
Aged Widows and OASDI: Age At and Economic Status Before and After Receipt of Benefits

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This article, which is based on panel data from the Retirement History Study, analyzes the economic status of widows in late middle age. Its objectives are threefold: (1) To describe the income, labor-force, and demographic characteristics of widows 2 to 3 years before they become eligible for old-age benefits under the old-age, survivors, and disability insurance (OASDI) program; (2) to examine the age at which they elect benefits and the characteristics associated with that decision; and (3) to compare their economic status before and after they begin collecting benefits. The findings show that employment during the pre-OASDI period greatly influenced a widow's benefit-timing decision. Among workers, the decision was related to earnings, occupation, job tenure, extent of employment, income from assets, pension coverage, monthly benefit amount, and work limitations. Earnings and monthly benefit amount were important pivotal variables. Although the majority of widows experienced a reduction in their standard of living after moving into beneficiary status, a sizable minority—made up mainly of the most economically disadvantaged—experienced an improvement.

Unless they are disabled or caring for dependent children, widows are not eligible for benefits under the old-age, survivors, and disability insurance (OASDI) program until they reach age 60. At that age, they are eligible for aged surviving spouse benefits on the earnings record of their deceased husband. At age 62, they also become eligible for retired-worker benefits if they have sufficient credits under their own earnings record. Aged surviving spouse and retired-worker benefits are actuarially reduced for each month they are received before age 65. The maximum reduction is 20.0 percent at age 62 and 28.5 percent at age 60.

Despite the reduction for early receipt of benefits, the data presented in this article suggest that many aged widows elect benefits at the earliest possible time because of financial need. The data also show that the most economically disadvantaged aged widows experience an improvement in their economic status after they begin receiving benefits.

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To illustrate, 41 percent of the aged widows studied elected to receive OASDI benefits at ages 60 or 61. Of these early beneficiaries, 47 percent were not employed when they became eligible for OASDI benefits, and 55 percent were poor. Benefits brought some economic relief to most of these widows. Sixty-one percent of them had higher real incomes after they began to receive benefits. Elimination of benefits at age 60-61 would prolong the period of poverty for many of these women.

The objectives of this article are threefold: (1) To describe the income, labor-force, and demographic characteristics of widows approaching age 60; (2) to examine the age at which they elect benefits—aged surviving spouse, retired-worker, or disabled-worker benefits—and the characteristics associated with that decision; and (3) to compare their economic status before and after they begin collecting benefits and examine the characteristics of those whose economic circumstances improve or deteriorate after benefits are begun.

The Sample

The data for this study were drawn from the first four biennial interviews of the Social Security Administration's Retirement History Study (RHS), a 10-year national sample panel study of the retirement process in the United States.¹ Initial interviews were conducted in 1969 with 11,153 married and unmarried men and unmarried women aged 58-63. The sample members and their surviving spouses were reinterviewed at 2-year intervals through 1979. In 1975, completed interviews were obtained from 8,693 of the original respondents.

To predict the age at which widows elect to receive OASDI benefits and to compare economic status before and after election, this analysis was restricted to widows in the sample who (1) were aged 58-59 at the time of the initial interview in 1969, and (2) began receiving OASDI benefits at age 60 or older during the period from January 1969 through December 1974 or were insured for but deferred receipt of such benefits. Of the 446 widows aged 58-59 from whom interviews were obtained in 1969, 1971, 1973, and 1975, 355 met these criteria. The remaining 91 were excluded for one of the following reasons: (1) They were receiving benefits in 1968, the first year for which income data are available; (2) they first received benefits in the 1969-74 period but did so before reaching age 60; or (3) they did not receive benefits in that period and also were not insured for benefits on the basis of their own earnings record as of December 1974. It was assumed that the widows in the last group would never be eligible for benefits because their husbands were not insured.

Economic and Demographic Characteristics

This section briefly describes the income, labor-force, and demographic characteristics of the widows just before they reached age 60. These women had been widowed for an average of 11 years. Thirty percent of them were recent widows—widowed for 5 years or less—and 26 percent had been widowed for 16 or more years, as shown in the following tabulation.

Years of widowhood as of 1969	Percentage distribution
Total percent.....	100
1-5	30
6-10	27
11-15	17
16 or more	26
Median.....	9
Mean.....	11

¹ For more details about the RHS, see Lola M. Irelan et al., **Almost 65: Baseline Data from the Retirement History Study** (Research Report No. 49), Office of Research and Statistics, Social Security Administration, 1976.

Only 41 percent of the widows had received high school diplomas, and 25 percent had work limitations (experienced some limitations in the amount of paid work or housework they could perform). The following tabulation shows that a high school diploma was much more common among employed than nonemployed widows and work limitations were much less common.

Item	Total	Employment status, 1969	
		Employed	Not employed
Percent with high school diploma	41	48	22
Percent with work limitations	25	17	50

An earlier analysis of these data suggested that both education and work limitations affect economic status because of their impact on employment status.² Length of widowhood, on the other hand, was found to bear no relationship to either employment status or to economic status. Contrary to expectations, those widowed for long periods of time—widows who presumably had longer to adapt to the labor force—were no more likely to have jobs than those widowed for shorter periods, nor, if employed, did they receive higher earnings.

Although the majority of the widows aged 58-59 in 1969 lived alone, a substantial proportion (43 percent) lived with someone else—either adult children (those aged 18 or older) or persons other than children (table 1). As might be expected given their age, very few lived with minor children. The likelihood of a widow living with adult children partly depended on her employment status. Forty-four percent of the nonemployed widows, compared with 24 percent of the employed, lived with adult children in 1969. The greater propensity of the nonemployed to live with adult children may reflect greater economic need or possibly poorer health which, by inhibiting their ability to work, could affect their economic situation.

² Gayle B. Thompson, "Economic Status of Late Middle-Aged Widows," in Nancy Datan and Nancy Lohmann (editors), **Transitions of Aging**, Academic Press, 1980.

Table 1.—Living arrangements, 1969: Percentage distribution, by employment status

Living arrangement	Employment status		
	Total	Employed	Not employed
Total number in sample	355	269	86
Total percent	100	100	100
Lived alone.....	57	62	42
Lived with someone.....	43	38	58
Children, aged 18 and older only.....	29	24	44
Children, one or more under age 18.....	1	1	2
Other relatives, friends.....	13	13	12

The majority (76 percent) of widows were employed at the time of the initial interview in 1969. Nevertheless, 24 percent did not have jobs. As expected, the economic status of the widows, as measured by total money income and poverty status in 1968, was heavily dependent upon whether or not they were working (table 2). Median total income was \$3,700 among employed widows but only \$800 among the nonemployed. These income amounts are equivalent to \$8,800 and \$1,920, respectively, expressed in August 1980 dollars.³ Nearly three-fourths of the nonemployed had incomes below the 1968 poverty threshold of \$1,700. Although substantially fewer employed than nonemployed widows were poor, participation in the labor force was no guarantee against poverty, as demonstrated by the fact that 17 percent of the employed—98 percent of whom had earnings in 1968—were poor.

Earnings were the most important source of income both in terms of the proportion with the source (80 percent) and the amount of income received from it (median earnings amounted to \$3,750 among earners). Although close to one-half of both employed and nonemployed widows received income from assets, the median amount of income involved was small (\$410 among recipients). The difference in the asset income of the employed and nonemployed was not statistically significant.

³ The average 1968 Consumer Price Index (CPI) was 104.2. The August 1980 CPI was 249.60. The ratio of the 1980 to the 1968 CPI was 2.40.

Table 2.—Income characteristics in 1968, and work history as of 1975, by employment status, 1969

Item	Total	Employed	Not employed
Total number in sample ¹	355	269	86
Income characteristics:			
Median income from—			
Total money income.....	\$3,480	\$3,700	\$800
Earnings for earners only.....	\$3,750	3,890	(²)
Assets for owners only.....	410	360	550
Percent poor.....	30	17	70
Percent with income from—			
Earnings.....	80	98	22
Assets.....	47	47	46
Public assistance.....	3	(³)	10
Employee pensions.....	8	6	14
Veterans' payments.....	4	3	9
Insurance or annuities.....	3	2	8
Relatives or friends.....	3	3	6
Workers' or unemployment compensation. State cash sickness program.....	3	4	1
Private welfare.....	(³)	(³)	0
Railroad retirement.....	1	1	0
Work history:			
Years without work since age 21 (mean).....	16.2	13.0	26.5
Percent with 26 or more years without work since age 21.....	26	16	58

¹ Median earnings (computed for 1968 earners only) are slightly higher than median total money income (computed for 1968 earners and nonearners) because a few widows employed in 1969 had no earnings in 1968.

² Not computed; base fewer than 25 persons.

³ Less than 1 percent.

Three percent of the widows received public assistance. Economically disadvantaged widows aged 58–59 are not eligible for benefits under the supplemental security income program unless they are blind or disabled. They also are not eligible for benefits under the aid to families with dependent children program unless they are caring for dependent children. They may, however, be eligible for food stamps, general assistance, or emergency assistance.

Income from insurance or annuities was received by 3 percent of the widows, and the same proportion received contributions from relatives and friends living outside the household and income from workers' or unemployment compensation or State cash sickness programs. Four percent received veterans' payments, and a very small proportion received either private welfare payments or railroad retirement benefits.

Eight percent of the widows received income from employee pensions—private, government employee, or military. The survey does not indicate whether these pensions were based on their own or on their late husbands' employment experience.

Among the widows who had jobs in 1969, 80 percent worked on a full-time basis, 48 percent held white-collar positions, and 38 percent were covered by employee pensions. The women had been employed an average of 8 years on their jobs. Each of these labor-force characteristics—extent of employment, occupation, pension coverage, and tenure—is examined in the next section for its relationship to the age at which employed widows elected to receive OASDI benefits.

Age at Receipt of OASDI Benefits

The variable “age at receipt of OASDI benefits” refers to the age at which the widows began to receive OASDI benefits—surviving aged spouse, retired-worker, or disabled-worker benefits—during the period January 1969–December 1974. Widows classified in the age-65-and-older category had not received OASDI benefits by the end of the period but were insured for such benefits based on their own earnings record.

Forty-one percent of the widows began to receive benefits at age 60 or 61 (table 3). Thirty-five percent began benefits at age 62–64 (the majority at age 62). The remaining 24 percent postponed receipt of benefits until age 65 or later. Widows electing benefits at age 60–64, except for those receiving disabled-worker benefits (7 percent of the total), incurred a permanent reduction in the amount they would have received had they postponed benefits until age 65. The earlier benefits were received before age 65 the greater the reduction.⁴

⁴ For details on the actuarial reduction, see the technical note to this article, pages 17–19.

Table 3.—Age at receipt of OASDI benefits: Percentage distribution, by employment status in 1969

Age at receipt of benefits	Total	Employment status, 1969	
		Employed	Not Employed
Total number in sample	355	269	86
Total percent	100	100	100
60	26	16	57
61	15	13	24
62	21	24	9
63	8	9	4
64	6	6	5
65 or older	24	32	1
Median	62	62	60

The primary insurance amount (PIA),⁵ the basic amount from which all benefits are derived, was lower for early than for late beneficiaries. As the following tabulation shows, the average PIA at the end of 1974 was \$186 among widows electing benefits at age 60–61, \$196 among those taking benefits at age 62–64, and \$219 among those taking benefits at age 65 or older.

Age at receipt of benefits	Average amount of—	
	Primary insurance amount	Monthly benefit amount
All ages	\$196	\$174
60–61	186	148
62–64	196	176
65 or older	219	219

Because of the actuarial reduction, the gap in benefits between early and late beneficiaries is even larger when the monthly benefit amount (MBA) actually received is examined. The gap between the average benefits of the earliest (age 60–61) and the latest (age 65 or older) beneficiaries was \$33 using the PIA and \$71 using the MBA. The average PIA of the earliest beneficiaries was 15 percent lower than that of the latest beneficiaries. The corresponding statistic using average MBA's was 32 percent.

Despite the reduction for early benefit receipt, many widows who became beneficiaries at age 60–61 probably did so at that time because of their unfavorable

⁵ The PIA, which is based on a worker's average monthly earnings in covered employment, is the amount that would be payable to a retired worker who begins to receive benefits at age 65. It is not necessarily the amount paid because it is reduced for early retirement, increased for deferred retirement beyond age 65, and supplemented for dual entitlement. The PIA is the base used to determine all benefits payable on a given earnings record. The monthly benefit amount, on the other hand, is the amount actually paid to a beneficiary.

economic circumstances. In general, these widows were substantially worse off economically than widows electing benefits at later ages. At the beginning of the RHS survey, they were much less likely to have been employed, were more likely to have worked on a part-time basis if they were employed, had shorter work histories and thus less favorable job prospects, received substantially lower incomes, and were much more likely to have been poor. As the following tabulation shows, 55 percent of those electing benefits at age 60–61 were poor in 1968, compared with 19 percent of those electing benefits at age 62–64 and 2 percent of those who deferred benefits until age 65 or later. For many of the earliest beneficiaries, OASDI benefits brought some economic relief (for details, see the subsection entitled "Age at receipt of OASDI benefits" on page 16).

Economic and labor-force characteristics	Age at receipt of OASDI benefits		
	60–61	62–64	65 or older
Median total money income, 1968	\$1,430	\$4,270	\$5,210
Percent poor, 1968	55	19	2
Percent employed, 1969	53	88	99
Percent working part time, 1969 (employed only)	37	18	6
Percent with 26 or more years without work since age 21, as of 1975	43	15	14

Employed and Nonemployed Widows

Whether or not a widow had a job in 1969 seemed to influence her decision about when to collect benefits. The majority of nonemployed widows (57 percent) began to collect benefits at the earliest possible age, age 60, and an additional 24 percent did so at age 61 (table 3). Employed widows, on the other hand, were more likely to defer benefits until age 62 or 65. Although 29 percent of the employed began collecting benefits at age 60–61, 39 percent postponed them until age 62–64, and 32 percent waited until age 65 or later.

The propensity of nonemployed widows to collect benefits at the earliest possible age is not surprising in view of their work history, health status, and income levels. The vast majority of these women received no income from earnings in the calendar year preceding the first interview (1968), and many had been without work for 26 or more years since age 21 (table 2). Moreover, 50 percent reported some limitation in the amount or kind of paid work or household work they could perform. The inability or failure to hold a job is reflected in very low incomes and a high incidence of poverty. Faced with no work, probably few marketable skills, health limitations, and poverty, these women opted for early reduced benefits.

There was little variation in age at receipt of benefits among the nonemployed. The analysis presented below therefore focuses only on employed widows.

Predictors of Age at Receipt of Benefits Among Employed Widows

In the following section, eight variables are examined for their relationship to age at receipt of benefits among widows who were working at the time of the initial interview in 1969. The first variable is the amount of earnings received in 1968 by widows with this type of income. It is used both as a measure of the amount of income obtained from work, and hence the amount that would be forgone upon retirement, and as a measure of overall economic status.

It is hypothesized that earnings are positively related to age at receipt of benefits—that is, that high earners elect benefits later than low earners. The proportion of average covered earnings replaced by OASDI benefits is inversely related to those earnings. Therefore, it is hypothesized that the opportunity cost of retirement is positively related to the size of preretirement earnings and that high earners have a greater economic incentive to defer retirement.

Three variables measure labor-force characteristics in 1969: Occupation, extent of employment, and years of tenure on the current job. These variables are assumed to affect earnings and reflect the degree of attachment to the labor force and, accordingly, to influence age at receipt of benefits. Specifically, white-collar workers, full-time workers, and workers with long job tenure are assumed to have higher earnings and a greater attachment to their jobs than workers with the opposite characteristics and thus are more inclined to defer benefits.

Three variables measure potential retirement income or sources of income: Asset income, pension coverage, and OASDI monthly benefit amount (MBA). The asset-income variable measures the amount of “pre-retirement” income—both zero and nonzero amounts—received in 1968 from rent or from interest and dividends on savings, stocks, bonds, or other investments. This variable may underestimate the asset income available to the widows following retirement because it does not include income, such as income from

an investment in an annuity, that may become payable at a specified retirement age. Any underestimate is small, however. Among all employed widows aged 58–59 in 1969, the proportion receiving income from assets increased from 46 percent in 1968 to 55 percent in 1974. Despite the increase in the rate of receipt, however, the median annual asset income of those with assets rose from \$280 to \$390 between those years. Pension coverage indicates whether or not a widow was covered by an employee pension on her 1969 job. The asset-income and pension-coverage variables are intended to measure potential retirement income from sources other than OASDI.

The MBA is the monthly amount actually received by an OASDI beneficiary and is equivalent to the primary insurance amount—an amount calculated from average monthly earnings in covered employment—less any reduction for early receipt of benefits. The size of the reduction depends on the number of months benefits are received before age 65. The MBA used in this analysis is the amount in effect in December 1974. Widows who had not received OASDI benefits by that date and who had no MBA recorded in their administrative records were assigned the amount of their PIA.

It is assumed that at any given age a widow evaluates her OASDI benefit amount and, based on the size of that amount, her economic needs, and her tastes, makes a decision about whether or not to receive benefits at that time. For the widows analyzed here, the MBA is primarily determined by the PIA but, among those electing early benefits, it is also a function of the age at which benefits are collected. Thus, part of its relationship to age at receipt is circular. In other words, whether or not a widow decides to collect benefits at a particular age depends to some extent on the amount she would receive. At the same time, if she collects benefits before age 65, the amount she receives partly depends on the age at which she collects benefits. Apart from this circularity, the MBA is presumed to have a direct effect on a widow’s benefit-timing decision.

Widows covered by a second pension and those with comparatively high asset income and high OASDI

Table 4.—Pearson product-moment correlations between age at receipt of OASDI benefits and income, labor-force, and demographic characteristics: Widows employed in 1969

Item	Age at receipt of benefits	Earnings	Occupation	Extent of employment	Job tenure	Pension coverage	Monthly benefit amount	Size of asset income	Work limitations
Age at receipt of OASDI benefits	1.000	.....	.....	.....	.....	.....	.....	.....	.....
Earnings, 1968 (earners only)	1.434	1.000	.....	.....	.....	.....	.....	.....	.....
Occupation, 1969 (1 = white collar)	1.358	1.516	1.000	.....	.....	.....	.....	.....	.....
Extent of employment (1 = full time)	1.330	1.489	1.290	1.000	.....	.....	.....	.....	.....
Job tenure, 1969 (years) .....	.106	1.248	.104	.089	1.000	.....	.....	.....	.....
Pension coverage, 1969 (1 = covered)	1.336	1.516	1.334	1.351	1.294	1.000	.....	.....	.....
Monthly benefit amount, 1974	1.488	1.577	1.354	1.408	2.184	1.391	1.000	.....	.....
Asset income, 1968 (all widows) .....	.104	1.210	1.224	.016	.001	3.126	2.156	1.000	.....
Work limitations, 1969 (1 = limited)	1-.246	1-.296	2-.195	2-.165	-.071	3-.150	1-.249	-.037	1.000

¹ Significant at the 0.001 percent level.

² Significant at the 0.01 percent level.

³ Significant at the 0.05 percent level.

benefits may be better able to afford retirement than widows with the opposite characteristics and, therefore, might be expected to retire earlier. Because they presumably also have higher earnings, higher occupational status, and longer tenure,⁶ however, it is hypothesized that they will retire at a later age.

The final variable included in the analysis is work limitations in 1969. This indicator measures whether or not a widow considered herself limited in the kind or amount of paid work or housework she could perform. It is expected to have a negative effect on age at receipt—that is, widows with perceived limitations are expected to retire earlier than those without such limitations.

The correlation matrix in table 4 displays the bivariate correlations between all pairs of variables. Tables 5–13 provide more detail on the relationships between age at receipt of benefits and the predictor variables.

Earnings. The data in table 5 show that, as hypothesized, earnings are positively related to age at receipt of benefits. The election of benefits at age 60–61 is substantially higher among low than among high earners. Sixty-one percent of the widows earning less than \$2,500 in 1968 began to collect benefits at age 60–61, compared with 22 percent of those earning \$2,500–\$4,999 and 12 percent of those earning \$5,000 or more. Conversely, less than one-tenth of the widows in the lowest earnings category but nearly one-half of those in the highest category deferred benefits until age 65 or later.

Occupation. White-collar workers are those in professional, managerial, clerical, and sales positions. The blue-collar category is made up of service workers, craftsmen, operatives, and laborers.

Although white-collar workers as a group elected benefits later than did blue-collar workers, some notable differences were apparent within these two major

⁶ For example, an earlier analysis of RHS pension data showed that pension coverage is positively related to earnings, occupation, tenure, and extent of employment. See Gayle B. Thompson, "Pension Coverage and Benefits, 1972: Findings From the Retirement History Study," *Social Security Bulletin*, February 1978, pages 3–17.

Table 5.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by earnings in 1968

Age at receipt of benefits	Earnings in 1968		
	\$1–\$2,499	\$2,500–\$4,999	\$5,000 or more
Total number in sample	65	97	81
Total percent.....	100	100	100
60–61	61	22	12
62–64.....	31	43	41
65 or older.....	8	35	47

Table 6.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by occupation

Age at receipt of benefits	White collar		Blue collar	
	Professional and managerial workers	Clerical and sales workers	Service workers	Craftsmen, operatives, laborers
Total number in sample	60	69	90	50
Total percent.....	100	100	100	100
60–61.....	11	17	52	24
62–64.....	52	35	28	52
65 or older.....	37	48	20	24

occupational categories (table 6). Service workers were much more likely than other workers to elect benefits at age 60–61. Craftsmen, operatives, and laborers, on the other hand, had a tendency to elect benefits at age 62–64 and, in this respect, they resembled professional and managerial workers. Fifty-two percent of the widows in each of these occupational categories began receiving benefits at age 62–64.

Although professional and managerial workers were more likely than blue-collar workers to defer benefits until age 65 or later, they were less likely to do so than clerical or sales workers. Thirty-seven percent of the professional and managerial workers, compared with 48 percent of the clerical and sales workers, deferred benefits until age 65 or later.

Extent of employment. The data in table 7 confirm the hypothesis that part-time workers tend to elect benefits earlier than full-time workers. Fifty-four percent of the widows who worked part time, compared with 22 percent of those who worked full time, elected to receive benefits at age 60–61. The relationship of extent of employment to age at receipt of benefits probably results from the fact that part-time workers earn less on an annual basis than full-time workers, and, as discussed earlier, widows with low earnings begin collecting benefits earlier than those with high earnings.

Table 7.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by extent of employment

Age at receipt of benefits	Extent of employment	
	Part time	Full time
Total number in sample.....	50	205
Total percent.....	100	100
60–61.....	54	22
62–64.....	36	40
65 or older.....	10	38

Table 8.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by job tenure

Age at receipt of benefits	Job tenure (in years)		
	5 or less	6-15	16 or more
Total number in sample.....	106	82	80
Total percent.....	100	100	100
60-61.....	41	21	23
62-64.....	33	35	51
65 or older.....	26	44	26

Table 4 shows that the correlation between age at receipt of benefits and extent of employment is .330. When the effects of earnings are controlled, however, that correlation is reduced to .150, which suggests that earnings intervenes between extent of employment and age at receipt of benefits. The causal interrelationships between extent of employment, earnings, and age at receipt of benefits are explored later in this section.

Job tenure. The data in table 8 suggest that job tenure is related to age at receipt of benefits but that the relationship is curvilinear, not linear as expected. Widows with 6-15 years of job tenure were more likely than those with longer or shorter tenure to defer benefits until age 65 or later.

Asset income. Asset income is positively related to age at receipt of benefits (table 9). Recipients of asset income elected benefits somewhat later than nonrecipients, and those receiving \$250 or more a year from this source elected benefits later than those receiving less than that amount.

The relationship between the two variables is small, however, partly because there was little variation in the amount of asset income received. Fifty-three percent of the employed widows received no income from assets in 1968, and 23 percent received less than \$250. Among workers who received this type of income, the median annual amount was only \$360 (table 2). Spread over a

Table 9.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by asset income

Age at receipt of benefits		Asset income	
		None	\$1-\$249	$250 or more
Total number in sample.....	142	61	66
Total percent.....	100	100	100
60-61.....	33	26	23
62-64.....	38	44	38
65 or older.....	29	30	39

Table 10.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by pension coverage

Age at receipt of benefits	Pension coverage	
	Not covered	Covered
Total number in sample.....	165	102
Total percent.....	100	100
60-61.....	41	10
62-64.....	35	45
65 or older.....	24	45

12-month period, this figure amounts to \$30 per month and does not greatly increase retirement income.

Pension coverage. Widows employed on jobs providing employee pension coverage were much less likely to collect OASDI benefits at an early age than were widows without such coverage (table 10). Only 10 percent of covered widows, compared with 41 percent of noncovered widows, elected benefits at age 60-61. Covered widows who elected to receive benefits at age 62 or older were evenly split between those electing them at age 62-64 and those deferring them until age 65 or later.

The age at which covered widows elect to begin receiving OASDI benefits may be influenced by the age and service requirements of their pension plans. Being covered by a pension plan does not ensure that benefits will be received upon retirement. To receive such benefits, a worker must satisfy the age and service requirements of the plan. The most common age for normal retirement under private pension plans during the 1969-74 period was 65; the second most common age was 62.⁷ Although the overwhelming majority of pension plans permit early retirement if service requirements are met, benefits are usually reduced on an actuarial basis in such circumstances. The following tabulation shows that age 65 or older was by far the most common age at receipt of OASDI benefits among covered widows, followed by age 62.

Age at receipt of OASDI benefits	Percentage distribution among widows covered by an employee pension
Total.....	100
60.....	4
61.....	6
62.....	28
63.....	11
64.....	6
65 or older.....	45

⁷ See Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969—An Overview," *Monthly Labor Review*, July 1970, pages 45-56, and Alfred M. Skolnik, "Private Pension Plans, 1950-74," *Social Security Bulletin*, June 1976, pages 3-17.

Table 11.—Age at receipt of OASDI benefits among widows employed in 1969 who were covered by an employee pension: Percentage distribution, by job tenure

Age at receipt of benefits	Job tenure (in years)		
	5 or less	6-15	16 or more
Total number in sample.....	20	37	45
Total percent	100	100	100
60-61	5	8	13
62-64	60	27	53
65 or older.....	35	65	33

Years of service also may have had an impact on the age at which widows with pension coverage elected to receive benefits. During the 1969-74 period, the most common service requirements for normal retirement under private pension plans were 10-15 years.⁸ Table 11 suggests an interesting relationship between job tenure and age at receipt of OASDI benefits among widows covered by an employee pension. Covered widows with 5 or fewer years of tenure and those with 16 or more years tended to elect OASDI benefits at age 62-64. Those with 6-15 years of tenure, on the other hand, tended to defer benefits until age 65 or later.

Although the relationship is not statistically significant at the .05 level or better and must be interpreted with caution, its direction has theoretical merit. Widows in the lowest tenure category may have needed several more years of work to meet the service requirements of their plans. Therefore, they may have decided that the expected benefit was not worth the additional years of work, or they may have known that they would be forced to retire before becoming eligible for benefits. Widows in the highest tenure category probably had already satisfied the service requirements by the beginning of the RHS and may have deferred retirement only until they satisfied the age requirements. Widows in the middle category, on the other hand, may have needed additional pension credits but felt they had time to accrue these credits. For them, pension coverage may have acted as a work incentive.

In short, the data suggest that pension coverage has an impact on the age at which widows with pension coverage retire and elect OASDI benefits. Their age at receipt of benefits seems to depend on whether or not they have satisfied the age and service requirements of their plans and, if not, on whether they can satisfy the requirements within a reasonable period of time.

OASDI monthly benefit amount. MBA is positively related to the age at which working widows elect to receive OASDI benefits (table 12). Widows with

Table 12.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by monthly benefit amount

Age at receipt of benefits	Monthly benefit amount			
	\$1-\$149	\$150-\$199	\$200-\$249	\$250 or more
Total number in sample.....	76	87	65	38
Total percent.....	100	100	100	100
60-61	47	41	5	3
62-64	37	39	49	29
65 or older.....	16	20	46	68

MBA's of \$200 or more were much more likely than widows with lower MBA's to defer benefits until age 65 or later and, conversely, much less likely to elect benefits at age 60-61.⁹ To illustrate, 68 percent of the widows with MBA's of \$250 or more and 46 percent of those with MBA's of \$200-\$249 postponed benefits until age 65 or later, compared with approximately 18 percent of those with MBA's of less than \$200.

The positive relationship between the MBA and age at receipt of benefits is not surprising given the positive association of earnings with both variables ($r = .577$ and $.434$, respectively). The MBA's of dependent and dually entitled primary beneficiaries (35 percent of the widows) are based on the earnings records of the deceased husbands and thus are not directly affected by the widows' own earnings. The MBA's of nondually entitled primary beneficiaries (65 percent of the widows) are based on their own earnings, however. If the 1968 earnings of the latter widows are consistent with their own lifetime earnings in covered employment, then it is reasonable to conclude that the association between MBA and age at receipt of benefits is partly due to the relationship of earnings with both variables. In other words, widows with high MBA's retire later than widows with low MBA's partly because they have higher earnings and have more to lose financially from retirement. They may have to forgo some of their earnings in order to be eligible for benefits, and, since benefits are weighted in favor of workers with low lifetime earnings in covered employment, they receive a lower replacement of their earnings from OASDI benefits.

Although earnings appear to influence the relationship between MBA and age at receipt of benefits, part of that relationship is independent of earnings. The partial correlation between MBA and age at receipt of benefits, after controlling for earnings, is .323. The independent and joint effects of MBA and other predictor variables on age at receipt of benefits is treated

⁹ It should be remembered that the size of the MBA is substantially affected by the actuarial reduction of benefits taken before the normal retirement age of 65.

⁸ *Ibid.*

more thoroughly in the path analysis discussed below.

Work limitations. Eighty-three percent of employed widows did not consider themselves limited in the amount or kind of paid work or housework they could perform. Nonlimited widows were more likely than widows experiencing such limitations to defer OASDI benefits until age 65 or later, about as likely to elect benefits at age 62–64, and less likely to elect benefits at age 60–61 (table 13). Thirty-six percent of the widows without limitations, compared with 11 percent of those with limitations, deferred benefits until age 65 or later; 25 percent and 47 percent, respectively, elected benefits at age 60–61.

Multivariate analysis. To explain why widows elect benefits when they do, the causal interrelationships that exist among the predictor variables must be taken into account. These interrelationships are explored below through a path analysis of age at receipt of benefits and a subset of predictors. The subset consists of the MBA, earnings, extent of employment, job tenure,¹⁰ occupation, and work limitations.

Path analysis cannot prove causality, but it is a useful method for mapping out and exploring a set of causal assumptions about the interrelationships among dependent and predictor variables. A limitation of the technique is that it cannot incorporate multidirectional relationships—that is, no variable can be defined as both a cause and an effect of another variable in the system. This deviates from reality in some instances. In the path model examined here, for example, the MBA is assumed to cause age at receipt of benefits. It is known, however, that the MBA is actually determined by both the PIA and the age at which a person begins to collect benefits. Although the bidirectionality of this relationship cannot be examined in a single path analysis, the path model defined here is used as a reasonable approximation of the real relationship between MBA and age at receipt of benefits.

The path diagram shown on page 13 maps out the causal relationships assumed to exist among the variables under study. The one-way arrows indicate unidirectional causal paths leading from the predictor variables or from unmeasured variables outside the system to the dependent variables. The coefficients attached to each of these one-way arrows measure the direct effects of each predictor or set of unmeasured variables on the dependent variables. Readers unfamiliar with the term “direct effects” and other path analytic terms used in the following discussion are referred to the technical note to this article.

¹⁰ Path analyses were tabulated with and without a transformation (squaring) of the tenure variable adjusting for its curvilinear relationship with age at receipt of benefits. Because the use of job tenure squared in place of job tenure had only a small effect on the results and because it is more difficult to interpret, the path analytic statistics presented in this article are based on the untransformed (unsquared) tenure variable.

Table 13.—Age at receipt of OASDI benefits among widows employed in 1969: Percentage distribution, by work limitations

Age at receipt of benefits	Work limitations	
	Not limited	Limited
Total number in sample.....	224	45
Total percent.....	100	100
60–61.....	25	47
62–64.....	39	42
65 or older.....	36	11

Each predictor is assumed to have direct and indirect effects on age at receipt of benefits. Its indirect effects are assumed to flow through all variables of a lower causal order, the intervening variables.

The most important intervening variables are earnings and the MBA. Work limitations and labor-force characteristics—occupation, job tenure, and extent of employment—are assumed to influence age at receipt of benefits primarily through their impact on earnings, which, in turn, is assumed to have both a direct effect on age at receipt of benefits and an indirect effect through the MBA. In other words, it is assumed that workers with one or more of the following characteristics—part-time employment, blue-collar occupation, short job tenure, and health limitations—collect OASDI benefits earlier than those with the opposite characteristics, mainly because they have lower earnings and lower MBA's. Retirement is not as costly, either in absolute or in relative terms, for low earners as it is for high earners. Low earners relinquish a lesser amount of earnings upon retirement and receive a higher replacement of them from the OASDI program.

Table 14 displays the causal and noncausal components of each bivariate relationship studied. The data lend support to the assumptions given earlier. Except for job tenure, each predictor has an important effect on age at receipt of benefits. Ranked by the magnitude of their total causal (direct plus indirect) effects, the predictors are: Occupation (.322), MBA (.317), work limitations (–.246), earnings (.240), extent of employment (.226), and job tenure (.061).

The earnings variable has an important effect on age at receipt of benefits. Although its direct effects are only .104, its indirect effects through MBA are .136 and its total causal effects are .240.

Earnings also functions as an important intervening variable, as does the MBA, between work limitations and labor-force characteristics, on the one hand, and age at receipt of benefits, on the other. This conclusion is supported by the data in the following tabulation, in which the indirect effects of work limitations, occupation, job tenure, and extent of employment on age at

Table 14.—Path analysis statistics for model of predictors of age at receipt of benefits among widows employed in 1969

[Number in sample: 225]

Bivariate relationships	Total bivariate correlation (r)	Causal effects			Non-causal effects
		Direct (Beta)	Indirect	Total	
Work limitations and—					
Occupation.....	-.195	-.195	0	-.195	0
Job tenure.....	-.071	-.053	-.018	-.071	0
Extent of employment.....	-.166	-.110	-.056	-.166	0
Earnings.....	-.296	-.155	-.141	-.296	0
Monthly benefit amount.....	-.249	-.079	-.170	-.249	0
Age at receipt of benefits.....	-.246	-.092	-.154	-.246	0
Occupation and—					
Job tenure.....	.104	.094	0	.094	.010
Extent of employment.....	.290	.263	.005	.268	.020
Earnings.....	.516	.369	.107	.476	.040
Monthly benefit amount.....	.354	.064	.252	.316	.038
Age at receipt of benefits.....	.358	.148	.174	.322	.036
Job tenure and—					
Extent of employment.....	.089	.055	0	.055	.034
Earnings.....	.248	.168	.019	.187	.061
Monthly benefit amount.....	.184	.051	.041	.092	.092
Age at receipt of benefits.....	.106	-.008	.069	.061	.045
Extent of employment and—					
Earnings.....	.489	.341	0	.341	.148
Monthly benefit amount.....	.408	.161	.146	.307	.101
Age at receipt of benefits.....	.330	.093	.133	.226	.104
Earnings and—					
Monthly benefit amount.....	.577	.429	0	.429	.148
Age at receipt of benefits.....	.434	.104	.136	.240	.194
Monthly benefit amount and—					
Age at receipt of benefits.....	.488	.317	0	.317	.171

receipt of benefits are decomposed through selected intervening variables: Earnings, MBA, both earnings and MBA, and other intervening variables. The indirect effects through earnings are those that pass through earnings but not through MBA; the indirect effects through MBA are those that pass through MBA but not through earnings; the indirect effects through both earnings and MBA are those that pass through both variables; and the indirect effects through other intervening variables are those that do not pass through either earnings or MBA.

Independent variables	Decomposition of indirect effects of independent variables on age at receipt of benefits				
	Total indirect effects	Effects through—			
		Earnings	Monthly benefit amount	Earnings and monthly benefit amount	Other variables
Work limitations.....	-.154	-.030	-.039	-.038	-.047
Occupation.....	.174	.049	.035	.064	.026
Job tenure.....	.069	.019	.019	.026	.005
Extent of employment.....	.133	.036	.051	.046	0

The indirect effects of occupation on age at receipt of benefits illustrate the extent to which earnings and MBA (particularly earnings) function as intervening variables. The path model assumes that occupation has a

causal effect on earnings, MBA, and age at receipt of benefits, as well as on job tenure and extent of employment. The total indirect effects of occupation on age at receipt of benefits are .174. Most of these effects pass through earnings and MBA (.049 + .064 = .113). The remaining effects pass through MBA but not earnings (.035) or through job tenure or extent of employment (.026).

To summarize, the path analysis suggests that except for job tenure, each predictor in the model has an important effect on the benefit-timing decision. To some extent, the impact of work limitations, occupation, and extent of employment on the age at which employed widows elect to receive OASDI benefits is independent of the effects of the other variables in the model. Much of the impact, however, results from the effect of these predictors on earnings and MBA. Widows working in part-time or blue-collar positions or experiencing some work limitations elect OASDI benefits earlier than widows with the opposite characteristics partly because they have lower earnings and lower MBA's. Their decision may also be affected by a low attachment to the labor force, unpleasant working conditions, physically demanding jobs, and health constraints.

Economic Status Before and After Receipt of Benefits

This section examines the economic status of the widows before and after they began to receive OASDI benefits and the characteristics associated with change in that status. Change in economic status is analyzed for widows who received no OASDI benefits in 1968 but who received full-year benefits in 1974. It is measured by differences between 1968 (pre-OASDI) and 1974 (post-OASDI) income. The major change variable is the ratio of 1974 to 1968 total money income, alternatively referred to as the "income change ratio." A ratio of less than 1.00 indicates a decrease in income during the 1968-74 period. A ratio of 1.00 indicates no change and a ratio above 1.00 indicates an increase in income.

Total money income in 1974 is measured both in 1974 (current) and 1968 (constant) dollars. Change in income expressed in current dollars indicates change in the actual amount of income received. Change expressed in 1968 dollars indicates change in real income—that is, after adjusting for increases in the Consumer Price Index (CPI).¹¹

Of the 355 widows examined in the previous section, 244 received full-year OASDI benefits in 1974. The remaining 111 were excluded from the analysis for one

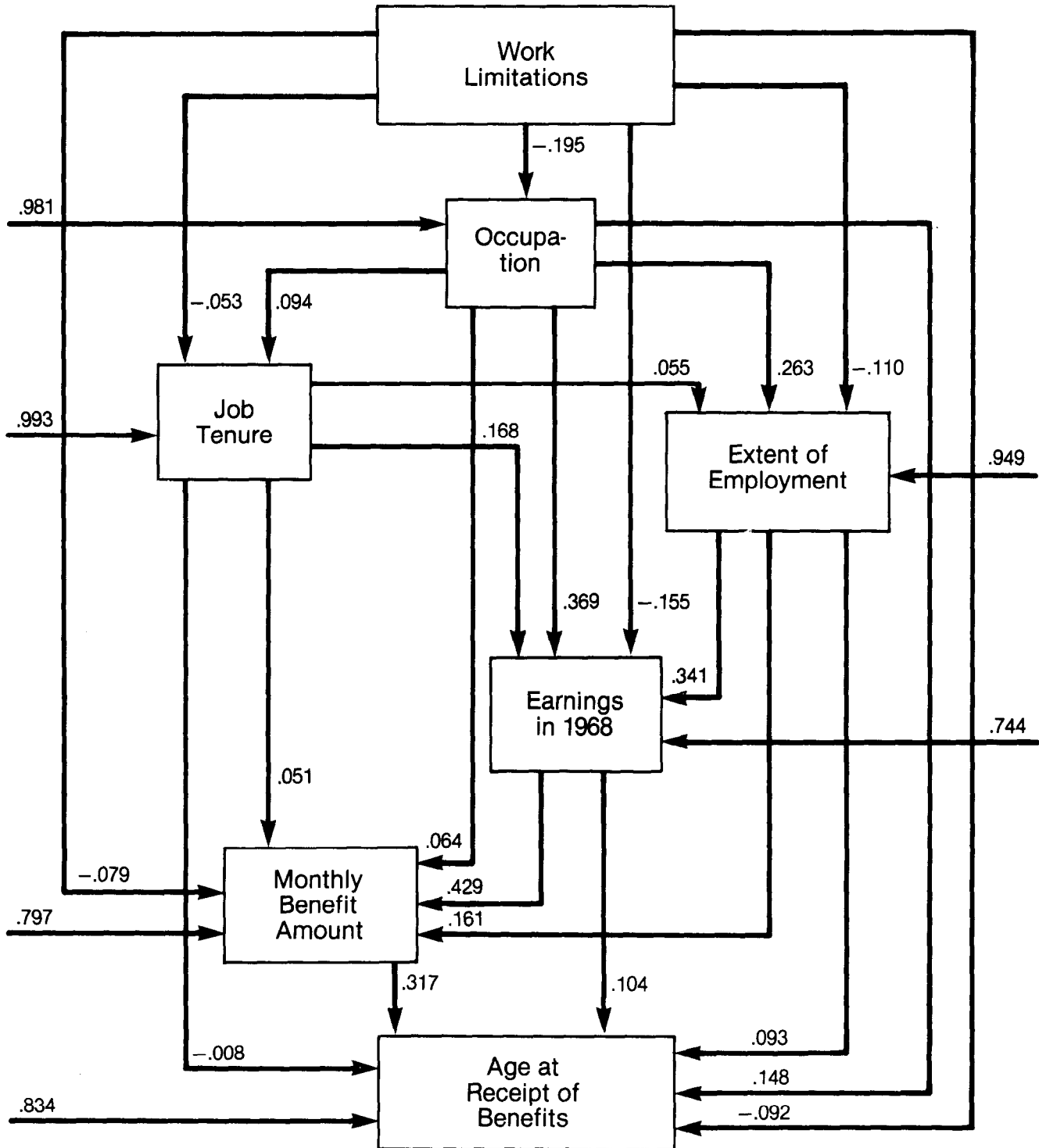
¹¹ The 1968 and 1974 CPI's were 104.2 and 147.7, respectively. The ratio of the 1974 to the 1978 CPI was 1.417.

of two reasons: (1) They were insured for benefits but had postponed them until 1975 or later when they would be aged 65 or older (86 widows), or (2) they were part-year beneficiaries in 1974 (25 widows).

Income data are missing for a substantial proportion of the 244 widows, as the tabulation on page 14 shows. Since these data tended to be missing for different

widows in 1968 than in 1974, the missing-data problem is accentuated when the income years are compared in ratio form. Despite this problem, the ratio variable provides a picture of the magnitude of income change for individuals that cannot be obtained from aggregate median income figures for the 2 years. Because of missing data and the small sample, any generalization

Path diagram. Predictors of age at receipt of OASDI benefits among widows employed in 1969



Total money income	Percent with missing income data
1968.....	15
1974.....	27
Ratio of 1974 to 1968.....	41

of the findings to the population must be made with caution.

Relationship to Income and Labor-Force Characteristics

The correlation matrix presented in table 15 displays the relationships between the income-change ratio and selected economic and labor-force characteristics. The characteristics are: Total money income before (1968) and after (1974) receipt of OASDI benefits, age at receipt of benefits, MBA as of December 1974, employment status at the beginning of the survey in 1969, extent of employment among those employed in 1969, and earnings in 1968.

The income-change ratio is inversely related to each of these characteristics except post-benefit (1974) income. In other words, it was lower among widows at the upper end of the pre-benefit income, earnings, and MBA distributions than it was among those at the lower end of these distributions. It was also lower among late retirees, employed widows, and full-time workers than it was among those with the opposite characteristics. Tables 16-21 display these relationships in greater detail. As noted earlier, generalization of specific statistics from these tables to the population must be made with caution.

Pre-OASDI total money income. Though the purchasing power of most widows declined as they moved into beneficiary status, a substantial minority experienced an improvement in their economic circumstances. Fifty-six percent of the widows studied had lower real incomes after they began to collect benefits, and 44 percent had higher real incomes. In general,

Table 16.—Ratio of 1974 to 1968 total money income: Percentage distribution, by total money income in 1968

Ratio of 1974 to 1968 total money income	Total money income, 1968				
	Total	Less than \$1,000 ¹	\$1,000–\$2,499	\$2,500–\$4,499	\$4,500 or more
Total number in sample.....	143	34	34	40	35
Total percent.....	100	100	100	100	100
In constant 1968 dollars					
Less than 0.50.....	22	0	3	33	51
.50–.69.....	20	0	12	33	34
.70–.89.....	11	0	9	22	9
.90–.99.....	3	0	9	2	0
1.00–1.09.....	4	0	9	5	0
1.10–1.49.....	12	9	32	5	3
1.50–1.99.....	9	15	23	0	0
2.00–2.99.....	4	15	3	0	0
3.00 or more.....	15	61	0	0	3
Median ²	0.85	3.56	1.23	0.60	0.49
In current dollars					
Less than 0.50.....	10	0	0	12	28
.50–.69.....	11	0	3	20	20
.70–.89.....	17	0	9	25	34
.90–.99.....	4	0	3	8	3
1.00–1.09.....	4	0	6	5	3
1.10–1.49.....	11	0	15	22	6
1.50–1.99.....	13	6	35	8	3
2.00–2.99.....	10	18	26	0	0
3.00 or more.....	20	76	3	0	3
Median ²	1.19	5.16	1.74	0.79	0.71

¹ Excludes persons reporting no income.

² Based on 21-interval ratio variable.

economic status tended to improve among the poorest widows and deteriorate among those who were comparatively well off. The data in tables 16 and 17 illustrate this point.

Among widows with pre-OASDI incomes of less than \$1,000, 76 percent had real post-benefit incomes two or more times as large as their pre-benefit levels. None received less income after they began to receive benefits

Table 15.—Pearson product-moment correlations between characteristics before and after receipt of OASDI benefits

Item	Total money income			Age at receipt of benefits	Monthly benefit amount	Employment status	Extent of employment	Earnings
	Ratio of 1974 to 1968	1968	1974					
Total money income:								
Ratio of 1974 to 1968.....	1.000	.....	.....	.....	.....	.....	.....	.....
1968.....	1-.555	1.000	.....	.....	.....	.....	.....	.....
1974.....	.092	1.461	1.000	.....	.....	.....	.....	.....
Age at receipt of OASDI benefits.....	1-.363	1.453	2.145	1.000	.....	.....	.....	.....
Monthly benefit amount.....	3-.224	1.443	.116	3.187	1.000	.....	.....	.....
Employment status, 1969 (1 = employed).....	1-.296	1.456	.040	1.312	3.188	1.000	.....	.....
Extent of employment, 1969 (1 = full time).....	1-.358	1.501	.076	1.318	1.422	.....	1.000	.....
Earnings, 1968 (earners only).....	1-.496	1.954	1.499	1.378	1.498	.....	1.546	1.000

¹ Significant at the 0.001 percent level.

² Significant at 0.05 percent level.

³ Significant at 0.01 percent level.

Table 17.—Total money income, 1974: Percentage distribution, by total money income in 1968

Total money income, 1974	Total	Total money income, 1968 ¹			
		Less than \$1,000 ²	\$1,000–\$2,499	\$2,500–\$4,499	\$4,500 or more
Total number in sample.....	155	46	34	40	35
Percentage distribution.....	100	30	22	26	22
Total percent.....	100	100	100	100	100
In constant 1968 dollars					
Less than \$1,000 ²	9	13	15	5	3
\$1,000–\$2,499.....	61	67	65	65	43
\$2,500–\$4,499.....	26	15	20	30	40
\$4,500 or more.....	4	4	0	0	14
Median ³	\$1,880	\$1,540	\$1,820	\$1,920	\$2,830
In current dollars					
Less than \$1,000.....	4	2	6	5	3
\$1,000–\$2,499.....	41	61	44	32	20
\$2,500–\$4,499.....	39	28	41	53	34
\$4,500 or more.....	17	9	9	10	43
Median ³	\$2,680	\$2,230	\$2,500	\$2,750	\$4,170

¹ The median money income in 1968 was \$2,380.

² Includes persons reporting no income.

³ Based on 14-interval distribution of total money income in 1974.

than they had before. Sixty-seven percent of the widows with pre-benefit incomes in the \$1,000–\$2,499 range also experienced an improvement in income.

The economic status of widows with pre-benefit incomes of \$2,500 or more, on the other hand, tended to deteriorate. All but 6 percent of those with pre-benefit incomes of \$4,500 or more had lower real incomes after they began collecting benefits. Because of the substantial decline in the economic circumstances of high-income widows and the improvement among low-income widows, the gap between the most and the least advantaged widows was much smaller in the post-benefit period, although it continued to exist.

Earnings. As expected, given the progressive benefit structure of the OASDI program, the income-change ratio was higher among low earners than among high earners (table 18). Moreover, the economic circumstances of widows at the bottom end of the earnings distribution tended to improve after they began to receive OASDI benefits whereas it tended to deteriorate among widows at the upper end. Fifty-seven percent of the widows earning less than \$3,000, compared with only 6 percent of those earning \$3,000 or more, received higher real incomes in the post-OASDI year than they had before becoming eligible for OASDI benefits.

Monthly benefit amount. Widows with low MBA's had higher income-change ratios than widows with high

Table 18.—Ratio of 1974 to 1968 total money income: Percentage distribution, by earnings in 1968 for those with earnings

Ratio of 1974 to 1968 total money income	Earnings in 1968	
	Less than \$3,000	\$3,000 or more
Total number in sample.....	51	56
Total percent.....	100	100
In constant 1968 dollars		
Less than 0.50.....	6	50
.50–.69.....	19	32
.70–.89.....	14	12
.90–.99.....	4	0
1.00–1.09.....	6	4
1.10–1.49.....	21	2
1.50–1.99.....	10	0
2.00–2.99.....	2	0
3.00 or more.....	18	0
Median ¹	1.14	0.49
In current dollars		
Less than 0.50.....	2	25
.50–.69.....	4	23
.70–.89.....	14	30
.90–.99.....	6	4
1.00–1.09.....	6	4
1.10–1.49.....	14	10
1.50–1.99.....	21	4
2.00–2.99.....	14	0
3.00 or more.....	19	0
Median ¹	1.64	0.71

¹ Based on 21-interval ratio variable.

MBA's, as one would expect given the positive association between earnings and MBA. Moreover, the data in table 19 suggest that the income of widows with low MBA's may tend to improve after the receipt of benefits and that it may tend to decline among those with high MBA's. Fifty-six percent of the widows with MBA's of less than \$160, compared with 34 percent of those with MBA's at least that large, had higher real incomes after they began collecting benefits than they had before. This difference in proportions, however, is not statistically significant at the .05 level or better. Before any definitive conclusions can be drawn, a larger sample is needed.

Employment status and extent of employment. Before becoming eligible for benefits, widows without jobs had substantially lower total incomes and a higher poverty rate than those who were employed. As they moved into beneficiary status, the vast majority of the nonemployed widows experienced an improvement in their economic circumstances; the reverse was true for the employed (table 20). Seventy-three percent of the nonemployed widows, compared with only 30 percent of the employed widows, had higher real incomes after they began to collect benefits. The following tabulation

Table 19.—Ratio of 1974 to 1968 total money income: Percentage distribution by OASDI monthly benefit amount in 1974

Ratio of 1974 to 1968 total money income	Monthly benefit amount, 1974	
	Less than \$160	\$160 or more
Total number in sample.....	66	77
Total percent	100	100
	In constant 1968 dollars	
Less than 0.50	12	31
.50-.69	17	23
.70-.89	12	9
.90-.99	3	3
1.00-1.09	2	5
1.10-1.49	18	7
1.50-1.99	9	9
2.00-2.99	8	1
3.00 or more	19	12
Median ¹	1.22	0.66
	In current dollars	
Less than 0.50	8	13
.50-.69	4	17
.70-.89	14	21
.90-.99	3	4
1.00-1.09	4	3
1.10-1.49	12	10
1.50-1.99	17	9
2.00-2.99	11	10
3.00 or more	27	13
Median ¹	1.73	0.89

¹ Based on 21-interval ratio variable.

shows that, as a result, the income gap between employed and nonemployed widows nearly disappeared in the post-benefit period.

Income status in 1974	Employment status in 1969	
	Employed	Not employed
Total number in sample.....	113	65
Percent poor, 1974.....	36	48
Median total money income, 1974:		
In 1968 dollars	\$1,920	\$1,750
In current (1974) dollars.....	2,720	2,480

Among widows with jobs, part-time workers were more likely than full-time workers to have improved their incomes after they began collecting benefits. This finding undoubtedly results from the fact that part-time workers earned less and had lower total incomes before receiving benefits. The proportions of part-time and full-time workers with higher real incomes in the post-benefit period were 68 percent and 17 percent, respectively.

Age at receipt of OASDI benefits. As discussed earlier, widows who elected benefits at age 60-61 had

Table 20.—Ratio of 1974 to 1968 total money income: Percentage distribution, by employment status in 1969

Ratio of 1974 to 1968 total money income	Employment status, 1969	
	Not employed	Employed
Total number in sample.....	47	96
Total percent	100	100
	In constant 1968 dollars	
Less than 0.50	6	30
.50-.69	11	25
.70-.89	4	14
.90-.99	6	1
1.00-1.09	0	5
1.10-1.49	11	13
1.50-1.99	19	4
2.00-2.99	13	0
3.00 or more	30	8
Median ¹	1.76	0.65
	In current dollars	
Less than 0.50	2	15
.50-.69	4	15
.70-.89	8	22
.90-.99	2	4
1.00-1.09	0	5
1.10-1.49	11	12
1.50-1.99	11	13
2.00-2.99	19	6
3.00 or more	43	8
Median ¹	2.62	0.88

¹ Based on 21-interval ratio variable.

much lower pre-OASDI total incomes and were much more poverty prone than those who elected benefits at age 62-64. They were also less likely to have been employed at the beginning of the survey and, if employed, were more likely to have been employed on a part-time basis.

In view of their economic and labor-force characteristics, it is not surprising that widows who elected early benefits had higher income-change ratios than those who waited until age 62-64 to collect benefits (table 21). Sixty-one percent of the widows who elected benefits at age 60-61, compared with 24 percent of those who did so at age 62-64, had higher real incomes after they began to receive those benefits.

Summary and Conclusions

This article examines when aged widows elected to receive OASDI benefits and compares their economic status before and after they began to collect those benefits. It explores why widows elected benefits when they did and describes the characteristics of widows whose economic circumstances improved or deteriorated after they began to receive benefits.

The data base is the Social Security Administration's

Table 21.—Ratio of 1974 to 1968 total money income: Percentage distribution, by age at receipt of OASDI benefits

Ratio of 1974 to 1968 total money income	Age at receipt of OASDI benefits	
	60-61	62-64
Total number in sample.....	78	65
Total percent.....	100	100
	In constant 1968 dollars	
Less than 0.50.....	14	32
.50-.69.....	15	26
.70-.89.....	8	13
.90-.99.....	1	5
1.00-1.09.....	3	5
1.10-1.49.....	14	9
1.50-1.99.....	15	2
2.00-2.99.....	6	2
3.00 or more.....	23	6
Median ¹	1.26	0.63
	In current dollars	
Less than 0.50.....	8	14
.50-.69.....	6	16
.70-.89.....	13	23
.90-.99.....	3	5
1.00-1.09.....	3	5
1.10-1.49.....	6	17
1.50-1.99.....	15	9
2.00-2.99.....	17	3
3.00 or more.....	29	8
Median ¹	1.79	0.86

¹ Based on 21-interval ratio variable.

Retirement History Study. The widows studied are those who were aged 58-59 in 1969, the first year in which interviews were conducted, and who began receiving benefits at age 60 or older during the period from January 1969 through December 1974 or who were insured for but deferred receipt of such benefits. None of the widows included in the analysis were receiving OASDI benefits in 1968, the first year for which income data are available.

Whether or not a widow was working at the beginning of the survey greatly influenced her decision about when to collect benefits. Faced with no work, few or outdated marketable skills, health limitations, and poverty, nonemployed widows overwhelmingly opted for benefits at age 60-61. Employed widows were more inclined to elect benefits at age 62 or later.

Among employed widows, age at receipt of benefits was higher among those at the upper than at the lower end of the earnings, MBA, and asset-income distributions. It was also higher among white-collar than among blue-collar workers, among full-time than among part-time workers, among workers covered by an employee pension than among those not covered, and among those without work limitations than among

those with them. Its relationship to tenure was found to be curvilinear.

Earnings played an important role in the benefit-timing decision. In addition to their independent effects on age at receipt of benefits and the MBA, they functioned as an intervening variable between extent of employment, occupation, and work limitations, on the one hand, and age at receipt of benefits, on the other.

The impact of occupation, extent of employment, and work limitations on age at receipt of benefits was partly independent of the effects of the other predictors. Much of that impact, however, resulted from their effects on earnings and the MBA. In other words, widows experiencing work limitations and those employed on a part-time basis or in blue-collar positions tend to elect benefits earlier than widows with the opposite characteristics, partly because they have lower earnings and lower MBA's. Retirement is not as costly, either in relative or absolute terms, for low as it is for high earners. Low earners relinquish less earnings upon retirement and receive a higher earnings replacement from the OASDI program.

The majority of the widows who moved from nonbeneficiary to beneficiary status experienced a reduction in their standard of living. A sizable minority, however, experienced an improvement. The widows most likely to gain economically were the ones who had been the most disadvantaged before becoming eligible for benefits: Those with low pre-benefit total incomes, those without jobs, part-time employees, and low earners.

Technical Note

The Sample

The sampling frame for the Retirement History Study (RHS) is the same as that used by the Bureau of the Census for its Current Population Survey (CPS).¹² The sample was composed of persons living in households that had last participated in the CPS before February 1969. Included were men in all marital status categories and women who, at the time of sample selection, had no husband in the household. In any month the CPS panel consists of eight groups of households selected up to 18 months previously. The oldest of these rotation groups is dropped and replaced by a new one each month.

Nineteen of these discontinued CPS rotation groups were used for the RHS. Bureau of the Census interviewers gathered information from members of the

¹² For a general description of the CPS, see Bureau of the Census, *The Current Population Survey—Design and Methodology* (Technical Paper No. 40), 1978. See also Marvin M. Thompson and Gary Shapiro, "The Current Population Survey: An Overview," *Annals of Economic and Social Measurement*, April 1973.

sample and their spouses, usually in late spring of the survey year. Interviews were completed with 11,153 persons in 1969, 10,169 in 1971, 9,423 in 1973, and 8,693 in 1975.

Sampling Variability

A measure of the sampling variability of an estimate is given by the standard error of the estimate. Generally speaking, the chances are about 68 out of 100 that an estimate will differ from the value given by a complete census by less than one standard error. The chances are about 95 out of 100 that the difference will be less than twice the standard error.

Table I gives approximate standard errors for the estimated percentage of individuals with a certain characteristic. Linear interpolation may be used to obtain values not specifically given. To derive standard errors applicable to a wide variety of items, a number of assumptions and approximations were required. As a result, these standard errors provide an indication of the order of magnitude rather than the precise standard error for any specific item.

To make a rough determination of the statistical significance of the difference between two independent percentages, the following procedure may be used. Find estimates of the standard errors of the percentages in question, using table I. Square these standard errors to get variances and add the variances. Take the square root of this sum to get the standard error of the difference. If the absolute difference between the two percentages in question is greater than twice the standard error of the difference, they are said to be significantly different from one another at the 5-percent level.

The percentiles of a variable's distribution are values below which a percentage of units of the sample lies. In particular, the 50th percentile is known as the median, and the 25th, 50th, and 75th percentiles are known as quartiles of the distribution. Estimates of these values are subject to sampling variability that may be esti-

mated in the following way and used to calculate confidence intervals for the percentiles in question:

1. Using the appropriate base, determine from table I the standard error of the percentile in question—the standard error of a 50-percent characteristic, for example.
2. For 95-percent confidence limits, add to and subtract from the desired percentile twice the standard error found in step 1.
3. On the cumulated distribution of the variable in question, use linear interpolation to find the values that correspond to the limits in step 2. These values are 95-percent confidence limits for the percentile.

Actuarial Reduction of Benefits

Before enactment of the 1972 amendments to the Social Security Act, aged-widow beneficiaries retiring at age 62 or older received 82½ percent of their deceased husband's primary insurance amount (PIA). Aged-widow beneficiaries receiving benefits at age 60–61 had their benefits reduced five-ninths of 1 percent for each month benefits were received before age 62. Widows who began receiving benefits in the month they attained age 60 therefore received only 71.5 percent of their deceased husband's PIA.

The 1972 amendments, effective January 1973, made it possible for an aged-widow beneficiary to receive 100 percent of her husband's PIA as long as neither she nor her husband collected benefits before reaching age 65. Benefits are reduced 19/40ths of a percent for each month they are received before age 65 up to a maximum of 28.5 percent at age 60. In addition, widows who begin to receive benefits at age 62–64 whose deceased husbands retired before age 65 are limited to the amount he would be receiving, if still living, but not less than 82½ percent of the PIA. Retired-worker beneficiaries retiring at age 62–64 have their benefits reduced five-ninths of 1 percent for each month they are

Table I.—Approximate standard errors of estimated percentages

Size of base	Estimated percentage									
	2 or 98	5 or 95	8 or 92	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	40 or 60	50
25	3.1	4.8	6.0	6.6	7.8	8.8	9.5	10.0	10.8	11.0
50	2.2	3.4	4.2	4.7	5.6	6.2	6.7	7.1	7.6	7.8
100	1.5	2.4	3.0	3.3	3.9	4.4	4.8	5.0	5.4	5.5
200	1.1	1.7	2.1	2.3	2.8	3.1	3.4	3.6	3.8	3.9
300 .....	.9	1.4	1.7	1.9	2.3	2.5	2.8	2.9	3.1	3.2
500 .....	.7	1.1	1.3	1.5	1.8	2.0	2.1	2.2	2.4	2.4
800 .....	.5	.8	1.0	1.2	1.4	1.6	1.7	1.8	1.9	1.9
1,500 .....	.4	.6	.8	.8	1.0	1.1	1.2	1.3	1.4	1.4
3,000 .....	.3	.4	.5	.6	.7	.8	.9	.9	1.0	1.0
5,000 .....	.2	.3	.4	.5	.6	.6	.7	.7	.8	.8
8,000 .....	.2	.3	.3	.4	.4	.5	.5	.6	.6	.6
10,000 .....	.2	.2	.3	.3	.4	.4	.5	.5	.5	.6

received before age 65 up to a maximum of 20.0 percent at age 62.

Path Analysis

In path analysis,¹³ the bivariate relationship between each pair of variables is divided into noncausal and causal effects. Noncausal effects represent the amount of the bivariate correlation not accounted for in the path model (r minus causal effects). Causal effects are subdivided into direct and indirect effects.

The direct (independent) effects of a predictor on a dependent variable are the effects that remain after controlling for the other predictors. They are measured by path coefficients that are the standardized regression coefficients (Betas)¹⁴ obtained from a series of ordinary least-squares regressions taking one variable at a time as the dependent variable and variables with higher causal order as the predictors. The path coefficients are displayed in the diagram on page 13.

The path coefficients leading from occupation to age at receipt of benefits and to earnings illustrate their derivation and meaning (see the path diagram). The coefficient to age at receipt of benefits (.148) was derived from an ordinary least-squares regression in

¹³ For a detailed discussion of path analysis, see Norman H. Nie et al., *Statistical Package for the Social Sciences*, 2d edition, McGraw-Hill, 1975, pages 383-397, and Kenneth C. Land, "Principles of Path Analysis," in Edgar F. Borgatta (editor), *Sociological Methodology 1969*, Jossey-Bass, Inc., 1969, pages 3-37.

¹⁴ Unstandardized regression coefficients may be used in place of the Betas, but it is not customary to do so. See Norman H. Nie et al., *op. cit.*, page 387.

which age at receipt was predicted from all the predictors in the path diagram. It estimates the magnitude of the effect of occupation on age at receipt while controlling for work limitations, job tenure, extent of employment, earnings, and the MBA. The path coefficient from occupation to earnings (.369) was derived from a least-squares regression of earnings on extent of employment, job tenure, occupation, and work limitations. It estimates the magnitude of the effect of occupation on earnings while controlling for the four predictor variables.

The path coefficient leading from outside the model to each dependent variable measures the direct effects of all residual causes on that variable and is estimated by $\sqrt{1-R^2}$. Its square is the proportion of the variance in the dependent variable caused by all unmeasured variables.

The indirect effects of a predictor on a dependent variable through one or more intervening variables are obscured in an ordinary least-squares regression. Path analysis estimates these effects, however, and thus provides a more complete picture of the possible impact of one variable on another.

The indirect effects of a predictor on a dependent variable are calculated as follows: The path coefficients along connecting paths are multiplied and the results summed across all possible connecting paths. The indirect effects of earnings on age at receipt of benefits, for example, are (.429) (.317) or .136. The indirect effects of extent of employment on age at receipt of benefits are: (.341) (.104) + (.161) (.317) + (.341) (.429) (.317) or .133.