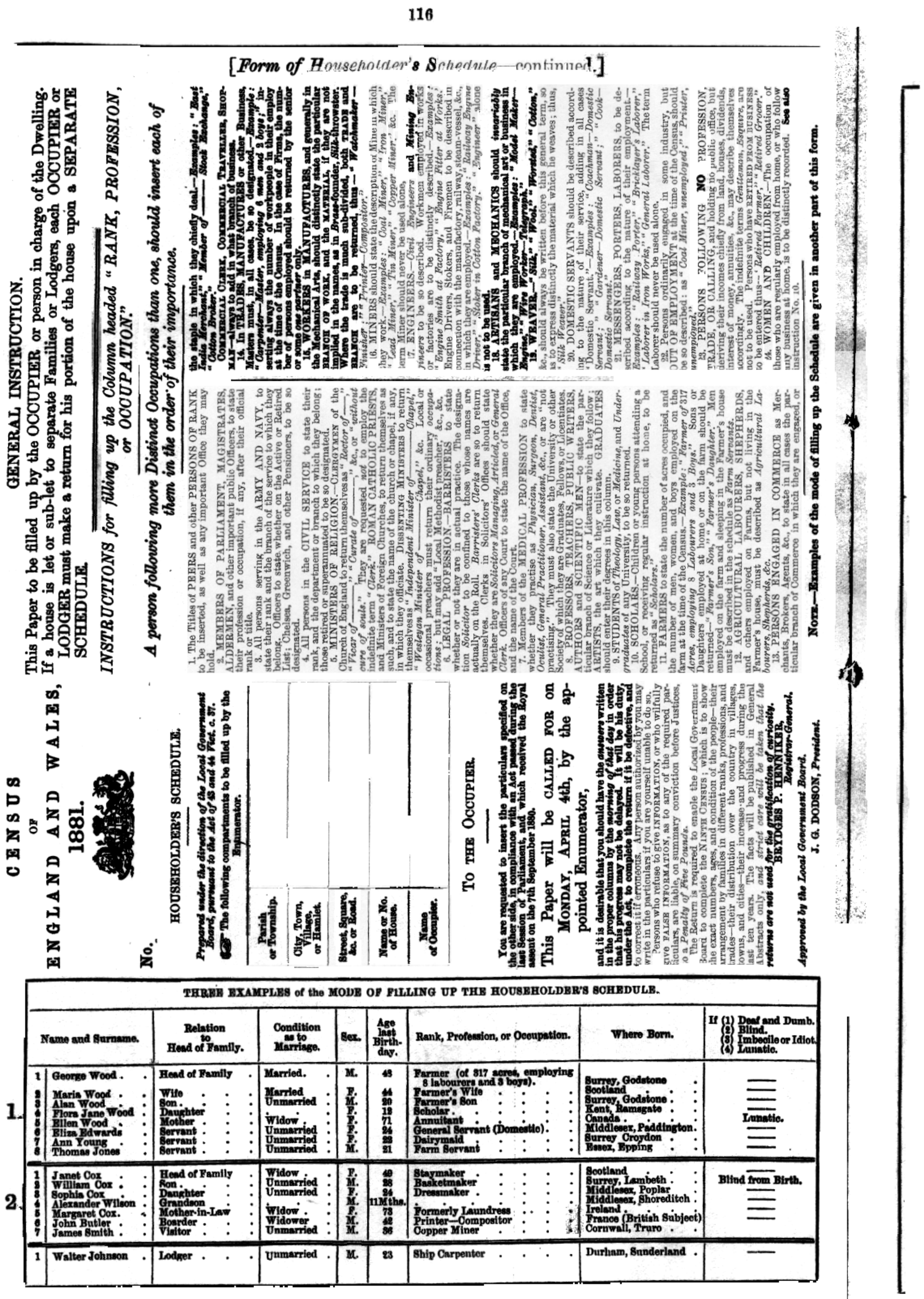
LIST of the MEMBERS of this FAMILY, of VISITORS, of BOARDERS, and of SERVANTS, who SLEPT or ABODE in this Dwelling on the NIGHT of SUNDAY, APRIL 3RD, 1881.

	NAME and SURNAME. *No Persons* ABSENT *on the Night of Sunday, April 3rd, to be entered here;* EXCEPT *those who may be* TRAVELLING *or out of* WORK *during that Night, and who* RETURN HOME ON MONDAY, APRIL 4TH. Write after the Name of the Head of the Family the Names of his Wife, Children, and other Relatives; then Visitors, Boarders, and Servants.	RELATION to Head of Family. State whether Head, or Wife, Son, Daughter, or other Relative, Visitor, Boarder, or Servant.	CONDITION as to Marriage. Write either "*Married*," "*Widower*," "*Widow*," or "*Unmarried*," opposite the Name of all Persons, except Young Children.	SEX. Write "*M*" opposite Males, and "*F*" opposite Females.	AGE Last Birthday. For *Infants under One Year*, state the Age in *Months*, writing "*1 Month*," "*2 Months*," &c.	RANK, PROFESSION, or OCCUPATION. *Before filling up this Column, you are requested to read the Instructions on the other side.*	WHERE BORN. Opposite the Names of those born in ENGLAND, write the COUNTY, and TOWN or PARISH. If born in SCOTLAND, IRELAND, the BRITISH COLONIES, or the EAST INDIES, state the *Country or Colony*. IF BORN IN FOREIGN PARTS, write the particular *State or Country*; and if also a BRITISH SUBJECT, add "*British Subject*," or "*Naturalized British Subject*," as the case may be.	If (1) Deaf-and-Dumb. (2) Blind. (3) Imbecile or Idiot. (4) Lunatic. Write the respective Infirmities opposite the name of the afflicted Person; and if so from Birth, add "*from Birth*."
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

I declare the foregoing to be a true Return, according to the best of my knowledge and belief.

Witness my Hand, (*Signature*) _____

Figure 1.2 Reverse of householders' schedule, 1881 Census of England and Wales.



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[*Form of Householder's Schedule*—continued.]

CENSUS OF ENGLAND AND WALES, 1881.

HOUSEHOLDER'S SCHEDULE.

TO THE OCCUPIER.

GENERAL INSTRUCTION.

INSTRUCTIONS for filling up the Column headed "RANK, PROFESSION, or OCCUPATION."

THREE EXAMPLES of the MODE OF FILLING UP THE HOUSEHOLDER'S SCHEDULE.

		Name and Surname.	Relation to Head of Family.	Condition as to Marriage.	Sex.	Age last Birthday.	Rank, Profession, or Occupation.	Where Born.	If (1) Deaf and Dumb. (2) Blind. (3) Imbecile or Idiot. (4) Lunatic.
1.	1	George Wood	Head of Family	Married.	M.	48	Farmer (of 317 acres, employing 8 labourers and 3 boys).	Surrey, Godstone	
	2	Maria Wood	Wife	Married	F.	44	Farmer's Wife	Scotland	
	3	Alan Wood	Son	Unmarried	M.	20	Farmer's Son	Surrey, Godstone	
	4	Flora Jane Wood	Daughter		F.	12	Scholar	Kent, Ramsgate	
	5	Ellen Wood	Mother	Widow	F.	71	Annuitant	Canada	Lunatic.
	6	Eliza Edwards	Servant	Unmarried	F.	24	General Servant (Domestic)	Middlesex, Paddington	
	7	Ann Young	Servant	Unmarried	F.	23	Dairymaid	Surrey Croydon	
	8	Thomas Jones	Servant	Unmarried	M.	21	Farm Servant	Essex, Epping	
2.	1	Janet Cox	Head of Family	Widow	F.	49	Staymaker	Scotland	Blind from Birth.
	2	William Cox	Son	Unmarried	M.	26	Basketmaker	Surrey, Lambeth	
	3	Sophia Cox	Daughter	Unmarried	F.	24	Dressmaker	Middlesex, Poplar	
	4	Alexander Wilson	Grandson		M.	11Mths.		Middlesex, Shoreditch	
	5	Margaret Cox.	Mother-in-Law	Widow	F.	73	Formerly Laundress	Ireland	
	6	John Butler	Boarder	Widower	M.	42	Printer—Compositor	France (British Subject)	
	7	James Smith	Visitor	Unmarried	M.	36	Copper Miner	Cornwall, Truro	
3.	1	Walter Johnson	Lodger	Unmarried	M.	23	Ship Carpenter	Durham, Sunderland	

Provenance of the data

This section will describe briefly the process by which the database which is distributed with this guide was created.[35] In 1987 the Genealogical Society of Utah (GSU) was granted a license by Her Majesty's Stationery Office (HMSO) to transcribe and index 1881 census of England and Wales. The GSU was founded in 1894 by the Church of Jesus Christ of Latter-day Saints with the aim of collecting and making genealogical material available. In order to create surname indices for the whole country, the GSU decided to use database technology in order to speed up the hugely time-consuming process of sorting and collating surname slips. During the negotiation procedures, the GSU were directed to create full transcriptions of the census enumerators' books, rather than simply index the names and addresses of individuals. As a consequence of this a full machine-readable transcript of the census for England and Wales was created—initially Scotland was not included. At the outset it was only considered necessary for microfiche indices to be published, but eventually the GSU published the entire census in machine-readable form on CD-ROM (GSU, 1999).[36]

The GSU took microfilm copies of the extant CEBs, produced hard copies from the microfilm, which were then broken down into manageable batches. A total of just over 45,000 batches were made which roughly equates to the number of CEBs. Each of these batches was given a unique identifier; a batch transmission form was also attached. These batches were sent to a variety of groups and organisations to be transcribed. Each batch was transcribed twice, after which a checker compared the two transcriptions to eliminate errors or make judgements on illegible entries. The batches were then forwarded to a management centre, where a further check was made, known internally as 'evaluation'. From the management centre, the corrected transcriptions were then sent to a number of data entry centres, where the transcriptions were made machine-readable. It was originally planned that every batch would be data entered twice, one keyboard operator typing over the previously entered data. This may have occurred in many instances, but there are obvious indications within the database that data entry only occurred once. For example, it is extremely unlikely that two data entry operators would mis-key the same incorrect letter in a word.

The computer program used by the GSU automatically added some information to the data including artificial identifiers for each record. Once input, the transcription sheets along with the machine-readable version were returned to the management

[35] Further details can be found in Young (1994) and Woollard (1996 and 2000).

[36] Available from: The Distribution Centre, Church of Jesus Christ of the Latter-day Saints, 399 Garretts Green Lane, Birmingham, B33 OUH.

centre where an audit was performed; generally, by checking the quality of the data entry. Once the audit was performed the machine-readable data was sent to the GSU centre at Salt Lake City where indexing and formatting took place.

It is important to keep in mind that the original aim of the project was not to create a database of the 1881 census but to create a microfiche index of the population of the Great Britain. The work was created for genealogists rather than historians, and the importance of keeping the whole of the source in a format as near to its original as possible was not always considered necessary by both the creators and those involved in the production of the database. This means that integral parts of the original CEBs may have been lost—it is not always clear whether the indexing procedure has always kept the records within the CEBs in their original order, though it should be possible to reconstruct this in those places where it has not been kept.

The data were, after production of the microfiche, supplied to the History Data Service (HDS) at the University of Essex for distribution to the academic community. However, these data turned out to be incomplete and problematic. While the process of checking these was being carried out the GSU published the whole of the census on CD-ROM. (GSU, 1999). This data was formatted in an unusual format:

```
      Dwelling:     89 Herbert St
      Census Place: Shoreditch, London, Middlesex, England
      Source:       FHL Film 1341084   PRO Ref RG11  Piece 0390  Folio 123  Page 39

                    Marr   Age    Sex    Birthplace
Peter BRIDGES       M      62     M      Elmswell, Suffolk, England
      Rel:   Head
      Occ:   Commercial Clerk
Mary Ann BRIDGES    M      54     F      Horseheath, Cambridge, England
      Rel:   Wife
Ellen BRIDGES       U      24     F      Windsor, Berkshire, England
      Rel:   Daur
      Occ:   Stationers Assist
Dennis L. BRIDGES   U      16     M      (City Rd), Middlesex, England
      Rel:   Son
      Occ:   Printer
```

Despite the formatting, and other conventions used in this dataset, it was considered to be much more reliable that the original version which had been supplied to Essex. It was at this stage that the critical decision was taken to ignore all the data that had been originally supplied, and work solely with the published version, despite its several inconveniences, including some standardised and altered variables, the exact provenance of which were unknown.

A program was written which extracted this information into a more manageable format. The program also made a number of additions to the data, most importantly,

it added a variable (`rectype`) which attempted, through the use of string matching, to categorise the type of record. These record types were individuals in private households, individuals resident within institutions, and individuals resident on board vessels. (For example, in the case of the record above, the term 'Dwelling' in the first line made this record an ordinary household.) This program also allocated a variable which attempted to assess the type of record in another way. For example, some records did not relate to people but rather to uninhabited houses, either being built or empty, as below:

```
Building:     93 Herbert St  UNINHABITED
Census Place: Shoreditch, London, Middlesex, England
Source:       FHL Film 1341084   PRO Ref RG11  Piece 0390  Folio 124  Page 41
```

This record would have been extracted but allocated to a group which would not be used for any further processing, after a further check.

At this stage, each region-worth of data (for England and Wales alone)[37] was transformed into a Microsoft Access table, and a concerted attempt was made to allocate each and every individual to a particular geographical entity—in this case, the most discrete entity possible, civil parish. During this process records which were either intentionally duplicated by the GSU, for genealogical purposes, and those which were unintentionally enumerated twice, *and may or may not have been accounted for in the census tabulation procedure*, were tagged and not used for further processing. This whole process took almost ten person months to complete, but at the end, almost all records had been successfully allocated to a standard parish and the total numbers of people allocated to parishes was checked with the published population figures. In this process, a number of records were reallocated to a different parish than the one that they had been allocated to by the GSU, to bring the population totals into line with the published reports, if there was evidence that this had also been carried out at the Census Office in the preparation of the population tables. For 99.3% of the parishes in the country, the database total population matches within 0.4% of the published totals. Some of the remainder are considerably further adrift, which may be due to our inability to reallocate people to the correct parish on any possible identification within the data, and some because of missing CEBs. The total 'population' of the machine-readable database, after exclusions and alterations was 26,102,532 and the total published population was 26,155,644, suggesting that about 0.2 per cent of the population of England and Wales is not to be found in the revised version of the GSU database. Comparable figures can not be

[37] Scotland was not included in this procedure because the General Register Office (Scotland) holds the copyright to the original census data for Scotland, and at the time of undertaking this stage of the work it was not possible to determine whether the Scottish element of the sample could be distributed.

given for Scotland because a slightly different process was carried out in the creation of the sample. For Scotland, because these data was not originally supplied to the University of Essex by the GSU, the cleaning phase was carried out after the parishes had been chosen for the five per cent sample. Table B.3 in Appendix B shows the relationship between the published population figures and the numbers in the cleaned data used for the sample.

Following this stage the principal result was a flat-file dataset which contained all of the raw data from the GSU CD-ROMs. Some other information had also been added to each record relating to the type of record as well as geographical information relating to the parish of enumeration. However, despite this process being a major undertaking in its own right, the data were not in a particularly useful format for detailed historical analysis. An earlier project, funded by the Leverhulme Trust, had been set up, to, amongst other things, create coding dictionaries for the occupations as given in the 1881 census data and the birthplaces. Integrating these codes into the database would make it considerably more usable. Other projects, most notably IPUMS, had produced fully coded versions of census samples, and to this end, it was decided that not only to integrate fully all the coded information into the dataset, but also add a considerable number of other enriched variables to make the 1881 British census sample a more flexible and effective research resource.[38] Most of these enrichments surrounded household analysis and will be dealt with below, but another major enrichment was occupational status. The following section describes the enrichment program and some of its outputs.

[38] For details see http://www.ipums.umn.edu/usa/index.html

The enrichment program

At the heart of creating the 1881 British census sample lies what has been termed the 'enrichment program'. Basically, this program has three main functions. First, to reformat the input data. Second, to perform a number of consistency checks on the data, and to alter the results accordingly. Third, to add a number of enriched variables, mainly relating to household structure. However, this simple, rather mechanical description underestimates the accumulated work and effort that has gone into its creation. The program, in total some 3,800 lines of code, draws on some ten years of experience by Kevin Schürer in the computer analysis of individual and household level census material. Equally, embedded within in it are calls to various coding dictionaries or look-up tables (which will be described later), two of which alone took three person years each to generate: that for occupations created by Matthew Woollard and that for places of birth created mainly by Mark Allen. In most computer-based census analysis exercises, checking and correction is largely done manually, whilst enrichment is mainly achieved semi-automatically. In this case the project aimed (and succeeded) to create a computer program that would carry out the tasks of inputting the data, checking and correcting the data, coding or standardising the data and generating a number of enrichments to the data automatically, without any manual intervention, and in one single operation. The desire to fully automate the whole process was driven by two main concerns. First, in dealing with a database of this extent, size is important. The sheer volume of data to be processed (the sample runs to over one million records, and it must be remembered that the entire database for Great Britain which will be processed similarly at a later stage runs to some 29 million records) ensured that checking and correcting entries by hand was not a practical option. Second, and in some respects more important, it is suggested that automatic validation and enrichment of the data is intellectually more rigorous than manual intervention. In many respects the situation is comparable to the case made for the development of automated methods of family reconstitution, a method of linking together the records of individuals from parish registers in order to build new family records. This process, a standard technique within the field of historical demography, traditionally undertaken by hand, was the subject of automation in a ten-year project undertaken by the Cambridge Group for the History of Population and Social Structure. To quote Roger Schofield writing about the application of automated methods to family reconstitution:[39]

> ...the Group began work on building a fully automatic record-linking program in which all the decisions, including the difficult cases, were to be made by the computer in accordance with a set of basic principles. Two main reasons persuaded us it was

[39] Schofield (1992) , 75. See also the discussion in Schürer *et al* (1988).

> worthwhile expending time and effort to find a way to hand over to a machine a matter that at first sight might seem best left to the judgment of the historian. The first was theoretical. If the judgments we make about specific links have any claim to intellectual respectability, we ought to be able to specify the principles on which they are based. If we can do that, we can express those principles in the form of a computer program and get the machine to implement them more consistently than we can ourselves.
>
> The second reason is practical...reconstituting the registers...involves so many records that can be linked in so many ways that the size and complexity of the task can easily exceed the capacities even of a team of historians.

In short, the automatic processing carried out by the enrichment program on the 1881 census data is not only practically effective and efficient, but also ensures that decisions concerning the validity of the underlying data source have been applied consistently across the entire database. In this regard, although more precise details will be given in the sections which follow, it is important to realise that the validation exercise was not just a simple question of checking if any individuals were recorded, say, as being widowed and aged under ten. Checks were undertaken across the whole household in order to ensure as far as possible that the combination of information given for individuals within each household was internally consistent, and tests were also carried out on the 'boundaries' between households, sometimes splitting or joining adjacent households in order to maintain consistency in the way in which households were enumerated. Equally, much of the enrichment process involved extensive rule-based programming,[40] including the automatic identification of conjugal family units (biological families) within households and the assignment of the Hammel-Laslett household classification scheme.

One further comment needs to be made concerning the underlying approach adopted during the creation of this census sample. Although extensively checked, 'cleaning' and enrichment of the data has been undertaken in order to both provide consistency and to facilitate further research, the provenance of the original transcription—the nearest thing to the CEBs—has been maintained throughout. This has been achieved in three stages. First, the 'raw' textual strings for all of the major fields within the database were maintained in their original form. Second, new coded or classificatory variables derived from the original textual strings were then added to the database. These supplement the original entries rather than replace them. Third, all contextual alterations to the data undertaken as a result of the checking procedures were carried out on the coded variables rather than the original data strings. In addition, and most importantly, for all of the major fields within the database what are termed 'information' variables were assigned. By default these

[40] Schürer (1990).

were allocated a value of 0 (zero) but were given a different score if for any reason the value of the coded variable was changed as a result of the checking process. Thus, should a researcher which to check the actions that have been taken by the enrichment program and resort to the original entries of the underlying source, they can do so via reference to the appropriate inference codes. Equally, should any researcher wish to develop their own classificatory scheme for, say, occupations or relationship to head of household, they can easily devise their own coding look-up table and apply it to the respective original textual string. This general approach is seen as good database management practise and maintains maximum flexibility in the secondary use of the historical source material.[41]

The sections which follow outline the main stages carried out by the enrichment program and Appendix C gives an outline of the main steps carried out in the program. Due to certain technical requirements for running the enrichment program on census data it was decided not to include the program as part of this guide. However, a copy of the full program can be made available upon request from the authors (email: schurer@essex.ac.uk).

Reformatting

The first of these functions should be reasonably clear. Reformatting includes, for instance, making ages between 0 and 1 into decimals—the original age of '6 months' is transformed into '0.5', and converting all textual variables into uppercase. Included also under this heading is standardisation—the variables relating to occupation, relationship to head of household, marital status, county of birth and place of birth are coding according to previously created coding dictionaries. As stated above, it is important to realise that during this process when codes are added or data is 'altered', the original data are preserved. It is also appropriate to add something more about the generation of the various coding dictionaries which underpin this coding or classification exercise. This are based on the entire 1881 census database rather than just that of the sample and the creation of these coding dictionaries alone represents some seven person years of work. The extent of this exercise is represented in the following table which details the size of each dictionary.[42]

Dictionary	*no. of unique entries*
Occupation	1,606,585

[41] For a discussion of this approach see Schürer (1986, 1990b and 1991). This approach is no longer novel, see, for example, Harvey and Press (1996), chapter 8.

[42] At the time of writing the dictionary for parish of birth was confined to the sample data.

Parish of birth	855,374
Relationship to head of household	17,167
County of birth	7,116

To our knowledge, these coding dictionaries represent the most complete and comprehensive classification exercise performed on historic data and as such stand as a valuable research resources in their own right.

Consistency checking

The second function, to perform consistency checks is possibly more contentious, because the program automatically alters the coded data if the rules that have been created are implemented. However, as stated above, this process is tracked by the allocation of 'information' variables and therefore can be 'undone' should it be deemed desirable by others. One of these consistency checks, for example, evaluates the relationship between the three variables: sex, relationship and first name. It is important to first note that on the original CEBs there are two columns for age. One for age of males, the other for age of females. Quite frequently the enumerator when completing his schedule put the age of the person (inadvertently) into the first of these two columns regardless of the actual gender of the person, this leads to a greater number of males than females. In order to counteract this transcription error, where the GSU volunteers 'correctly' performed their transcription without altering the original CEB, the program checks that each individual has consistently gendered variables, i.e., someone whose first name is female and whose relationship is feminine should also be recorded as female. A dictionary of first names which has been checked manually has been constructed to test whether first names are masculine or feminine—initials are excluded—and the relationship code, which is often gender specific, i.e. wife can only be female, are used to test the entry in the sex variable. If both first name and relationship indicate a different gender to that in the sex variable, the sex variable is altered. If there is still a problem, i.e., the relationship is not gender specific (i.e., head) then the sex is altered.

The main consistency checks and alterations can be summarized as follows:

- If marital status is unknown and age is less than 26 then marital status is set at unmarried.
- If marital status is unknown and relationship is one of child to the head of household then marital status is set at unmarried (This excludes in-laws.).
- If marital status is unknown or single and relationship is 'wife' then marital status is set to married.
- If marital status is married and age is less than or equal to 15 then marital status is set to unmarried.

- For those people where the relationship to head of household is gender-specific, alter the sex if relationship and first name refer to a different sex than the sex variable.
- For those people where the relationship to head of household is gender-specific, alter the sex if relationship and first name refer to the same sex and the sex variable is unrecorded.
- Unmarried in-laws, if 17 or under are reclassified as step-children.
- If relationship is a generation above that of the head and age is less than or equal to 15 then the age is set to missing.
- If relationship is two or more generations down from the head and age is greater or equal to 55 then the age is set to missing.
- If relationship is two generations above that of the head and age is less than 28 then the age is set as missing.

Information variables

As mentioned previously, the enrichment program creates five 'information' variables which flag particular data which the program has altered in the coded value of the original string entry because of certain rules which have been operationalised within the program. With the current release of the data, these flags are only to show that some alteration has been made, though the value of the flag, in some cases allows one to distinguish between the types of change that have been made. It should be pointed out, however, that with the possible exception of the data relating to head of household, it should usually be fairly obviously how and why this information was changed. For example, the variable `sexinf` is invoked only when the gender of an individual has been altered, invariably from an 'M' to an 'F' or *vice versa*, or occasionally to a 'U' (unknown). The values of these variables are described in Section 2 under the headings headinf, sexinf, ageinf, marinf and occinf.

The enrichment program and households

Households are a critical element in any social or economic research conducted using the CEBs. However, despite the importance of identifying households, in the case of the nineteenth-century censuses the task is not always so straight-forward. The problem is principally caused by three interrelated factors. First, the definition issued by the Census Office of what constituted a household was ambiguous. Second, both enumerators and householders alike interpreted this definition differently. Third, the GRO (in London at least) were principally concerned due to matters of public health about the recording of physical *houses* rather than *households*.[43] In 1881 the instructions to enumerators stated that a separate schedule was to be left:[44]

[43] For further details of the problem of identifying households see Schürer and Mills (1996), 281–4 and Higgs (1996), 53–6.

[44] *Instructions to the various officers*, 24. Italics as in original.

a) For a family consisting of a man, his wife, and children; or of parents, children, servants, and visitors.

b) For a family consisting of parents and children, *with boarders at the same table*, and the servants of the family, if any

c) For a *lodger alone*, or *two or more lodgers boarding together*.

d) For an *out-door* servant living, with or without a family, in a detached out-office or tenement contiguous to a mansion, as in a lodge, gardener's cottage, or coach-house and stable with dwelling rooms attached. But a servant sleeping in any out-building, and *boarding in his master's house*, should be included in his master's Schedule with the other servants of the family.

The first of these definitions suggests that the conjugal or biological family was central to the GRO's notion of what constituted a 'normal' household, but the clarity of this definition is confused by the situation of boarders and lodgers and an attempt to distinguish between 'boarders' who were integrated with the main family through the sharing of meals and 'lodgers' who formed an independent social and or economic unit. This distinction was largely lost on both enumerators and households who did not find it possible or desirable to define households in such a way. In short, the theoretical definitions concerning households issued by the GRO did not translate themselves into workable practical definitions as perceived from the doorsteps of Victorian Britain. The problem is further frustrated by the fact that in the case where enumerators delivered two or more schedules to the same physical dwelling they were instructed to indicate this within their CEB by entering a single dash, as opposed to a double dash to the right of the fourth column of the book. This information, vital to the identification of separate schedules, was not retained in the transcription made by the GSU.

In order to overcome these problems and enforce a measure of consistency with regard to the definition of households within the sample, a number of complex consistency checks and corrections were undertaken automatically. In attempting to address this problem of inconsistency Anderson has recommended that researchers ignore the allocation of schedules altogether and concentrate on the column containing information on the relationship to household head, treating as a household all those individuals listed between one head and the next.[45] Because the placement of the enumerators' dashes indicating the way in which schedules were distributed are not available, it has been, out of necessity, that Anderson's simple rule has largely been followed, with the following key changes :

[45] Anderson (1972), 142–3. See also Tillott (1972), 104–5 and especially Higgs (1990a), 103–5 and (1990b) who is dismissive of this approach.

- If two heads are recorded within the same 'original' household and the second of the heads shares the same surname as the first head and the address for both 'heads' is the same then the relationships of the second group are changed as appropriate to form one single household. Otherwise, the second group is split from the first to form two distinct households.
- If an 'original' household has no head and the group consists entirely of servants and/or visitors and/or lodgers and/or boarders, and the address is the same as the previous household then it is joined with the previous household and relationships changed as appropriate, to ensure consistency. Otherwise the first person of the 'original' household is created 'head' and subsequent relationships changed accordingly.

In joining households, the new household always takes the household identifier of the first household in the group being joined. If an 'original' household is split to form two or more new households, the new households split off from the original take the household identified of the original household plus 0.1. All households that have been split or joined also have the `headinf` variable set to 1.

The enrichment program also seeks to identify what has been termed 'shifting headship'. This occurs when relationships within a given household are defined in terms to an individual other than the head, rather than to the head of the household. In such cases the relationship codes for those with 'shifted' relationships are changed as appropriate. An example is as follows:

Original entry	*'True' relationships*
Head	Head
Wife	Wife
Son	Son
Son	Son
Wife	Daughter-in-law
Daughter	Grand-daughter
Lodger	Lodger
Daughter	Lodger's daughter

The enrichment program and institutions

The problem of the definition of institutional records is important for the correct analysis of households. Essentially an institution is an establishment whose residents, other than those described as visitors, are normally catered for communally rather than cooking for themselves. These institutional residents are not

considered to be attached to any household and are ordinarily included only in the total counts of population.

Thus the main problem is to correctly identify institutions and those who are resident within those institutions. A further task, which is not quite so important, is to correctly identify the relationship between the people within institutions.

Despite the carefully worded definition given in the opening paragraph to this section there are still problems with defining institutions. According to the GRO institutions are Enumeration Districts where the Enumerator is the master or head of the Public Institution.

In the 1881 *Instructions to the various officers* under the heading of the instructions to the Registrars is the following:

> The Masters of Heads of certain public institutions were made by authority of the Register General the paid Enumerators of the Population of those Institutions. It is desirable to maintain the same arrangement in this respect as existed in 1871, unless you report to him that the number of persons in any of the said Institutions has fallen below 200; or notify that new Institutions have been opened since 1871 of such magnitude as may render it desirable to maker the Master or Head the Enumerator. In Barracks and Camps containing more than 200 soldiers, the Barrack Master or Quarter Master will be the paid Enumerator.[46]

The Registrar was also asked, when framing Enumeration Districts to list 'the Name of every Public Institution having more than 200 inmates and the Master or Head of which you recommend to the Registrar General to be appointed its Enumerator. Such institutions, if not sanctioned for separate enumeration by the Registrar General, must as well as all smaller Institutions, be dealt with as ordinary houses in an Enumeration District.' Furthermore, on the same form the Registrar was asked to '"supply a return of large Hotels, Inns, and other Establishments for the enumeration of which other than the ordinary Householder's Schedule, holding only 15 names, are required'.[47] On this basis the first distinctive characteristic of an 'institution' is that it has more than 200 people and is enumerated by the Master rather than a 'regular' enumerator.

However, Table 6 in Volume 2 of the published reports is headed 'Persons enumerated in Barracks and on board H. M. Ships at home; in Workhouses, Hospitals, Lunatic Asylums, Prisons and Certified Reformatory and Industrial Schools' and the second part of this table clearly indicates that included within these types of institution are those which have less than 200 people. In Middlesex, for

[46] *Instructions to the various officers*, 14.
[47] *Instructions to the various officers*, 15.

example, there are 46 'institutions' with a population of less than 20, of which 17 have less than 10 residents. (There are a total of 280 institutions in Middlesex.)

Thus the published reports seem not to distinguish between the sizes of the institution. The types of institution identified can be classified, approximately, as follows:

Table 1.1 Rough classification of institutions in Middlesex.

Type of institution	N
Workhouse	48
Hospital	113
Lunatic Asylum	23
Barracks	12
Workhouse Infirmaries	18
Home (Convalescent, 'for incurables', etc.)	25
Prison	9
Reformatories	5
Industrial School	16
Others	11

The 'others' group shown in this table includes Soldiers' Married Quarters, Houses of Correction and Detention, Workhouse Schools, two ships, a camp (on Woolwich Common) and the Tower of London.

At this stage in the discussion we have two—conflicting—definitions of institutions. One based on living arrangements, the other an official one where the size of 'institution' is the main, but not the only, basis of definition. The problem is compounded by the manner in which the data were extracted from the GSU data.

The extract below shows the first record of a household which was not considered by the Census Office to be an institution, i.e. one recorded in an ordinary enumeration book, but was considered to be so by the GSU.

```
Institution:   "Trinity School"
       Census Place:  Passenham, Northampton, England
       Source: FHL Film 1341370   PRO Ref RG11  Piece 1537  Folio 83  Page 4
                       Marr    Age     Sex     Birthplace
       James THOMAS    M       53      M       Bicester, Oxford, England
       Rel:    Head
       Occ:    Schoolmaster M A L C D
```

When this record was processed into a flat file format, a variable was created which gave all the people in this household a `rectype` of 2 denoting that the series of records related to an institution. However, there is no evidence on what basis the

GSU transcribers chose to make this particular household an institution. For example the following household, which contains 34 unrelated people was not defined as an institution.

```
Dwelling:      Abington Abbey
Census Place:  Abington, Northampton, England
Source: FHL Film 1341372   PRO Ref RG11  Piece 1543  Folio 30  Page 25
        Marr    Age     Sex     Birthplace
Henry S. PRICHARD     U       56      M       Bushey, Hertford, England
Rel:    Head
Occ:    Licensed & C. Gen Supt Of Abington Abbey Retreat
Frances L. PRICHARD   U       40      F       Northampton, England
Rel:    Cousin
Occ:    Assistant Institute
Helen HOPEWELL        W       57      F       Black Heath, Kent, England
Rel:    Matron
Occ:    Matron Institute
Emma CRAIG            W       62      F       Black Heath, Kent, England
Rel:    Boarder
Occ:    Assistant Matron (Inst Serv)
Catherine J. SHARP    U       39      F       Northampton, England
Rel:    Boarder
Occ:    From Dividends
John ABELL            U       41      M       Leicester, England
Rel:    Boarder
Occ:    Clergyman Of C E
Thomas MASON          U       63      M       Marsh Giblon, Buckingham, England
Rel:    Boarder
Occ:    Farmer
Margaret NELSON       W       69      F       Antrim, Ireland
Rel:    Boarder
Occ:    Income From Rents
Frederick H. HARGOOD  U       49      M       Islington, Middlesex, England
Rel:    Boarder
Occ:    Medical Officer M.R.C.S.E LS London
Frances AUGREVE       W       70      F
Rel:    Patient       Handicap: Lunatic
Occ:    Manufacturers Widow
Jane BURCHNALL        U       58      F
Rel:    Patient       Handicap: Lunatic
Occ:    Farmers Daur
Emma COURTNEY         U       67      F
Rel:    Patient       Handicap: Lunatic
Ellen DALKS           U       28      F
Rel:    Patient       Handicap: Lunatic
Occ:    Solicitors Daur
```

These records would have been given a `rectype` of 1, indicating that they were an ordinary household rather than an institution.

It was decided that a definitive solution to these households was necessary but likely to be impossible without checking each 'institution' by hand and making decisions based on the household structure, and that it would be better to compromise and attempt to resolve as many problems as possible rather than aim for perfection. It is probable that the solution adopted has created some errors but that these creations are more than outweighed by the resolution of other errors and the fact that the rules which inform both our corrections and our errors, are applied consistently. Our solution is based on four pieces of information. First the `rectype` allocated by our data parsing program (which is generally, but not always, based on the GSU's definition); second the address given in the enumerators' books; third the

relationship between the number of related kin within the household and fourth the size of the household. The combination of these variables can be summarized as follows:

- If the household is not already defined as an institution, has more than 20 residents of whom 10 or more have a relationship to head of household which are 'miscellaneous' (i.e., not kin, not inmates, not boarders, not lodgers, not servants and not visitors) then the household shall be defined as an institution.
- If the household is not already defined as an institution and there are more than 20 residents, more than two-thirds are institutional inmates, household inmates, family inmates or servants, then the household shall be defined as an institution.
- If the household is not already defined as an institution and there is a valid 'institution-word' in the address, there are more than six residents and the ratio of kin to non-kin is greater than 0.8 then the household is redefined as an institution.
- If the household is defined as an institution, there is no valid institution word in the address, there are less than 24 residents and the ratio of kin to non-kin is less than 0.8 then the household is redefined as an ordinary household.
- If the household is defined as an ordinary household and there is a valid 'vessel-word' then the household is redefined as a vessel.

For each of these alterations a different new `rectype` is created which serves the purpose of a check variable. For example, the first three of these types would result in the variable `instit` being set to 5, which indicates that it would have been 1 had not the enrichment program altering it. (See the description of the variable `instit`, p.55).

Note on the use of 'institution-words'

Institution-words, mentioned above, are one of the means of discerning whether a household is an institution or not. These words generally assist in defining institutions with between 6 and 20 residents, i.e., they are households which will not be picked up by the first of the two rules above. The list of 'institution-words' which the enrichment program uses has been created on a careful examination of all the different types of institution used in the published census reports, and their corruptions. For example, 'Wkhuse' is an acceptable 'institution-word'. Added to this list are a variety of other terms which were not used in the published reports but would clearly fall into the definition of workhouse as used in the first paragraph of this section, e.g., hotel, tavern and so forth. Obviously this will cause anomalous results, a lodging housekeeper with five travelling salesmen residents will not be defined as an institution, while one with six will. The cut off point is arbitrary but we feel should not distort results grievously.

The other anomaly which needs mentioning relates to very large private households. The household of a nobleman may contain himself and his wife and a retinue of more than twenty servants. Under the first rule stated above, this private household would become an institution. This is problematic, as it will disguise the number of very large households. However, careful examination of the sample data suggests that more households are being correctly defined as institutions than households incorrectly so.

Creating the sample

The sample is a 5 per cent random sample of the parishes of Great Britain. The sample was chosen in the simplest manner possible. A list of all the parishes in England, Wales, Scotland and the Islands in the British Seas was created; using a random number generator in Microsoft Excel, a random number between zero and one was allocated to each parish. All those less than or equal to 0.05 were selected for the sample. The records relating to the individuals in each of these parishes were then extracted from the data and combined in a database.

There were three problems with the initial selection which have had to be rectified by manual intervention. First, three parishes which were so small, that they could not be identified within the GSU-data. These parishes had populations of 14, 7 and 8 respectively. They were replaced with the next parish in the sequence which had an identical population which we were able to identify in the data. Second, one parish chosen in Scotland was not immediately identifiable because its population was spread over more than one registration county, and thus faced with the dilemma of introducing either the whole of the parish, which we had not done in England and Wales for split parishes, or substituting it for another parish in Scotland. In the event, the second solution was chosen, and substituted for the parish that was unable to be fully identified from the data with the next nearest parish in size in Scotland.

Table 1.2 shows the parish characteristics of the sample and Table 1.3 compares the proportion of in the three countries and the islands in the British seas with that for the sample. It will be seen from a comparison of these two tables that England is over-represented in terms of parishes chosen, with 5.01 per cent of parishes but under-represented in terms of population. Scotland is under-represented in terms of parishes, but over-represented in terms of population; Wales is over-represented in terms of parishes but only slightly in population. The case of Scotland is understandable because of its considerably larger than average mean parish population, but, unaccountably the sample would seem to contain a greater proportion of above average population parishes from Wales.

Tables B.1 and B2 in Appendix B lists the parishes selected for the sample, along with their ancient and registration counties, for England and Wales, along with the population in the sample and the published population. The final column shows the percentage difference or either missing or additional cases. This shows that of the 716 English parishes 463 or almost 65 per cent have exactly matching parish populations and 652 (91%) have populations within one per cent of the published

totals, which is not as good as the whole of the data. For Wales, where there are 62 selected parishes, the same figures are 35 and 57 (56% and 92%). Of the 45 parishes selected in Scotland the number and proportion of parishes with matching totals are 22 and 49% and within one percent, 40 and 88 per cent.

Table 1.2 Distribution of parishes included in the sample

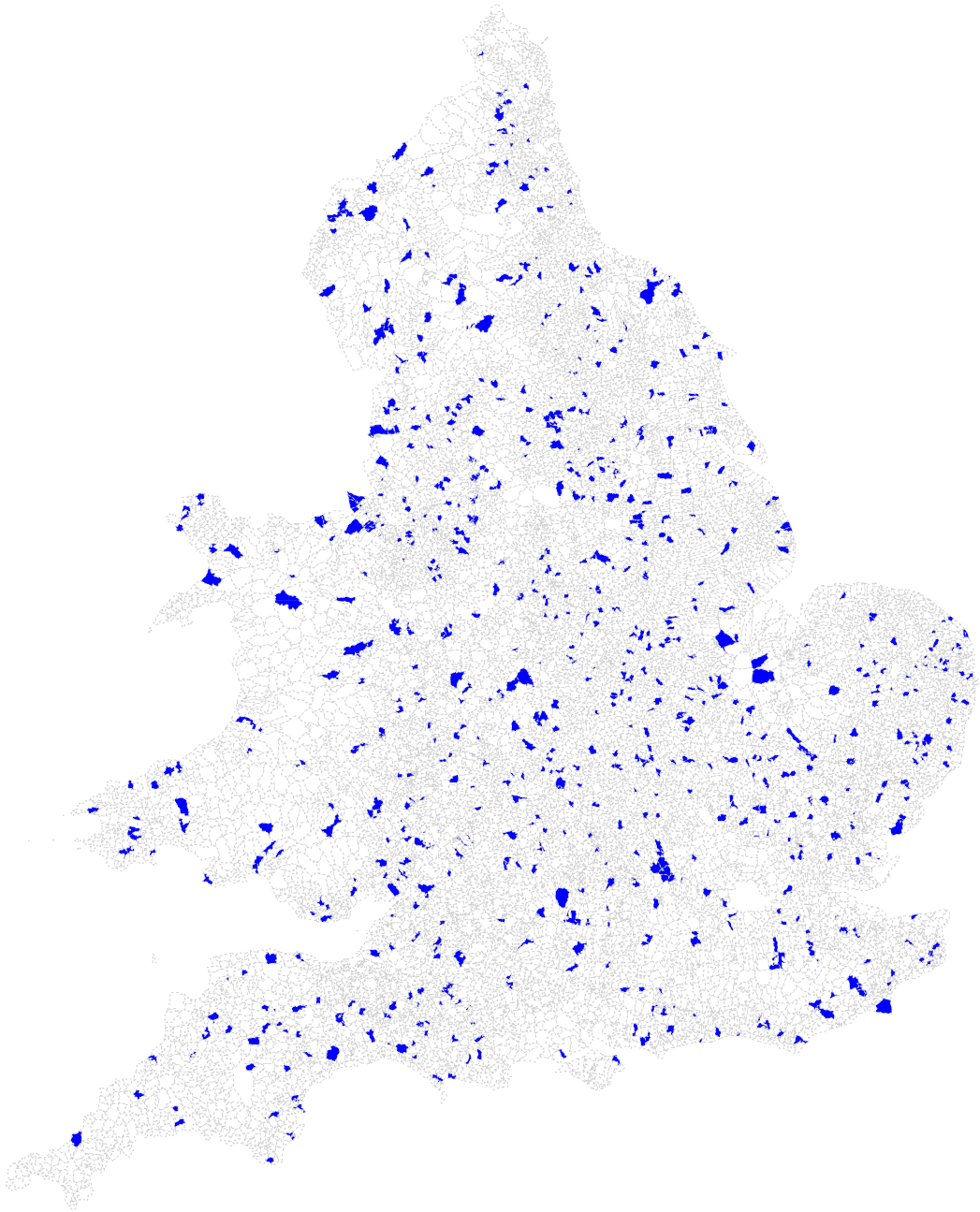
	Population	Number of parishes	Average parish population	Number of parishes in sample	% parishes in sample
England	24,636,858	14,278	1,725.51	716	5.01
Islands	141,260	46	3,070.87	0	0.00
Scotland	3,735,573	958	3,899.35	45	4.70
Wales	1,337,583	1,019	1,312.64	62	6.08
Total	29,851,274	16,301		823	5.05

Table 1.3 Comparison of population figures in the sample

Published			Sample		
Country	Population	Percentage	Population	Percentage	Difference
England	24,636,858	82.53	1,137,876	80.80	-1.73
Scotland	3,735,573	12.51	199,289	14.15	1.64
Wales	1,337,583	4.48	71,028	5.04	0.56
Islands	141,260	0.47			-0.47
	29,851,274		1,408,193		

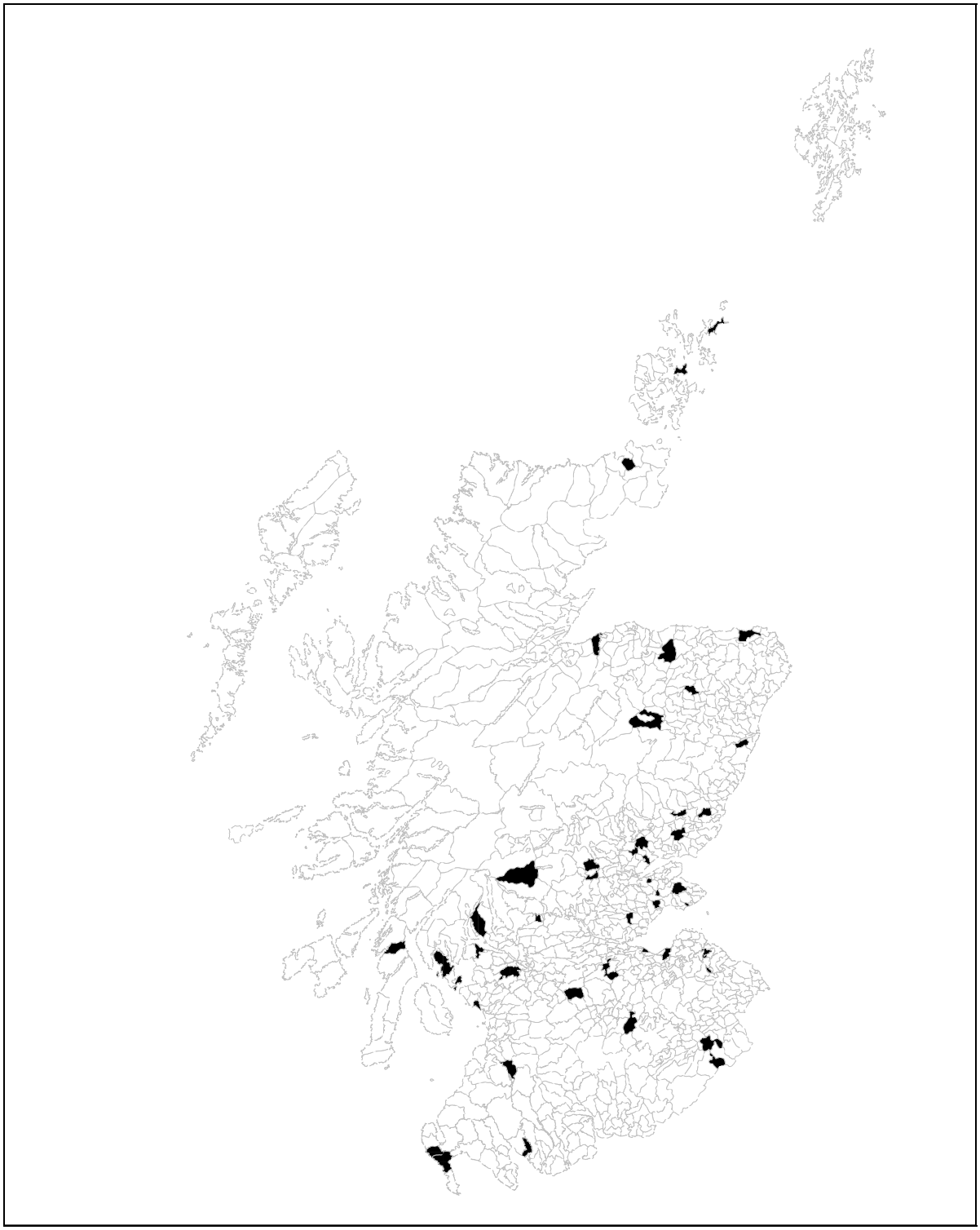
[Note: Monmouth is always calculated as in England]

Figure 1.3 Geographical distribution of sample parishes in England and Wales



Note: 30 parishes have not been mapped either because the parishes are in densely settled areas or parishes are too small to be mapped at this scale (e.g., St Mary Magdalen Old Fish Street in the City of London).

Figure 1.4 Geographical distribution of sample parishes in Scotland



Note: some parishes have not been mapped either because the parishes are in densely settled areas or parishes are too small to be mapped at this scale.

Section 2: Variable descriptions

This section describes the variables to be found in the 1881 five per cent census sample. For each variable the basic datatype and a description of the contents and meaning are given. Also the provenance or derivation of each variable is indicated, under the heading form.

Variable name: recid
Type: numeric
Form: Essex creation [added by program]
Description: This variable uniquely identifies each record.

Variable name: parid
Type: numeric
Form: Essex creation [added at pre-parsing stage]
Description: identifies the civil parish of enumeration. See Appendix B for the relationship between the codes and the civil parish names.

Variable name: subd_id
Type: numeric
Form: Essex creation [added at pre-parsing stage]
Description: identifies the registration district and sub-district of enumeration. For example the code 611001 identifies the first sub-district in the registration district 611.

Variable name: country
Type: alpha
Form: Essex creation [added at post-processing stage]
Description: This variable identifies the country of enumeration. The accepted values are:

ENG	England
ISL	Islands in the British Seas
SCT	Scotland
WAL	Wales

Variable name: divison
Type: alpha
Form: Essex creation [added at post-processing stage]
Description: This variable identifies the Registrar General's Division. The accepted values are:

Eastern
Islands

London
Monmouth/Wales
Northern
North-Midland
North-Western
Scotland
South-East
South-Midland
South-Western
West-Midland
Yorkshire

Variable name: reg_cnty
Type: alpha
Form: Essex creation [added at post-processing stage]
Description: identifies the registration county of enumeration.

County code	County	Population in sample
ABD	Aberdeenshire	4,690
AGY	Anglesey	2,394
ANS	Angus	2,763
ARL	Argyll	2,793
AYR	Ayr	12,077
BAN	Banff	6,404
BED	Bedfordshire	1,513
BEK	Berkshire	15,305
BRE	Brecon	929
BUK	Bucks	15,205
BUT	Bute	10,382
CAE	Caenarvon	9,464
CAI	Caithness	1,983
CAM	Cambridge	17,483
CGN	Cardigan	3,949
CHH	Carmarthen	3,617
CHS	Cheshire	13,179
CON	Cornwall	10,354
CUL	Cumberland	7,270
DBG	Denbigh	10,745
DBY	Derby	3,466
DEV	Devonshire	21,370
DNB	Dunbartonshire	10,120
DOR	Dorset	4,484
DUR	Durham	10,291
ELN	East Lothian	5,792
ESS	Essex	12,139
FIF	Fife	9,869
FLN	Flint	9,943
GLA	Glamorgan	8,422
GLS	Gloucestershire	6,995
HAM	Hampshire	16,790
HEF	Herefordshire	5,966
HRT	Hertfordshire	6,178

HUN	Huntingdonshire	1,442
INV	Inverness-shire	2,616
KCD	Kincardineshire	1,072
KEN	Kent	46,143
KKD	Kirkudbrightshire	728
LAN	Lancashire	196,879
LEC	Leicestershire	12,296
LIN	Lincolnshire	19,574
LKS	Lanarkshire	8,551
MER	Merionethshire	3,622
MID	Middlesex	189,663
MLN	Mid Lothian	46,025
MNM	Monmouthshire	7,954
MNT	Montgomeryshire	3,299
NAI	Nairn	18
NFK	Norfolk	19,876
NTH	Northamptonshire	8,275
NTM	Northumberland	5,598
NTT	Nottinghamshire	29,615
OKI	Orkney	4,461
OXF	Oxford	4,938
PEE	Peeblesshire	277
PEM	Pembrokeshire	14,396
PER	Perth	3,660
RFW	Renfrewshire	55,807
ROX	Roxburghshire	5,149
RUT	Rutland	1,489
SHR	Shropshire	5,621
SOM	Somerset	29,726
STA	Staffordshire	49,468
SUF	Suffolk	16,235
SUR	Surrey	62,568
SUS	Sussex	10,757
WAR	Warwickshire	15,773
WES	Westmorland	4,363
WIG	Wigtownshire	4,052
WIL	Wiltshire	4,235
WOR	Worcestershire	11,714
YKE	Yorkshire (E)	82,183
YKN	Yorkshire (N)	17,689
YKW	Yorkshire (W)	116,062

Variable name: reg_dist

Type: alpha

Form: Essex creation [added at post-processing stage]

Description: identifies the registration district of enumeration in its original textual string.

Variable name: sub_dist

Type: alpha

Form: Essex creation [added at post-processing stage]

Description: identifies the registration county of enumeration in its original textual string.

Variable name: reg_par
Type: alpha
Form: Essex creation [added at post-processing stage]
Description: This variable identifies the parish of enumeration. It is essentially a textual version of the variable parid. The names are taken from the 1881 census published reports and may thus not conform to modern spellings.

Variable name: partype
Type: numeric
Form: Essex creation [added at post-processing stage]
Description: This variable gives an indication of the population density of the parish of enumeration. It has been calculated by dividing the population of a parish as reported in the published reports, by the acreage of that parish. The accepted values are:

Partype	Density (persons per acre)
0	0
1	>0-0.3
2	>0.3-1
3	>1-4
4	>4-12.5
5	>12.5-33
6	>33-75
7	>75

In most cases parishes with a population density of greater than 75 persons per acre can be considered to be urban.

Variable name: sub_type
Type: numeric
Form: Essex creation [added at post-processing stage]
Description: This variable gives an indication of the population density of the sub-district of enumeration. It has been calculated by dividing the population of a sub-district as reported in the published reports, by the acreage of that sub-district. `Sub_type` is allocated by ranges of population density, which are identical to those for `partype` (see above).

Variable name: pop
Type: numeric
Form: Essex creation [added at post-processing stage]
Description: gives the population of the parish of enumeration.

Variable name: address
Type: alpha

Form: from raw data
Description: address as transcribed.

Variable name: piece
Type: alpha
Form: from raw data
Description: PRO piece number of the record, as transcribed.

Variable name: folio
Type: numeric
Form: Derived from raw data, but in some cases altered by the program
Description: The folio of each piece (see above). Note that if the original data contained the entry "112A" the program has converted this to "112.1" to ensure that the data is numeric. *Beware when importing this variable into a proprietary database as it must not be defined as an integer.*

Variable name: page
Type: numeric
Form: Derived from raw data, but in some cases altered by the program
Description: The page of each piece (see above). Note that if the original data contained the entry "112A" the program has converted this to "112.1" to ensure that the data is numeric. *Beware when importing this variable into a proprietary database as it must not be defined as an integer.*

Variable name: h
Type: numeric (double, i.e. not an integer)
Form: Essex creation [added by program]
Description: identifies households. A household is defined as all those people who are recorded between two heads (including the first head) as a result of performing the various stages of the enrichment program.

Variable name: headinf
Type: numeric
Form: Essex creation [added by program]
Description: Denotes whether the enrichment program has altered the original head of the household. See program details in Appendix C for the rules on which this has been based. Codes used are 0 = not altered; 1 = altered.

Frequency of headinf

headinf	Number of records
0	1,380,613
1	27,580

Variable name: pid

Type: numeric
Form: Essex creation [added at parsing stage and altered by program].
Description: sequence number for those within households.

Variable name: hhd

Type: numeric
Form: Essex creation [added by program]
Description: Household types[48]

0 = Those in 'private' households unrelated to the head (servants, lodgers, boarders, visitors: see definition below)
110 = solitary: widowed
120 = solitary: single, or unknown marital status
210 = no cfu: co-resident siblings
220 = no cfu: co-resident other relatives
310 = simple: married couple alone
320 = simple: married couple with never married children
330 = simple: widowers with never married children
340 = simple: widows with never married children
350 = simple: single women with never married children
410 = extended: upwards from head
420 = extended: downwards from head
430 = extended: laterally from head
440 = extended: combinations of above
510 = multiple: secondary disposed upwards
520 = multiple: secondary disposed downwards
530 = multiple: units on one level
540 = multiple: frérèche
550 = multiple: combinations of above
599 = Unclassifiable multiple households
699 = Other unclassifiable households
999 = Institutional residents (see definition below)

This code represents the Hammel/Laslett household classification scheme for the head and their co-residential kin.[49] This classification scheme has not been applied to

[48] It should be noted that the definitions used in this section follow those established by the Cambridge Group for the History of Population and Social Structure for comparative research on census and household listings data.

[49] For a description and worked example see Schürer and Mills (1996) or Knodel (1979). The scheme was originally proposed in Laslett (1972) and described more fully in Hammel and Laslett (1974). The term co-resident kin is used here to include the head of household and any of the following: head's spouse; all offspring (engendered either by the head, the head's past or present spouse or

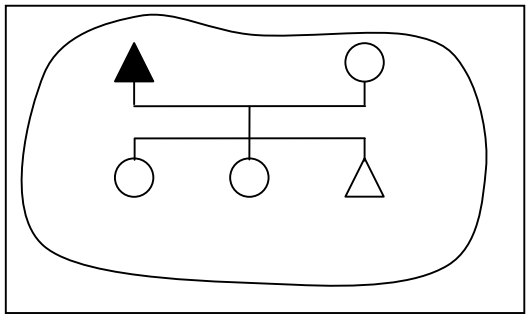
institutions. The classification, therefore, explicitly excludes all servants, lodgers, boarders and others of an unspecified relationship attached to the household. Individuals who fall into this category are assigned an `hhd` of 0. All institutional residents, regardless of the type of institution are allocated an `hhd` of 999.

The key to understanding the Hammel/Laslett classification scheme is the conjugal family unit (CFU). These are formed in one of three ways: by married couples without offspring; by a married couple with never-married offspring and/or never-married adopted/foster children; or by a lone parent with at least one never-married child. If there are more than two generations in the household, the CFU is formed from the youngest generation upwards. No individual can be in more than one CFU.

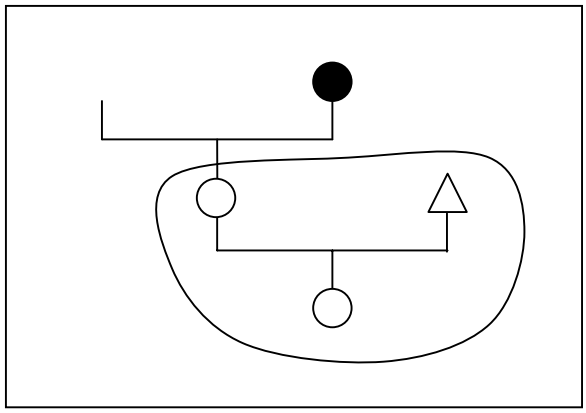
In the examples below, the square box represents the household, while the curvy line denotes the CFU. CFUs are not classified in this program, but their numbers are recorded in the variable `cfu`. (See below, p. 60).

the spouse's past spouses); adopted or fostered children; relatives of the head, or of the head's current or past spouse, together with the spouse, offspring and relatives of those relations.

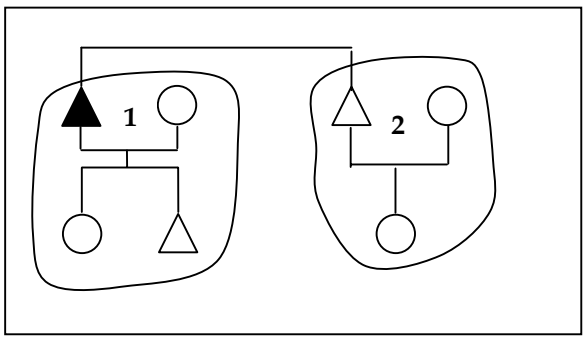
Examples:



This household of head (male) and spouse, with three children is of type 320.



This household of a widowed woman, her daughter, son-in-law and grandchild has an hhd of type 410. Note that for the widow the variable cfu will have a value of 0 while that of the other three will have a value of 1. The variable `cfu_size` will have a value of 0 for the widow and of 3 for the other three members of the household. The household shown below, with two co-residing families which are linked by a pair of siblings, but there is no parent present, is a known as a frérèche and would receive a household code of 540.



Variable name: sname
Type: alpha
Form: From raw data
Description: surname as transcribed.

Variable name: pname
Type: alpha
Form: From raw data
Description: first name as transcribed

Variable name: sex
Type: alpha
Form: Derived from raw data, but in some cases altered by the program.
Description: gender. In many cases this has been checked against first name and relationship to household head, although there are still some people whose sex is unidentifiable. See above, p.19.

sex	N	%
F	717,031	50.92
M	691,116	49.08
U	46	

Variable name: sexinf
Type: numeric
Form: Essex creation [added by program]
Description: Denotes whether the enrichment program has altered the sex as originally recorded. See program details (p.20) for the rules on which this has been based. Codes used are 0 = not altered; 1 = altered because the relationship code and the first name give one sex and the 'sex' variable gives the other. Note this includes those whose relationship and first name give one gender while the sex variable is unknown; 2 = altered where the information in the relationship is missing and the information on sex is missing, but the first name gives an indication of gender; codes 3 and 4 are only invoked on heads of household and are based solely on the first name. Code 5 needs checking, as this doesn't alter sex but only relationship to head of household.

Frequency of sexinf

sexinf	Number of records
0	1,405,205
1	1,714
2	0
3	46

4	8

Variable name: age

Type: numeric (double, i.e. not an integer)

Form: Derived from raw data, but in some cases altered by the program.

Description: Age in years. See the section below on the variable ageinf for details of when a recorded age is converted to missing because of other information given in the individual's record.

Variable name: cage

Type: alpha

Form: From raw data

Description: The original age as reported in the raw data. Thus someone whose age was given as 6m (representing 6 months) would have the string 6m in this variable.

Variable name: ageinf

Type: numeric

Form: Essex creation [added by program]

Description: Denotes whether the enrichment program has altered the age as originally recorded. See program details (p.20) for the rules on which this has been based. Codes used are 0 = not altered; 1 = altered because the contents of the original field was non-numeric, thus 6m is transformed to 0.5 and ageinf is updated to 1; code 2 is invoked if the given relationship is a head of household and marital status is ever-married and the given age is less or equal to 15 then age is reset as missing. Code 3 is invoked when an individual has a recorded relationship which denotes an occupation and the age is given as less than 10. In these cases age is reset as missing.

Frequency of ageinf

ageinf	Number of records
0	1,365,632
1	42,409
2	52
3	100

Variable name: mar

Type: numeric

Form: Derived from raw data, but in some cases altered by the program.

Description: Marital status of individual.

1 = single
2 = married
3 = married, spouse absent
4 = widowed

9 = not recorded/unknown

Variable name: marinf

Type: numeric

Form: Essex creation [added by program]

Description: Denotes whether the enrichment program has altered the marital status as originally recorded. See program details (p.20) for the rules on which this has been based. Codes used are 0 = not altered; 1 = altered.

Frequency of marinf

marinf	Number of Records
0	931,276
1	476,917

It should be noted that the very large number of records which have had their marital status altered is due to the fact that those people who originally had 'unknown' marital status have been altered to unmarried.

Variable name: relat

Type: alpha

Form: From raw data

Description: the original text string from which the variable `rela` is derived.

Variable name: rela

Type: numeric

Form: Derived from raw data, then coded using dictionary but in some cases altered by the program.

Description: Relationship to head of household. For further details see Appendix A for a discussion on the method of coding the relationship strings from the original data.

Table 2.1 Relationship codes. Kin and visitors

Relationship	Code
Head (gender unspecified)	10
Head (male)	11
Head (female)	12
Spouse	20
Husband	21
Wife	22
Mistress	28
Child	30
Son	31
Daughter	32
Step son	33

Step daughter	34
Son in law	35
Daughter in law	36
Adopted/fostered son	37
Adopted/fostered daughter	38
Nephew/niece	40
Nephew	41
Niece	42
Step nephew	43
Step niece	44
Niece's husband	45
Nephew's wife	46
Adopted nephew	47
Adopted niece	48
1st cousin once removed	50
1st cousin once removed (downwards) i.e. cousin's son	51
1st cousin once removed (downwards) i.e. cousin's daughter	52
Grandchild	60
Grandson	61
Granddaughter	62
Grand stepson	63
Grand stepdaughter	64
Granddaughter's husband	65
Grandson's wife	66
Adopted grandson	67
Adopted granddaughter	68
Great nephew/niece	70
Great nephew	71
Great niece	72
Great step nephew	73
Great step niece	74
Great nephew in law	75
Great niece in law	76
Great grandchild	80
Great grandson	81
Great granddaughter	82
Grandparent	110
Grandfather	111
Grandmother	112
Step grandfather	113
Step grandmother	114
Grandfather in law	115
Grandmother in law	116
Parent	120
Father	121
Mother	122
Step father	123
Step mother	124
Father in law	125
Mother in law	126
Adoptive father	127
Adoptive mother	128

Uncle	131
Aunt	132
Step uncle	133
Step aunt	134
Uncle in law	135
Aunt in law	136
Great uncle	141
Great aunt	142
Brother	151
Sister	152
Step brother	153
Step sister	154
Brother in law	155
Sister in law	156
Half brother	157
Half sister	158
First cousin	160
Second cousin	170
Miscellaneous relative	190

Note: codes in the 510–581 range denote that the relationship to head of household has been altered because two or more households have been joined together. For 510 read 10, for 522 read 22 etc. Note also that the 5xx relationship codes are used when it is suspected that the two households which are joined contain related people, but that the relationship between each head is unknown.

Visitor	2000
Visitors' families	2010–2199

Table 2.2 Relationship codes. Residential inmates

Lodger	3000
Lodgers' families	3010–3199
Boarder	4000
Boarders' families	4010–4199

Table 2.3 Relationship codes. 'Institutional' inmates

'Inmate'	5000
Pauper/Almsperson etc.	5200
Patients/Lunatics, etc.	5300
Prisoners & in correctional institutions	5400
Scholars	5500
Students	5600
Foundlings/orphans	5700
Religious house inmates	5750
Army	5800
Navy	5900
Other inmate families	5010–5199

Note: 5000 is only for those whose title is 'inmate'.

Table 2.4 Relationship codes. 'Working' inmates and others

Servant	6000
Domestic servant	6200
Housekeeper	6210
Governess	6220
School teacher, etc.	6300
Apprentice	6500
Assistants	6600
Journeymen	6700
Farm servant titles	6800
Others with "working" titles	6900
Familial servants	6010-6199
No relationship given	9999

Variable name: relinf

Type: numeric

Form: Essex creation [added by program]

Description: Denotes whether the enrichment program has altered the relationship originally recorded. See the discussion under variable rela for the rules on which this has been based. Codes used are 0 = not altered; 1, 2 and 3 = altered.

relinf	Number of Records
0	1,359,479
1	48,714
2	0
3	1,220

Variable name: occup

Type: alpha

Form: From raw data

Description: occupational string as recorded in the original.

Variable name: occode

Type: numeric

Form: Derived from raw data, then coded using dictionary.

Description: occupational code as derived from string only. The code used for classifying occupations is that devised by the General Register Office for use with the 1881 census. The basic codes are shown in the table below:

Code	Heading
001	Peer, M.P., Privy Councillor (not otherwise described)
002	Civil Service (officers and clerks)
003	Civil Service (messengers, &c.)
004	Prison Service, &c.

005	Police
006	Municipal, Parish, Union, District, Officer
007	Other Local or County Official
008	East Indian and Colonial Service
009	Army Officer (effective/retired)
010	Soldier and Non-commissioned officer
011	Militia, Yeomanry, Volunteers
012	Army Pensioner
013	Navy Officer (effective/retired)
014	Seaman, R.N.
015	Royal Marines (officers/men)
016	Navy Pensioner
017	Clergymen (Established Church)
018	Roman Catholic Priest
019	Minister, Priest of other religious bodies
020	Missionary, Scripture Reader, Itinerant preacher
021	Nun, Sister of Charity
022	Theological Student
023	Church, chapel, cemetery - officer, servant
024	Barrister, Solicitor
025	Law Student
026	Law Clerk, and others connected with the law
027	Physician, Surgeon, General Practitioner
028	Dentist
029	Medical Student, Assistant
030	Midwife
031	Subordinate Medical Service
032	Schoolmaster
033	Teacher, Professor, Lecturer
034	School Service, and others connected with teaching
035	Author, Editor, Journalist
036	Reporter, Short-hand Writer
037	[Student]
038	Persons engaged in Scientific Pursuits
039	Literary, Scientific, Institution, Service, &c.
040	Civil Engineer
041	Mining Engineer
042	Land, House, Ship, Surveyor
043	Painter (artist)
044	Engraver (artist)
045	Sculptor
046	Architect
047	Musician, Music Master
048	Art Student
049	Photographer
050	Actor
051	Art, Music, Theatre Service
052	Performer, Showman, Exhibition, Service
053	Billiard, Cricket & other Games, Service
054	Domestic Coachman, Groom
055	Domestic Gardener
056	Domestic Indoor Servant
057	Lodge, Gate, Park Keeper (not Government)
058	Inn, Hotel Servant
059	College, Club Service
060	Office Keeper (not Government)
061	Cook (not domestic)
062	Charwoman
063	Washing and Bathing Service
064	Hospital and Institution Service
065	Others engaged in Service

066	Merchant
067	Broker, Agent, Factor
068	Auctioneer, Appraiser, Valuer, House Agent
069	Accountant
070	Salesman, Buyer (not otherwise specified)
071	Commercial Traveller
072	Commercial Clerk
073	Officer of Commercial Company, Guild, Society &c.
074	Banker
075	Bank Service
076	Bill Discounter, Bill Broker, Finance Agent
077	Life, House, Ship &c., Insurance Service
078	Railway Engine Driver, Stoker
079	Railway Guard
080	Pointsman, Level Crossing Man
081	Other Railway Officials and Servants
082	Toll Collector, Turnpike Gate Keeper
083	Omnibus, Coach, Cab, Owner - Livery Stable Keeper
084	Cabman, Flyman, Coachman (not domestic)
085	Carman, Carrier, Carter, Haulier
086	Tramway Companies' Service
087	Wheel Chair Proprietor, Attendant &c.
088	Inland Navigation Service
089	Bargeman, Lighterman, Waterman
090	Navigation Service (on shore)
091	Seaman (Merchant Service)
092	Pilot
093	Ship Steward, Cook
094	Boatman on Seas
095	Harbour, Dock, Wharf, Lighthouse Service
096	Warehouseman (not Manchester)
097	Meter, Weigher
098	Messenger, Porter, Watchman (not Railway or Government)
099	Telegraph, Telephone Service
100	Farmer, Grazier
101	Farmer's, Grazier's - Son, Grandson, Brother, Nephew
102	Farm Bailiff
103	Agricultural Labourer, Farm Servant, Cottager
104	Shepherd
105	[Farm Servant Indoor - prob. combined with 103]
106	Land Drainage Service (not in towns)
107	Agricultural Machine - Proprietor, Attendant
108	Agricultural Student
109	Others engaged in, or connected with agriculture
110	Woodman
111	Nurseryman, Seedsman, Florist
112	Gardener (not domestic)
113	Horse Proprietor, Breeder, Dealer
114	Groom, Horse-keeper, Horse-breaker
115	Veterinary Surgeon, Farrier
116	Cattle, Sheep, Pig - Dealer, Salesman
117	Drover
118	Gamekeeper
119	Dog, Bird, Animal - Keeper, Dealer
120	Vermin Destroyer
121	Fisherman
122	Knacker, Catsmeat Dealer &c &c.
123	Publisher, Bookseller, Librarian
124	Music-Publisher, Seller, Printer
125	Bookbinder
126	Printer

127	Newspaper Agent, News Room Keeper
128	Others in books
129	Lithographer, Lithographic Printer
130	Copper Plate and Steel Plate Printer
131	Map and Print - Colourer, Seller
132	Others in prints and maps
133	Engine, Machine Maker
134	Millwright
135	Fitter, Turner (Engine and Machine)
136	Boiler Maker
137	Spinning and Weaving Machine Maker
138	Agricultural Machine and Implement Maker
139	Domestic Machinery - Maker, Dealer
140	Others in machines
141	Tool Maker, Dealer
142	Cutler, Scissors Maker
143	File Maker
144	Saw Maker
145	Pin Maker
146	Needle Maker
147	Steel Pen Maker
148	Pencil Maker (Wood)
149	Domestic Implement Maker
150	Others in tools and implements
151	Watch Maker, Clock Maker
152	Philosophical Instrument Maker
153	Electrical Apparatus Maker
154	Weighing and Measuring Apparatus Maker
155	Others in watches and clocks
156	Surgical Instrument Maker
157	Gunsmith, Gun Manufacturer
158	Ordnance Manufacturer
159	Sword, Bayonet - Maker, Cutler
160	Others in arms or ordinance
161	Musical Instrument Maker, Dealer
162	Type Cutter, Founder
163	Die, Seal, Coin, Medal Maker
164	Toy Maker, Dealer
165	Fishing Rod, Tackle, Maker, Dealer
166	Apparatus for other games, Maker, Dealer
167	Builder
168	Carpenter, Joiner
169	Bricklayer
170	Mason
171	Slater, Tiler
172	Plasterer, Whitewasher
173	Paperhanger
174	Plumber
175	Painter, Glazier
176	Others in houses
177	Cabinet Maker
178	French Polisher
179	Furniture Broker, Dealer
180	Locksmith, Bellhanger
181	Gas Fitter
182	House and Shop Fittings - Maker, Dealer
183	Funeral Furniture Maker, Undertaker
184	Others in furniture and fittings
185	Wood Carver
186	Carver, Gilder
187	Dealer in Works of Art

188	Figure, Image - Maker, Dealer
189	Animal, Bird &c. Preserver, Naturalist
190	Artificial Flower Maker
191	Others in house decorations
192	Coachmaker
193	Railway Carriage, Railway Wagon, Maker
194	Wheelwright
195	Bicycle, Tricycle - Maker, Dealer
196	Others in carriages
197	Saddler, Harness, Whip Maker
198	Ship, Boat, Barge Builder
199	Shipwright, Ship Carpenter (ashore)
200	Mast, Yard, Oar, Block Maker
201	Ship Rigger, Chandler, Fitter
202	Sail Maker
203	Dye, Paint Manufacture
204	Ink, Blacking, Colour Substance Manufacture
205	Gunpowder, Guncotton, Explosive Substance Manufacture
206	Fusee, Fireworks, Explosive Article Manufacture
207	Chemist, Druggist
208	Manufacturing Chemist
209	Alkali Manufacture
210	Drysalter
211	Others in drugs and other chemicals and compounds
212	Tobacco Manufacture, Tobacconist
213	Tobacco Pipe, Snuff Box &c. Maker
214	Innkeeper, Hotel Keeper, Publican
215	Lodging, Boarding House Keeper
216	Coffee, Eating House, Keeper
217	Hop - Merchant, Dealer
218	Maltster
219	Brewer
220	Beerseller, Ale, Porter, Cider Dealer
221	Cellarman
222	Wine, Spirit - Merchant, Agent
223	Milkseller, Dairyman
224	Cheesemonger, Butterman
225	Butcher, Meat Salesman
226	Provision Curer, Dealer
227	Poulterer, Game Dealer
228	Fishmonger
229	Corn, Flour, Seed Merchant, Dealer
230	Corn Miller
231	Baker
232	Confectioner, Pastrycook
233	Greengrocer, Fruiterer
234	Mustard, Vinegar, Spice, Pickle Maker, Dealer
235	Sugar Refiner
236	Grocer. Tea, Coffee, Chocolate Maker, Dealer
237	Ginger Beer, Mineral Water Manufacturer, Dealer
238	Others Dealing in Food
239	Woolstapler
240	Woollen Cloth Manufacture
241	Wool, Woollen goods - Dyer, Printer
242	Worsted, Stuff, Manufacture
243	Flannel Manufacture
244	Blanket Manufacture
245	Fuller
246	Cloth, Worsted, Stuff, Flannel, Blanket Dealer
247	Others working in wool or worsted
248	Silk, Silk Goods, Manufacture

249	Silk Dyer, Printer
250	Ribbon Manufacture
251	Crepe, Gauze Manufacture
252	Silk Merchant, Dealer
253	Cotton, Cotton Goods Manufacture
254	Cotton, Calico - Printer, Dyer, Bleacher
255	Cotton, Calico - Warehouseman, Dealer
256	Flax, Linen - Manufacturer, Dealer
257	Lace Manufacturer, Dealer
258	Fustian Manufacturer, Dealer
259	Tape Manufacturer, Dealer
260	Thread Manufacturer, Dealer
261	Others in cotton and flax
262	Hemp, Jute, Cocoa Fibre Manufacture
263	Rope, Twine, Cord - Maker, Dealer
264	Mat Maker, Seller
265	Net Maker
266	Canvas, Sailcloth Manufacture
267	Sacking, Sack, Bag - Maker, Dealer
268	Others working and Dealing in Hemp
269	Weaver (undefined)
270	Dyer, Printer, Scourer, Bleacher, Calenderer (undefined)
271	Factory Hand (textile, undefined)
272	Felt Manufacture
273	Carpet, Rug Manufacture
274	Manchester Warehouseman
275	Draper, Linen Draper, Mercer
276	Fancy Goods (Textile) Manufacturer, Worker, Dealer
277	Trimming Maker, Dealer
278	Embroiderer
279	Others in mixed or undefined materials
280	Hatter, Hat Manufacture
281	Straw - Hat, Bonnet, Plait Manufacture
282	Tailor
283	Milliner, Dressmaker, Staymaker
284	Shawl Manufacture
285	Shirt Maker, Seamstress
286	Hosiery Manufacture
287	Hosier, Haberdasher
288	Glover, Glove Maker
289	Button Maker, Dealer
290	Shoe, Boot - Maker, Dealer
291	Patten, Clog Maker
292	Wig Maker, Hair Dresser
293	Umbrella, Parasol, Stick - Maker, Dealer
294	Accoutrement Maker
295	Old Clothes Dealer, and others
296	Tallow Chandler, Candle, Grease Manufacture
297	Soap Boiler, Maker
298	Glue, Size, Gelatine, Isinglass - Maker, Dealer
299	Manure Manufacture
300	Bone, Horn, Ivory, Tortoise-shell - Worker, Dealer
301	Comb Maker
302	Others in grease, gut, bone, horn, ivory or whalebone
303	Furrier, Skinner
304	Tanner, Fellmonger
305	Currier
306	Leather Goods, Portmanteau, Bag, Strap &c., Maker, Dealer
307	Parchment, Vellum - Maker, Dealer
308	Hair, Bristle - Worker, Dealer
309	Brush, Broom, Maker

310	Quill, Feather - Dresser, Dealer
311	Oil Miller, Oil Cake - Maker, Dealer
312	Oil and Colourman
313	Floor Cloth, Oil Cloth Manufacture
314	Japanner
315	India Rubber, Gutta Percha - Worker, Dealer
316	Waterproof Goods - Maker, Dealer
317	Others in oils, gums and resins
318	Willow, Cane, Rush Worker, Dealer, Basketmaker
319	Hay, Straw (not plait), Chaff, Cutter, Dealer
320	Thatcher
321	Timber, Wood - Merchant, Dealer
322	Sawyer
323	Lath, Wooden Fence, Hurdle Maker
324	Wood Turner, Box Maker
325	Cooper, Hoop Maker, Bender
326	Cork, Bark - Cutter, Worker, Dealer
327	Others in wood and bark
328	Paper Manufacture
329	Envelope Maker
330	Stationer, Law Stationer
331	Card, Pattern Card Maker
332	Paper Stainer
333	Paper Box, Paper Bag Maker
334	Ticket, Label Writer
335	Others in paper
336	Coal Miner
337	Ironstone Miner
338	Copper Miner
339	Tin Miner
340	Lead Miner
341	Miner, in other or undefined Minerals
342	Mine Service
343	Haulier
344	Coal Merchant
345	Coalheaver
346	Coke, Charcoal, Peat - Cutter, Burner, Dealer
347	Gas Works Service
348	Stone Quarrier
349	Stone Cutter, Dresser, Dealer
350	Slate Quarrier
351	Slate Worker, Dealer
352	Limeburner
353	Clay, Sand, Gravel, Chalk, Labourer, Dealer
354	Fossil, Coprolite Digger, Dealer
355	Well Sinker, Borer
356	Plaster, Cement Manufacture
357	Brick, Tile - Maker, Burner, Dealer
358	Paviour
359	Road Contractor, Surveyor, Inspector
360	Road Labourer
361	Railway Contractor
362	Platelayer
363	Railway Labourer, Navvy
364	Others in stone, clay and road making
365	Earthenware, China, Porcelain, Manufacture
366	Glass Manufacture
367	Earthenware, China, Glass Dealer
368	Salt Maker, Dealer
369	Waterworks Service
370	Others in water

371	Goldsmith, Silversmith, Jeweller
372	Gold, Silver, Beater
373	Lapidary
374	Others in precious metals and jewellery
375	[Iron Manufacture]
376	[Steel Manufacture]
377	Blacksmith
378	Whitesmith
379	Nail Manufacture
380	Anchor, Chain Manufacture
381	Ironmonger. Hardware Dealer, Merchant
382	Other Iron and Steel Manufacture
383	Copper, Copper Goods - Manufacturer, Worker, Dealer
384	[Coppersmith]
385	[Tin Manufacture]
386	Tin, Tin Plate, Tin Goods - Manufacturer, Worker, Dealer
387	Zinc, Zinc Goods - Manufacturer, Worker, Dealer
388	Lead, Leaden Goods - Manufacturer, Worker, Dealer
389	Metal Refiner, Worker, Turner, Dealer
390	Brass, Bronze Manufacture. Brazier
391	Metal Burnisher, Lacquerer
392	White Metal, Plated Ware, Manufacture. Pewterer
393	Wire Maker, Worker, Weaver, Drawer
394	Bolt, Nut, Rivet, Screw, Staple Maker
395	Lamp, Lantern, Candlestick Maker
396	Clasp, Buckle, Hinge Maker
397	Fancy Chain, Gilt Toy Maker
398	Others in mixed, other or unspecified metals
399	General Shopkeeper, Dealer
400	Pawnbroker
401	Costermonger, Huckster, Street Seller
402	Manufacturer, Manager, Superintendent (undefined)
403	Contractor (undefined)
404	General Labourer
405	Engine Driver, Stoker, Fireman (not railway, marine or agricultural)
406	Artizan, Mechanic (undefined)
407	Apprentice (undefined)
408	Factory Labourer (undefined)
409	Machinist, Machine Worker (undefined)
410	Town Drainage Service
411	Chimney Sweep, Soot Merchant
412	Scavenger, Crossing Sweeper
413	Rag Gatherer, Dealer
414	Persons returned by Property, Rank &c. and not special occupation

Two further codes are used, which were not part of the Census Office's scheme.

998	Occupation recorded but of unknown meaning
999	Blank field, or illegible

Variable name: inactiv

Type: numeric

Form: Essex creation [added by program], but derived from the variables `occode` and `rela`.

Description: This variable is mainly created in the enrichment program. This code is an experimental adjunct to the occupational code. Essentially, it is the first number of

the set of four which is presently of use. The initial number denotes the type of economic activity carried out by the individual. Codes 1–6 inclusive denote inactivity, code 7 denotes in the labour market, code 8 denotes that the person is retired, and code 9 is for unknown.

The other three numbers in the code are, for those whose code starts with 7 or 8 the three digit occupational code allocated in the coding dictionary. Thus Butcher has an `inactiv` code of 7225 and Retired Butcher had 8225.

The table below only shows those codes used between 1000–7000 and 9000–9999. 7xxx and 8xxx codes are implicitly described in the table for the codes for the variable `occup`.

inactiv	Description	Number
1000	Institutional resident	1,520
1200	Prisoner	5
1900	Pauper (not in workhouse) or poor relief	1,457
2101	Vagrants/tramps	34
2102	Gypsies	6
2200	Beggars	6
2300	Others that will not work (thieves)	3
3100	Deriving income from rent	1,435
3200	Deriving income from dividends	7,789
3300	Deriving income from stipends	480
3400	Others of independent means	1,331
3700	Deriving support from head of household	472,046
3720	Home helpers	17
3770	Invalids	600
3780	Boarders/Lodgers	13,589
3790	Scholars	281,404
3791	Students (not school)	531
4000	Emigrants	55
4200	Foreign diplomats	20
4300	University graduates	46
7000	In work (undefined)	713
7xxx	In work (defined)	613,743
8000	Retired from work (undefined)	232
8xxx	Retired from work (defined)	10,600
9999	Unclassifiable	531

The code is based on a variety of information found within the dataset. The main source of information is the occupational string. All occupational entries within the dictionary which do not refer to a current or past working status have also manually been allocated an `inactiv` code. Thus the occupational entry 'Farmer's wife' is given an occupational code of 414 denoting that she is a 'person returned by property, rank &c. and not special occupation' and, additionally in the occupational

dictionary, an inactiv code of 3700 denoting 'deriving support from the household head', will also have been allocated.[50] For those in work, 7000 is added to their occupational code and for those who have an occupational entry with an indication of the fact that they used to carry out an occupation will have 8000 added to the occupational code. Therefore for all people with a non-blank entry in the occupation column of the CEB will have been allocated an inactiv code. Those people with a blank entry in the occupation column have their inactiv code allocated on the basis of their relationship to the head of the household. It is important to note that if there is any information within the occupational column it takes precedence over the contents of the relationship field. Thus where an occupation is recorded as 'Farmer's wife', but the relationship is 'Servant', the final inactiv code will remain 3700 and not 7056 which would be the replacement value if the occupational entry was blank.

Variable name: retired

Type: numeric

Form: Taken directly from the occupational coding dictionary.

Description: This variable is derived from the occupational string, and is set in the coding dictionary. It is set at either 0 or 1. 1 denotes retired; 0 denotes no indication. Thus for those people whose occupation is either missing or is a relationship-type occupation, e.g., Butcher's wife, the retired variable will automatically be set to 0. This is not an indication of whether someone has left the labour market. See also the variable inactiv.

Variable name: occ_group

Type: numeric

Form: Taken directly from the coding dictionary.

Description: occupational order from the Registrar General's 1881 classification scheme. This code is based on the contents of the inactiv variable and not the contents of occode.

order	Description	inactiv codes
1	General/Local Government	7001-7008
2	Defence of the country	7009-7016
3	Professionals	7017-7053
4	Domestic Service or Offices	7054-7065
5	Commercial Occupations	7066-7077
6	Conveyance of men, goods and messages	7078-7099
7	Agriculture	7100-7112
8	Animals	7113-7122
9	Books, Prints, Maps	7123-7132
10	Dealers in Machines and Implements	7133-7166
11	House, Furniture and Decorations	7167-7191
12	Carriages and Harnesses	7192-7197

[50] A paper discussing the rationale behind this particular classification scheme is under preparation by one of the authors.

13	Ships and Boats	7198-7202
14	Chemicals and Compounds	7203-7211
15	Tobacco and Pipes	7212-7213
16	Food and Lodging	7214-7238
17	Textile Fabrics	7239-7279
18	Dress	7280-7295
19	Animal Substances	7296-7310
20	Vegetable Substances	7311-7335
21	Mineral Substances	7336-7398
22	General or Unspecified Commodities	7399-7409
23	Refuse Matters	7410-7413
24	Persons without Specified Occupations	1000-4300; 8000-8413; 9999

Variable name: occinf

Type: numeric

Form: Essex creation [added by program]

Description: Denotes whether the enrichment program has used other information than the occupational code and retired on which to base the `inactiv` code. See program details for the rules on which this has been based. The codes used are: 0 = not altered; 1 or 2 = altered. Those entries receiving a one or a two here are those which have had their `inactiv` code allocated because of the contents of the relationship to head of household field. There is no difference in meaning between types one and two except that they occur at different stages within the program.

Frequency of occinf

occinf	Number of records
0	1,407,552
1	13
2	628

Variable name: instit

Type: numeric

Form: Essex creation [added at parsing stage, and then altered, where appropriate, by the program.]

Description: Describes institutional location of an individual.

1 = not resident in an institution
2 = resident in an institution
3 = on board a boat (fishing and resident on board boat)
4 = originally thought to be (1) but program alters this to institution
5 = originally thought to be (2) but program alters this to not institution
6 = originally thought to be (1) but program alters this to on board boat

Group 2 probably enumerated on an institutional schedule
Group 3 probably enumerated on a special schedule.

For further details on the manner in which institutions have been defined see the section above on institutions (p.22).

Variable name: bpcmty
Type: alpha
Form: From raw data, but parsed, and possibly re-allocated by the program.
Description: place (parish/township of birth)

Variable name: cnty
Type: alpha
Form: From raw data, but parsed, and possibly re-allocated by the program and then classified.
Description: (classified) county of birth. The classification is that carried out by the GSU and probably represents their standardised reading of the original text.

Variable name: bpctry
Type: alpha
Form: From raw data, but parsed, and possibly re-allocated by the program and then classified.
Description: country of birth. Note: in most cases, i.e., where this is England, Wales or Scotland, it will have been allocated by the GSU. In other cases this is the original textual information.

Variable name: std_par
Type: alpha
Form: Derived from raw data, but processed by the program
Description: standardised parish of birth. Note that the problems of reporting of some parishes has meant that a two-stage method of standardisation has taken place. A full description of the process of the standardisation of birthplaces is unnecessary, and would be unduly tedious, suffice it to say that birthplaces are standardised through the use of various look-up tables, and a series of algorithms which optimises the allocation of the standard parish (and counties) of birth in cases of ambiguity.

First, each parish, as recorded, has been standardised using a standardised list of parishes. Second, where groups of parishes from places which are also given as parishes, a group name has been allocated to a) those whose standardised parish name falls into that group and b) those whose given parish name is the same (or similar) to the group name. Thus, while there is, for example, no parish of Cambridge, because so many people recorded their parish of birth as Cambridge, all those whose parish of birth indicates that they were born in one of the parishes that makes up the group of parishes are allocated the `std_par` of Cambridge.

Variable name: cnti
Type: alpha
Form: Derived from raw data (both the `cnty` and `bpctry` variables above), but processed by the extraction program
Description: classified county of birth.

These codes are the same as those for the variable `county` (see above, p.32), with some additions, found at the end of the following table which refer to places of birth which can not be allocated to a specific British county of birth.

Code	County	Total
ABD	Aberdeenshire	7,088
AGY	Anglesey	6,378
ALD	Alderney	11
ANS	Angus	3,595
ARL	Argyll	5,574
AYR	Ayr	10,769
BAN	Banff	5,593
BDF	Bedfordshire	3,591
BRK	Berkshire	16,880
BEW	Berwickshire	922
BRE	Brecknockshire	1,133
BUK	Buckinghamshire	14,164
BUT	Bute	4,935
CAE	Caernarvonshire	8,640
CAI	Caithness	2,559
CAM	Cambridgeshire	17,209
CGN	Cardiganshire	3,062
CHH	Carmarthenshire	3,938
CHS	Cheshire	28,749
CLK	Clackmannanshire	499
CON	Cornwall	11,846
CUL	Cumberland	9,547
DBG	Denbighshire	5,027
DBY	Derbyshire	10,661
DEV	Devonshire	26,868
DFS	Dumfriesshire	990
DNB	Dunbartonshire	4,253
DOR	Dorset	8,509
DUR	Durham	10,214
ELN	East Lothian	5,593
ESS	Essex	21,398
FIF	Fife	11,708
FLN	Flintshire	11,830
GLA	Glamorganshire	8,188
GLS	Gloucestershire	16,189
GSY	Guernsey	278

HAM	Hampshire	19,379
HEF	Herefordshire	4,948
HRT	Hertfordshire	7,103
HUN	Huntingdonshire	4,671
INV	Inverness-shire	3,520
IOM	Isle of Man	723
JSY	Jersey	428
KCD	Kincardinshire	933
KEN	Kent	41,057
KKD	Kirkudbrightshire	923
KRS	Kinross-shire	304
LAN	Lancashire	158,386
LEC	Leicestershire	11,702
LIN	Lincolnshire	27,481
LKS	Lanarkshire	17,511
MER	Merionethshire	2,568
MID	Middlesex	145,091
MLN	Mid Lothian	28,845
MNM	Monmouthshire	3,540
MNT	Montgomeryshire	3,775
MOR	Morayshire	465
NAI	Nairnshire	369
NFK	Norfolk	26,645
NTH	Northamptonshire	8,965
NTM	Northumberland	8,458
NTT	Nottinghamshire	24,238
OKI	Orkney	4,434
OXF	Oxford	8,156
PEE	Peeblesshire	547
PEM	Pembrokeshire	12,618
PER	Perthshire	4,663
RAD	Radnorshire	710
RFW	Renfrewshire	25,140
ROC	Ross and Cromarty	784
ROX	Roxburghshire	4,622
RUT	Rutland	1,554
SAL	Shropshire	8,532
SEL	Selkirk	199
SHI	Shetland	543
SOM	Somerset	27,889
STI	Stirlingshire	1,750
STS	Staffordshire	21,655
SUF	Suffolk	21,332
SUR	Surrey	40,187
SUS	Sussex	12,646
SUT	Sutherland	17
WAR	Warwick	24,258
WES	Westmorland	3,653
WIG	Wigtown	3,897
WIL	Wiltshire	8,710
WLN	West Lothian	1,036

WOR	Worcestershire	25,128
YKS	Yorkshire	193,282
ENG	England	14,405
FOR	Foreign	15,527
IRE	Ireland	37,754
SCT	Scotland	11,038
SEA	At sea	199
WAL	Wales	2,596
YYY	Unknown	8,316

It is important to note that those people who were born outside of Great Britain or the islands in the British seas have been classified here as 'foreign' (with the code FOR). It is to be hoped that a later version of this dataset will attempt to classify these people to individual countries. However, those who are interested in using this information should consider the contents of the variable `bp_ctry` for those individuals who have been classified as being foreign.

Variable name: disab

Type: alpha
Form: From raw data
Description: the disability or infirmity returned on the CEB.
These have also not been classified in this version of the database. Examination of the strings recorded here will demonstrate why.

Variable name: h_recid

Type: alpha
Form: Essex creation [added by program]
Description: recid (see description of recid above, p.32) of the head of household.

Variable name: h_sname

Type: alpha
Form: Essex creation [added by program]
Description: surname of the head of household.

Variable name: h_sex

Type: alpha
Form: Essex creation [added by program]
Description: sex of the head of household.

Variable name: h_age

Type: numeric
Form: Essex creation [added by program]
Description: age of the head of household.

Variable name: h_rela
Type: numeric
Form: Essex creation [added by program]
Description: relationship to the head of household of the head of household. (This should, of course, usually be 10 (the code for head of household).)

Variable name: h_mar
Type: numeric
Form: Essex creation [added by program]
Description: marital status of the head of household. See variable `mar` above.

Variable name: h_occ
Type: numeric
Form: Essex creation [added by program]
Description: `occode` (see above) of the head of household.

Variable name: h_cfu
Type: numeric
Form: Essex creation [added by program]
Description: refers to the number of the head's CFU value.

Variable name: cfu
Type: numeric
Form: Essex creation [added by program]
Description: refers to the number of CFU within the household that that individual is part of. Thus all people within the same CFU in a household have the same number.

Variable name: n_cfus
Type: numeric
Form: Essex creation [added by program]
Description: This variable indicates the number of conjugal family units within each family grouping.

Variable name: tn_cfus
Type: numeric
Form: Essex creation [added by program]
Description: This variable indicates the number of conjugal family units within each household.

Variable name: cfusize
Type: numeric
Form: Essex creation [added by program]

Description: number of people in this individuals' CFU.

Variable name: spouse
Type: numeric
Form: Essex creation [added by program]
Description: indicates the `pid` (household number) of the spouse within the same household, thus an entry of 2 in this field indicates that the spouse of that particular person has a `pid` of 2 within the same household. If this entry contains 0 it means that this person does not have a spouse present in the household.

Variable name: father
Type: numeric
Form: Essex creation [added by program]
Description: indicates the `pid` of the father within the same household, thus an entry of 2 in this field indicates that the father of that particular person has a `pid` of 2 within the same household. If this entry contains 0 it means that this person does not have a father present in the household.

Variable name: mother
Type: numeric
Form: Essex creation [added by program]
Description: indicates the `pid` of the mother within the same household, thus an entry of 2 in this field indicates that the mother of that particular person has a pid of 2 within the same household. If this entry contains 0 it means that this person does not have a mother present in the household.

Variable name: f_off
Type: numeric
Form: Essex creation [added by program]
Description: number of resident female never married offspring.

Variable name: m_off
Type: numeric
Form: Essex creation [added by program]
Description: number of resident male never married offspring.

Variable name: m_offm
Type: numeric
Form: Essex creation [added by program]
Description: number of resident male ever married offspring.

Variable name: f_offm
Type: numeric
Form: Essex creation [added by program]
Description: number of resident female ever married offspring.

Variable name: relats
Type: numeric
Form: Essex creation [added by program]
Description: number of resident relations not in CFU. Thus for a household with mother, daughter and grand-daughter, the daughter and grand-daughter will form a CFU, and the `relats` for the daughter and the grand-daughter will be 1, but the `relats` for the mother will be 2.

Variable name: maxi
Type: numeric
Form: Essex creation [added by program]
Description: number of residents in the household.

Variable name: inmates
Type: numeric
Form: Essex creation [added by program]
Description: number of inmates in the household.

Variable name: servts
Type: numeric
Form: Essex creation [added by program]
Description: number of servants in the household.

Variable name: offsp
Type: numeric
Form: Essex creation [added by program]
Description: number of never-married offspring.

Variable name: kids
Type: numeric
Form: Essex creation [added by program]
Description: number of offspring.

Variable name: non_rels
Type: numeric
Form: Essex creation [added by program]
Description: number of non-relations in the household.

Variable name: visitors
Type: numeric
Form: Essex creation [added by program]
Description: number of visitors in the household.

Section 3. Characteristics of the sample

3.1 Age distribution

Tables 3.1 and 3.2 are given for information: they show gender specific age distribution in the sample (T3.1) and the national population (T3.2) (excluding Islands in the British Seas). Table 3.3 shows the difference in age distribution between the published figures and those from the sample. It shows that for those over 25 the sample is reasonably representative, but for women between the ages of 0–9 and 15–24 and for men under the age of 15 there are some discrepancies. It is also possible that the under-representation of women in the 15–24 age group is due to an under-representation of urban areas where it is known that many young women migrated to. Law gives a density level of one person per acre as one of a number of guides to the distinction between urban and rural.[51] Using this and other determinants he calculates that the urban population of England and Wales accounts for 70.0 per cent of the population. Using just the published figures and the published areas of the parishes chosen in the sample, (that is rather than the number actually used in the sample), some 69.5 per cent of the sampled populations (for England and Wales) live in parishes with a population density of more than one person per acre, (See Table 3.4), indicating that there is not a serious discrepancy between the sample and the published returns in terms of the rural/urban split.

Table 3.1 Population of the 5% sample by quinquennial age groups.

Age	Female	Male	Total	Female %	Male %
0-4	95,278	96,957	192,235	13.29	14.04
5-9	85,560	85,440	171,000	11.94	12.37
10-14	75,243	76,227	151,470	10.5	11.04
15-19	66,903	69,269	136,172	9.33	10.03
20-24	63,321	60,680	124,001	8.83	8.78
25-29	56,799	53,490	110,289	7.92	7.74
30-34	48,410	45,539	93,949	6.75	6.59
35-39	42,987	40,769	83,756	6.00	5.90
40-44	39,240	36,395	75,635	5.47	5.27
45-49	33,125	30,203	63,328	4.62	4.37
50-54	29,277	26,422	55,699	4.08	3.83
55-59	23,348	21,267	44,615	3.26	3.08
60-64	21,395	18,684	40,079	2.99	2.7
65-69	15,048	12,798	27,846	2.10	1.85
70-74	10,385	8,655	19,040	1.45	1.25
75-79	6,130	4,887	11,017	0.86	0.71
80-84	2,980	2,239	5,219	0.42	0.32
85+	1,299	828	2,127	0.18	0.12
Unknown	303	367	670		
[65+]	35,842	29,407	65,249	5.01	4.25

[51] Law (1967), 130.

Total	716,728	690,749	1,407,477	100	100

Note: this excludes 46 persons whose gender is unknown and 670 whose age is unknown

Table 3.2 Population of England, Wales and Scotland by quinquennial age groups

Age	Female	Male	Total	Female %	Male %
0-4	2,015,373	2,016,082	4,031,455	13.20	13.96
5-9	1,801,058	1,796,362	3,597,420	11.79	12.44
10-14	1,597,344	1,607,978	3,205,322	10.46	11.14
15-19	1,467,560	1,457,942	2,925,502	9.61	10.10
20-24	1,393,001	1,278,916	2,671,917	9.12	8.86
25-29	1,218,205	1,118,322	2,336,527	7.98	7.74
30-34	1,030,340	952,311	1,982,651	6.75	6.60
35-39	910,271	842,896	1,753,167	5.96	5.84
40-44	832,136	763,626	1,595,762	5.45	5.29
45-49	692,474	621,070	1,313,544	4.53	4.30
50-54	617,181	552,301	1,169,482	4.04	3.82
55-59	486,779	432,887	919,666	3.19	3.00
60-64	446,966	386,010	832,976	2.93	2.67
65-69	312,462	262,764	575,226	2.05	1.82
70-74	224,116	181,196	405,312	1.47	1.25
75-79	131,573	103,295	234,868	0.86	0.72
80-84	65,641	48,229	113,870	0.43	0.33
85+	28,155	17,180	45,335	0.18	0.12
[65+]	761,947	612,664	1,374,611	4.99	4.24
Total	15,270,635	14,439,367	29,710,002	100	100

Source: 1881 Census of Scotland, *Vol. II Ages, Education...*; 1881 Census of England and Wales, Vol. III. *Ages, conditions as to marriage....*

Table 3.3 Percentage difference in age structure.

Age	Female	Male
0-4	0.10	0.07
5-9	0.14	-0.07
10-14	0.04	-0.10
15-19	-0.28	-0.07
20-24	-0.29	-0.07
25-29	-0.05	0.00
30-34	0.01	0.00
35-39	0.04	0.06
40-44	0.03	-0.02
45-49	0.09	0.07
50-54	0.04	0.00
55-59	0.07	0.08
60-64	0.06	0.03
65-69	0.05	0.03
70-74	-0.02	0.00
75-79	-0.01	-0.01
80-84	-0.01	-0.01
85+	0.00	0.00
65+	0.01	0.03

Table 3.4 Population density of sample

	Parishes in sample	Number of "urban" parishes	Population in sample	Population in "urban" parishes	Proportion of population in "urban" parishes
England	716	100	1,137,876	826,376	72.62
Scotland	45	6	199,289	116,422	58.42
Wales	62	7	71,028	37,071	52.19
Total	823	113	1,408,193	979,869	69.58

Note: urban here is defined as having a density of greater than one person per acre. Note also that population is the published population figures for the parishes selected for the sample, rather than the number of records used for each of the sample parishes.

3.2 Geographic distribution

Table 3.5 shows the geographic distribution of the sample. 80.80 per cent of the sample is drawn from England, 14.15 per cent from Scotland and 5.04 from Wales. The actual distribution of the people in Britain is slightly different, demonstrating that England is slightly underrepresented in the sample, and Scotland and Wales are slightly over represented in the sample. The Islands in the British Seas, comprising, the Isle of Man, Jersey, Guernsey and the other Channel Islands are not represented in the sample at all. Moving to the representativness of the counties chosen in the sample, things are not so clear cut. Some counties, mostly in Scotland were not selected in the sample. Table 3.6 mirrors table 3.5 but contains the details for each county. For further discussion, see page 28ff.

Table 3.5 Comparison of population figures in the sample, by country

Published			Sample		
Country	**Population**	**Percentage**	**Population**	**Percentage**	**Difference**
England	24,636,858	82.53	1,137,876	80.80	-1.73
Scotland	3,735,573	12.51	199,289	14.15	1.64
Wales	1,337,583	4.48	71,028	5.04	0.56
Islands	141,260	0.47			-0.47
	29,851,274		1,408,193		

Table 3.6 Comparison of population figures in the sample, by county

County	Sample		Published		
	Number of people	%	Number of people	%	Difference
Aberdeenshire	4,690	0.33	267,990	0.90	-0.57
Anglesey	2,394	0.17	35,141	0.12	0.05
Angus	2,763	0.2	266,360	0.89	-0.69
Argyllshire	2,793	0.2	76,468	0.26	-0.06
Ayrshire	12,077	0.86	217,519	0.73	0.13
Banffshire	6,404	0.45	62,736	0.21	0.24
Bedfordshire	1,513	0.11	154,259	0.52	-0.41
Berkshire	15,305	1.09	247,892	0.83	0.26
Breconshire	929	0.07	54,140	0.18	-0.11
Buckinghamshire	15,205	1.08	155,869	0.52	0.56
Buteshire	10,382	0.74	17,657	0.06	0.68
Caernarvonshire	9,464	0.67	123,781	0.41	0.26
Caithness	1,983	0.14	38,865	0.13	0.01
Cambridgeshire	17,483	1.24	191,114	0.64	0.6
Cardiganshire	3,949	0.28	95,137	0.32	-0.04
Carmarthenshire	3,617	0.26	111,255	0.37	-0.11
Cheshire	13,179	0.94	622,365	2.08	-1.14
Cornwall	10,354	0.74	326,375	1.09	-0.35
Cumberland	7,270	0.52	250,647	0.84	-0.32
Denbighshire	10,745	0.76	112,940	0.38	0.38
Derbyshire	3,466	0.25	386,514	1.29	-1.04
Devon	21,370	1.52	608,400	2.04	-0.52
Dunbartonshire	10,120	0.72	75,333	0.25	0.47
Dorset	4,484	0.32	184,972	0.62	-0.3
Durham	10,291	0.73	875,166	2.93	-2.2
East Lothian	5,792	0.41	38,502	0.13	0.28
Essex	12,139	0.86	552,268	1.85	-0.99
Fife	9,869	0.7	171,931	0.58	0.12
Flintshire	9,943	0.71	45,774	0.15	0.56
Glamorgan	8,422	0.6	518,383	1.74	-1.14
Gloucestershire	6,995	0.5	525,167	1.76	-1.26
Hampshire	16,790	1.19	575,409	1.93	-0.74
Herefordshire	5,966	0.42	118,147	0.40	0.02
Hertfordshire	6,178	0.44	202,375	0.68	-0.24
Huntingdonshhire	1,442	0.1	53,223	0.18	-0.08
Inverness-shire	2,616	0.19	90,454	0.30	-0.11
Kincardinshire	1,072	0.08	34,464	0.12	-0.04
Kent	46,143	3.28	993,931	3.33	-0.05
Kirkudbrightshire	728	0.05	42,127	0.14	-0.09
Lancashire	196,879	13.98	3,485,819	11.68	2.3
Leicestershire	12296	0.87	326,641	1.09	-0.22
Lincolnshire	19,574	1.39	463,061	1.55	-0.16
Lanarkshire	8,551	0.61	904,412	3.03	-2.42
Merionethshire	3,622	0.26	68,278	0.23	0.03
Middlesex	189,663	13.47	2,931,370	9.82	3.65
Mid Lothian	46,025	3.27	389,164	1.30	1.97
Monmouthshire	7,954	0.56	234,332	0.78	-0.22
Montgomeryshire	3,299	0.23	76,196	0.26	-0.03
Nairnshire	18	0	54,243	0.18	-0.18
Norfolk	19,876	1.41	437,711	1.47	-0.06
Northamptonshire	8,275	0.59	277,035	0.93	-0.34
Northumberland	5,598	0.4	434,086	1.45	-1.05
Nottinghamshire	29,615	2.1	438,645	1.47	0.63
Orkney	4,461	0.32	32,044	0.11	0.21
Oxfordshire	4,938	0.35	181,570	0.61	-0.26
Peeblesshire	277	0.02	13,822	0.05	-0.03

Pembrokeshire	14,396	1.02	83,679	0.28	0.74
Perthshire	3,660	0.26	129,007	0.43	-0.17
Renfrewshire	55,807	3.96	263,374	0.88	3.08
Roxburghshire	5,149	0.37	53,442	0.18	0.19
Rutland	1,489	0.11	23,007	0.08	0.03
Shropshire	5,621	0.4	265,890	0.89	-0.49
Somerset	29,726	2.11	490,602	1.64	0.47
Staffordshire	49,468	3.51	1,006,758	3.37	0.14
Suffolk	16,235	1.15	353,545	1.18	-0.03
Surrey	62,568	4.44	1,441,576	4.83	-0.39
Sussex	10,757	0.76	494,194	1.66	-0.9
Warwick	15,773	1.12	730,531	2.45	-1.33
Westmorland	4,363	0.31	64,314	0.22	0.09
Wigtownshire	4,052	0.29	38,611	0.13	0.16
Wiltshire	4,235	0.3	248,664	0.83	-0.53
Worcestershire	11,714	0.83	383,011	1.28	-0.45
Yorkshire (ER)	82,183	5.84	362,375	1.21	4.63
Yorkshire (NR)	17,689	1.26	334,385	1.12	0.14
Yorkshire (WR)	116,062	8.24	2,197,999	7.36	0.88
Other counties	-		616,831	2.07	-2.07
Total	1,408,193	100	29,851,274	100	

Table 3.7 Counties not represented in the sample

	N	%
Alderney	2,048	0.01
Berwickshire	35,392	0.12
Clackmannanshire	25,680	0.09
Dumfriesshire	76,140	0.26
Guernsey	32,618	0.11
Herm	20	0.00
Isle of Man	53,558	0.18
Jersey	52,445	0.18
Kinross-shire	6,697	0.02
Radnorshire	18,523	0.06
Ross and Cromarty	78,547	0.26
Sark	571	0.00
Selkirkshire	25,564	0.09
Shetland	29,705	0.10
Stirlingshire	112,443	0.38
Sutherland	23,370	0.08
West Lothian	43,510	0.15
Total	616,831	2.07

3.3 Occupational distribution

Table 3.8. Occupational distribution of sample

	Proportion occupied (sample)		
	F	M	Total
1. General/Local Government	375	4,979	5,354
2. Defence of the country	34	3,996	4,030
3. Professionals	9,734	11,109	20,843
4. Domestic Service or Offices	85,199	11,858	97,058
5. Commercial Occupations	586	14,557	15,143
6. Conveyance of men, goods and messages	751	42,589	43,340
7. Agriculture	5,108	66,826	71,936
8. Animals	111	7,495	7,606
9. Books, Prints, Maps	898	4,396	5,294
10. Dealers in Machines and Implements	396	13,556	13,953
11. House, Furniture and Decorations	1,170	40,728	41,898
12. Carriages and Harnesses	67	5,319	5,386
13. Ships and Boats	19	3,332	3,351
14. Chemicals and Compounds	489	2,130	2,619
15. Tobacco and Pipes	346	633	979
16. Food and Lodging	6,517	26,467	32,984
17. Textile Fabrics	35,821	28,329	64,152
18. Dress	28,706	18,056	46,763
19. Animal Substances	1,127	3,217	4,344
20. Vegetable Substances	2,838	7,285	10,123
21. Mineral Substances	1,866	59,093	60,960
22. General or Unspecified Commodities	7,516	47,365	54,881
23. Refuse Matters	353	1,106	1,459
24. Persons without Specified Occupations	527,004	266,695	793,737
Total	717,031	691,116	1,408,193
Total of rows 1-23 (Occupied population)	190,027	424,421	614,456

Table 3.9 Comparison of proportion occupied in sample and in population

Occupational group	Proportion occupied (sample)		Proportion occupied (published)		Difference	
	F	M	F	M	F	M
1. General/Local Government	0.20	1.17	0.22	1.25	-0.02	-0.08
2. Defence of the country	0.02	0.94	0.00	1.60	0.02	-0.66
3. Professionals	5.12	2.62	5.54	2.94	-0.42	-0.32
4. Domestic Service or Offices	44.84	2.79	45.40	3.32	-0.56	-0.53
5. Commercial Occupations	0.31	3.43	0.25	3.96	0.06	-0.53
6. Conveyance of men, goods and messages	0.40	10.03	0.32	8.37	0.08	1.66
7. Agriculture	2.69	15.75	1.89	15.67	0.80	0.08
8. Animals	0.06	1.77	0.02	1.33	0.04	0.44
9. Books, Prints, Maps	0.47	1.04	0.47	1.14	0.00	-0.10
10. Dealers in Machines and Implements	0.21	3.19	0.41	3.26	-0.20	-0.07
11. House, Furniture and Decorations	0.62	9.60	0.54	9.86	0.08	-0.26
12. Carriages and Harnesses	0.04	1.25	0.07	1.09	-0.03	0.16
13. Ships and Boats	0.01	0.79	0.00	0.69	0.01	0.10
14. Chemicals and Compounds	0.26	0.50	0.13	0.50	0.13	0.00
15. Tobacco and Pipes	0.18	0.15	0.27	0.17	-0.09	-0.02
16. Food and Lodging	3.43	6.24	3.70	6.46	-0.27	-0.22
17. Textile Fabrics	18.85	6.67	17.35	5.94	1.50	0.73
18. Dress	15.11	4.25	18.11	4.68	-3.00	-0.43
19. Animal Substances	0.59	0.76	0.43	0.69	0.16	0.07
20. Vegetable Substances	1.49	1.72	1.06	1.68	0.43	0.04
21. Mineral Substances	0.98	13.92	1.91	15.56	-0.93	-1.64
22. General or Unspecified Commodities	3.96	11.16	1.85	9.67	2.11	1.49
23. Refuse Matters	0.19	0.26	0.05	0.16	0.14	0.10

Table 3.9 shows the absolute numbers (in England and Wales only) of those occupied in the sample of the census, using the same method of classification as the original 1881 census. (Scotland is excluded from this comparison because its classification was not quite the same as in England and Wales and thus a direct comparison with the published figures can not be made.) In this classification scheme those that were described as retired were generally classified along with their working counterparts. The main differences in the sample and in the population are men working in transport, agriculture, with mineral substances and in unspecified commodities. For women the most noticeable areas are in textiles and dress and in general and unspecified commodities.

Section 4: Further tables

Table 4.1. Numbers of household and mean household size per county

	(1)	(2)	(3)	(4)
Aberdeenshire	4,690	4,687	938	5.00
Anglesey	2,394	2,394	571	4.19
Angus	2,763	2,731	560	4.88
Argyllshire	2,793	2,793	576	4.85
Ayrshire	12,077	11,936	2,301	5.19
Banffshire	6,404	6,365	1,397	4.56
Bedfordshire	1,513	1,513	349	4.34
Berkshire	15,305	14,489	3,311	4.38
Breconshire	929	929	204	4.55
Buckinghamshire	15,205	15,098	3,237	4.66
Buteshire	10,382	10,214	2,429	4.21
Caernarvonshire	9,464	9,456	2,185	4.33
Caithness	1,983	1,983	457	4.34
Cambridgeshire	17,483	17,282	3,860	4.48
Cardiganshire	3,949	3,949	926	4.26
Carmarthenshire	3,617	3,617	758	4.77
Cheshire	13,179	12,708	2,473	5.14
Cornwall	10,354	10,103	2,387	4.23
Cumberland	7,270	7,256	1,552	4.68
Denbighshire	10,745	10,533	2,310	4.56
Derbyshire	3,466	3,460	757	4.57
Devon	21,370	20,991	4,587	4.58
Dunbartonshire	10,120	9,561	1,968	4.86
Dorset	4,484	4,479	1,025	4.37
Durham	10,291	10,217	2,018	5.06
East Lothian	5,792	5,779	1,233	4.69
Essex	12,139	12,139	2,795	4.34
Fife	9,869	9,869	2,187	4.51
Flintshire	9,943	9,659	2,218	4.35
Glamorgan	8,422	8,393	1,724	4.87
Gloucestershire	6,995	6,991	1,569	4.46
Hampshire	16,790	16,266	3,548	4.58
Herefordshire	5,966	5,814	1,305	4.46
Hertfordshire	6,178	6,146	1,354	4.54
Huntingdonshhire	1,442	1,442	331	4.36
Inverness-shire	2,616	2,598	562	4.62
Kincardineshire	1,072	995	191	5.21
Kent	46,143	43,119	9,302	4.64
Kirkudbrightshire	728	706	161	4.39
Lancashire	196,879	193,573	40,145	4.82
Leicestershire	12,296	12,008	2,742	4.38
Lincolnshire	19,574	19,260	4,339	4.44
Lanarkshire	8,551	8,551	1,751	4.88
Merionethshire	3,622	3,549	762	4.66
Middlesex	189,663	181,934	40,943	4.44
Mid Lothian	46,025	44,251	9,442	4.69
Monmouthshire	7,954	7,942	1,699	4.67
Montgomeryshire	3,299	3,284	658	4.99
Nairnshire	18	18	2	9.00
Norfolk	19,876	19,793	4,530	4.37
Northamptonshire	8,275	8,230	1,887	4.36
Northumberland	5,598	5,262	1,022	5.15
Nottinghamshire	29,615	29,079	6,175	4.71
Orkney	4,461	4,461	949	4.70

Oxfordshire	4,938	4,902	1,087	4.51
Peeblesshire	277	277	56	4.95
Pembrokeshire	14,396	13,325	2,921	4.56
Perthshire	3,660	3,637	837	4.35
Renfrewshire	55,807	54,973	11,108	4.95
Roxburghshire	5,149	5,053	1,102	4.59
Rutland	1,489	1,450	318	4.56
Shropshire	5,621	5,614	1,140	4.92
Somerset	29,726	28,615	6,442	4.44
Staffordshire	49,468	49,103	9,624	5.10
Suffolk	16,235	15,882	3,649	4.35
Surrey	62,568	58,129	12,159	4.78
Sussex	10,757	10,353	2,137	4.84
Warwick	15,773	15,483	3,388	4.57
Westmorland	4,363	4,363	931	4.69
Wigtownshire	4,052	4,047	793	5.10
Wiltshire	4,235	4,154	917	4.53
Worcestershire	11,714	11,402	2,393	4.76
Yorkshire (ER)	82,183	77,383	17,817	4.34
Yorkshire (NR)	17,689	17,343	3,821	4.54
Yorkshire (WR)	116,062	115,213	24,772	4.65
Total	1,408,193	1,370,556	296,074	4.69

Note: (1) total population in sample; (2) total population of non-institutional/boat population in sample; (3) number of households in sample; (4) mean household size

Table 4.2 Distribution of household size by county

Size	1	2	3	4	5	6	7	8	9	10+	%
Aberdeen	8.1	12.3	13.0	13.3	14.9	11.9	7.7	8.3	3.6	6.8	100
Anglesey	9.1	18.7	19.4	15.2	11.9	8.2	7.0	4.4	2.3	3.7	100
Angus	7.9	12.1	14.3	15.2	15.0	11.8	5.4	8.8	4.8	4.8	100
Argyll	6.1	13.9	14.1	15.5	15.5	9.4	9.5	6.3	5.4	4.5	100
Ayr	4.1	10.2	13.2	15.0	14.6	13.7	11.8	8.0	5.0	4.4	100
Banff	9.9	13.8	16.9	13.6	12.3	11.1	9.1	6.4	2.7	4.2	100
Bedford	6.9	18.6	18.3	15.2	12.3	9.5	6.9	6.9	4.0	1.4	100
Berkshire	8.1	18.3	17.1	14.4	12.3	11.0	7.6	5.0	3.0	3.2	100
Brecon	8.3	14.2	16.7	14.2	13.2	15.2	8.3	3.4	1.5	4.9	100
Bucks	5.1	14.4	17.4	16.4	13.9	10.9	9.0	6.4	3.1	3.4	100
Bute	11.2	17.5	17.7	15.8	12.1	8.6	6.7	4.2	2.7	3.6	100
Caenarvon	6.3	14.6	20.9	18.4	13.4	9.0	7.7	5.2	2.5	2.1	100
Caithness	12.5	17.1	12.7	15.5	13.6	8.8	6.6	7.7	2.0	3.7	100
Cambridge	6.6	17.8	17.2	16.0	12.4	9.8	7.7	5.7	3.1	3.7	100
Cardigan	9.9	18.4	18.1	15.0	12.3	8.5	6.3	4.1	3.7	3.7	100
Carmarthen	7.0	13.2	14.6	17.0	12.9	10.6	9.0	7.7	4.1	4.0	100
Cheshire	3.8	12.0	14.7	15.2	15.2	12.5	9.1	6.7	4.9	5.9	100
Cornwall	8.0	18.6	18.6	17.0	12.4	9.0	6.3	4.1	3.0	3.0	100
Cumberland	8.6	14.9	15.0	15.3	13.0	11.0	8.0	5.3	3.4	5.5	100
Denbigh	6.6	15.1	17.8	16.9	13.0	11.4	7.4	4.6	3.0	4.2	100
Derby	6.3	13.6	17.4	19.2	13.7	10.4	7.1	4.9	3.0	4.2	100
Devon	5.4	16.4	17.4	16.0	13.3	10.9	8.2	5.4	3.4	3.6	100
Dunbarton	6.7	14.6	17.1	14.2	11.7	10.0	8.5	7.0	3.7	6.5	100
Dorset	6.2	19.8	19.1	14.0	11.5	10.2	7.1	5.4	3.1	3.4	100
Durham	2.9	11.4	16.1	16.9	12.6	13.8	9.4	7.3	5.0	4.6	100
East Lothian	6.2	13.9	16.1	15.2	12.7	14.4	8.7	5.3	4.1	3.2	100
Essex	6.7	19.9	17.8	14.2	12.8	9.5	7.3	5.6	3.5	2.6	100
Fife	8.3	14.2	16.0	15.0	13.8	12.3	9.3	5.7	2.8	2.7	100
Flint	7.1	16.2	17.8	17.0	14.1	9.7	7.7	5.8	2.4	2.2	100
Glamorgan	4.8	12.5	16.6	15.5	14.4	12.4	9.1	6.4	4.3	4.1	100
Gloucs.	6.1	17.0	18.4	15.5	12.9	10.8	8.4	5.1	3.0	3.0	100
Hampshire	5.1	16.5	18.7	15.7	12.7	10.5	7.8	5.7	3.2	4.1	100
Hereford	6.7	16.4	17.8	16.6	13.6	10.0	7.2	5.7	2.8	3.1	100
Hertford	5.8	17.7	15.4	16.4	13.6	10.9	6.8	6.4	3.8	3.1	100
Hunts	9.1	19.6	17.8	9.4	11.2	11.8	9.7	5.4	3.6	2.4	100
Inverness	7.1	14.2	16.4	15.3	12.6	13.2	8.9	6.4	2.5	3.4	100
Kincardine	9.9	12.0	14.1	11.0	12.6	10.5	7.3	7.3	5.2	9.9	100
Kent	5.8	16.9	16.4	15.1	13.0	11.4	8.2	5.3	3.7	4.2	100
Kirkudbright	11.8	16.8	17.4	12.4	12.4	9.3	5.6	6.2	3.7	4.3	100
Lancs	3.1	13.6	16.5	16.5	15.1	12.5	9.4	6.2	3.4	3.6	100
Leics	8.3	16.0	18.6	15.3	13.0	10.4	7.9	4.2	2.7	3.6	100
Lincs	7.4	17.9	17.4	14.9	12.8	9.8	7.5	5.3	3.4	3.6	100
Lanarks	6.0	11.7	15.5	16.8	13.1	11.8	9.3	7.1	4.7	4.1	100
Merioneth	6.3	15.0	17.2	17.7	12.6	9.7	9.8	4.9	1.7	5.1	100
Middlesex	5.9	18.9	17.5	15.9	12.9	9.9	7.4	5.0	3.0	3.7	100
Mid Lothian	5.2	14.2	16.2	15.8	15.0	12.3	8.9	5.8	3.6	3.1	100
Monmouth	7.5	15.7	15.4	14.2	12.9	10.8	9.4	5.8	3.6	4.6	100
Montgomery	6.7	12.3	14.7	13.7	13.7	11.2	11.1	7.6	3.2	5.8	100
Nairn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100
Norfolk	5.8	19.0	18.3	15.9	13.0	9.4	7.6	4.9	3.1	2.9	100
Northampton	6.5	19.1	17.4	15.7	12.5	10.0	7.7	5.7	2.9	2.4	100
Northumberl	4.4	9.8	16.0	13.0	16.2	15.6	9.0	6.2	4.2	5.6	100
Nottingham	4.9	14.0	17.0	16.8	14.5	11.3	8.0	6.2	3.4	3.9	100
Orkney	8.9	11.8	17.1	16.1	13.0	9.2	9.2	5.8	4.2	4.8	100

Oxford	4.8	17.6	18.2	15.5	13.5	11.8	6.5	5.7	2.4	4.0	100
Peebles	5.4	14.3	12.5	16.1	12.5	7.1	21.4	3.6	3.6	3.6	100
Pembroke	6.5	15.4	15.8	17.2	13.7	11.4	7.7	5.6	3.3	3.4	100
Perth	11.4	17.0	17.4	14.6	10.5	8.2	8.1	5.5	2.9	4.4	100
Renfrew	4.1	13.1	14.7	15.1	14.8	12.9	10.1	6.8	4.2	4.2	100
Roxburgh	8.9	16.7	14.7	14.7	11.5	11.2	8.3	5.7	3.7	4.5	100
Rutland	6.0	17.3	19.8	14.2	11.6	8.2	9.1	6.3	2.5	5.0	100
Salop	4.3	14.6	16.9	14.8	12.1	11.8	9.7	6.7	3.7	5.3	100
Somerset	7.5	16.5	17.6	15.2	12.5	11.4	7.7	5.4	2.9	3.3	100
Staffs	2.3	11.6	14.7	16.9	15.2	12.8	10.1	7.1	4.3	4.9	100
Suffolk	7.1	19.0	18.1	15.0	12.5	9.9	7.1	4.8	3.1	3.4	100
Surrey	4.2	15.7	15.9	16.4	13.5	11.6	8.5	5.7	3.8	4.7	100
Sussex	3.3	16.1	16.6	14.8	13.6	12.4	8.9	5.9	3.6	4.8	100
Warwick	6.2	16.3	17.3	15.7	13.6	10.6	7.7	5.6	2.7	4.3	100
Westmorland	6.7	13.1	17.2	16.9	12.0	12.5	8.4	6.6	3.4	3.3	100
Wigtown	6.6	12.0	14.5	12.6	13.7	11.5	10.6	6.7	4.9	6.9	100
Wiltshire	4.3	19.0	17.4	15.6	14.1	10.0	7.6	4.9	2.6	4.5	100
Worcs	4.9	13.3	16.8	17.3	13.3	11.5	9.7	5.9	3.5	3.8	100
Yorks (E)	6.0	17.8	18.9	16.9	12.8	10.4	7.4	4.3	2.5	2.9	100
Yorks (N)	8.7	15.5	17.0	14.9	12.7	9.9	7.6	6.0	3.3	4.2	100
Yorks (W)	4.1	14.7	17.1	16.8	14.9	12.0	8.7	5.6	3.2	3.0	100

Table 4.3. Grouped relationship frequencies.

Group	F	M	Total
Boarder	9,922	22,862	32,784
Children	314,030	330,696	644,726
Cousin	721	463	1,184
Grandchildren	12,520	12,192	24,712
Grandparent	242	82	324
Great grandchild	48	63	111
Great nephews/nieces	145	114	259
Great uncles/aunts	6	3	9
Heads/Spouses	270,478	242,340	512,818
Institutional inmates	5,782	10,089	15,871
Lodgers	10,804	25,281	36,085
Nephews/nieces	8,620	5,783	14,403
Other relations	1,247	986	2,233
Parent	8,213	2,667	10,880
Siblings	13,598	8,084	21,682
Uncles/aunts	894	266	1,160
Unknown	3,138	8,920	12,058
Visitors	8,854	4,731	13,585
Working inmates	47,769	15,494	63,263
Total			1,408,147

Table 4.4 Marital status by county.

County	1	2	3	4	9
Nairnshire	77.78	22.22	0.00	0.00	0.00
Kincardineshire	69.78	24.07	1.40	4.76	0.00
Wigtownshire	67.99	24.51	1.38	5.85	0.27
Aberdeenshire	67.72	25.33	2.26	4.58	0.11
Dunbartonshire	67.32	23.96	1.91	6.12	0.69
Angus	67.28	27.36	1.59	3.47	0.29
Argyllshire	67.06	25.56	1.86	5.26	0.25
Kirkudbrightshire	66.21	23.35	2.75	7.55	0.14
Perthshire	66.07	26.37	1.78	5.66	0.14
Banffshire	65.66	25.95	2.09	6.26	0.03
Caithness	65.41	27.03	1.26	6.15	0.15
Inverness-shire	65.37	25.88	1.49	7.11	0.15
Roxburghshire	65.33	26.84	1.85	5.88	0.10
Northumberland	65.20	27.99	1.32	5.23	0.25
Cumberland	64.69	27.37	1.58	6.22	0.14
Lanarkshire	64.51	29.28	1.03	5.06	0.12
Ayrshire	64.05	29.60	1.71	4.50	0.14
Peeblesshire	63.90	30.32	1.08	4.69	0.00
Buteshire	63.89	25.45	3.01	7.45	0.20
Cardiganshire	63.71	24.66	4.18	7.34	0.10
East Lothian	63.43	29.83	1.55	5.06	0.12
Carmarthenshire	63.28	30.02	0.88	5.70	0.11
Merionethshire	63.20	27.86	2.43	6.27	0.25
Renfrewshire	62.95	29.27	2.10	5.43	0.25
Cheshire	62.83	30.62	1.60	4.67	0.28
Westmorland	62.80	29.66	1.24	6.19	0.11
Montgomeryshire	62.78	29.74	1.73	5.40	0.36
Fife	62.41	31.27	1.25	4.97	0.11
Durham	62.37	32.34	1.10	4.14	0.06
Breconshire	62.11	30.36	2.15	5.27	0.11
Staffordshire	62.03	31.73	1.70	4.36	0.18
Mid Lothian	61.70	30.56	2.36	5.15	0.24
Glamorgan	61.52	31.80	1.38	5.24	0.07
Shropshire	61.45	31.84	1.28	5.05	0.37
Orkney	61.22	31.56	1.21	5.94	0.07
Kent	61.11	31.20	2.01	5.48	0.20
Worcestershire	61.07	32.05	1.58	5.19	0.11
Denbighshire	60.94	29.82	2.42	6.59	0.23
Sussex	60.92	31.70	1.47	5.73	0.19
Monmouthshire	60.76	30.93	1.68	6.46	0.16
Surrey	60.75	31.87	2.00	5.03	0.35
Herefordshire	60.74	31.16	1.86	6.03	0.20
Hampshire	60.67	31.24	1.83	6.03	0.22
Rutland	60.64	32.77	1.28	5.24	0.07
Yorkshire (NR)	60.52	30.86	2.28	6.16	0.18
Oxfordshire	60.45	31.71	1.90	5.89	0.04

Berkshire	60.40	31.53	1.70	6.09	0.29
Pembrokeshire	60.37	30.93	2.38	6.14	0.17
Devon	60.22	31.70	2.08	5.77	0.23
Warwick	60.17	32.29	1.62	5.71	0.21
Cornwall	60.08	27.73	3.13	8.16	0.90
Somerset	60.04	31.78	1.68	6.21	0.29
Lancashire	59.94	31.94	2.54	5.25	0.33
Flintshire	59.80	31.09	2.04	6.82	0.25
Buckinghamshire	59.79	33.61	1.47	4.90	0.22
Nottinghamshire	59.66	33.30	1.91	4.84	0.28
Derbyshire	59.52	32.72	1.96	5.68	0.12
Yorkshire (WR)	59.47	33.87	1.74	4.76	0.15
Wiltshire	59.41	33.36	1.30	5.83	0.09
Cambridgeshire	59.39	33.56	1.32	5.65	0.08
Caernarvonshire	59.16	32.46	1.86	6.45	0.07
Lincolnshire	59.12	33.05	1.76	5.98	0.09
Hertfordshire	59.06	33.94	1.52	5.29	0.18
Gloucestershire	58.67	33.94	1.83	5.36	0.20
Huntingdonshhire	58.67	33.84	1.66	5.62	0.21
Anglesey	58.56	31.75	2.17	7.48	0.04
Suffolk	58.47	33.72	1.66	6.05	0.10
Leicestershire	58.35	33.80	1.98	5.58	0.29
Middlesex	58.13	33.08	2.48	6.02	0.30
Dorset	58.10	34.92	1.18	5.66	0.13
Bedfordshire	57.83	34.77	1.59	5.82	0.00
Yorkshire (ER)	57.76	32.78	3.47	5.78	0.21
Essex	57.64	35.09	1.27	5.89	0.11
Northamptonshire	57.57	35.83	1.24	5.31	0.05
Norfolk	56.85	36.06	1.67	5.29	0.14
Total	60.26	31.87	2.12	5.51	0.24

Note (1) single; (2) married; (3) married spouse absent; (4) widowed; (9) unknown.

Table 4.5. Frequency of the variable institution

Institution	Number of people
1	1,370,143
2	19,058
3	6,339
4	11,721
5	413
6	519

Table 4.6. Frequency of hhd for private households

HHD	Number	Percent
0	29	0.01
110	15,507	5.24
120	9,709	3.28
210	4,904	1.66
220	6,913	2.33
310	37,203	12.57
320	142,738	48.21
330	8,003	2.70
340	23,863	8.06
350	1,111	0.38
410	9,264	3.13
420	19,602	6.62
430	8,739	2.95
440	2,615	0.88
510	1,053	0.36
520	3,943	1.33
530	42	0.01
540	437	0.15
550	50	0.02
599	329	0.11
699	20	0.01
Total	296,074	100

Note: this table only shows the hhd's for the head of the household.

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Appendix A: Classification of relationship strings

During the transcription process the GSU made a number of revisions to the relationship to head of household field. These alterations impinge on the manner in which the relationship to head of household has been coded.

For the purposes of the GSU's data entry program every household had to have a head of household. If the original CEB contained a household (usually defined as being between a pair of double slashes) whose head was not defined as such that word should be added after the relationship as enumerated. e.g., a family which contained a woman and two children, where the woman was enumerated as being a 'wife' would become the head, i.e. WIFE (HEAD). A problem concerning consistency is compounded by the diligence of some enumerators. Consider a family containing a husband (temporarily absent) who lives with his wife and 20-year old son. One enumerator may have considered the son the head of household and enumerated him as such; another might consider the mother the head and enumerate her as such. Exactly how the *transcribers* would approach this problem is unclear. If it was necessary to establish a head they were told to use five pieces of information within the CEBs to assist them in their choices:

- schedule number;
- change of address;
- inhabited strokes;
- household strokes;
- family relationships

Note, however, it is impossible to check this process internally because schedule numbers as they appeared in the CEB were not included in the machine-readable version. Transcribers were instructed not to resolve unusual relationships, rather to give them as enumerated with clarifications written in single brackets. They were categorically instructed to leave the original as enumerated if there was any problem. There is evidence to suggest that this was not carried out consistently.

If any member of a household was enumerated *before* the head of household transcribers were instructed to leave it as the enumerator recorded it but adding a note saying that this had occurred.

If a household consisted of co-resident family groups and the CEBs gave correct relationships to the head of household (not head of family) the original was not to be altered, for example:

```
//    WILSON      GEORGE      HEAD
      WILSON      MARY        WIFE
      WILSON      JOHN        SON
/     JONES       ROBERT      SON IN LAW
      JONES       ALICE       DAUGHTER
      JONES       JAMES       GRANDSON
```

However, it is unclear precisely what would have happened if this family was enumerated as:

```
//    WILSON      GEORGE      HEAD
      WILSON      MARY        WIFE
      WILSON      JOHN        SON
/     JONES       ROBERT      SON IN LAW
      JONES       ALICE       WIFE
      JONES       JAMES       SON
```

What would happen? One of two possibilities could be expected. The first would have been to alter the relationships to those as stated in the first example; the second would be to make Robert Jones's relationship HEAD (SON IN LAW) and leave the other relationships as they are.

These problems are compounded when considering household inmates, i.e., lodgers and boarders.

Where distinct households contained only lodgers the first one listed, regardless of age or sex would have the relationship head added as the relationship to the head of household in brackets.
If a lodger or boarder was identified as such in the relationship column, and it was clear to the transcriber that s/he resided within that household, the additional head should not have been added, even if there was a single stroke in the CEB. It is unclear on what grounds this rule was applied, though surname and occupation are likely to give clues.

When lodgers or boarders were living with their own families and were given relationships to suggest this by the enumerator, the transcribers were instructed to ensure that one of the group should be identified as the head, for example:

```
//    WILLIAMS    ROBERT      HEAD
      WILLIAMS    ELIZ.       WIFE
      WILLIAMS    MARY        DAUR
/     SMITH       HENRY       LODGER (HEAD)
      SMITH       FANNY       WIFE
      SMITH       DAVID       SON
```

When lodgers or boarders were living with their own families and were not given relationships to suggest this by the enumerator, the transcribers were instructed not to make one of them the head of household. Note that transcribers were told to ignore the occupations or names of people only to use the information given in the relationship to head of household column.

```
//    WILLIAMS    ROBERT      HEAD        SHOPKEEPER
      WILLIAMS    ELIZ.       WIFE        SHOPKEEPER'S WIFE
      WILLIAMS    MARY        DAUR        SCHOLAR
/     SMITH       HENRY       LODGER      LABOURER
      SMITH       FANNY       LODGER      LABOURER'S WIFE
      SMITH       DAVID       LODGER      SCHOLAR
```

When relationships within families were given incorrectly to the head of household, transcribers were instructed to add the correct relationship within brackets:

```
//    JONES MARY        DAUR (HEAD)             18
      JONES JOHN        SON (BROTHER)     17
      JONES ALICE       DAUR (SISTER)           13
      JONES GEORGE      SON (BROTHER)     11
```

It is perhaps interesting to note that the GSU generally choose the eldest person, regardless of gender as head, rather than the eldest male, the latter probably being the chosen practice of most enumerators. Also, for example:

```
//    GREEN EDWARD      HEAD        55
      GREEN PHOEBE      WIFE              51
      JAMES ROBERT      SON IN LAW  25
      JAMES SUSAN       WIFE (DAUR)       25
      GREEN RICHARD     SON         20
```

The transcribers were instructed to transcribe the relationships as enumerated, however the evaluators were instructed not to alter obvious abbreviations. For example, if the CEB says 'Daughter' and it was transcribed as Daur, it will be found in the machine-readable version as DAUR. A single exception to this was the head of household: whatever was found in the CEBs the machine-readable version will contain HEAD. (It is on this basis that we believe that the contents of the HOUSESTD field were allocated to Self or otherwise.)

What these rules boil down to is the possibility that there are two possible relationships which can be used in the coding and reformatting program. Depending on the circumstances the different relationships will be used.

The basic principle on which relationships were coded are shown below in a revised version of the 'principles of classification' working document.

Revised coding principles for the relationship code for the 1881 census

There are three basic principles behind this coding scheme:

1) that the trailing digit of the code denotes the gender of the individual, as follows:

odd	male
even	female
zero	gender unknown

Thus a male head is 11, a female head 12 and a head of indeterminate gender 10. (The exception to this rule is those people whose relationship code ends in 199 which is a form used for an undetermined relation.)

2) The codes fall into a number of distinct ranges:

0–1999	residential kin
2000–2199	visitors
3000–3199	lodgers and their familial inmates
4000–4199	boarders and their familial inmates
5000–5199	institutional inmates and their familial inmates
6000–6199	servants and their familial inmates
9999	others

The residential kin codes are grouped reflecting the vertical and lateral relationships to the head of the household.

The codes for familial inmates and servants are applied on the same basis as the head's residential kin. For example:

Head	10
Wife [of head]	22
Son	31
Daughter	32
Lodger's Son	3032

There are two problems with the data as produced by the GSU regarding relationship information. These are allowed for with the third principle.

3) Wherever additional information has been added in the transcription phase an attempt is made to make it useable.

To account for these alterations and 'corrections' a second code has been added to assist in family and household analysis. The basic principle behind this code is to show the 'real' relationship to the head of the household. Thus the relationship 'Son (Head)' when found in the data is assumed to mean that this individual is the son of an absent head of household and for the purposes of the GSUs exercise this person has become the head of household. In this case the first code is 31 and the second code is 11 [male head].

This secondary information, in brackets, is, with two exceptions always coded in the second code position. The first exception refers to the possibility that the information in the brackets has the same meaning as that without the brackets or if the information without the brackets is not a relationship; the second concerns those that are only present in brackets, thus:

Wife (Head)	22	12
Son (in law)	31	35
Unm (Head)	10	-
Bro Wife (Sis in law)	156	-
(Wife)	22	-

A different principle is used to classify those who are related to inmates. Thus:

Boarder's son	4031	-
Boarder (son)	4000	31
Boarder son	4000	31

The last possibility has been altered to deal with problems which may occur when inmates (especially boarders) are also kin.

A single caveat must be made here. Based on the (potentially unwarranted) assumption that when visitors have a relationship they have that relationship to the head of household. Thus:

Visitor son	31	2000
Visitor (Son)	31	2000
Visitor's son	2031	-

Note that for analytical purposes, in the second group the second code can override the assumption that the person is the son to the head of household by making him a visitor. The third person can be ignored because its primary code is in the 2xxx group and there is no secondary code.

			note
Boarder and father in law	125	-	(1)
Boarder (father in law)	4000	125	
Boarder father in law	4000	125	(2)
Boarder's father in law	4125	-	
Father in law (boarder)	125	4000	
Father in law (boarders)	125	4000	(3)
Father in law and boarder	125	-	(4)
Father in law boarder	125	4000	(5)

Similarly:

Wife (Lodger)	22	3000
Wife (Lodgers)	22	3000

Notes:

(1) Kin takes precedence

(2) Treated as in brackets

(3) Not 4125 as per "addition rules"

(4) As per the first example

(5) Kin takes precedence, but the program will decide about the boarding status.

Note: also where the code is in the 5000–7000 range and there is additional information on kinship the default value is used, so the addition rule can be implemented, thus:

Domestic servant	6200	-
Domestic servant (son)	6000	31

Further (minor) rules:

- If only information in brackets it is coded in the first position.
- If the string has 'no relationship' followed by brackets then 'no relationship' is ignored.
- If the string repeats information then only one is coded.
- If brackets occur before other information then it is treated as after.
- If the string contains information on kin and on an adoptive relationship, kin takes precedence...
- but in other cases where potentially multiple kin the 'nearest' to the head is coded.

- When the gender of foster/adoptive children is not known they are classified to 'child'.
- When the gender of foster/adopted grand-children is not known they are classified to "grand-child".
- If children are defined as the issue of a previous marriage they are treated as exactly to the head of household, thus son by a former marriage is treated as a son, and son by spouses former marriage is a step son.
- For convenience son-in-laws wife etc. has been classified to daughter-in-law. Similarly, the -in-laws and steps of spouses are treated as though they are to the head of household. BUT step son's wife is also daughter in law.
- Visitors' servants are coded as visitors.
- Where the relationship is made up of two parts (specifically with an "and", e.g. "servant and daughter" the kin takes precedence. Note also when two "inmate" parts are linked, e.g., "lodger and apprentice" the order gives the code: in this case 3000. The second part is uncoded.
- The main residual group 6900 is used for those whose relationship is either an occupation or suggests that the person is occupied.

Examples:

(Head)	10	-
Spinster (Head)	10	-
Sister's son (Nephew)	41	-
(Wife) Head	10	22
Niece & adopted daur	42	-
Son-in-law & Cousin	36	-
Adopted child	30	-
Son of first wife	32	-
Wifes son	34	-
Wife and servant	22	-

Note: at present "nurse children" have been coded to boarders, but could be reallocated either to children, as they are sort-of foster children or to "institutional inmates" with foundlings/orphans.

Appendix B: Parish characteristics

Table B1 England

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
20	MID	MID	Marylebone	St Marylebone	26,759	12,261	14,498	26,674	12,223	14,451	0.32
30	MID	MID	Pancras	St Pancras	34,369	16,563	17,806	34,275	16,520	17,755	0.27
43	MID	MID	Strand	St Martin in the Fields	17,508	8,863	8,645	17,400	8,826	8,574	0.62
69	MID	MID	London City	St Botolph without Bishopsgate	4,905	2,355	2,550	4,903	2,352	2,551	0.04
88	MID	MID	London City	St Peter near Paul’s Wharf	19	8	11	19	8	11	-
91	MID	MID	London City	St Mary Magdalen Old Fish Street	224	178	46	224	178	46	-
123	MID	MID	London City	St Mildred Bread Street	21	7	14	21	7	14	-
142	MID	MID	London City	St Nicholas Acons	116	54	62	116	55	61	-
153	MID	MID	London City	St Magnus the Martyr	169	70	99	161	65	96	4.73
160	MID	MID	London City	St Olave Hart Street with St Nicholas in the Shambles	255	118	137	255	119	136	-
188	MID	MID	Bethnal Green	Bethnal Green	47,932	23,401	24,531	47,729	23,425	24,304	0.42
217	MID	MID	Poplar	Poplar	55,077	28,471	26,606	54,991	28,403	26,588	0.16
220	SUR	SUR	St Saviour, Southwark	St George the Martyr, Southwark	21,381	10,790	10,591	21,317	10,771	10,546	0.30
243	SUR	SUR	Wandsworth	Wandsworth	28,004	13,328	14,676	28,000	13,333	14,665	0.01
253	KEN	KEN	Greenwich	Greenwich	21,972	10,302	11,670	21,960	10,296	11,664	0.05
262	KEN	KEN	Woolwich	Kidbrooke	2,166	952	1,214	2,175	964	1,211	(0.42)
271	SUR	SUR	Epsom	Cuddington	549	169	380	549	170	379	-
287	SUR	SUR	Chertsey	Pyrford	343	177	166	342	176	166	0.29
295	SUR	SUR	Guildford	Send and Ripley	1,855	946	909	1,854	941	913	0.05
387	SUR	SUR	Croydon	Merton	2,480	1,278	1,202	2,496	1,282	1,214	(0.65)
403	SUR	SUR	Richmond	Kew	1,670	610	1,060	1,674	613	1,061	(0.24)
404	SUR	SUR	Richmond	Mortlake	6,330	3,009	3,321	6,334	3,020	3,314	(0.06)
421	KEN	KEN	Bromley	North Cray	635	282	353	635	282	353	-
435	KEN	KEN	Dartford	Lullingstone	73	32	41	73	32	41	-
440	KEN	KEN	Dartford	Fawkham	237	127	110	236	127	109	0.42
473	KEN	KEN	Medway	Grange	186	89	97	186	89	97	-
487	KEN	KEN	Malling	East Peckham	2,068	995	1,073	2,068	994	1,074	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
489	KEN	KEN	Malling	Mereworth	843	427	416	802	401	401	4.86
493	KEN	KEN	Malling	Trotterscliffe	296	153	143	296	153	143	-
505	KEN	KEN	Sevenoaks	Brasted	1,292	644	648	1,292	646	646	-
510	KEN	KEN	Sevenoaks	Chiddingstone	1,292	667	625	1,295	668	627	(0.23)
545	KEN	KEN	Hollingbourn	Stockbury	621	332	289	621	333	288	-
576	KEN	KEN	Tenterden	Ebony	177	95	82	177	95	82	-
577	KEN	KEN	Tenterden	Tenterden	3,511	1,671	1,840	3,511	1,670	1,841	-
588	KEN	KEN	West Ashford	Hothfield	323	148	175	323	148	175	-
631	KEN	KEN	Bridge	Patrixbourne	245	114	131	245	114	131	-
647	KEN	KEN	Canterbury	Canterbury St Mary Northgate	4,884	2,915	1,969	4,848	2,898	1,950	0.74
675	KEN	KEN	Blean	Reculver	298	139	159	298	140	158	-
708	KEN	KEN	Milton	Milstead aka Milsted	253	117	136	253	117	136	-
710	KEN	KEN	Milton	Tunstall	269	132	137	270	132	138	(0.37)
745	KEN	KEN	Eastry	Sandwich St Bartholomew's Hospital	54	12	42	54	12	42	-
752	KEN	KEN	Eastry	Northbourne	20	11	9	20	11	9	-
766	KEN	KEN	Eastry	Waldershare	8	6	2	8	6	2	-
775	KEN	KEN	Dover	Oxney	23	11	12	37	18	19	(60.87)
789	KEN	KEN	Dover	River	633	303	330	633	302	331	-
792	KEN	KEN	Dover	Lydden	203	113	90	203	113	90	-
819	KEN	KEN	Elham	Sellinge	649	340	309	649	339	310	-
821	KEN	KEN	Romney Marsh	West Hythe	138	73	65	139	73	66	(0.72)
826	KEN	KEN	Romney Marsh	Eastbridge	54	35	19	54	35	19	-
832	KEN	KEN	Romney Marsh	Lydd	2,128	1,228	901	2,134	1,235	899	(0.28)
874	SUS	SUS	Battle	Battle	3,319	1,671	1,648	3,320	1,679	1,641	(0.03)
875	SUS	SUS	Battle	Brightling	674	333	341	675	334	341	(0.15)
881	SUS	SUS	Eastbourne	Willingdon	1,243	649	594	1,242	649	593	0.08
908	SUS	SUS	Ticehurst	Bodiam	324	161	163	324	161	163	-
962	SUS	SUS	Lewes	Lewes St Thomas in the Cliffe	1,664	837	827	1,664	836	828	-
969	SUS	SUS	Lewes	Alciston	191	103	88	191	103	88	-
996	SUS	SUS	Steyning	Aldrington	144	66	78	144	69	75	-
1002	SUS	SUS	Steyning	Sompting	682	352	330	682	352	330	-
1045	SUS	SUS	Thakeham	Greatham	59	33	26	59	33	26	-
1068	SUS	SUS	East Preston	East Preston	420	223	197	420	223	197	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
1110	SUS	SUS	Westhampnett	Boxgrove	708	362	346	708	361	347	-
1136	SUS	SUS	Midhurst	Selham	49	22	27	49	22	27	-
1139	SUS	SUS	Midhurst	Cocking	574	306	268	575	306	269	(0.17)
1148	SUS	SUS	Midhurst	Linch	99	52	47	99	52	47	-
1169	SUS	SUS	Westbourne	Chidham	266	125	141	266	126	140	-
1170	SUS	SUS	Westbourne	West Thorney	131	66	65	131	66	65	-
1175	HAM	HAM	Havant	Havant	3,032	1,484	1,548	3,032	1,485	1,547	-
1207	HAM	HAM	Isle Of Wight	St Helens	4,343	2,004	2,339	4,341	2,004	2,337	0.05
1229	HAM	HAM	Lymington	Lymington	4,366	1,952	2,414	4,371	1,956	2,415	(0.11)
1286	HAM	HAM	Romsey	Romsey Infra	2,030	969	1,061	2,029	970	1,059	0.05
1379	HAM	HAM	Petersfield	Hawkley	302	163	139	302	163	139	-
1387	HAM	HAM	Alresford	West Tisted	175	96	79	175	97	78	-
1438	HAM	HAM	Hartley-Wintney	Winchfield	366	190	176	366	190	176	-
1440	HAM	HAM	Hartley-Wintney	Elvetham	469	241	228	469	241	228	-
1479	HAM	HAM	Basingstoke	Woodmancott	78	33	45	78	33	45	-
1492	HAM	HAM	Whitchurch	St Mary Bourne	1,078	568	510	1,086	573	513	(0.74)
1497	HAM	HAM	Andover	Wherwell	541	263	278	541	263	278	-
1536	BEK	BEK	Newbury	Wasing	80	28	52	80	28	52	-
1542	BEK	BEK	Newbury	Newbury	7,017	3,307	3,710	7,018	3,309	3,709	(0.01)
1543	BEK	BEK	Newbury	Sandleford Priory	34	12	22	34	12	22	-
1545	BEK	BEK	Newbury	Hampstead-Marshall	249	141	108	249	142	107	-
1555	BEK	BEK	Hungerford	Kintbury	1,683	853	830	1,693	852	841	(0.59)
1572	BEK	BEK	Hungerford	Lambourn	2,165	1,119	1,046	2,165	1,119	1,046	-
1628	BEK	BEK	Abingdon	South Hinksey	956	496	460	956	496	460	-
1637	OXF	BEK	Abingdon	Burcott (Oxon)	199	106	93	199	106	93	-
1661	BEK	BEK	Wantage	Farnborough	187	102	85	187	102	85	-
1683	BEK	BEK	Wallingford	Cholsey	1,735	841	894	1,735	842	893	-
1714	BEK	BEK	Bradfield	Stanford-Dingley	138	69	69	138	67	71	-
1757	BEK	BEK	Cookham	Waltham St Lawrence	853	412	441	851	411	440	0.23
1798	MID	MID	Uxbridge	Hayes	2,891	1,398	1,493	2,891	1,396	1,495	-
1839	HRT	HRT	Ware	Stanstead St Margaret	96	44	52	96	44	52	-
1842	HRT	HRT	Ware	Eastwick	95	50	45	95	50	45	-
1850	HRT	HRT	Bishop Stortford	Thorley	415	210	205	415	210	205	-
1866	HRT	HRT	Bishop Stortford	Braughing	1,022	529	493	1,023	532	491	(0.10)

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
1880	HRT	HRT	Royston	Westmill	361	184	177	361	184	177	-
1899	ESS	HRT	Royston	Great Chishall (Essex)	412	219	193	412	219	193	-
1913	CAM	HRT	Royston	Kneesworth (Cambs)	596	299	297	596	298	298	-
1923	HRT	HRT	Hitchin	Willian	266	135	131	266	135	131	-
1925	HRT	HRT	Hitchin	Graveley	380	172	208	382	173	209	(0.53)
1939	HRT	HRT	Hitchin	St Paul's Walden	1,020	509	511	1,020	508	512	-
1947	HRT	HRT	Hertford	Watton	809	392	417	810	393	417	(0.12)
1981	HRT	HRT	Watford	Sarratt	700	360	340	702	361	341	(0.29)
2011	BUK	BUK	Eton	Hedgerley Dean	204	96	108	204	96	108	-
2032	BUK	BUK	Wycombe	Wooburn	2,431	1,176	1,255	2,430	1,181	1,249	0.04
2033	BUK	BUK	Wycombe	Chipping Wycombe	8,320	4,109	4,211	8,322	3,995	4,327	(0.02)
2035	BUK	BUK	Wycombe	Little Marlow	976	514	462	976	514	462	-
2044	BUK	BUK	Wycombe	Hughenden	1,803	904	899	1,803	905	898	-
2047	BUK	BUK	Wycombe	Little Hampden	46	27	19	46	27	19	-
2088	BUK	BUK	Aylesbury	Cublington	259	127	132	259	127	132	-
2101	BUK	BUK	Winslow	North Marston	649	364	285	652	367	285	(0.46)
2116	BUK	BUK	Winslow	Tattenhoe	17	8	9	17	8	9	-
2148	BUK	BUK	Newport Pagnell	Newton-Blossomville	260	135	125	260	135	125	-
2161	BUK	BUK	Newport Pagnell	Gayhurst	91	41	50	91	41	50	-
2164	BUK	BUK	Newport Pagnell	Little Linford	69	27	42	69	27	42	-
2170	BUK	BUK	Buckingham	Foxcott aka Foscott	72	36	36	72	36	36	-
2211	OXF	OXF	Henley	Bix	427	218	209	427	218	209	-
2238	OXF	OXF	Thame	Sydenham	355	181	174	355	183	172	-
2315	OXF/BEK	OXF	Oxford	Oxford St Aldate	1,800	872	928	1,803	879	924	(0.17)
2345	OXF	OXF	Bicester	Somerton	344	169	175	344	166	178	-
2349	OXF	OXF	Bicester	Piddington	281	138	143	281	138	143	-
2400	OXF	OXF	Woodstock	Yarnton	279	140	139	279	139	140	-
2425	OXF	OXF	Witney	Crawley	160	79	81	160	79	81	-
2444	OXF	OXF	Witney	Taynton	323	160	163	323	160	163	-
2448	OXF/GLS	OXF	Witney	Broughton Poggs	143	77	66	143	77	66	-
2481	OXF	OXF	Chipping Norton	Little Tew	277	141	136	277	142	135	-
2495	OXF	OXF	Banbury	Broughton	158	67	91	158	67	91	-
2520	WAR	OXF	Banbury	Warmington (Warwick)	388	200	188	388	200	188	-
2571	NTH	NTH	Towcester	Plumpton	30	16	14	30	16	14	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
2573	NTH	NTH	Towcester	Woodend	231	108	123	231	108	123	-
2596	NTH	NTH	Potterspury	Ashton	324	159	165	324	160	164	-
2609	NTH	NTH	Hardingstone	Great Houghton	330	173	157	330	174	156	-
2612	NTH	NTH	Hardingstone	Piddington	508	273	235	508	273	235	-
2617	NTH	NTH	Hardingstone	Roade	720	360	360	720	360	360	-
2648	NTH	NTH	Daventry	Farthingstone	309	159	150	309	159	150	-
2679	NTH	NTH	Brixworth	Teeton	85	46	39	85	46	39	-
2689	NTH	NTH	Brixworth	Moulton	1,483	749	734	1,483	749	734	-
2744	NTH	NTH	Kettering	Orton	68	32	36	68	32	36	-
2747	NTH	NTH	Kettering	Rushton	495	233	262	487	230	257	1.62
2776	NTH	NTH	Thrapston	Great Addington	316	170	146	316	171	145	-
2782	NTH	NTH	Thrapston	Chelveston cum Caldecott	423	217	206	422	218	204	0.24
2793	NTH/HUN	NTH	Oundle	Thurning	186	96	90	186	95	91	-
2801	NTH	NTH	Oundle	Pilton	123	56	67	123	55	68	-
2821	NTH	NTH	Oundle	Glapthorn	367	196	171	367	196	171	-
2823	NTH	NTH	Oundle	Tansor	252	117	135	252	117	135	-
2829	HUN	NTH	Peterborough	Chesterton (Hunts)	172	78	94	172	78	94	-
2836	HUN	NTH	Peterborough	Glatton (Hunts)	249	126	123	249	127	122	-
2839	HUN	NTH	Peterborough	Yaxley (Hunts)	1,355	681	674	1,354	682	672	0.07
2841	HUN	NTH	Peterborough	Orton Longville (Hunts)	261	117	144	259	119	140	0.77
2870	HUN	HUN	Huntingdon	Upwood	339	158	181	339	158	181	-
2908	HUN	HUN	St Ives	Pidley cum Fenton	448	226	222	448	226	222	-
2916	CAM	HUN	St Ives	Conington (Cambs)	145	73	72	145	73	72	-
2920	HUN	HUN	St Ives	Houghton	510	237	273	510	237	273	-
2975	BED	BED	Bedford	Stevington aka Steventon	624	328	296	625	328	297	(0.16)
2980	BED	BED	Bedford	Bromham	327	161	166	327	161	166	-
2997	BED	BED	Bedford	Willington	248	117	131	248	117	131	-
3047	BED	BED	Ampthill	Steppingley	313	158	155	313	158	155	-
3099	CAM	CAM	Caxton	Gamlingay	1,925	938	987	1,925	941	984	-
3113	CAM	CAM	Caxton	Arrington	243	130	113	243	130	113	-
3117	CAM	CAM	Caxton	Great Eversden	269	132	137	269	132	137	-
3127	CAM	CAM	Chesterton	Oakington	461	232	229	449	224	225	2.60
3128	CAM	CAM	Chesterton	Westwick	84	43	41	96	51	45	(14.29)
3147	CAM	CAM	Chesterton	Great Shelford	972	441	531	965	435	530	0.72

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3149	CAM	CAM	Chesterton	Hauxton	232	122	110	263	137	126	(13.36)
3153	CAM	CAM	Chesterton	Harleton aka Harlton	312	166	146	311	167	144	0.32
3189	CAM	CAM	Cambridge	Cambridge St Clement	765	334	431	765	335	430	-
3192	CAM	CAM	Cambridge	Cambridge St Peter	576	293	283	552	283	269	4.17
3208	ESS	CAM	Linton	Hadstock (Essex)	446	236	210	446	236	210	-
3218	CAM	CAM	Newmarket	Burrough-Green	404	188	216	403	185	218	0.25
3219	CAM	CAM	Newmarket	Dullingham	835	419	416	835	416	419	-
3224	CAM	CAM	Newmarket	Newmarket All Saints	1,364	668	696	1,365	664	701	(0.07)
3230	CAM	CAM	Newmarket	Swaffham Prior	265	134	131	283	146	137	(6.79)
3276	CAM	CAM	North Witchford	March	6,190	3,030	3,160	6,190	3,028	3,161	-
3282	CAM	CAM	Wisbech	Wisbech St Mary	2,124	1,074	1,050	2,123	1,074	1,049	0.05
3324	ESS	ESS	Ongar	Little Laver	110	45	65	110	45	65	-
3330	ESS	ESS	Ongar	Willingale-Spain	207	106	101	207	106	101	-
3337	ESS	ESS	Ongar	Blackmore	571	304	267	571	304	267	-
3339	ESS	ESS	Ongar	Kelvedon-Hatch	375	199	176	375	198	177	-
3354	ESS	ESS	Romford	Rainham	1,253	668	585	1,254	668	586	(0.08)
3406	ESS	ESS	Chelmsford	East Hanningfield	404	194	210	404	194	210	-
3465	ESS	ESS	Maldon	Althorne	319	159	160	321	160	161	(0.63)
3469	ESS	ESS	Maldon	Asheldham	167	87	80	167	87	80	-
3499	ESS	ESS	Tendring	St Osyth	1,405	736	669	1,403	736	667	0.14
3508	ESS	ESS	Tendring	Weeley	603	312	291	604	311	293	(0.17)
3517	ESS	ESS	Tendring	Wrabness	225	112	113	225	112	113	-
3568	ESS	ESS	Lexden	Little Tey	67	29	38	67	29	38	-
3570	ESS	ESS	Lexden	Inworth	637	341	296	639	341	298	(0.31)
3582	ESS	ESS	Lexden	Langham	670	335	335	672	339	333	(0.30)
3601	ESS	ESS	Braintree	Wethersfield	1,453	705	748	1,454	706	748	(0.07)
3616	ESS	ESS	Braintree	Hatfield-Peverel	1,244	623	621	1,244	623	621	-
3632	ESS	ESS	Dunmow	Little Dunmow	338	158	180	338	158	180	-
3636	ESS	ESS	Dunmow	Takeley	824	433	391	825	433	392	(0.12)
3649	ESS	ESS	Dunmow	Little Bardfield	346	176	170	346	176	170	-
3663	ESS	ESS	Saffron Walden	Great Chesterford	913	462	451	913	462	451	-
3683	SUF	SUF	Risbridge	Withersfield	575	292	283	575	292	283	-
3687	SUF	SUF	Risbridge	Great Bradley	359	187	172	359	187	172	-
3710	ESS	SUF	Sudbury	Twinstead (Essex)	200	95	105	201	96	105	(0.50)

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3734	SUF	SUF	Sudbury	Alpheton	249	123	126	249	125	124	-
3745	SUF	SUF	Sudbury	Shimpling	491	239	252	491	239	252	-
3795	SUF	SUF	Thingoe	Great Saxham	239	116	123	239	116	123	-
3822	SUF	SUF	Thingoe	Great Barton	819	403	416	819	404	415	-
3874	SUF	SUF	Hartismere	Wetheringsett cum Brockford	1,034	536	498	1,034	536	498	-
3928	SUF	SUF	Hoxne	Monk Soham	400	212	188	400	212	188	-
3933	SUF	SUF	Bosmere	Winston	297	147	150	297	149	148	-
3951	SUF	SUF	Bosmere	Creeting All Saints	300	150	150	300	150	150	-
3976	SUF	SUF	Samford	Raydon	524	279	245	525	277	248	(0.19)
3989	SUF	SUF	Samford	Freston	274	137	137	274	137	137	-
3993	SUF	SUF	Samford	Wherstead	264	123	141	264	122	142	-
3997	SUF	SUF	Ipswich	Ipswich St Mary at the Elms	1,111	525	586	1,110	524	586	0.09
4001	SUF	SUF	Ipswich	Ipswich St Mary at the Quay	948	420	528	951	421	530	(0.32)
4016	SUF	SUF	Woodbridge	Grundisburgh	813	422	391	812	420	392	0.12
4027	SUF	SUF	Woodbridge	Boulge	64	29	35	64	29	35	-
4030	SUF	SUF	Woodbridge	Dallinghoo	301	157	144	300	156	144	0.33
4062	SUF	SUF	Plomesgate	Cretingham	303	164	139	303	164	139	-
4066	SUF	SUF	Plomesgate	Kettleburgh	290	151	139	289	152	137	0.34
4067	SUF	SUF	Plomesgate	Framlingham	2,518	1,257	1,261	2,516	1,253	1,263	0.08
4081	SUF	SUF	Plomesgate	Butley	383	199	184	382	198	184	0.26
4090	SUF	SUF	Plomesgate	Snape	508	264	244	508	264	244	-
4116	SUF	SUF	Blything	Bramfield	628	318	310	627	317	310	0.16
4147	SUF	SUF	Blything	Wrentham	980	442	538	980	442	538	-
4171	SUF	SUF	Wangford	Shadingfield	164	90	74	164	90	74	-
4175	SUF	SUF	Wangford	Weston	265	130	135	265	130	135	-
4191	SUF	SUF	Mutford	Blundeston	714	362	352	714	362	352	-
4193	SUF	SUF	Mutford	Herringfleet	224	100	124	223	99	124	0.45
4208	NFK	NFK	Flegg	Thrigby	92	41	51	92	41	51	-
4213	NFK	NFK	Flegg	Winterton	790	399	391	790	399	391	-
4214	NFK	NFK	Flegg	East Somerton	47	22	25	47	22	25	-
4218	NFK	NFK	Flegg	Burgh St Margaret and St Mary aka Flegg Burgh	553	281	272	553	281	272	-
4236	NFK	NFK	Smallburgh	Ashmanhaugh	162	75	87	162	75	87	-

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4249	NFK	NFK	Smallburgh	Hempstead with Eccles	173	85	88	173	85	88	-
4251	NFK	NFK	Smallburgh	Brumstead	122	61	61	123	62	61	(0.82)
4370	NFK	NFK	St Faith's	Weston-Longville	404	202	202	406	203	203	(0.50)
4390	NFK	NFK	Norwich	Norwich St Clement	5,199	2,492	2,707	5,201	2,493	2,708	(0.04)
4391	NFK	NFK	Norwich	Norwich St Martin at Oak	2,745	1,329	1,416	2,722	1,317	1,405	0.84
4429	NFK	NFK	Norwich	Norwich St Swithin	774	364	410	773	364	409	0.13
4452	NFK	NFK	Forehoe	Deopham	424	219	205	424	219	205	-
4471	NFK	NFK	Henstead	Dunston	73	41	32	73	41	32	-
4481	NFK	NFK	Henstead	Earl Framingham	139	61	78	142	61	81	(2.16)
4491	NFK	NFK	Henstead	Whitlingham	70	43	27	70	43	27	-
4496	NFK	NFK	Blofield	Little Plumstead	329	172	157	329	172	157	-
4502	NFK	NFK	Blofield	Buckenham	113	59	54	113	59	54	-
4508	NFK	NFK	Blofield	Woodbastwick	210	106	104	211	107	104	(0.48)
4521	NFK	NFK	Blofield	Southwood	44	18	26	44	18	26	-
4522	NFK	NFK	Blofield	Cantley	266	134	132	266	136	130	-
4544	NFK	NFK	Loddon	Hardley	243	131	112	243	131	112	-
4548	NFK	NFK	Loddon	Ashby	200	97	103	200	97	103	-
4585	NFK	NFK	Depwade	Tivetshall St Margaret	339	171	168	339	171	168	-
4588	NFK	NFK	Depwade	Hardwick	197	89	108	197	89	108	-
4602	NFK	NFK	Depwade	Hapton	195	101	94	195	101	94	-
4610	NFK	NFK	Guiltcross	New Buckenham	548	257	291	550	260	290	(0.36)
4620	NFK	NFK	Guiltcross	Garboldisham	641	327	314	640	327	313	0.16
4628	NFK	NFK	Guiltcross	Eccles	208	99	109	208	99	109	-
4630	NFK	NFK	Wayland	Hargham	70	39	31	70	39	31	-
4646	NFK	NFK	Wayland	Caston	544	274	270	544	274	270	-
4651	NFK	NFK	Wayland	Watton	1,407	659	748	1,408	663	745	(0.07)
4656	NFK	NFK	Mitford	South Burgh	322	164	158	323	165	158	(0.31)
4683	NFK	NFK	Mitford	Wendling	361	180	181	361	180	181	-
4733	NFK	NFK	Walsingham	Stibbard	458	232	226	458	234	224	-
4734	NFK	NFK	Walsingham	Fulmodestone cum Croxton	361	189	172	361	191	170	-
4774	NFK	NFK	Docking	Burnham-Sutton cum Burnham-Ulph	319	164	155	319	163	156	-
4829	NFK	NFK	Freebridge Lynn	Setchey	118	58	60	118	58	60	-
4861	NFK	NFK	Downham	Crimplesham	293	165	128	295	166	129	(0.68)
4922	NFK	NFK	Thetford	Weeting All Saints	333	159	174	333	159	174	-

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4951	WIL	WIL	Highworth	Hannington	304	148	156	304	148	156	-
4975	WIL	WIL	Cricklade	Latton	263	119	144	263	119	144	-
5039	WIL	WIL	Calne	Heddington	357	181	176	357	181	176	-
5054	WIL	WIL	Marlborough	Mildenhall	454	220	234	454	220	234	-
5055	WIL	WIL	Marlborough	Marlborough St Mary	1,845	908	937	1,821	895	926	1.30
5146	WIL	WIL	Pewsey	Uphaven aka Upavon	484	240	244	485	241	244	(0.21)
5230	WIL	WIL	Wilton	Little Langford	82	40	42	82	39	43	-
5237	WIL	WIL	Wilton	Barford St Martin	468	220	248	469	222	247	(0.21)
5290	DOR	DOR	Shaftesbury	Margaret Marsh	68	33	35	68	33	35	-
5293	DOR	DOR	Shaftesbury	West Stower	165	71	94	165	72	93	-
5308	DOR	DOR	Sturminster	Hanford	56	26	30	56	26	30	-
5331	DOR	DOR	Blandford	Charlton-Marshall	652	338	314	652	337	315	-
5404	DOR	DOR	Wareham	Bloxworth	261	129	132	261	129	132	-
5406	DOR	DOR	Wareham	Turners-Puddle	119	66	53	122	67	55	(2.52)
5413	DOR	DOR	Weymouth	Osmington	380	196	184	381	197	184	(0.26)
5418	DOR	DOR	Weymouth	Buckland-Ripers	154	78	76	154	78	76	-
5474	DOR	DOR	Dorchester	Melbury-Bubb	147	82	65	147	82	65	-
5484	DOR	DOR	Dorchester	Melcombe-Horsey	183	96	87	182	96	86	0.55
5501	DOR	DOR	Sherborne	Ryme Intrinsica	203	95	108	203	96	107	-
5502	DOR	DOR	Sherborne	Beerhackett	83	38	45	83	38	45	-
5537	DOR	DOR	Beaminster	Bettiscombe	63	28	35	63	28	35	-
5540	DOR	DOR	Beaminster	Netherbury	1,584	748	836	1,584	749	835	-
5544	DOR	DOR	Beaminster	Hook	154	72	82	154	72	82	-
5548	DOR	DOR	Bridport	Askerswell	209	93	116	209	93	116	-
5574	DOR	DEV	Axminster	Chardstock (Dorset)	1,328	704	624	1,325	703	622	0.23
5606	DEV	DEV	Honiton	Ottery St Mary	3,973	1,881	2,092	3,973	1,885	2,088	-
5634	DEV	DEV	St Thomas	Pinhoe	541	252	289	541	252	289	-
5655	DEV	DEV	St Thomas	Doddiscombsleigh	256	122	134	256	123	133	-
5718	DEV	DEV	Newton Abbot	Haccombe	14	5	9	12	5	7	14.29
5723	DEV	DEV	Newton Abbot	St Mary Church	5,970	2,548	3,422	5,966	2,555	3,411	0.07
5733	DEV	DEV	Totnes	Dartmouth St Saviour	2,340	1,062	1,278	2,437	1,102	1,335	(4.15)
5740	DEV	DEV	Totnes	Dartington	632	312	320	633	313	320	(0.16)
5762	DEV	DEV	Kingsbridge	East Portlemouth	302	147	155	302	147	155	-
5843	DEV	DEV	Okehampton	Meeth	232	122	110	233	123	110	(0.43)

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5854	DEV	DEV	Okehampton	Gidleigh	124	68	56	124	68	56	-
5858	DEV	DEV	Okehampton	North Tawton	1,868	890	978	1,868	889	979	-
5869	DEV	DEV	Crediton	Washford-Pyne	157	81	76	157	81	76	-
5873	DEV	DEV	Crediton	Lapford	641	329	312	593	302	291	7.49
5891	DEV	DEV	Crediton	Stockleigh English	65	37	28	65	37	28	-
5896	DEV	DEV	Tiverton	Cadbury	265	128	137	265	128	137	-
5914	DEV	DEV	Tiverton	Stoodleigh	440	230	210	440	230	210	-
5920	DEV	DEV	Tiverton	Clayhanger	239	124	115	239	124	115	-
5940	DEV	DEV	South Molton	Romansleigh	149	81	68	148	80	68	0.67
5957	DEV	DEV	Barnstaple	Brendon	245	135	110	246	135	111	(0.41)
5966	DEV	DEV	Barnstaple	Loxhore	211	107	104	211	107	104	-
5980	DEV	DEV	Barnstaple	Ashford	162	72	90	162	72	90	-
6007	DEV	DEV	Torrington	Langtree	735	374	361	735	373	362	-
6041	DEV	DEV	Holsworthy	Bradford	377	187	190	377	187	190	-
6045	DEV	DEV	Holsworthy	Luffincott	62	30	32	62	31	31	-
6064	CON	CON	Camelford	St Juliot	224	107	117	224	108	116	-
6123	CON	CON	Liskeard	Liskeard Old Municipal Borough	4,053	1,805	2,248	4,051	1,812	2,239	0.05
6129	CON	CON	Liskeard	Morval	664	315	349	676	328	348	(1.81)
6149	CON	CON	Bodmin	St Mabyn	694	323	371	694	324	370	-
6207	CON	CON	Truro	St Agnes	4,630	2,053	2,577	4,627	2,050	2,577	0.06
6261	CON	CON	Penzance	St Michael’s Mount	84	37	47	82	37	45	2.38
6278	SOM	SOM	Williton	Selworthy	410	203	207	410	204	206	-
6343	DEV	SOM	Wellington	Hemyock (Devon)	898	453	445	898	453	445	-
6348	SOM	SOM	Taunton	Trull	960	537	423	961	539	422	(0.10)
6353	SOM	SOM	Taunton	Staple-Fitzpaine	188	94	94	188	94	94	-
6390	SOM	SOM	Bridgwater	Edstock and Beer	23	12	11	25	19	6	(8.70)
6432	SOM	SOM	Langport	Babcary	322	162	160	322	162	160	-
6435	SOM	SOM	Langport	Kingsdon	353	156	197	353	156	197	-
6443	SOM	SOM	Langport	Kingsbury-Episcopi	1,514	732	782	1,514	732	782	-
6460	SOM	SOM	Chard	Seavington St Mary	304	143	161	304	143	161	-
6461	SOM	SOM	Chard	White Lackington	284	130	154	284	130	154	-
6495	SOM	SOM	Yeovil	Closworth	121	60	61	121	60	61	-
6522	SOM	SOM	Yeovil	Ashington	58	31	27	58	31	27	-
6544	SOM	SOM	Wincanton	Stowell	110	53	57	94	46	48	14.55

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6552	SOM	SOM	Wincanton	Charlton-Musgrove	409	205	204	409	205	204	-
6555	SOM	SOM	Wincanton	Wincanton	2,410	1,126	1,284	2,410	1,127	1,283	-
6576	SOM	SOM	Frome	Frome	11,181	5,156	6,025	11,180	5,155	6,025	0.01
6603	SOM	SOM	Shepton Mallet	Stoke Lane	677	342	335	673	342	331	0.59
6644	SOM	SOM	Axbridge	Weare	650	303	347	650	303	347	-
6649	SOM	SOM	Axbridge	Burnham	3,645	1,785	1,860	3,646	1,787	1,859	(0.03)
6682	SOM	SOM	Clutton	Compton-Martin	415	203	212	415	204	211	-
6706	SOM	SOM	Clutton	Midsomer-Norton	4,422	2,349	2,073	4,421	2,356	2,065	0.02
6743	SOM	SOM	Keynsham	Corston	385	190	195	385	190	195	-
6803	GLS	GLS	Barton Regis	Filton	296	154	142	297	155	142	(0.34)
6831	GLS	GLS	Thornbury	Almondsbury	2,188	1,111	1,077	2,188	1,112	1,076	-
6850	GLS	GLS	Thornbury	Charfield	553	253	300	553	253	300	-
6856	GLS	GLS	Dursley	Coaley	735	377	358	735	377	358	-
6940	GLS	GLS	Wheatenhurst	Standish	489	236	253	494	237	257	(1.02)
6941	GLS	GLS	Wheatenhurst	Moreton-Valence	339	154	185	339	154	185	-
6997	WIL	GLS	Cirencester	Somerford Keynes (Wilts)	322	164	158	322	163	159	-
7000	GLS	GLS	Cirencester	Siddington	481	245	236	481	245	236	-
7018	GLS	GLS	Northleach	East Leach-Martin	146	74	72	146	76	70	-
7032	GLS	GLS	Northleach	Chedworth	816	443	373	824	444	380	(0.98)
7046	GLS	GLS	Stow on the Wold	Clapton	133	65	68	134	65	69	(0.75)
7056	GLS	GLS	Stow on the Wold	Wick Rissington	170	92	78	170	92	78	-
7085	GLS	GLS	Winchcomb	Stanway	307	154	153	307	154	153	-
7139	WOR	HEF	Ledbury	Mathon (Worcs)	1,104	554	550	1,104	556	548	-
7140	HEF	HEF	Ledbury	Colwall	1,438	729	709	1,485	755	730	(3.27)
7180	GLS	HEF	Ross	Lea Bailey (Gloucs)	279	132	147	279	132	147	-
7187	HEF	HEF	Ross	Llanwarne	374	194	180	374	194	180	-
7190	HEF	HEF	Ross	Ballingham	149	77	72	148	76	72	0.67
7194	HEF	HEF	Hereford	Little Birch	282	146	136	282	146	136	-
7227	HEF	HEF	Hereford	Credenhill	244	123	121	244	124	120	-
7230	HEF	HEF	Hereford	Pipe cum Lyde	234	112	122	235	113	122	(0.43)
7262	HEF	HEF	Hereford	Walterstone	144	80	64	144	79	65	-
7263	HEF	HEF	Hereford	Longtown	739	384	355	739	383	356	-
7313	HEF	HEF	Bromyard	Stanford Bishop	173	106	67	173	106	67	-
7368	RAD	HEF	Kington	Trewern and Gwythla (Radnor)	105	57	48	105	57	48	-

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7373	RAD	HEF	Kington	Walton and Womaston (Radnor)	186	87	99	186	87	99	-
7377	RAD	HEF	Kington	Upper Harpton (Radnor)	105	59	46	105	59	46	-
7390	HEF	HEF	Kington	Upper Kinsham	64	35	29	70	39	31	(9.38)
7392	HEF	HEF	Kington	Lingen	293	160	133	293	160	133	-
7417	SHR	SHR	Ludlow	Tugford	110	59	51	110	59	51	-
7423	SHR	SHR	Ludlow	Halford	247	126	121	247	126	121	-
7504	SHR	SHR	Bridgnorth	Romsley	107	61	46	111	63	48	(3.74)
7506	SHR	SHR	Bridgnorth	Worfield	1,749	872	877	1,749	876	873	-
7542	SHR	SHR	Atcham	Acton Burnell	237	122	115	244	124	120	(2.95)
7561	MNT	SHR	Atcham	Criggion (Montgomery)	162	83	79	162	84	78	-
7612	SHR	SHR	Ellesmere	Baschurch	1,426	707	719	1,426	707	719	-
7615	SHR	SHR	Ellesmere	Petton	38	22	16	37	22	15	2.63
7618	SHR	SHR	Wem	Broughton	204	112	92	204	112	92	-
7680	SHR	SHR	Newport	Edgmond	939	463	476	939	462	477	-
7684	SHR	SHR	Newport	Tibberton	392	194	198	392	195	197	-
7723	STA	STA	Stone	Chebsey	467	221	246	454	218	236	2.78
7751	STA	STA	Leek	Tittesworth	1,517	690	827	1,513	693	820	0.26
7781	STA	STA	Cheadle	Dilhorne	1,637	801	836	1,634	801	833	0.18
7787	STA	STA	Uttoxeter	Rocester	1,220	558	662	1,219	558	661	0.08
7812	DBY	STA	Burton upon Trent	Osleston and Thurvaston (Derby)	335	158	177	337	160	177	(0.60)
7815	DBY	STA	Burton upon Trent	Marston upon Dove (Derby)	108	53	55	124	62	62	(14.81)
7821	DBY	STA	Burton upon Trent	Willington (Derby)	515	262	253	515	262	253	-
7871	WAR	STA	Tamworth	Tamworth Castle (Warwick)	357	170	187	347	178	169	2.80
7895	STA	STA	Lichfield	Farewell and Chorley	218	112	106	218	112	106	-
7903	STA	STA	Lichfield	Lichfield Pipehill	173	75	98	172	74	98	0.58
7949	STA/SHR	STA	Wolverhampton	Bobbington	404	206	198	404	206	198	-
7973	STA	STA	West Bromwich	Handsworth	24,251	10,856	13,395	24,248	10,862	13,386	0.01
7976	WOR	STA	West Bromwich	Oldbury (Worcs)	18,306	9,231	9,075	18,283	9,238	9,045	0.13
7985	WOR	WOR	Stourbridge	Cradley	5,284	2,624	2,660	5,281	2,624	2,657	0.06
8017	SHR	WOR	Tenbury	Boraston (Salop)	293	144	149	277	131	146	5.46
8024	WOR	WOR	Tenbury	Little Kyre	128	64	64	128	64	64	-
8043	WOR	WOR	Martley	Great Witley	380	191	189	380	191	189	-
8045	WOR	WOR	Martley	Areley Kings	677	328	349	677	328	349	-
8060	WOR	WOR	Martley	Knightwick	143	77	66	141	76	65	1.40

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8067	WOR	WOR	Worcester	Worcester Whistones	2,976	1,382	1,594	2,977	1,389	1,587	(0.03)
8072	WOR	WOR	Worcester	Worcester College Precincts	100	33	67	100	33	67	-
8090	WOR	WOR	Upton on Severn	Holdfast	77	40	37	73	38	35	5.19
8100	GLS	WOR	Evesham	Hinton on the Green (Gloucs)	180	99	81	180	99	81	-
8117	WOR	WOR	Evesham	Aldington	135	70	65	146	75	71	(8.15)
8122	GLS	WOR	Evesham	Cow Honeybourne (Gloucs)	367	192	175	366	191	175	0.27
8149	WOR	WOR	Pershore	Stoulton	370	171	199	370	172	198	-
8184	WOR	WOR	Droitwich	Westwood Park	14	7	7	14	7	7	-
8213	WOR	WOR	Kings Norton	Beoley	603	310	293	604	309	295	(0.17)
8229	WAR	WAR	Aston	Sutton Coldfield	7,737	3,590	4,147	7,735	3,595	4,140	0.03
8244	WAR	WAR	Meriden	Allesley	968	488	480	967	487	480	0.10
8300	WAR	WAR	Rugby	Brownsover	90	49	41	90	49	41	-
8331	WAR	WAR	Solihull	Knowle	1,514	730	784	1,512	730	782	0.13
8332	WAR	WAR	Solihull	Balsall	1,151	562	589	1,151	563	588	-
8334	WAR	WAR	Solihull	Baddesley Clinton	134	55	79	134	55	79	-
8364	WAR	WAR	Warwick	Leek Wootton	403	206	197	403	206	197	-
8380	WAR	WAR	Stratford on Avon	Loxley	322	168	154	322	168	154	-
8384	WAR	WAR	Stratford on Avon	Charlecote	260	125	135	260	125	135	-
8390	WAR	WAR	Stratford on Avon	Whitchurch	205	110	95	205	110	95	-
8419	WAR	WAR	Alcester	Aston Cantlow	1,099	600	499	1,104	605	499	(0.45)
8456	WAR	WAR	Shipston on Stour	Sutton under Brailes	183	99	84	183	99	84	-
8457	WAR	WAR	Shipston on Stour	Brailes	1,131	583	548	1,131	584	547	-
8487	WAR	WAR	Southam	Priors Marston	576	300	276	576	301	275	-
8523	LEC	LEC	Lutterworth	South Kilworth	423	219	204	423	219	204	-
8525	LEC	LEC	Lutterworth	Kimcote	393	203	190	371	183	188	5.60
8537	LEC	LEC	Market Harborough	Mowsley	208	105	103	208	105	103	-
8543	NTH	LEC	Market Harborough	Marston-Trussell (Northampton)	206	104	102	206	104	102	-
8565	LEC	LEC	Market Harborough	Kibworth-Harcourt	450	234	216	450	233	217	-
8580	LEC	LEC	Billesdon	Tugby	344	182	162	344	182	162	-
8600	LEC	LEC	Billesdon	Bushby	56	30	26	56	30	26	-
8606	LEC	LEC	Billesdon	Carlton-Curliew	69	26	43	69	26	43	-
8609	LEC	LEC	Billesdon	Glenn Magna	854	397	457	857	397	460	(0.35)
8638	LEC	LEC	Blaby	Leicester Forest West	48	21	27	63	30	33	(31.25)
8655	LEC	LEC	Hinckley	Elmsthorpe	34	18	16	34	18	16	-

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8668	LEC	LEC	Market Bosworth	Carlton	274	142	132	273	142	131	0.36
8676	LEC	LEC	Market Bosworth	Shackerstone	288	148	140	280	145	135	2.78
8689	LEC	LEC	Ashby-de-la-Zouch	Normanton-le-Heath	162	77	85	162	77	85	-
8706	LEC	LEC	Ashby-de-la-Zouch	Osgathorpe	304	146	158	304	146	158	-
8728	NTT	LEC	Loughborough	Sutton-Bonnington (Nottingham)	1,005	483	522	1,006	483	523	(0.10)
8773	LEC	LEC	Barrow upon Soar	South Croxton	251	122	129	251	122	129	-
8801	LEC	LEC	Melton-Mowbray	Pickwell	249	126	123	249	126	123	-
8804	LEC	LEC	Melton-Mowbray	Melton-Mowbray	5,820	2,940	2,880	5,818	2,947	2,871	0.03
8807	LEC	LEC	Melton-Mowbray	Asfordby	539	280	259	539	284	255	-
8827	LEC	LEC	Melton-Mowbray	Abkettleby	230	99	131	229	99	130	0.43
8829	LEC	LEC	Melton-Mowbray	Wyfordby	104	40	64	104	39	65	-
8848	RUT	RUT	Oakham	Market Overton	388	193	195	388	194	194	-
8850	RUT	RUT	Oakham	Stretton	196	102	94	196	102	94	-
8853	RUT	RUT	Oakham	Barrow	120	65	55	120	62	58	-
8871	RUT	RUT	Oakham	Ashwell	245	113	132	239	113	126	2.45
8896	LEC	RUT	Uppingham	Easton Magna (Leicester)	540	242	298	540	242	298	-
8920	LIN	LIN	Stamford	Stamford St George	2,092	1,012	1,080	2,092	1,010	1,082	-
8989	LIN	LIN	Spalding	Quadring	900	458	442	900	459	441	-
8992	LIN	LIN	Spalding	Cowbit	595	305	290	593	304	289	0.34
8998	LIN	LIN	Spalding	Deeping St Nicholas	637	348	289	636	349	287	0.16
9043	LIN	LIN	Boston	Skirbeck	2,550	1,126	1,424	2,557	1,129	1,428	(0.27)
9085	LIN	LIN	Sleaford	New Sleaford	3,955	1,938	2,017	3,955	1,944	2,011	-
9092	LIN	LIN	Sleaford	Dembleby	72	35	37	73	36	37	(1.39)
9123	LIN	LIN	Grantham	Pickworth	227	117	110	227	117	110	-
9143	LIN	LIN	Grantham	Skillington	393	200	193	393	201	192	-
9146	LIN	LIN	Grantham	North Stoke	156	70	86	156	70	86	-
9199	LIN	LIN	Lincoln	Doddington	156	86	70	156	86	70	-
9254	LIN	LIN	Lincoln	Barlings	469	228	241	468	228	240	0.21
9259	LIN	LIN	Lincoln	Cold Hanworth	89	52	37	89	52	37	-
9299	LIN	LIN	Horncastle	Woodhall	278	130	148	278	132	146	-
9305	LIN	LIN	Horncastle	Hemingby	402	202	200	402	203	199	-
9388	LIN	LIN	Spilsby	Burgh in the Marsh	1,136	559	577	1,138	561	577	(0.18)
9396	LIN	LIN	Spilsby	Anderby	279	139	140	279	139	140	-
9397	LIN	LIN	Spilsby	Huttoft	597	314	283	598	316	282	(0.17)

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9402	LIN	LIN	Spilsby	Farlsthorpe	104	55	49	104	55	49	-
9484	LIN	LIN	Louth	Saltfleetby St Clement	133	73	60	132	72	60	0.75
9510	LIN	LIN	Caistor	Ashby with Fenby	264	132	132	264	132	132	-
9514	LIN	LIN	Caistor	West Ravendale	57	27	30	57	27	30	-
9530	LIN	LIN	Caistor	Riby	273	143	130	273	144	129	-
9578	LIN	LIN	Caistor	Waddingham	715	365	350	715	365	350	-
9595	LIN	LIN	Glanford Brigg	Kirmington	401	206	195	401	205	196	-
9602	LIN	LIN	Glanford Brigg	West Halton	266	135	131	292	145	147	(9.77)
9604	LIN	LIN	Glanford Brigg	Whitton	201	101	100	191	95	96	4.98
9617	LIN	LIN	Glanford Brigg	Messingham	1,132	572	560	1,132	572	560	-
9653	NTT	LIN	Gainsborough	Beckingham (Nottingham)	448	207	241	448	207	241	-
9662	LIN	LIN	Gainsborough	Springthorpe	214	112	102	214	112	102	-
9669	LIN	LIN	Gainsborough	Normanby and Stowe	361	183	178	361	183	178	-
9684	NTT	NTT	East Retford	Everton with Harwell	654	357	297	654	358	296	-
9691	NTT	NTT	East Retford	South Wheatley	37	19	18	37	19	18	-
9698	NTT	NTT	East Retford	Clarborough	2,946	1,497	1,449	2,944	1,496	1,448	0.07
9708	NTT	NTT	East Retford	Headon with Upton	224	119	105	235	120	115	(4.91)
9709	NTT	NTT	East Retford	Grove	126	61	65	115	60	55	8.73
9713	NTT	NTT	East Retford	Ordsall	3,011	1,425	1,586	3,007	1,423	1,584	0.13
9773	DBY	NTT	Mansfield	Blackwell (Derby)	2,195	1,184	1,011	2,196	1,185	1,011	(0.05)
9778	NTT	NTT	Mansfield	Skegby	2,401	1,291	1,110	2,400	1,291	1,109	0.04
9780	NTT	NTT	Mansfield	Mansfield	13,653	6,583	7,070	13,611	6,568	7,042	0.31
9782	NTT	NTT	Mansfield	Haywood Oaks	33	19	14	44	25	19	(33.33)
9800	NTT	NTT	Basford	Bilborough	199	99	100	199	100	99	-
9802	NTT	NTT	Basford	Nuthall	1,466	767	699	1,466	767	699	-
9825	NTT	NTT	Basford	Barton in Fabis	276	145	131	276	145	131	-
9854	NTT	NTT	Southwell	Thorpe	90	49	41	90	49	41	-
9866	NTT	NTT	Southwell	Halam	290	142	148	290	142	148	-
9886	NTT	NTT	Southwell	Walesby	282	143	139	282	143	139	-
9891	NTT	NTT	Southwell	Weston	348	172	176	348	172	176	-
9905	NTT	NTT	Southwell	Bathley	169	85	84	169	85	84	-
9916	NTT	NTT	Newark	Thorney	162	90	72	162	90	72	-
9935	NTT	NTT	Newark	Farndon	698	345	353	698	345	353	-
9991	NTT	NTT	Bingham	Plumtree	378	192	186	390	202	188	(3.17)

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10006	LEC	DBY	Shardlow	Hemington (Leicester)	380	193	187	375	189	186	1.32
10016	DBY	DBY	Shardlow	Sinfin Moor	24	16	8	24	16	8	-
10058	DBY	DBY	Belper	Allestree	586	285	301	584	284	300	0.34
10087	DBY	DBY	Belper	Ashleyhay	218	107	111	218	107	111	-
10096	DBY	DBY	Ashborne	Hollington	225	116	109	225	116	109	-
10118	DBY	DBY	Ashborne	Edlaston	208	101	107	208	101	107	-
10127	DBY	DBY	Ashborne	Mappleton	196	83	113	196	83	113	-
10147	DBY	DBY	Ashborne	Carsington	231	111	120	231	114	117	-
10151	DBY	DBY	Ashborne	Hopton	123	69	54	123	71	52	-
10213	DBY	DBY	Bakewell	Stanton	762	377	385	761	378	383	0.13
10217	DBY	DBY	Bakewell	Elton	516	251	265	516	251	265	-
10323	CHS	CHS	Macclesfield	Lower Withington	582	295	287	582	295	287	-
10331	CHS	CHS	Altrincham	Fulshaw	1,187	508	679	1,187	509	678	-
10362	CHS	CHS	Altrincham	Toft	173	89	84	175	91	84	(1.16)
10385	CHS	CHS	Runcorn	Daresbury	139	73	66	139	73	66	-
10397	CHS	CHS	Runcorn	Clifton aka Rocksavage	203	115	88	203	114	89	-
10401	CHS	CHS	Runcorn	Alvanley	321	169	152	328	174	154	(2.18)
10417	CHS	CHS	Northwich	Barnton	1,538	814	724	1,539	816	723	(0.07)
10433	CHS	CHS	Northwich	Anderton	343	189	154	343	189	154	-
10469	CHS	CHS	Congleton	Cranage	442	227	215	441	227	214	0.23
10475	CHS	CHS	Congleton	Brereton cum Smethwick	613	324	289	613	325	288	-
10511	CHS	CHS	Nantwich	Stapeley	602	293	309	602	294	308	-
10526	CHS	CHS	Nantwich	Baddington	147	74	73	146	73	73	0.68
10533	CHS	CHS	Nantwich	Hurleston	124	64	60	125	64	61	(0.81)
10536	CHS	CHS	Nantwich	Cholmondeston	187	93	94	187	93	94	-
10540	CHS	CHS	Nantwich	Alvaston	57	23	34	57	23	34	-
10606	CHS	CHS	Chester	Golbourn-Bellow	82	45	37	82	45	37	-
10616	CHS	CHS	Chester	Kelsall	638	315	323	639	315	324	(0.16)
10619	CHS	CHS	Chester	Horton with Peele	40	22	18	40	22	18	-
10666	CHS	CHS	Chester	Mickle Trafford	244	118	126	244	118	126	-
10681	CHS	CHS	Chester	Woodbank	59	27	32	59	27	32	-
10695	CHS	CHS	Wirral	Ness	376	192	184	376	192	184	-
10697	CHS	CHS	Wirral	Great Neston	2,119	981	1,138	2,132	986	1,146	(0.61)
10705	CHS	CHS	Wirral	Whitby	1,488	796	692	1,488	795	693	-

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10708	CHS	CHS	Wirral	Childer-Thornton	621	304	317	621	304	317	-
10713	CHS	CHS	Wirral	Poulton cum Spittle	399	184	215	399	184	215	-
10722	CHS	CHS	Wirral	Pensby	30	13	17	30	13	17	-
10754	LAN	LAN	West Derby	Kirkdale	58,145	29,679	28,466	58,023	29,570	28,453	0.21
10763	LAN	LAN	West Derby	Lunt	104	51	53	104	51	53	-
10785	LAN	LAN	Prescot	Ditton	1,412	766	646	1,414	768	646	(0.14)
10789	LAN	LAN	Prescot	Whiston	2,705	1,418	1,287	2,686	1,408	1,278	0.70
10790	LAN	LAN	Prescot	Prescot	5,546	2,808	2,738	5,546	2,809	2,737	-
10803	LAN	LAN	Ormskirk	Halsall	1,368	719	649	1,369	720	649	(0.07)
10830	LAN	LAN	Wigan	Winstanley	545	282	263	545	282	263	-
10860	LAN	LAN	Leigh	Pennington	6,640	3,201	3,439	6,643	3,197	3,446	(0.05)
10863	LAN	LAN	Leigh	Tyldesley with Shackerley	9,954	4,990	4,964	9,954	4,996	4,958	-
10872	LAN	LAN	Bolton	Halliwell	12,551	5,957	6,594	12,555	5,959	6,596	(0.03)
10901	LAN	LAN	Bury	Ashworth	142	73	69	142	73	69	-
10903	LAN	LAN	Bury	Heap	15,890	7,312	8,578	16,764	7,722	9,042	(5.50)
10935	LAN	LAN	Chorlton	Didsbury	4,601	2,024	2,577	4,600	2,024	2,576	0.02
10961	LAN	LAN	Prestwich	Harpurhey	4,810	2,288	2,522	4,802	2,288	2,514	0.17
10974	CHS	LAN	Ashton under Lyne	Dukinfield (Cheshire)	29,675	13,802	15,873	29,681	13,791	15,889	(0.02)
10981	CHS	LAN	Ashton under Lyne	Stayley (Cheshire)	7,363	3,424	3,939	7,363	3,431	3,932	-
10990	LAN	LAN	Oldham	Royton	10,582	5,034	5,548	10,581	5,046	5,535	0.01
11012	LAN	LAN	Burnley	Cliviger	1,952	1,007	945	1,952	1,009	943	-
11038	YKW	LAN	Clitheroe	Rimmington (York WR)	381	193	188	383	193	190	(0.52)
11063	LAN	LAN	Clitheroe	Worston	62	29	33	62	29	33	-
11064	LAN	LAN	Clitheroe	Mearley	30	17	13	30	17	13	-
11068	LAN	LAN	Clitheroe	Wiswall	737	391	346	737	391	346	-
11071	YKW	LAN	Clitheroe	Great Mitton (York WR)	171	91	80	171	91	80	-
11077	LAN	LAN	Blackburn	Great Harwood	6,287	3,085	3,202	6,242	3,054	3,188	0.72
11086	LAN	LAN	Blackburn	Church	4,850	2,337	2,513	4,850	2,338	2,512	-
11088	LAN	LAN	Blackburn	Yate and Pickup Bank	682	336	346	682	334	348	-
11111	LAN	LAN	Chorley	Heapey	369	174	195	369	175	194	-
11121	LAN	LAN	Chorley	Ulnes-Walton	386	196	190	386	196	190	-
11143	LAN	LAN	Preston	Alston	1,589	737	852	1,595	741	854	(0.38)
11156	LAN	LAN	Fylde	Freckleton	1,134	511	623	1,134	511	623	-
11157	LAN	LAN	Fylde	Warton	408	196	212	400	189	211	1.96

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11176	LAN	LAN	Fylde	Great and Little Singleton	357	183	174	356	183	173	0.28
11181	LAN	LAN	Garstang	Out Rawcliffe	815	464	351	815	464	351	-
11183	LAN	LAN	Garstang	Great Eccleston	628	300	328	628	301	327	-
11186	LAN	LAN	Garstang	Bilsborrow	197	104	93	197	103	94	-
11208	LAN	LAN	Lancaster	Heaton with Oxcliffe	136	78	58	136	78	58	-
11216	LAN	LAN	Lancaster	Slyne with Hest	301	136	165	303	136	167	(0.66)
11229	LAN	LAN	Lunesdale	Hornby	358	176	182	358	177	181	-
11242	LAN	LAN	Lunesdale	Gressingham	152	75	77	152	74	78	-
11246	LAN	LAN	Ulverston	Upper Allithwaite	713	361	352	732	377	355	(2.66)
11248	LAN	LAN	Ulverston	Staveley	426	206	220	410	199	211	3.76
11252	LAN	LAN	Ulverston	Upper Holker	849	415	434	817	397	420	3.77
11273	LAN	LAN	Ulverston	Torver	202	100	102	202	101	101	-
11321	YKW	YKW	Skipton	Coniston-Cold	337	150	187	337	150	187	-
11333	YKW	YKW	Skipton	Glusburn	1,629	759	870	1,629	759	870	-
11341	YKW	YKW	Skipton	Stirton with Thorlby	157	86	71	157	86	71	-
11388	YKW	YKW	Ripon	Clotherholme	12	6	6	12	6	6	-
11430	YKN	YKW	Great Ouseburn	Ellenthorpe (York NR)	68	34	34	87	39	48	(27.94)
11443	YKN	YKW	Great Ouseburn	Tollerton (York NR)	512	234	278	512	234	278	-
11457	YKW	YKW	Great Ouseburn	Clareton	15	8	7	15	8	7	-
11477	YKW	YKW	Knaresborough	Ferrensby	117	64	53	117	64	53	-
11510	YKW	YKW	Wetherby	Walton	194	98	96	194	98	96	-
11518	YKW	YKW	Wetherby	Thorner	938	444	494	937	442	495	0.11
11533	YKW	YKW	Wharfedale	Castley	87	42	45	87	42	45	-
11545	YKW	YKW	Wharfedale	Middleton	151	70	81	151	70	81	-
11557	YKW	YKW	Wharfedale	Baildon	5,430	2,638	2,792	5,430	2,637	2,793	-
11608	YKW	YKW	Huddersfield	Longwood	4,661	2,294	2,367	4,662	2,291	2,371	(0.02)
11612	YKW	YKW	Halifax	Rastrick	8,039	3,861	4,178	8,003	3,847	4,156	0.45
11616	YKW	YKW	Halifax	Southowram	8,813	4,276	4,537	8,816	4,279	4,537	(0.03)
11659	YKW	YKW	Hunslet	Middleton	1,134	571	563	1,132	573	559	0.18
11661	YKW	YKW	Holbeck	Beeston	2,928	1,429	1,499	2,928	1,430	1,498	-
11663	YKW	YKW	Bramley	Bramley	11,055	5,378	5,677	11,055	5,379	5,676	-
11666	YKW	YKW	Bramley	Wortley	23,530	11,784	11,746	23,505	11,779	11,725	0.11
11684	YKW	YKW	Dewsbury	Ossett with Gawthorpe	10,957	5,232	5,725	10,954	5,243	5,711	0.03
11725	YKW	YKW	Pontefract	Hensall	358	183	175	358	183	175	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
11748	YKW	YKW	Hemsworth	West Hardwick	56	29	27	56	29	27	-
11766	YKW	YKW	Hemsworth	South Elmsall	526	270	256	527	273	254	(0.19)
11772	YKW	YKW	Barnsley	Roystone	1,128	629	499	1,128	627	501	-
11779	YKW	YKW	Barnsley	Monk Bretton	2,918	1,549	1,369	2,918	1,554	1,364	-
11782	YKW	YKW	Barnsley	Darfield	2,616	1,389	1,227	2,617	1,391	1,226	(0.04)
11832	YKW	YKW	Rotherham	Rotherham	16,257	8,117	8,140	16,248	8,122	8,126	0.06
11844	YKW	YKW	Rotherham	Bramley	401	199	202	396	197	199	1.25
11849	YKW	YKW	Doncaster	Tickhill	1,830	891	939	1,846	898	948	(0.87)
11871	YKW	YKW	Doncaster	Barmbrough	472	232	240	472	233	239	-
11879	YKW	YKW	Doncaster	Adwick-le-Street	268	131	137	257	127	130	4.10
11885	YKW	YKW	Doncaster	Campsall	306	156	150	306	156	150	-
11891	YKW	YKW	Doncaster	Kirk Sandall	240	127	113	240	127	113	-
11900	YKW/NTT	YKW	Doncaster	Awkley	278	150	128	279	151	128	(0.36)
11927	YKW	YKW	Goole	Hook	6,364	3,079	3,285	6,362	3,079	3,283	0.03
11957	YKE	YKW	Selby	Cliff cum Lund (York ER)	641	311	330	641	312	329	-
11961	YKW	YKW	Tadcaster	Aberford	653	288	365	653	288	365	-
11977	YKW	YKW	Tadcaster	Lead Hall	33	20	13	33	20	13	-
12046	YKE	YKE	York	St Crux	822	407	415	821	407	414	0.12
12111	YKE	YKE	Pocklington	Pocklington	2,733	1,347	1,386	2,733	1,349	1,384	-
12120	YKE	YKE	Pocklington	Nunburnholme	248	137	111	247	136	111	0.40
12152	YKE	YKE	Howden	Knedlington	93	44	49	72	37	35	22.58
12153	YKE	YKE	Howden	Howden	2,198	1,076	1,122	2,203	1,082	1,121	(0.23)
12207	YKE	YKE	Beverley	Beswick	247	139	108	247	139	108	-
12211	YKE	YKE	Beverley	Scorborough	66	35	31	66	35	31	-
12227	YKE	YKE	Sculcoates	West Ella	123	61	62	113	46	67	8.13
12233	YKE	YKE	Sculcoates	Marfleet	183	86	97	185	87	98	(1.09)
12241	YKE	YKE	Hull	Kingston upon Hull Holy Trinity and St Mary	67,470	33,136	34,334	67,427	33,103	34,324	0.06
12251	YKE	YKE	Patrington	Welwick	341	176	165	341	176	165	-
12298	YKE	YKE	Skirlaugh	Great Hatfield	151	76	75	143	75	68	5.30
12349	YKE	YKE	Driffield	Weaverthorpe	643	330	313	644	333	311	(0.16)
12371	YKE	YKE	Bridlington	Bridlington	6,642	2,955	3,687	6,630	2,953	3,677	0.18
12383	YKE	YKE	Bridlington	Wold-Newton	310	158	152	311	159	152	(0.32)

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
12388	YKE	YKN	Scarborough	Muston (York ER)	395	185	210	395	185	210	-
12448	YKE	YKN	Malton	Birdsall (York ER)	321	178	143	321	178	143	-
12494	YKN	YKN	Easingwold	Bransby with Stearsby	300	162	138	300	162	138	-
12515	YKN	YKN	Easingwold	Angram Grange	27	16	11	27	16	11	-
12544	YKN	YKN	Thirsk	Hood Grange	9	6	3	9	6	3	-
12546	YKN	YKN	Thirsk	Feliskirk	113	53	60	113	53	60	-
12561	YKN	YKN	Helmsley	Arden with Ardenside	122	63	59	122	64	58	-
12563	YKN	YKN	Helmsley	Morton	27	21	6	25	19	6	7.41
12584	YKN	YKN	Helmsley	Cawton	67	33	34	67	33	34	-
12599	YKN	YKN	Helmsley	Wombleton	294	155	139	294	154	140	-
12642	YKN	YKN	Whitby	Egton	1,266	675	591	1,266	675	591	-
12645	YKN	YKN	Whitby	Ugglebarnby	390	191	199	389	191	198	0.26
12648	YKN	YKN	Whitby	Fylingdales	1,448	664	784	1,443	664	779	0.35
12649	YKN	YKN	Whitby	Whitby	8,820	4,448	4,372	8,820	4,448	4,372	-
12652	YKN	YKN	Whitby	Aislaby	337	157	180	337	157	180	-
12690	YKN	YKN	Middlesbrough	Marton	1,057	493	564	1,057	493	564	-
12698	YKN	YKN	Middlesbrough	Stainton	337	158	179	337	158	179	-
12719	YKN	YKN	Stokesley	Hilton	135	62	73	135	62	73	-
12730	YKN	YKN	Stokesley	East Rounton	166	77	89	167	77	90	(0.60)
12774	YKN	YKN	Northallerton	Little Langton	96	45	51	96	45	51	-
12786	YKN	YKN	Bedale	Crakehall	484	234	250	485	234	251	(0.21)
12800	YKN	YKN	Bedale	Thirn	126	57	69	126	57	69	-
12852	YKN	YKN	Aysgarth	Bainbridge	683	342	341	683	342	341	-
12900	YKN	YKN	Richmond	Newsham	275	145	130	275	145	130	-
12904	YKN	YKN	Richmond	Aldbrough	400	192	208	400	192	208	-
12958	DUR	DUR	Stockton	Preston upon Tees	163	68	95	159	66	93	2.45
13046	DUR	DUR	Teesdale	Morton Tinmouth	31	12	19	31	12	19	-
13051	DUR	DUR	Teesdale	Winston	334	165	169	334	165	169	-
13053	YKN	DUR	Teesdale	Ovington (York NR)	150	67	83	150	67	83	-
13057	YKN	DUR	Teesdale	Scargill (York NR)	106	60	46	106	60	46	-
13084	DUR	DUR	Weardale	Edmondbyers	352	176	176	352	176	176	-
13098	DUR	DUR	Lanchester	Langley	143	83	60	128	73	55	10.49
13160	DUR	DUR	Houghton-le-Spring	Warden-Law	96	48	48	96	48	48	-
13176	DUR	DUR	Chester-le-Street	Plawsworth	942	504	438	942	503	439	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
13188	DUR	DUR	Sunderland	Ford	2,631	1,372	1,259	2,594	1,338	1,256	1.41
13212	DUR	DUR	Gateshead	Chopwell	1,614	841	773	1,614	848	766	-
13215	DUR	DUR	Gateshead	Ryton	3,036	1,465	1,571	3,029	1,462	1,567	0.23
13216	DUR	DUR	Gateshead	Stella	743	386	357	745	386	359	(0.27)
13275	NTM	NTM	Castle Ward	Coxlodge	3,297	1,527	1,770	3,294	1,529	1,765	0.09
13292	NTM	NTM	Castle Ward	Shaftoe East	20	10	10	20	10	10	-
13302	NTM	NTM	Castle Ward	Matfen West	309	148	161	309	148	161	-
13315	NTM	NTM	Castle Ward	Whorlton East and West	82	35	47	82	36	46	-
13359	NTM	NTM	Hexham	Stelling	47	21	26	47	21	26	-
13392	NTM	NTM	Hexham	Acomb West	1,056	530	526	1,055	530	525	0.09
13395	NTM	NTM	Hexham	Cocklaw	180	94	86	182	94	88	(1.11)
13445	NTM	NTM	Bellingham	Sweethope	8	4	4	8	3	5	-
13462	NTM	NTM	Morpeth	Whitridge	4	2	2	4	2	2	-
13494	NTM	NTM	Morpeth	Molesden	41	21	20	41	21	20	-
13562	NTM	NTM	Alnwick	Abberwick	109	52	57	109	52	57	-
13656	NTM	NTM	Glendale	Newton West	56	28	28	56	28	28	-
13697	NTM	NTM	Rothbury	Screnwood	25	12	13	25	12	13	-
13701	NTM	NTM	Rothbury	Ryle Little	41	22	19	41	22	19	-
13710	NTM	NTM	Rothbury	Snitter	139	67	72	139	67	72	-
13735	NTM	NTM	Rothbury	Nunny Kirk	40	18	22	40	18	22	-
13737	NTM	NTM	Rothbury	Ewesley	19	9	10	19	9	10	-
13742	NTM	NTM	Rothbury	Hartington	57	32	25	57	32	25	-
13743	NTM	NTM	Rothbury	Hartington Hall	26	11	15	26	11	15	-
13750	NTM	NTM	Rothbury	Hepple Demesne	44	20	24	44	20	24	-
13779	CUL	CUL	Penrith	Plumpton Wall	345	182	163	345	184	161	-
13821	CUL	CUL	Brampton	Waterhead	238	113	125	238	113	125	-
13831	CUL	CUL	Longtown	Nichol Forest	627	328	299	627	328	299	-
13856	CUL	CUL	Carlisle	Burgh by Sands	862	385	477	812	362	450	5.80
13872	CUL	CUL	Wigton	Abbey Holme	938	468	470	940	470	470	(0.21)
13876	CUL	CUL	Wigton	Bromfield	378	192	186	379	193	186	(0.26)
13877	CUL	CUL	Wigton	Langrigg and Mealrigg	277	138	139	277	138	139	-
13878	CUL	CUL	Wigton	West Newton and Allonby	868	408	460	869	412	457	(0.12)
13879	CUL	CUL	Wigton	Hayton and Mealo	295	158	137	295	158	137	-
13886	CUL	CUL	Wigton	Westward	1,044	530	514	1,044	531	513	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
13933	CUL	CUL	Cockermouth	Tallentire	217	104	113	217	106	111	-
13964	CUL	CUL	Whitehaven	Gosforth	1,227	587	640	1,227	587	640	-
13997	WES	WES	East Ward	Nateby	175	92	83	175	92	83	-
13999	WES	WES	East Ward	Mallerstang	271	153	118	271	153	118	-
14002	WES	WES	East Ward	Soulby	275	126	149	276	126	150	(0.36)
14004	WES	WES	East Ward	Crosby Garrett	224	114	110	224	114	110	-
14022	WES	WES	West Ward	Morland	371	173	198	371	173	198	-
14027	WES	WES	West Ward	Askham	513	255	258	513	255	258	-
14039	WES	WES	Kendal	Ambleside	1,989	907	1,082	1,990	910	1,080	(0.05)
14064	WES	WES	Kendal	Killington	248	129	119	248	128	120	-
14071	WES	WES	Kendal	Hutton Roof	295	156	139	295	156	139	-
14098	MNM	MNM	Chepstow	Llanvihangel near Roggiett	38	20	18	38	20	18	-
14101	MNM	MNM	Chepstow	Caerwent	400	190	210	400	190	210	-
14103	MNM	MNM	Chepstow	Dinham	44	23	21	44	23	21	-
14107	MNM	MNM	Chepstow	Newchurch East	389	202	187	403	208	195	(3.60)
14134	GLS	MNM	Monmouth	Newland (Gloucs)	4,812	2,435	2,377	4,811	2,436	2,375	0.02
14153	MNM	MNM	Monmouth	Rockfield	227	118	109	225	118	107	0.88
14157	MNM	MNM	Monmouth	Mitchel-Troy	339	169	170	339	169	170	-
14169	MNM	MNM	Abergavenny	Bryngwyn	294	149	145	294	149	145	-
14183	MNM	MNM	Abergavenny	Lower Cwmyoy	231	120	111	231	120	111	-
14208	MNM	MNM	Pontypool	Llangibby	485	250	235	486	250	236	(0.21)
14229	MNM	MNM	Newport	Redwick	260	133	127	260	133	127	-
14234	MNM	MNM	Newport	Llangstone	174	86	88	174	86	88	-
16002	CHS	CHS	Wirral	Great Meolse	402	205	197	402	205	197	-

Table B1 Wales

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
14098	MNM	MNM	Chepstow	Llanvihangel near Roggiett	38	20	18	38	20	18	-
14101	MNM	MNM	Chepstow	Caerwent	400	190	210	400	190	210	-
14103	MNM	MNM	Chepstow	Dinham	44	23	21	44	23	21	-
14107	MNM	MNM	Chepstow	Newchurch East	389	202	187	403	208	195	(3.60)
14134	GLS	MNM	Monmouth	Newland (Gloucs)	4,812	2,435	2,377	4,811	2,436	2,375	0.02
14153	MNM	MNM	Monmouth	Rockfield	227	118	109	225	118	107	0.88
14157	MNM	MNM	Monmouth	Mitchel-Troy	339	169	170	339	169	170	-
14169	MNM	MNM	Abergavenny	Bryngwyn	294	149	145	294	149	145	-
14183	MNM	MNM	Abergavenny	Lower Cwmyoy	231	120	111	231	120	111	-
14208	MNM	MNM	Pontypool	Llangibby	485	250	235	486	250	236	(0.21)
14229	MNM	MNM	Newport	Redwick	260	133	127	260	133	127	-
14234	MNM	MNM	Newport	Llangstone	174	86	88	174	86	88	-
14260	GLA	MNM	Newport	Rhydgwern (Glamorgan)	248	128	120	243	124	119	2.02
14262	GLA	GLA	Cardiff	Llanedarn	285	159	126	251	137	110	11.93
14297	GLA	GLA	Cardiff	Penmark	480	240	240	480	240	240	-
14300	GLA	GLA	Cardiff	Bonvilston	225	108	117	182	86	96	19.11
14301	GLA	GLA	Cardiff	Welsh St Donats	215	100	115	215	100	115	-
14346	GLA	GLA	Bridgend	Llanmaes	147	76	71	148	76	72	(0.68)
14357	GLA	GLA	Bridgend	Stembridge	7	4	3	7	4	3	-
14387	GLA	GLA	Neath	Lower Neath	261	137	124	261	138	123	-
14402	GLA	GLA	Pontardawe	Killybebill	1940	960	980	1940	959	981	-
14414	GLA	GLA	Swansea	Lower Llansamlet	4606	2358	2248	4606	2359	2247	-
14428	GLA	GLA	Gower	Rhoscilly	332	183	149	332	183	149	-
14465	CHH	CHH	Llandilofawr	Quarter Bach	1475	733	742	1474	734	740	0.07
14484	CHH	CHH	Carmarthen	Llanfihangel-Abercowin	814	382	432	814	383	431	-
14496	CHH	CHH	Carmarthen	Treleach-ar-Bettws	1330	654	676	1329	653	676	0.08
14512	PEM	PEM	Narberth	Clarbeston	153	79	74	153	79	74	-
14538	PEM	PEM	Narberth	Slebech	363	174	189	363	174	189	-
14541	PEM	PEM	Narberth	Martletwy	374	170	204	374	171	203	-

					Published			Sample			
ID	Ancient County	Reg. County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
14552	PEM	PEM	Pembroke	Tenby St Mary Out-Liberty	198	104	94	176	82	94	11.11
14564	PEM	PEM	Pembroke	Cosheston	566	271	295	565	273	292	0.18
14566	PEM	PEM	Pembroke	Pembroke St Mary	11869	6069	5800	11937	6143	5794	(0.57)
14618	PEM	PEM	Haverfordwest	Whitchurch by Haverfordwest	829	368	461	828	367	461	0.12
14646	PEM	CGN	Cardigan	Dinas (Pembroke)	786	306	480	786	305	481	-
14651	PEM	CGN	Cardigan	Eglwyswrw (Pembroke)	452	213	239	451	212	239	0.22
14662	CGN	CGN	Cardigan	Llangoedmore	882	386	496	882	384	498	-
14666	CGN	CGN	Cardigan	Blaenporth	680	274	406	680	274	406	-
14726	CGN	CGN	Aberystwith	Llanilar	833	376	457	832	375	457	0.12
14757	CGN	CGN	Tregaron	Yspytty-Ystrad-Meiric	178	90	88	178	90	88	-
14765	CGN	CGN	Tregaron	Llanio	140	68	72	140	68	72	-
14778	BRE	BRE	Builth	Llanlleonvel	169	81	88	147	72	75	13.02
14834	BRE	BRE	Brecknock	Llanthetty	502	243	259	502	243	259	-
14836	BRE	BRE	Brecknock	Llanhamlach	280	133	147	280	133	147	-
14945	MNT	MNT	Newtown	Tregynon	708	389	319	708	389	319	-
14956	SHR	MNT	Forden	Brompton and Rhiston (Salop)	164	89	75	164	90	74	-
14987	MNT	MNT	Llanfyllin	Guilsfield	2430	1259	1171	2427	1255	1172	0.12
15002	FLN	FLN	Holywell	Holywell	9963	4967	4996	9943	4946	4997	0.20
15043	DBG	DBG	Wrexham	Minera	1490	786	704	1492	785	707	(0.13)
15073	FLN	DBG	St Asaph	Bodfary (Flint)	452	240	212	452	240	212	-
15076	FLN	DBG	St Asaph	Dyserth (Flint)	966	505	461	964	505	459	0.21
15078	FLN	DBG	St Asaph	Rhuddlan (Flint)	7426	3192	4234	7443	3208	4235	(0.23)
15091	DBG	DBG	Llanrwst	Llanddoget	238	123	115	238	123	115	-
15104	DBG	DBG	Llanrwst	Trebrys	156	87	69	156	86	70	-
15120	DBG	MER	Corwen	Llansaintffraid-Glyn-Ceiriog (Denbigh)	750	402	348	749	403	346	0.13
15124	MER	MER	Bala	Llanycil	2874	1503	1371	2873	1503	1370	0.03
15188	CAE	CAE	Carnarvon	Clynnog	1615	818	797	1615	821	794	-
15195	CAE	CAE	Carnarvon	Llanddeiniolen	6886	3537	3349	6900	3550	3350	(0.20)
15199	AGY	CAE	Carnarvon	Llangeinwen (Anglesey)	947	457	490	949	459	490	(0.21)
15275	AGY	AGY	Anglesey	Llanbadrig	1061	497	564	1058	495	563	0.28
15285	AGY	AGY	Anglesey	Llanfaethly	381	197	184	381	197	184	-
15287	AGY	AGY	Anglesey	Llanfachreth	513	252	261	513	252	261	-

15294	AGY	AGY	Anglesey	Rhoscolyn	442	224	218	442	225	217	-

Table B3 Scotland

				Published			Sample			
ID	County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
18020	OKI	Orkney	Lady	945	449	496	941	447	494	0.42
18025	OKI	Orkney	Shapinshay	974	475	499	974	476	498	-
18030	OKI	Orkney	Westray and Papa Westray	2545	1228	1317	2542	1224	1318	0.12
18036	CAI	Caithness	Olrig	2002	949	1053	1983	938	1045	0.95
18123	INV	Inverness	Strath	2616	1286	1330	2613	1287	1326	0.11
18129	NAI	Nairn	Dyke and Moy	18	12	6	18	12	6	-
18175	BAN	Banff	Keith	6163	2928	3235	6391	3033	3355	(3.70)
18240	ABD	Aberdeen	Lonmay	2393	1161	1232	2393	1162	1231	-
18261	ABD	Aberdeen	Strathdon	1316	630	686	1316	631	685	-
18267	ABD	Aberdeen	Tullynessle and Forbes	981	525	456	978	522	456	0.31
18287	KCD	Kincardine	Maryculter	1072	559	513	1066	558	508	0.56
18312	ANS	Forfar	Farnell	613	302	311	613	302	311	-
18318	ANS	Forfar	Inverarity	862	463	399	862	465	397	-
18320	ANS	Forfar	Kettins	848	438	410	848	438	410	-
18340	ANS	Forfar	Oatlaw	440	227	213	437	224	213	0.68
18357	PER	Perth	Balquhidder	627	313	314	626	313	313	0.16
18366	PER	Perth	Collace	409	198	211	409	198	211	-
18383	PER	Perth	Fowlis-Wester	1112	560	552	1113	562	551	(0.09)
18385	PER	Perth	Inchture	650	338	312	650	338	312	-
18395	PER	Perth	Kippen	457	229	228	465	237	228	(1.75)
18426	PER	Perth	Trinity-Gask	396	203	193	396	203	193	-
18436	FIF	Fife	Auchterderran	4332	2279	2053	4329	2279	2050	0.07
18443	FIF	Fife	Cameron	1003	511	492	1003	511	492	-
18450	FIF	Fife	Cults	704	349	355	704	348	356	-

18454	FIF	Fife	Dunbog	219	105	114	219	105	114	-
				Published			Sample			
ID	County	Registration District	Standard Parish	Total	M	F	Total	M	F	% difference
18465	FIF	Fife	Kennoway	1560	734	826	1560	731	829	-
18486	FIF	Fife	St Monance (or Abercrombie)	2054	1009	1045	2051	1008	1043	0.15
18543	DNB	Dumbarton	Row	10097	4600	5497	10119	4620	5499	(0.22)
18570	ARL	Argyll	South Knapdale	2536	1298	1238	2792	1417	1375	(10.09)
18585	BUT	Bute	Cumbrae	1856	825	1031	1845	814	1031	0.59
18590	BUT	Bute	Rothesay	8538	3695	4843	8535	3695	4840	0.04
18598	RFW	Renfrew	East	21705	11760	9945	21408	11620	9788	1.37
18609	RFW	Renfrew	Abbey	34393	16048	18345	34385	16041	18344	0.02
18625	AYR	Ayr	Dalmellington	6383	3499	2884	6378	3497	2881	0.08
18655	AYR	Ayr	Stevenson	5694	2815	2879	5694	2811	2883	-
18668	LKS	Lanark	Carluke	8552	4453	4099	8551	4456	4095	0.01
18740	MLN	Edinburgh	Mid-Calder	1695	896	799	1695	894	801	-
18746	MLN	Edinburgh	South Leith	44783	22329	22454	44328	22132	22196	1.02
18771	ELN	Haddington	Stenton	594	312	282	594	312	282	-
18772	ELN	Haddington	Tranent	5198	2607	2591	5198	2610	2588	-
18816	PEE	Peebles	Manor	277	141	136	277	142	135	-
18849	ROX	Roxburgh	Jedburgh	5147	2445	2702	5149	2448	2701	(0.04)
18914	KKD	Kirkcudbright	Anwoth	728	322	406	728	323	405	-
18953	WIG	Wigtown	Portpatrick	1285	557	728	1285	557	728	-
18955	WIG	Wigtown	Stoneykirt	2766	1336	1430	2766	1335	1431	-

Appendix C. The enrichment program

Step 1 _inp81_
Reads data in from raw (flattened) ASCII version of the census data, tab delimited, with one-person record per physical line. Stores data in SAS file `spbase`. Converts the character version of `age` (`cage`) into a numeric variable (`age`) in which ages given in months, days, etc. are resented by their decimal equivalents. Note: in the output version of age all unknown or unconvertible ages are represented as a period '.'. All converted ages are assigned a value of 1 in the `ageinf` variable.

Step 2 _inp81_
Sorts the SAS file `spbase` by variables `parid`, `h` and `p_id` to ensure that records are ordered according to order of enumeration.

Step 3 _inp81_
Data are read from the SAS file `spbase` and three relational tables (each one a separate SAS file) are created which represent different levels of enumeration – `parish`, `house`, `spbase`—the old `spbase` file being over-written by the new one. In this step all character variables are converted to upper case.

Step 4 _inp81_
A new variable (`size`) equalling the number of persons in each household stored initially on the SAS file `house`, is written onto the record of each individual in `spbase`.

Step 5
The step defines the location of the various coding dictionaries which will be used subsequently in the program.

Step 6 _code_
Here the string variable representing relationship to household head (`relat`) is coded. In this case it is actually initially assigned two codes (`rcode1` and `rcode2`). These two codes are later used in combination to resolve ambiguous relationship terms. (See separate note on this problem and the coding rules for relationships in Appendix A.) At this stage the value of `rcode1` is written to `rela`, the variable to which the 'resolved' relationship code will eventually be written in steps 15 to 31.

Step 7 _code_
This step codes the string variable representing occupation (`occ`) with a code (`occode`). Some occupations, those which represent inactivity, are also given an

inactivity code (inactiv) and some occupations which include text relating to retirement or the previous carrying out of a particular job are coded here with the variable retir. Following this, some automatic re-coding of inactiv takes place to give an inactiv code to as many people as possible. Essentially, those who are working but whose occupation is not classifiable are given an inactiv code of 7000. Those who are retired have 8000 added to their occupational code, to make an inact code of say 8100 (=retired farmer). Then, those who have a legitimate occupational code have 7000 added to this to give an inactiv code of say, 7100 (=Farmer). Farmer's sons who are also classified in the coding dictionary are also reclassified according to their age. Those described as farmer's sons who are aged 11 or under, are given an inactiv of 3700 (but they retain their occode of 101). After this, once all those with an valid occupational string in the raw data have been allocated an inact code, those people whose have occupational information in the relationship to head of household string are classified, i.e., servants who have no entry in the occupation column of the CEB but whose relationship to head of household is "servant" will be given, at this stage, an inact of 7056. Similarly, teachers, labourers, assistants, agricultural labourers and others with a job are classified here. At the end of this step all people have been allocated an inactiv code. It should also be noted that the contents of the relationship field are only used to allocate inactiv codes when there is no valid entry in the occupational column.

Step 8 _code_
This step codes the textual variable marital condition (cond) to make mar.

Step 9
Simply deletes all the coding dictionaries used to this stage.

Step 10 _code_
The coding of birthplaces goes through a multi-stage process standardising a different unit of geographical information at each. This is based on a conjunction of look-up tables which standardise the parishes and counties of birth, and algorithms which optimize the allocation of the standard parish (and counties) of birth in cases of ambiguity.

Step 11 _code_ _bpbit1_ _bpbit2_
This step contains the two macros used in Step 10.

Step 12
Invokes macro _reset1_

Step 13 _corr_ and _reset1_

The first part of this step is to resort the main datafile into enumeration order (using parid, h and personid) and stored in a new SAS file temp.sp. This new file is read to create 'household' records in which details of each individual are stored as arrays–rela1 is the rela code for the first person in the household, rela2 is the rela code for the second person in the household and so on. The dimension of the arrays is defined by the %let statement in step 65, using a SAS macro variable.

Step 14 _corr_ and _reset2_
A series of 'pointer' variables are created which mark the position within the household arrays in which the first servant appears, the last servant in the household appears, the first familial servant appears and so on. If there are no individuals within the specified category the pointer is set to 0.

Step 15 _corr_ and _reset2_
If the relationship of an individual is coded as unknown (9999) and that individual shares the same surname as the head of household then the relation code (rela) is altered to 'miscellaneous kin' (199) and relinf is set to 1.

Step 16 _corr_ and _reset1_
a) for those households with familial inmates, if there is no inmate head and an inmate is enumerated immediately before the familial inmate group then the relationship code (rela) of this inmate is changed to inmate head (e.g., 4000 => 4010).
b) if one or more 'kin' (i.e., with rela codes of 20–199) are recorded within a household after an inmate (or inmates) then check the surnames of the kin group with the inmates(s). If the surnames match then the rela code of the inmate is changed to an inmate head (e.g., 4000 => 4010) and the kin to familial inmates (e.g., 31 => 4031).

If changes are made, relinf is set to 1.

Step 17
Repeats step 16a for familial servants.

Step 18
Look for ever-married servants, that is where mar is equal to 2, 3 or 4. If found a new variable, ego is initialised and the details (age, sex and surname) of individual are saved. The rest of the is examined for possible relatives who are also servants. If the surname (sname) of both match and both are married and of opposite sex then rela is recoded to servant head (6010) and servant spouse (6022). If a never-married servant, i.e., mar= 1, is found with same surname as ego and is at least 20 years younger but not more than 45 years older than ego then the rela is recoded to child

of servant (6030). Otherwise if a servant is found with same surname as `ego` who cannot be categorised as either spouse of child then the `rela` is recoded to miscellaneous kin of servant (6199). If changes are made, set `relinf` to 1.

Step 19
Step 18 is repeated for familial inmates.

Step 20
Checks for households with more than one 'real' head, i.e., `rela` is in the range 10–15 in 'private' households (i.e., `rectype` is either 1 or 5). If a second head is found the details of that individual are kept in a new variable `ego`). If the ego occurs before any servants (or if there are no servants) and after all other kin and ego's surname and address is the same as the first household head then ego's `rela` is altered to miscellaneous kin (199). If other kin appear after ego and ego has the same surname and address as the first household head then ego's `rela` is changed to head of secondary related kin group (510) and subsequent kin accordingly (e.g. 22 => 522). If a secondary head (ego) occurs after a servant(s) or if address of ego is different to first head, or ego's surname is different from first head's surname then the household is split and ego becomes a new 'real' head.

Step 21
Checks for sub-residential groups within households. If the address of a new household is the same as the previous household and the new household is a 'private' household, and the first person in the new household has a first `rela` code (`rcode1`) as inmate or servant and the second `rela` code (`rcode2`) as head then `rela` is recreated by adding these together (e.g., 3000+10 = 3010) while the value of `rcode1` (e.g. 3000) is stored. Having done this others in the second household with an inmate or servant code as the `rcode1` and a kin code (20-199) as `rcode2` are looked for and these codes are added these together to create `rela`. Otherwise, if `rcode2` is null and `rcode1` is a kin code then this is added to the stored `rcode1` for the first person to create `rela` (e.g. 32+3000). If `rcode2` is null and `rcode1` is not a kin code then `rela` is created from `rcode1`. All individuals from the second household have `relinf` set to 1 and the whole household is joined to the previous household.

Step 22
If the first relationship code (`rcode1`) for the first person in the household is for a co-resident kin (30–199) and the individual's surname is the same as the head of the previous household, and the address of the household is the same as the previous household, and the household is a 'private' household then new `rela` codes are

created from the rcode1 values and this household is joined to the previous household. All individuals in the second household have their relinf set to 1.

Step 23

This step applies to households where there is no 'real' head (i.e., no one in the household has an rcode1 in the range 10–15) and where rcode1 for the first person is servant of inmate (or unknown) and the address is the same as the previous household and the household is a 'private' household. If rcode2 for the first person is head (i.e., 10–15) then this is added to rcode1 to create rela (e.g. 10+5000=5010) and the value is stored in rcode1. If other members of the household have rcode2 as a kin code and rcode1 as an inmate or servant code, then these are added together to create rela. Otherwise, if rcode2 is null and rcode1 is a kin code then this is added to the stored rcode1 for the first person to create rela (e.g. 32+5000). If rcode2 is null and rcode1 is not a kin code then rela is created from rcode1. All individuals in the second household have relinf set to 1 and the whole household is joined to the previous household.

Step 24

This step applies to households where there is no 'real' head (no one in the household has an rcode1 in the range 10–15) but where rcode2 for the first person is a head and the address is different from the previous household and the household is a 'private' household. The variable rela for the first person is set to head (taken from rcode2). For others in the household if rcode2 is not null and is not head then rela is created from rcode2, otherwise rela is created from rcode1. If rela has been set to inmate or servant for an individual and that individual shares the same surname as the first person in the household then rela is reset to 199. All individuals with an altered rela have relinf set to 1.

Step 25

This step is applied only to those households who were subject to step 24 and is a 'corrective' step to product more accurate rela codes. First the details of the new household head are stored (surname, age and marital status). Then subsequent members of the household are checked in turn. If an individual's rela is recorded as child (including step-children and children in law) and they share the same surname as the new head and the age gap between this individual and the new head is less than 16 years then the individual's rela is changed from child to sibling (including in laws and steps). If the individual is married and the new head is also married, and they are of different genders and share the same surname then rela is changed to spouse. All individuals with an altered rela have relinf set to 1.

Note: in essence steps 24 and 25 are to check for households where the *de jure* head is absent, a *de facto* head (the first person) has been designated, but other relationships are recorded as if to the *de jure* rather than to the *de facto* head. For example:

Relationship string	rcode1	rcode2	After step 24	After step 25
Son (Head)	31	10	10	10
Son	31	-	31	151
Daughter	32	-	32	152
Servant	6000	-	6000	6000

Step 26

This step applies to households where there is no 'real' head (no one in the household has an `rcode1` in the range 10–15) and where `rcode2` for the first person, however, is head and the `rcode1` value for a related kin (20–199), the surname of the first person is *different* from the surname of the head of the previous household, and the household is a 'private' household. (Note: the address can either be different from or the same as the previous household.) The `rela` value for the first person is set to head (taken from `rcode2`). For others in the household if `rcode2` is not null and is not head then `rela` is created from `rcode2`, otherwise it is created from `rcode1`. If `rela` has been set to inmate or servant for an individual and that individual shares the same surname as the first person in the household then `rela` is reset to 199. All individuals with an altered `rela` have `relinf` set to 1.

Step 27

As with steps 24 and 25 this step is applied only to those households who were subject to step 26 and is a 'corrective' step to product more accurate `rela` codes. It works in exactly the same way as step 25 and has the same result as the example given under step 25 above.

Step 28

If a household still has no head (and one has not been created as a result of steps 16 through to 26) then the first person within household has their `rela` set to head (10) and `relinf` set to 1. The relationships of other persons within the household remain unchanged. This occurs because it is essential to have someone explicitly defined as a head of household for further enrichments.

Step 29

If the household 'type' is an institution (i.e., with a `rectype of` 2, 3, 4 or 6) and the previous 'household' is also an institution, and the two have the same address then the two institutions are to be joined. Note: all individuals in the second institution

have relinf set to 1, but rela values are unchanged—even if the first person of the second institution is a head.

Step 30
This step corrects for individuals recorded as children of the head (rela is 31 or 32) when they are more likely to be step-children. If a child of the household head is found who does not share the same surname as the head then the code is changed to step-child.

Step 31
This step relates to those records of individuals who have had their rela codes changed and/or where as a result of steps 16–26 households are being joined or split. Where households are joined the household identifier (h) of the secondary household is set to that of the previous household and the personids are changed accordingly (i.e. incremented from the last person of the previous household).
Where households are split a new household identifier for the secondary household is created by adding 0.1 to the value of h of the previous household and accordingly assigning new personids. (Note: this means that a household cannot be split more than 10 times.) All households that are split are joined have the headinf variable set to 1. Altered records are written out to a new SAS file newhh.

end of macro _reset2_

Step 32
Sorts the SAS files temp.sp and newhh by the 'key field' recid, ready for merging in step 33. The output from the sort of temp.sp is now written to the SAS file sp.

Step 33
The SAS files sp and newhh are merged. This takes sp as the master file and rewrites the values of variables in this file with those from the updated file (newhh) where appropriate. The new file is written over the previous version of sp, in effect creating a new master table.

Note: Steps 34 to 39 are undertaken prior to the updated records being written out as specified in step 33, but are undertaken on the updated rela codes as created as a result of steps 16 to 26 as a result of the way in which the SAS data steps work.

Step 34
A check is undertaken on the correlation between an individual's gender (sex) and first name (pname). A dummy variable (in_pn) is set to 'M' for those with male names and 'F' for those with female names. A second dummy variable (relasex) is created and set to 'M' or 'F' accordingly for male or female type relationships, for

example the relationship son is allocated a relasex of 'M'. Those people whose gender is not reported, have the contents of the sex variable updated if both of the dummy variables relasex and in_pn correspond. Similarly, the gender code (sex) is altered if relasex and in_pn correspond yet are different from the value of sex. If the value of the variable sex is altered than sexinf is set to 1. After this has taken place, some further missing genders are allocated solely on the basis of the first name. These alterations are given a sexinf of 2 to distinguish them from those altered with a greater level of certainty. To square the circle of changes, if both the first name and the recorded sex indicate the same sex, but the relationship is altered to the closest respective male or female relationship, i.e., sons will only ever be altered to daughters and nieces to nephews etc. These alterations are given a relinf of 3.

Step 35
The value of the variable sex is explicitly set to 'U' if the current value is neither 'M' nor 'F'. The sexinf variable is set to 3. If a head of household is of unknown gender, then sex is set to the dummy variable in_pn (based on first name, see step 34 above), and sexinf is set to 4.

Step 36
This step corrects for unknown and ambiguous marital status (mar=9). First, invalid marital status codes are set to 9. Then, those with an unknown marital status who are aged under 26 are assumed to be single and mar is set to 1, and marinf set to 1. If they are recorded as being a child or step child of the head of household, regardless of age, they are assumed to be single, and marinf is set to 1.

If an individual has a relationship to household head of wife or husband and a marital status of either single or unknown than their marital status is changed to married (mar=2) and marinf set to 1.

Those individuals whose relationship is given as wife or husband and whose age is less or equal to 15 and whose marital status is given as ever-married (i.e., mar in the range 2–8) then age is reset to missing and ageinf set to 2.

If an individual has a marital status of married (mar=2) yet is aged less than 16 then their marital status is changed to single (mar=1) and marinf is set to 1.

Step 37
This step identifies and corrects those ages which would seem to be incorrect based on the relationship to the head of household. For age to be reset to missing (and ageinf set to 2) one of the three following conditions needs to be fulfilled:

- if relationship to household head is one step above head and age is less than 15;
- if relationship to household head is two or more steps below head and age is more than 55;
- if relationship to household head is two steps above head and age is less than 28.

Furthermore, those people with relationships which suggest that they are in the army, navy, are servants, or whose relationship is occupational rather than relational have their `age` reset to missing if the given `age` is less than 11 and `ageinf` is set to 3.

Step 38
This effectively does a tidy up. All records with an invalid record `id` are deleted (`recid`<1) and `relinf` and `headinf` are explicitly set to 0 for those individuals whose `rela` code or household id (`h`) has not been altered.

Step 39
Those given as son or daughter in law (`rela`=35, 36) but who are single (`mar`=1) and aged under 18 have their rela altered to denote step-children (i.e., `rela`=33, 34); `relinf` is also set to 1.

Step 40
The size of each household is recalculated taking account of households being split or joined (see steps 16 to 26) and placed in a temporary SAS file called `xx`.

Step 41
The SAS file `xx` (see step 40) is merged with the SAS file `sp` so that the new variable `size` replaces the old variable of the same name.

end of macro _reset1_; end of macro _corr_

Step 42 _instit_
This step starts the process of identifying private households that are possible institutions and vice versa. The SAS file `sp` is read into a temporary SAS file `init`. Household records are created with relationship to household head values being held in arrays.

Step 43 (_inbit_)
This step counts the number of heads, kin, inmates, familial inmates, servants, familial servants, institutional inmates, miscellaneous inmates and visitors within households and calculates a ratio as follows:

```
ratio=(heads+kin+servants+famserv+1)/(inmates+instit+faminm+miscell+1)
```

Step 44 (_inadd_)
This creates a dummy variable (`in_add`) which is set to 1 if the address of what is currently set as an ordinary household (`rectype`=1) contains a string indicating an institutional address or 2 if a vessel. Two further dummy variables (`street` and `words`) are also created to be used in Step 45.

Step 45 (_inbit_)
Using the information on address strings (`in_add`) calculated in step 44 in combination with the ratio (`ratio`) value calculated in step 43, this step seeks to identify institution recorded in the raw data as private household, and vice versa.
Private households are changed to institutions (`rectype`=4) if the following conditions are met:

- the size of the household is 20 or more and the number of miscellaneous inmates is 10 or more;
- the size of the household is 20 or more and the combined total of inmates, institutional inmates, familial inmates and servants is greater than the size of the household divided by 1.5;
- the 'household' has an institutional type address (and the address consists of at least 3 'words' if it contains a 'street' identifier), the size of the household is greater than 6 and the ratio value is less than 0.8.

Private households are changed to 'vessels' (`rectype`=6) if the address contains information identifying it as a vessel.

Institutions are changed to private households (`rectype`=5) if the address does not contain an 'institution type' string, the size of the household is less than 24 and the value of ratio is equal or greater than 0.8.

Step 46 (_instit_)
The changed rectype values (generated in steps 36 to 38) are 'merged' into the SAS file `sp`.

Step 47 (_hh_)
Redundant temporary SAS files are deleted and the SAS file `sp` is sorted by `parid`, `h` and `personid`.

Step 48 (_active_ and _write1_)
The macro `active` is invoked (see Step 71).

Step 49 (_active_ and _write1_)

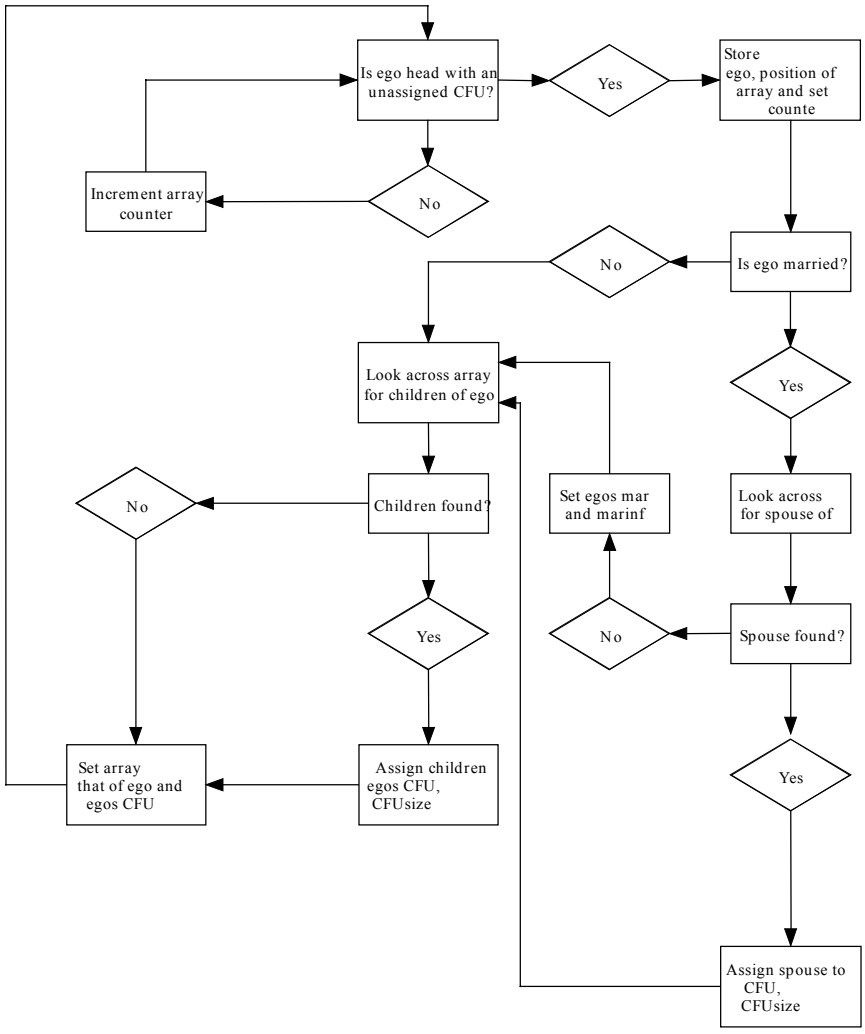
The macro _write1_ is invoked. This starts by writing a header record which gives field names as the first line of the defined output file. Following this all records for all individuals resident within institutions are output. Subsequently, the records for such individuals are deleted. And, as a result, are *not* subjected to steps 50 to 70, which only relate to private households.

Step 50 (_hh_)
This reads the input data from the SAS file sp and transforms that data into household records with data on individuals within each household being stored in arrays. The maximum length of these household arrays is defined by the macro variable %let in step 72.

Step 51 (_class_)
A new dummy array variable (xmult) is created which stores the 'thousand' digit from the value of rela (e.g. if rela=3022 then xmult=3). This is then used to transform familial inmate and servant rela values into kin values (e.g. rela=3022 is transformed into 22). Note: this variable is stored because it will be reused at a later stage.

Step 52 (_class_)
Working on the transformed rela codes this step 'reconstructs' the conjugal family units (CFU) of those recorded as heads (10–15). A set of queries are made according to the following flow diagram. In the case of married heads a matching spouse must also be married (mar=2) and have the same xmult value as the head in question. When matching children, the individual must be unmarried (mar=1) and must have the same xmult value as the head in question. Note: all children with a rela code 30-39 are at risk.

Those identified as residing in a CFU are assigned a cfu number (cfunos), which is set to 1 for the first CFU within the household, 2 for the second and so on, and an order number within the identified CFU (cfu).

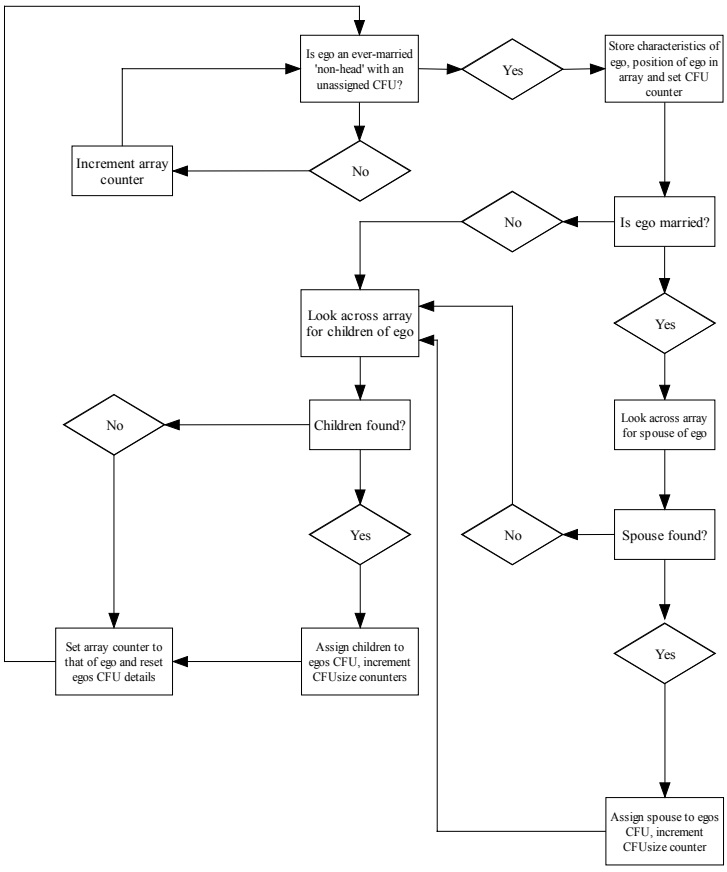

Is ego head with an unassigned CFU?
Yes
Store ego, position of array and set counte
Increment array counter
No
No
Is ego married?
Look across array for children of ego
Yes
No
Children found?
Set egos mar and marinf
Look across for spouse of
Yes
No
Spouse found?
Yes
Set array that of ego and egos CFU
Assign children egos CFU, CFUsize
Assign spouse to CFU, CFUsize

Step 53 (_class_)

This step is essentially the same as step 52, but is appropriate to ever-married (`mar`=3–9) non-heads (`rela`=30–199). In the case of married egos a matching spouse must also be married (`mar`=2), have the same `xmult` value as the head in question, must be of a different gender to ego, must have the same surname as ego and the age gap between 'spouses' must be less than 25 years. When matching children, the individual must be unmarried (`mar`=1), must have the same `xmult` value as ego, must have the same surname of ego and must be at least 16 years and not more than 50 younger than the 'prospective' mother (or father in the absence of a mother).

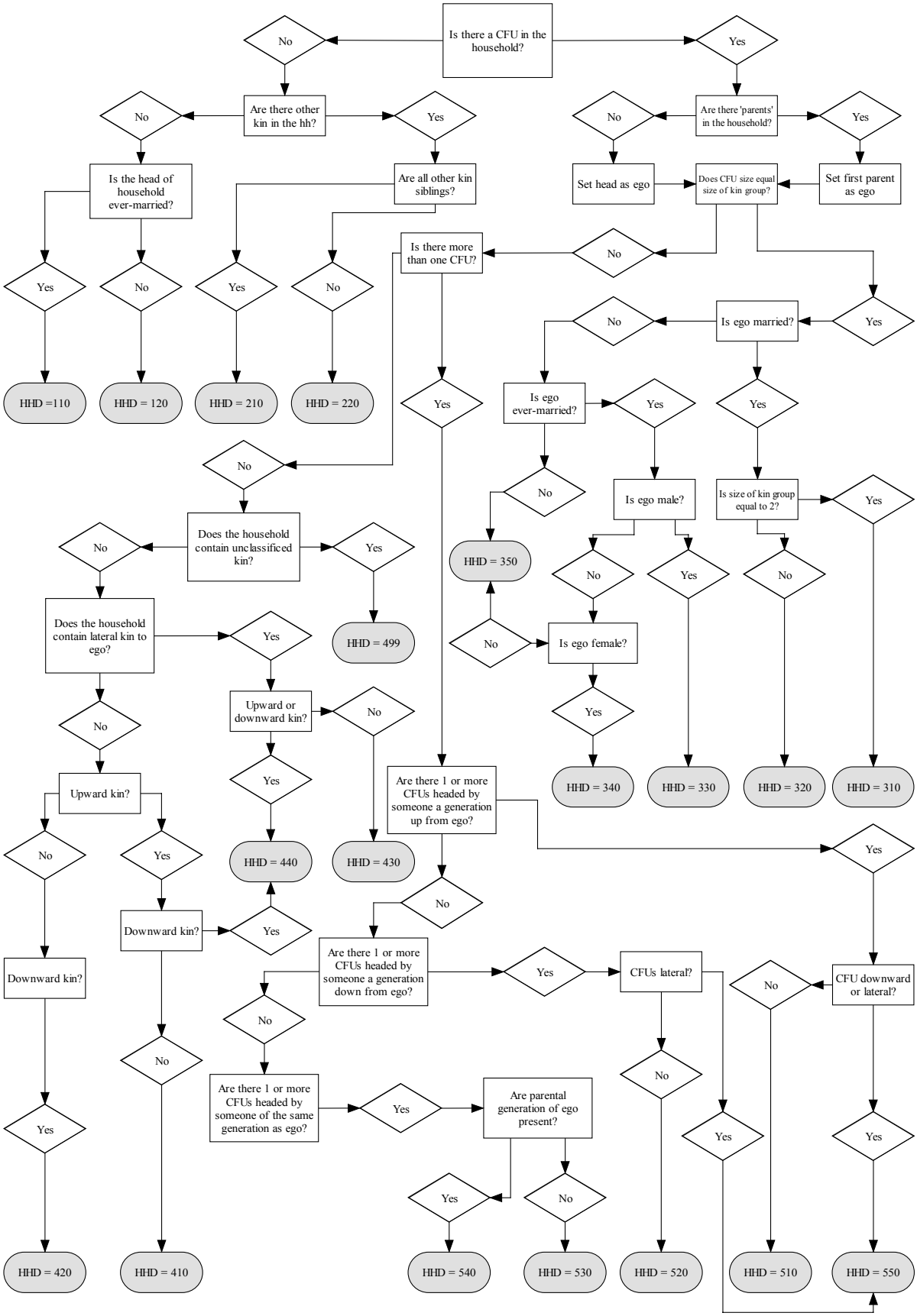
Within this, step-parents are linked with children within the following ranges of (transformed) `rela` codes:

Range of parental rela codes	**Range of offspring rela codes**
30-39 (child)	60-69 (grandchild)
150-159 (sibling)	40-49 (nieces/nephews)
120-129 (parents)	150-159 (siblings) *or* 10-19 (heads)
40-49 (nephews/nephews)	70-79 (great nephews/nephews)
60-69 (grandchild)	80-89 (great grandchildren)
110-119 (grandparents)	120-129 (parents) *or* 130-136 (aunts/uncles)
130-136 (aunts/uncles)	160-170 (cousin)



Step 54 (_class_)
This step is essentially the same as steps 44 and 45, but is appropriate to never-married (mar=1) parents (taken as ego) and children. Note: this step only attempts to form single parent CFUs between heads and never-married offspring, and daughters and grandchildren, rather than the whole range of parent/child relationship specified in step 45. When matching children, the individual must be unmarried (mar=1), must have the same xmult value as ego, must have the same surname of ego and must be at least 16 years and not more that 50 younger than the 'prospective' mother (or father in the single heads).

Step 55 (_class_)
This step examines the combination of relationships within the household and produces a new variable (`hhd`) set to the Hammel-Laslett household classification. Note: hhd codes are assigned only to heads of household and their co-resident kin. Familial servant and inmate group are not assigned a hhd value. The accompanying flow diagram illustrates the logical sequences performed.


Is there a CFU in the household?
No
Yes
Are there other kin in the hh?
No
Yes
Are there 'parents' in the household?
No
Yes
Is the head of household ever-married?
Are all other kin siblings?
Set head as ego
Does CFU size equal size of kin group?
Set first parent as ego
Yes
No
Yes
No
Is there more than one CFU?
No
HHD =110
HHD = 120
HHD = 210
HHD = 220
Yes
No
Is ego married?
Yes
No
Yes
Is ego ever-married?
Yes
Yes
No
Is ego male?
Is size of kin group equal to 2?
Yes
HHD = 350
No
Yes
No
No
Is ego female?
Yes
HHD = 340
HHD = 330
HHD = 320
HHD = 310
No
Does the household contain unclassificed kin?
Yes
HHD = 499
Does the household contain lateral kin to ego?
Yes
Upward or downward kin?
No
Yes
HHD = 440
HHD = 430
No
Upward kin?
No
Yes
Are there 1 or more CFUs headed by someone a generation up from ego?
Yes
No
Are there 1 or more CFUs headed by someone a generation down from ego?
Yes
CFUs lateral?
No
CFU downward or lateral?
Downward kin?
Yes
Downward kin?
Yes
No
No
Are there 1 or more CFUs headed by someone of the same generation as ego?
Yes
Are parental generation of ego present?
No
Yes
Yes
No
Yes
Yes
HHD = 420
HHD = 410
HHD = 540
HHD = 530
HHD = 520
HHD = 510
HHD = 550

Step 56 (_kinuni_)
Initiates a number of macro variables and calculates a number of dummy variables to be used in the subsequent steps.

Step 57 (_kinuni_)
This is the first of several steps (57–67) that are designed to determine whether individuals are living with never-married offspring, ever-married offspring, or parents (the so-called 'kin universe'). The various steps work by looking across the household arrays for combinations of relations, using the transformed `rela` codes. This initial pass through the data operates on households where there is a head who is member of a CFU (and therefore must have a resident spouse and/or never married children). The characteristics of the head (`ego`) are stored. Then a search is made for ego's spouse, who must be in the same CFU and must have a corresponding `rela` code (in this case 20–25). If a spouse is found the position in the array is stored. Then a search is made for never-married offspring, who must be unmarried (`mar`=1) in the same CFU as ego, and must have a corresponding `rela` code (in this case 30–39). The number of offspring found are counted. Finally, the location of the mother and father (if present) are written to the records of the offspring and the numbers of never-married sons and daughters are written to the records of the parents.

Step 58 (_kinuni_)
As step 57 but for child/grandchild CFUs.

Step 59 (_kinuni_)
As step 57 but for parent/sibling CFUs where head not in CFU.

Step 60 (_kinuni_)
As step 57 but for parent/sibling CFUs where head in CFU.

Step 61 (_kinuni_)
As step 49 but for siblings/niece-nephew CFUs.

Step 62 (_kinuni_)
As step 49 but for uncle-aunt/cousins CFU.

Step 63 (_kinuni_)
As steps 57–62 but rather than matching parents with never-married children, this step matches parents with ever-married children. This step links children and married grandchildren. In order to be matched the parental generation must be ever-married, and the ever-married children must be at least 20 and no more than 45

years younger than their mother, or at least 20 and no more than 50 years younger than their father.

Step 64 (_kinuni_)
As step 63 but for heads/children.

Step 65 (_kinuni_)
As step 63 but for aunts-uncles/cousins.

Step 66 (_kinuni_)
As step 63 but for parents/siblings-heads.

Step 67 (_kinuni_)
As step 63 but for parents in law/spouse-siblings in law.

Step 68 (_kinuni_)
Creates a new variable (`rel`) which is set to the numbers of co-resident relatives that each individual is living with, excluding those within ego's own CFU.

Step 69 (_kinuni_)
Resets the transformed `rela` values then creates a series of new accumulative variables which are output as part of ego's 'household experience', such as the number of servants, inmates, and visitors than each ego resides with.

Step 70 (_active_)
This macro recodes the activity variable (`inact`) where the `inactiv` code is currently over 9000 and where the occinf hasn't already been changed to 1; and should only work on those individuals whose relationship (`rela`) has been altered because the actions of steps 34–39. Otherwise this performs similar actions to Step 7.

Step 71 (_write2_)
Writes out private household records to the specified output file.

Step 72
Defines macro variables setting the maximum number of people in an institution (2000), the limit of the age gap between married couples (25); the age of menarche (16) and the age of menopause (50). Following this it calls macros to start running the program.