# Technical appendix to *Migration and social mobility*

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This technical appendix is a supporting document to the report *Migration and social mobility: The life chances of Britain's minority ethnic communities* by Lucinda Platt (published by The Policy Press for the Joseph Rowntree Foundation 2005, and available from www.jrf.org.uk/bookshop).

It aims to provide more detailed information on issues of data management, variable construction, methodological issues and alternative results than was suitable to include in the main report. It is supplementary to that report and is not intended to be read independently of it.

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# Contents

# 1  Data description and study design

To explore the concerns of interest to this study, namely the intergenerational social mobility of different ethnic groups, the ONS Longitudinal Study is employed. The ONS Longitudinal Study (henceforth the LS) is a 1 per cent sample of the population of England and Wales that is followed over time. It was initially obtained by taking a sample of the 1971 census, based on those born on one of four birth dates (day and month). Information from samples taken at each subsequent census has been added to the study. Members are also added to the study between censuses by linking information on births and immigrations using the same selection criteria. Data on events that occur to sample members – births of children to them, infant deaths, deaths of spouses and cancer registrations – are also added. No more information is linked where study members have records indicating that they have died or have left England and Wales (unless emigrants re-enter at a later date, in which case they are reincorporated into the study).

The study and the ensuing analysis is based on observing the context and background (including migration and ethnicity) of a set of children and exploring the influence of this background on the social class outcomes for these children when they are adults. For this purpose, two cohorts – one selected from the 1971 census records of the LS and the other selected from the 1981 census records of the LS – consisting of LS members aged four to 15 and living with at least one parent at the relevant date (1971 or 1981) were extracted. These are called the '1971 cohort' and the '1981 cohort' on the basis of the time point at which information on them as children and on their parents was collected. Data about parents and households at 1971 for the 1971 cohort and 1981 for the 1981 cohort provided information about the sample 'origins'. The cohorts were then tracked forward to provide information about their destinations – to 2001 for the 1981 cohort and to 1991 and 2001 for the 1971 cohort. The precise nature of the variables collected at the various time points and their coding is described further in Chapter 2. The two cohorts were pooled for analysis both to increase sample sizes and to allow some exploration of possible cohort effects. The number of members of the 1971 cohort who were also measured in 2001 (for their destinations) was 73,120. The number of members of the 1981 cohort who were also measured in 2001 (for their destinations) was 68,183. The pooled sample is simply the sum of these cases, i.e. 141,303.

As a result of the longitudinal nature of the LS, with individuals followed through time, and the age ranges selected to make up the two cohorts, there is some overlap between the two cohorts (i.e. those aged four and five in 1971 will be aged 14 and 15 in 1981). This overlap amounts to a total of 13,863 persons who are included in

both cohorts, though not all of them were followed through to 2001. In the analysis these are treated as separate cases, but standard errors are adjusted for repeat observations on the same individual. As well as the pooled sample, analysis was carried out on the individual cohorts but is not reported in the main report to which this provides the appendix. Measurement of 'destinations' was carried out both at 2001 and for an alternative pooled sample based on destinations after two decades (i.e. 2001 for the 1981 cohort and 1991 for the 1971 cohort) to allow for consideration of the implications of a focus on outcomes at the same time point versus a focus on outcomes at the same life stage. The size of this alternative pooled sample was 143,754 (i.e. 75,571 from the 1971 cohort plus 68,183 from the 1981 cohort). The main report uses only the 2001 outcomes. Chapters 3 and 4 of this appendix both justify that choice and examine its implications.

The ONS Longitudinal Study has some key advantages when it comes to exploring intergenerational mobility and ethnicity, namely the size of the study sample, which facilitates analysis by ethnic group at relatively disaggregated levels, and the longitudinal design of the study, which allows both for intergenerational mobility to be tracked directly rather than depending on recall and for some analysis of those who leave the study and are not therefore analysed at later points in time, including, in some cases, the reasons for leaving the study. I will briefly discuss each of these in turn.

Given that it is based on a 1 per cent sample of the population that is updated over time, the numbers of individuals in the LS are substantial. Figure 1 shows the overall study sizes at the original date the sample was taken and at the subsequent three censuses.

Figure 2 shows the numbers who are retained across the Study from one census to the next, i.e. those who have not died or emigrated or otherwise been lost from sight in the interim. The numbers at each census date vary slightly from those in Figure 1, as they reflect only those who were traced on the NHS Central Register. As is clear from the numbers given, tracing rates have improved each decade from around 97 per cent in 1971 to over 99 per cent in 2001. (See the discussion of tracing and census linkage in Blackwell *et al.*, 2003.)

For this study, the sample used is a subset of those retained from 1971–2001 and those retained from 1981–2001, i.e. corresponding to the final two bars of Figure 2.

**Figure 1  ONS Longitudinal Study structure**

| Entries | | Exits | |
|---|---|---|---|
| New Births | 228,000 | Deaths | 201,000 |
| Immigrations | 122,000 | Embarkations | 32,000 |

| **1971** | **1981** | **1991** | **2001** |
|---|---|---|---|
| Original sample: 530,000 members; selected from 1971 census | 534,000 sample members found at 1981 census | 543,000 sample members found at 1991 census | 540,000 sample members found at 2001 census |
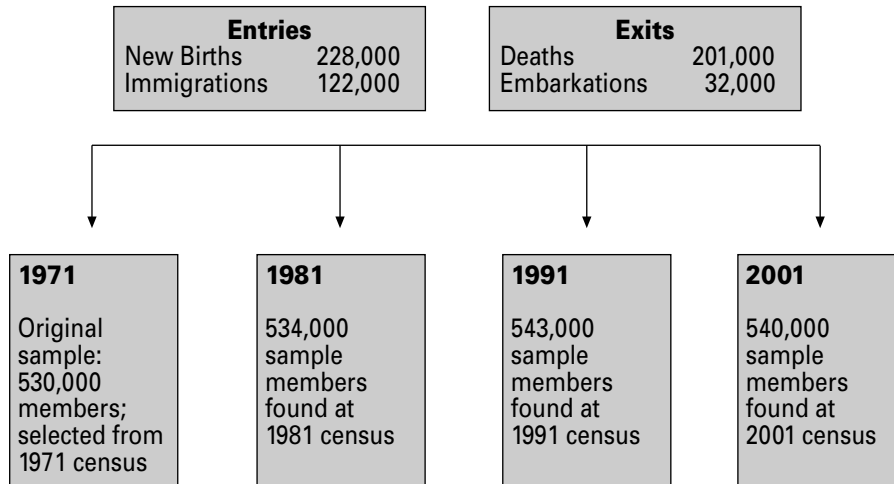
Source: Adapted from Blackwell and Martin (2004, slide 2); events information has been excluded as it is not relevant to this study).

**Figure 2  Traced LS members at censuses**

| 1971 | 1981 | 1991 | 2001 | |
|---|---|---|---|---|
| 513,000 | 528,000 | 535,000 | 536,000 | 1 census |

| 408,000 | | | |
|---|---|---|---|
| 420,000 | | | 2 censuses |
| 418,000 | | | |

| 327,000 | | |
|---|---|---|
| 331,000 | | 3 censuses |

256,000

173,000 deaths → 11,000 emigrations        4 censuses

**Total number of LS members: 944,000**
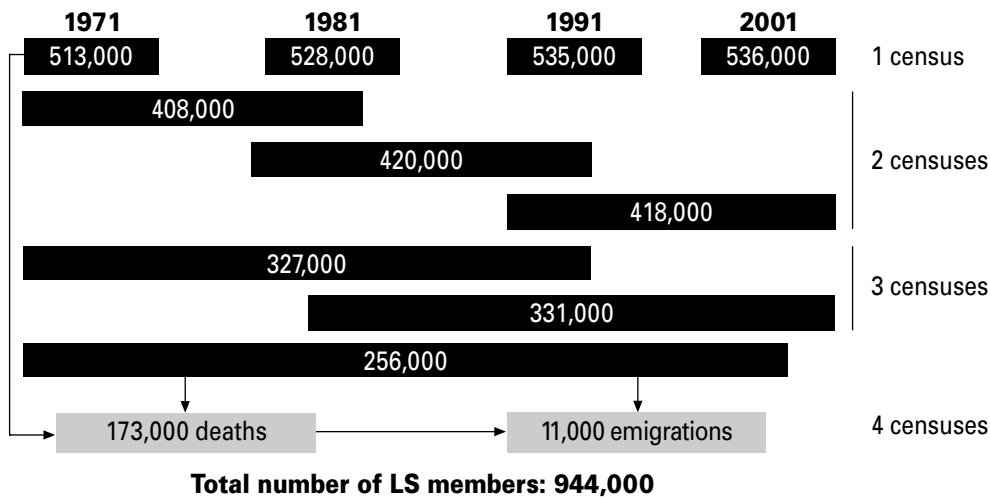
Source: Blackwell and Martin (2004, slide 25).

For the study of ethnic differences, obtaining sufficiently large sample sizes from national surveys tends to be problematic resulting in either the aggregation of ethnic groups (see, for example, the annually published results from the large, nationally representative Family Resources Survey or the Labour Force Survey), or in the need to pool more than one year of data (see, for example, Berthoud 1998, 1999, 2000; Heath and McMahon 1999). By contrast, the numbers in the LS typically allow groups to be investigated individually. Nevertheless, because of the age range and other conditions imposed on the sample used for this study (and discussed further below), along with the fact that some groups had not approached the completion of

their main period of migration by the beginning of the LS (1971), cell sizes can still become quite small for exploring patterns of mobility for each group, especially when the fact of attrition is taken into account (i.e. the fact that a proportion of those included in the selected sample at 1971 and 1981 will not remain in the data up to the later points of measurement). Therefore, I have adopted the strategy of pooling two cohorts from the LS for analysis. The characteristics of the two cohorts that make up the pooled sample are considered in Chapter 3 of this appendix. The counts of the numbers from these two cohorts at 2001 by ethnic group and their combined count are shown in Table 1. Despite some instances of small numbers from certain ethnic groups for different patterns of origins and destinations, the potential for detailed ethnic group analysis of this issue offered by the LS remains clear. Table 1 shows that, in addition, the distribution of the various minority groups is very different for the two cohorts. Using just one cohort would then have been selecting the groups at very different stages of their migration histories.

The second way in which the LS offers particular benefits for the analysis of origins and destinations by ethnic group is through its longitudinal design. This means that it has the potential for a prospective design for examining class processes. That is, rather than working back from the (adult) children whose destinations are being measured to obtain their parental class – the standard approach for most mobility research – parental class can be measured at the point when the children are still children and living with their parents. Destination information for the (by then grown-up) children is also observed as it affects them at a common, subsequent point in time.

**Table 1  Numbers from minority ethnic groups at 2001 in the samples selected for study from the ONS LS**

| Ethnic group* | 1971 cohort (those aged 4–15 in 1971) | 1981 cohort (those aged 4–15 in 1981) | Pooled 1971 and 1981 cohorts |
|---|---|---|---|
| Caribbean | 803 | 744 | 1,547 |
| Black African | 58 | 94 | 152 |
| Indian | 568 | 1,123 | 1,691 |
| Pakistani | 173 | 606 | 779 |
| Bangladeshi | 21 | 109 | 130 |
| Chinese and other | 197 | 384 | 581 |
| White of migrant parentage | 2,157 | 1,518 | 3,675 |

*Source: ONS Longitudinal Study, author's analysis.*

\* *The process used to allocate ethnic group to the sample members and the groups used are discussed further in Chapter 2.*

This research design is facilitated by the fact that information is held not only about the LS members themselves but also about all those co-resident with an LS member at any of the censuses, the 'non-members'. This means that information on LS members' co-resident parents can be used to provide information about the LS members' origins, and information about LS members' own situation as adults can be amplified using information on their co-resident partners or spouses. Indeed, it was a condition of being within the sample for this study that at least one parent was co-resident with the potential sample study members (themselves selected by age) at the relevant date (1971 or 1981). This condition was fulfilled for the vast majority of LS members meeting the age criteria (around 98 per cent), which is scarcely surprising given that those in the potential pool were all children of school- (or pre-school-) age at the time when the information on their parents was needed. This information from the LS non-members' file is extensively used in this study, merged into the extracts of LS members used as the basis of the analysis. The way parents' and partner's information is used to construct class of origin and class of destination is discussed further in Chapter 2. Meanwhile, Table 2 summarises the numbers of non-members' records that are employed in this study.

Collecting information directly on parental social class at the time respondents are still children reduces problems of recall error, which is known to be an issue for

**Table 2  Non-members from whom information is merged to create relevant variables for the study**

| Type of non-member | Number | Variables for which non-members' information is used |
| --- | --- | --- |
| Mother (1971) | 89,437 | Parental social class (class of origin); mother's education; family type (lone/couple parent); parent's country of birth (and thus proxy ethnicity) |
| Father (1971) | 84,699 | Parental social class (class of origin); father's education; family type (lone/couple parent); parent's country of birth (and thus proxy ethnicity) |
| Mother (1981) | 84,555 | Parental social class (class of origin); mother's education; family type (lone/couple parent); parent's country of birth (and thus proxy ethnicity) |
| Father (1981) | 78,150 | Parental social class (class of origin); father's education; family type (lone/couple parent); parent's country of birth (and thus proxy ethnicity) |
| Female spouse (2001) | 26,310 | Study member's family social class (destination class); partnership status (single/partnered) |
| Male spouse (2001) | 25,339 | Study member's family social class (destination class); partnership status (single/partnered) |

*Source: ONS Longitudinal Study, author's analysis.*

retrospectively collected data (see, for example, Jacobs, 2002; Jäckle and Lynn, 2004). Recall error is potentially a particular problem for the study of migrants' mobility where children of those who suffer downward mobility may prefer to recall their parents' potential or pre-migration occupational status rather than their realised occupation on migration to Britain. The prospective approach makes it possible to be clear that the origin information is that of the migrants' occupational position following migration to Britain rather than a mix of pre- and post-migration classes.

The longitudinal design also allows the possibility of looking at those who move on or emigrate after their parents' initial move to England or Wales but before the census at which their destination would have been measured. Such onward migrants, who include those who move to Scotland, as well as those who are lost to census enumeration for other reasons (e.g. non response), are not typically captured in cross-sectional accounts of current class/education/economic activity distributions. By definition they could not be measured in traditional retrospective designed mobility surveys, as they will not be contactable; and yet, with the LS, we know not only how many there are but also something about them. We can therefore reflect on how the lack of such missing members could affect the observed distributions we see. For example, if the majority of the most successful people from one minority group emigrated from Britain, then a cross-sectional account of their changing occupational distribution would make it appear as if they were failing to achieve success, whereas the opposite might actually be the case.

These latter two points about the advantages of a longitudinal design are illustrated in Figure 3, which shows how the origins (i.e. the parents' characteristics) are observed when the study sample were children, and then how the sample's own outcomes (the destinations) are observed 20 or 30 years later. When these destinations are recorded the information, based as it is on the census, is representative of the population as a whole at that time point and therefore analysis of these origin-destination patterns are approximately equivalent to a nationally representative sample of these age groups at a point in time.[1] But in addition, even for those whose destinations are, for whatever reason, not observed, we can say something about their background.[2] Analysis of who gets 'lost' by 2001 and the implications for the results on social mobility are not discussed in the main report. But I have discussed the findings and effects on observed patterns elsewhere (Platt, 2005a, Platt *et al.*, 2005).

These advantages have been fully exploited in the design of this study. However, it is worth pointing out some limitations surrounding use of the LS. First is the limited number of variables for this type of analysis. The variables available are predominantly those found in each of the censuses since 1971. Some extra

**Figure 3  Measuring social mobility prospectively**
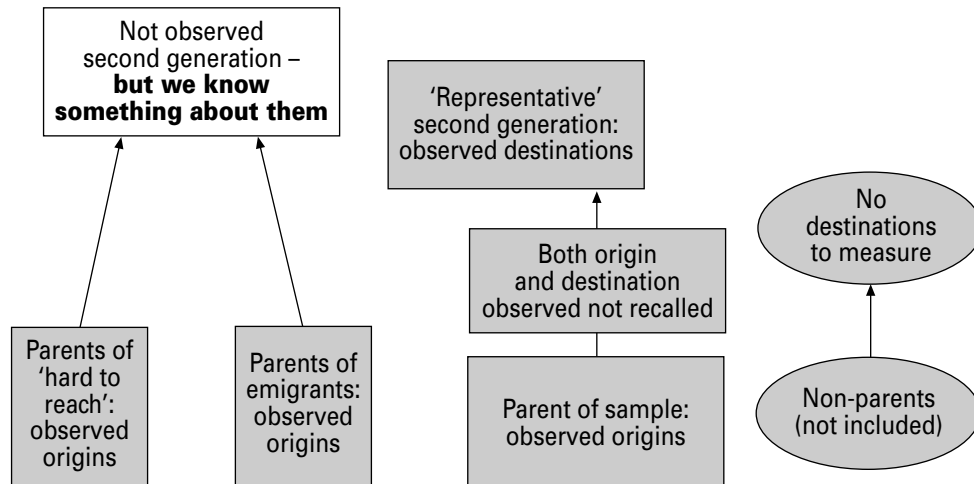


variables are available from the 'events' data that are matched in, but these are only available for those members who have event data: that is, LS members who give birth, who have cancer, who die or who immigrate or embark. Moreover questions about the consistency of these variables over time limits their utility for this study. Thus the variables available for controlling for characteristics when exploring possible differential outcomes by class background and ethnicity are more limited than the range typically offered by other surveys. Moreover, while similar questions are asked at each census, the questions are sometimes asked (or the responses coded) differently or asked of slightly different groups. A prime example of this is the education question, which was asked (and thence coded) differently in each census from 1971; and it was only in 2001 that it included information on lower-level qualifications (i.e. GCSEs) that are more helpful in making distinctions within the bulk of the population. An example of changing treatment of the study members across censuses is the change in 2001 from treating students' holiday-time address as their usual address to treating their term-time address as their usual address.

A further limitation in using the LS is the ONS requirement to protect the confidentiality of the data. To reduce the risk of disclosure, if a particular combination of characteristics in a table is shared by three or fewer study members, the results may be censored or the table may need to be further aggregated. This affects the time and effort needed to produce descriptive results and may also affect the amount of detail that can be presented.

These limitations should be borne in mind in reading the main body of the report.

# 2 Construction and coding of variables

The variables described in Table 3 were created for analysis of the study population. The list describes how the variable was derived, where relevant, and gives an explanation of the variables. For origins, an important task was to harmonise the variables from 1971 and 1981. That is, where different questions were asked or data were differently organised or coded it was important to end up with variables that meant the same across the two time points. Those variables that were asked or coded slightly differently in 1971 and 1981 and thus required me to carry out some degree of harmonisation are identified with a † in Table 3. Similarly, exclusion criteria (for example, for multiple enumerations) were employed in such a way that the populations created at the two time points were consistent.

It is worth noting (as discussed above) that information was used not only from the main LS members' file but also, especially for information about parental characteristics, from the non-members' file, and relevant variables were matched from this to the main extract from the LS members' file for further manipulation and analysis. Table 3 therefore also indicates whether the variables came from the main members' file or from the non-members' file.

For those study members not present at the destination time point (1991 or 2001) information was additionally extracted from the events data to identify whether:

- study member had died

- study member had emigrated.

However, the analysis on attrition employing these variables has not been included in the main report – nor, therefore, is it discussed in this technical appendix.

**Table 3  Variables created for the study, their coding and their derivation, and whether from members' (M) or non-members' (NM) file**

| Variable | Coding | Derived from | Source file |
|---|---|---|---|
| Whether one or two co-resident parents | Couple parent family<br>Lone parent family | Presence of mother and or father in LS member's household | NM |
| Parental social class* | Service<br>Intermediate<br>Working<br>Other | Parents' occupation and economic status variables | NM |
| Housing tenure at origin** | Owner-occupied<br>Local authority<br>Private rented | † Housing tenure of household | M |
| Car ownership at origin** | No car<br>One car<br>Two or more cars | Car ownership in household | M |
| Proxy ethnicity (for those absent at 1991 and 2001 – when ethnic group measured) | Both parents UK born<br>Caribbean<br>Black African<br>Indian (and East African)<br>Pakistani<br>Bangladeshi<br>Chinese and other<br>White migrant<br>Mixed migrant and UK born parents | Parents' countries of birth | NM |
| Migrant status | Parent migrant or not migrant | Parents' countries of birth | NM |
| Age group | 4–7 years***<br>8–11 years<br>12–15 years | Age | M |
| Born abroad | Born in the UK<br>Born outside the UK | Country of birth | M |
| Mother's education | No mother<br>No higher qualifications<br>Higher qualifications**** | † Educational qualifications | NM |
| Father's education | No father<br>No higher qualifications<br>Higher qualifications**** | † Educational qualifications | NM |
| Proportion of minority groups in ward of residence at origin | None<br>0–1%<br>1–5%<br>5–10%<br>10%+ | † Minority group ward level variables | M***** |
| Study members' family social class* | Professional/managerial<br>Intermediate<br>Routine/manual<br>Unemployed<br>Other | Member's occupation and economic status variables and partner's occupation and economic status variables | M and NM |

**Table 3 Variables created for the study, their coding and their derivation, and whether from members' (M) or non-members' (NM) file** *(continued)*

| Variable | Coding | Derived from | Source file |
|---|---|---|---|
| Ethnic group* | White non-migrant<br>Caribbean<br>Black African<br>Indian<br>Pakistani<br>Bangladeshi<br>Chinese and other<br>White migrant<br>Mixed migrant and UK born<br>white and UK born minority<br>and white | Ethnic group at 1991 supplemented where necessary by ethnic group at 2001 combined with country of birth of parent | M |
| Partnership status | Single<br>Partnered/married | Marital status/cohabitation | M |
| Education | No qualifications<br>Lower qualifications (i.e. level 1 NVQ or 1+ GCSEs or equivalent)<br>Middle qualifications (i.e. level 2 NVQ or 5 GCSEs A–C or equivalent)<br>Further and higher qualifications (i.e. NVQ levels 3 and above or A levels and above or equivalent) | Qualifications at 2001 supplemented where necessary by qualifications at 1991 | M |
| Religion | Not stated<br>No religion<br>Christian<br>Buddhist<br>Hindu<br>Jewish<br>Muslim<br>Sikh<br>Other religion | Religion as asked only in 2001 (only non-compulsory question). Answers aggregated to the standard ONS output categories on the same principles | M |
| Housing tenure** | Owner-occupied<br>Local authority<br>Private rented | | M |
| Car ownership** | No car<br>One car<br>Two or more cars | | M |

*     *See below for further discussion of the construction of these variables.*
**    *These variables were used as proxies for economic status at both 'origins' and 'destinations'.*
***   *This youngest age band identifies those who are likely to have experienced all their education in Britain.*
****  *For the 1971 cohort, parent's higher qualifications means A level and above; but, for the 1981 cohort, it means sub-degree but post A level and above.*
***** *The 1981 ward-level minority group variables were potentially disclosive, so the information was temporarily matched in from a separate file and no individual-level tabulations or tabulations of the original variables were carried out.*

# Measuring class and ethnicity

Measurement of class employed the following approach. Parental social class ('origins') was derived using the CASMIN (Goldthorpe) scheme. The CASMIN classes were reduced from their seven-fold version (available at 1971) or 11-fold version (available at 1981) to a three-class, hierarchical form, consisting of service, intermediate and working classes. The original seven and 11 categories are shown in Box 1 – the 11-class form simply involving the subdivision of three of the seven categories. The way these categories were combined to provide the three-class scheme used in the current study is given in Table 4 later in this chapter. Those parents who did not fit into the scheme or were economically inactive or unemployed were allocated to an 'other' category. There were also a small number of cases with missing class information. These were left as missing. Where there were two parents, the highest social class of the pair was chosen (the 'dominance' approach). In allocating 'highest class', 'working class' was selected in preference to 'other' and 'other' was selected in preference to 'missing'.

> **Box 1  CASMIN seven-fold class schema**
>
> ■ Class I: higher-grade professionals, self-employed or salaried; higher-grade administrators and officials in central and local government and in public and private enterprises; managers in large industrial establishments; and large proprietors.
>
> ■ Class II: lower-grade professionals and higher-grade technicians; lower-grade administrators and officials; managers in small business and industrial establishments and in services; and supervisors of non-manual employees.
>
> ■ Class III: routine non-manual (largely clerical) employees in administration and commerce; sales personnel; and other rank and file employees in services.
>
> Subdivided into (i) routine non-manual and retail; and (ii) private services in 11-fold version.
>
> ■ Class IV: small proprietors, including farmers and smallholders; self-employed artisans; and all other 'own account' workers apart from professionals.
>
> Subdivided into (i) self-employed with employees; (ii) self-employed with no employees; and (iii) small farmers in the 11-fold version.
>
> *Continued overleaf*

- Class V: lower-grade technicians whose work is to some extent of a manual character, foremen and some skilled manual.

- Class VI: skilled manual wage-workers in all branches of industry.

- Class VII: all manual wage-workers in industry in semi and unskilled grades; and agricultural workers.

Subdivided into (i) semi/unskilled; and (ii) farm workers in the 11-fold version.

The achieved social class position of the study sample at 2001 (and, for the 1971 cohort, 1991), that is, their 'destinations', used the National Statistics Socio-economic Classification – or NS-SeC (Rose and Pevalin, 2003; Office for National Statistics, 2004). This was again reduced to a hierarchical three-class form of professional/managerial, intermediate and manual/routine non-manual. The original categories are shown in Box 2; and the way these categories were combined to provide the three-class scheme used in the current study is given in Table 4. Those who were currently unemployed and not waiting to take up a job were classified as unemployed and this was included in the study as an alternative outcome – not a clear class destination but an important indicator of life chances, given that unemployment is more of a risk for some than for others and those unemployed on a given day will be skewed towards the longer-term rather than the shorter-term unemployed. Those who were economically inactive (students, long-term sick or looking after home and family) were allocated to an 'other' category, which could again be used to maximise coverage when considering outcomes; and those cases where there was missing information were allowed to be missing. Where the study member was cohabiting or married, social class was accorded in this way to both the study member and the partner, and the dominance approach was again employed to allocate a 'family' rather than an individual class, with working class being 'higher' than unemployment, and unemployment higher than other, and other higher than missing.

**Box 2  The NS-SeC scheme**

- Class 1: higher managerial and professional occupations

Employers; managers (large); professionals (traditional); professionals (new).

- Class 2: lower managerial and professional occupations

Associate professionals (traditional); associate professionals (new); managers (small); higher supervisors.

*Continued*

- Class 3: intermediate occupations

Intermediate clerical; intermediate services; intermediate technical.

- Class 4: small employers and own account workers

Employers (small); employers (agricultural); own account workers; own account (agriculture).

- Class 5: lower supervisory, craft and related occupations

Lower supervisors; craft and related occupations.

- Class 6: semi-routine occupations

Semi-routine sales; semi-routine services; semi-routine technical; semi-routine operatives; semi-routine agriculture.

- Class 7: routine occupations

Routine services; routine production; routine operatives.

- Class 8: never worked and long-term unemployed

Never worked; unemployed.

- Not classified

Full-time students; occupations not stated, etc.; not classifiable for other reasons.

**Table 4  The construction of class from the CASMIN and NS-SeC schemes**

|  | Origins: from CASMIN plus economic status | Destinations: from NS-SeC plus economic status |
| --- | --- | --- |
| Service/professional or managerial | Classes I and II | Classes 1 and 2 |
| Intermediate | Classes IV and V | Classes 3 and 4 |
| Working/routine and manual | Classes III, VI and VII | Classes 5, 6 and 7 |
| Unemployed | Not applicable | Unemployed or waiting to take up a job (from economic status) overrides any occupational information |
| Other (primarily economically inactive) | Looking after home and family, student, sick | Looking after home and family; student or permanently sick (from economic status) overrides any occupational information |

Impact of using the dominance approach on study members' individual class outcomes at 2001 is shown in Tables 5 and 6, broken down by gender.

**Table 5  Class distribution 2001 comparing individual social class and family (couple) social class, by ethnic group: men (column %)**

| Class category | Individual/ family | White non-migrant | Caribbean | Indian | Pakistani | White migrant |
|---|---|---|---|---|---|---|
| Professional/ managerial | Individual | 39.8 | 29.7 | 51.3 | 38.3 | 42.6 |
| | *Family* | *48.3* | *44.1* | *55.7* | *38.4* | *50.2* |
| Intermediate | Individual | 18.3 | 18.7 | 16.5 | 27.7 | 18.8 |
| | *Family* | *19.6* | *19.0* | *17.0* | *24.2* | *19.0* |
| Working | Individual | 32.7 | 34.3 | 25.6 | 16.0 | 27.4 |
| | *Family* | *24.6* | *23.4* | *20.6* | *15.2* | *20.8* |
| Unemployed | Individual | 3.4 | 8.8 | 3.3 | 7.4 | 5.0 |
| | *Family* | *2.6* | *6.1* | *3.2* | *7.1* | *3.7* |
| Other | Individual | 5.8 | 8.5 | 3.3 | 10.6 | 6.2 |
| | *Family* | *5.0* | *7.5* | *3.5* | *15.2* | *6.3* |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 6  Class distribution 2001 comparing individual social class and family (couple) social class, by ethnic group: women (column %)**

| Class category | Individual/ family | White non-migrant | Caribbean | Indian | Pakistani | White migrant |
|---|---|---|---|---|---|---|
| Professional/ managerial | Individual | 29.0 | 36.9 | 32.3 | 13.6 | 33.5 |
| | *Family* | *48.0* | *41.1* | *49.6* | *22.6* | *50.0* |
| Intermediate | Individual | 20.5 | 23.3 | 28.2 | 27.1 | 20.6 |
| | *Family* | *19.8* | *22.9* | *23.3* | *32.3* | *20.4* |
| Working | Individual | 27.6 | 17.7 | 19.8 | 10.2 | 22.8 |
| | *Family* | *22.4* | *16.9* | *18.7* | *17.7* | *18.2* |
| Unemployed | Individual | 2.4 | 5.2 | 2.8 | 6.8 | 2.1 |
| | *Family* | *1.9* | *5.7* | *1.9* | *6.5* | *2.0* |
| Other | Individual | 20.4 | 17.0 | 16.9 | 42.4 | 21.0 |
| | *Family* | *7.9* | *13.4* | *6.5* | *21.0* | *9.4* |

*Source: ONS Longitudinal Study, author's analysis.*

For the purpose of measuring parent to child class transitions, the three classes of origin were deemed to be equivalent to the three destination classes, since the two schemes involved the same principles. And, indeed, the absence of a look-up table for constructing Goldthorpe (CASMIN) class for 2001 was based on the assumption that the NS-SeC had superseded it (Exley and Thomson, no date). Thus, in this study, NS-SeC destinations are deemed to parallel CASMIN origins. Moreover, while the general assumption is that the origin and destination classes are equivalent, this

is not necessary for much of the analyses, where destination class is modelled as an outcome, and origin class is one of many aspects that are employed to help explain differences in such destinations.

Moving on to the classification of ethnic group: there were different questions on ethnic group in the 1991 and the 2001 censuses. Ethnic group was not asked before 1991. For this study, in order to distinguish different ethnic groups, ethnicity was measured in the following way.

Ethnicity was accorded on the basis of study members' response to the 1991 census question and reduced to the ten categories at which published output was presented (i.e. white, black Caribbean, black African, black other, Indian, Pakistani, Bangladeshi, Chinese, other Asian, other). Study members who selected the black other category were then combined with those who had selected the black Caribbean category to form a 'Caribbean' group. And the two 'other' categories were combined with the small Chinese group to form a 'Chinese and other' residual category. Such a combined category, though it renders any conclusions about the Chinese experience impossible to deduce, is common in published output; and, moreover, to have kept the Chinese category distinct would have resulted in numerous problems around small cell sizes and potentially disclosive cases.

For cases where study members present at 2001 were either not present at 1991 or had not completed the ethnic group question in 1991, information on ethnic group from responses to the 2001 census was used where the category corresponded to a 1991 category. Ethnic group was thus regarded as a fixed characteristic. Though this is not entirely true of self-reported ethnic groups (see Platt *et al.*, 2005), it is consistent with normal practice and is true in the vast majority of cases. The aggregation of black other with black Caribbean increases the diversity of the Caribbean group used here – they were among the least stable in terms of their ethnic group categories between 1991 and 2001 (Platt *et al.*, 2005); but excluding black other would have resulted not only in a smaller group, but also in one that missed a large section of the target second-generation population (Owen, 1996). This is also a strategy that has been adopted in other research (e.g. Berthoud, 2000).

Finally, the minority groups were accorded their ethnic group only if one or both of their parents was not born in the UK (i.e. was a migrant). And the 'white' group was restricted to those where both co-resident parents were born in the UK, with an additional 'white migrant' group being created from those who defined themselves as white in the census but where all co-resident parents in 1971 or 1981 (depending on the cohort) were born outside the UK. This was an attempt to identify any migration

effects distinct from 'ethnicity' effects. Those minority group members whose parents were both born in the UK and those white sample members with just one of two co-resident parents born outside the UK formed a residual category that was included in analysis for completeness but not cited in the results. The final minority groups used for this study were, therefore:

- *white non-migrant*

- *Caribbean*

- *Indian*

- *Pakistani*

- *white migrant*

- black African

- Bangladeshi

- Chinese and other

- UK-born minority and mixed UK and non-UK-born white.

The focus of the report is predominantly on the first five of these categories – those in italic.

For those who were not present in 1991/2001, but who were in the original cohorts sampled, a proxy ethnicity based on parents' country of birth was created. This was validated by comparing the correspondence between it and ethnic group for those who were present at 1991/2001. For the 1971 cohort there was a proxy ethnicity variable in the data set. This could not be used, as it was necessary to have a variable that was created in the same way across the 1971 and the 1981 cohorts, and that corresponded as closely as possible to the ethnic groups used in the main analysis, as described above. However, the existing 1971 proxy ethnicity variable was used to validate the proxy ethnicity variable created for this study – and there was a high degree of correspondence between the two for the 1971 cohort.

# Methods

For analysing the relationship between social class origins and destinations, and the mediating effects of ethnicity, age and education, a variety of methods were used from simple tabulations and percentages to binomial and multinomial logistic regressions. Responses were first mapped through simple tabulations and percentages. Various hypotheses about the relationship between origins and destinations were then tested through logit (logistic regression) models. These allowed the effect of ethnic group to be examined once other important factors (such as class background, parental education, etc.) were controlled, thus identifying individual ethnic group effects. Moreover, they also allowed exploration of the means by which these effects were achieved, or expressed themselves, by taking account of the sample's own educational qualifications, partnership status and so on. Logits for single outcomes (binomial logits) and those that looked at the relative chances of a range of different outcomes (multinomial logits) were both used. Ordered logits, which would have implied a strictly hierarchical relationship between the different possible destinations were also run as an alternative to the multinomial logits; but they were not found to have a sufficiently better fit to the data and so were rejected in favour of the multinomial logits, which do not incorporate hierarchical assumptions.

In the binomial logits, differential attainment of a professional or managerial class (either by self or spouse – or both) was the outcome (dependent) variable. In the multinomial logits, chances of 'success', through the attainment of a professional/ managerial outcome were simultaneously estimated with chances of 'failure' through current unemployment as well as other class destinations, enabling a more balanced picture of the achievement or lack of achievement of different groups to be gained. By contrast with earlier analysis (Platt, 2005b), loglinear models, which are based on the relationships within tables, were not employed. It was considered that they offered only limited potential for exploring further the relationship between social mobility and ethnicity (especially given issues around cell sizes for particular combinations), and that logit models both offered a straightforward way of examining the relationship in more detail and of relating results to existing work by Heath and McMahon (1999), which used similar models.

# 3 Comparing the two cohorts that make up the pooled sample analysed in the report, and exploring age, cohort and period effects

In this chapter, I describe the 1971 and the 1981 cohorts in more detail and relate this description to certain key issues for studies of intergenerational mobility: (1) the changing social structure and (2) the difficulty of distinguishing between age effects (i.e. the point the individual is at in their life and occupational trajectory) and cohort effects (i.e. the fact that those born at different times will have different educational experiences and occupational expectations even if they are measured at the same age).

Table 7 shows the total size of the two cohorts, both at their starting point and at the point at which destinations are measured. It shows that approximately 20 per cent of the original cohort were not observed in 2001, though the proportion who are 'lost' is slightly higher for the later cohort. Consequently, a smaller proportion of these are found at 2001 even though they have had ten years less to die or emigrate.

Table 8 shows the age profile of the pooled cohorts. The distribution of the pooled sample is relatively even across the age groups, with a slight skew towards the older ages. This reflects, perhaps, the declining birth rate; and this distribution is retained at 2001.

Table 9 shows the class distributions of the two sets of parents. It illustrates that the chances of having a parent in the service class are slightly greater for the younger cohort than for the older and the meaning of such origins is therefore likely to differ slightly. This difference, along with other differences in parental characteristics, represents a cohort effect, i.e. the absolute chances of having a particular background will change over time, as society changes.

Another sort of cohort effect can be identified at the point of destination. If we compare the outcomes for the two cohorts across the same age ranges (i.e. 24–35), then we will be measuring them ten years apart. And, just as the occupational structure changed between 1971 and 1981, so it continued to change up to 1991 and between 1991 and 2001. Table 10 shows the class distribution for the two cohorts measured after two decades for each of them (i.e. in 1991 for the older cohort and 2001 for the younger cohort). It also shows the proportion unemployed.

**Table 7  The size of the two cohorts and the pooled sample**

|  | Total size of cohort | Number retained after two decades | Number retained after two decades as % of total | Number retained at 2001 | Number retained at 2001 as % of total |
|---|---|---|---|---|---|
| 1971 cohort | 90,702 | 75,571 | 83.3 | 73,120 | 80.6 |
| 1981 cohort | 86,925 | 68,183 | 78.4 | 68,183 | 78.4 |
| Pooled sample | 177,627 | 143,754 | 80.9 | 141,303 | 79.6 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 8  Percentage distribution across the three age groups at origin for the two cohorts and the pooled sample, and comparison with pooled sample at 2001 (row percentages)**

|  | Age group 1 (4–7 years old in 1971/81) | Age group 2 (8–11 years old in 1971/81) | Age group 3 (12–15 years old in 1971/81) |
|---|---|---|---|
| Pooled sample at origin ($N$ = 177,627) | 32.0 | 33.9 | 34.1 |
| Pooled sample at 2001 ($N$ = 141,303) | 31.5 | 34.0 | 34.5 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 9  Percentages of each parental class (origins) of the two cohorts – of all the cohort and of those retained to 2001 (row percentages)**

|  | Service class | Intermediate class | Working class | Other |
|---|---|---|---|---|
| 1971 cohort (all) | 24.0 | 18.0 | 53.1 | 4.9 |
| 1971 cohort surviving to 2001 | 24.3 | 18.3 | 53.0 | 4.4 |
| 1981 cohort (all) | 28.7 | 18.2 | 46.4 | 6.7 |
| 1981 cohort surviving to 2001 | 29.6 | 18.5 | 46.2 | 5.7 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 10  Proportions of the two cohorts by destination class after two decades (row percentages)**

|  | Professional/ managerial | Intermediate | Working | Unemployed | Other |
|---|---|---|---|---|---|
| 1971 cohort | 34.5 | 25.3 | 26.5 | 7.8 | 5.9 |
| 1981 cohort | 47.4 | 18.0 | 23.7 | 3.3 | 7.5 |
| 1971 cohort older age groups only | 36.3 | 25.3 | 25.9 | 6.9 | 5.6 |
| 1981 cohort older age groups only | 48.6 | 18.2 | 23.0 | 3.0 | 7.2 |

*Source: ONS Longitudinal Study, author's analysis.*

Unemployment rates varied substantially between 1991 and 2001, and unemployment is a particularly important destination to investigate in relation to ethnic group differences, as the discussion in the main report shows. Table 10 gives destinations not only for the whole cohorts but also for the older two of the three age groups, that is, for the eight to 15 year olds, who were 28–35 at the time of these destinations. This is to avoid the table being overly influenced by those who have not yet reached a stable destination class; and it also avoids overlap of persons from the youngest group of the older cohort with the oldest group of the younger cohort.

Table 10 shows the ongoing move towards professional and managerial occupations dominating the class structure in place of working-class occupations between 1991 and 2001. It also shows how much greater was the risk of unemployment in 1991 than in 2001; and this is the case even when the younger group – those with a higher risk of unemployment – are excluded. Moreover, the shift towards a greater preponderance in the 'other' category reflects the increasing chances of even those who had passed traditional student ages of being in full-time study or otherwise economically inactive – through sickness and (lone) parenthood.

If we measure the destinations at the same point in time (i.e. at 2001 for both cohorts), we are then faced with the possibility of age effects, i.e. that outcomes at this point, while not affected by the changing occupational structure, are, instead, affected by the fact that the older cohort has advanced further down their occupational trajectory and the younger cohort may still be waiting to achieve their destinations. Table 11 shows the differences in occupational structure between the two cohorts measured at 2001. Obviously the two rows for the 1981 cohort are the same as in Table 10. As Table 11 shows, substantial levels of intragenerational mobility within the 1971 cohort have resulted in outcomes that are more comparable to those of the 1981 cohort at the same time point, despite the age difference. Indeed, the only point where the age difference seems to make a stronger impact than the overall economic and occupational context of the time is in the higher unemployment rates and higher rates of economic inactivity for the younger cohort.

Age effects can also be examined by exploring the age distributions, that is, the proportion in each of the three age bands for each of the cohorts at 2001.[1] This illustrates the extent to which the apparent lack of an age effect can be seen, in part at least, as a consequence of different age distributions across the two cohorts. Table 12 illustrates these age distributions and shows that the 1971 cohort is slightly skewed towards the younger age bands while the 1981 cohort has a higher proportion in the older and particularly the oldest age band. This means that at 2001 there were fewer 42–45 year olds and 24–27 year olds than an even distribution across the age ranges would have suggested; and thus the relevance of the age

**Table 11  Proportions of the two cohorts in different destination classes in 2001 (row percentages)**

|  | Professional/ managerial | Intermediate | Working | Unemployed | Other |
|---|---|---|---|---|---|
| 1971 cohort | 48.4 | 19.7 | 22.9 | 2.3 | 6.6 |
| 1981 cohort | 47.4 | 18.0 | 23.7 | 3.3 | 7.5 |
| 1981 cohort older age groups only | 48.6 | 18.2 | 23.0 | 3.0 | 7.2 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 12  Percentage age distributions among the two cohorts at 2001 (row percentages)**

|  | Age group 1 | Age group 2 | Age group 3 |
|---|---|---|---|
| 1971 cohort | 34.7 | 34.0 | 31.3 |
| 1981 cohort | 28.1 | 33.9 | 38.1 |
| Pooled sample | 31.5 | 34.0 | 34.5 |

*Source: ONS Longitudinal Study, author's analysis.*

differences implied by measurement across these time points will be less substantial than had the age distributions been more similar across the two cohorts.

Given the overall comparability in aggregate class distributions, it therefore makes sense when pooling the data and reporting the results to focus on the 2001 outcomes, which is the strategy adopted in the report.

In the analysis in the main report, any effect for 'cohort' will pick up the age difference combined with some cohort effect from growing up in a different decade, and with parents who experienced a different economic and occupational context. On the other hand, controls for age group will not be picking up the effects of actual differences in ages, since the 'youngest' age group contains both 24–27 year olds from the 1981 cohort and 34–37 year olds from the 1971 cohort. But, once cohort is controlled for, it will pick up the difference between being in a younger group rather than an older group. Moreover, in the age group variable, we may see the differences between having all of and having possibly only a part of education within Britain.

A remaining question to be treated in this chapter is the issue of the intersection between age distributions and cohort, and the impact on class distributions. To what extent do variations between ethnic groups in age distributions and the class outcomes associated with particular ages help us to understand differences between groups? We can expect substantial differences in age distributions given the different

migration histories and fertility patterns of the different groups. Therefore the apparent penalties of ethnicity may, in part, be put down to the penalties of youth, with incomplete employment trajectories, a lower chance of having partnered – and therefore potentially benefiting from the partner's class position – and greater risks of unemployment. Obviously the very different demographic profiles of the different minority groups are constrained in this study by the limited age ranges selected for investigation. However, it is still worth exploring whether age differences are likely to impact on the study results for the different groups.

Tables 13–15 illustrate the age distributions for the whole sample and for the different ethnic groups, examining both the whole sample and those whose outcomes are measured at 2001 and after two decades. Table 8 (above) showed that the age distribution for pooled cohorts was roughly 32 per cent in the youngest age group (four to seven at the time of measurement of origins), 34 per cent for the middle age group (eight to 11 at the time of measurement of origins) and 34 per cent for the oldest age group (12–15 at the time of measurement of origins). We have only ethnic group information for the 91 per cent of cases who were present at either 1991 or 2001 (i.e. excluding those from the 1971 cohort who had left the study by 1991 and did not return). However, the overall age distributions for this set of cases are the same as for the full sample at their origins, as the sixth row of Table 13 shows. Table 13 also indicates that there are no striking age differences between the main ethnic groups, though the Pakistanis tend to be a bit younger and the white migrants are noticeably older than the whole sample.

If we move to look at the distributions for just those whose outcomes are measured at 2001 in Table 14, the age groups have been paired so that the first column covers those aged 24–31 in 2001, the second those aged 32–37 in 2001 and the third those aged 38–45 in 2001, since at 2001 a full span of those aged from 24–45 are involved. Here we see that the whole distribution is slightly biased towards the middle age ranges, at which class position can more confidently be expected to have been achieved. However, there is some variation by ethnic group. Pakistanis are overwhelmingly concentrated in the youngest age ranges, with very few at the oldest. This might go some way to explaining their less successful achieved class profile and their more limited upward mobility (illustrated in Chapter 2 of the main report). However, Indians are also heavily concentrated (though admittedly not to the same extent) at younger ages, and they seem to be relatively successful. Moreover, the Caribbeans are heavily affected by unemployment, yet they are less concentrated in the younger age ranges and more in the middle ones than the sample as a whole. The skew towards older age groups among the white migrants is interesting and could be related to their high levels of retention in the service class, but, again, fails to explain their relatively high risks of unemployment.

**Table 13  Age distribution of all cases for whom there was ethnic group information (row percentages)**

| Ethnic group | Age group 1 | Age group 2 | Age group 3 | Total (*N*) |
|---|---|---|---|---|
| White non-migrant | 32.0 | 34.0 | 34.0 | 141,702 |
| Caribbean | 32.9 | 35.6 | 31.5 | 2,110 |
| Indian | 33.4 | 34.0 | 32.6 | 2,005 |
| Pakistani | 34.7 | 34.4 | 31.0 | 1,033 |
| White migrant | 28.1 | 33.6 | 38.4 | 4,480 |
| All groups | 32.0 | 34.0 | 34.0 | 161,355 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 14  Age distribution for those for whom outcomes measured at 2001 (row percentages)**

| Ethnic group | 1981 age groups 1–2 | 1981 age group 3 1971 age group 1 | 1971 age groups 2–3 | Total (*N*) |
|---|---|---|---|---|
| White non-migrant | 29.8 | 36.3 | 34.0 | 125,014 |
| Caribbean | 25.7 | 45.1 | 29.2 | 1,547 |
| Indian | 45.2 | 32.3 | 22.6 | 1,691 |
| Pakistani | 54.8 | 29.4 | 15.8 | 779 |
| White migrant | 21.7 | 38.1 | 40.3 | 3,675 |
| All groups | 29.9 | 36.3 | 33.8 | 141,022 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 15  Age distribution of those for whom outcomes measured after two decades (row percentages)**

| Ethnic group | Age group 1 | Age group 2 | Age group 3 | Total (*N*) |
|---|---|---|---|---|
| White non-migrant | 31.4 | 34.0 | 34.6 | 127,148 |
| Caribbean | 33.0 | 35.3 | 31.7 | 1,640 |
| Indian | 32.8 | 34.2 | 33.0 | 1,707 |
| Pakistani | 32.6 | 34.8 | 32.6 | 798 |
| White migrant | 27.2 | 33.6 | 39.2 | 3,820 |
| All groups | 31.4 | 34.0 | 34.6 | 143,754 |

*Source: ONS Longitudinal Study, author's analysis.*

Table 15 shows the distribution of age groups after two decades. Here the distributions are, once again, much more even; the additive effect of the distributions from the two cohorts has a balancing influence. This illustrates one of the advantages of pooling two cohorts of migrant groups with different migration histories, in that they can thus be made more comparable on some counts. However, in terms of explaining the differences in mobility patterns that are observed when the transitions are measured after two decades (see Chapter 4), this information does not offer much illumination. Age may be playing some part in explaining differential outcomes, but it does not seem to be driving them. But Table 14 nevertheless illustrates the importance of controlling for both age and cohort effects for the analysis reported in the main report.

In conclusion, measuring outcomes for both cohorts (pooled) at 2001 appears to be the best strategy for this study of intergenerational mobility; and is therefore, the strategy adopted in the main report. This approach is also consistent with retrospective studies of social mobility where the destination class is typically measured from the respondent at their current age (with respondents from across their working lives),[2] while cohorts are separated out according to ranges of birth dates (see, for example, Goldthorpe *et al.*, 1987; Bottero and Prandy, 2000). However, much of the rationale for such studies is interest in mobility patterns over time. Since it is not so much change over time but rather change across groups within the same timeframe that is the concern of this study, some results from considering the outcomes after two decades instead of all at 2001 are also given in Chapter 4 of this appendix. They are instructive in revealing the complexity of ethnic group differences in mobility and the importance of the timing and timeframe of measurement and reference.

# 4 Alternative analyses

In this chapter I report the results of the impact of treating the data in alternative ways to those reported in the main report. The three alternatives I have considered are combining unemployed with other for the outcomes illustrated in the transition tables in Chapter 2 of the report. The main reason for doing this is that it provides a direct point of comparison for the Pakistani transition table in that chapter, where it was necessary to combine these two outcomes to avoid potentially disclosive results.

After this set of tables, I follow up the discussion in the previous chapter by exploring the impact of carrying out regression analyses on outcomes occurring after two decades rather than all in 2001. That is, I look at destinations in 1991 for the 1971 cohort and in 2001 for the 1981 cohort, and explore the implications of this strategy on the effects of ethnic group that are illustrated in the main report; and I briefly discuss the extent to which those reported here could imply different conclusions.

Finally, I consider the impact of including dummies for missing values on variables included in the model. While this strategy was employed to retain sample sizes, it does risk biasing the coefficients (see Allison, 2002). I therefore also carried out some of the analyses using case-wise deletion, that is, simply ignoring the cases with missing values on any of the variables included in the models. I report the results from these alternative analyses and show that the preferred strategy of using dummy variables for missing values made little difference to the results.

## Class transitions combining unemployed with other

In the main report, transition tables have included the proportions from each origin ending up unemployed, since unemployment is argued – and demonstrated – to be a significantly higher risk for minority groups and is essential to include in a consideration of their overall outcomes. However, for the Pakistanis, the numbers were too small to be able to give the proportions unemployed without risk of disclosure. Therefore unemployment was combined with 'other' outcomes, in that case. For completeness, and to allow comparison between the Pakistani group and the other groups, the patterns observed for all groups by aggregating other and unemployed are included here.

**Table 16  Social class destinations 2001 according to social class origins 1971/81 (row percentages): white non-migrants**

| Origins (1971/81) | Destinations (2001) | | | | Total (*N*) |
|---|---|---|---|---|---|
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| Service | 65.9 | 16.1 | 12.3 | 5.7 | 32,627 |
| Intermediate | 45.9 | 23.1 | 22.8 | 8.2 | 22,409 |
| Working | 39.8 | 19.2 | 30.0 | 11.1 | 59,210 |
| Total | 47.7 | 18.9 | 23.9 | 9.6 | 114,246 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 17  Social class destinations 2001 according to social class origins 1971/81 (row percentages): Caribbeans**

| Origins (1971/81) | Destinations (2001) | | | | Total (*N*) |
|---|---|---|---|---|---|
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| Service | 45.0 | 18.1 | 15.0 | 21.9 | 160 |
| Intermediate | 33.0 | 24.1 | 25.0 | 17.9 | 112 |
| Working | 39.4 | 21.2 | 20.2 | 19.2 | 947 |
| Total | 39.6 | 20.9 | 19.6 | 20.0 | 1,219 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 18  Social class destinations 2001 according to social class origins 1971/81 (row percentages): Indians**

| Origins (1971/81) | Destinations (2001) | | | | Total (*N*) |
|---|---|---|---|---|---|
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| Service | 72.5 | 11.2 | 9.2 | 7.1 | 196 |
| Intermediate | 56.5 | 26.4 | 9.8 | 7.3 | 193 |
| Working | 52.2 | 18.1 | 20.3 | 9.3 | 1,072 |
| Total | 55.4 | 18.3 | 17.5 | 8.8 | 1,461 |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 19  Social class destinations 2001 according to social class origins 1971/81 (row percentages): white migrants**

| Origins (1971/81) | Destinations (2001) | | | | Total (*N*) |
| --- | --- | --- | --- | --- | --- |
| | **Managerial/ professional** | **Intermediate** | **Routine/ manual** | **Unemployed and other** | |
| Service | 65.7 | 17.2 | 9.2 | 7.9 | 557 |
| Intermediate | 53.7 | 20.7 | 16.0 | 9.6 | 581 |
| Working | 46.0 | 20.6 | 21.9 | 11.5 | 1,944 |
| Total | 49.7 | 19.7 | 19.2 | 11.4 | 3,082 |

*Source: ONS Longitudinal Study, author's analysis.*

The relative patterns across groups are broadly consistent with those reported in Chapter 2 of the main report, although the Caribbean patterns here look closer still to the Pakistani patterns.

## Investigating outcomes after two decades instead of all in 2001

If we turn now to look at the patterns observed after two decades for comparison with the earlier tables we see, in Table 20, that for the pooled sample as a whole the patterns of mobility are broadly similar to those for 2001 shown in the main report (Table 2.5). There does appear to be slightly less retention in the managerial/ professional class for those from service-class origins. However, this occurs alongside lower levels of upward mobility into the professional classes from the intermediate and working classes, given the smaller size of the professional/ managerial class at this point. The higher rates of unemployment in 1991 have affected all classes. Nevertheless, a clear class gradient in unemployment can still be observed.[1]

**Table 20  Social class destinations after two decades according to social class origins 1971/81 (row percentages)**

| Origins (1971/81) | Destinations (1991/2001) | | | | Total (*N*) (column %) |
| --- | --- | --- | --- | --- | --- |
| | **Managerial/ professional** | **Intermediate** | **Routine/ manual** | **Unemployed and other** | |
| Service | 62.5 | 20.0 | 14.1 | 3.4 | 35,469  (28.5) |
| Intermediate | 41.3 | 27.8 | 25.8 | 5.2 | 24,307  (19.5) |
| Working | 34.9 | 24.0 | 33.8 | 7.4 | 64,863  (52.0) |
| Total | 44.0 | 23.6 | 26.6 | 5.8 | 124,639  (100) |

*Source: ONS Longitudinal Study, author's analysis.*

Again, the white non-migrant distributions are very comparable to those of the entire sample, as would be expected, and as can be seen in Table 21.

**Table 21  Social class destinations after two decades according to social class origins (row percentages): white non-migrants**

| Origins (1971/81) | Destinations (1991/2001) | | | | Total (*N*) (column %) |
|---|---|---|---|---|---|
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| Service | 62.2 | 20.3 | 14.3 | 3.2 | 31,926  (28.8) |
| Intermediate | 41.0 | 27.8 | 26.3 | 4.9 | 21,917  (19.7) |
| Working | 34.3 | 23.8 | 34.7 | 7.1 | 57,142  (51.5) |
| Total | 43.7 | 23.6 | 27.2 | 5.6 | 110,985   (100) |

*Source: ONS Longitudinal Study, author's analysis.*

The Caribbeans, in Table 22, show similar (though more pronounced) contrasts to the overall cohort that are found in the main report (Table 2.7 compared to Table 2.5). They have much lower rates of retention from service-class origins; and it looks as if privileged origins offer no advantages for this group at all, particularly when the risks of unemployment are considered. The rates of unemployment for this group are very striking and clearly modify any picture of upward mobility for this group. They also emphasise how incomplete the picture of destinations would be were unemployment not considered alongside the three main class destinations, particularly if the period covered included a time of relatively high unemployment. If the transition table included only the three class destinations without unemployment, retention rates within the service class would rise to 45 per cent, while upward mobility into the professional and managerial classes from the intermediate and working classes would be 33 and 35 per cent, still lower than those for the cohort as a whole. This would be more in line with the profile shown for Caribbeans in 2001 in the main report (Table 2.7), particularly when the changes in occupational structure between 1991 and 2001 are taken into account. For this group, then, there would appear to be a substantial change for the 1971 cohort between 1991 and 2001.

Turning to the patterns for the Indians (Table 23), they, by contrast, show a distribution extremely similar to that for their outcomes measured in 2001, indicating that there was, possibly, little change for the 1971 cohort from this group between 1991 and 2001. Class retention rates are still higher than for the sample as a whole and overall achievement of professional/managerial class positions is again greater than for the sample as a whole, though in this case substantially greater. From this table the Indian 'success story' that has often been inferred from comparisons of cross-sections looks much more unequivocal than it did from comparing group outcomes at 2001. By contrast with the Caribbeans, measuring the 1971 cohort of

Indians at an earlier time point when economic conditions were less favourable and when the professional/managerial class was smaller emphasises the rapidness of their upward mobility and its extent. Where the Caribbeans appear to need more time and a more conducive economic climate to 'catch up' with the cohort as a whole, the Indians seem to have been ahead of other groups, to have made their advances relatively early and not to have enhanced them greatly since.

Cell sizes proved too small to investigate Pakistani patterns after two decades, so Table 24 moves on to show the patterns for white migrants. These look similar to, but compare favourably with, the white non-migrant distributions both in terms of retention in and movement up to the managerial/professional classes. However, the positive impression is somewhat modified by, once again, higher unemployment rates, which also appear to fall along a class gradient, unlike those for the Caribbeans and Indians.

It would appear, then, that the time point at which destinations are measured may impact more on the findings for the Caribbean group than for the others, and may thus alter the comparative picture in relation to this group.

**Table 22  Social class destinations after two decades according to social class origins (row percentages): Caribbeans**

| Origins (1971/81) | Destinations (1991/2001) | | | | Total (*N*) (column %) |
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| --- | --- | --- | --- | --- | --- |
| Service | 37.7 | 29.2 | 16.9 | 16.2 | 154  (12.6) |
| Intermediate | 28.0 | 32.7 | 24.3 | 15.0 | 107   (8.8) |
| Working | 30.3 | 30.0 | 24.8 | 14.9 | 960  (78.6) |
| Total | 31.0 | 30.1 | 23.8 | 15.1 | 1,221  (100) |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 23  Social class destinations after two decades according to social class origins (row percentages): Indians**

| Origins (1971/81) | Destinations (1991/2001) | | | | Total (*N*) (column %) |
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| --- | --- | --- | --- | --- | --- |
| Service | 74.3 | 12.6 | 10.4 | 2.7 | 183  (13.4) |
| Intermediate | 60.8 | 27.4 | 9.7 | 2.2 | 186  (14.7) |
| Working | 49.5 | 23.4 | 24.6 | 2.5 | 1,000  (73.0) |
| Total | 54.4 | 22.5 | 20.7 | 2.5 | 1,369  (100) |

*Source: ONS Longitudinal Study, author's analysis.*

**Table 24  Social class destinations after two decades according to social class origins (row percentages): white migrants**

| Origins (1971/81) | Destinations (2001) | | | | Total (*N*) (column %) |
| --- | --- | --- | --- | --- | --- |
| | Managerial/ professional | Intermediate | Routine/ manual | Unemployed and other | |
| Service | 62.8 | 21.5 | 9.1 | 6.6 | 549  (17.9) |
| Intermediate | 44.0 | 29.0 | 19.7 | 7.3 | 589  (19.2) |
| Working | 39.5 | 26.9 | 25.1 | 8.5 | 1,930  (62.9) |
| Total | 44.5 | 26.4 | 21.2 | 7.9 | 3,068  (100) |

*Source: ONS Longitudinal Study, author's analysis.*

Looking at the series of binomial logistic regressions after two decades again shows a difference from the results at 2001 primarily for the Caribbeans. Caribbeans are found, in the models shown in Table 25, to have significantly reduced chances of entry to the managerial/ professional classes controlling for both background and education. In these models, cohort also has a much stronger effect (and in the opposite direction to that in Table A1 in the main report), indicating that chances for the 1981 cohort of favourable outcomes are much stronger than for the 1971 cohort. This suggests the impact of the less favourable structural context of 1991. Changing class distributions, as represented by this 'cohort' effect, appear to be more important overall than differences in age.

**Table 25  Logistic regressions of probability of managerial/professional destination after two decades, controlling for individual and background characteristics (alternative version of Table A1 in measurement of outcome)**

| | Model 1 coefficients (SE) | Model 2 coefficients (SE) | Model 3 coefficients (SE) | Model 4 coefficients (SE) | Model 5 coefficients (SE) |
| --- | --- | --- | --- | --- | --- |
| Cohort (baseline is 1971 cohort) | .521 (.012) | .459 (.012) | .461 (.012) | .343 (.014) | .321 (.014) |
| *Age (baseline is oldest age group)* | | | | | |
| Age group 1 | −.060 (.014) | −.107 (.014) | −.104 (.015) | −.286 (.016) | −.257 (.016) |
| Age group 2 | *.000 (.014)* | *−.022 (.014)* | *−.021 (0.14)* | −.100 (.015) | −.072 (.015) |
| Male | *.019 (.012)* | *.011 (.012)* | *.012 (.012)* | .071 (.013) | .033 (.013) |
| Partnered | .840 (.013) | .891 (.013) | .898 (.013) | 1.016 (.016) | .847 (.015) |
| *Area concentration of minorities (baseline 0%)* | | | | | |
| Up to 1% | .173 (.021) | .153 (.021) | .148 (.021) | .147 (.023) | .149 (.023) |
| 1–5% | .281 (.024) | .277 (.024) | .254 (.024) | .301 (.026) | .307 (.027) |
| 5–10% | .168 (.033) | .206 (.034) | .162 (.034) | .242 (.037) | .270 (.038) |
| More than 10% | .149 (.032) | .167 (.032) | .092 (.035) | .211 (.037) | .239 (.038) |
| *Class of origin (baseline is working class)* | | | | | |
| Service class | 1.165 (.014) | .542 (.017) | .548 (.017) | .341 (.018) | .310 (.018) |
| Intermediate | .282 (.016) | .075 (.017) | .075 (.017) | .038 (.018) | *.005 (.018)* |
| Other | −.282 (.028) | −.196 (.034) | −.197 (.034) | −.098 (.037) | *−.029 (.039)* |

**Table 25  Logistic regressions of probability of managerial/professional destination after two decades, controlling for individual and background characteristics (alternative version of Table A1 in measurement of outcome) (continued)**

| | Model 1 coefficients (SE) | Model 2 coefficients (SE) | Model 3 coefficients (SE) | Model 4 coefficients (SE) | Model 5 coefficients (SE) |
|---|---|---|---|---|---|
| *Mother's qualifications (base no higher qualifications)* | | | | | |
| No co-resident mother | | **–.287 (.046)** | **–.279 (.046)** | **–.196 (.051)** | **–.122 (.052)** |
| Mother with higher qualifications | | **.459 (.023)** | **.448 (.023)** | **.163 (.025)** | **.183 (.025)** |
| *Father's qualifications (base no higher qualifications)* | | | | | |
| No co-resident father | | **.225 (.028)** | **.229 (.028)** | **.146 (.031)** | **.129 (.032)** |
| Father with higher qualifications | | **.569 (.020)** | **.562 (.021)** | **.265 (.022)** | **.272 (.022)** |
| *Tenure at origin (baseline is owner occupation)* | | | | | |
| Local authority | | **–.633 (.015)** | **–.628 (.015)** | **–.349 (.016)** | **–.210 (.017)** |
| Private rented | | **–.296 (.021)** | **–.294 (.021)** | **–.154 (.022)** | **–.081 (.023)** |
| *Car ownership at origin (baseline is no cars)* | | | | | |
| One car | | **.300 (.015)** | **.307 (.015)** | **.210 (.017)** | **.083 (.017)** |
| Two or more cars | | **.443 (.021)** | **.450 (.02)** | **.340 (.023)** | **.163 (.023)** |
| *Ethnic group (baseline is white non-migrant)* | | | | | |
| Caribbean | | | *–.030 (.066)* | **–.259 (.071)** | *–.080 (.075)* |
| Black African | | | **.663 (.199)** | *.201 (.205)* | *.397 (.216)* |
| Indian | | | **.444 (.059)** | *.092 (.060)* | *–.031 (.061)* |
| Pakistani | | | **–.503 (.091)** | **–.760 (.096)** | **–.783 (.095)** |
| Bangladeshi | | | *–.179 (.230)* | **–.446 (.223)** | *–.350 (.227)* |
| Chinese and other | | | **.516 (.094)** | .128 (.100) | .152 (.102) |
| White migrant | | | **.242 (.038)** | **.090 (.041)** | .072 (.042) |
| *Sample member's qualifications (base is none)* | | | | | |
| Lower | | | | **.986 (.028)** | **.791 (.029)** |
| Middle | | | | **1.45 (.028)** | **1.227 (.029)** |
| Further | | | | **2.71 (.029)** | **2.494 (0.29)** |
| *Car ownership at destination (base is none)* | | | | | |
| One car | | | | | **.526 (.024)** |
| Two or more cars | | | | | **.908 (.025)** |
| *Tenure at destination (base is owner occupation)* | | | | | |
| Local authority | | | | | **–1.157 (.030)** |
| Private rented | | | | | **–.271 (.021)** |
| Constant | **–1.72 (.025)** | **–1.64 (.029)** | **–1.66 (.029)** | **–3.04 (.039)** | **–3.168 (.044)** |
| *N* | | | 139,970 | | |
| Chi² change (df) | | **3,843 (11)** | **204 (8)** | **15,437 (4)** | **4,104 (6)** |

*Source: ONS Longitudinal Study, author's analysis.*

*Notes:*
*Statistically significant results at least at the 0.05 level are highlighted in bold.*
*Standard errors are adjusted for repeat observations on persons.*
*Dummies are included for missing values but their coefficients are not supplied for brevity.*

# Substituting missing values for dummies for missing information

In this final set of alternative analyses, two tables, versions of Tables A1 and A2 from the main report, illustrate the minimal impact of using dummy values to represent missing information on variables included in the models. The coefficients in these tables using casewise deletion varied little from those in the reported models. They are, however, provided here to illustrate that point and for completeness.

**Table 26  Logistic regressions of probability of managerial/professional destination in 2001, controlling for individual and background characteristics, using casewise deletion with missing values (alternative version of Table A1 in treatment of missing values)**

|  | Model 1 coefficients (SE) | Model 2 coefficients (SE) | Model 3 coefficients (SE) | Model 4 coefficients (SE) | Model 5 coefficients (SE) |
|---|---|---|---|---|---|
| Cohort (baseline is 1971 cohort) | *–.006 (.011)* | **–.079 (.012)** | **–.075 (.012)** | **–.232 (.014)** | **–.157 (.014)** |
| *Age (baseline is oldest age group)* | | | | | |
| Age group 1 | **.053 (.013)** | *.013 (.013)* | *.016 (.013)* | **–.190 (.015)** | **–1.59 (.015)** |
| Age group 2 | **.059 (.014)** | **.042 (.014)** | **.042 (.014)** | **–.049 (.016)** | *–.028 (.016)* |
| Male | *.022 (.012)* | *.014 (.012)* | *.015 (.013)* | **.084 (.014)** | **.056 (.014)** |
| Partnered | **.987 (.014)** | **1.018 (.014)** | **1.028 (.015)** | **1.139 (.016)** | **.884 (.017)** |
| *Area concentration of minorities (baseline 0%)* | | | | | |
| Up to 1% | **.214 (.020)** | **.196 (.021)** | **.190 (.021)** | **.188 (.024)** | **.197 (.024)** |
| 1–5% | **.331 (.023)** | **.323 (.024)** | **.298 (.024)** | **.351 (.027)** | **.364 (.028)** |
| 5–10% | **.210 (.033)** | **.239 (.034)** | **.186 (.035)** | **.264 (.039)** | **.293 (.040)** |
| More than 10% | **.221 (.032)** | **.239 (.033)** | **.153 (.035)** | **.260 (.039)** | **.297 (.041)** |
| *Class of origin (baseline is working class)* | | | | | |
| Service class | **1.108 (.015)** | **.533 (.017)** | **.539 (.017)** | **.320 (.019)** | **.295 (.020)** |
| Intermediate | **.249 (.016)** | **.060 (.017)** | **.061 (.017)** | *.019 (.018)* | *–.008 (.019)* |
| Other | **–.266 (.028)** | **–.221 (.034)** | **–.220 (.034)** | **–.118 (.039)** | *–.052 (.040)* |
| *Mother's qualifications (base no higher qualifications)* | | | | | |
| No co-resident mother | | **–.211 (.045)** | **–.204 (.046)** | **–.126 (.052)** | *–.076 (.054)* |
| Mother with higher qualifications | | **.434 (.025)** | **.422 (.025)** | **.117 (.027)** | **.141 (.028)** |
| *Father's qualifications (base no higher qualifications)* | | | | | |
| No co-resident father | | **.234 (.028)** | **.236 (.029)** | **.128 (.032)** | **.131 (.033)** |
| Father with higher qualifications | | **.535 (.022)** | **.529 (.022)** | **.211 (.024)** | **.219 (.024)** |
| *Tenure at origin (baseline is owner occupation)* | | | | | |
| Local authority | | **–.569 (.015)** | **–.565 (.015)** | **–.274 (.017)** | **–.160 (.018)** |
| Private rented | | **–.309 (.021)** | **–.306 (.021)** | **–.161 (.024)** | **–.095 (.025)** |

*Continued*

**Table 26  Logistic regressions of probability of managerial/professional destination in 2001, controlling for individual and background characteristics, using casewise deletion with missing values (alternative version of Table A1 in treatment of missing values) (continued)**

| | Model 1 coefficients (SE) | Model 2 coefficients (SE) | Model 3 coefficients (SE) | Model 4 coefficients (SE) | Model 5 coefficients (SE) |
|---|---|---|---|---|---|
| *Car ownership at origin (baseline is no cars)* | | | | | |
| One car | | **.267 (.015)** | **.276 (.016)** | **.185 (.017)** | **.079 (.018)** |
| Two or more cars | | **.400 (.022)** | **.408 (.022)** | **.301 (.024)** | **.148 (.025)** |
| *Ethnic group (baseline is white non-migrant)* | | | | | |
| Caribbean | | | **.189 (.070)** | *−.095 (.078)* | *.062 (.084)* |
| Black African | | | **.577 (.225)** | *.062 (.244)* | *.161 (.245)* |
| Indian | | | **.455 (.063)** | *.092 (.065)* | *−.065 (.066)* |
| Pakistani | | | **−.603 (.094)** | **−.897 (.102)** | **−.918 (.103)** |
| Bangladeshi | | | −.304 (.228) | **−.525 (.231)** | −.404 (.252) |
| Chinese and other | | | **.523 (.102)** | *.141 (.107)* | *.166 (.112)* |
| White migrant | | | **.268 (.042)** | *.077 (.046)* | *.051 (.048)* |
| *Sample member's qualifications (base is none)* | | | | | |
| Lower | | | | **1.022 (.027)** | **.849 (.027)** |
| Middle | | | | **1.479 (.027)** | **1.286 (.028)** |
| Further | | | | **2.771 (.028)** | **2.575 (0.29)** |
| *Car ownership at destination (base is none)* | | | | | |
| One car | | | | | **.079 (.018)** |
| Two or more cars | | | | | **.148 (.025)** |
| *Tenure at destination (base is owner occupation)* | | | | | |
| Local authority | | | | | **−1.207 (.037)** |
| Private Rented | | | | | **−.467 (.024)** |
| Constant | **−1.367 (.025)** | **−1.264 (.030)** | **−1.289 (.030)** | **−2.639 (.038)** | **−2.778 (.047)** |
| *N* | 134,882 | 131,933 | 131,933 | 124,619 | 122,712 |
| Chi² change (df) | | **2,627 (8)** | **210 (8)** | **12,782 (3)** | **3,037 (4)** |

*Source: ONS Longitudinal Study, author's analysis.*

*Notes:*
*Statistically significant results at least at the 0.05 level are highlighted in bold.*
*Standard errors are adjusted for repeat observations on persons.*

**Table 27  Multinomial logistic regression of destinations at 2001 controlling for individual and background variables, using casewise deletion for missing values (alternative version of Table A2 in treatment of missing values)**

| | Coefficient for intermediate class (SE) | Coefficient for manual/ routine class (SE) | Coefficient for unemployment (SE) | Coefficient for 'other' (SE) |
|---|---|---|---|---|
| Cohort (baseline is 1971 cohort) | **.066 (.017)** | **.369 (.017)** | **.485 (.040)** | **.311 (.027)** |
| *Age (baseline is oldest age group)* | | | | |
| Age group 1 | **.104 (.018)** | **.276 (.019)** | **.304 (.042)** | **.174 (.029)** |
| Age group 2 | .006 (.020) | **.087 (.020)** | .089 (.046) | **.064 (.032)** |
| Male | **–.103 (.017)** | **.059 (.018)** | **.238 (.040)** | **–.772 (.030)** |
| Partnered | **–.595 (.021)** | **–1.115 (.020)** | **–2.311 (.044)** | **–2.609 (.032)** |
| *Area concentration of minorities (baseline is 0%)* | | | | |
| Up to 1% | **–.176 (.029)** | **–.199 (.029)** | –.116 (.072) | **–.204 (.047)** |
| 1–5% | **–.262 (.033)** | **–.443 (.033)** | **–.292 (.082)** | **–.359 (.054)** |
| 5–10% | **–.170 (.047)** | **–.423 (.048)** | .016 (.102) | **–.181 (.073)** |
| More than 10% | **–.159 (.048)** | **–.426 (.049)** | –.090 (.103) | **–.119 (.072)** |
| *Class of origin (baseline is working class)* | | | | |
| Service class | **–.179 (.024)** | **–.483 (.025)** | **–.318 (.060)** | **–.344 (.042)** |
| Intermediate | **.123 (.022)** | **–.149 (.023)** | **–.112 (.055)** | **–.090 (.038)** |
| Other | –.047 (.050) | –.087(.047) | **.382 (.085)** | **.517 (.062)** |
| *Mother's qualifications (base no higher qualifications)* | | | | |
| No co-resident mother | **.136 (.064)** | .060 (.063) | **.310 (.115)** | **.231 (.088)** |
| Mother with higher qualifications | **–.139 (.034)** | **–.170 (.040)** | **–.268 (.089)** | **.135 (.058)** |
| *Father's qualifications (base no higher qualifications)* | | | | |
| No co-resident father | –.012 (.040) | **–.225 (.039)** | –.076 (.079) | **–.221 (.057)** |
| Father with higher qualifications | **–.196 (.030)** | **–.344 (.035)** | .005 (.076) | –.010 (.053) |
| *Tenure at origin (baseline is owner occupation)* | | | | |
| Local authority | **.094 (.021)** | **.372 (.021)** | **.499 (.046)** | **.494 (.033)** |
| Private rented | **.114 (.029)** | **.205 (.030)** | **.211 (.069)** | **–.198 (.048)** |
| *Car ownership at origin (base is none)* | | | | |
| One car | –.029 (.022) | **–.257 (.021)** | **–.472 (.045)** | **–.360 (.032)** |
| Two or more cars | –.030 (.029) | **–.505 (.031)** | **–.662 (.072)** | **–.565 (.049)** |
| *Ethnic group (baseline is white non-migrant)* | | | | |
| Caribbean | **.202 (.093)** | –.186 (.102) | **.621 (.144)** | –.056 (.127) |
| Black African | .159 (.280) | –.251 (.336) | .489 (.489) | **–1.012 (.459)** |
| Indian | –.026 (.081) | –.146 (.086) | .075 (.170) | –.161 (.134) |
| Pakistani | **.780 (.121)** | **.624 (.132)** | **1.731 (.185)** | **1.531 (.153)** |
| Bangladeshi | .389 (.298) | .457 (.267) | **1.238 (.425)** | .696 (.384) |
| Chinese and other | –.035 (.134) | **–.423 (.146)** | .300 (.220) | –.086 (.197) |
| White migrant | .013 (.056) | **–.197 (.060)** | –.002 (.119) | .041 (.086) |

**Table 27  Multinomial logistic regression of destinations at 2001 controlling for individual and background variables, using casewise deletion for missing values (alternative version of Table A2 in treatment of missing values) (continued)**

|  | Coefficient for intermediate class (SE) | Coefficient for manual/ routine class (SE) | Coefficient for unemployment (SE) | Coefficient for 'other' (SE) |
|---|---|---|---|---|
| *Sample member's qualifications (base is none)* | | | | |
| Lower | **–.433 (.034)** | **–1.121 (.029)** | **–1.575 (.056)** | **–1.992 (.041)** |
| Middle | **–.763 (.034)** | **–1.695 (.031)** | **–2.003 (.060)** | **–2.508 (.044)** |
| Further | **–1.940 (.036)** | **–3.237 (.035)** | **–3.022 (.064)** | **–3.588 (.048)** |
| Constant | **.698 (.049)** | **1.949 (.046)** | **.229 (.097)** | **2.183 (.066)** |
| *N* | **124,619** | | | |
| Wald chi$^2$ (df) | **28885.2 (124)** | | | |

*Source: ONS Longitudinal Study, author's analysis.*

*Notes:*
*Statistically significant results at least at the 0.05 level are highlighted in bold.*
*Standard errors are adjusted for repeat observations on persons.*

# Notes

## Chapter 1

1  It is only approximately, as measuring mobility in this way does not take account of recent immigration and the fact that current destinations are swelled by such immigration. However, such recent immigrations would need to be excluded from any study that was trying to explore the effects of within-Britain experience on ethnic minority outcomes, rather than whether they may or may not have experienced mobility in relation to parents' class in country of origin.

2  The one selection issue that has not been addressed in this study is the requirement of the children being co-resident with their parent(s) when parental class is measured. See, for example, the discussion of this issue in Francesconi and Nicoletti (2004).

## Chapter 3

1  The picture will be very similar after two decades, since there was only a small amount of attrition for the younger cohort between 1991 and 2001, and this did not affect the age distributions substantially.

2  Alternatively, some studies use occupation on entry to the workforce or occupation held ten years after entry to the workforce. This is thus retrospective information and is subject to similar issues of recall as information collected on parental occupation in such studies.

## Chapter 4

1  The pattern is very similar if the youngest age group is excluded, leaving just those aged 28–35 for consideration ($N = 85,913$). Unemployment rates are reduced across all origin classes but it still retains a class gradient, going from 2.9 for those from service-class origins to 6.4 for those from working-class origins.

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