Intergenerational Occupational Mobility in Britain and the U.S. Since 1850

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Web Appendix

Appendix 2: Linked Census Data

Whether the nineteenth century U.S. exhibited patterns of intergenerational mobility different from those seen in Europe has been a source of persistent controversy throughout the last half of the twentieth century. Though Thernstrom asserted his findings for Boston were consistent with an "American Pattern," others were less sanguine regarding mobility in the nineteenth century. Summarizing the literature on intergenerational mobility in the past, Daniel P. McMurrer, Mark Condon, and Isabel V. Sawhill (1997) conclude, "Overall, the existing evidence suggests that mobility was likely not as great as suggested by popular literature and the writings of Tocqueville on the openness of American society. Most of the rich during earlier periods were apparently born rich."[1]

The principal difficulty with historical estimates of intergenerational mobility for the U.S. is that they were most often constructed by observing a single community over a period of decades. The only individuals whose occupational mobility could be observed were those who

[1] In the study that is closest to ours in making explicit comparisons between the U.S. and Britain in the nineteenth century using individuals linked across censuses (though using only individuals who remained in the same location across several decades), Grusky (1987) concludes, "This case for 'American Exceptionalism' can be evaluated only by comparing the data for Europe and America in the nineteenth century. It should be clear, however, that the present study casts doubt on this interpretation [that current belief in high rates of mobility in the U.S. results from rates that were indeed higher than those elsewhere in the past, though the U.S. rate some time ago converged to the more general pattern], since the rates of mobility in the United States have increased over the last century." (Grusky, 1987, p. 120) Though Grusky's data make it possible for him to compare mobility over more than a century, there are significant parts of the population excluded from the nineteenth century samples he employs because they are based on the population that remained resident for a decade or more in a set of four cities and towns (Poughkeepsie, NY; Holland, MI; Atlanta, GA; and Boston, MA). These samples necessarily exclude (1) anyone who migrated into or out of any of these cities during the time period examined; (2) farmers and farm laborers living outside these cities and towns (at time when half of the civilian labor force was employed in agriculture and most of them lived outside cities and towns); and (3) any rural residents (at a time when more than three quarters of the U.S. population still lived in places of fewer than 2,500 inhabitants).

remained in the community. It would be surprising if the movers and stayers did not have systematically different patterns of occupational mobility, given the positive and often substantial costs of migration. Occupational mobility measured using marriage records (a common source for mobility measurement in Britain) suffers a different shortcoming: sons' occupations are examined at different points in their careers than fathers' occupations.

The new nineteenth century data used here for the U.S. and Britain is not limited to individuals who remained in a place for a decade or more and examines sons' and fathers' occupations at similar ages, presenting a more representative picture of mobility than has previously been available. The data were generated by following individuals across successive census enumerations. The population censuses of Britain and the U.S. are generally regarded to be the best sources of individual-level, nationally representative data from the nineteenth century for those countries. However, the cross-sectional censuses do not provide the continuity over time needed to study issues of mobility at the level of the individual. Two new sources have made it possible to create the necessary continuity from the British and U.S. historical census records. The Genealogical Society of Utah in conjunction with the Federation of Family History Societies has computerized the individual-level records from the enumerators' books of the 1881 Census of the Population of England, Wales, and Scotland and from the 1880 U.S. Federal Population Census. These data make it possible to search for specific individuals in the 1881 British or 1880 U.S. census. To construct the data for this study, we searched for individuals from two other censuses: the 1851 British and the 1850 U.S. census.

For Britain, we attempted to match all the English and Welsh born males age 25 and below from the computerized two percent sample of the 1851 census compiled principally by Michael Anderson, Brenda Collins, and Craig Stott. For the U.S. we attempted to match white

males age 25 and below from the 1850 Federal Census one percent public use sample.[2] We employed a common matching technique for the British and U.S. data. Both countries' censuses provide information that either remains consistent between enumerations (name and birthplace) or changes predictably (age) that can be used to identify a given individual in more than one census. The British census has more specific information than the U.S. census on each individual's birthplace (parish in Britain, state in the U.S.). In the 1880 U.S. census, respondents were asked to give the place of birth of their parents as well (state for those whose parents were born in the U.S. and country for those whose parents were born abroad). This question was missing entirely from the nineteenth century British census.

For Britain, in order to be considered a true match for an individual from 1851, an individual from 1881 had to have either the same name or a close phonetic variation thereof (for example, Aitken and Aitkin were considered to be equivalent), a year of birth different by no more than five years, and the same county and parish of birth. For the U.S., the individual must have had either the same name or a close phonetic variation thereof, provided the same state of birth for himself (and his parents if they were present in 1850) in 1850 and 1880, and gave a year of birth that differed by no more than three years.[3] The variation in birth year was allowed in order to account for age misreporting, a fairly common phenomenon in nineteenth century societies which lacked the systematic record keeping and where individuals often had only an

[2] The 1851 data for Britain are from a 2% Public Use Sample available as Study No. 1316 from the U.K. Data Archive at the University of Essex (http://www.dataarchive.ac.uk). It is a stratified two percent systematic cluster sample from the enumerators' books. For a full description see Anderson (1987). The complete 1881 census for Britain was obtained as Study No. 3643 from the U.K. Data Archive. The 1880 U.S. file was obtained from the North American Population Project (http://www.nappdata.org) and the 1850 U.S. 1% Public Use Sample was obtained from the Integrated Public Use Microdata Series available from the Minnesota Population Center (http://www.ipums.org).

[3] The proximity of surnames was assessed by first matching individuals whose surnames were grouped into the same SOUNDEX code; see http://www.archives.gov/publications/general-info-leaflets/55.html. The names in the same group were then examined to calculate the phonetic distance between them using the SPEDIS algorithm in SAS; potential matches with SPEDIS scores greater than 30 were then discarded.

approximate idea of their age.[4] None of the matching information could be missing from an individual's record. Also, only unique matches were considered: if an individual from the 1850/51 sample had more than one match in the 1880/81 census, then that individual was dropped.[5]

Applying this matching process to 69,785 English and Welsh males age 25 and under from the 1851 two percent sample yielded 14,191 men observed in Britain both in 1851 and 1881, a success rate of 20%. From a pool of 43,438 U.S. white males age 25 and under in 1850, 9,497 were found in the 1880 U.S. census, a 22 percent success rate. The inability to link every observation from the initial public use sample (1850 for the U.S. and 1851 for Britain) is a function of mortality (and out-migration from Britain) over the following thirty years, under-enumeration in the terminal census (1880 for the U.S. and 1881 for Britain), and the inaccurate recording in either the initial or terminal year by the census takers or by those who performed the census transcriptions of the characteristics on which the linkage is based: name, year of birth, and birthplace (for the individual as well as his parents in the U.S. and for the individual only in Britain).[6]

For the U.S., 69 percent of white, native-born males under age 25 survived from 1850 to 1880 (based on the survival of five-year age cohorts in the IPUMS 1850 and 1880 samples); for

[4] The smaller margin of age reporting error for the U.S. matching process is in response to the less specific birthplace information. For a discussion of age enumeration in the Victorian census, see Edward Higgs (1986).

[5] The same procedure created the 1860-80, 1880-1900, and 1870-80 linked U.S. samples. In each case, the 1880 complete census files was used as the base sample, which was then linked to a one percent IPUMS sample (for 1860, 1870, or 1900). For the two twenty-year spans, males were age 33-39 in the terminal year to enhance comparability with the twentieth century U.S. data; for the ten-year span, they were age 20-29 and age 45-59 in the initial year, to enhance comparability with the original NLS cohorts of younger and older males. The same matching algorithm as generated the 1850-80 linked file described above was used to identify matches, with the same tolerances allowed to misspelling of names and misreporting of year of birth. These additional linked samples differ from the general U.S. population in the same ways as the 1850-80 linked sample, with these differences again eliminated by weighting.

[6] Richard H. Steckel (1991) surveys research on the accuracy of nineteenth century U.S. population censuses.

Britain, 67 percent of males both survived from 1851 to 1881 and remained in Britain (based on published population-by-age tables in B. R. Mitchell, 1962, p. 12). Estimates of under-enumeration for the nineteenth century U.S. range from as high as 22% (John Adams and Alice Bee Kasakoff, 1991) to as low as 9% (David Hacker, 2000). Though we lack estimates of the extent of mis-reporting for names, birth years, and birth places, if we take the error in each of these to be 5 to 10 percent and assume for simplicity that all of the factors preventing linkage occur independently, we can calculate a set of projected linkage rates ranging from optimistic to pessimistic.[7] For the U.S., the anticipated linkage rate ranges from $(0.69)(0.91)(0.95)^{10}$=37.6% ("optimistic") to $(0.69)(0.78)(0.90)^{10}$=18.8% ("pessimistic").[8]

The actual linkage rate for the U.S. is safely within this range, even without taking account of the fraction of individuals who could not be uniquely matched (e.g. they were matched to more than one individual in the 1880 census, and it was not possible to identify the best match). In 1880, 1.5 percent of white, native-born males shared the same name, birth year, birth place, and parents' birthplaces with at least one other individual, while 80.5% were uniquely identified by this set of characteristics. For the remaining 18%, there were several individuals who had names that were phonetically close and birth years that were within three years, but when an individual from the 1850 pubic use sample was matched to one of these individuals, it was possible in these cases to rank the matches by the proximity of the name and birth year, and choose the "best" match.

[7] One of the few studies to report an estimate of mis-reporting for a characteristic contained in the U.S. population census for the nineteenth century is Peter Knights (1971): he reports that 11 percent of those located in Boston in both 1850 and 1860 reported a year of birth (inferred from age at the census) that differed by five or more years between the two censuses. Steckel (1988) found that literacy was inconsistently classified for seven percent of household heads located in both 1850 and 1860.

[8] There are five characteristics that must be reported correctly (name, birth year, own birth place, father's birth place, and mother's birthplace) in each of two censuses, so the proportion with correctly reported characteristics is between $(0.95)^{10}$ (if each is reported with error 5% of the time) and $(0.90)^{10}$ (if each is reported with error 10% of the time).

We lack estimates of under-enumeration and mis-reporting in the nineteenth century British censuses, though we know that the combined effects of mortality and net migration were slightly higher over the 1851-81 period in Britain than in the U.S. (only 67 percent of males age 25 and under present in 1851 would have still been present in Britain in 1881). At the same time, there was less variety in the distribution of surnames in Britain than in the U.S., so a larger fraction of potential matches (six percent) had to be discarded because a unique match could not be made. Using plausible assumptions for the under-enumeration and mis-reporting and for the probability of multiple matches, the British linkage rate can be shown to lie within the range of expected linkage rates.

The linkage for both the U.S. and Britain excluded those individuals who were linked from the initial census to more than one individual in the terminal census. In some cases, this discards potentially useful information. For example, if an individual whose father's occupation was observed in the 1850 U.S. public use sample was then linked to two individuals in the 1880 census, but both of those individuals had the same 1880 occupation, inclusion of either potential match, or a linear combination of them, would add the same information to a mobility table comparing the occupations of father and sons. We nonetheless excluded such individuals for two reasons: (1) their inclusion would induce a bias in favor of more common father-son occupation pairs; and (2) in some parts of the analysis (e.g. residential mobility, occupational mobility related to family wealth), the particular linkage made is more consequential than in the simple mobility calculations.

For each country, the data come from two nationally representative sources, so as long as the matching process does not skew the sample, the set of matched individuals should also be representative of the two national populations that survived 1850-80 and 1851-81. In order to

assess the representativeness of the linked samples, we compared their characteristics to those in the public use samples for the initial year (1850 or 1851) and terminal year (1880 or 1881). Tables A2-1 and A2-2 present marginal effects from probit regressions in which the dependent variable is 1 for observations from the linked sample and 0 for observations from the public use sample.[9]

Table A2-1 around here
Table A2-2 around here

In general, the matched samples represent the overall population quite well. Though several characteristics exert a statistically significant influence on the probability of linkage, compared to the predicted probability the magnitude is small in each case.[10] In order to reduce the impact of these already small differences between the linked samples and the general population, we constructed weights to produce linked samples that would duplicate the marginal frequencies of the characteristics in the general population. (W. E. Deming and F. F. Stephan, 1940) Two sets of weights were generated, one for the initial year and one for the terminal year. In Columns (2) and (4) of Tables A2-1 and A2-2, the weights are imposed on the linked individuals, leaving them statistically indistinguishable from the general population. Though we have used the unweighted data throughout this paper, the results are insensitive to the imposition of these weights. The weighting can eliminate the impact of linkage selectivity on observable

[9] Each linked individual thus enters the regression twice: once in the linked sample and once in the public use sample. This is done to facilitate comparison with the regressions in Columns (2) and (4) of each table in which weights are imposed to make the linked individuals nationally-representative (rather than merely indistinguishable from the unlinked). For the British, 8,655 individuals in the public use sample for 1851 were missing one or more of the characteristics used in the probit analysis and were dropped from the regressions in Columns (1) and (2) of Table A2-1. For the comparisons with 1880 and 1881, 25 percent random samples of the complete files for those years were used rather than the complete files.

[10] The large coefficients on the migration history variables in Column (3) of Table A2-2 result from the inability to identify the year of arrival in the U.S. for immigrants present in the U.S. in 1880 (the excluded category in the regression).

characteristics; it cannot, however, eliminate the impact of unobservables on the linkage probability.

A final concern is whether the linkage process has resulted in too many "false positives" (individuals who are not in fact the same person in both the initial and terminal years). For the comparison between the U.S. and Britain in the nineteenth century, this is a difficulty if the sample for one country has more false positives than the sample for the other. For example, more false positives in the U.S. than in Britain will generate more "noise" in comparing the occupations of fathers and sons, and lead to a spurious finding of greater occupational mobility in the U.S. than in Britain. For the comparison over time within the U.S., it is also a problem, because the data for the twentieth century were constructed in a way that prevented such incorrect matches (the respondent in the OCG was asked himself to state the occupation of his father when the respondent was 16 years of age). Greater "noise" in the nineteenth century U.S. data would also produce a spurious finding of greater mobility in the nineteenth century U.S. than in the twentieth.

The comparison between mobility in Britain 1851-81 and in the U.S. 1850-80 was performed again, but this time with the samples restricted to those whose surnames matched exactly and whose age was off by no more than one year. Though this will not entirely eliminate false positives, it will reduce their prevalence, so if the difference between Britain and the U.S. in the nineteenth century persists, we can have greater confidence that this finding is not being driven by differences in the prevalence of false positives. The results were quite similar to those shown in the second panel of Table 2:

P=Britain 1851-81, **Q**=U.S. 1850-80

d(**P**,**J**)=24.50 (prob < 0.0001)
d(**Q**,**J**)= 14.22 (prob < 0.0001)

d(**P**,**Q**)=15.22 (prob < 0.0001).

Though mobility in the U.S. with the more restricted sample is slightly farther from what we would observe if the occupations of fathers and sons were independent, the difference between mobility in the U.S. and in Britain is actually slightly greater. When the 1880-1900 U.S. sample is restricted to those whose surname matched exactly and whose age was off by no more than a year, the nineteenth century U.S. remained substantially more mobile than the twentieth century though the magnitude of the difference is reduced. We again can reject the null hypothesis that the association between the occupations of fathers and sons was identical in these two eras:

P=U.S. 1880-1900, **Q**=U.S. 1953-73

d(**P**,**J**)=15.90 (prob < 0.0001)
d(**Q**,**J**)=20.76 (prob < 0.0001)
d(**P**,**Q**)=6.94 (prob < 0.005).

Appendix 3: Expanded Occupational Categories

The following tables provide the raw frequency counts for all of the 5 × 5 and 6 × 6 contingency tables, which can be collapsed down to 4 × 4 tables like those shown in the text by combining high and low white collar or skilled and semi-skilled. Also, this appendix provides a version of Table 1 from the text which imposes each country's marginal frequencies on the other country.

1. Raw 5 × 5 and 6 × 6 contingency tables:

Table A3-1 here
Table A3-2 here
Table A3-3 here
Table A3-4 here

2. British and U.S. Mobility in the Twentieth Century With Each Country's Marginal Frequencies Replaced By Those From the Other Country

Table A3-5 here

TABLE A2-1–PROBIT MARGINAL EFFECTS ON LINKAGE
(1=LINKED SAMPLE, 0=PUBLIC USE SAMPLE), BRITAIN

Variable	1851 No Weights $\partial\mathbf{P}/\partial X$	1851 Weights $\partial\mathbf{P}/\partial X$	1881 No Weights $\partial\mathbf{P}/\partial X$	1881 Weights $\partial\mathbf{P}/\partial X$
Age 15-25 in 1851	0.0069	0.0015	-0.0015	0.0000
	(1.48)	(0.30)	(21.32)***	(0.44)
Residence:				
London	0.0335	0.0067	0.0011	-0.0002
	(4.46)***	(0.87)	(6.41)***	(1.12)
Midlands-East	0.0354	0.0078	0.0012	-0.0002
	(4.97)***	(1.06)	(7.21)***	(0.94)
North	0.0405	0.0091	0.0004	-0.0002
	(5.66)***	(1.23)	(2.85)***	(1.15)
South	0.0305	0.0056	0.0022	-0.0002
	(4.17)***	(0.75)	(11.58)***	(0.90)
Migration History:				
Birth County=Residence	0.0698	0.0014	0.0007	0.0000
	(13.64)***	(0.22)	(9.66)***	(0.52)
Occupation[a]:				
Farmer	0.0148	0.0030	0.0014	0.0000
	(3.90)***	(0.78)	(8.65)***	(0.01)
Craftsman	0.0332	0.0065	0.0005	-0.0001
	(5.52)***	(1.09)	(6.00)***	(1.03)
Laborer	0.0131	0.0023	0.0000	-0.0001
	(3.69)***	(0.62)	(0.44)	(0.81)
Attended School	0.0167	0.0026		
	(4.81)***	(0.73)		
Employed Outside Home	0.0096	0.0013		
	(2.09)**	(0.28)		
Married			0.0000	0.0001
			(0.42)	(0.42)
Head			0.0014	0.0000
			(13.01)***	(0.23)
Observations	75,321	75,321	934,852	934,852
Pseudo-R^2	0.0043	0.0001	0.0065	0.0000
Predicted Probability	0.1830	0.1886	0.0038	0.0041

Notes: Absolute value of z statistics in parentheses. * significant at 10%; ** 5%; *** 1%. Omitted categories: "Age 0-14 in 1851," "Wales," "Other." 1881 uses a 25% sample of the unlinked. [a] Father's occupation in 1851, Son's occupation in 1881.

TABLE A2-2–PROBIT MARGINAL EFFECTS ON LINKAGE
(1=LINKED SAMPLE, 0=PUBLIC USE SAMPLE), U.S.

Variable	1850 No Weights $\partial\mathbf{P}/\partial X$	1850 Weights $\partial\mathbf{P}/\partial X$	1880 No Weights $\partial\mathbf{P}/\partial X \times 100$	1880 Weights $\partial\mathbf{P}/\partial X \times 100$
Age 15-25 in 1850	0.0017	0.0013	0.0314	0.0000
	(0.41)	(0.31)	(14.38)***	(0.01)
Residence:				
Midwest	-0.0478	-0.0008	-0.0216	0.0001
	(11.26)***	(0.19)	(8.40)***	(0.02)
South[a]	-0.0519	-0.0011	-0.0235	0.0002
	(12.13)***	(0.25)	(9.17)***	(0.04)
West			-0.0398	0.0003
			(7.83)***	(0.02)
Population > 2,500	-0.0013	-0.0028		
	(0.25)	(0.52)		
Migration History:				
Interstate Mover	-0.0124	-0.0001	0.3214	-0.0001
	(1.34)	(0.01)	(43.35)***	(0.02)
Birthstate=Residence	0.0090	0.0001	0.3123	-0.0002
	(1.10)	(0.01)	(50.16)***	(0.03)
Family Size	-0.0003	-0.0003	-0.0004	-0.0004
	(0.44)	(0.35)	(1.22)	(0.50)
Occupation[b]:				
Farmer	0.0138	-0.0015	0.0126	-0.0003
	(2.07)**	(0.22)	(4.16)***	(0.04)
Skilled	0.0003	-0.0011	-0.0014	-0.0001
	(0.05)	(0.14)	(0.38)	(0.01)
Semi-Skilled	0.0086	-0.0008	-0.0012	-0.0000
	(0.93)	(0.08)	(0.28)	(0.00)
Laborer	0.0128	-0.0019	-0.0102	0.0001
	(1.52)	(0.22)	(2.85)***	(0.01)
Other	-0.0106	-0.0011	-0.0059	-0.0001
	(0.88)	(0.09)	(0.98)	(0.01)
Household Real Estate:				
0 < Real Estate < $1,500	0.0104	0.0024		
	(2.37)**	(0.54)		
Real Estate ≥ $1,500	0.0255	-0.0025		
	(5.62)***	(0.56)		
Father Literate	-0.0067	-0.0058		
	(1.09)	(0.93)		
Attended School	0.0065	0.0006		
	(1.82)*	(0.17)		
Household Head			-0.0014	0.0024
			(0.35)	(0.26)
Married			0.0094	-0.0022
			(2.65)***	(0.25)
Observations	52,935	52,935	1,766,147	1,766,147
Pseudo-R^2	0.0071	0.0001	0.0356	0.0000
Predicted Probability	0.1794	0.1794	0.0014	0.0014

Notes: Absolute value of z statistics in parentheses. * significant at * 10%; ** 5%; *** 1%. Omitted categories: "Age 0-14 in 1850," "Northeast,", "Population ≥ 2,500", "Foreign-Born," "White Collar," "Household Real Estate=0," "Father Illiterate," "Not Attending School," "Non-Head," and "Unmarried." 1880 uses a 25% sample of the unlinked.
[a] Includes "West" in 1850. [b] Father's occupation in 1850, Son's occupation in 1880.

TABLE A3-1–INTERGENERATIONAL OCCUPATIONAL MOBILITY IN BRITAIN AND THE U.S.,1949-55 TO 1972-73, FREQUENCIES (FIVE-WAY CATEGORIZATION)

	Father's Occupation				
Son's Occupation	High White Collar	Low White Collar	Farmer	Skilled/ Semiskilled	Unskilled
Britain (Table **P**):					
H. White Collar	76	51	8	136	20
L. White Collar	19	28	3	70	18
Farmer	1	1	9	3	1
Skilled/Semiskilled	19	52	19	417	102
Unskilled	6	2	4	44	14
U.S. (Table **Q**):					
H. White Collar	349	134	108	404	116
L. White Collar	70	43	36	135	47
Farmer	2	1	61	7	5
Skilled/Semiskilled	116	69	193	576	236
Unskilled	29	20	53	115	62

Notes: Occupation of father when respondent was age 14 (Britain) or age 16 (U.S.), compared to occupation at survey in 1972 (Britain) or 1973 (U.S.), males 31-37 (Britain) and 33-39 (U.S.) in survey year.

TABLE A3-2–INTERGENERATIONAL OCCUPATIONAL MOBILITY IN THE U.S., 1860-80 AND 1880-1900, FREQUENCIES (FIVE-WAY CATEGORIZATION)

	Father's Occupation				
Son's Occupation	High White Collar	Low White Collar	Farmer	Skilled/ Semiskilled	Unskilled
U.S. 1860-80 (Table **P**):					
H. White Collar	65	10	174	69	26
L. White Collar	33	7	59	46	13
Farmer	37	6	949	103	60
Skilled/Semiskilled	52	7	286	173	75
Unskilled	30	3	220	66	63
U.S. 1880-1900 (Table **Q**):					
H. White Collar	86	13	159	77	29
L. White Collar	51	11	75	66	22
Farmer	22	5	658	58	43
Skilled/Semiskilled	51	10	276	252	95
Unskilled	32	2	243	84	79

Notes: Occupation of father in 1860 or 1880 when son was age 13-19, compared to occupation of son in 1880 or 1900, males 33-39 in 1880 or 1900.

TABLE A3-3–INTERGENERATIONAL OCCUPATIONAL MOBILITY IN BRITAIN AND THE U.S., 1850-51 TO 1880-81, FREQUENCIES (FIVE-WAY CATEGORIZATION)

	Father's Occupation				
Son's Occupation	High White Collar	Low White Collar	Farmer	Skilled/ Semiskilled	Unskilled
Britain 1851-81 (Table **P**):					
H. White Collar	20	19	4	59	9
L. White Collar	15	49	27	160	54
Farmer	1	7	114	39	21
Skilled/Semiskilled	19	124	90	1,155	386
Unskilled	6	26	44	233	395
U.S. 1850-80 (Table **Q**):					
H. White Collar	40	1	146	56	27
L. White Collar	13	1	31	26	3
Farmer	42	2	850	92	35
Skilled/Semiskilled	31	2	214	166	40
Unskilled	10	1	129	23	24

Notes: Occupation of father in 1851 (Britain) or 1850 (U.S.) when son was age 13-19, compared to occupation of son in 1881 (Britain) or 1880 (U.S.), males 43-49 in 1881 (Britain) or 1880 (U.S.).

TABLE A3-4–INTERGENERATIONAL OCCUPATIONAL MOBILITY IN BRITAIN AND THE U.S., 1850-51 TO 1880-81, FREQUENCIES (SIX-WAY CATEGORIZATION)

	Father's Occupation					
Son's Occupation	High White Collar	Low White Collar	Farmer	Skilled	Semiskilled	Unskilled
Britain 1851-81 (Table **P**):						
H. White Collar	20	19	4	54	5	9
L. White Collar	15	49	27	139	21	54
Farmer	1	7	114	34	5	21
Skilled	19	112	68	878	92	294
Semiskilled	1	12	22	78	107	92
Unskilled	6	26	44	202	31	395
U.S. 1850-80 (Table **Q**):						
H. White Collar	40	1	146	40	16	27
L. White Collar	13	1	31	16	10	3
Farmer	42	2	850	75	17	35
Skilled	19	1	140	73	28	32
Semiskilled	12	1	74	38	27	8
Unskilled	10	1	129	13	10	24

Notes: Occupation of father in 1851 (Britain) or 1850 (U.S.) when son was age 13-19, compared to occupation of son in 1881 (Britain) or 1880 (U.S.), males 43-49 in 1881 (Britain) or 1880 (U.S.).

TABLE A3-5–INTERGENERATIONAL OCCUPATIONAL MOBILITY IN BRITAIN AND THE U.S.,1949-55 TO 1972-73, WITH EACH COUNTRY'S MARGINAL FREQUENCIES REPLACED WITH THOSE FROM THE OTHER COUNTRY, FREQUENCIES (COLUMN PERCENT)

	Father's Occupation				
Son's Occupation	White Collar	Farmer	Skilled/ Semiskilled	Unskilled	Row Sum
Britain (Table **P**, With U.S. Marginal Frequencies From Table 1):					
White Collar	637.0	155.9	497.1	152.0	1442.0
	(76.5)	(34.6)	(40.2)	(32.5)	
Farmer	3.8	66.3	3.8	2.1	76.0
	(0.5)	(14.7)	(0.3)	(0.4)	
Skilled/Semiskilled	159.3	165.0	616.7	250.0	1191.0
	(19.1)	(36.6)	(49.9)	(53.5)	
Unskilled	32.9	63.7	119.4	63.0	279.0
	(4.0)	(14.1)	(9.7)	(13.5)	
Column Sum	833.0	451.0	1237.0	467.0	
U.S. (Table **Q**, With British Marginal Frequencies From Table 1):					
White Collar	157.9	10.0	220.8	40.3	429.0
	(61.9)	(23.2)	(33.0)	(26.0)	
Farmer	1.3	7.0	4.7	2.0	15.0
	(0.5)	(16.2)	(0.7)	(1.3)	
Skilled/Semiskilled	84.3	22.8	402.8	99.1	609.0
	(33.0)	(53.1)	(60.1)	(63.9)	
Unskilled	11.5	3.3	41.7	13.5	70.0
	(4.5)	(7.6)	(6.2)	(8.7)	
Column Sum	255.0	43.0	670.0	155.0	

Notes: Occupation of father when respondent was age 14 (Britain) or age 16 (U.S.), compared to occupation at survey in 1972 (Britain) or 1973 (U.S.), males 31-37 (Britain) and 33-39 (U.S.) in survey year. The entries were generated by imposing the marginal frequencies from the other country on each country's mobility pattern in Table 1. This was done using the algorithm described in Altham and Ferrie (2007).