"LONG- VERSUS SHORT-TERM IMPACTS OF MOBILITY ON INCOME AND EARNINGS"

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The data source--An alphabetic cluster sample of surnames was used to extract tax records on an identical sample of individual taxpayers from the archives of the State of Wisconsin (1). The resulting sample is representative of taxpayers in any given year from 1947-1959 and includes observations on some persons for 1946-1960.[1] A time series of data on individuals is embedded in the sample so that as many as fifteen consecutive tax returns may be available for some individuals. Individuals may disappear from (or reappear in) the sample because of years of low income, residence outside the State of Wisconsin, marriage (and change of surname), or death. Some information on the residence prior to a move into the State is available, as is some information on the reasons why tax returns were not filed in the prior year. Lack of symmetric data on persons who leave the sample limits the utility of that information for studies of residential mobility.

In this study we restrict our attention to males who filed at least two tax returns in the period 1946-1960. A comparison of residence codes and occupation codes for any two years provides measures of mobility for persons who remain in the State of Wisconsin. None of these findings can be generalized to inter-state mobility; those moves whose origin or terminus lies outside Wisconsin are not observed. The observed mobility measures also suffer from the random variation in taxpayers' descriptions of their occupations; occupation could not be reliably coded in as much detail as is provided by the 2-digit Census occupational titles. Detailed 2-digit occupations are differentiated for professional workers, but semi-skilled and unskilled occupations could not be differentiated from information given by the taxpayer (9). A description of the occupational classification used to define mobility status and the frequency of those observed occupations is given in Table 1. The distribution of major (1-digit) occupations reported for the tax record sample conforms closely to Census distributions. Nonetheless, taxpayer idiosyncracies in reporting the same occupation may appear in these findings as spurious occupational changes.

Residential location was both more reliably reported and more precisely defined. The State uses information on the residence of taxpayers as the basis for income tax distribution to municipalities; and therefore took great care to validate the taxpayer's correct city and county of residence in the current and prior years (the year for which income data are reported). Inter-county moves can be accurately measured from observed data, while intra-county moves are measured by moves among the nine largest towns and cities within the county and moves between those towns and cities and the remainder of the county.

The biases of the measures of residential mobility can be seen in Table 2. Intra-county moves bear no resemblance to the CPS data for the U.S. Wisconsin intra-county moves are probably understated by a factor of four. This is of interest for itself, since it indicates that "very small" moves (within defined units such as major towns) constitute about three-fourths of all intra-county changes in residence. We conjecture that such moves are less likely to be associated with a change in employment and are therefore of less interest to a study of the labor market. Inter-county, intra-state mobility reported to the Current Population Survey for the entire U.S. (11) correlates roughly with the measure derived from the tax data.[2] (Given the somewhat atypical economic structure of Wisconsin it is not clear that a higher degree of correlation could be expected.)

Four different samples of tax records for male taxpayers were drawn from the basic sample for studies of occupational and residential mobility:

Sample A--at least two tax records in the years 1946-60
Sample B--at least two tax records in the years 1947-59
Sample C--at least three tax records in the years 1947-59
Sample D--at least four pairs of consecutive tax records in the years 1947-59, sampled at a rate of 50 percent of the basic sample.

As interstate mobility will cause individuals to be excluded from the subsamples, a bias exists in our observations to the extent that interstate and intrastate mobility are different facets of the same underlying economic and social processes. The data must be regarded as a truncated sample of movers. However, not all differences between the four samples are associated with interstate mobility. Entry into the labor force, exit from the labor force, and death are also reasons why we will fail to observe tax records for an individual over the entire period under observation. Table 3 gives a picture of the attrition in the sample that occurs when attention is focussed on individuals with long time series of tax records.

Principal hypotheses--We hypothesize that change in occupational and residential location are motivated primarily by economic incentives: both types of mobility cause a subsequent improvement in earnings or a reduction in unemployment (4, 5, 12). The null hypothesis is that mobility is motivated by personal idiosyncracies and tastes and does not cause significant economic improvement.

Evidence to support the hypothesis is crude, but consistent. Four types of findings are reported below:

1) immediate impacts of mobility on earnings. These findings correspond to recall data that can be extracted from sources such as the Current Population Survey.
2) two-year results of mobility on earnings. Our hypothesis is that the improvement in earnings expected from mobility is not likely to appear until the year following the reported change.
3) cumulative effects of occupational mobility on trends in relative income. Our hypothesis here was that mobility will lead to relatively greater trends in earnings than those observed for non-mobile per-

sons. This result will only hold if voluntary upward mobility outweighs involuntary downward movements.
4) indirect evidence that mobility is enhanced by favorable economic conditions.

Annual mobility and earnings--Table 4 shows the earnings reported by male taxpayers for the tax year that most closely corresponds to the interval between dates of reporting a change in occupation or residence. It is evident that all but one of the reported changes are associated with lower levels of earnings than non-mobile persons. Only movers within the county who did not change occupation report higher mean earnings in the year of the move than the non-movers. This finding suggests that a large component of intra-county moves represents upgrading of residence by persons who move to suburban areas. The contrast between the high earnings of immobile individuals and the relatively lower earnings of movers is deceptive. Any period of unemployment or hiatus in employment associated with a job change would lead us to suspect lower earnings for the mover. Conversely, earnings reported by persons who did not move last year include beneficial (or detrimental) effects of moves made by some individuals in prior years. Hence the interpersonal comparison does not offer evidence on the impact of mobility on earnings, per se.

Table 5 indicates the mobility rates underlying Table 4 and demonstrates that more occupation changers also change residence than would be expected on the basis of chance. This finding is at variance with the time series analysis of mobility rates that indicates a negative correlation. (See footnote 2.) Disaggregating the observed data into birth cohorts, displays both significantly higher rates of residential mobility for those who change occupations and an expected decline in the probability of mobility with the increasing age of the cohort. (See Table 6.)

Two-year impact of mobility on earnings--As we hypothesize that mobility will have a positive effect on earnings in years subsequent to the move, we have computed earnings changes for individuals. The difference calculated from the year t-1 to t reflects the change in earnings from the year prior to the reported move to the year of the move. The change in earnings from t to t+1 reflects experience in the year subsequent to the move. Table 7 contrasts earnings changes for persons who did not move between years t-1 and t with the changes that occurred for those who shifted occupation or changed their labor force status. In each birth cohort mean income improvement in the year of the occupational change was less than improvement for those who made no change. (The unknown group is an exception to that finding.) At the same time occupational mobility results in substantially larger average increases in earnings for all cohorts in the year subsequent to their move. The cumulative impact of the occupational move over two years is most favorable for the 1905-24 cohorts, who earned a substantial excess over their immobile cohorts. This positive impact on earnings registers on a group of individuals whose initial income position was worse than the position of immobile workers. (Cf. Table 4.)

Changes in county of residence show similar but slightly less systematic results. Earnings improvement for persons whose residence shifted across county lines was larger in the year following the move than for persons who did not cross county boundaries. The 1905-14 cohort experienced a net loss in earnings, but the cohort pattern of net gain over the two-year period otherwise parallels the pattern shown for occupational cohorts. The large negative effect of locational mobility for the oldest cohort can readily be explained by the association between retirement and locational change that is shown in Table 5.

Cumulative impact of mobility on earnings--The obvious extension of Table 7 is to tabulate changes in earnings for k years following the change in occupation or location. Such tabulations are not yet available and we adopt two alternative approaches. In this section inter-personal differences in mean earnings are presented according to the cumulative mobility experienced between the first and the last tax record filed. Thus Table 8 corresponds to Table 4, except that change in occupation is measured over a period of at least 5 years, and possibly as many as 12 years. (Sample D was used for the tabulation.) Those who did not change occupation during the period under observation are shown on the first line, while those who changed major occupation grouping over the period are shown on the second line. An individual's earnings in any given year might be included in any of the mobility categories of Table 4; in Table 8 all the earnings for an individual must be included in one of the four rows. There is another difference between the two tables. Table 8 shows the average of mean earnings for an individual; Table 4 shows the mean earnings for all tax records. Individuals with relatively short time series of tax records thus receive greater weight in Table 8 than in Table 4. On the other hand individuals who do not meet the criterion for Sample D, at least four pairs of tax records, are excluded altogether and receive no weight in the average at all.

Persons who change major occupation have lower average earnings than those with a stable affiliation. The difference is only on the order of four hundred dollars or nine percent of the average earnings of immobile workers. The underlying mobility rates on which these averages of individual earnings are based are shown in Table 9. (The cumulative long term probability of remaining in a given occupation is significantly higher than the probability forecast from the annual average rate of occupational change for the cohort. This tangential finding clearly implies a need for a stochastic model of movement that includes some inhibiting effect for prior mobility.) Just as with the earlier interpersonal comparisons in Table 4 we can not easily assess the meaning of this mean difference in earnings.

To gain further insight into the impact of mobility we must remedy several problems in the data presented: 1) the bias in choosing longer time series for an individual is not controlled in the estimates, 2) only changes in major occupation group are reflected in the mobility measure, and 3) the averages presented combine data from moves in the period 1947-59 without explicitly introducing the date of the move.

Relative income position and occupational mobility--To meet the problems inherent in the two- and three-year time series, we computed a simple trend on the relative income position of male taxpayers (3). Relative income position was determined as the ratio to mean income estimated for the cohort from CPS and Census data. The ratio is thus independent of the mean income observed for the cohort in the tax record sample. A fortiori relative income position will reflect the bias due to omission of individuals with few observed tax records. By estimating the income of the individual relative to his cohort, systematic influences of aging, price inflation, and general increases in productivity and interest rates are removed from the data. What remains is a variable that may be thought of as the heterogeneity of income experiences within birth cohorts.[3]

If change in occupation is associated with a once and for all, or a continuing increase in earnings greater than the average for the birth cohort, the trend estimated for those who change occupation will be higher than for those who do not. This finding is confirmed in Table 10, except for those individuals who reported three or more major occupation groups during the period for which their tax records are available.

Table 10 indicates that the most rapid growth of income occurred for individuals who made minor changes in occupation that did not cross major occupational groups as defined in Table 1. Individuals who changed their major occupation also reported more rapid improvements in relative income position than those with a unique occupation, but that growth was not sufficient to place them in a higher relative income position in 1959 (as indicated by comparing the intercepts for the two groups).

Some insight into the meaning of these associations between relative income trends and occupation change can be gleaned from further classification of the group in Table 10 by birth year cohorts (Table 11). Our a priori hypothesis would be that occupational mobility would be likely to produce the most favorable change in income early in a career. (Mobility between ages 55-64 is also likely to produce favorable impacts on income, given the manner in which the table is generated. Persons in this age group who attempt a change in occupation and do not succeed will retire from the labor force altogether and will no longer file tax returns. Hence such individuals are excluded from the tabulation.) Relative to those with no change in occupation, workers who made a limited move (change in detail or one change in major occupation) achieved a higher relative income position within the 1915-34 birth year cohorts. For the cohorts in the peak of their careers, 1895-1914, a change in detailed occupation was advantageous relative to those who made no move; a change in major occupation group did not enhance income by a sufficient amount to provide a relative income position higher than those with a stable occupation.

The evidence in Tables 10 and 11, in conjunction with Table 7, unequivocally shows that occupational mobility enhances income. The larger trend observed for those who change occupation is consistent with two interpretations: a) occupation changers have extremely high rates of income increase prior to and after the change in occupation combined with a drop in income position as the result of change; or b) occupation changers have a trend in earnings following occupation change that exceeds that of immobile persons either because of a once and for all jump or because of subsequent improvements. Table 7 documents the increase in income position associated with occupation change so that the higher trend rates of growth for occupation changers must be taken as evidence of permanent income increases, interpretation (6).

Evidence on macroeconomic conditions and mobility--If improvement in earnings motivates occupational and inter-county mobility one would expect systematic relationships to vacancy rates and the duration of unemployment. Given that a worker is employed at time t-1, occupational mobility requires him to search, and possibly to quit his current position (7, 13). "Daring" search involving a quit without a definite job offer will be inhibited by high unemployment rates. Continued high unemployment rates in turn will be reflected in an increase in the average duration of unemployment. In fact that relationship is not strong:[4]

$$Z_1 = \underset{(-17.6)}{-2.49} - \underset{(-1.55)}{.0196}\, D \qquad \bar{R}^2 = .19, \quad \sigma_\epsilon = .09$$

where D is the average duration of unemployment for the year (U.S.). t-ratios are shown in parentheses.

Conflicting hypotheses can be raised for the dependence of residential mobility on unemployment. If the local labor market suffers severe unemployment, migration elsewhere may be the only possible alternative for a worker who seeks to improve skill level, hours worked or both. The same slack in the labor market can inhibit moves by raising the cost of selling a home and coloring the workers' views about opportunities available elsewhere. For the inter-county moves the former effect predominates

$$Z_3 = \underset{(-33.5)}{-4.20} + \underset{(3.84)}{.0431}\, D \qquad R^2 = .60, \quad \sigma_\epsilon = .08$$

A second approach to this problem is to disaggregate mobility flow and study the dependence of specific types of moves on macroeconomic variables. We study the relationship

$$\underset{(10X10)}{P_t} = \underset{(10X10)}{(a_1 \Delta E_t} + \underset{(10X1)(1X10)}{a_2 O_t \iota'} + \underset{(10X1)(1X10)}{a_3 U_t \iota'} + \underset{(10X10)}{a_4 \Delta T} + \underset{(10X1)(1X1)}{a_5 \iota\iota'}) + \underset{(10X10)}{\epsilon_t}$$

The variables are defined as follows:

$P_t = \| P_{ijt} \|$ the matrix of probabilities that workers will move from the j^{th} to the i^{th} market from t-1 to t; i, j defined by

	Milwaukee SMSA	Other
Professional, managerial, sales, clerical	1	6
Service, skilled	2	7
Semi- and unskilled	3	8
Self-employed	4	9
Farmers	5	10

$\Delta E_t = \| \bar{E}_{i,t} - \bar{E}_{j,t} \|$ where $\bar{E}_{i,t}$ is the mean earnings in the i^{th} market during period t.

$O_t' = (O_{1t}, O_{2t}, \ldots, O_{10t})$ where O_{it} is the number of job openings listed with the employment service at time t in the i^{th} market.

$U_t = (U_{1t}, \ldots, U_{10t})$ where U_{it} is the unemployment rate in the geographic market of which i is a part.

$\Delta T = \| T_i - T_j \|$ where T_i are the estimated training requirements for the i^{th} job (10).

ι is a 10X1 vector of "ones"

Because of the definitional constraints on the Markov matrix P_t, we can restrict our attention to the off-diagonal elements. Furthermore as the a_k are constants, the information for all off-diagonal estimates can be pooled for estimation.

The results of six pooled regressions for the period 1951-59 are shown in Table 12.[5] As indicated by the R^2 statistic the independent variables listed above explain very little of the variation in P_t. However, the regressions do indicate findings of interest. Only in Model 2 are the coefficients quite insignificant and a sign (on $\Delta \bar{E}_{t-1}$) not as expected. The imprecision there is undoubtedly due to the collinearity between the explanatory variables. (A correlation of .98).

Model 3 shows unemployment retarding mobility. The crude proxy for vacancies (O_{1t}) indicates the attractive force of this variable on mobility. Models 5 and 6 suggest that differentials in training requirements retard mobility with Model 6 indicating that the "higher on the training scale" one is, the less likely he is to change occupations.

Of most interest to this study is the attractive force of earnings differentials on mobility. The coefficients are admittedly small but positive and significantly different from zero. This is surprising since mobility between markets is most often observed in both directions,[6] yet the independent variable, ΔE_t, is a summary measure of simple differences in mean earnings between the markets of destination and origin. Thus gains in earnings are seen as a factor in the mobility process in a macro sense as well as on the micro level.

FOOTNOTES

1. We are in the process of bringing the sample up to date to include the years 1960-64 on a representative basis. A detailed discussion of the data appears in (8) and (9).

2. The mobility rates were transformed to $Z_i \triangle \log_{10}(x_i/(1-x_i))$ where

Tax Record Data	CPS, U.S.
Z_1	-- logit of the occupational mobility rate
Z_2 Z_4	logit of the intra-county mobility rate
Z_3 Z_5	logit of the inter-county, intra-state mobility rate
Z_6	logit of the interstate mobility rate

The resulting correlation matrix is

Z_1	Z_2	Z_3	Z_4	Z_5	Z_6
1.00	.65	-.18	.24	-.15	-.15
	1.00	-.26	<u>-.19</u>	-.45	-.24
		1.00	-.17	<u>.42</u>	-.04

The underlinings indicate correlations between similarly defined mobility rates.

3. Note that income, not earnings, is used to obtain the relative position within the cohort.

4. Z_i are defined in footnote 2. The entries in parentheses are t values.

5. The years 1947-50 were excluded since no data on openings were available for that period.

6. See, for example (12).

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TABLE 1--Distribution of Major Occupations in Wisconsin, 1950 and 1960 (Male workers only)

Occupation		1950 Census[a]	1950 Wis[b]	1960 Census[a]	1960 Wis[b]
Professional, technical and kindred		7%	(7)%	9%	(9)%
Professional	*		5		7
Semi-professional	*		2		2
Managers, Proprietors		11	(15)	9	(15)
Managerial	*		6		8
Self-employed businessmen	*		8		8
Farmers, farm managers	*	11	12	11	12
Clerical & kindred	*	7	5	6	4
Sales	*	6	6	6	5
Service workers, excluding private household		6		5	
Private household		c		c	
All service	*	(6)	4	(5)	4
Craftsmen, foremen, and kindred	*	19	17	20	16
Operatives and kindred		20		24	
Laborers, excluding farm and mine		8		6	
Farm laborers and foremen		5		4	
All laborers and operatives	*	(33)	34	(33)	34
Total employed, Occupation not ascertained excluded		100%	100%	100%	100%
% of employed with occupation not ascertained		1%	3%	4%	3%

[a]Source: [b]1960 Census of Population PC(1), 51C-Wisconsin. [b]Tax record data are for the tax years 1949, 1959. [c]less than 0.5%.
*A change in major occupation group is defined as any movement that causes an individual to be classified in two distinct groups on successive tax returns. (For this purpose the aggregates in cols. 2 and 4 that are enclosed in parentheses are ignored.) For a limited number of persons successive tax returns may not be consecutive years. An investigation of those cases indicated that no bias was involved in ignoring "gaps" in the filing of tax returns.

TABLE 4--Mean Earnings within Annual Occupational and Residential Mobility Status (Males) 1948-1959[a]

Occupational Mobility, year t	Geographic Mobility, Year t: No Geographic Move	Intra-County Move	Inter-County Move	All
None	$4,203	$4,288	$3,923	$4,200
Change occupation	3,424	3,111	3,178	3,387
Enter labor force	1,801	2,406	2,250	1,886
Exit labor force	1,414	1,215	1,604	1,417
All, including N.A.	4,116	4,054	3,665	4,104

[a]Sample B

TABLE 2--Annual Observed Geographic and Occupational Mobility Rates (Males)

Year	Occupational Change Wis[b]	Intra-County Move Wis[b]	Intra-County Move CPS-U.S.[a]	Inter-County Move Wis[b]	Inter-County Move CPS-U.S.[a]	Inter-State Move CPS-U.S.[a]
1947-48	7.0%	3.4%	13.6%	2.1%	3.3%	3.2%
1948-49	6.2	2.8	12.9	2.0	2.8	3.2
1949-50	7.0	3.6	13.1	2.3	3.1	2.7
1950-51	6.6	2.8	14.1	2.3	3.6	3.6
1951-52	7.0	3.1	13.2	2.1	3.3	3.5
1952-53	6.5	3.2	13.4	2.3	3.1	3.7
1953-54	5.6	3.4	12.3	2.3	3.1	3.3
1954-55	6.4	2.8	13.4	3.0	3.5	3.2
1955-56	5.9	2.6	13.6	2.4	3.8	3.2
1956-57	5.7	2.4	13.3	2.2	3.3	3.1
1957-58	5.4	2.3	13.3	2.5	3.5	3.5
1958-59	6.4	2.8	---	2.8	---	---

[a]Source: (Shryock) Table 11.7. [b]Wisconsin tax record sample (8).

TABLE 3--Data Used in the Mobility Study

No. of Records per Taxpayer	No. of Tax Records 1946-60	No. of Tax Records 1947-59	No. of Moves Observed 1946-60	No. of Moves Observed 1947-59	Taxpayers 1947-59
1 or more	93894	87814			10934
2 or more		87765	83853[a]	76880[b]	9885
3 or more		85169		76082[c]	9087
4 pairs of consecutive years[d] and					
5-6 records					1088
7-8 records					1254
9-10 records					986
11-12 records					1116
13 records					3036

[a]Sample A; [b]Sample B; [c]Sample C; [d]Sample D; totals are estimated for the population from a 50% random sample.

TABLE 5--Rate of Annual Occupational and Residential Mobility (Males) 1948-1959[a]

Occupational Mobility, Year t	Geographic Mobility, Year t: No Geographic Move	Intra-County Move	Inter-County Move	All
None	87.8%	2.4%	1.7%	91.9%
Change occupation	5.6	.4	.4	6.4
Enter labor force	.5	---	.1	.6
Exit labor force	.9	---	.1	1.0
All[b]	94.8%	2.8%	2.3%	100.0%

[a]Sample B; [b]Totals may not be exact due to rounding. --- is less than .1%.

TABLE 6--Rate of Annual Occupational and Residential Mobility Within Birth Year Cohorts, 1947-1960[a]

Type of Mobility, Year t	Birth Year Cohort 1860-1894	1895-1904	1905-1914	1915-1924	1925-1959
No occupation change					
No location change	94.5%	93.2%	91.5%	88.0%	81.5%
Intra-county move	1.4	1.8	2.0	2.6	3.8
Inter-county move	.8	.8	1.1	2.1	3.3
Occupation change*					
No location change	2.9	3.6	4.7	6.4	9.7
Intra-county move	.2	.2	.3	.4	.8
Inter-county move	.2	.3	.4	.4	.9
Total	100.0	100.0	100.0	100.0	100.0
Number Records	10854	14809	17579	17326	14631

*Excludes movement into and from labor force.

[a]Sample A.

TABLE 7--Two-Year Changes in Earnings Associated with Annual Mobility Within Birth Year Cohorts, 1948-1959[a]

Birth Year Cohort	Earnings Change From	Occupational Mobility, Year t: None	Change	Gain	Residential Mobility, Year t: Within County	Inter-County	Gain
1860-1894	t-1,t	$-27	$-132	$	$-98	$-362	$
	t,t+1	-122	-109	+13	-135	-107	28
	2-years	-149	-241	-92	-233	-469	-236
1895-1904	t-1,t	130	99		125	28	
	t,t+1	99	121	22	97	213	116
	2-years	229	220	-9	222	241	19
1905-1914	t-1,t	218	217		225	-247	
	t,t+1	182	243	61	184	506	322
	2-years	400	450	50	409	259	-150
1915-1924	t-1,t	302	259		303	169	
	t,t+1	245	363	118	244	657	413
	2-years	547	622	75	547	826	279
1925-1959	t-1,t	468	356		449	431	
	t,t+1	350	478	128	379	315	-64
	2-years	818	834	16	828	746	-82

[a]Sample C (males only)

TABLE 8--Means of Individual Mean Earnings within Long Term Occupational Mobility and Birth Year Cohorts 1947-1959, Sample D

Long-term Mobility[a]	Birth Year Cohort 1860-1894	1895-1914	1915-1924	1925-1959	Entire Sample
None	$3351	$4744	$4376	$3597	$4292
Change	3039	4139	4145	3404	3807
Entered L. F.	*	3905	4471	3052	3387
Exit L. F.	2861	2738	2863	1867	2701

* No Entries

[a]See Table 9 for definitions.

TABLE 9--Rate of Long-Term Occupational Mobility By Labor Force Participation Within Birth Year Cohorts 1947-1959, Sample D

Labor Force Participation	No. of Occupations	Birth Year Cohort 1860-1894	1895-1914	1915-1924	1925-1959	Total
Continuously Employed	*One	81.6%	69.5%	58.1%	50.4%	63.6%
	**Two	16.7	24.4	31.2	38.7	28.7
	** >2	1.8	6.0	10.7	10.9	7.8
	Total	100.0	100.0	100.0	100.0	100.0
	N	(342)	(1415)	(766)	(613)	(3341)
Entered and Remained in labor force	#One	--	75.0	50.0	65.8	59.4%
	#Two	--	25.0	35.7	28.9	31.2
	# >2	--	--	14.3	5.3	9.4
	Total	100.0	100.0	100.0	100.0	100.0
	N	(0)	(4)	(14)	(38)	(64)
Exited and Remained out of labor force	##One	84.8	77.8	100.0	88.9	84.3
	##Two	14.5	16.7	--	11.1	14.8
	## >2	.6	5.6	--	--	1.0
	Total	100.0	100.0	100.0	100.0	100.0
	N	(165)	(18)	(1)	(9)	(210)
Other	*One	50.0	15.0	25.0	22.2	29.3
	**Two	37.5	50.0	50.0	58.3	49.5
	** >2	4.2	20.0	25.0	13.9	13.1
	**Other	8.3	15.0	--	5.6	8.1
	Total	100.0	100.0	100.0	100.0	100.0
	N	(24)	(20)	(4)	(36)	(99)
Continuously Non-Labor Force		20	1	0	2	26
Total		551	1458	785	698	3740

*row one of Table 8. **row two of Table 8. #row three of Table 8. ##row four of Table 8.

TABLE 10--A Comparison of Income Trends of Persons Who Change Occupation with Those Who Do Not Change Occupational Affiliation (Individuals who were continuously in the labor force, Sample D)

Cumulative Occupational Mobility	Number of Individuals	Relative Income Position Forecast for 1959[a]	Trend	Std. Error of Estimate
Unique detail occupation	1821	1.12	-0.0108	.36
Unique major occupation, change in detailed occupation	71	1.16	0.0014	.06
Two major occupation groups	801	1.05	-0.0058	.14
Three or more occupation groups	204	.92	0.0165	.15
All employed	2897	1.09	-0.0095	.28

[a]Intercept of $y_{it}=\alpha_i+\beta_i(t-1959)+u_{it}$ where α_i and β_i were subsequently pooled to the above groups; y_{it} is the income relative to his birth cohort. (cf. 3)

TABLE 11--Differential Impact of Occupational Mobility on Different Birth Cohorts
(Individuals who were continuously in the labor force, Sample D)

Cumulative Occupational Mobility	1860-1884	1885-1894	1895-1904	1905-1914	1915-1924	1925-1929	1930-1934
			Estimated Relative Income Forecast for 1959				
Unique detail occupation	1.01	1.24	1.27	1.09	0.99	0.89	0.89
Unique major occupation, change in detail	*	*	1.40	1.15	1.01	*	*
Two major occupation groups	1.94	1.33	1.09	1.01	0.98	0.95	1.08
Three or more major occupation groups	*	*	0.86	0.83	0.96	0.99	0.81
All	1.09	1.27	1.22	1.05	0.99	0.92	0.96
			Trend in Relative Income Position for Different Birth Cohorts by Occupational Mobility				
Unique detail occupations	-.072	.010	.011	.004	-.011	-.031	-.107
Unique major occupation, change in detail	*	*	.035	-.007	-.005	*	*
Two major occupation groups	.010	.030	-.002	.013	-.002	-.027	-.048
Three or more major occupation groups	*	*	.012	.001	.001	.001	-.143
All	-.063	.014	.009	.006	-.007	-.026	-.085

*Less than 10 observations

TABLE 12--Pooled Regressions on p_{ijt} for 1951-1959 Coefficients on Independent Variables
(t values in parentheses)

Model	Constant	$\overline{\Delta E}_t$	$\overline{\Delta E}_{t-1}$	O_{it}	U_{it}	T_i	ΔT	R^2	F (d.f.)	Std. Error Est.
1	$.710\times10^{-2}$ (17.35)*	$.590\times10^{-8}$ (2.89)*						.010	8.34* (1808)	.012
2	$.710\times10^{-2}$ (17.34)*	$.120\times10^{-7}$ (1.21)	$-.674\times10^{-8}$ (-.63)					.011	4.37 (2807)	.012
3	$.899\times10^{-2}$ (8.36)*	$.591\times10^{-6}$ (2.90)*			$-.260\times10^{-3}$ (-1.90)			.014	5.82* (2807)	.012
4	$.623\times10^{-2}$ (10.11)*	$.484\times10^{-8}$ (2.28)*		$.775\times10^{-5}$ (1.89)				.015	5.97* (2807)	.012
5	$.610\times10^{-2}$ (9.97)*	$.105\times10^{-7}$ (4.07)*		$.887\times10^{-5}$ (2.17)*			$-.510\times10^{-4}$ (-3.78)*	.032	8.80* (3806)	.011
6	$.220\times10^{-1}$ (8.48)*	$.992\times10^{-8}$ (3.94)*		$.140\times10^{-4}$ (3.45)*		$-.151\times10^{-3}$ (-6.30)*	$-.128\times10^{-3}$ (07.11)*	.077	16.84 (4805)	.011

*Denotes significance at less than .01 level.