GEOGRAPHIC MOBILITY OF OLDER WORKERS

Bert Kestenbaum and Greg Diez, Social Security Administration

1. Introduction

This is an investigation of the geographic mobility of a cohort of men between age 50 and age 54 on January 1, 1965. Geographic mobility is determined by comparing the location of the cohort in 1965 with its current (1981) location. Our substantive objectives are, first, to measure those redistributive consequences of the Social Security program attributable to geographic mobility by comparing the geographic distributions of 1965 Social Security taxes and 1981 benefits and, second, to test the hypothesis that there is a high correlation between the likelihood of elderly migration and high socio-economic status.

The Social Security Administration has been for some time linking large microdata files to create merged data bases yielding new or better information. In recent years we have reported in these annual meetings on research on income and wealth based on a linkage of our records to the Current Population Survey and the IRS' Individual Master File, and research on mortality from a linkage of our records to death certificate files.

The research on migration we report on today rests upon a record linkage among several Social Security Administration files. The 1965 1-percent employee-employer statistical file of wage workers and the 1965 1-percent file of self-employment were used to select our sample, and provided information on each sample member's location in 1965 together with an indicator of his socioeconomic status, namely, earnings in 1965. If a sample member or a dependent of a sample member became entitled to retirement or survivor benefits, we obtained from the Master Beneficiary Record early this year the address of the beneficiary and the type, amount, and current status of the benefit. When there was no record of entitlement, we investigated the 1-percent Continuous Work History Sample and the Summary Earnings Record to determine whether the sample member was living or dead and whether or not he was insured for benefits.

Let us now introduce the subject matter of our investigation.

2. Issues

Considering the recent high level of interest in the role played by the Federal tax and expenditure system in the redistribution of monies among subnational areas 1/, and considering the fact that the Social Security program is a major component of this system, we wanted to measure the monetary redistributive impact of the Social Security program, and furthermore, to determine how much of the redistribution could be attributed to the geographic mobility of workers and how much to other factors. For example, geographic variations in mortality would favor one area over another, although, in fact, these variations have been measured to be fairly narrow 2/. The nature of the benefit formula itself, which features an increasing ratio of benefit level to earnings level as the earnings level decreases, would tend to redistribute monies to areas with lower earnings.

The Federal government's role in the geographic redistribution of income is usually determined by comparing its current revenues by area with its current expenditures by area. In this report, however, we compare the geographic distribution of a cohort's taxes at some period during its working years with the geographic distribution of the benefits it receives when it has aged. This cohort approach will permit us to isolate the portion of the redistributive impact of the program that is due to personal mobility.

Migration of the elderly has begun to be thoroughly analyzed during the past dozen or so years, and one emerging research finding presented by, among others, Barsby and Cox 3/, is the existence of a positive relationship between socioeconomic status and the likelihood of migration. Most analyses of elderly migration have as their basis the decennial census question on residence five years ago, and proceed to compare the current social and economic characteristics of migrants and nonmigrants. Our second substantive objective in this paper is to determine whether or not the same relationship between socioeconomic status and likelihood of migration holds in the present context, where the observation period is sixteen years long and the indicator of socioeconomic status--earnings-- is measured at the beginning of the observation period, rather than at the end.

3. Geographic Unit of Analysis

Our geographic unit is the Census division, of which there are nine: New England and Middle Atlantic in the East; East North Central and West North Central in the Midwest; South Atlantic, East South Central, and West South Central in the South; and Mountain and Pacific in the West. This choice of divisions simplifies the analysis, but more importantly it minimizes problems that have been identified by others investigating the potential of Social Security Administration sample files for subnational estimates.

Social Security Administration geographic codes for wage workers refer to place of employment. (For self-employed workers, they refer to place of residence). In a paper first presented at these annual meetings in 1969, and later published in the Census Bureau's Series P-23 Current Population Reports, Zitter and Nagy 4/ reported some disappointing findings in their investigation of the utility of the Social Security Administration's wage worker sample for measuring the migration component of postcensal State population estimates. They cited problems of the sampling fraction of 1-in-100 yielding a too small sample and the inability to separate true residential migration from "job migration"--when a worker assumes a job in another State without moving his home. With respect to the latter phenomenon, the authors demonstrated that the numbers of observed moves between noncontiguous States were of magnitudes comparable to independent estimates while the number of

observed moves between contiguous States substantially exceeded independent estimates.

On the other hand, the Bureau of Economic Analysis in the Department of Commerce, which has undertaken an extensive evaluation of our sample files, considers errors in the geographic coding for multi-unit employers to be the most serious source of difficulty 5/. The problem here is that large firms with locations in more than one place are asked to adopt our Establishment Reporting Plan so that each of their units could be assigned a correct geographic code; while most large firms do participate in this voluntary plan, many do not.

These three problems--the small sampling fraction, "job migration," and lack of codes for establishments of multi-unit firms--are much less serious when the unit of analysis is the Census division, rather than the State.

4. The Sample of 1965 Workers

Our 1-in-100 sample consists of 43,601 men ages 50-54 at the beginning of 1965 with earnings taxable for Social Security purposes in 1965 from salaried employment, from self-employment, or from both. Many jobs in the public sector and some other types of employment (some nonprofit and marginal farm work and domestic work) are not covered by the Social Security program. This, together with the fact that some men this age did not work during 1965, explain the difference between the size of our universe of 4,360,000 and the Census Bureau's 1965 population estimate of 5.1 million men ages 50-54 6/.

Because men this age typically have had much work experience, and because the maximum taxable for Social Security in 1965 of $4,800 was relatively low (and, in fact, was raised to $6,600 the following year), about 60 percent of our sample members earned in excess of the taxable maximum in 1965.

The distribution of our sample in 1965 among the nine Census divisions, together with a list of the States comprising each division, are given in table 1. Two additional small categories are also shown: one for the combined outlying areas of Puerto Rico, the Virgin Islands, Guam, and American Samoa, and one for unknown address.

Members of our cohort who survive to 1981 are likely to have become entitled to retirement benefits, and thus be represented in the Master Beneficiary Record file. This follows from the considerations that (a) any member of the cohort living in 1981 has passed his 65th birthday (and his 66th, as well), and (b) any member age 65, whether or not he has stopped working, becomes eligible for valuable Medicare hospitalization benefits when he establishes his entitlement to retirement benefits. There will, of course, be some members of the cohort who have not worked enough, or have not worked enough in employment covered by the social security program, to be insured for retirement benefits, but they are few in number.

Even among members of the cohort not surviving to 1981 there will be some with an account in the Master Beneficiary Record. First of all, some died after becoming entitled to retirement benefits; and while their benefits are, of course, terminated, their records are not purged from the master file. Furthermore, whether or not a worker becomes entitled to benefits, his widow or surviving child may become entitled to a survivor benefit on his account.

The results of our search of the Master Beneficiary Record are displayed in table 2. We found records of worker entitlement to retirement benefits for 86.6% of the sample members. Slightly less than one-fourth of these entitlements were not in current-pay status, generally either because they were terminated upon the worker's death or because they were suspended since the worker continued to be employed past age 65 with substantial earnings.

In another 7.7% of the cases, while there was no record of worker entitlement to retirement benefits, there were one or more entitlements to survivor benefits on his account. This leaves 5.7% of the sample with no record of entitlement to program benefits, which we investigated further, using two other Social Security Administration files--the Summary Earnings Record and the 1-percent Continuous Work History Sample. While the reporting of unentitled deaths to the Social Security Administration is less than complete 7/, we were able to determine that more than three-fifths of the residual group were dead. A small number were not insured for program benefits, at least as of January 1, 1978, and we are left with about 2 percent of the full sample of 43,601 that cannot be accounted for.

5. The Redistributive Impact of the Social Security Program

The first column of numbers in table 3 describes the percentage distribution of the 1965 taxes of our cohort among the census divisions. The second column gives the distribution of benefits actually paid in February 1981 to members of the cohort and to others drawing benefits on their accounts--wives and widows, children and orphans, fathers and mothers.

The South Atlantic, the big winner from redistribution, paid 11.7 percent of the 1965 taxes but received 15.8 percent of the early-1981 benefits, for a net gain of 4.1 percentage points. The net losses sustained by the Middle Atlantic and East North Central divisions were 3.9 and 2.6 percentage points, respectively. The effects on other divisions were not nearly as large.

If the same comparison is carried out with workers who migrated from one area to another excluded, the redistributive impacts of the program turn out to be much smaller, ranging from -1.3 points to +0.7 points. This is shown in the last column of table 3. Clearly, then, at least for this cohort, interdivisional migration is responsible for the large part of the redistributive impact of the social security program. Other factors such as regional variations in mortality and the weightedness of the benefit formula in favor of lower earners play only a small role.

6. The Frequency of Migration and Socioeconomic Status

By comparing the location in 1965 to the location given in the current Master Beneficiary Record for all sample members who became entitled to retirement benefits, we were able to identify those men in our cohort who migrated from one Census division to another since 1965. Complete division of origin by division of destination matrices appear in table 5 and table 5A, the latter applying only to those workers earning less than the maximum taxable in 1965 ($4800). Table 4 summarizes the relationship between the likelihood of migration and the level of 1965 earnings.

For the United States as a whole the likelihood of migration is positively related to the higher earnings level, which is consistent with the work of other investigators. The relationship is, however, reversed in the Mountain and Pacific divisions, suggesting that the relative strengths of the causes of older-worker migration are somehow different in the West than in the rest of the country.

7. Concluding Remarks

In addition to the work on geographic mobility presented today, we are using the matched worker and beneficiary records for mortality studies 8/ and to investigate the different experiences of individuals with respect to the Social Security program. In general, the extensive recent record linkage activity at the Social Security Administration has done much to expand our capabilities for both program related and non-program related research.

Notes and References

1/Cf. "Federal Spending: the North's Loss is the Sunbelt's Gain," National Journal, June 26, 1976.

2/Metropolitan Life Insurance Company, Statistical Bulletin, "Patterns of Regional Longevity," April-June 1979, pp. 15-16.

3/Barsby, Steven L. and Cox, Dennis P., Interstate Migration of the Elderly, Lexington: D.C. Heath, 1975.

4/Bureau of the Census, "Use of Social Security's Continuous Work History Sample for Population Estimation," Current Population Reports, Series P-23 No. 31, April 1970.

5/Cartwright, David, "Major Limitations of CWHS Files and Prospects for Improvement," Policy Analysis with Social Security Research Files (proceedings of a workshop held March, 1978 at Williamsburg, Virginia), HEW Publication No. (SSA) 79-11808, 1978.

6/Bureau of the Census, "Estimates of the Population of the United States, by Age, Sex, and Race: April 1, 1960 to July 1, 1973," Current Population Reports, Series P-25 No. 519, April 1974, table 1.

7/Cf. Aziz, Faye and Buckler, Warren, "Mortality and the Continuous Work History Sample," American Statistical Association 1980 Proceedings of the Section on Survey Research Methods.

8/ Aziz, Faye, Orcutt, Harriet, and DelBene, Linda, "Social Security Data Files as a Resource for Health Research," American Statistical Association 1981 Proceedings of the Section on Survey Research Methods.

Table 1.--Geographic distribution of the 1-percent sample of male workers ages 50-54 in 1965

Census division	Number	Percent
Total Sample	43,601	100.0%
New England (CT, ME, MA, NH, RI, VT)	2,682	6.2
Middle Atlantic (NJ, NY, PA)	9,195	21.1
East North Central (IL, IN, MI, OH, WI)	8,878	20.4
West North Central (IA, KS, MN, MO, NE, ND, SD)	3,575	8.2
South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA, WV)	5,681	13.0
East South Central (AL, KY, MS, TN)	2,416	5.5
West South Central (AR, LA, OK, TX)	3,656	8.4
Mountain (AZ, CO, ID, MT, NV, NM, UT, WY)	1,542	3.5
Pacific (AK, CA, HI, OR, WA)	5,210	11.9
Outlying areas (PR, VI, GU, AS)	489	1.1
Unknown	277	0.6

Table 2.--Entitlement to benefits in early 1981: 1-percent sample of male workers ages 50-54 in 1965

Entitlement status, early 1981	Number	Percent
Total Sample	43,601	100.0%
Worker entitlement to retirement benefits	37,767	86.6
In current pay status	28,525	65.4
Terminated because of death	7,291	16.7
Suspended because of earnings	1,837	4.2
Terminated or suspended for miscellaneous reasons	114	0.3
Survivor entitlement only	3,367	7.7
No entitlement	2,467	5.7
Deceased	1,522	3.5
Not insured	144	0.3
Unaccounted for	801	1.8

Table 3.--1981 benefits/1965 taxes comparison, for Census divisions: 1-percent sample of male workers ages 50-54 in 1965

Census division in 1965	Percentage of early-1981 benefits	Percentage of 1965 taxes	Difference	Difference when migrating workers are excluded
New England	5.9%	6.4%	-0.5%	-0.3%
Middle Atlantic	18.7	22.6	-3.9	-1.3
East North Central	19.2	21.8	-2.6	-0.3
West North Central	8.1	7.8	+0.3	+0.6
South Atlantic	15.8	11.7	+4.1	+0.4
East South Central	5.6	4.8	+0.8	+0.5
West South Central	8.7	7.5	+1.2	+0.7
Mountain	4.6	3.4	+1.2	+0.3
Pacific	12.3	12.4	-0.1	-0.1
All other	1.0	1.5	-0.5	-0.5

Table 4.--Proportion migrating since 1965, by location and earnings level in 1965: 1-percent sample of male workers ages 50-54 in 1965 who became entitled to retirement benefits

Census division in 1965	Proportion migrating	
	Among workers earning more than the maximum taxable	Among workers earning less than the maximum taxable
Total Sample	14%	11%
New England	12	13
Middle Atlantic	19	18
East North Central	16	14
West North Central	13	9
South Atlantic	7	5
East South Central	11	6
West South Central	7	6
Mountain	13	16
Pacific	9	15

Table 5.--Divisions of origin and destination: 1-percent sample of male workers ages 50-54 in 1965 who became entitled to retirement benefits

Origin	Destination											
	TOTAL	NE	MA	ENC	WNC	SA	ESC	WSC	M	P	Out-lying	Other countries
New England.....	2333	2054	41	13	6	151	5	8	8	18	5	24
Middle Atlantic....	7890	98	6446	77	19	848	36	40	79	116	57	74
East North Central.	7681	13	56	6523	83	474	155	106	140	105	7	19
West North Central.	3120	7	10	75	2787	42	14	71	67	46	0	1
South Atlantic.....	4870	14	65	50	10	4590	71	25	17	25	1	2
East South Central.	2116	1	6	30	8	84	1950	26	6	5	0	0
West South Central.	3170	2	6	18	31	21	48	2977	28	32	0	7
Mountain.....	1347	0	0	6	26	14	9	36	1160	87	0	9
Pacific.....	4560	9	16	22	39	48	19	107	170	4085	0	45

Table 5A.--Divisions of origin and destination: 1-percent sample of male workers ages 50-54 and with earnings below the taxable maximum in 1965 who became entitled to retirement benefits

Origin	Destination											
	TOTAL	NE	MA	ENC	WNC	SA	ESC	WSC	M	P	Out-lying	Other countries
New England.....	741	646	13	4	3	46	1	2	1	5	5	15
Middle Atlantic....	2111	18	1752	11	5	177	9	8	14	37	39	41
East North Central.	1878	1	8	1632	25	84	44	32	24	17	4	7
West North Central.	1415	3	3	21	1301	8	7	24	28	20	0	0
South Atlantic.....	2618	3	24	24	4	2490	46	10	5	11	1	0
East South Central.	1207	0	4	15	1	33	1135	15	2	2	0	0
West South Central.	1654	1	1	8	20	9	22	1559	10	23	0	1
Mountain.....	567	0	0	2	14	6	4	17	479	40	0	5
Pacific.....	1319	4	5	9	14	16	8	42	60	1133	0	28