

could have been conducted. Sampling variability may be relatively large in cases where the estimates are small. Small estimates, or small differences between estimates, should be interpreted with caution. This report is the latest in a series on this subject. The earlier summary was Anne McDougall Young, "More U.S. workers are college graduates," *Monthly Labor Review*, March 1984, pp. 46-49, reprinted with additional detailed tables for March 1982 and March 1983 in *Educational Attainment of Workers, March 1982-83*, Bulletin 2191 (Bureau of Labor Statistics, April 1984).

²Furthermore, even though the college age population is expected to decline through 1990, the number of persons earning bachelor's and post-graduate degrees is projected to continue to increase by at least a million a year. See Debra E. Gerald, *Projections of Education Statistics to 1992-93; Methodological Report with Detailed Projection Tables*, National Center for Educational Statistics, forthcoming.

³See table 1, Bulletin 2191.

⁴National Center for Education Statistics, *The Condition of Education*, 1984 Edition, tables 2.14, 2.15, and 2.16.

⁵*Occupational Outlook Handbook, 1984-85 Edition*, Bulletin 2205 (Bureau of Labor Statistics, April 1984), p. 18.

Using the CPS to track retirement trends among older men

PHILIP L. RONES

Changes in the age structure of the population and dramatic declines in work activity among older men have made retirement trends a critical social issue. The economic and political ramifications of these trends are considerable: Already, declines in retirement age have combined with a rising life expectancy and changing age distribution, among other factors, to put pressure on public and private pension systems. Intergenerational conflicts may also arise, particularly during periods of high unemployment; for example, early retirement inducements are often used by employers seeking to avoid laying off younger workers. And, labor shortages could occur as the number of retirees increases in relation to the number of new labor force entrants.

It has always been difficult to identify the age at which people retire because separation from the labor force is often neither abrupt—part-time work is very common among older workers—nor final—many older persons reenter the labor force after a period of absence. In addition, retirement status is best defined by current work activity for some purposes, while for others, pension receipt is the more appropriate criterion. Given the types of data that are most readily available, a simple definition of retirees is often used, such as those who receive Social Security retirement benefits, or those above a certain age, such as 55, who are not in the labor force.

Transitions from work to retirement are probably best tracked by longitudinal surveys, which follow the same

individuals for a period of time. Among the most notable of these are the Retirement History Survey and the Continuous Work History Sample of the Social Security Administration, and the National Longitudinal Survey, conducted by the Center for Human Resource Research, Ohio State University. Longitudinal surveys are particularly useful because of the considerable amount of demographic and other personal information available on individuals in the survey. A drawback of many longitudinal surveys is that they focus on persons in a limited age range at the time of the initial survey, which means that they cannot provide comparisons between these and other cohorts of workers.

One does not need to follow the same people to track a group's labor force trends. Unlike the longitudinal surveys, the Current Population Survey (CPS)¹ relies on a rotating sample—that is, a household (technically, an address) is in the sample for a limited time and is then replaced. In the CPS, 25 percent of the sample changes each month. But, while the survey does not follow the same people for long periods, the sample can "represent" the same group over time. In other words, within the limits of sampling reliability, any random sample of persons 55 years of age at one point in time would represent the same group as a different sample of 54-year-olds surveyed a year earlier.²

Because of the long history of the CPS and the frequency of observation, the survey can provide an excellent overview of changes in retirement trends. The data can be used in three ways. The cross-sectional view examines the labor force characteristics of persons of different ages at a fixed point in time. The time-series view examines the behavior of one or more demographic groups at different times. A third, the cohort view, follows the same people, or a sample representing the same people, as they age. This view has the advantage of permitting one to consider the unique history of each population group when assessing its present labor force status.

"Retirement" data from the CPS have generally been used with the time-series approach to track changes in labor force participation rates for broad age groups, usually persons 55 to 64 years and 65 years and over. However, since 1963 CPS data have been available on labor force characteristics by single year of age and by sex, for persons age 55 to 74. Thus, the CPS provides a better vantage point than most longitudinal surveys in that it follows work histories of many cohorts through their older years.

This summary presents these previously unpublished data for older men and estimates of rough retirement histories for different generations of these men. A simple definition of retirement is used for this purpose; all men over age 55 who are not in the labor force are deemed to be retired. Conversely, all who are working, whether full or part time, and all those actively looking for work are *not* retired.

Labor force participation rates—the proportion of the population in the labor force at each age—for men between ages 55 and 74 are shown in table 1 for the years 1963–

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Table 1. Labor force participation rates for men ages 55 to 74, 1963-83 annual averages

Year	Age																	72	73	74	Birth cohort	
	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71					
1963	92.6	93.1	90.6	90.9	88.8	88.1	83.5	79.7	75.5	71.5	54.4	43.4	39.0	32.6	33.3	27.0	27.4	29.5	26.3	24.4	1904-1908	
1964	92.6	91.5	91.9	90.0	89.0	85.5	84.6	78.2	74.1	71.5	56.0	47.4	40.2	34.9	32.1	26.4	27.3	24.9	26.5	22.3		
1965	93.0	90.9	89.2	89.0	88.4	86.0	83.3	78.7	72.5	67.7	55.9	45.5	41.2	36.7	32.3	26.7	25.8	25.4	23.9	21.4		
1966	92.7	91.0	89.8	88.5	87.2	85.9	83.4	79.4	71.7	67.4	52.8	47.0	40.7	37.9	32.3	26.5	24.3	25.2	20.0	21.7		
1967	91.3	91.1	90.8	88.9	87.9	85.5	82.2	76.0	73.2	68.5	52.9	47.1	43.2	37.4	34.9	30.3	25.7	22.0	21.2	18.3		
1968	91.9	91.3	90.5	88.6	86.6	84.8	82.8	76.4	71.9	69.0	53.4	46.6	40.8	37.5	33.9	30.2	25.5	24.5	21.6	19.9		
1969	91.7	91.5	89.0	89.2	86.2	85.0	81.6	76.0	68.4	66.0	51.3	45.6	41.6	36.1	35.0	30.2	25.6	24.4	22.4	19.7		
1970	91.8	90.7	89.1	87.7	87.5	83.9	81.2	73.9	69.4	64.4	49.9	44.7	39.4	37.7	34.0	30.2	27.9	24.8	22.0	19.1		
1971	91.0	89.6	88.9	87.8	86.4	83.6	79.6	74.4	68.5	62.2	47.2	41.6	37.8	35.1	32.2	28.9	25.9	22.8	24.0	18.3		
1972	90.7	88.9	86.1	86.8	84.4	82.1	79.5	70.9	66.5	61.5	45.2	38.6	34.6	33.8	29.6	27.1	25.5	22.4	20.4	20.2		
1973	88.8	87.6	85.8	85.1	83.5	79.2	76.6	67.2	62.1	58.1	41.5	37.1	31.5	30.2	27.8	25.4	24.0	23.6	17.8	16.9		
1974	88.0	86.6	86.5	84.4	82.9	79.0	76.1	66.8	59.3	56.3	39.8	35.4	33.0	29.7	26.6	23.5	23.7	23.0	20.5	19.2		
1975	87.6	85.6	84.4	83.7	80.4	76.9	73.5	64.4	58.3	53.0	38.7	33.7	30.6	28.4	25.8	23.7	22.2	22.6	20.0	16.0		
1976	87.1	84.1	83.7	82.3	79.7	75.5	75.3	61.8	55.7	50.3	36.6	31.0	28.1	26.7	22.3	22.4	23.2	19.2	19.4	15.6		
1977	85.8	85.4	82.6	81.9	80.7	77.2	73.0	61.2	53.1	50.2	35.1	30.3	32.6	27.4	25.4	24.8	21.2	20.3	16.4	15.2		
1978	85.9	83.4	83.6	80.9	79.4	75.4	72.8	61.4	54.1	49.2	38.3	32.0	25.4	29.9	27.0	22.8	20.9	19.1	19.0	14.8		
1979	86.3	84.8	80.2	81.2	79.3	75.0	68.6	59.0	52.8	48.6	38.5	31.1	28.0	25.4	22.7	24.4	21.5	16.3	17.3	16.2		
1980	85.3	83.7	81.5	79.9	78.8	74.8	69.7	55.0	50.0	45.7	33.9	31.5	26.1	25.4	22.2	18.7	18.6	16.0	15.2	17.7		
1981	85.2	82.5	79.7	78.2	77.2	72.7	68.0	53.7	45.2	42.6	33.0	27.7	28.7	25.0	22.6	18.7	17.4	17.1	15.9	13.6		
1982	84.6	84.2	80.3	79.7	76.2	73.0	67.6	55.0	46.4	44.9	32.1	26.5	26.3	24.7	23.7	19.2	18.3	18.4	15.5	11.5		
1983	85.7	83.3	80.2	77.9	75.3	71.6	67.7	54.3	46.6	41.3	31.0	27.1	25.8	22.7	23.0	19.2	19.1	14.5	15.7	15.8		
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NOTE: The birth cohorts indicated by the shaded area are those used in the calculations for tables 2 and 3.

83. From these estimates, two types of retirement histories are calculated, using the cohort perspective, for the 1904-22 birth cohorts. (Insufficient data are available for earlier cohorts, and later cohorts are not old enough to be included.) Table 2 shows the proportion of the population of each cohort that had retired at any particular age. These estimates are additive, that is, adding across gives the proportion of a cohort that had retired as of a certain age. These retirement rates are depicted in chart 1, which shows the percentage of men in even-year birth cohorts who were out the labor force as of selected ages. The heights of the five sections of each bar represent the percentages of men who were retired by age 61, and of those who subsequently retired at ages 62, 63 and 64, 65, and 66 to 70. Of course, the

retirement histories of the younger cohorts are not yet complete.

The second type of retirement history is provided in table 3, which gives the probability of someone who is in the labor force as of a certain age leaving the labor force the next year. For example, this table shows the probability that someone who was in the labor force at age 65 in 1970 would be out of the labor force at age 66 in 1971.³

The difference in the two types of "retirement rates" is that the first shows the proportion of the population of each cohort leaving the labor force at each age, while the second shows the proportion of those in the labor force at each age leaving it the next year. In other words, table 2 answers the question, "At what age did men in each cohort leave the

Table 2. Annual percentage-point decline in labor force participation rates for men in the 1904-22 birth cohorts at ages 55 to 70

Year of birth	Not in the labor force at age 55 (percent)	Age														
		56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
1904						3.1	2.2	3.9	6.2	4.2	17.7	6.8	6.9	4.0	6.0	4.3
1905						3.0	2.6	7.4	4.1	5.9	16.1	8.3	7.6	4.4	3.6	2.9
1906						2.5	3.7	5.8	8.0	4.6	17.2	8.6	7.1	3.8	1.9	3.4
1907						1.7	2.7	6.8	6.6	7.2	17.0	8.1	4.1	3.6	6.1	+1.5
1908	7.2	1.3	1.2	2.9	1.8	3.1	3.2	7.7	5.4	7.0	20.0	6.1	4.8	3.9	1.3	2.6
1909	7.4	1.7	1.1	0.9	2.3	1.6	3.8	6.8	7.9	8.4	18.3	6.1	5.6	7	4	2.6
1910	7.0	2.0	0.2	2.0	2.6	2.3	4.3	8.7	8.8	5.8	17.6	7.7	-1.6	2.7	7.2	4.0
1911	7.3	1.6	1.5	1.4	1.7	3.9	4.1	12.3	7.9	6.3	16.4	6.3	4.9	0.0	3.2	3.5
1912	8.7	0.0	2.3	1.3	1.3	4.3	5.5	9.8	8.5	8.0	15.2	3.1	4.0	2.6	2.8	3.4
1913	8.1	0.4	2.4	1.3	3.4	5.2	3.1	11.7	8.7	5.5	11.9	7.2	5.0	1.1	1.3	4.5
1914	8.3	1.0	1.8	2.1	3.3	4.5	5.5	11.7	8.7	3.9	11.7	7.0	2.8	4.0	1.7	
1915	8.2	2.2	3.5	1.0	2.2	6.0	1.6	14.1	7.1	5.5	14.7	6.2	1.4	3.6		
1916	9.0	2.1	3.1	1.4	4.0	4.9	2.5	11.6	8.6	7.1	12.7	6.5	7			
1917	9.3	3.1	1.1	2.8	4.0	2.5	4.4	13.8	9.0	7.4	10.5	5.0				
1918	11.2	2.2	2.2	2.1	1.6	5.3	6.8	13.6	9.8	6.3	13.9					
1919	12.0	2.4	1.9	1.8	2.5	4.4	5.3	16.0	7.3	5.1						
1920	12.4	3.5	1.5	1.7	1.6	4.5	6.8	13.0	8.4							
1921	12.9	1.7	1.8	2.4	2.4	6.1	5.1	13.0								
1922	14.2	2.4	3.2	0.3	2.7	4.2	5.3									

NOTE: These figures represent the proportion of the civilian noninstitutional population of selected cohorts of men who were not in the labor force at age 55 and the proportion of each cohort retiring at each age from 56 to 70. All figures are derived from the data in table 1.

Chart 1. Percent out of the labor force at specified ages, selected cohorts of older men

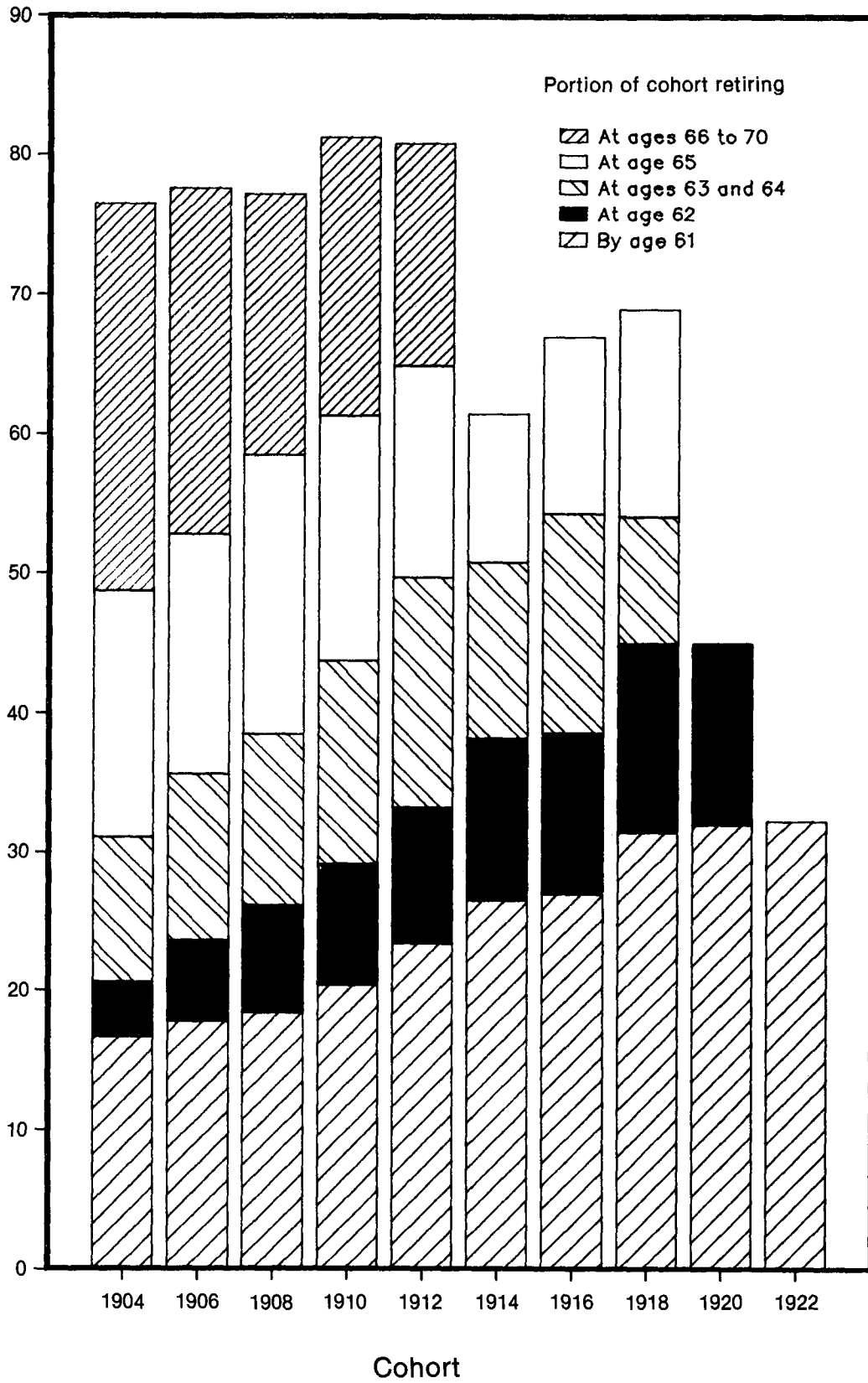


Table 3. Annual percent decline in labor force participation rates for men in the 1904–22 birth cohorts at ages 56 to 70

Year of birth	Age														
	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
1904					3.5	2.6	4.7	7.8	5.7	25.7	12.9	15.4	10.5	17.8	15.5
1905				2.1	3.4	3.0	8.9	5.4	8.2	24.4	16.6	16.8	12.7	11.9	10.9
1906			6.6	1.8	2.8	4.3	7.1	10.5	5.8	26.7	18.2	18.4	12.1	6.9	13.2
1907		1.3	3.2	2.0	1.9	4.3	7.1	8.7	10.4	27.3	17.9	11.1	13.9	21.5	+11.2
1908	1.4	2.5	0.8	0.7	3.5	3.5	9.4	7.3	10.2	32.5	17.2	13.6	12.7	4.9	10.2
1909	1.8	1.2	1.0	2.6	1.8	4.5	8.4	10.6	12.6	31.5	15.3	16.6	2.5	1.5	9.6
1910	2.2	0.2	2.2	2.9	2.7	5.1	10.9	12.4	6.4	31.3	20.0	+ 5.2	8.3	24.0	17.6
1911	1.7	0.5	1.5	1.9	4.5	4.9	15.5	11.8	10.6	30.9	17.2	16.1	0.0	12.4	15.8
1912	0.0	2.5	1.5	1.5	5.0	6.7	12.8	12.7	13.7	30.2	8.8	12.5	9.3	11.0	15.0
1913	0.4	2.6	1.5	3.9	6.2	3.9	15.4	13.5	9.9	23.7	18.8	16.1	4.2	5.2	19.0
1914	1.1	2.0	2.4	3.8	5.4	7.0	15.9	14.1	7.3	21.7	18.2	9.8	13.9	6.9	
1915	2.4	3.9	1.2	2.6	7.2	2.1	18.7	11.6	10.2	30.2	18.3	5.1	13.7		
1916	2.3	3.5	1.6	4.7	6.1	3.3	15.9	14.0	13.4	27.8	19.7	2.6			
1917	3.4	1.3	3.2	4.8	3.1	5.7	19.0	15.3	14.8	24.6	15.6				
1918	2.5	2.5	2.5	2.7	6.6	9.0	19.8	17.8	6.6	31.0					
1919	2.7	2.2	2.2	3.1	5.5	7.1	23.0	13.6	11.0						
1920	4.0	1.8	2.1	2.0	5.5	9.1	19.1	15.3							
1921	2.0	2.1	2.2	3.0	7.7	7.0	19.7								
1922	2.8	3.8	0.4	3.4	5.4	7.3									

NOTE: These figures represent the percent decline in participation for each cohort of men as compared to the prior year. They are derived by calculating the percent change in participation rates for a cohort from one year to the next. See text footnote 3.

labor force?" For example, among the 1904 cohort, 3.1 percent left the labor force at age 60, and 2.2 percent did so at age 61. Table 3 answers the question, "What is the probability of someone who was in the labor force as of a certain age retiring (that is, leaving the labor force) the next year?" Among the 1904 cohort, 3.5 percent of 59-year-old labor force participants retired at age 60; of those left in the labor force, 2.6 percent retired at age 61, and so forth.

In using any of these data, one should keep in mind that, as in any sample survey, the results shown may differ from the true population values, largely because of sampling error. The problem of statistical reliability of the estimates becomes more acute as the size of the group being counted declines.⁴ Thus, apparently inconsistent trends or odd occurrences (such as the two positive retirement rates shown in tables 2 and 3) may be attributable, at least in part, to sampling error, and to other types of measurement error such as response or coding errors. Users should interpret the estimates for specific cells in each table with some caution; the data are best used to show general trends in retirement behavior. □

—FOOTNOTES—

¹The Current Population Survey is a nationwide survey of approximately 60,000 households conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics.

²The sample in 2 subsequent years would actually differ slightly, due to death, institutionalization, and international migration.

³The data in table 3 are derived by calculating the percent change in a cohort's participation rate from one year to the next. For example, in table 1, 92.8 percent of 55-year-olds were in the labor force in 1963 and in 1964, this cohort of men born in 1908 had a participation rate of 91.5 percent. Thus, the "withdrawal rate" for the cohort at age 56 in table 3 is $(92.8 - 91.5) / 92.8 = 1.4$ percent. The way table 3 should be read is: Of the 1908 cohort, 1.4 percent of those in the labor force retired at age 56; of those left, 2.5 percent retired at age 57, and so forth. The reader might also note that, working backwards, if the participation rate for each cohort

of 55-year-olds shown in table 1 is reduced each year by the percent shown in table 3 (for example, the 92.8-percent rate for the 1908 cohort is reduced by 1.4 percent, then 2.5 percent, and so on, the rest of table 1 would be recreated (within the limits imposed by the rounding of figures shown in both tables).

⁴A discussion of standard errors of labor force estimates can be found in the Explanatory Notes section of any issue of the Bureau of Labor Statistics monthly publication *Employment and Earnings* under the heading: "Household data, reliability of estimates."

Women and minorities: their proportions grow in the professional work force

The 1984 annual edition of *Professional Women and Minorities* records the increasing participation of women and minorities in the professions, noting in particular gains by women. The Scientific Manpower Commission, which sponsored the study, reports these findings:

Women. In 1970, women earned 41.5 percent of the bachelor's degrees, 39.7 percent of the master's degrees, and 13.3 percent of the doctorate degrees awarded. However, by 1982, women were earning more than half of the bachelor's (50.3 percent) and master's (50.8 percent) degrees and 32 percent of the doctorates.

Despite the entry of so many women, growth of the professional labor force has slowed since the 1960's. This is especially evident in science and engineering, where the number of bachelor's degrees rose less than 1 percent between 1974 and 1982, even though there was a 21-percent increase in the number of women earning these degrees.

At the doctoral level, while total science and engineering degree awards declined slightly from 1973 to 1983, the change resulted from a drop of 15.4 percent in the number

awarded to men and an increase in the number awarded to women. By 1983, the proportion of women with these degrees had risen to 25.7 percent from 12.9 percent in 1973.

Although the female proportion of scientists in the labor force is still below their proportion in recent graduating classes, women now make up 41 percent of life scientists, 23 percent of chemists, 18 percent of geological scientists, 30 percent of mathematicians and computer specialists, 6 percent of engineers, and 57 percent of psychologists. Their proportions are less in the doctoral population, but are growing.

The growth in the number of engineers has been so rapid in the past decade that their 5 percent proportion in the work force is well below their present proportion among students and graduates. Their share of bachelor's degrees has grown from less than 1 percent in 1970 to 13.2 percent in 1983; from less than 1 percent to 9.0 percent at the master's level; and from 0.9 percent to 4.7 percent at the doctoral level. The fall 1983 freshman class includes 17 percent women.

Minorities. The report also shows that minorities are increasing their participation in the engineering field—growing from 0.9 percent of bachelor's graduates in 1970 to 9.5 percent in 1983. Asian/Pacific Islanders had the largest representation of any minority group in this field, having doubled their share of all engineering degrees since 1973. The number of black engineers graduating at the bachelor's level had risen from 657 in 1973 to 1,842 in 1983, while their proportion of total graduates had moved from 1.5 to 2.5 percent.

Except for Asian/Pacific Islanders, minorities continue to be underrepresented in the physical and mathematical sciences, where they earned 9.6 percent of the bachelor's, 7.4 percent of the master's, and 5.3 percent of the doctorate degrees given in 1982. However, a significant percentage of these degrees, especially at the graduate level, are earned by Asian Americans.

Particularly at the graduate level, the proportions of graduates who are foreign nationals on temporary visas has grown significantly over the decade. In engineering, for example, foreign students earned 3.3 percent of the bachelor's, 11.9 percent of the master's, and 12.1 percent of the doctorate degrees awarded by U.S. schools in 1969. By 1983, their share had risen to 8.5 percent of the bachelor's, 25.8 percent of the master's, and 39.4 percent of the doctorate degrees.

Women and minorities. In the professional fields, both women and minorities have substantially increased their proportion of both graduates, and to a lesser extent, the labor force. Women earned 27 percent of the medical degrees awarded in 1983, and minorities, 10 percent. Their proportionate shares in 1971 were 9.2 and 0.2 percent. Women are now 16 percent of all physicians, and minorities, 17 percent. Women are 16 percent of lawyers, 27 percent of pharmacists, and 38 percent of economists. Minorities

constitute 5 percent of architects, 7.5 percent of dentists, and 5.5 percent of lawyers.

Women's and minorities' employment in higher education had grown slowly during the 1970's. Women continue to be disproportionately overrepresented among nonfaculty researchers in higher education, while men are disproportionately overrepresented in the tenured faculty. In 1983, women accounted for 19 percent of faculty in universities and 37 percent of faculty in public 2-year colleges. Only 51 percent of the female faculty in all higher educational institutions had tenure in 1983, compared with 70 percent of the male faculty. Women's proportion among scientists and engineers at academic institutions has increased slowly. Between 1974 and 1983, women rose from 13.4 to 17.6 percent of mathematicians; from 9.8 to 13 percent of chemists; from 19.7 to 24.8 percent of biologists; and from 21.3 to 26.5 percent of psychologists employed at academic institutions. More than half of the college teachers in English, foreign languages, health specialties, and home economics are women, but they are less than 5 percent of the total in engineering and physics.

THE FULL REPORT, entitled *Professional Women and Minorities—A Manpower Data Resource Service*, fifth edition, presents a comprehensive statistical picture of the professional work force. The foregoing summary is based on the press release announcing the report. Copies of the 288-page volume may be obtained from the Scientific Manpower Commission, 1776 Massachusetts Ave., N.W. Washington, D.C. 20036. Price: \$70. □

Work interruptions and the female-male earnings gap

Differences in labor force attachment, or the extent of work interruptions, are often cited as one of the main reasons women earn less than men. However, a recent study by the Bureau of the Census reports that work interruptions explain only a small part of the earnings disparity between men and women. According to the report, if women had the same experience, interruptions, and education as men, the earnings gap would be reduced by only 14.6 percent.

The report is based on data from the 1979 Income Survey Development Program, which covered persons ages 21 to 64 who had ever worked. Participants were surveyed at 3-month intervals during a year and a half beginning in February 1979. The survey measured the extent of work interruptions by sex, race and Hispanic origin, years of school completed, occupations, and age and marital status. Surveyed persons were asked if they had ever been away from work for 6 months or longer because of inability to find work, caring for home or family, or illness or disability.

Sex and race. About 72 percent of the women surveyed had worked interruptions, compared with about 26 percent of the men. Approximately 65 percent of the women and 2 percent of the men responded that they were "caring for home or family." "Inability to find work" was reported by 14 percent of the women with interruptions and about 17 percent of the men. There was no significant difference in the proportions of women and men with disability or illness interruptions.

Black women had fewer work interruptions than white and Hispanic-origin women, but were more likely to have interruptions due to illness. White and Hispanic-origin women were more likely to interrupt work because of family responsibilities; 67 percent of the white women and 62 percent of the Hispanic-origin women, compared with 44 percent of the black women. The labor force interruption rates for white and Hispanic-origin women were generally the same, except twice as many Hispanic-origin women cited "inability to find work."

Overall, black men had higher interruption rates than white men. About 35 percent of the black men had interruptions due to an inability to find work, compared with 15 percent of the white men. The proportions for Hispanic-origin men were similar to those of white men.

Educational attainment. Higher educational attainment was related to fewer work interruptions. Specifically, the proportion of persons with work interruptions because of inability to find work decreased as the educational level increased. For example, 25 percent of the men who did not graduate from high school experienced such work interruptions, compared with only 8 percent of those who graduated from college. (For women, the rates were 22 and 9 percent, respectively.) About two-thirds of women with less than a college education had work interruptions due to family responsibilities, compared with about half of those who graduated from college.

Occupation. Among women in white-collar occupations, those who were in professional, technical, or kindred fields were less likely to have interruptions due to family or home care than those who were in sales or clerical jobs. However, for each occupational group, women were more likely than men to have work interruptions. Among professional, technical, and managerial workers, the interruption rate was 61 percent for women, compared with 15 percent for men.

Age and marital status. About 43 percent of women ages 21 to 29 had work interruptions due to family reasons compared with about 73 percent of women age 30 and over. Comparable figures for men were about 1.5 percent for those ages 21 to 29 and about 1.6 percent for those 30 and over. The interruption rates due to illness or disability were highest among women ages 45 to 64 (16 percent), and lowest for those under age 30 (4 percent). The proportions of disability

interruptions among men were generally similar to those of women.

The interruption rate for women ages 21 to 29 who had never married was 21 percent for those without children and 44 percent for those with children. For never-married women ages 30 to 44, the rates ranged from 33 percent for those without children to 47 percent for those with children. For women who were presently married or had been married at some time, the rates were 33 percent for those without children and 81 percent for those with children.

The report, "Lifetime Work Experience and Its Effect on Earnings: Retrospective Data From the 1979 Income Survey Development Program," U.S. Bureau of the Census, *Current Population Reports*, Series P-23, No. 136, is for sale (\$1.75) by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. □

ILO labor yearbook: some international comparisons

The 1983 edition of the International Labor Organization's *Year Book of Labor Statistics* includes international data on occupational injuries, industrial disputes and working days lost, and wage differentials between men and women.

According to the 64-nation survey on injury rates at work, about 9 million persons were injured in 1982 as a result of on-the-job accidents—24,000 of these were fatal.

In the three most dangerous industries—mining and quarrying, construction, and manufacturing—fatality rates declined more than 20 percent in several of the countries. Although manufacturing had the highest number of fatal injuries (27 percent), in terms of fatality rates, mining and quarrying were more dangerous than construction, and manufacturing was least hazardous of the three industries.

The 46-nation study on industrial relations reveals that there were 15 percent fewer strikes in 1982, but 5 percent more workers were involved in industrial disputes, resulting in more working days lost. In the 18 participating OECD countries, the number of strikes decreased by 15 percent (from 13,000 in 1981 to 11,000 in 1982), the number of strikers increased by 8 percent (from 15 million to 16.2 million), and the number of working days lost increased by 5 percent (from 37 million to 39 million). By comparison, in the 28 mainly developing countries, the number of strikes also decreased by 15 percent, strikers decreased by 9 percent (from 3.5 million to 3.2 million), but the number of working days lost increased significantly by 17 percent (from 45 million to 53 million).

Finally, the "wage gap" survey of 18 nations covered the manufacturing and nonagricultural industries for the years 1973-82 and 1977-82. In 1982, Korean women in the non-agricultural industries had the highest salary differential,

earning 54.9 percent less than Korean men, while Australian women had the lowest, 8.1 percent less than their male counterparts. In the manufacturing industries, Japanese women earned 56.9 percent less than men and Swedish women, 9.7 percent less.

An ILO report on the yearbook notes that comparisons are difficult because the definitions, concepts, sources, and scope of the surveys often vary among countries. □

Job satisfaction high in America, says Conference Board study

Nearly 80 percent of American workers are satisfied with their jobs, according to a recent survey conducted by NFO Research, Inc. for The Conference Board. The older the

worker, the more satisfied he or she appears to be. About 73 percent of those under age 25 were satisfied with their work. This figure rose for each 10-year age group (except the 45 to 54 group), reaching 92 percent for those 65 and older.

Job satisfaction also is linked to family income. Only 71 percent of those with family income under \$10,000 liked their work, compared with 82 percent of those in households with incomes of \$20,000 or more.

There is hardly any difference in job satisfaction among areas. Of the 10 areas in the survey universe, satisfaction ranged from 75.2 percent in the West South Central region to 80.9 percent in the Mountain region.

The survey is based on a representative sample of 5,000 households. Copies are available from Consumer Research Center, The Conference Board, 845 Third Avenue, New York 10022. □

The new bargainers

The great leaders have either died or retired, and a new generation of labor leader has come to power. The present-day union leader is likely to carry a briefcase, look like a business executive, and sport an undergraduate or professional degree. In other words, the modern labor leader may look less like their rank-and-file members than like their counterparts on the management side of the table. The labor leaders of the past had less education. They started out working on the shop floor of the plant or the mill and had a strong ideological commitment. The new breed of union leader has more formal education and fewer direct roots in the working class. The new labor leader may be less pugilistic, less rough and ready, and more sophisticated and accommodating.

—ARTHUR R. SCHWARTZ and MICHELE M. HOYMAN

“The Changing of the Guard: The New American Labor Leader,”
The Annals of the American Academy of Political and Social Science,
May 1984, p. 65.
