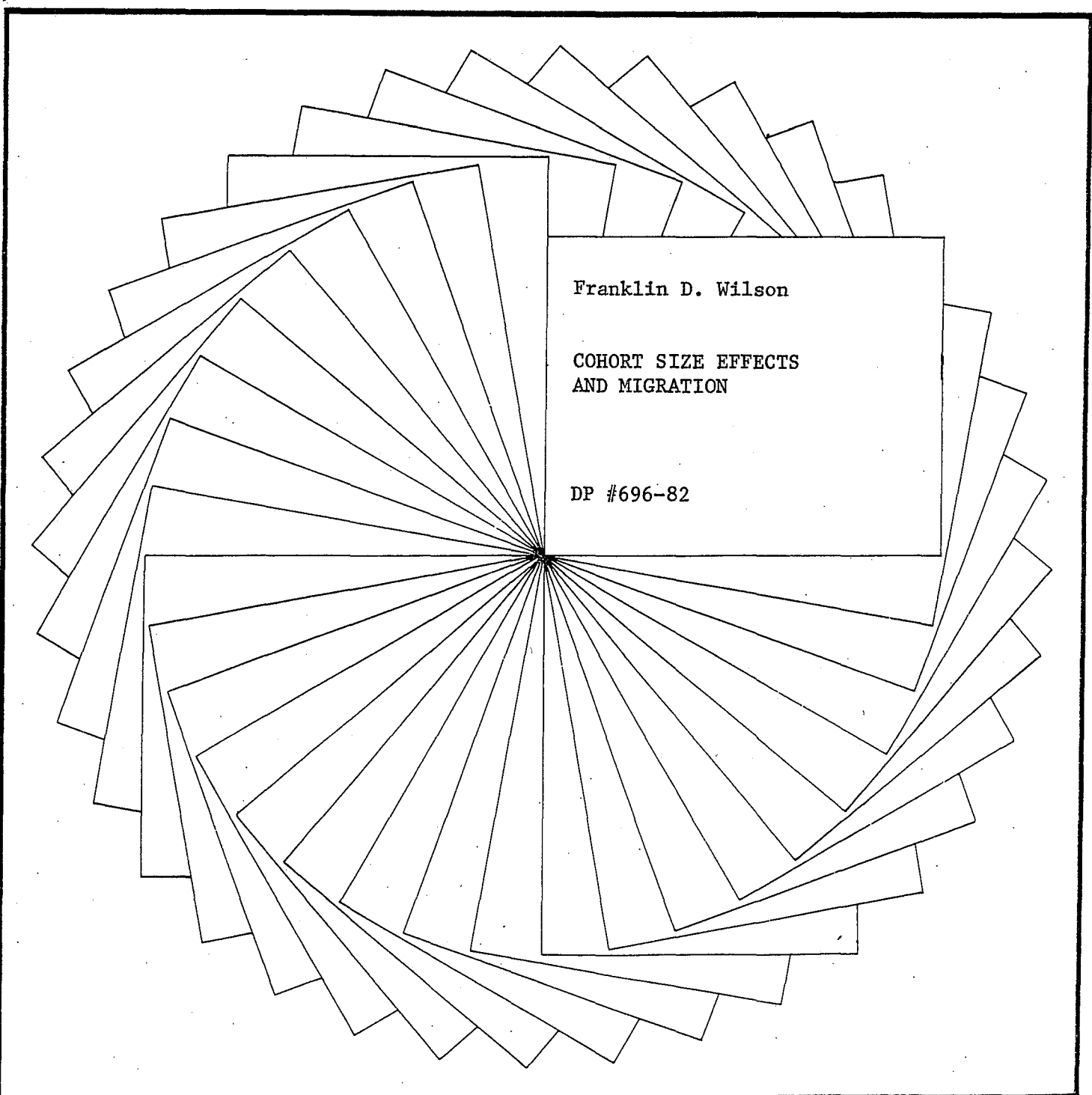




# Institute for Research on Poverty

## Discussion Papers



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COHORT SIZE EFFECTS  
AND MIGRATION

DP #696-82

Cohort Size Effects and Migration

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## ABSTRACT

This paper explores the question of whether changes in the size of cohorts entering the labor force affect the propensity to migrate and the socioeconomic circumstances of migrants at destination. The flow of young in-migrants to large SMSAs declined during the 1965-76 period, but the relative socioeconomic standing of migrants at destination was unaffected by either cohort size or regional differentials in economic growth. It is suggested that a significant reduction in the volume of migration among members of the baby-boom cohort was the primary adjustment mechanism, hence reducing the need for degrading the opportunities available to migrants.

## Cohort Size Effects and Migration

### INTRODUCTION

This paper seeks to determine whether the extent of employment opportunities prevailing in the economy during the first half of the 1970s differentially affected the socioeconomic standing of migrants and nonmigrants who recently began their careers. It has been suggested by a number of writers that the occupational and earnings returns to educational attainment of the baby-boom cohort have thus far been less than those accruing to members of cohorts who entered the labor force in the 1950s and the first half of the 1960s (Freeman 1976, 1979; Featherman and Hauser, 1978; Rumberger, 1980; Smith and Welch, 1981). Presumably the size of the baby-boom cohort coupled with slowed economic growth created a labor supply surplus which intensified competition, increased the length of the unemployment interval associated with the transition from school to labor force, and lowered the relative value of skills and educational credentials.<sup>1</sup>

Given the well-documented association between migration and socioeconomic attainment (see Shaw, 1975; Ritchey, 1976; Long and Hansen, 1977; and Lichter, 1981 for reviews), one would expect the migration behavior and the socioeconomic circumstances of migrants to be adversely affected by the conditions outlined above. The question posed in this paper is whether the occupational and earnings attainments of recent young migrants to metropolitan areas were affected by cohort size and reduced economic growth during the first half of the 1970s.

The migration experiences of birth cohorts during the early stage of their labor force careers should vary depending on the availability of employment opportunities relative to cohort size and educational

composition. For example, the general state of the economy during the Great Depression reduced the rate of migration of males in the early stages of their careers (Long and Hansen, 1977). Hence, one hypothesis which seems applicable to the 1970s, based on the migration experiences of individuals during the Great Depression, is that reduced opportunities for employment and career advancement should increase the risk associated with making long-distance moves, resulting in a decline in the overall migration rate for the affected age group. Long and Hansen's (1977) analysis of trends in interdivisional and interstate migration of the 25-34-year-old age group by educational attainment partially supports this observation. Their analysis indicates that both the interdivisional and interstate migration rates for this age group only increased slightly over the 1965 to 1975 period. Moreover, these authors point out that these rates would have declined, had it not been for upward shifts in the educational attainment levels of 25-34-year-olds (Long and Hansen, 1977:36).

Long and Hansen (1977) report further that migration differentials with respect to educational attainment for 25-34-year-olds narrowed between 1965 and 1975, due principally to a decline in the migration rate of persons who had completed four or more years of college. The reduced migration rate of 25-34-year-old college graduates is consistent with the notion that cohort size coupled with reduced economic growth affected the migration behavior of the baby-boom cohort. This is because the most skilled members of a cohort are most likely to be affected by cohort size, particularly if their members increase rapidly over a short period of time, as was true with the baby-boom cohort (see Smith and Welch, 1981). However, there are alternative explanations that can be advanced to

explain this decline. For example, the disengagement of U.S. forces in Vietnam could have reduced the migration rate of this age group. Similarly, the construction of four-year college campuses away from areas of concentrated population have enabled individuals to attend college within their local area, which may have had the effect of reducing their likelihood of moving upon graduation (see Long and Hansen, 1977).

As indicated previously, several studies have attempted to assess the effects of economic conditions on the employment opportunities available to members of the baby-boom cohort as they entered the labor force in the late 1960s and the 1970s. All of these studies report declines in the socioeconomic standings of members of this cohort relative to those who entered the labor force in previous periods. Although economic conditions, particularly the demand for certain kinds of skills and wage differentials, do affect migration behavior (see Shaw, 1975; Ritchey, 1976; Bartel, 1979; Oberg and Oscarsson, 1979; Greenwood, 1981), no effort has been made to link the migration experiences of the baby boom cohort to changing economic conditions. One area which can be studied is whether the extent and character of migrant/nonmigrant differentials in socioeconomic attainment were altered significantly during the first half of the 1970s.

There are several ways in which the socioeconomic circumstances of migrants can be adversely affected by cohort size and changing economic conditions. First, if the value of higher levels of schooling declines, one should be able to observe a decline in occupational returns to schooling among young males in general and migrants in particular between 1970 and 1976. This expectation follows from the adverse effect an overabundance of educated persons would be expected to have on the

characteristics of the first jobs obtained by persons entering the labor force. In addition, it would also seem to follow that under a regime of surplus labor, competition for vacancies in local labor markets would be intense and would be more likely to place migrants at a disadvantage with respect to securing the most prestigious and economically remunerative jobs. This is because distance acts as an impediment to the transmission of information about job vacancies, and also delays the response time of individuals to vacancies. Nonmigrants, because of length of residence, should have greater knowledge of interfirm variations in job benefits within a labor market area, which should enhance their chances for greater socioeconomic attainment. Second, under a regime of surplus labor, employers generally have less incentive to extend their job search activities over broad areas, and are less inclined, even if they do, to offer premium pecuniary and nonpecuniary benefits in order to attract applicants (particularly those just beginning their careers) from distant areas of the country.

In the analysis presented below, I seek to determine whether the returns to migration as measured by occupational attainment declined differentially across age cohorts with comparative amounts of education. The analysis involves intercohort comparisons among migrants and nonmigrants reflecting the 1965-70 and 1970-76 periods. These comparisons are constructed within a two-category regional grouping, used to index differentials in employment opportunities and economic growth. Within countries, labor market areas can differ substantially in endowments (including human, physical, and capital) and historical patterns of development, which can be expected to influence current patterns of economic growth and population redistribution trends (Greenwood, 1981;

Jackson et al., 1981). Hence, destination choice could affect the extent and kind of employment opportunities migrants have access to, and affect subsequent advancement through the socioeconomic life cycle (Blau and Duncan, 1967; Featherman and Hauser, 1978). In this regard, analyses are presented for two regional destination groupings, the Sunbelt (South and West) versus the Frostbelt (North and East), reflecting current interregional inequalities in economic growth caused by the interregional flow of capital and productive activities.

### The Current Study

White males 20-54 years of age and living in the 119 largest SMSAs in 1970 are the population subgroups of primary interest in this analysis. The data are taken from the 1970 1/100 Public Use Sample file for county groups (5% sample universe) and the 1976 Survey of Income and Education file (SIE). In both surveys, it is possible to identify a particular class of migrants (i.e., those individuals who established residence in another state/region during the previous five years for the PUS sample and the previous six for the SIE sample). Whether or not an individual is a state migrant is determined by his response to a question on previous state of residence. An individual is defined as a migrant if he currently lives in a different state from his previous state of residence.

For the PUS file, it was necessary to infer an individual's current state of residence by first assigning state of residence based on SMSA of residence. In the case of individuals living in the 15 SMSAs that cross state boundaries, another procedure was employed. If an individual lived in an SMSA which could not be separated into its state components, a migrant is defined as a person whose 1965 state of residence is different from that of the state which contains the principal central city of the



SMSA of current residence. Thus, for example, individuals who lived in Kentucky in 1965 and lived in the Ohio portion of the Cincinnati SMSA in 1970 are not considered migrants, since such a change is assumed to be a move within the same labor market area. Although current state of residence is uniquely identified on the SIE file, the above procedure was also applied in order to maintain compatibility between the definitions of a migrant in the two samples.

There are a number of limitations inherent in the use of the PUS and SIE samples to study migration differentials. First, a significant number of individuals in both samples did not report their state of previous residence. Somewhat disturbing is the fact that in the PUS the number of persons not reporting previous state of residence is twice the number indicated for the SIE sample (3.1% for the PUS and 1.0% for the SIE).<sup>2</sup> This difference is consistent with the findings of Long et al. (1978) that the frequency with which residence changes are not reported has been uniformly higher in the decennial censuses than is true of other national surveys conducted by the Bureau of the Census.

In order to correct for any biases in the trends in migration-status differentials, individuals in the "Not Reported" category were assigned a migrant/nonmigrant designation. This was accomplished by allocating individuals a migration status reflecting that of individuals with similar current state of residence, age, education, and occupation. Individuals who were abroad at the beginning of the migration interval are omitted from the analysis. The results of this allocation exercise are reported in Table A1 in the Appendix. The important thing to note is that the percentage of state and regional migrants remained unchanged as a result of allocating persons who did not report previous state of residence to a

migration status category.

A second problem with both samples is that it is not possible to identify all categories of multiple and return migrants, nor is the definition of migrants free of conceptual and methodological problems associated with measuring the temporal and spatial dynamics of migration flows (Miller, 1977; DaVanzo and Morrison, 1981). Finally, the length of the migration interval associated with the SIE is one year longer than that for the PUS. This difference will almost certainly affect the average relative socioeconomic standings of individuals in the respective samples. For example, individuals in the SIE sample who migrated between 1970 and 1976 have the advantage of having an additional year in which to adjust to the environment at destination. Hence, one would expect estimates of differences between time periods to be heightened slightly. No effort is made to adjust for this source of bias, as to do so would create another problem which is just as undesirable.<sup>3</sup> In regard to the results reported below, greater care is exercised in attributing substantive importance to differences observed between time periods.

## RESULTS

### Migration Differentials

It is not possible to analyze trends and differentials in the migration rate with the samples employed in this analysis. All persons who were exposed to the risk of migrating are not included, since place of residence at the end of the migration interval was used to select observations. The question to be addressed by these data is whether age and educational differentials in the in-migration rate for large SMSAs changed over the 1965-76 period in a direction consistent with the notion that changing economic conditions and cohort size both had a depressing

effect on the volume of migration. Inasmuch as the end-of-period residences of all respondents include only the 119 largest SMSAs, one would expect the effects to be more pronounced since the rate of economic growth in most of these places was less than that for SMSAs of less than 250,000 and nonmetropolitan areas.

Observed age differentials with respect to changes in the in-migration rate will be used to infer the effects of cohort size, whereas differences between regions will be used to infer the effects of economic conditions. In general, the expectation is that declines in the in-migration rate should be greater for the 20-29-year-old age group (baby-boom cohorts) and the Frostbelt regional grouping.

Table 1 presents average annual in-migration rates for the 1970-76 period, and percentage changes in rates for large SMSAs by region of destination, age, and years of schooling completed. These tabulations provide evidence supporting the existence of both cohort and regional effects. The total in-migration rate increased 12% over the 1965-76 period. This increase is reflected among all age groups except for the two youngest. One can also observe from the panel which gives all regions that the decline among the baby-boom cohorts (e.g., 20-24, and 25-29) occurred in all but one educational attainment level.

An important point to keep in mind in interpreting these results is that the absolute decline in the in-migration rate for the two youngest age groups occurred during a period (between 1970 and 1976) when the number of individuals at these ages and their educational-attainment levels increased substantially. Indeed, results from a component difference analysis (not reported here) of the impact of educational attainment on changes in the age-specific in-migration rate indicate that

upward shifts in the education distribution contributed to a rise in the in-migration rate for all ages, and counterbalanced the effect of declines in the educationally specific rates for the baby-boom cohorts.

The last two panels of Table 1 group destination SMSAs into two broad regional categories, Frostbelt (East/North) versus Sunbelt (South/West), corresponding to economically nongrowing and growing areas respectively. The regional differentials are rather sharp and almost completely overshadow the cohort effects observed in the first panel. First, it can be noted that the in-migration rate for SMSAs in the Sunbelt are greater at every age and educational level than those reported for the Frostbelt grouping. Second, the total in-migration rate for the Frostbelt grouping declined by 9.1 percentage points, due primarily to substantial reductions in the in-migration of 20-29 year olds. In the Sunbelt the reverse is true; the in-migration rate increased for every age group overall during the eleven-year period, although the rate of increase was less for the two youngest age groups. With respect to education specific in-migration rates, declines were uniform in the Frostbelt for the 20-24-year and 25-29-year age groups, but confined primarily to college graduates at these ages in the Sunbelt.

The regional differentials in in-migration rates reported in Table 1 are consistent with previously reported findings on net population shifts from the Frostbelt to the Sunbelt regions of the country. These findings are, however, not consistent with Frey's (1979) finding that SMSAs in the North and East have been able to maintain the educational and occupational levels of their populations, even in the face of net regional population shifts during the 1955 to 1970 period, because of their ability to draw high-status migrants from nonmetropolitan areas. We may be observing a

reversal of the trend observed by Frey. Whether or not these regional differentials are self-reinforcing and will lead to further erosions in the educational and age composition of the populations in the Frostbelt remains to be seen. Moreover, the long-term effects of the decline in the in-migration of the young and highly educated to the North and East may be a reduction in entrepreneur and innovative skills and creativity in their populations.

Did cohort size act to reduce the rate of migration of the baby-boom generation? The results presented thus far clearly call for a more guarded response not only because other significant changes associated with the transitions from schooling to labor force were also occurring at the same time (see Featherman and Hauser, 1978: Chapter 5), but also because cohort effects are possibly being masked by regional differentials in the rate of in-migration. Smith and Welch's (1981) argument that cohort effects are much more likely to be observed among the most-skilled (e.g., highly educated) segment of the baby-boom generation is partially supported by the results reported in Table 1, as indicated by the fact that the in-migration rate for persons with four or more years of college declined among individuals age 20-29 years regardless of region of destination.

#### Relative Socioeconomic Standing

Virtually all of the discussion of cohort-size effects has focused on the relative socioeconomic standing of the baby-boom generation. As stated previously, results from recent studies uniformly show that the socioeconomic standing of cohorts entering the labor force in the 1970s deteriorated. In this section, the discussion is extended to include migration status. The question to be addressed is whether the

socioeconomic standings of migrants, particularly among the young, declined over the 1970-76 period to a greater degree than that of nonmigrants. Only high school graduates and persons who have completed at least four years of college are included in this part of the analysis.<sup>4</sup> In pursuit of an answer to this question, separate regressions are estimated for occupational attainment in 1970 and 1976 (Duncan's SEI Index), and annual earnings in 1969 and 1975. The equations are of the following form:

$$\begin{aligned} \text{OCCUP}_T = & a + b_1(\text{WORK}) + b_2(\text{WEEKS}) + b_3(\text{HOURS}) + b_4(\text{MARITAL}) \\ & + \sum_{i=1}^j \sum_{k=1}^l \sum_{m=1}^n b_{ikm}(\text{AGE*ED*MIGRANT}) + e \end{aligned} \quad (1)$$

$$\begin{aligned} \text{WAGE}_T = & a + b_1(\text{WORK}) + b_2(\text{WORK}^2) + b_3(\text{WEEKS}) \\ & + b_4(\text{HOURS}) + b_5(\text{OCCUP}) + b_6(\text{COST}) + b_7(\text{MARITAL}) \\ & + \sum_{i=1}^j \sum_{k=1}^l \sum_{m=1}^n b_{ikm}(\text{AGE*ED*MIGRANT}) + e \end{aligned} \quad (2)$$

where OCCUP is occupational status (Duncan's SEI); WAGE is annual wages in constant dollars; WORK is potential work experience (age minus education plus five); WORK is potential work experience squared; WEEKS is weeks worked; HOURS is hours worked; COST is a cost of living index specific to each SMSA (U.S. Department of Labor, BLS, 1972 and 1977); and AGE\*ED\*MIGRANT consist of a set of dummy variables for five age, two education, and two migration-status groupings. (The omitted category

consists of male nonmigrant high school graduates, aged 40-54.) The subscripts refer to 1970 and 1976 for OCCUP, WORK, WORK<sup>2</sup>, HOURS, AGE, and ED; 1969 and 1975 for WEEKS, WAGES, and COST; and 1965-70 and 1970-76 for MIGRANT. The discussion below will focus on adjusted mean values for age, education, and migration-status specific subgroups, which are transformations of the  $b_{ikm}$  values derived by estimating equations (1) and (2). The full set of regression results are reported in Table A2 in the Appendix.

Table 2 reports adjusted mean occupational status and ratios for the total sample of white males by migrant status, education, and age. The occupational status of virtually all education, age, and migrant-status specific subgroups declined between 1970 and 1976. The decline was greatest among the two youngest age groups, and slightly greater among high school than among college graduates. The age differences do correspond to the pattern predicted by the cohort-effects model. On the other hand, the fact that the decline in occupational status among college graduates was less than that of high school graduates suggests that the most skilled are not necessarily the group most affected by an oversupply of workers in the labor market.

Migrant/nonmigrant differences are mixed with respect to both direction and magnitude, and thus do not support the previously stated assertion that the adverse effects of cohort size would be more evident among migrants. One can also note in Table 2 that the superior occupational attainment of migrants was maintained over the 1970-76 period, except for college graduates over 34 years of age.

The total sample is partitioned further in Table 3 into a Frostbelt and Sunbelt regional dichotomy. The objective is to determine whether differentials in occupational attainment vary systematically within and between broad regional groupings that differ in terms of patterns of economic growth. A general pattern of declining occupational status between 1970 and 1975 is clearly evident in Table 3. The occupational standing of high school graduates declined to a greater extent than college graduates, particularly in the Sunbelt; and the decline experienced by migrants in the Frostbelt was greater than that of nonmigrants. This pattern of variation could be due in part to differences in the response of growing versus nongrowing labor market areas to workers with different educational-attainment levels. For example, high school graduates generally tend to be more affected by adverse economic conditions.

Virtually all age groups in both regions experienced declines in occupational status. The largest decline occurred generally among the two baby-boom cohorts, particularly the youngest. Moreover, the age-specific occupational-status values do not exhibit a clear-cut pattern with respect to educational attainment, regions, and migration status. Hence, the previously stated expectation that migrants, by age, would be affected more by cohort-size effects and regional growth differentials is not supported by the results reported in Table 3.

The relative earning attainment of members of the baby-boom cohort has been the principal focus of most discussions of cohort effects. Most studies report declines in the earnings of recent entrants in the labor force, particularly among the most skilled. Tables 4 and 5 report results from a similar analysis, except the sample has been partitioned further



into migrant-status groupings stratified by region of destination. Table 4 reports adjusted mean annual earnings and change in earnings by migrant status, education attainment, and age. All age groups experienced declines in annual earnings between 1969 and 1975, which, in most instances, are of a greater magnitude than reported for occupational status. Perhaps of greater importance is the fact that the age-specific pattern of changes both between and within levels of educational attainment is not consistent with the cohort effects model.

First, one can note that only 25-29-year-old high school graduates experienced greater declines in earnings than the older age groups. In fact, declines in the earning attainment of the youngest age group (20-24 years) were less than that of any other age group. Second, declines in annual earnings with respect to age-specific subgroups were larger for migrant high school graduates and nonmigrant college graduates. Finally, the ratios reported in the last two columns of Table 4 reflect differences in the pattern of change in the earning attainment of migrants and nonmigrants. The superior earnings attainment of nonmigrant high school graduates and migrant college graduates increased between 1969 and 1975.

Table 5 reports the adjusted earnings attainment of migrants and nonmigrants by age, educational attainment, and region of destination. The declines exhibited in Table 5 are rather complex, but generally mirror those observed in Table 4. Except for high school graduates in the Sunbelt, the earnings attainment of migrants did not decline more than that of nonmigrants overall. Contrary to the results reported for occupational attainment, declines in the earnings attainment of the two youngest age groups was less than the average for all age groups, except for 25-29-year-old high school graduates. The greater than average

decline in the earnings attainment of 25-29-year-old high school graduates is an anomaly which is not easily explained. Since the influence of occupational standing and labor force experience (weeks and hours worked, and potential years in the labor force) have been controlled, one could speculate that the greater than average decline in the earning attainment of 25-29-year-old high school graduates could be due to more pronounced compositional changes. Persons in this age group in 1969 were born during the war years (1940 to 1944), whereas those individuals in this age group in 1975 were born after the war (1946 to 1950). Not only was the former group smaller in size, but their labor force experience was less likely to have been interrupted by the Vietnam War during the late 1960s and early 1970s. The 1975 earnings attainment of 25-29-year-old college graduates would have been less affected, since the transition from college to the civilian labor force does not represent a disruption in the same sense as does the transition from military service to the civilian labor force.

#### SUMMARY AND CONCLUSIONS

The principal focus of this paper has been the question of whether changes in the size of cohorts entering the labor force affect the propensity to migrate and the socioeconomic circumstances of migrants at destination. It was hypothesized that if cohort size acts to reduce the opportunities of new entrants into the labor force, particularly during times of slow economic growth, the potential of migration to enhance status attainment is likely to be altered. Such an alternative is likely to be felt in two ways. First, fewer persons in the affected age group will migrate, because of lowered expectations for socioeconomic advancement. The reduced volume of migration is likely to result from individuals not moving who have little or no prospects for obtaining a job

once at destination. Second, individuals who do choose to migrate are likely to have to accept lower paying and less prestigious jobs.

Declines in the in-migration rates of baby-boom cohorts to large SMSAs during the 1970-75 period provide evidence in support of the first assertion, although these declines were overshadowed by regional differentials. Evidence in support of the second alternative was mixed. First, it was noted that the occupational and earnings attainment of all age and educational-attainment groups declined during the 1969 to 1976 period. Most if not all of this general pattern of decline is a consequence of the economic recession which occurred in 1975. Second, although declines in occupational status were greater for members of the baby--boom cohort, this was only true of high school graduates aged 25-29 with respect to 1975 annual earnings. The findings on earnings differ from those reported by Freeman (1979), which may reflect differences in sample selection and the time period covered.<sup>5</sup>

Perhaps the most important finding is that even in instances in which cohort effects are observed, these effects were generally no more prevalent among migrants than nonmigrants. Migrants did not uniformly experience a greater decline in socioeconomic attainment. A possible explanation for this finding is that significant reductions in the volume of migration acted as the primary adjustment mechanism, thereby reducing pressures to downgrade available opportunities. Hence the socioeconomic enhancement value of migration remains relatively constant for those who do move. This is an issue which should be explored further with data files that permit the identification of all destination points, and that cover a longer time interval than that used in this paper.

One final observation is in order. I agree with Featherman and

Hauser's (1978) assertion that changes in the transition from schooling to labor force can affect the socioeconomic standing of different age groups depending on when in their life course they are observed. Since the length of the schooling interval has increased and a larger proportion of the baby-boom cohorts are in school (at least at the time covered by this analysis), one would expect that their socioeconomic standing in the 1970s is based on a small number of their members, whose potential for achievement may be considerably lower than those who will enter the labor force once their schooling is completed. Another possibility is suggested by the increased labor force participation of women. The late 1960s and the 1970s were periods when the labor force participation of women increased substantially. Thus, new male entrants into the labor force would have increasingly found themselves competing with females, which would augment the cohort-size effects mentioned earlier.

## Notes

<sup>1</sup> Featherman and Hauser (1978:Chapter 5) offer an alternative explanation of this trend. These authors point out that shifts in the duration of schooling and in the transition to full-time worker status could have reduced the returns to education received by cohorts recently entering the labor market. This interpretation will be discussed further in the Results section.

<sup>2</sup> White males 18-19 and 55 years of age and over were also included in these tabulations.

<sup>3</sup> One obvious solution to this problem would be to treat individuals who migrated between 1970 and 1971 as nonmigrants. While this would certainly equalize the migration interval, it would reduce the number of migrants observed during the 1970-76 period, and reduce the reliability of the estimates for this period because of the smaller size of the sample. Because of the one-year difference in the migration interval, it is necessary to assume that the regression estimates of gross and net returns are relatively insensitive to annual fluctuations in migration rates.

<sup>4</sup> The decision to omit persons who completed less than twelve years of schooling and completed from one to three years of college was based on a desire to limit the amount of statistical data presented. This decision is discussed in this section.

<sup>5</sup> Freeman uses CPS data covering the 1968 through 1977 period, and his sample included persons of all levels of educational attainment.

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Paper No. IV.



Table 1. Average Annual In-Migration Rates and Percentage Change in Rates for White Male Residents of SMSAs by Region of Destination, Age, and Years of Schooling Completed

Ages and Years of Schooling Completed	All Regions		Frostbelt <sup>1</sup>		Sunbelt <sup>1</sup>	
	In-Migration Rate 1976	% Change 1965-76	In-Migration Rate 1976	% Change 1965-76	In-Migration Rate 1976	% Change 1965-76
All Age Groups	2.283	12.1	1.395	- 9.1	3.405	21.7
20-24	2.327	-11.0	1.205	-40.0	3.743	7.4
Less than H.S.	2.097	- 2.5	0.945	-45.0	3.300	19.8
H.S.	2.013	-12.2	0.940	-41.0	3.513	3.8
1-3 Yrs Col.	2.380	- 1.5	1.135	-39.6	3.763	23.3
4+ Yrs Col.	3.170	-30.3	2.107	-42.7	4.610	-24.1
25-29	3.273	-11.6	2.188	-29.1	4.605	0.8
Less than H.S.	2.473	10.3	1.602	- 2.7	3.707	15.8
H.S.	2.190	-24.2	1.132	-50.1	3.850	-0.8
1-3 Yrs Col.	2.610	-22.8	1.448	-51.3	3.673	-3.5
4+ Yrs Col.	5.003	-22.0	3.977	-31.6	6.212	-13.7
30-34	3.125	19.6	2.183	7.1	4.193	24.6
Less than H.S.	1.747	12.4	1.272	20.9	2.495	5.8
H.S.	1.793	3.5	0.908	-27.0	3.012	9.1
1-3 Yrs Col.	2.915	15.2	2.493	25.8	3.285	7.6
4+ Yrs Col.	4.927	2.0	3.770	-16.5	6.063	16.8
35-39	2.378	26.0	1.405	3.5	3.490	30.6
Less than H.S.	1.265	12.9	0.698	0.0	2.220	20.2
H.S.	1.708	23.6	0.883	7.1	2.838	23.2
1-3 Yrs Col.	2.105	- 4.1	1.412	-13.1	2.640	5.2
4+ Yrs Col.	4.000	17.9	2.698	- 9.5	5.210	32.9
40-54	1.358	20.2	0.783	7.0	2.153	23.2
Less than H.S.	0.693	- 1.6	0.333	-18.8	1.373	11.6
H.S.	1.063	12.8	0.457	- 8.2	2.015	17.6
1-3 Yrs Col.	1.570	3.2	0.830	-17.7	2.335	9.9
4+ Yrs Col.	2.262	12.1	1.825	3.9	2.725	16.8

Source: 1 percent PUS and the 1976 Survey of Income and Education.

<sup>1</sup>Frostbelt includes the East and North major census regions, and Sunbelt includes the South and West major census regions.

Table 2. Adjusted Mean Occupational Status by Migration Status, Education, and Age: 1976 and Percentage Change 1970-76<sup>1</sup>

	Migrants		Nonmigrants		Ratio of Nonmigrants to Migrants	
	1976	% Change 1970-76	1976	% Change 1970-76	1976	Difference 1970-76
<b>Completed High School</b>						
All Age Groups	38.46	- 9.1	36.72	- 7.8	1.047	-.016
20-24	30.51	-14.8	28.89	-13.7	1.056	-.013
25-29	34.71	-11.4	33.39	- 9.8	1.040	-.018
30-34	40.88	- 5.3	35.89	- 8.5	1.139	.038
35-39	43.38	- 5.6	38.42	- 6.7	1.129	.014
40-54	46.59	- 7.0	42.34	- 1.2	1.100	.069
<b>Completed College</b>						
All Age Groups	66.83	- 4.3	65.72	- 4.7	1.017	-.005
20-24	45.21	-15.9	54.39	-14.2	1.033	-.016
25-29	66.56	- 4.6	62.01	- 8.6	1.073	.040
30-34	69.17	- 3.0	65.62	- 5.8	1.054	.031
35-39	66.02	- 6.9	68.01	- 3.2	.971	-.038
40-54	69.39	0.0	70.26	0.0	.988	-.001

Source: Table A2.

<sup>1</sup>Mean values adjusted for the effects of work experience, weeks, and hours worked.

Table 3. Adjusted Mean Occupational Status by Region of Destination, Migration Status, Education, and Age: 1976 and Percentage Change 1970-76<sup>1</sup>

Education and Age	Frostbelt						Sunbelt					
	Migrants		Nonmigrants		Ratio of Migrants to Nonmigrants		Migrants		Nonmigrants		Ratio of Migrants to Nonmigrants	
	1976	% Change 1970-76	1976	% Change 1970-76	1976	Difference 1970-76	1976	% Change 1970-76	1976	% Change 1970-76	1976	Difference 1970-76
Completed high school <sup>2</sup>												
All age groups	39.4	- 6.8	37.1	- 5.2	1.059	-.019	38.3	- 9.6	37.2	- 9.2	1.030	-.005
20-24	27.4	-21.8	28.7	-14.3	0.958	-.092	31.9	-11.5	29.9	-13.5	1.101	.024
25-29	35.1	-10.4	32.8	-10.9	1.073	.006	34.9	-10.5	34.2	- 8.6	1.020	-.022
30-34	41.1	- 6.3	35.5	- 7.3	1.157	.013	40.9	- 4.2	36.4	-10.6	1.124	.075
35-39	51.3	3.6	38.2	- 5.2	1.344	.114	40.8	- 6.9	38.7	- 9.7	1.054	.031
40-54	49.9	- 2.2	42.0	- 0.2	1.189	-.024	45.4	- 9.1	42.9	- 3.6	1.058	-.064
Completed College <sup>2</sup>												
All age groups	67.2	- 5.6	66.0	- 5.0	1.018	-.007	66.8	- 3.5	65.9	- 4.0	1.013	.006
20-24	59.0	-13.6	53.1	-17.9	1.112	.056	55.6	-14.4	55.7	- 8.2	0.997	-.075
25-29	66.9	- 5.0	62.2	-10.1	1.076	.057	66.6	- 3.3	61.9	- 5.9	1.077	.029
30-34	68.9	- 3.8	66.5	- 4.9	1.036	.011	69.5	- 2.0	64.9	- 6.4	1.071	.049
35-39	66.5	- 6.5	68.0	- 3.3	0.979	-.034	65.8	- 6.8	68.1	- 3.0	0.966	-.009
40-54	69.4	- 0.6	70.0	0.1	0.987	-.006	69.3	0.2	70.1	0.1	0.988	.002

Source: Table A2.

<sup>1</sup>Mean values adjusted for the effects of work experience, weeks worked, and hours worked.

<sup>2</sup>The values in this row are weighted averages, obtained by weighting age-specific variables by the proportion each represents of the total educational group and summing.

Table 4. Adjusted Mean Annual Earnings by Migration Status, Education, and Age:  
1975 and Percentage Change for 1969-75<sup>1,2</sup>

Education and Age	Migrants		Nonmigrants		Ratio of Migrants to Nonmigrants	
	1975	% Change 1969-75	1975	% Change 1969-75	1975	Difference 1969-75
Completed high school						
All age groups	\$12,425	-15.7	\$13,056	-12.8	0.952	-.032
20-24	13,149	- 5.3	13,752	- 5.1	0.976	-.002
25-29	11,743	-20.9	12,894	-16.9	0.911	-.045
30-34	12,408	-16.8	12,893	-15.8	0.962	-.012
35-39	12,135	-16.4	12,725	-15.3	0.954	-.012
40-54	12,182	-19.4	12,937	-12.8	0.942	-.077
Completed college						
All age groups	16,425	-13.7	16,289	-22.4	1.008	-.048
20-24	13,312	- 6.6	13,256	- 6.2	1.004	.004
25-29	14,266	-10.9	13,582	-15.7	1.050	.056
30-34	16,001	-16.9	15,470	-22.6	1.034	.070
35-39	18,213	-17.9	17,528	-22.4	1.039	.056
40-54	19,956	-14.0	18,932	-22.1	1.054	.099

Source: Table A3

- <sup>1</sup> Mean values adjusted for the effects of work experience, work experience squared, weeks and hours worked, occupational status, and cost of living.
- <sup>2</sup> Annual earnings are expressed in 1975 dollars.

Table 5. Adjusted Mean Annual Earnings by Region of Destination, Migration Status, Education, and Age: 1975 and Percentage Change 1959-1975<sup>1,2</sup>

Education and Age	Frostbelt						Sunbelt					
	Migrants		Nonmigrants		Ratio of Migrants to Nonmigrants		Migrants		Nonmigrants		Ratio of Migrants to Nonmigrants	
	1975	% Change 1969-75	1975	% Change 1969-75	1975	Difference 1969-75	1975	% Change 1969-75	1975	% Change 1969-75	1975	Difference 1969-75
Completed High School												
All Age Groups	\$13,159	-13.3	\$13,079	-13.7	1.006	.004	\$12,426	-14.0	\$13,342	- 9.2	0.931	-.052
20-24	13,750	- 5.3	13,999	- 5.0	0.982	-.003	13,463	- 2.0	13,584	- 3.6	0.991	.015
25-29	12,387	-17.2	13,037	-17.1	0.950	-.001	11,664	-20.2	12,764	-15.8	0.914	-.050
30-34	13,535	-10.7	12,668	-18.5	1.068	-.007	12,176	-14.4	13,085	-12.1	0.931	-.047
35-39	13,559	-11.6	12,371	-18.4	1.096	.085	11,963	-13.6	13,124	-11.2	0.912	-.024
40-54	12,844	-21.4	12,228	-18.3	1.050	-.041	12,447	-17.4	13,650	- 6.7	0.912	-.018
Completed College												
All Age Groups	\$16,208	-17.2	\$16,799	-22.2	0.965	.058	\$16,324	-10.1	\$16,192	-21.5	1.008	.128
20-24	12,440	-15.0	13,903	- 3.0	0.895	-.126	13,801	0.4	12,686	- 8.6	1.088	.097
25-29	13,610	-17.6	13,796	-17.0	0.987	-.021	14,586	- 5.3	13,468	-12.5	1.083	.081
30-34	17,207	-13.4	16,355	-18.7	1.052	.064	15,297	-17.6	14,702	-25.6	1.040	.101
35-39	18,874	-17.7	18,140	-22.6	1.040	.018	17,907	-16.2	16,970	-20.8	1.055	.058
40-54	19,265	-22.2	19,018	-24.9	1.013	.002	20,275	- 6.3	18,801	-19.3	1.078	.158

Source: Table A2.

<sup>1</sup> Mean values adjusted for the effects of work experience, work experience squared, weeks and hours worked, occupational status, and cost of living.

<sup>2</sup> Annual Earnings are expressed in 1975 dollars.

Table A1. Percentage of Interstate Migrants by Sample and Allocation Status: 1965-70 and 1970-76

Sample and Migration Status	Not Allocated	Allocated	Total
<b>PUS<sup>1</sup></b>			
Nonmigrant	91.0	89.1	90.9
Migrant	9.0	10.9	9.1
Total <sup>2</sup>	96.9	3.1	100.0
(Observations) <sup>3</sup>	(94,861)	(3,158)	(98,019)
<b>SIE<sup>1</sup></b>			
Nonmigrant	88.1	84.7	88.0
Migrant	11.9	15.3	12.0
Total <sup>2</sup>	99.0	1.0	100.0
(Observations) <sup>3</sup>	(46,050)	(524)	(46,574)

<sup>1</sup> Percentages based on weighted observation

<sup>2</sup> Percentage of total population

<sup>3</sup> Unweighted observations

Table A2. Regression of Occupational Status and Annual Earnings onto Selected Background and Labor Force Characteristics: White Males<sup>a</sup>

Characteristics	Occupational Status		Earnings	
	1970	1976	1969	1975
<u>All Regions</u>				
WORK <sub>2</sub> (WKEEXPR)	-0.066	-0.104	519.91	566.44
WORK	--	--	-8.49	-10.74
WEEKS	0.171	0.255	246.50	206.13
HOURS	0.079*	0.040*	77.06	36.12
OCCUP (DUNCOCCO)	--	--	105.79	81.86
COST (SMSA1)	--	--	1.09	0.37
MARITAL	-2.688	3.303	-1639.72	2007.33
HIGH SCHOOL GRADUATE				
MIGRANT 20-24	7.068	-11.831	-659.40	491.83
25-29	-3.710	-7.624	20.62	-1184.53
30-34	0.308	-1.456	84.88	-519.00
35-39	3.061	1.042	-304.72	-791.96
40-54	7.259	4.254	283.60	-745.28
NONMIGRANT 20-24	-9.387	-13.442	-332.73	824.87
25-29	-5.861	-8.945	698.43	-32.92
30-34	-3.649	-6.445	481.64	-34.37
35-39	-1.677	-3.923	205.44	-202.33
40-54	--	--	--	--
COLLEGE GRADUATE				
MIGRANT 20-24	23.952	13.874	-574.62	384.84
25-29	26.909	24.221	1179.42	1338.75
30-34	28.437	26.836	4433.73	3073.48
35-39	28.055	23.679	7365.33	5286.05
40-54	26.525	27.050	8385.36	7029.21
NONMIGRANT 20-24	20.515	12.053	-689.21	328.55
25-29	24.953	19.668	1277.54	654.73
30-34	26.805	23.279	5155.74	2542.89
35-39	27.407	25.673	7755.95	4601.11
40-54	27.307	27.925	9470.36	6005.01
Intercept (constant)	32.671	28.313	-22398.31	-14483.94
R <sup>2</sup> (corrected)	0.38236	0.43449	0.33329	0.44170
Total Observations	25921	1400	25921	1400

Table A2. (continued)

Characteristics	Occupational Status		Earnings	
	1970	1976	1969	1975
	<u>North and East</u>			
WORK (WKEXPR)	-0.056	-0.136	524.04	554.29
WORK <sup>2</sup>	--	--	-8.74	-9.78
WEEKS	.166	0.218	247.47	205.47
HOURS	0.086*	0.043*	79.50	31.98
OCCUP (DUNCOCCO)	--	--	104.25	71.86
COST (SMSA1)	--	--	0.79	0.11
MARITAL	-2.443	3.294	-1494.31	2252.95
HIGH SCHOOL GRADUATE				
MIGRANT 20-24	-6.973	-14.558	-452.20	1521.65
25-29	-2.826	-6.859	-14.74	158.89
30-34	1.763	-0.940	190.89	1307.53
35-39	7.437	9.288	373.52	1331.46
40-54	8.959	7.935	1366.20	616.62
NONMIGRANT 20-24	-8.641	-13.353	-238.17	1750.80
25-29	-5.309	-9.242	760.67	809.53
30-34	-3.771	-6.504	574.13	439.92
35-39	-8.805	-3.841	199.76	143.50
40-54	--	--	--	--
COLLEGE GRADUATE				
MIGRANT 20-24	26.220	17.019	-335.59	212.21
25-29	28.386	24.905	1519.43	1382.10
30-34	29.554	26.876	4903.21	4978.86
35-39	29.131	24.539	7962.12	6646.19
40-54	27.764	27.444	9805.66	7037.15
NONMIGRANT 20-24	22.580	11.070	-631.19	1675.47
25-29	27.104	20.178	1648.23	1568.06
30-34	27.814	24.485	5136.16	4127.19
35-39	28.208	25.953	8462.47	5911.94
40-54	28.254	28.359	10076.29	6789.92
Intercept (constant)	31.6447	30.1703	-19394.69	-10640.27
R <sup>2</sup> (corrected)	0.39141	0.42550	0.33961	0.43829
Total Observations	15488	693	15488	693



Table A2. (continued)

Characteristics	Occupational Status		Earnings	
	1970	1976	1969	1975
		<u>South and West</u>		
WORK (WKEPR)	-0.089	-0.068	516.37	585.95
WORK <sup>2</sup>	--	--	-8.20	-11.78
WEEKS	0.177	0.292	242.96	208.53
HOURS	0.068*	0.037*	74.72	40.92
OCCUP (DUNCOCCO)	--	--	107.58	91.23
COST (SMSA1)	--	--	1.14	0.97
MARITAL	-3.128	3.342	-1758.75	1816.73
HIGH SCHOOL GRADUATE				
MIGRANT 20-24	-8.363	-10.948	-899.19	-186.86
25-29	-5.476	-7.993	-20.87	-1985.41
30-34	-1.764	-1.987	-66.38	-1473.57
35-39	-0.585	-2.040	-789.69	-1686.61
40-54	5.437	2.498	-437.54	-1203.07
NONMIGRANT 20-24	-10.945	-13.870	-542.42	-65.32
25-29	-7.043	-8.677	518.84	-885.84
30-34	-3.756	-6.497	258.75	-564.47
35-39	-1.573	-4.143	150.47	-525.52
40-54	--	--	--	--
COLLEGE GRADUATE				
MIGRANT 20-24	20.588	12.712	-884.79	151.45
25-29	24.434	23.750	775.49	936.66
30-34	26.434	26.619	3933.55	1647.42
35-39	26.183	22.969	6742.50	4257.62
40-54	24.650	26.396	7001.65	6625.11
NONMIGRANT 20-24	16.254	12.865	-762.08	-963.51
25-29	21.302	19.011	750.69	-181.45
30-34	24.895	22.029	5132.72	1052.19
35-39	25.817	25.261	6796.68	3320.03
40-54	25.622	27.249	8669.66	5151.12
Intercept (constant)	34.8601	26.5419	-22697.95	-23262.86
R <sup>2</sup> (corrected)	0.36665	0.42264	0.32449	0.43069
Total Observations	10433	707	10433	707

\* Indicates that the regression coefficient is not twice the size of its standard error.

<sup>a</sup> The regression for 1976 Occupational Status and 1975 Annual Earnings are based on weighted observations.