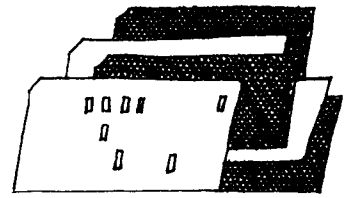
Research Summaries



The aging of the older population and the effect on its labor force rates

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Changes in labor force measures are not always easy to interpret. For instance, a rise in the unemployment rate over time is generally interpreted as meaning that it has become more difficult for an individual to find a job. But, that is not necessarily the case. The unemployment measure could show an increase over a long-term period even though the rates for each specific labor force group (by age, sex, and race) either remained stable or declined. This would occur if groups which typically have higher than average unemployment rates retained those rates as their proportion of the labor force increased. The increase in the aggregate measure, then, could stem from either a change in the age distribution of the population or changes in the labor force participation rates for specific groups.[1]

Probably the most widely used measure of the labor market status of older workers is not the unemployment rate but, rather, the labor force participation rate. This statistic has been closely followed in recent years because labor force activity of older workers affects social security and private pension outlays, and also could reflect the impact of mandatory retirement legislation. The participation rate for men age 55 and older has declined markedly in the post-World War II period, from 70.7 percent in 1948 to 44.5 percent in 1981, largely reflecting this group's improved financial ability to retire. During the same period, the participation rate for women age 55 and over rose from 17.2 to 22.7 percent, but that gain was far less than that registered by younger women.

In the last 2 years, a fall in participation rates for older persons of both sexes has accelerated, following 3 years of relatively slow decline. This has occurred despite changes in age discrimination laws and high rates of inflation, factors which many observers expected to provide upward pressure on participation. This recent labor force trend has spurred a rise in interest regarding the nature and causes of declining participation among older workers.

One possible explanation is that the fall in participation, particularly in recent years, might be partly the result of the aging of the older population. Basically, this is the converse of the argument that has been used to explain part of the rise in the unemployment rate. The rationale is that the oldest groups within the elderly population, those with the lowest participation rates, have been increasing as a proportion of the elderly and are receiving more weight in the overall calculation.

To examine the validity of this proposition, population and labor force data from the Current Population Survey (CPS) for men and women by single years of age were obtained for 1968, 1972, and 1981. Each year was selected for an important reason: 1968 is the first full year for which single-year-of-age data were tabulated using the civilian noninstitutional population concept; 1972 is the first year that the CPS used 1970-based population controls (rather than those projected from the 1960 census results); and 1981 is the most recent date for annual average data and also is the first year that 1980 census-based population estimates were available.

The census data themselves were not used because the single-year-of-age tabulations refer to *total* population, while the CPS, beginning in mid-1967, uses civilian *noninstitutional* population. This distinction is critical because of the rapid rise in the institutional population of the elderly (mostly in nursing homes), currently about 1.6 million people.

Analysis of the CPS data isolated the effects of three factors on changes in participation between 1968 and the two latter years (1972 and 1981). These were: (1) changes in the age-specific participation rates, (2) changes in the age composition of the population, and (3) changes attributable to "interaction", that is, changes that are not explained by the age-specific participation rates or by the age composition of the labor force. Interaction accounted for a very small portion of the total change in participation. Table 1 shows the amount of change accounted for by each of the three factors.

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Table 1. Changes in age components of labor force participation rates for men and women age 55 and older

Age and year	Average participation rate	Total change	Change due to —		
			Age specific participation rate	Age composition of population	Interaction effect[1]
Men, age 55 and over:					
1968	56.54	0.00	0.00	0.00	0.00
1972	53.36	−3.18	−3.33	.19	−.04
1981	44.47	−12.07	−11.28	−.71	−.08
Age 55 to 64:					
1968	84.26	0.00	0.00	0.00	0.00
1972	80.51	−3.75	−3.51	−.21	−.03
1981	70.63	−13.62	−13.31	−.21	−.10
Age 65 and over:					
1968	27.27	0.00	0.00	0.00	0.00
1972	24.35	−2.92	−3.13	.27	−.06
1981	18.35	−8.92	−9.15	.37	−.14
Women, age 55 and over:					
1968	25.04	0.00	0.00	0.00	0.00
1972	24.52	−.52	−.19	−.33	.00
1981	22.73	−2.31	−1.14	−1.13	−.04
Age 55 to 64:					
1968	42.44	0.00	0.00	0.00	0.00
1972	42.14	−.30	−.16	−.15	.01
1981	41.35	−1.09	−.83	−.19	−.07
Age 65 and over:					
1968	9.57	0.00	0.00	0.00	0.00
1972	9.33	−.22	−.20	−.03	.01
1981	8.01	−1.56	−1.41	−.16	.01

[1] The "interaction" effect is that part of the total change in participation not explained by the other two variables.

The amount of change in participation attributable to changes in age-specific participation rates is derived by first computing participation rates for single-years-of-age between age 55 and 74 and for age 75 and over. Then, a rate was computed using the following formula (1981 is the target year and 1968 is the base year):

$$\frac{\Sigma_i (r_{i81} \cdot pop_{i68})}{\Sigma_i pop_{i68}}$$

where:

r_{i81} is the 1981 participation rate for the ith age group and pop_{i68} is the 1968 civilian noninstitutional population for the ith age group.

Simply put, this calculation shows what the participation rate would have been in 1981 if the population distribution had been the same as in 1968. In other words, it isolates the effect of changing participation rates. For instance, for men age 55 and over, changing participation accounted for 11.28 points of the fall in participation between 1968 and 1981; therefore, their adjusted 1981 rate is 45.26 percent (56.54−11.28).

The formula used to compute the effect of changes in the population distribution is:

$$\frac{\Sigma_i (r_{i68} \cdot pop_{i81})}{\Sigma_i pop_{i81}}$$

where:

r_{i68} is the 1968 participation rate for the ith age group and pop_{i81} is the 1981 civilian noninstitutional population for the ith age group.

This calculation shows what the rates would have been in 1981 if the age-specific participation rates had remained as they were in 1968. In other words, it isolates the impact of changes in the age composition of the population. For men age 55 and over, the adjusted participation rate in 1981 was 55.83 percent, explaining only .71 point of the 12.07-point fall in participation since 1968.

Results

Among men, the change in the age structure of the 55-and-over population has had relatively little impact on the dramatic declines in participation. In fact, for men age 65 and over, the changing population distribution caused a slight rise in participation rates, indicating that the growth has been greater in the younger, not older, groups in this age cohort. The following tabulation of age distribution for men age 65 and over in 1968 and 1981 demonstrates this:

	Percent of population in—	
	1968	*1981*
65 and over	100.0	100.0
65	8.4	8.3
66	7.8	8.4
67	7.6	7.8
68	7.3	7.3
69	6.2	6.5
70	6.2	6.5
71	5.5	5.9
72	5.4	5.6
73	5.4	5.3
74	4.7	5.0
75 and over	35.4	33.5

The oldest age group, age 75 and over, made up a much larger proportion of all men age 65 and older in 1968, while the younger age groups predominated in 1981. The 55-to-64 group did age somewhat over the 18-year period, but only enough to explain about two-tenths of a point out of a participation rate decline that, by 1981, totaled more than 15 points.

Unlike the mixed results experienced by men, the age composition effect was consistently in the downward direction for older women.[2] For women ages 55 to 64 and 65 and over, the age effect was less than two-tenths of a point in both 1972 and 1981. The relatively large age effect, by 1981, in the 55-and-over group suggests a shift in population into the older (65 and over) age group. (A similar shift, causing a .71-point decline in participation, occurred among men.) However, the participation rates for older women have changed comparatively little over time and tend to be much less an issue

than those for men, which have fallen dramatically. In the years ahead, the aging of the first generation of American women who have developed a strong labor force attachment is likely to provide upward pressure on the participation rates of women age 55 and over.

The declines in participation among older workers over the last several years are particularly noteworthy, because they occurred despite increased protection against forced retirement and the prevailing high rates of inflation. The main causes of the long-term declines in participation among the elderly have been documented,[3] and the declines in the last 2 years may have been intensified by the weakening economy. The changing age distribution of the older population seems to have played, at most, a very small part in these important labor force trends. □

FOOTNOTES

[1] The effect of these influences on the unemployment rate was discussed in a series of articles in the March 1979 *Monthly Labor Review*. See Paul O. Flaim, "The effect of demographic changes on the Nation's unemployment rate"; Glen G. Cain, "The unemployment rate as an economic indicator"; and Joseph Antos and others, "What is a current equivalent to unemployment rates of the past?"

[2] It should be kept in mind that the "aging" of the older population is limited by the use of the noninstitutional population in the calculations. Nursing home residents, who make up most of the institutional elderly, are concentrated in the oldest age groups and the vast majority are women.

[3] See, for example, Philip L. Rones, "Older men—the choice between work and retirement," *Monthly Labor Review*, November 1978, pp. 3–10; or Joseph F. Quinn, *The Microeconomics of Early Retirement: A Cross Sectional View* (U.S. Department of Health, Education, and Welfare, 1975).

Occupational changes and tenure, 1981

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The labor force is characterized by a relatively high degree of occupational change. Studies have shown that most workers are employed in occupations which differ from those of their fathers.[1] Occupational shifts are also quite common over the course of a worker's career. The occupation held by a worker in midlife often differs from the first occupation after leaving school.[2]

Although the volume of occupational mobility that occurs within a given year is much smaller, it provides an indication, on a current basis, of recent trends. When assembled over time, data on 1-year mobility shows changes that are important for purposes of developing vocational and higher educational programs.

Studies of 1-year occupational mobility based on data from the Current Population Survey (CPS) of January 1966, 1973, and 1978 indicated that about 1 in 10 of all workers in each year were employed in a different occupation than in the previous year.[3] Much of the occupational change was concentrated among persons under age 30 who tend to "job shop" as they obtain exposure to various kinds of work.

This report presents an update of these previous studies. The data shown are based on information obtained in the January 1981 Current Population Survey and relate to the occupations of workers in that month and in January 1980. Workers who changed occupations are defined as those employed in both January 1980 and January 1981, but in a different "three-digit" census occupation in January 1981 than the occupation reported for January 1980. For example, a person employed as a typist in 1981 and as a stenographer in 1980 would be defined as having changed occupations, although the change occurred within the major occupational grouping—clerical workers. The occupational mobility rate used in this report refers to the number of workers who changed occupations as a proportion of the total number employed in January of 1980 and 1981.[4]

This study also presents new information on occupational tenure based on the years spent in the current occupation. These data are limited to persons employed in both January 1980 and 1981. Workers in the same "three-digit" census occupation in January 1981 as in January 1980 were asked how many years, altogether, they had "been doing that kind of work." Persons who had changed occupations were assigned to the tenure category of less than 1 year.

The data on both occupational mobility and tenure are subject to a number of limitations. Besides those normally associated with sample surveys (sampling variability and nonresponse), there may be errors associated with the retrospective reporting of the occupation a year earlier and the number of years in the same occupation.[5] Because occupation is reported only for the months of January 1980 and January 1981, any temporary changes in occupation that occurred during the year will not be reflected in the survey results. Since the tenure question was asked only of persons in the same occupation in January 1980 and 1981, the tenure data exclude persons employed in January 1981 but not January 1980, as well as any years spent in the occupation prior to 1980 for persons not in the same occupation in both January 1980 and 1981. Moreover, the information on tenure was collected in a combination of single and multiyear intervals, thus making it difficult to obtain reliable estimates of mean or median tenure.[6]

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