Employment of Retired-Worker Women

by Howard M. Iams*

This article examines the employment rates of women about 18–30 months after they first received social security retired-worker benefits. The data come from the 1982 New Beneficiary Survey, a nationally representative sample of new cash beneficiaries selected from the Social Security Administration's Master Beneficiary Record. About one-fifth of the women were working. Retired-worker women were two to three times more likely to be working if they were not receiving pension benefits than if they were. For those who were not receiving pension benefits, health was associated with employment. Other factors that influenced the above-average employment rates of these women were employment of at least 10 years' duration in their longest-held job and if that longest-held job was in a service occupation, a nonprofit organization, or self-employment. Unmarried women generally were more likely to be working than were married women, married men, or unmarried men. After first receipt of a benefit check, unmarried women were most likely to work if their income from sources other than earnings was low. Among married women, employment was more frequently noted if their husbands were employed than if their husbands were not working. For men and women, similar factors were associated with employment.

*Program Analysis Staff, Office of Research, Statistics, and International Policy, Office of Policy, Social Security Administration. This article is based on a paper delivered at the American Sociological Association meetings held in August 1985 in Washington, D.C.

The social security program does not require complete withdrawal from the labor force as a condition of retired-worker benefit receipt. Although many persons stop working before they become beneficiaries, others work for pay either parttime or fulltime after they begin to collect social security retired-worker benefits.[1] Monthly benefit amounts are reduced by $1 for each $2 earned in excess of a specified exempt amount. The exempt amount increases from year to year because it is indexed to reflect the rise in overall wages. In 1982, the annual exempt amount was $4,440 for those younger than age 65 and $6,000 for those aged 65–71. Earnings may be used to supplement low income from other sources at retirement. For some individuals, continued employment may be necessary to achieve a level of income that they consider adequate.[2]

In this article, the employment rates of retired-worker women are discussed in relation to marital status, age at which the first retired-worker cash benefit is received; pension receipt; health status; income; husband's employment status; and duration, occupation, and type of employer on the longest job. Employment rates usually are related to a single variable and then to the entire set of variables, using multivariate statistical analyses. About three-fifths of the beneficiary women aged 62 or older were receiving retired-worker benefits based on their own earnings record. Their beneficiary status did not depend on their being wives or widows receiving benefits based on their husband's earnings record.[3] In this regard, they are most similar to retired-worker men, almost all of whom receive benefits based on their own work record. The employment rates of the women retirees were similar to those of widow beneficiaries but much higher than those of wife beneficiaries. This analysis includes only women whose benefits are based on their own work record.

The focus on retired-worker women's employment is a departure from the usual focus in studies of the economics or sociology of retirement-age behavior. The existing literature concentrates on the labor-force participation and employment of older men; it usually relies on a dichotomy between complete retirement and labor-force participation or employment among men.[4]

This article primarily examines women's employment, and it focuses on the characteristics associated with continued employment after a woman worker has received her first monthly retired-worker benefit check. The analysis is based on data from the New Beneficiary Survey (NBS), a nationally representative, cross-sectional survey using a sample selected from the Social Security Administration's (SSA's) Master Beneficiary Record.[5] The NBS interviews with new beneficiaries were conducted in October-December 1982 and responses were linked to benefits and earnings data drawn from SSA administrative records. Persons who received their first cash benefits as retired workers in June 1980 through May 1981 were eligible for inclusion in the sample. The survey included 4,212 women and 5,307 men with retired-worker benefits. Full retired-worker benefits are payable at age 65, but reduced benefits may be claimed as early as age 62. The NBS sample of retired workers excluded persons who had always earned more than the exempt amount, but it included some respondents who earned more than the exempt amount after they received their first monthly benefit check as retired workers. Therefore, not all respondents were receiving social security benefits at the time of the interview, although they had begun receiving benefits during the sampling period.

Marital Status and Age at Benefit Receipt

About one-fifth of the women retired workers were still employed at the time of the NBS interview (table 1).[6] They were more likely to be working if they were unmarried (28 percent) than if they were married (18 percent). Women who first received cash benefits at age 62 were less likely to be employed (16 percent) than women aged 63 or older at the time they first received cash benefits (30 percent).

Married women who received their first benefits at

[1] Sally R. Sherman, "Reported Reasons Retired Workers Left Their Last Job: Findings From the New Beneficiary Survey," **Social Security Bulletin**, March 1985, pages 22-30; Alan Fox, "Income Changes At and After Social Security Benefit Receipt: Evidence from the Retirement History Study," **Social Security Bulletin**, September 1984, pages 3-23; Alan Gustman and Thomas L. Steinmeir, "Partial Retirement and Analysis of Retirement Behavior," **Industrial and Labor Relations**, April 1984; Alan Gustman and Thomas L. Steinmeir, "Modeling the Retirement Process for Policy Evaluation and Research," **Monthly Labor Review**, July 1984; and Virginia Reno, "Retirement Patterns of Men," in **Reaching Retirement Age: Findings From a Survey of Newly Entitled Workers, 1968-70** (Research Report No. 47), Office of Research and Statistics, Social Security Administration, 1976.

[2] Eli Ginzburg, "Life Without Work: Does It Make Sense?" in **Policy Issues in Work and Retirement** (Herbert S. Parnes, editor), W. E. Upjohn Institute for Employment Research, Kalamazoo, 1983, pages 29-37.

[3] Barbara A. Lingg, "Women Social Security Beneficiaries Aged 62 or Older, 1960-83," **Social Security Bulletin**, February 1985, pages 27-31.

[4] Alan Gustman and Thomas L. Steinmeir, April 1984, **op. cit.**, and July 1984, **op cit.**

[5] Linda Drazga Maxfield, "The 1982 New Beneficiary Survey: An Introduction," **Social Security Bulletin**, November 1983, pages 3-11.

[6] About 4 percent of the retired-worker women and 6 percent of the retired-worker men reported that they usually worked 35 hours or more per week in 50-52 weeks of the year. Thus, they were working fulltime at the time of the NBS interview—18-30 months after they first received cash benefits as retired workers.

Table 1.—Age at receipt of first cash benefit, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980-May 1981 [1]

Age at benefit receipt	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	551.7	368.3	183.4	692.5	579.9	112.5
Total percent	100.0	66.8	33.2	100.0	83.8	16.3
62	62.8	49.6	13.3	48.2	39.5	8.6
63-64	22.2	12.1	10.2	27.9	23.8	4.1
65 or older	14.9	5.1	9.8	24.0	20.4	3.6
	Employment rates					
Total	21.1	17.5	28.4	24.6	25.6	19.9
62	16.0	13.8	24.3	19.0	19.9	14.9
63-64	27.8	25.9	30.0	26.2	27.6	19.0
65 or older	32.5	33.3	32.2	34.2	34.3	35.0

[1] Data from New Beneficiary Survey, October-December 1982.

age 62 sharply differ from other retired women—married and unmarried. They represent about half of all the women with retired-worker benefits, and thus their decision to work strongly affects the employment rate of all women. These women were the least likely to be employed: Only 14 percent were working at the time of the interview. Many had stopped work long before they received their first cash benefits—43 percent had left their last job more than 3 years before attaining age 62, and 14 percent had done so 1-3 years before that age.[7] In contrast, unmarried women and wives who first received benefits at age 63 or older were not as likely to stop work long before benefit receipt, and they were much more likely to be employed. About 30 percent were working at the time of the interview.

Pensions

Pensions are another important source of retirement income. In the NBS, respondents were asked whether they received pension income from a private plan provided by the employer or union or from a public plan for Federal civilian workers, military personnel, or State or local workers. Only 30 percent of all the women respondents received such pensions (table 2). Those respondents who had no pension income were almost three times as likely to be working as those receiving pension benefits—about 26 percent, compared with 9 percent. The difference is particularly large among unmarried women (42 percent, compared with 10 percent).

[7] Sally R. Sherman, op. cit., table A.

Table 2.—Pension status, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980-May 1981 [1]

Pension status	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	551.7	368.3	183.4	692.5	579.9	112.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Pension	29.8	23.6	42.2	50.8	52.8	40.8
No pension	70.2	76.8	57.8	49.2	47.2	59.2
	Employment rates					
Total	21.1	17.5	28.4	24.6	25.6	19.9
Pension	8.6	7.5	9.9	13.7	14.0	11.1
No pension	26.4	20.6	41.8	36.0	38.5	25.9

[1] Data from New Beneficiary Survey, October-December 1982.

Health

Although the effects of health on the retirement decisions of older women remains unstudied, substantial literature has shown it is an important factor in the retirement decisions of men, or at least white men.[8] Relying on respondents' self-assessments of their health, economic researchers repeatedly have found that men who view themselves as being in poor health retire earlier than men who consider themselves in good health, even when the effect of other characteristics has been controlled statistically.[9] Although researchers agree that poor health reduces employment rates, they disagree on the extent of its effect.

In the NBS, respondents were asked to evaluate the degree of difficulty they would have performing such activities as walking a quarter of a mile, grasping things, climbing stairs, stooping, sitting or standing for long periods, reaching overhead, and lifting 10 pounds. (Possible responses ranged from no difficulty, through some difficulty or a great deal of difficulty, to unable to do.) Walking and grasping were expected to have more impact on employment than other activities because they are considered most predictive of disabling work limitations.[10] If no difficulty

[8] Herbert S. Parnes, "Introduction and Overview," in **Policy Issues in Work and Retirement, op. cit.**, pages 1-27.

[9] Peter A. Diamond and Jerry A. Hausman, "The Retirement and Unemployment Behavior of Older Men," in **Retirement and Economic Behavior** (Henry J. Aaron and Gary Burtless, editors), The Brookings Institution, 1984, pages 99-134, and Herbert S. Parnes and Gilbert Nestle, "Middle-Aged Job Changing," in **Pre-Retirement Years**, volume 4 (Manpower Research Monograph No. 15), Department of Labor, 1975.

[10] Lawrence D. Haber, "Disabling Effects of Chronic Disease and Impairment—II. Functional Capacity Limitations," **Journal of Chronic Diseases**, volume 26, Pergamon Press, Ltd., Oxford, England, 1973, pages 127-151.

in performing all of these activities is used as a measure of health, a majority of retiree women reported health problems (table 3).[11] About 37 percent reported limitations in walking or grasping, and 27 percent had other functional activity limitations. About 35 percent of these retiree women reported no difficulties with the listed activities.

Women with no health problems were slightly more likely than the other women retirees to be employed. About 25 percent were working, compared with 17 percent of those with walking or grasping limitations and 21 percent of those with other limitations.

Both health and pension receipt influence employment, but pension receipt makes a greater difference. Women without pension income were much more likely to be working, regardless of their health status, than women who received pension income. The employment rates varied by health status among those without pensions, but they varied little among pensioners. Within each limitation group, women without pensions were two to three times more likely to be working than those with pensions. And, no matter what their health status was, few women with pensions (only 8-9 percent) were working. Among women without pensions, those with no activity limitations were more likely to be working (about 32 percent) than those with walking or grasping limitations (about 20 percent) or with other limitations (about 28 percent). This pattern is particularly noticeable among unmarried women. Among unmarried women without pension benefits, nearly half were working if they had no limitation on their ability to walk or grasp, compared with 31 percent of those with such limitations. Clearly, pension receipt was more important than functional limitations.

[11] Although reported functional limitations on activities is used here, other measures could be used. Alternative measures include self-assessed level of health, presence of major diseases, or self-assessed health limitations on ability to work.

Table 3.—Health status, pension status, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980-May 1981 [1]

Health and pension status	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	551.7	368.3	183.4	692.5	579.9	112.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.1
Limitation in walking or grasping	37.3	35.8	40.2	30.4	28.7	39.1
Other limitation	27.3	27.6	26.8	27.1	27.7	23.9
No limitation	35.4	36.6	33.0	42.5	43.6	37.1
	Employment rates by health status					
Total	21.1	17.5	28.4	24.6	25.6	19.9
Limitation in walking or grasping	16.9	14.1	22.0	19.7	20.2	17.6
Other limitation	21.3	17.5	29.3	23.5	24.3	18.7
No limitation	25.3	20.8	35.3	29.0	29.9	23.0
	Employment rates, by health and pension status					
Total	21.1	17.5	28.4	24.6	25.6	19.9
With pension:						
Limitation in walking or grasping	8.1	7.7	8.4	10.0	10.5	6.9
Other limitation	8.8	8.7	8.9	12.5	12.5	12.7
No limitation	9.1	6.4	12.6	16.5	17.0	12.8
No pension:						
Limitation in walking or grasping	20.4	15.8	30.9	26.9	28.5	22.0
Other limitation	27.6	20.6	48.2	37.6	39.8	25.5
No limitation	32.0	25.4	50.8	43.3	45.7	31.4

[1] Data from New Beneficiary Survey, October-December 1982.

Average Monthly Income Other Than Earnings

The NBS data indicate that better health is a less important factor than pension receipt in determining who will continue to work after receiving an initial retired-worker benefit. One possibility is that individuals who do not receive a pension will continue to work to supplement their low income. If this hypothesis is true, retired individuals with relatively low income from sources other than earnings should be among the most likely to work. The NBS included questions about the sources and amounts of income received in the preceding 3 months. (Married respondents were also asked about the income received by the spouse.)[12]

Among the unmarried women, employment rates were dramatically higher when unearned income was low. When their income averaged less than $500 per month, 46 percent were working. Only 15-16 percent of those with average monthly income of $1,000 or more were working. These data appear consistent with an earlier study's findings that social security retired-worker beneficiaries may augment low income by working for pay, either fulltime or parttime.[13] The employment rates of married women did not vary markedly with the level of the couple's income apart from the wife's earnings.

Previous studies based on the NBS data have shown that married retired workers, together with their spouses, have considerably higher total incomes than unmarried retirees.[14] As might be expected, among

[12] Mean monthly income includes income from all sources in the 3 months preceding the NBS interview. Because food stamps are substantially cash spent for food, their value is included as income. The measure includes the respondent's income and the spouse's income if the respondent is married. The respondent's earnings were subtracted from the income. Persons reporting negative earnings were assumed to have zero net earnings.

[13] Alan Fox, **op. cit.**

[14] Linda Drazga Maxfield, "Income of New Retired Workers by Age at First Benefit Receipt: Findings From the New Beneficiary Survey," **Social Security Bulletin**, July 1985, pages 7-26.

retired-worker women the differences are even greater when income other than the respondent's own earnings is considered (table 4). A majority of the unmarried women respondents had less than $500 a month in unearned income; a majority of the married women retirees and their husbands had more than $1,000 per month in income other than the wife's earnings. Those with less than $500 accounted for about 68 percent of unmarried retirees; only 4 percent of the married women and their husbands were in this income category. In contrast, those with unearned income of $1,000 or more accounted for only 13 percent of the unmarried retirees, compared with 78 percent of the married women and their husbands.

Working Husbands

A husband's retirement status may influence his wife's employment because mutual decisions apparently occur on the timing of retirement.[15] One study showed that middle-aged women expect to retire when their husbands retire.[16] Among the NBS respondents, women were more likely to be working if their spouse was working than if the husband was retired—about 26 percent, compared with 14 percent (table 5).

Longest-Held Job Characteristics

Does the employment background of a new retiree affect the likelihood of continued employment after benefit receipt? Job characteristics are known to be associated with several factors that may affect an employment decision: attitudes and values toward work (such as the work ethic), lifestyle and spending habits, pension coverage, health, and income. This article examines current employment in relation to three characteristics of a retired-worker beneficiary's longest-held job—job duration, type of employer, and occupation.[17]

Among the NBS respondents, if their longest job had lasted less than 10 years, women were less likely to be working than women with longer tenure in a single job—especially married women (table 6). Longer job duration was not consistently related to employment rates.

The type of employer on the longest job (that is, government, private, nonprofit, or self-employment) was more clearly associated with ongoing employment than was job duration. Women NBS respondents were most likely to be working if they had been self-employed or worked for a nonprofit, charitable, or tax-exempt organization. About 35-36 percent of these women were still working, compared with 21 percent

[15] Brian Gratton and M. R. Haug, "Decision and Adaptation: Research on Female Retirement," **Research on Aging**, March 1983, pages 59-76.

[16] Lois B. Shaw, "Retirement Plans of Middle-Aged Married Women," **The Gerontologist**, April 1984, pages 154-159.

Table 4.—Average monthly income,[1] sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980-May 1981 [2]

Average monthly income [1]	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	551.7	368.3	183.4	692.5	579.9	368.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Less than $500	10.8	4.5	68.0	7.1	25.1	50.6
$500-$999	27.6	18.0	19.1	22.0	20.7	20.2
$1,000-$1,499	24.2	20.0	6.2	26.4	16.9	8.0
$1,500-$1,999	16.9	19.0	2.7	18.9	9.9	4.7
$2,000-$2,499	8.7	6.6	1.8	10.3	6.8	4.6
$2,500-$3,499	7.2	10.8	.8	8.7	9.1	4.0
$3,500 or more	4.5	21.2	1.4	6.6	11.5	8.0
	Employment rates					
Total	21.1	17.5	28.4	24.6	25.6	19.9
Less than $500	41.5	18.8	45.8	38.6	53.9	26.9
$500-$999	24.5	23.6	25.3	27.4	30.4	20.0
$1,000-$1,499	17.4	18.0	16.0	24.1	25.5	13.1
$1,500-$1,999	14.9	14.9	15.2	19.5	20.1	11.7
$2,000-$2,499	11.9	11.0	(3)	21.2	21.4	(3)
$2,500-$3,499	16.0	15.7	(3)	21.0	21.3	(3)
$3,500 or more	19.9	19.4	(3)	28.0	27.6	(3)

[1] Average monthly income of respondent (and spouse, if married) without respondent's earnings.

[2] Data from New Beneficiary Survey, October-December 1982.

[3] Cell sample size less than 50 cases.

[17] The longest job was selected from the reported main jobs of more than a 1-year duration since 1951. When respondents did not list a job lasting at least 1 year or they performed the same duties with a succession of short-term employers (such as day laborers, household workers, or carpenters), the occupation is considered one job. If the respondent was working at the time of the interview, the longest job could have been the current job. However, it could have been a job held earlier in the respondent's job history.

Table 5.—Work status of spouse: Percentage distribution and employment rates of married retired-worker beneficiaries receiving first payable benefit in June 1980-May 1981 [1]

Work status of spouse	Married women	Married men
	Percentage distribution	
Total number (in thousands)	368.3	579.9
Total percent	100.0	100.0
Working	31.0	25.4
Not working	67.0	73.3
Missing data	1.7	1.3
	Employment rates	
Total	17.5	25.6
Working	25.6	35.2
Not working	14.0	22.3

[1] Data from New Beneficiary Survey, October-December 1982.

Table 6.—Number of years in longest-held job, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980–May 1981 [1]

Number of years in longest-held job	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	525.6	346.2	179.4	689.5	578.4	111.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Less than 10	28.2	32.1	20.6	5.9	4.7	12.2
10-14	23.0	23.8	21.4	12.3	12.0	13.8
15-19	16.1	16.2	16.1	15.0	14.9	15.4
20-24	12.1	11.4	13.4	16.2	16.3	15.5
25-29	8.1	7.2	9.8	16.2	16.4	15.1
30 or more	10.8	7.5	17.3	33.3	34.8	25.7
Not reported	1.6	1.8	1.4	1.1	.9	2.3
	Employment rates					
Total	22.1	18.6	28.8	24.7	25.6	20.3
Less than 10	16.1	13.7	23.6	22.8	26.2	15.8
10-14	26.2	21.6	36.1	26.8	27.8	22.1
15-19	24.2	22.4	27.6	25.5	25.3	26.4
20-24	21.3	18.3	26.3	22.2	23.0	17.8
25-29	23.5	19.2	29.6	21.1	22.0	15.8
30 or more	24.1	21.1	26.6	26.9	27.6	21.6
Not reported	31.8	(2)	(2)	29.3	(2)	(2)

[1] Data from New Beneficiary Survey, October-December 1982.
[2] Cell sample size less than 50 cases.

of those in other private employment (table 7). Government employees were the least likely to work after they began receiving benefits (about 12 percent).

Employment rates varied markedly by occupation on the longest-held job. The women retirees who had been in service occupations were the most likely to be working; about 32 percent of these retirees were currently employed (table 8). Within this employed group, private household workers had the highest employment rates (about 47 percent). Women in craft and operator positions were least likely to be employed (about 14 percent). Of the women in other occupations, 20–30 percent were working.

Male-Female Employment Comparisons

For the most part, the same patterns of employment after benefit receipt were found among both retired-worker men and women. For example, among all NBS respondents, those without pensions were much more likely to be working than those who received pensions. Marital status, however, appeared to have an influence on the employment status of women. Married women were consistently the least likely to be working, and unmarried women were more likely to be employed than either married men or unmarried men. This situation was true within

Table 7.—Class of worker, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980–May 1981 [1]

Class of worker	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	525.6	346.2	179.4	689.5	578.4	111.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Self-employed	7.6	8.3	6.2	20.1	20.8	16.6
Incorporated business	1.4	1.5	1.1	3.4	3.6	2.5
Not incorporated business	6.0	6.5	5.1	16.5	17.0	13.6
Private company	67.9	68.3	67.2	60.1	59.6	62.8
Government	14.8	14.7	15.1	16.8	16.9	16.4
State	4.0	3.7	4.6	2.7	2.7	2.5
Local	8.6	9.2	7.3	5.3	5.2	5.9
Armed Forces	.1	.1	.2	3.3	3.2	3.5
Federal	2.2	1.8	2.9	5.5	5.7	4.5
Nonprofit, charity, tax-exempt	7.8	7.2	9.0	1.9	1.8	2.2
Other or nonresponse	1.9	1.5	2.5	1.2	1.0	2.1
	Employment rates					
Total	22.1	18.6	28.8	24.7	25.6	20.3
Self-employed	36.3	33.4	43.7	42.4	43.4	36.1
Incorporated business	36.1	(2)	(2)	38.6	38.6	(2)
Not incorporated business	36.6	32.0	48.0	43.1	44.3	35.3
Private company	20.9	17.4	27.8	21.1	21.8	17.5
Government	12.4	10.9	15.2	15.7	16.1	13.4
State	13.0	13.5	12.1	17.8	18.0	(2)
Local	13.0	11.2	17.4	17.7	19.1	(2)
Armed Forces	(2)	(2)	(2)	14.0	13.8	(2)
Federal	9.7	(2)	15.7	13.7	13.7	(2)
Nonprofit, charity, tax-exempt	35.3	27.4	47.5	33.6	34.1	(2)
Other or nonresponse	28.1	(2)	33.8	25.6	(2)	(2)

[1] Data from New Beneficiary Survey, October-December 1982.
[2] Cell sample size less than 50 cases.

almost every category defined by pension receipt, health, couple income other than respondent earnings, job duration, employer type, and occupation. The occupations of unmarried women may account partly for their higher employment rates. Unmarried women were most likely to have worked in service and administrative support positions on their longest-held job and were more likely to continue working in these positions than were men. Within manual-blue collar, sales, and executive, administrative, or managerial occupations, however, the employment rates of unmarried women and men often were similar.

Relative Importance of Variables

Characteristics overlap in their association with each other and with employment. For example, occupational categories are associated with pension receipt and both are associated with continued work after first receipt of social security benefits. To what extent does a single characteristic affect employment independent of other characteristics? Multiple regression is

Table 8.—Occupation in longest-held job, sex, and marital status: Percentage distribution and employment rates of retired-worker beneficiaries receiving first payable benefit in June 1980–May 1981 [1]

Occupation in longest-held job	Women			Men		
	Total	Married	Unmarried	Total	Married	Unmarried
	Percentage distribution					
Total number (in thousands)	525.6	346.2	179.4	689.5	578.4	111.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Executive, administrative, and managerial	7.1	6.9	7.7	13.1	14.0	8.3
Professional specialty	8.1	7.3	9.6	6.6	6.8	5.3
Technicians	1.8	1.6	2.0	1.8	2.0	.8
Sales	12.5	14.1	9.5	10.6	11.3	7.0
Administrative support, including clerical	28.0	28.6	26.8	5.9	6.0	5.5
Service	18.6	18.3	19.2	7.0	6.6	9.3
Private household	3.2	2.4	4.7	0	0	0
Protective service	.3	.3	.4	1.8	1.9	1.1
Other service	15.1	15.6	14.1	5.2	4.6	8.2
Manual/blue collar	23.6	23.0	24.7	52.0	50.3	60.7
Farming, forestry, fishing	.8	.8	.8	7.9	7.6	9.3
Precision production, including craft	3.4	3.2	3.8	23.4	23.5	22.9
Machine operators	16.3	16.2	16.4	9.6	9.3	11.6
Transportation	.4	.5	.2	7.0	6.9	7.7
Handlers, laborers	2.8	2.4	3.5	4.0	3.0	9.3
Armed Forces	.1	.1	.2	2.7	2.7	2.9
	Employment rates					
Total	22.1	18.6	28.8	24.7	25.6	20.3
Executive, administrative, and managerial	22.8	15.6	35.0	27.5	27.0	32.1
Professional specialty	20.3	15.3	27.5	31.6	29.9	43.0
Technicians	28.0	(2)	(2)	12.8	12.5	(2)
Sales	30.8	27.6	40.0	43.6	44.4	36.7
Administrative support, including clerical	19.1	15.6	26.2	19.2	19.8	(2)
Service	31.7	26.8	40.8	28.8	30.6	22.1
Private household	47.2	30.3	63.7	(2)	(2)	(2)
Protective service	(2)	(2)	(2)	21.3	23.0	(2)
Other service	28.5	26.2	33.5	31.1	33.4	24.3
Manual/blue collar	13.5	12.1	16.1	20.4	21.6	15.3
Farming, forestry, fishing	(2)	(2)	(2)	39.0	42.1	25.9
Precision production, including craft	11.0	8.6	14.9	16.1	17.1	11.0
Machine operators	13.8	11.9	17.5	14.7	14.6	15.3
Transportation	(2)	(2)	(2)	22.1	23.4	16.1
Handlers, laborers	9.9	(2)	(2)	19.4	22.0	15.1
Armed Forces	(2)	(2)	(2)	14.0	14.2	(2)

[1] Data from New Beneficiary Survey, October–December 1982.
[2] Cell sample size less than 50 cases.

a statistical procedure that takes into account relationships among characteristics.[18] The equations derived for this analysis express all levels of the characteristics as dichotomous dummy variables used in a least square analysis to predict the probability that an individual will be working or not working at the time of the interview.[19] In addition to the variables in tables 1–8, measures of education and race are included.

The total set of characteristics explained a modest amount of the variance in the employment rates of all men and of married women (13–15 percent) and 22 percent of the variance in the employment rate of unmarried women (table 9). Apparently, the characteristics were more strongly associated with the employment of unmarried women than of the other groups.

The relative importance of each variable, other things being equal, is indicated by the net effects shown in table 9. The net effects measure the unique contribution of each characteristic to employment, over and above the contributions of other variables in the equation. They are, therefore, conservative estimates because an effect is measured by the change in the explained variance when a characteristic is deleted from the full model, a procedure that disregards any contribution from covariance among related characteristics. The equations delete sets of job characteristics defined by occupation, duration, and employer type together because they conceptually measure the effects of the longest-held job. In general, the results

[18] Frank M. Andrews, James N. Morgan, John A. Sonquist, and Laura Klem, **Multiple Classification Analysis: A Report on a Computer Program for Multiple Regression Using Categorical Predictors**, Institute for Social Research, University of Michigan, Ann Arbor, 1973.

[19] The data are for civilian, nonagricultural employees on the longest-held job, excluding persons with missing information on any variable in the equation or with negative income other than earnings. Calculations are made by the *SPSSX* statistical package with the option for multiple classification analysis. Separate equations are estimated for married women, unmarried women, married men, and unmarried men. These equations are intended as descriptive and do not represent a structure. The equations for married retired-worker women and married retired-worker men were not estimated simultaneously because the NBS independently sampled those men and women. Wives of retired-worker men differ from the sample of retired-worker women and vice versa, and many of those wives are not eligible for retired-worker benefits based on their own earnings record.

Table 9.—Variance in employment rates, by characteristic, sex, and marital status: Retired-worker beneficiaries receiving first payable benefit in June 1980–May 1981 [1]

Characteristic	Women		Men	
	Married	Unmarried	Married	Unmarried
Total equation	13.7	22.4	15.4	13.9
Net effects: [2]				
Longest-held job [3]	4.7	4.6	2.2	3.1
Pension receipt	1.8	6.0	2.2	.8
Health	.3	1.2	.9	.1
Income	.6	1.7	1.4	.7
Spouse working	2.4	...	1.7	...
Age at first benefit	2.6	.4	1.5	2.9
Education	.1	0	.2	.2
Race	0	.1	.3	.9

[1] Data from New Beneficiary Survey, October–December 1982.
[2] Coefficient of determination measures explained variance. Net effects measured by deleting variable from the multiple regression equation.
[3] Includes duration, employer type, and occupation.

of the regressions reinforce interpretations of the percentage distributions in tables 1-8. The characteristics that were more important earlier in the percentage distributions also had greater effects on the explained variance (table 9).

Job characteristics and pension receipt had the most substantial effects. The longest-held job characteristics accounted for almost 5 percent of the employment variance of women, regardless of their marital status. Although pension receipt accounted for 6 percent of the unmarried women's employment variance, it affected only 1.8 percent of the married women's employment variance. Income, too, was responsible for more employment variance among the unmarried women (1.7 percent) than among the married women (0.6 percent). For the effect of a working spouse and age at first benefit receipt, the pattern was reversed and the employment variance was greater among the married women than among the unmarried women. Health had a relatively small effect, accounting for 1 percent or less of the variance in employment.[20]

The net effects suggest the order of importance of a characteristic independent of other characteristics. Job characteristics and pension receipt were most important. As the percentage distributions in the earlier tables indicate, pension receipt was much more important than health status. The additional variance explained by pension receipt was several times larger than that explained by health. Also, unmarried women appeared more likely than married women to respond to lower income levels by continuing to work after they received a retired-worker benefit.

The multiple classification analysis procedure expresses the results of the regression analysis as deviations from the overall average employment rate of each group of men and women. These deviations (termed adjusted effects) measure the change in the employment rates associated with each specified characteristic when all the other characteristics are kept constant. A positive adjusted effect indicates that persons in a group are more likely than average to be employed; a negative adjusted effect indicates that they are less likely than average to be employed. As with the explained variance measure, the patterns of adjusted effects generally conform to those observed in the earlier tables (table 10). For example, the adjusted effects for retirees without pensions were positive; for those with pensions, the adjusted effects were negative. These effects indicated that, all other factors being equal, persons without pensions were more likely than average to be working and those with pensions were less likely than average to be working.

The factors associated with employment appeared similar for men and women regardless of their marital status. However, the relative importance of the characteristics on employment rates sometimes is different for men and for women, as suggested by the net explained variance in table 9. Pension receipt, for example, was a much more important factor in the employment rates of unmarried women than in the rates of unmarried men. For the most part, men and women had similar patterns of positive and negative adjusted effects (table 10).

[20] The equations specify separately effects of pension receipt and effects of health status. This combination was also tested statistically but the interaction did not significantly improve the model.

Table 10.—Multiple classification analysis adjusted effects,[1] by predictor variable, sex, and marital status: Retired-worker beneficiaries with first payable benefit in June 1980-May 1981 [2]

Predictor variables	Adjusted effects			
	Women		Men	
	Married	Unmarried	Married	Unmarried
Job characteristics:				
Job tenure (in years):				
0-9	-7	-13	-7	-10
10-14	3	6	-1	0
15-19	4	1	-2	4
20 or more	3	3	1	1
Employer type:				
Self-employed or nonprofit	8	9	5	5
Private company	-1	-1	-1	-1
Government	-4	-6	-2	-2
Other	12	-2	2	-1
Occupation:				
Professional-managerial-technical	-3	5	0	9
Sales	8	5	12	7
Administrative support	-2	2	0	0
Services	8	5	8	4
Crafts-operators-laborers	-7	-12	-4	-4
Pension status:				
Not received	4	12	9	4
Received	-11	-16	-7	-6
Health limitations:				
Walking or grasping	-3	-6	-5	-1
Other	0	3	-1	-1
None	3	5	4	2
Income other than respondent's earnings (in dollars):				
0-499	6	9	19	5
500-999	5	-4	4	1
1,000 or more	-2	-9	-3	-7
Spouse's work status: [3]				
Not working	-4	0	-3	0
Working	9	0	10	0
Age at first benefit receipt (in years):				
62	-4	-4	-5	-6
63-64	9	2	1	0
65 or older	15	3	8	13
Education (in years):				
0-8	2	-1	-2	0
9-11	-1	1	-1	-2
12	1	-1	-1	-2
13 or more	-2	1	3	5
Race:				
Black	-1	-3	-8	-10
Other, including white	0	0	1	2

[1] Effects categories adjusted by multiple classification analysis for average effects of other characteristics in the regression equations. See table 9 for explained variance of equations.

[2] Data from New Beneficiary Survey, October-December 1982.

[3] Both retired-worker men and retired-worker women were primary respondents selected independently from lists of new retired-worker beneficiaries for inclusion in the sample.

Conclusions

This article reviews characteristics associated with employment of women after receipt of first social security retired-worker benefits. It focuses on pension receipt, health status, income other than the respondent's earnings, and the longest-held job. The data are from the New Beneficiary Survey (NBS) conducted by the Social Security Administration. Pension receipt is strongly associated with complete retirement. Very few women were still working after they received retired-worker benefits if they also received pension income. Among those without pension income, health appears to be an important factor influencing further employment. For the unmarried women, employment is strongly associated with low unearned income. Many of these women (about 68 percent) had less than $500 a month in unearned income, and they were very likely to be working (46 percent). For married women, employment rates did not vary greatly by the level of the couple's income apart from wife's earnings. Wives were much more likely to be working if their husbands were working than if their husbands were no longer working. Retired-worker women were most likely to work if their longest-held job had lasted at least 10 years, was with a nonprofit organization, was in self-employment, or was in a service occupation. Women who worked in service occupations on their longest-held jobs, and particularly those who were private household workers, were especially likely to be working after receiving their first retired-worker benefits.

Within the groups defined by pension receipt, health status, income levels, and longest job characteristics, unmarried women were consistently more likely than married women to be working. Usually, their employment rate was at least one-and-one-half times higher than the employment rate for married women with similar characteristics. The exception was women whose longest job was with State government employers; these women, both married and unmarried, had similar and quite low employment rates at the time of the NBS interview.

The factors associated with employment appear to be similar for men and for women. Some differences were found but these differences generally reflected the relative importance of the characteristics for employment and varying levels of employment.