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# Civil Service Retirement System Annuitants and Social Security

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This article examines the extent to which annuitants of the Federal employee Civil Service Retirement System (CSRS) are entitled to Social Security benefits. It is based on linked administrative data files from the two systems. Ninety-one percent of all those receiving CSRS annuities in 1979 had worked at some point in their careers in jobs that were covered by Social Security. Almost 80 percent of the annuitants aged 65 or older were entitled to Medicare benefits. Of those aged 62 or older, 73 percent were entitled to Social Security cash benefits, including 10 percent who were entitled only as spouses or survivors of workers covered under Social Security. About 39 percent of the female annuitants aged 62 or older were entitled to benefits as wives or widows of workers, including some who were also insured for benefits based on their own earnings. The average combined benefit for those with Social Security was \$845 among annuitants aged 62 or older. For those receiving only CSRS annuities, the average was \$959. Those not entitled to a Social Security benefit tended to have more years of Federal service and higher annuities than did those entitled to both a Social Security benefit and a CSRS annuity.

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Virtually all permanent, civilian jobs in the Federal Government are covered under the Civil Service Retirement System (CSRS), rather than under Social Security. Founded 15 years before the enactment of Social Security, the CSRS was designed to stand alone. Unlike most employer-sponsored pensions in the private sector, CSRS annuities were not intended to supplement Social Security benefits.

Yet, most Federal workers who earn a CSRS annuity also receive Social Security benefits at some time. Many earn benefits based on their work in Social Security covered employment before, during, or after their Federal careers. Others become entitled to Social Security benefits because they are spouses or survivors of covered workers. Because most Federal annuitants ultimately receive Social Security benefits and because their annuities were not designed to supplement Social Security, proposals intermittently have been made to coordinate the two systems.

This article looks at the extent of overlapping receipt of benefits from CSRS and Social Security in 1979. It first describes the CSRS annuitant population, then re-

views the extent to which annuitants worked in employment covered by Social Security. It next examines the extent to which annuitants receive various types of Social Security benefits and describes the size of those benefits. Finally, it provides data on the combined benefits—annuities and Social Security benefits—paid to annuitants. Findings from this study are compared with those from similar studies in 1967 and 1975.<sup>1</sup> The study methodology is described in a technical appendix.

## Major Findings

In general, CSRS annuitants in 1979 were relatively young, their number was increasing, and some were receiving substantial annuities.

<sup>1</sup> Preliminary results based on the 1979 sample were previously published by the authors in **Federal Civil Service Annuitants and Social Security** (Research and Statistics Note No. 6), Office of Research and Statistics, Office of Policy, Social Security Administration, 1982. For the 1967 findings, see Elizabeth M. Heidbreder, "Federal Civil-Service Annuitants and Social Security," **Social Security Bulletin**, July 1969, pages 20-33, and Alfred M. Skolnik and Carolyn Jackson, **Age and Sex Characteristics of Civil Service Annuitants in Relation to Social Security** (Research and Statistics Note No. 13), Office of Research and Statistics, Social Security Administration, 1970. The 1975 data appear in Daniel N. Price and Andrea Novotny, "Federal Civil-Service Annuitants and Social Security, December 1975," **Social Security Bulletin**, November 1977, pages 3-18, and Daniel N. Price, "Experience of Federal Annuitants Under OASDHI: Age and Sex," **Social Security Bulletin**, July 1979, pages 33-37.

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- The number of CSRS primary annuitants increased substantially during the 1970's: By 1979, the number of annuitants had reached 1.2 million, 20 percent more than in 1975 and more than twice the number in 1967.
- In 1979, 30 percent of all annuitants were under age 62. Overall, 63 percent of all annuitants on the rolls in 1979 had claimed retirement or disability annuities under CSRS before reaching age 62.
- In constant 1979 dollars, the median CSRS annuity rose 45 percent between 1967 and 1975 and increased by 1 percent between 1975 and 1979 (to \$667). Annuities were larger both because annuitants were working longer and because of a change in the CSRS benefit formula in 1969.

As a rule, CSRS annuitants in 1979 had engaged in at least some (and often lengthy) employment covered under Social Security, despite the fact that their Federal service was not covered under that program.

- Overall, only 9 percent of the CSRS annuitants had never had earnings in employment covered under Social Security. This proportion represents a significant decrease from the 24 percent of all CSRS annuitants in 1967 who had never had covered earnings.
- Forty-five percent of all CSRS annuitants were permanently insured under Social Security at the time they retired from the Federal Government. These annuitants already had sufficient coverage under Social Security to be eligible for Social Security cash benefits at age 62.
- Overall, 41 percent of all CSRS annuitants in 1979 worked in employment covered under Social Security after they retired under CSRS. Fourteen percent of all CSRS annuitants achieved permanently insured status under Social Security as a result of their covered work after CSRS retirement.

Thus, over time, most CSRS annuitants also become entitled to both Social Security cash benefits and to Hospital Insurance based on their own or their spouse's covered earnings.

- Almost four out of five CSRS annuitants in 1979 who were aged 65 or older were entitled to Medicare benefits: 79 percent were entitled to Hospital Insurance (HI) benefits and 70 percent were enrolled in the Supplementary Medical Insurance (SMI) program.
- Of the CSRS annuitants who were aged 62 or older, 76 percent were eligible for cash benefits under Social Security: 63 percent were entitled to primary benefits, 10 percent were entitled to secondary benefits, and 3 percent were permanently

insured under Social Security but had not yet claimed cash benefits.

- As would be expected, the Social Security cash benefits earned by CSRS annuitants tended to be smaller than those earned by non-Federal workers. To illustrate, 60 percent of all CSRS annuitants who received retired-worker benefits, compared with 25 percent of all Social Security retired-worker beneficiaries, had a primary insurance amount of less than \$200.

Taken together, CSRS annuities and Social Security benefits seemed to produce replacement rates at retirement that are roughly comparable to those afforded private sector workers who receive pensions.

- The 27 percent of CSRS annuitants aged 62 or older who had not established entitlement to Social Security benefits tended to be workers with long Federal careers and, therefore, to have large CSRS annuities. Among annuitants at least aged 62, those who were not entitled to Social Security had a median of 31 years of Federal service, an average CSRS annuity of \$959, and a median replacement rate of 56 percent. Those annuitants who received both a CSRS annuity and a Social Security benefit had a median of 24 years of Federal service, an average combined benefit (CSRS plus Social Security) of \$845, and a median combined replacement rate of 58 percent (their annuities alone provided a median replacement rate of 43 percent).
- The median combined replacement rate for all male annuitants aged 62 or older was 59 percent—slightly higher than the 54 percent estimated in 1976 for men who had both Social Security and a pension from covered employment.
- Those who earned both a CSRS annuity and their own Social Security benefit had widely varying lengths of Federal service and thus received a wide range of benefit amounts. The average combined benefit amount for annuitants aged 62 or older with a Social Security benefit and less than 10 years of Federal service was \$422, compared with \$1,229 for those with 30 or more years of Federal service.
- About 39 percent of the female CSRS annuitants aged 62 or older were entitled to Social Security benefits as wives or widows. (Some of these women also were insured for benefits based on their own work.) If the public pension offset enacted in December 1977 had applied to these women, their Social Security benefits as wives or widows would have been offset \$1 for \$1 against their annuity amount.<sup>2</sup>

<sup>2</sup> The public pension offset, legislated in December 1977, was immediately effective for most men.

## The Data Base

This study is based on the total population of retired and disabled CSRS annuitants whose names were in the Office of Personnel Management (OPM) files in June 1979 and who were also included in the 1-percent Continuous Work History Sample (CWHS), a sample of all persons with Social Security numbers maintained by the Social Security Administration. The CWHS data on Social Security covered earnings were used to determine the extent of Social Security coverage earned by the annuitants. Social Security benefit data for these annuitants were drawn from the Social Security Administration's Master Beneficiary Record.

After mismatched cases were excluded, the total sample size for the study was 10,467. This number, which is about 10 percent less than the expected 1 percent of the total population of CSRS annuitants on the rolls in June 1979, was weighted to adjust for missing cases.<sup>3</sup> The distribution of annuitants by age and annuity amounts in this weighted sample is very similar to that for the total population of CSRS annuitants (table 1). Therefore, the estimates in this article appear to be reasonably representative of the CSRS annuitant population as a whole.

The study group includes only CSRS primary annuitants—those receiving retirement or disability annuities on the basis of their own Federal employment. It excludes those receiving CSRS annuities as survivors of annuitants.

<sup>3</sup> See the Technical Appendix for a description of the weighting procedure.

**Table 1.—CSRS annuitants: Percentage distribution, by age and annuity amounts, June 1979**

Item	Total CSRS primary annuitants <sup>1</sup>	Weighted study sample
Number .....	1,189,942	1,165,800
Age of annuitant:		
Under 55 .....	7.0	7.5
55-59 .....	14.4	14.2
60-64 .....	21.0	22.3
65-69 .....	21.3	21.9
70-79 .....	25.9	25.3
80 or older .....	10.4	8.8
Monthly annuity <sup>2</sup> :		
\$1-\$199 .....	7.5	6.8
\$200-\$349 .....	8.7	8.3
\$350-\$499 .....	13.2	13.2
\$500-\$699 .....	20.2	20.3
\$700-\$899 .....	18.5	18.2
\$900-\$1249 .....	17.2	18.0
\$1,250 or more .....	14.7	15.2
Mean annuity amount .....	\$795	\$809
Median annuity amount .....	\$703	\$712

<sup>1</sup> Source: Office of Personnel Management, **Federal Fringe Benefit Facts, 1979, 1980**, tables B-10 and B-11.

<sup>2</sup> Includes the September 1, 1979, cost-of-living adjustment of 6.9 percent to permit comparison with Office of Personnel Management data. This adjustment is not included elsewhere in the study.

## The CSRS Annuitant Population

In 1979, 1.2 million persons received CSRS annuities as retired or disabled Federal employees—more than twice as many as in 1967 (table 2).<sup>4</sup> This section presents data on the age of these annuitants in 1979, the ages at which they claimed their annuities, the amount of their annuities, and the degree to which the annuities replaced preretirement earnings.

### Age in 1979

The age distribution of CSRS annuitants reflects the variety of early retirement options available to Federal employees. A Federal employee may retire voluntarily under CSRS with a full annuity at age 55 with 30 years of service, at age 60 with 20 years of service, or at age 62 with 5 years of service. Other standards permitting retirement at earlier ages or with fewer years of service apply to a small number of hazardous occupations and under special circumstances, such as early retirement due to reductions in force or reorganization. In addition, a Federal employee with 5 years of service who becomes disabled may receive a CSRS annuity at any age.

Thirty percent of all CSRS annuitants were younger than age 62 in 1979, 56 percent were aged 65 or older, and 27 percent were aged 72 or older (table 3). Seventy-two percent of the annuitants were men and 28 percent were women. On the average, female annuitants were older than male annuitants, in part because women tend to live longer than men. Thirty-three percent of the

<sup>4</sup> A variety of other, smaller Federal staff retirement plans exist, but these are, by law or practice, substantially the same as the CSRS. Many of these other plans were modeled on the CSRS when they were established. Other plans frequently contain amendments requiring them to change as the CSRS changes. The only clear exceptions to the CSRS pattern are small plans for the Federal judiciary.

**Table 2.—Number of CSRS annuitants on the rolls by June 30 of each year and net year-to-year increase, 1966-79**

Year	Number	Net increase
1966.....	560,992	...
1967.....	580,771	19,779
1968.....	604,873	24,102
1969.....	628,572	23,699
1970.....	662,223	33,651
1971.....	711,323	49,100
1972.....	758,469	47,146
1973.....	843,520	85,051
1974.....	938,654	95,134
1975.....	989,786	51,132
1976.....	1,038,337	48,551
1977.....	1,096,561	58,224
1978.....	1,148,142	51,581
1979.....	1,189,942	41,800

Source: Office of Personnel Management, **Federal Fringe Benefit Facts, 1979, 1980**, table B-3.

**Table 3.—CSRS annuitants: Percentage distribution, by age and sex, June 1979**

Age	Total	Men	Women
Number .....	1,165,800	837,500	328,300
Percent .....	100	100	100
Under 62 .....	30	32	25
Under 55 .....	8	7	8
55-61 .....	22	24	17
62 or older .....	70	68	75
62-64 .....	14	15	12
65 or older .....	56	53	63
65-71 .....	29	29	31
72 or older .....	27	24	33

women but only 24 percent of the men were aged 72 or older.

The population of annuitants was younger in 1979 than in 1967. Most of the change in the age distribution had occurred by 1975. The proportion of CSRS annuitants who were aged 65 or older fell from 69 percent in 1967 to 57 percent in 1975 and to 56 percent in 1979. The following tabulation shows that the proportion who were aged 62 or older fell just as markedly—from 78 percent in 1967 to 69 percent in 1975 and to 70 percent in 1979.

Age	Percentage distribution in—		
	1967	1975	1979
Under 62 .....	22	31	30
62 or older .....	78	69	70
65 or older .....	69	57	56

### Age When Annuity Was Claimed

Overall, 63 percent of all CSRS annuitants in 1979 had claimed their retirement or disability annuity before age 62 (table 4). On the average, men went on the annuity rolls earlier than did women: 67 percent of the men but only 54 percent of the women claimed their annuity before reaching age 62.

The data file used for this study did not identify which persons were receiving annuities on the basis of a disability. Other OPM data, however, indicate that 28 percent of the annuitants on the rolls in 1979 were receiving disability annuities.<sup>5</sup> These data suggest that about one-third of all CSRS annuitants retired before age 62 for reasons other than disability.

About 15 percent of all annuitants did not claim their annuity until age 65 or later. Three percent waited until age 70, the mandatory retirement age that applied to Federal workers until 1978.

### Annuity Amounts

The amount an annuitant receives is based on the average annual salary for the 3 consecutive years of

<sup>5</sup> Office of Personnel Management, **Federal Fringe Benefit Facts, 1979, 1980**, table B-3.

**Table 4.—Age when CSRS annuity began: Percentage distribution, by age in 1979 for annuitants on rolls in June 1979**

Age when CSRS annuity began	[Number in thousands]		
	Total	Under age 62	Aged 62 or older
All annuitants			
Number .....	1,154.7	347.0	807.7
Percent .....	100	100	100
Under 55 .....	24	64	7
55-61 .....	39	36	41
62-64 .....	21	...	30
65-69 .....	12	...	18
70 or older .....	3	...	5
Men			
Number .....	830.6	265.3	565.3
Percent .....	100	100	100
Under 55 .....	24	61	7
55-61 .....	43	39	45
62-64 .....	18	...	27
65-69 .....	12	...	17
70 or older .....	3	...	4
Women			
Number .....	324.1	81.7	242.4
Percent .....	100	100	100
Under 55 .....	23	70	7
55-61 .....	31	30	31
62-64 .....	28	...	37
65-69 .....	15	...	20
70 or older .....	4	...	5

Note: The CSRS annuity effective date was not reported by 111 sample cases.

highest earnings<sup>6</sup> and on length of Federal service. An annuitant receives 16.25 percent of the "high 3" average salary for the first 10 years of service and 2 percent more for each additional year up to a maximum of 80 percent after nearly 42 years of service. With 20 years of service, the formula provides 36.25 percent of the high-3 average salary and with 30 years it replaces 56.25 percent of previous earnings.

**Years of service.** CSRS annuitants in 1979 had a median of 26 years of Federal employment (table 5). About 38 percent of the annuitants had at least 30 years of service, only 3 percent had 40 or more years, and 8 percent had fewer than 10.<sup>7</sup>

<sup>6</sup> Although earnings used to calculate Social Security benefits are indexed to reflect changes in wage levels in the years before retirement, earnings used to calculate the CSRS annuity are not indexed.

<sup>7</sup> To help finance the Civil Service Retirement System, Federal employees and their employing agencies each pay 7 percent of gross pay. The remaining cost is paid from Federal general revenues. Employees who leave Federal service before retirement may withdraw their own contributions to the CSRS and forgo any future annuity. Alternatively, if they have at least 5 years of service, they may leave their contributions in the CSRS and claim a deferred annuity when they reach retirement age. Only 6 percent of all annuitants on the rolls in 1979 were receiving a deferred annuity. Most workers who leave Federal employment withdraw their contributions. See Office of Personnel Management, *op. cit.*, table B-3.

**Table 5.—Years of Federal service and median Federal earnings for the high-3 years: Percentage distribution, by age and sex, 1979**

[Number in thousands]

Years of Federal service	Total	Under age 62	Aged 62 or older
All annuitants			
Number .....	1,165.8	347.0	818.8
Percent .....	100	100	100
Less than 10 .....	8	9	7
10-19 .....	21	19	22
20-29 .....	34	34	34
30-39 .....	35	39	34
40 or more .....	3	(1)	4
Median number of years .....	25.7	26.2	25.4
Median Federal earnings (high-3 years average) .....	\$9,779	\$12,377	\$8,658
Men			
Number .....	837.5	265.3	572.2
Percent .....	100	100	100
Less than 10 .....	6	6	6
10-19 .....	17	17	17
20-29 .....	33	33	33
30-39 .....	41	44	40
40 or more .....	3	(1)	5
Median number of years .....	27.7	27.7	27.6
Median Federal earnings (high-3 years average) .....	\$10,693	\$13,310	\$9,561
Women			
Number .....	328.3	81.7	246.6
Percent .....	100	100	100
Less than 10 .....	12	19	10
10-19 .....	31	25	33
20-29 .....	37	36	37
30-39 .....	19	20	19
40 or more .....	1	0	1
Median number of years .....	20.6	20.6	20.6
Median Federal earnings (high-3 years average) .....	\$7,933	\$10,278	\$7,061

<sup>1</sup> Less than 0.5 percent.

On the average, men had more years of service than did women—a median of 28 years, compared with 21 years for women. These medians reflect the fact that 44 percent of the men, but only 20 percent of the women, had 30 or more years of Federal service and that only 6 percent of the men, but 12 percent of the women, had fewer than 10 years of Federal service.

Annuitants younger than age 62 include both those with relatively short service who receive annuities on the basis of disability or other special provisions and those with relatively long service who are eligible to retire early. Those aged 62 or older had a median of 25 years of service, with older annuitants having somewhat fewer

years than those closer to age 62. Annuitants aged 62–64 had a median of 28 years of service, those aged 65–71 had 26 years, and those aged 72 or older had 24 years.

**Annuity amounts and replacement rates.** The median CSRS annuity in 1979 was \$667 a month. About 10 percent of all annuitants received less than \$250 and 8 percent had annuities of \$1,500 or more (table 6). Because women tend to have fewer years of service and lower earnings than do men, their median annuity was only 63 percent of the median for men.

CSRS annuities replaced a median of 47 percent of the annuitant's high 3 years of Federal earnings.<sup>8</sup> The median replacement rate for men was 50 percent; for women, it was 41 percent.

The median CSRS annuity has increased in both current and constant dollars since 1967, as the following tabulation shows. In current dollars, the median amount in 1967 was \$208 a month, and in 1975 it was \$487. In constant dollars, the median increased 47 percent from 1967 to 1979. Most of that increase occurred by 1975; between 1975 and 1979, the median increased by only 1 percent in constant dollars. The increase after 1967 reflects at least four factors that affect the size of CSRS annuities. One factor was a 1969 change in the CSRS benefit formula, which lowered from 5 to 3 the number of consecutive high years used in calculating the annuity. This change tended to raise the measure of average earnings. A second factor was the average wage increases for active Federal workers from July 1968 to January 1973, which resulted in a 13-percent increase in real wages.<sup>9</sup> The annuity increase also reflects a third factor, which was the rise in years of service among annuitants. A final factor that raised the real level of CSRS annuities about 9 percent in this period was the legislated benefit increases from November 1969 to March 1976. These increases were 1 percentage point higher than the rise in the Consumer Price Index.

Item	1967	1975	1979
Median CSRS annuity .....	\$208	\$487	\$667
Median CSRS annuity in 1979 dollars .....	\$453	\$658	\$667
Median years of Federal service ..	23	25	26
Percent with 30 years or more of Federal Service .....	31	34	38

<sup>8</sup> In the replacement rate calculations, the annuitants' high 3 years of earnings were indexed between the effective date of the annuity and 1979 by the amount of the cost-of-living increases applied to annuities during the period. See the Technical Appendix for a further explanation of the replacement rate calculation.

<sup>9</sup> Except for the wage increase in October 1977, all of the annual increases in Federal wages from October 1973 to October 1982 have been less than the increase in the Consumer Price Index (CPI), resulting in a decline in real wages. Since March 1976, CSRS benefit increases have been equal to the CPI. See Committee on Post Office and Civil Service, House of Representatives, Committee Print No. 97-5, April 26, 1982.

## Social Security Coverage Earned by CSRS Annuitants

This section provides data on the amount of Social Security coverage earned by CSRS annuitants, and the extent to which their coverage exceeded or fell short of the amount necessary to be entitled to Social Security benefits. Statistics are also provided on the extent to which this coverage was earned before or after CSRS annuities were received.

### Quarters of Coverage Under Social Security

To be insured for Social Security benefits, and thus be eligible to receive retired-worker benefits at age 62, workers must earn 1 quarter of coverage for each year between 1950 and the year they turn age 62. Until 1978, a quarter of coverage was credited to a worker's account if he or she had at least \$50 in Social Security covered earnings in that calendar quarter. Beginning in 1978, Social Security coverage was determined on an annual basis and the amount needed for 1 quarter of coverage was set at \$250 (with the amount indexed to the increases in average earnings thereafter). A person turning age 62 in 1979 needed 28 quarters of coverage to be permanently insured.

In 1979, the annuitants had a median of 28 quarters of coverage (32 for men and 20 for women).<sup>10</sup> Those with more years of service under the CSRS tended to have fewer quarters of coverage than those with shorter CSRS service. Among annuitants with fewer than 10 years of Federal service, 41 percent of the men and 13 percent of the women had at least 80 quarters (or 20 years) of coverage under Social Security (table 7). Only 9 percent of all annuitants in 1979 had no employment covered under Social Security, compared with 24 percent in 1967.<sup>11</sup>

### Insured Status

About 60 percent of all CSRS annuitants were permanently insured for Social Security benefits—that is, they had enough quarters of covered employment to be eligible for retired-worker benefits at age 62. Older annuitants were more likely than younger annuitants to be insured: 65 percent of those aged 62 or older were permanently insured, compared with 47 percent of those younger than age 62. Male annuitants were more likely to be permanently insured than were females: 64 percent of the men, compared with 49 percent of the women.

**Coverage exceeding the minimum needed.** Few of the annuitants who were insured for retired-worker benefits

<sup>10</sup> The source of information on Social Security quarters of coverage was complete only through 1977. See the technical appendix for the imputation procedure used to calculate quarters of coverage for 1978 and 1979.

<sup>11</sup> See Elizabeth M. Heidbreder, *op. cit.*, table 3.

**Table 6.**—Monthly CSRS annuity and median CSRS annual annuity as a percent of average high-3 years of Federal earnings: Percentage distribution, by age and sex, 1979

[Number in thousands]

Monthly CSRS annuity	Total	Under age 62	Aged 62 or older
All annuitants			
Number .....	1,165.8	347.0	818.8
Percent .....	100	100	100
Less than \$250 .....	10	2	13
\$250-\$499 .....	22	22	22
\$500-\$749 .....	26	31	24
\$750-\$999 .....	19	20	18
\$1,000-\$1,499 .....	15	18	14
\$1,500 or more .....	8	8	8
Median amount .....	\$667	\$711	\$647
Median CSRS annual annuity as a percent of high-3 years of Federal earnings average .....	47.1	47.5	47.0
Men			
Number .....	837.5	265.3	572.2
Percent .....	100	100	100
Less than \$250 .....	7	1	9
\$250-\$499 .....	17	16	17
\$500-\$749 .....	27	31	25
\$750-\$999 .....	22	21	22
\$1,000-\$1,499 .....	18	21	17
\$1,500 or more .....	10	10	10
Median amount .....	\$748	\$770	\$738
Median CSRS annual annuity as a percent of high-3 years of Federal earnings average .....	50.3	50.2	50.4
Women			
Number .....	328.3	81.7	246.6
Percent .....	100	100	100
Less than \$250 .....	18	6	23
\$250-\$499 .....	36	41	35
\$500-\$749 .....	25	28	24
\$750-\$999 .....	12	14	11
\$1,000-\$1,499 .....	7	9	7
\$1,500 or more .....	1	2	1
Median amount .....	\$470	\$519	\$450
Median CSRS annual annuity as a percent of high-3 years of Federal earnings average .....	40.7	42.3	39.6

had only the minimum number of quarters of coverage needed for insured status. Although 60 percent were insured, only 2 percent had just the minimum number of quarters needed (table 8). For the insured annuitants, the median number of quarters above the minimum needed was 19 (or nearly 5 years). About 16 percent of all annuitants—or 27 percent of those who were permanently insured—had more than 40 quarters of coverage beyond the number needed for permanently insured status.

**Table 7.—Quarters of Social Security coverage: Percentage distribution, by years of Federal service and sex, 1979**

[Number in thousands]

Quarters of coverage	Years of Federal service				
	Total	Under 10	10-19	20-29	30 or more
All annuitants					
Number . . . . .	1,165.8	88.8	241.3	395.6	440.1
Percent . . . . .	100	100	100	100	100
0 . . . . .	9	1	4	7	16
1-19 . . . . .	26	14	18	24	34
20-29 . . . . .	16	12	13	18	18
30-39 . . . . .	13	10	13	14	13
40-79 . . . . .	26	35	35	31	15
80 or more . . . . .	9	29	17	6	4
Median number . . . . .	27.9	45.3	40.5	30.0	18.8
Men					
Number . . . . .	837.5	49.0	140.0	274.2	374.3
Percent . . . . .	100	100	100	100	100
0 . . . . .	7	(1)	2	4	13
1-19 . . . . .	23	6	11	19	33
20-29 . . . . .	16	7	10	16	19
30-39 . . . . .	14	10	12	16	14
40-79 . . . . .	28	36	40	38	16
80 or more . . . . .	11	41	25	8	4
Median number . . . . .	31.4	58.2	45.1	36.4	21.3
Women					
Number . . . . .	328.3	39.8	101.2	121.4	65.8
Percent . . . . .	100	100	100	100	100
0 . . . . .	14	2	7	13	34
1-19 . . . . .	34	23	29	37	42
20-29 . . . . .	18	18	18	21	12
30-39 . . . . .	11	11	13	11	6
40-79 . . . . .	19	33	28	16	5
80 or more . . . . .	4	13	6	2	1
Median number . . . . .	19.9	36.1	27.0	18.6	3.8

<sup>1</sup> Less than 0.5 percent.

**Coverage short of the minimum needed.** Annuitants who were not permanently insured included some who needed very little additional covered work in order to be insured. The 40 percent of all annuitants who were not insured included 12 percent who needed no more than 2 additional years (8 quarters) of covered employment in order to be insured.

Men aged 62 or older were the most likely to be insured, or almost insured: 69 percent were insured and 9 percent needed no more than 2 additional years of covered employment to achieve that status. Among women aged 62 or older, 56 percent were insured and 14 percent needed no more than 2 more years of covered work to become insured.

**Coverage earned before CSRS retirement.** About 45 percent of all CSRS annuitants in 1979 had enough quarters of coverage when they retired from their Feder-

al jobs to be insured for Social Security benefits (table 9). Those who became annuitants at age 62 or later were more likely to be permanently insured than were those who became annuitants at younger ages. About 61 percent of those aged 62 or older when they retired from Federal service needed no more quarters of coverage, compared with 36 percent of those who claimed CSRS annuities before age 62. It is not possible to determine whether these annuitants earned their quarters of coverage before or during their Federal careers.

**Coverage earned after CSRS retirement.** Although Social Security benefits are subject to an earnings test, CSRS annuities are not. Thus, postretirement work is common among annuitants: About 41 percent of all annuitants in 1979 had worked in Social Security covered jobs after becoming annuitants.

Of all annuitants, 14 percent gained permanently insured status after becoming annuitants. Those younger than age 62 when they retired under CSRS were twice as likely to earn the necessary additional quarters by 1979 as were those older than age 62, as shown below.

CSRS annuitants	Total	Age when CSRS annuity began	
		Under age 62	Aged 62 or older
All annuitants			
Total percent . . . . .	100	100	100
Worked in Social Security covered employment after annuity began . . . . .	41	46	33
Insured when annuity began . . . . .	18	17	21
Became insured as of June 1979 . . . . .	14	18	9
Not insured by June 1979 . . . . .	9	12	4
Did not work in Social Security covered employment after annuity began . . . . .	59	54	67
Pre-1975 annuitants			
Total percent . . . . .	100	100	100
Worked after annuity began . . . . .	48	55	37
Insured when annuity began . . . . .	20	19	22
Became insured as of June 1979 . . . . .	19	24	11
Not insured by June 1979 . . . . .	9	12	4
Did not work after annuity began . . . . .	52	45	63

When only those who had been annuitants for at least 5 years are considered, the importance of postretirement work becomes more clear. Of those who became annuitants before 1975, 48 percent later worked in covered employment and 19 percent became permanently insured because of that work. Of the pre-1975 annuitants who retired before age 62, 24 percent had earned enough additional quarters of coverage within 5 years to become permanently insured.

## Social Security and Medicare Entitlement

In 1982, Social Security covered workers and their employers each paid a tax of 6.7 percent on earnings up

**Table 8.—Quarters of Social Security coverage and insured status: Percentage distribution of CSRS annuitants, by quarters of coverage above and below number needed for permanently insured status, age, and sex, 1979**

[Number in thousands]

Quarters of coverage	All annuitants			Men			Women		
	Total	Under age 62	Aged 62 or older	Total	Under age 62	Aged 62 or older	Total	Under age 62	Aged 62 or older
Number .....	1,165.8	347.0	818.8	837.5	265.3	572.2	328.3	81.7	246.6
Percent .....	100	100	100	100	100	100	100	100	100
<b>Permanently insured</b>									
Total percent .....	60	47	65	64	53	69	49	29	56
Number of quarters above the minimum:									
0 .....	2	1	3	2	1	3	2	1	3
1-4 .....	8	6	8	8	7	8	7	5	8
5-8 .....	6	5	7	6	6	7	6	4	7
9-12 .....	5	5	6	5	5	6	5	4	5
13-20 .....	9	9	9	9	9	9	8	7	8
21-40 .....	13	11	14	15	13	15	11	6	12
41 or more .....	16	9	19	18	11	21	10	2	13
Median number .....	19.4	16.6	20.4	20.6	17.4	22.1	15.8	13.6	16.4
<b>Not permanently insured</b>									
Total percent .....	40	53	35	36	47	31	51	71	44
Number of quarters needed for permanently insured status:									
1-4 .....	5	6	4	5	6	4	5	6	5
5-8 .....	7	7	6	6	7	5	9	8	9
9-12 .....	6	7	6	6	6	6	8	8	8
13-20 .....	12	13	11	11	12	10	14	16	14
21 or more .....	11	21	7	9	16	6	14	34	8
Had no quarters of coverage .....	9	3	12	7	2	10	14	6	17
Median number .....	13.6	16.3	12.3	13.5	15.3	12.6	13.7	19.0	11.7

to \$32,400—5.4 percent to finance benefits paid under the Old-Age, Survivors, and Disability Insurance program and 1.3 percent to finance Hospital Insurance benefits under Medicare. Because they are covered by CSRS and not Social Security, Federal employees did not pay either of these payroll taxes. Under provisions of the Tax Equity and Fiscal Responsibility Act of 1982, however, Federal employees became subject to the Hospital Insurance portion of the tax in January 1983.

Despite the fact that their Federal employment was not covered under Social Security, many annuitants on the CSRS rolls in 1979 had gained entitlement to Social Security cash benefits or Medicare based either on their own covered work before, during, or after their Federal service or on the basis of the covered work of their spouse. This section examines the extent of Social Security and Medicare entitlement among the CSRS annuitants who were old enough to be eligible for these benefits.

### Medicare

Medicare is a health insurance program for the aged and for certain disabled persons. It consists of two parts: The Hospital Insurance (HI) program pays for most hospital services and the Supplementary Medical Insurance (SMI) program pays for part of the cost of physician and outpatient services.

The HI program is financed almost exclusively by the HI payroll tax on workers and their employers. At age 65, persons automatically become eligible for HI benefits with no payment of premiums if they are eligible for Social Security cash benefits based either on their own or their spouse's covered work. In addition, some persons who did not qualify for cash benefits, but who were already relatively old when the Medicare program was enacted in 1965, became eligible for HI benefits under a phase-in provision.<sup>12</sup> Finally, persons who do not qualify for HI benefits under the above provisions may elect to pay a premium for HI entitlement at age 65. The monthly premium rate in fiscal year 1979 was \$63.

Altogether, 79 percent of the annuitants aged 65 or older were entitled to HI benefits under one of these provisions (table 10). Ten percent were entitled on the basis of their spouse's covered work. Only 3 percent were entitled under the special phase-in provision and

<sup>12</sup> The quarters-of-coverage requirements for HI benefit eligibility vary with the year of birth, from no quarters of coverage for those born before 1903 and increasing in 3-quarter increments annually to 21 quarters for those born between 1903 and 1909. (Federal employees and annuitants were excluded from the zero quarters of coverage requirement for HI benefits.) For persons born after 1909 the quarters-of-coverage requirement for HI is the same as that for permanently insured status. Most of the CSRS annuitants who achieve HI entitlement with fewer quarters of coverage than the number required for permanent insured status were aged 72 or older in 1979.

almost all of them were aged 72 or older in 1979. Virtually none (less than half of 1 percent) became entitled by paying the monthly premium.

Eligibility for and financing of the SMI part of Medicare is different from HI. Anyone aged 65 or older may become entitled to SMI by enrolling in the program and paying a monthly premium. In fiscal year 1979, the premium was \$8.20 a month. These premiums cover about 30 percent of the cost of the program and the rest is financed from general revenues.

In 1979, 70 percent of the aged annuitants had enrolled in the SMI program. They included 5 percent of the annuitants who were not entitled to Hospital Insurance but had opted for the SMI portion. Altogether, 14 percent of the aged annuitants were entitled to HI but had not opted for the SMI part of the program, as shown below.<sup>13</sup>

Medicare entitlement	Annuitants aged 65 or older		
	Total	Men	Women
Total number (in thousands) . . .	653.2	445.3	207.9
Total percent . . . . .	100	100	100
Both HI and SMI . . . . .	65	63	70
HI only . . . . .	14	16	11
SMI only . . . . .	5	5	5
Neither HI nor SMI . . . . .	16	17	14

### Cash Benefits

In 1979, 76 percent of the CSRS annuitants aged 62 or older were eligible for Social Security cash benefits—73 percent who were entitled to benefits on the basis of their own or their spouse's covered work, and 3 percent who were permanently insured for retired-worker benefits but had not yet claimed them (table 11).<sup>14</sup> The total was somewhat higher than in 1975, when 64 percent were entitled to benefits and 8 percent were permanently insured.

Not all annuitants are old enough to be eligible for Social Security benefits: retired-worker benefits, for example, are payable only beginning at age 62.<sup>15</sup> Among annuitants of all ages, 53 percent were entitled to benefits in 1979 and 15 percent more were permanently insured.

Most annuitants who were receiving Social Security benefits were primary beneficiaries—that is, they were

<sup>13</sup> Federal annuitants typically have Federal employee health benefits available to them under a variety of plans if they had been covered as employees. The share of the premium paid by the Government varies for each health benefit plan, with a cap of 75 percent.

<sup>14</sup> A person is entitled to benefits when he or she is eligible for them on the basis of insured status and age and when the benefit is actually claimed. A person is considered entitled even if no benefit is actually payable because it has been entirely offset either because of the earnings test or, as discussed below, the public pension offset.

<sup>15</sup> Benefits to aged spouses of retired workers also are payable beginning at age 62, benefits to aged widows of workers are payable beginning at age 60, and disability benefits are payable at any age.

**Table 9.**—Insured status of CSRS annuitants at retirement and in 1979, by age and post-CSRS retirement work

[Number in thousands]

Insured status	Age at CSRS retirement		
	Total	Under age 62	Aged 62 or older
All annuitants			
Number . . . . .	1,154.7	731.7	423.0
Percent . . . . .	100	100	100
Permanently insured at CSRS retirement . . . . .	45	36	61
Worked . . . . .	18	17	21
Did not work . . . . .	27	20	40
Became permanently insured by 1979 . . . . .	14	18	9
Not permanently insured by 1979 . . . . .	40	46	31
Worked . . . . .	9	12	4
Did not work . . . . .	32	34	27
Annuitants entitled before 1975			
Number . . . . .	823.8	512.4	311.4
Percent . . . . .	100	100	100
Permanently insured at CSRS retirement . . . . .	42	34	56
Worked . . . . .	20	19	22
Did not work . . . . .	22	15	34
Became permanently insured by 1979 . . . . .	19	24	11
Not permanently insured by 1979 . . . . .	39	43	33
Worked . . . . .	9	12	4
Did not work . . . . .	30	30	29

Note: The CSRS annuity effective date was not reported by 111 sample cases.

receiving retired-worker or disabled-worker benefits on the basis of their own work. Others received secondary benefits as spouses or survivors of insured workers. Beneficiaries also may be dually entitled—that is, entitled to a primary benefit based on their own work and to a higher benefit as a spouse or survivor. When a person is dually entitled, he or she receives a benefit based on his or her own work plus the difference between that amount and the amount payable as a spouse or survivor. In this article, persons who were dually entitled are classified as primary beneficiaries. The following three sections present data on those who were entitled to primary benefits, those who were entitled to secondary benefits, and the effects of the public pension offset on those entitled to secondary benefits.

**Primary beneficiaries.** About 63 percent of all annuitants aged 62 or older were receiving primary benefits. The proportion of such annuitants receiving primary benefits increased from 54 percent in 1967 and from 57 percent in 1975.<sup>16</sup> Most of the primary beneficiaries

<sup>16</sup> For more detail on the earlier data, see Alfred M. Skolnik and Carolyn Jackson, *op.cit.*, table 1, and Daniel N. Price, *op.cit.*, table 1.

**Table 10.—Entitlement of CSRS annuitants to Hospital Insurance (HI) and to Supplementary Medical Insurance (SMI)**

[Number in thousands]

Medicare entitlement in 1979	Total	Under age 65	Aged 65 or older		
			Total	65-71	72 or older
All annuitants					
Number .....	1,165.8	512.6	653.2	342.6	310.6
Percent .....	100	100	100	100	100
Both HI and SMI .....	37	2	65	61	69
HI only .....	8	1	14	17	11
SMI only .....	3	(1)	5	3	6
Neither HI nor SMI .....	51	96	16	18	14
Men					
Number .....	837.5	392.2	445.3	241.5	203.8
Percent .....	100	100	100	100	100
Both HI and SMI .....	34	2	63	58	67
HI only .....	9	1	16	20	11
SMI only .....	2	(1)	5	3	7
Neither HI nor SMI .....	54	96	17	19	15
Women					
Number .....	328.3	120.4	207.9	101.1	106.8
Percent .....	100	100	100	100	100
Both HI and SMI .....	45	2	70	68	73
HI only .....	7	(1)	11	12	10
SMI only .....	3	0	5	4	6
Neither HI nor SMI .....	45	98	14	16	11

<sup>1</sup> Less than 0.5 percent.

were receiving benefits as retired workers. In 1979, 63 percent of those aged 62 or older and 44 percent of all annuitants were receiving retired-worker benefits.

A much smaller proportion of the annuitants received disabled-worker benefits under the Social Security program. Of the annuitants under age 62, only 5 percent received disabled-worker benefits. In contrast, 28 percent of all the annuitants had retired under the CSRS disability option.

The low rate of receipt of Social Security disabled-worker benefits can be explained by the different eligibility requirements under the two systems. Because both CSRS and Social Security require recent attachment to employment covered under their plans for workers to be eligible for disability benefits, few disabled workers simultaneously meet the eligibility requirements of both systems. Under CSRS, only current employees with at least 5 years of creditable service have disability protection. Social Security requires workers who are disabled after age 31 to have been in covered employment for 5 of the last 10 years before becoming disabled. Somewhat less stringent standards apply to younger workers. In addition, to be eligible for Social Security disability benefits, a worker must be fully insured—that is, he or she must have 1 quarter of coverage for each year elapsing between 1950 and the year in which the disability begins. The tests of disability were also different between

the two programs. Under CSRS in 1979, a worker must have been unable to perform his or her regular job in the Federal service. Under Social Security, he or she must have had a severe impairment, expected to last at least a year or to result in death, and must have been unable to perform his past job or any other job that exists in significant numbers in the national economy.

**Secondary benefits.** About 10 percent of all annuitants aged 62 or older—7 percent of all annuitants—were entitled only to secondary benefits as the spouses or survivors of workers insured under Social Security. Female annuitants were far more likely than male annuitants to be spouse or survivor beneficiaries. Among annuitants aged 62 or older, 26 percent of the women and 3 percent of the men were entitled to spouse or survivor benefits only.

The difference in entitlement to spouse or survivor benefits between men and women reflects, in part, past differences in the treatment of men and women under the Social Security law. Before 1977, men had to meet a special proof-of-dependency test to qualify for Social Security benefits on their wives' covered work. A man had to prove that he received at least half of his support from his wife at the time she retired, died, or became disabled. In March 1977, the U.S. Supreme Court in *Goldfarb v. Califano* ruled that the special dependency test applicable to men only was unconstitutional. Thus,

husbands and widowers could qualify for Social Security spouse or survivor benefits under the same provisions that were applied to wives and widows. That is to say, they could receive a Social Security spouse or survivor benefit if that benefit exceeded their own Social Security benefit as a retired or disabled worker (including those who did not have their own Social Security benefit). No consideration was given to any pension they may have earned from noncovered employment. During this period the number of men who applied for secondary benefits increased but remained relatively small.<sup>17</sup>

In December 1977, Congress amended the Social Security law to apply a pension offset to Social Security benefits for both men and women who were eligible for pensions from noncovered government employment. Under the provision, Social Security spouse or survivor benefits are offset \$1 for \$1 against any pension the person receives from noncovered employment in Federal, State, or local government. The pension offset was applicable immediately to men who did not meet the one-half support test. It did not apply to women who became eligible for noncovered public employee pensions before December 1982. From December 1982 through June 1983 the public pension offset applies to both men and women who do not meet the one-half support test.

Thus, women first becoming eligible for a government pension in December 1982 or later will be far less likely than women previously on the Federal annuitant rolls to receive Social Security benefits as wives or widows on their husbands' Social Security covered work. They may, however, continue to receive the Medicare coverage that is available to all persons aged 65 or older who are entitled to cash benefits even if those benefits are entirely offset.

**Effects of the pension offset.** For persons who are dually entitled, the pension offset will apply to the spouse or widow(er) benefit portion of their benefits but not to that portion of benefits they receive on the basis of their own work. Due in part to the past difference in secondary-benefit eligibility for men and women, female annuitants in 1979 were far more likely than male annuitants to be dually entitled to a primary benefit and to a higher benefit as a spouse or survivor. Of those aged 62 or older, 13 percent of the female annuitants were dually entitled, compared with only 1 percent of the male annuitants (table 12).

Some secondary beneficiaries—almost all of them widows—were insured on the basis of their own work

<sup>17</sup> In the first 4 months of 1977, 454 awards were made to husbands and widowers. In the last 8 months of 1977, after the *Goldfarb v. Califano* decision, 41,024 awards were made. See Joseph Bondar, **Initial Effect of Elimination of the Dependency Requirement on Entitlement to Husband's and Widower's Benefits** (Research and Statistics Note No. 2), Office of Research and Statistics, Office of Policy, Social Security Administration, 1982, table 1.

**Table 11.**—Social Security benefit status: Percentage distribution of CSRS annuitants, by age and sex, June 30, 1979

Social Security benefit status	[Number in thousands]		
	Total	Age in 1979	
		Under age 62	Aged 62 or older
All annuitants			
Number . . . . .	1,165.8	347.0	818.8
Percent . . . . .	100	100	100
Social Security beneficiaries . . . . .	53	6	73
Primary beneficiaries . . . . .	46	5	63
Retired workers . . . . .	44	0	63
Disabled workers . . . . .	2	5	1
Spouse or survivor beneficiaries . . . . .	7	1	10
Nonbeneficiaries . . . . .	47	94	27
Permanently insured . . . . .	15	43	3
Not permanently insured . . . . .	32	51	24
Men			
Number . . . . .	837.5	265.3	572.2
Percent . . . . .	100	100	100
Social Security beneficiaries . . . . .	51	6	72
Primary beneficiaries . . . . .	49	6	69
Retired workers . . . . .	46	0	68
Disabled workers . . . . .	2	6	1
Spouse or survivor beneficiaries . . . . .	2	(1)	3
Nonbeneficiaries . . . . .	49	94	28
Permanently insured . . . . .	17	48	3
Not permanently insured . . . . .	32	47	25
Women			
Number . . . . .	328.3	81.7	246.6
Percent . . . . .	100	100	100
Social Security beneficiaries . . . . .	59	7	76
Primary beneficiaries . . . . .	39	2	51
Retired workers . . . . .	38	0	51
Disabled workers . . . . .	1	2	(1)
Spouse or survivor beneficiaries . . . . .	21	5	26
Nonbeneficiaries . . . . .	41	93	24
Permanently insured . . . . .	7	26	1
Not permanently insured . . . . .	33	67	22

<sup>1</sup> Less than 0.5 percent.

but were not receiving benefits on that basis.<sup>18</sup> This group consisted of 5 percent of all female annuitants aged 62 or older. Its members could have become entitled to retired-worker benefits if they filed for them.

In all, 39 percent of the female annuitants aged 62 or older were entitled to secondary benefits. Twenty-one percent of the female annuitants aged 62 or older were eligible for secondary benefits only; their total Social Security benefits would have been subject to the offset. Another 18 percent were eligible for both a secondary and a primary benefit—13 percent who were dually en-

<sup>18</sup> An insured worker who claims widow's or widower's benefits before age 65 is not required to establish entitlement to retired-worker benefits at the same time. In contrast, when a spouse benefit is claimed at age 62 or older, an insured claimant must establish simultaneous entitlement to a retired-worker benefit.

titled and 5 percent who were entitled to widow's benefits and were insured but had not established entitlement to primary benefits. The pension offset would affect only their secondary benefits if it had applied to them. The percent of all female annuitants aged 62 or older who were entitled to secondary benefits is shown in the following tabulation. Widow's benefits were more common than wife's benefits among the female annuitants aged 62 or older.

Female annuitants aged 62 or older	Total	Wife's benefit	Widow's benefit
Total entitled to secondary benefits . . . . .	39	15	24
Eligible only for secondary benefit . . . . .	21	10	11
Eligible for secondary and primary benefit . . . . .	18	5	13
Dually entitled to primary benefit . . . . .	13	5	8
Eligible, but had not claimed primary benefit . . . . .	5	(1)	5

<sup>1</sup> Less than 0.5 percent.

### Benefit Entitlement by CSRS Characteristics

In general, the longer an annuitant worked under CSRS and the higher his or her annuity, the less likely he or she was to be entitled to Social Security benefits. Even among those with long civil service careers and high annuities, however, the rate of entitlement was quite high.

Among those aged 62 or older with less than 10 years of Federal service, 93 percent received Social Security benefits; among those with 35 or more years of service, the rate of entitlement among those aged 62 or older was 48 percent (table 13). The proportion entitled to secondary benefits varied little by the annuitants' number of years of Federal service: 8–12 percent were entitled to secondary benefits. The proportion entitled to primary benefits varied more widely—from 83 percent of those with less than 10 years of service to 39 percent of those with 35 years or more of Federal service.

Among annuitants aged 62 or older, the total rate of entitlement for men and women was about the same. The male annuitants, however, were more likely to be primary beneficiaries and the female annuitants were more likely to be secondary beneficiaries.

The pattern of entitlement by annuity amount is the same as that for years of service. Among annuitants aged 62 or older, who have annuities of \$250 or less, the rate of entitlement was highest (91 percent). The rate of entitlement declined, but only to 55 percent, among those with monthly annuities of \$1,000 or more.

On the average, nonbeneficiaries had more years of service under CSRS than did beneficiaries. The median years of service for nonbeneficiaries aged 62 or older was 31, compared with 23 for primary beneficiaries and 24 for secondary beneficiaries, as table 14 shows.

**Table 12.—Types of Social Security beneficiaries among CSRS annuitants: Percentage distribution, by age and sex, 1979**

[Number in thousands]

Beneficiary type	Total	Aged 62 or older	
		Under age 62	
<b>Men</b>			
Number . . . . .	837.5	265.3	572.2
Percent . . . . .	100	100	100
Primary beneficiaries . . . . .	49	6	69
Primary only . . . . .	48	6	67
Dually entitled . . . . .	1	0	1
Husbands . . . . .	1	0	1
Widowers . . . . .	(1)	0	1
Secondary beneficiaries . . . . .	2	(1)	3
Husbands . . . . .	2	0	3
Widowers . . . . .	(1)	(1)	(1)
Nonbeneficiaries . . . . .	49	94	28
Permanently insured . . . . .	17	48	3
Not permanently insured . . . . .	32	47	25
<b>Women</b>			
Number . . . . .	328.3	81.7	246.6
Percent . . . . .	100	100	100
Primary beneficiaries . . . . .	39	2	51
Primary only . . . . .	29	2	38
Dually entitled . . . . .	9	0	13
Wives . . . . .	4	0	5
Widows . . . . .	6	0	8
Secondary beneficiaries . . . . .	21	5	26
Wives . . . . .	8	1	10
Permanently insured . . . . .	(1)	1	(1)
Not permanently insured . . . . .	7	(1)	10
Widows . . . . .	13	5	16
Permanently insured . . . . .	4	1	5
Not permanently insured . . . . .	9	4	11
Nonbeneficiaries . . . . .	41	93	24
Permanently insured . . . . .	7	26	1
Not permanently insured . . . . .	33	67	22

<sup>1</sup> Less than 0.5 percent.

Similarly, the median annuity was considerably higher for nonbeneficiaries than for beneficiaries: it was \$832 for nonbeneficiaries aged 62 or older, compared with \$572 for primary and \$557 for secondary beneficiaries.

### Benefit Amounts

Earlier sections of this article have discussed the size of the CSRS annuity and the rate of Social Security cash benefit entitlement among CSRS annuitants. This section examines (1) the size of the Social Security cash benefits for those annuitants entitled to them and (2) the combined benefits paid under both systems for all annuitants.

### Primary Insurance Amounts

A worker's monthly Social Security benefit is based on his or her primary insurance amount (PIA). The PIA

**Table 13.—Years of Federal service and monthly CSRS annuity of CSRS annuitants: Percentage distribution, by Social Security beneficiary status, age, and sex, 1979**

[Number in thousands]

Beneficiary status	All annuitants					Annuitants aged 62 or older				
	Number	Total percent	All beneficiaries	Primary	Secondary	Number	Total percent	All beneficiaries	Primary	Secondary
<b>All annuitants</b>										
<b>Years of Federal service</b>										
Less than 10.....	88.8	100	67	60	8	57.6	100	93	83	10
10-14.....	108.4	100	66	58	8	75.4	100	90	79	11
15-19.....	132.9	100	69	60	9	101.5	100	88	76	12
20-24.....	178.0	100	63	56	8	133.5	100	83	73	10
25-29.....	217.6	100	51	44	7	145.3	100	74	64	10
30-34.....	300.6	100	40	34	6	195.8	100	60	51	8
35 or more.....	139.5	100	38	30	7	109.8	100	48	39	9
<b>Monthly CSRS annuity</b>										
Less than \$250.....	116.6	100	87	74	12	109.6	100	91	78	13
\$250-\$499.....	259.2	100	64	54	10	183.6	100	85	72	12
\$500-\$749.....	305.7	100	51	44	6	199.6	100	74	65	9
\$750-\$999.....	219.1	100	46	40	6	151.0	100	65	57	8
\$1,000 or more.....	265.2	100	37	32	5	175.0	100	55	48	8
<b>Men</b>										
<b>Years of Federal service</b>										
Less than 10.....	49.0	100	72	72	0	33.6	100	94	94	0
10-14.....	64.0	100	64	64	(1)	42.6	100	91	90	(1)
15-19.....	76.0	100	64	63	(1)	53.0	100	87	86	1
20-24.....	111.3	100	65	64	1	81.4	100	87	85	2
25-29.....	162.8	100	50	49	1	105.2	100	75	73	2
30-34.....	251.8	100	39	36	3	160.9	100	61	56	5
35 or more.....	122.5	100	38	33	5	95.4	100	49	42	7
<b>Monthly CSRS annuity</b>										
Less than \$250.....	56.1	100	89	89	0	54.1	100	91	91	0
\$250-\$499.....	140.5	100	65	64	1	98.4	100	86	84	1
\$500-\$749.....	223.3	100	50	49	1	140.4	100	76	75	1
\$750-\$999.....	180.1	100	46	43	3	123.4	100	66	62	4
\$1,000 or more.....	237.5	100	37	33	4	155.9	100	57	51	6
<b>Women</b>										
<b>Years of Federal service</b>										
Less than 10.....	39.8	100	60	44	17	24.0	100	91	68	23
10-14.....	44.4	100	68	48	20	32.7	100	90	65	26
15-19.....	56.8	100	77	55	21	48.5	100	89	65	24
20-24.....	66.7	100	61	42	19	52.1	100	77	54	23
25-29.....	54.7	100	54	28	26	40.1	100	71	38	33
30-34.....	48.9	100	40	21	19	34.8	100	54	29	25
35 or more.....	17.0	100	37	15	23	14.4	100	43	17	26
<b>Monthly CSRS annuity</b>										
Less than \$250.....	60.5	100	85	61	24	55.6	100	90	66	25
\$250-\$499.....	118.7	100	62	42	20	85.2	100	83	58	25
\$500-\$749.....	82.4	100	52	31	21	59.2	100	71	43	28
\$750-\$999.....	39.0	100	44	24	20	27.5	100	59	34	25
\$1,000 or more.....	27.7	100	32	15	16	19.2	100	45	22	23

<sup>1</sup> Less than 0.5 percent.

is calculated by applying the weighted Social Security benefit formula to average lifetime earnings under Social Security. The weighted formula is designed to replace a higher percentage of past earnings for lower-paid workers than for higher-paid workers. Unlike CSRS, the Social Security formula does not explicitly take account of the number of years a person has worked in covered employment. Rather, the worker's covered earnings are averaged over a long period—23 years for those reaching age 62 in 1979—including years of zero earnings if the worker has had short service in covered employment. As a result of this averaging fea-

ture, a worker with a relatively short covered work career has low average lifetime earnings and receives the advantage of the weighting that is in the benefit formula.

Because CSRS annuitants have worked part of their careers in noncovered employment, when they do qualify for retired-worker benefits under Social Security, they tend to have low PIA's. In June 1979, 60 percent had PIA's of less than \$200. In contrast, only 25 percent of all retired workers on the Social Security benefit rolls had PIA's of less than \$200 (table 15). The proportion of all CSRS annuitants entitled to retired-worker bene-

**Table 14.**—Median years of Federal service and median CSRS monthly annuity, by beneficiary status and sex of annuitants aged 62 or older, 1979

Item	Annuitants aged 62 or older		
	Beneficiaries		Nonbeneficiaries
	Primary	Secondary	
	All annuitants		
Median years of Federal service . . . . .	23	24	31
Median CSRS monthly annuity . . . . .	\$572	\$557	\$832
	Men		
Median years of Federal service . . . . .	25	33	31
Median CSRS monthly annuity . . . . .	\$658	\$1,026	\$904
	Women		
Median years of Federal service . . . . .	18	21	27
Median CSRS monthly annuity . . . . .	\$379	\$457	\$624

fits who were entitled to a minimum benefit was 28 percent, compared with 12 percent among all retired workers receiving Social Security. This proportion is lower than in 1967, when 33 percent of those collecting both Social Security retired-worker benefits and CSRS annuities received the minimum. Before 1982, Social Security provided a statutory minimum PIA for insured workers whose PIA under the weighted benefit formula was less than that minimum. Legislation enacted in 1981 eliminated the minimum PIA guarantee for those becoming eligible for benefits after December 1981. (Those entitled at the end of 1981 were not affected by the change.) The rationale for eliminating the minimum was, in part, to avoid providing that special guarantee to Social Security retirees, including CSRS annuitants, who had worked primarily in noncovered employment and had earned pensions from other systems.

### Social Security Monthly Benefit Amount

The Social Security monthly benefit amount (MBA) is the cash benefit that a beneficiary can receive.<sup>19</sup> It is derived from the PIA. For retired workers the MBA equals the PIA if the benefit is claimed at age 65. If the benefit is claimed as early as age 62, the MBA is reduced by as much as 20 percent. If a person delays retiring beyond age 65, the MBA is larger than the PIA by the amount of the delayed retirement credit (3 percent per year for those attaining age 62 in 1979 or later). The MBA of secondary beneficiaries is derived from the PIA of their spouse. An aged widow or widower can receive up to 100 percent of the deceased worker's PIA at age 65,<sup>20</sup> but the survivor benefit is reduced if it is claimed

<sup>19</sup> The MBA does not necessarily equal the amount actually payable. As explained in the technical appendix, a variety of deductions may be made from the MBA.

<sup>20</sup> In cases where the worker had claimed Social Security benefits before age 65, the survivor benefit is limited to the amount that the deceased worker would receive if alive, but to not less than 82.5 percent of the PIA.

**Table 15.**—Primary insurance amounts of CSRS annuitants and Social Security beneficiaries entitled to retired-worker benefits, 1979

[Number in thousands]

Primary Insurance Amount	CSRS annuitants			Social Security beneficiaries <sup>1</sup>		
	Total	Men	Women	Total	Men	Women
Number . . . . .	512.7	388.1	124.6	18,953.4	10,189.3	8,764.1
Percent . . . . .	100	100	100	100	100	100
\$1-\$199 . . . . .	60	57	68	25	13	38
\$200-\$299 . . . . .	26	28	22	25	19	32
\$300-\$369 . . . . .	8	8	6	20	24	16
\$370 or more . . . . .	6	7	4	30	44	14
Percent with minimum	28	26	35	12	5	19
Median amount . . . . .	\$180	\$185	\$163	\$300	\$357	\$231

<sup>1</sup> Source: **Annual Statistical Supplement to the Social Security Bulletin**, 1981, table 84.

before age 65. A spouse can receive up to 50 percent of the worker's PIA and the spouse's benefit is also reduced if claimed before age 65.

For Social Security primary beneficiaries on the CSRS rolls, the median MBA was \$176 for both men and women (table 16). Sixty-one percent of these annuitants received less than \$200 in Social Security benefits. Since the MBA is a function of the PIA, it is not surprising that the MBA levels are also far lower than those typically received by all Social Security retired-worker beneficiaries. Of all retired workers on the Social Security benefit rolls at the end of 1979, the median monthly benefit amount was \$337 for men and \$244 for women. Those with benefits of less than \$200 a month accounted for 15 percent of all men and 34 percent of all women retired workers on the Social Security rolls, as shown in table 17.

The annuitants entitled to Social Security benefits as spouses or survivors also tended to have small Social Security benefits, although the amounts were higher for survivors than for spouses. This difference reflects the fact that the spouse benefit may be up to 50 percent of the worker's PIA while the widow's benefit may be up to 100 percent of the PIA. The median Social Security survivor benefit received by CSRS annuitants was \$250; the median Social Security spouse benefit for CSRS annuitants was \$122.

Not surprisingly, the higher the CSRS annuity, the lower the MBA tends to be. The proportion of annuitants with an MBA of less than \$200 a month increases steadily as the CSRS monthly annuity increases from less than \$250 to \$1,000 or more. For male annuitants, the proportions range from 21 percent to 77 percent, and for female annuitants the range is from 42 percent to 73 percent (table 18).

**Table 16.—Social Security monthly benefit amounts of CSRS annuitants: Percentage distribution, by Social Security benefit status and sex, 1979**

[Number in thousands]

Monthly benefit amount	Total beneficiaries	Primary beneficiaries	Secondary beneficiaries		
			Total	Spouses	Survivors
All annuitants					
Number . . . . .	618.9	533.7	85.2	40.0	45.2
Percent . . . . .	100	100	100	100	100
0 <sup>1</sup> . . . . .	1	(2)	5	10	1
\$1-\$199 . . . . .	60	61	57	81	35
\$200-\$299 . . . . .	24	24	23	9	36
\$300-\$349 . . . . .	7	7	11	0	20
\$350 or more . . . . .	8	8	4	0	8
Median . . . . .	\$175	\$176	\$172	\$121	\$249
Men					
Number . . . . .	424.7	407.2	17.5	14.7	2.8
Percent . . . . .	100	100	100	100	100
0 <sup>1</sup> . . . . .	1	(2)	23	27	4
\$1-\$199 . . . . .	61	61	69	68	72
\$200-\$299 . . . . .	24	25	6	5	16
\$300-\$349 . . . . .	6	6	0	0	0
\$350 or more . . . . .	8	8	1	0	8
Median . . . . .	\$173	\$176	\$84	\$61	\$143
Women					
Number . . . . .	194.2	126.5	67.7	25.3	42.4
Percent . . . . .	100	100	100	100	100
0 <sup>1</sup> . . . . .	(2)	(2)	1	(2)	1
\$1-\$199 . . . . .	58	61	53	88	33
\$200-\$299 . . . . .	25	24	28	12	37
\$300-\$349 . . . . .	10	8	13	0	21
\$350 or more . . . . .	7	7	5	0	8
Median . . . . .	\$181	\$176	\$191	\$149	\$253

<sup>1</sup> Includes those with benefits reduced to zero under the pension offset.  
<sup>2</sup> Less than 0.5 percent.

### Ratio of CSRS Annuity to Social Security MBA

The ratio of the CSRS annuity to the Social Security benefit illustrates the relative size of the two amounts for CSRS annuitants who are also Social Security beneficiaries. Those whose Social Security benefits were equal to or less than their CSRS annuity (the ratio is 1.0 or larger) accounted for 85 percent of all beneficiaries on the CSRS rolls: 85 percent of those entitled to Social Security on their own work records, 93 percent of those entitled to spouse benefits, and 78 percent of those entitled to survivor benefits (table 19).

### Combined Benefits from CSRS and Social Security

This section examines the combined CSRS and Social Security monthly benefits. The preceding sections of this study have indicated that:

**Table 17.—Percentage distribution of monthly benefit amount of all Social Security retired-worker beneficiaries, by sex, 1979**

[Number in thousands]

Monthly benefit amount	Total	Men	Women
Number . . . . .	18,953.4	10,189.3	8,764.1
Percent . . . . .	100	100	100
Less than \$200 . . . . .	24	15	34
\$200-\$299 . . . . .	26	21	32
\$300-\$349 . . . . .	18	19	15
\$350 or more . . . . .	32	44	19
Median benefit amount . . . . .	\$300	\$337	\$244

Source: Annual Statistical Supplement to the Social Security Bulletin, 1981, table 83.

- More years of Federal service lead to higher CSRS annuities and fewer years of work in Social Security covered employment.
- In general, the CSRS annuities are larger than Social Security benefits.

As a result, the annuities paid to those who receive CSRS annuities only tend to be higher than the total payable to those with Social Security benefits as well as an annuity.

The median combined benefit for all annuitants aged 62 or older was \$780; for those who were beneficiaries, the median was \$761 and for those who were not it was \$832 (table 20). The median combined monthly benefit for male annuitants aged 62 or older was over \$250 more than for female annuitants—\$864 for male annuitants and \$604 for female annuitants. This difference occurs in each Social Security benefit status. Except for the difference by sex, however, the distributions appear remarkably similar across the different benefit states. Table 20 also shows that the mean combined benefit is somewhat higher than the median for each group.

Chart 1 depicts differences in the mean combined benefit by sex and beneficiary status. The mean CSRS annuity of \$959 for annuitants aged 62 or older not entitled to Social Security benefits exceeds the mean combined benefit of \$845 for annuitants entitled to Social Security benefits (\$646 from CSRS and \$199 from Social Security). Mean combined benefit amounts are consistently higher for annuitants without entitlement to Social Security than for annuitants with Social Security entitlement. Again, there is a difference by sex. The difference in the mean combined benefit between male and female annuitants is almost \$300 for each of the categories in the chart.

When annuitants are distributed by their years of Federal service, however, a different relationship appears between those annuitants not entitled and those entitled to Social Security. The mean combined benefit amounts, when grouped by years of Federal service and

**Table 18.—Social Security monthly benefit amounts of CSRS annuitants: Percentage distribution, by size of CSRS monthly annuity and sex, 1979**

[Number in thousands]

Monthly benefit amount	Total	CSRS monthly annuity				
		Under \$250	\$250-\$499	\$500-\$749	\$750-\$999	\$1,000 or more
All annuitants						
Number .....	618.9	101.1	165.1	155.0	100.0	97.7
Percent .....	100	100	100	100	100	100
0 <sup>1</sup> .....	1	0	(2)	1	2	2
\$1-\$199 .....	60	32	54	67	74	75
\$200-\$299 .....	24	33	30	22	18	15
\$300-\$349 .....	7	13	9	6	3	4
\$350 or more .....	8	22	6	4	3	4
Median amount .....	\$173	\$253	\$191	\$163	\$143	\$139
Men						
Number .....	424.7	49.8	91.0	112.1	82.9	88.9
Percent .....	100	100	100	100	100	100
0 <sup>1</sup> .....	1	0	(2)	1	2	2
\$1-\$199 .....	61	21	49	68	74	75
\$200-\$299 .....	24	32	35	23	18	15
\$300-\$349 .....	6	14	8	5	3	3
\$350 or more .....	8	33	7	4	3	5
Median amount .....	\$170	\$287	\$200	\$163	\$143	\$138
Women						
Number .....	194.2	51.3	74.1	42.9	17.1	8.8
Percent .....	100	100	100	100	100	100
0 <sup>1</sup> .....	(2)	0	1	1	0	0
\$1-\$199 .....	58	42	61	64	73	73
\$200-\$299 .....	25	33	24	21	20	21
\$300-\$349 .....	10	13	9	10	4	6
\$350 or more .....	7	12	5	5	3	0
Median amount .....	\$181	\$219	\$180	\$161	\$147	\$152

<sup>1</sup> Includes those with benefits reduced to zero under the pension offset.

<sup>2</sup> Less than 0.5 percent.

beneficiary status, are depicted in chart 2 for annuitants aged 62 or older. Within each interval of Federal service, the mean CSRS annuity by itself is larger for those annuitants who were not entitled to Social Security benefits than for those who were entitled. However, within each interval, mean combined benefits were always higher for those annuitants who were entitled to Social Security than for those who were not. Chart 2 also illustrates that the CSRS annuity increases with years of Federal service, and that the Social Security MBA declines with years of Federal service.

The difference between the combined replacement rate for CSRS annuitants also entitled to Social Security cash benefits and the rate for those annuitants not entitled to Social Security is very small (table 21).<sup>21</sup> For all

<sup>21</sup> The combined replacement rate is the sum of the CSRS annuity and the Social Security monthly benefit amount divided by the annuitant's high 3 years of Federal earnings indexed by the average annuity increases between the annuity effective date and 1979. See the technical appendix for a further explanation of replacement rate calculations.

annuitants aged 62 or older, the difference in median combined replacement rates for Social Security beneficiaries and nonbeneficiaries is only 2 percentage points—58 percent, compared with 56 percent. But the difference in the median combined replacement rate is somewhat larger when only annuitants with long Federal service are considered: 63 percent for annuitants aged 62 or older with at least 20 years of Federal service and entitlement to Social Security cash benefits compared with 57 percent for similar annuitants not entitled to Social Security.

The median combined replacement rate for male annuitants aged 62 or older is 59 percent: 60 percent for those entitled to Social Security cash benefits and 57 percent for those who were not. A roughly comparable replacement rate for men who had Social Security and a second pension was 54 percent in 1976.<sup>22</sup> Thus, the

<sup>22</sup> Alan Fox, "Earnings Replacement Rates and Total Income: Findings From the Retirement History Study," *Social Security Bulletin*, October 1982, table 5. See the Technical Appendix.

**Table 19.—Ratio of CSRS annuity to Social Security benefit: Percentage distribution, by type of Social Security beneficiary and sex, 1979**

[Number in thousands]

Ratio of CSRS annuity to Social Security benefit	Total beneficiaries	Primary beneficiaries	Secondary beneficiaries		
			Total	Spouses	Survivors
All annuitants					
Number <sup>1</sup> . . . . .	613.3	532.5	80.8	35.9	44.8
Percent . . . . .	100	100	100	100	100
Less than 1.0 . . . . .	15	15	15	7	22
1.0-1.99 . . . . .	18	17	21	11	29
2.0-2.99 . . . . .	16	16	16	11	20
3.0-3.99 . . . . .	13	13	10	11	10
4.0 or more . . . . .	39	39	37	60	19
Men					
Number <sup>1</sup> . . . . .	419.8	406.3	13.4	10.7	2.7
Percent . . . . .	100	100	100	100	100
Less than 1.0 . . . . .	12	12	1	0	4
1.0-1.99 . . . . .	14	14	0	0	0
2.0-2.99 . . . . .	15	15	3	2	8
3.0-3.99 . . . . .	13	13	4	2	12
4.0 or more . . . . .	47	45	92	96	75
Women					
Number <sup>1</sup> . . . . .	193.5	126.2	67.3	25.2	42.1
Percent . . . . .	100	100	100	100	100
Less than 1.0 . . . . .	22	23	18	10	23
1.0-1.99 . . . . .	26	26	25	16	31
2.0-2.99 . . . . .	19	19	18	14	21
3.0-3.99 . . . . .	12	11	12	15	10
4.0 or more . . . . .	22	20	27	45	16

<sup>1</sup> This number excludes those annuitants whose monthly benefit amount equalled zero.

median replacement rates provided by CSRS combined with Social Security are only slightly higher than the median in 1976 for those with Social Security and a public or private employee pension.

## Technical Appendix

This study is based on the total population of CSRS annuitants whose names were in the Office of Personnel Management (OPM) files in June 1979 and who also were included in the Social Security Administration's 1-percent Continuous Work History Sample (CWHs)—a sample of all persons ever issued a Social Security number (SSN). The sampling frame of the CWHs produces a stratified multistage cluster sample so that each sample annuitant represents 100 annuitants in the population.

The sample tape from OPM contained data on 13,332 annuitants. Thirteen of these annuitants had reported invalid SSN's (the reported numbers were outside the range of numbers issued by the Social Security Administration). Thus, it is the remaining 13,319 an-

**Table 20.—Total benefits (CSRS annuities and Social Security benefits) by Social Security benefit status: Percentage distribution of CSRS annuitants aged 62 or older, 1979**

[Number in thousands]

Total benefits	Total	Beneficiaries			Nonbeneficiaries
		Total	Primary	Secondary	
All annuitants					
Number . . . . .	818.8	598.0	517.4	80.7	220.8
Percent . . . . .	100	100	100	100	100
Less than \$500 . . . . .	18	18	18	20	17
\$500-\$749 . . . . .	29	31	31	31	23
\$750-\$999 . . . . .	24	25	25	23	24
\$1,000-\$1,499 . . . . .	20	20	20	20	20
\$1,500 or more . . . . .	9	7	7	7	15
Median amount . . . . .	\$780	\$761	\$764	\$744	\$832
Mean amount . . . . .	\$876	\$845	\$848	\$823	\$959
Men					
Number . . . . .	572.2	409.8	392.4	17.4	162.4
Percent . . . . .	100	100	100	100	100
Less than \$500 . . . . .	12	12	12	1	12
\$500-\$749 . . . . .	25	27	28	10	21
\$750-\$999 . . . . .	27	27	28	24	26
\$1,000-\$1,499 . . . . .	24	24	23	40	22
\$1,500 or more . . . . .	13	10	9	25	20
Median amount . . . . .	\$864	\$852	\$839	\$1,119	\$901
Mean amount . . . . .	\$968	\$933	\$920	\$1,225	\$1,057
Women					
Number . . . . .	246.6	188.2	124.9	63.3	58.4
Percent . . . . .	100	100	100	100	100
Less than \$500 . . . . .	33	32	36	25	33
\$500-\$749 . . . . .	37	39	40	37	30
\$750-\$999 . . . . .	18	18	16	23	19
\$1,000-\$1,499 . . . . .	11	10	7	14	15
\$1,500 or more . . . . .	2	1	1	2	3
Median amount . . . . .	\$604	\$598	\$576	\$661	\$624
Mean amount . . . . .	\$661	\$653	\$623	\$713	\$687

nuitants who correctly belong to the CWHs sampling frame that are utilized in this study.

The CSRS annuitants were split into two groups according to whether or not their reported SSN appeared in the Master Beneficiary Record (MBR)<sup>23</sup> in June 1981. It was found that 9,319 were in the MBR and 4,000 were not. Information on the Social Security covered work experience for both groups was also obtained from the CWHs. Criteria were established to verify that the annuitant from the OPM file matched the person reporting the same SSN in the MBR and/or the CWHs. For those annuitants whose SSN appeared only in the CWHs, only three variables in addition to their SSN were in both files—sex, month of birth, and year of birth. For these annuitants, at least two of these three

<sup>23</sup> The MBR is a record of all persons who ever applied for or received benefits from Social Security.

**Table 21.**—Median CSRS replacement rates<sup>1</sup> and median total replacement rates<sup>2</sup> for all CSRS annuitants aged 62 or older and for all such annuitants with 20 or more years of Federal service, by Social Security beneficiary status and sex, 1979

[Number in thousands]

Beneficiary status	Number	Percent	Median CSRS replacement rate	Median total replacement rate
All annuitants				
All annuitants, total . . . . .	818.8	100	47.0	57.6
Beneficiaries . . . . .	598.0	73	42.7	58.5
Nonbeneficiaries . . . . .	220.8	27	55.8	55.8
Annuitants with 20 or more years of Federal service . . . . .	584.4	100	53.5	60.8
Beneficiaries . . . . .	387.3	66	51.6	62.8
Nonbeneficiaries . . . . .	197.0	34	57.2	57.2
Men				
All annuitants, total . . . . .	572.2	100	50.4	58.7
Beneficiaries . . . . .	409.8	72	46.4	59.6
Nonbeneficiaries . . . . .	162.4	28	57.2	57.2
Annuitants with 20 or more years of Federal service . . . . .	442.9	100	54.7	61.1
Beneficiaries . . . . .	293.7	66	52.6	62.7
Nonbeneficiaries . . . . .	149.2	34	58.2	58.2
Women				
All annuitants, total . . . . .	246.6	100	39.6	54.7
Beneficiaries . . . . .	188.2	76	36.8	56.2
Nonbeneficiaries . . . . .	58.4	24	49.9	49.9
Annuitants with 20 or more years of Federal service . . . . .	141.4	100	49.8	59.7
Beneficiaries . . . . .	93.6	66	48.0	63.3
Nonbeneficiaries . . . . .	47.8	34	53.2	53.2

<sup>1</sup> 1979 CSRS annuity divided by indexed Federal high-3 years of earnings; see the Technical Appendix for more details.

<sup>2</sup> 1979 CSRS annuity plus 1979 Social Security monthly benefit amount divided by indexed Federal high-3 years of earnings; see the Technical Appendix for more details.

variables had to match exactly for the two records to be considered a match. The MBR also contained the day of birth and the first name of the Social Security beneficiaries so that the criteria for those annuitants whose SSN also appeared in the MBR was an exact match of at least four of the five variables in common between the data files. These criteria indicated that 8,250 of the 9,319 annuitants for whom information was found in the MBR and CWHS were correctly matched, as were 3,901 of the 4,000 who appeared only in the CWHS. So that the correctly matched annuitants in each group represent all the SSN's in the group, a weight of 1.1296 (9,319 ÷ 8,250) was applied to each annuitant in the group with information in both the MBR and CWHS, and a weight of 1.0254 (4,000 ÷ 3,901) was applied to each annuitant who had only CWHS information. The weighted sample then represented all 13,332 annuitants in the OPM files who were in the CWHS sample.

As a last step, annuitants were excluded who did not fit the active employee annuitant population that the sample was to represent. The excluded annuitants either had died before the June 1979 sampling date or had not

been placed on the OPM annuitant roll since their claim had not been fully adjudicated. The resulting weighted sample totals 11,658 annuitants. The statistics in this report are derived from the weighted sample and are subject to sampling variability. Sampling errors, therefore, occur because observations are made only on a sample, not on the entire population.<sup>24</sup>

The CWHS used in this sample was complete through 1977. To make the Social Security quarters-of-coverage data complete through the sample date of June 1979, the number of quarters of coverage earned by each annuitant for 1976 and 1977 was imputed into his or her record for 1978 and 1979. Some biases may have been introduced into the analysis of insured status for Social Security nonbeneficiaries since (1) it may overstate the number of quarters of coverage for CSRS annuitants who worked in Social Security covered employment in 1976 or 1977 and retired from covered employment in 1978 or 1979, or (2) it may understate the quarters of coverage earned by those CSRS annuitants who were not working in Social Security covered employment in 1976 or 1977 and then started such work in 1978 or 1979.

For calculating the CSRS replacement rates, annuity values are in 1979 dollars and earnings are in preretirement dollars. Thus, an index adjustment was necessary. A replacement rate determines the extent to which the monthly annuity replaces the monthly preretirement earnings, and is defined as the ratio of those two amounts. The average of earnings for the high-3 consecutive years is used in the CSRS benefit formula, and thus was chosen as the preretirement earnings level. However, the monthly annuity value from OPM is the value received in June 1979 and reflects all of the cost-of-living increases since the annuity became effective; the average high-3 earnings value still reflects the wage levels in the years they were earned. If these values were unadjusted and used for defining the replacement rate, annuitants who were on the rolls for many years would have unrealistically high replacement rates.

One method for calculating the CSRS replacement rate preserves the replacement rate from the effective year of the annuity—that is, the replacement rate for an annuitant derived by dividing his or her first annualized monthly annuity by his or her average high-3 Federal earnings. This replacement rate can be derived by dividing the 1979 monthly annuity by each of the average increases in CSRS annuities since its effective date to return the 1979 monthly annuity to its effective date value. Equivalently, the average high-3 Federal earnings can be increased from their value at the annuity effective

<sup>24</sup> For an indication of the extent of sampling variability in the CWHS sampling frame, see Robert H. Finch, Jr., *Sampling Variability in the 1-Percent Continuous Work History Sample*, Office of Research and Statistics, Social Security Administration, 1977.

tive date to their 1979 value by multiplying all the same average increases times the average high-3 Federal earnings. Thus, the 1979 value of average high-3 Federal earnings was calculated for each annuitant by means of the average annuity increases presented below.

Effective date of CSRS annuity adjustments	Average increase (percent)	Effective date of CSRS annuity adjustments	Average increase (percent)
April 1, 1948	25.0	July 1, 1973	6.1
September 1, 1952	25.0	January 1, 1974	5.5
October 1, 1955	12.0	July 1, 1974	6.4
August 1, 1958	10.0	August 1, 1974 <sup>1</sup>	5.5
January 1, 1963	5.0	January 1, 1975	7.4
December 1, 1965	7.3	August 1, 1975	5.1
January 1, 1967	3.9	March 1, 1976	5.4
May 1, 1968	3.9	March 1, 1977	4.8
March 1, 1969	3.9	September 1, 1977	4.3
November 1, 1969	5.0	March 1, 1978	2.4
August 1, 1970	5.6	September 1, 1978	4.9
June 1, 1971	4.5	March 1, 1979	3.9
July 1, 1972	4.8		

<sup>1</sup> The August 1, 1974 increase only applied to CSRS annuitants on the rolls before October 21, 1969.

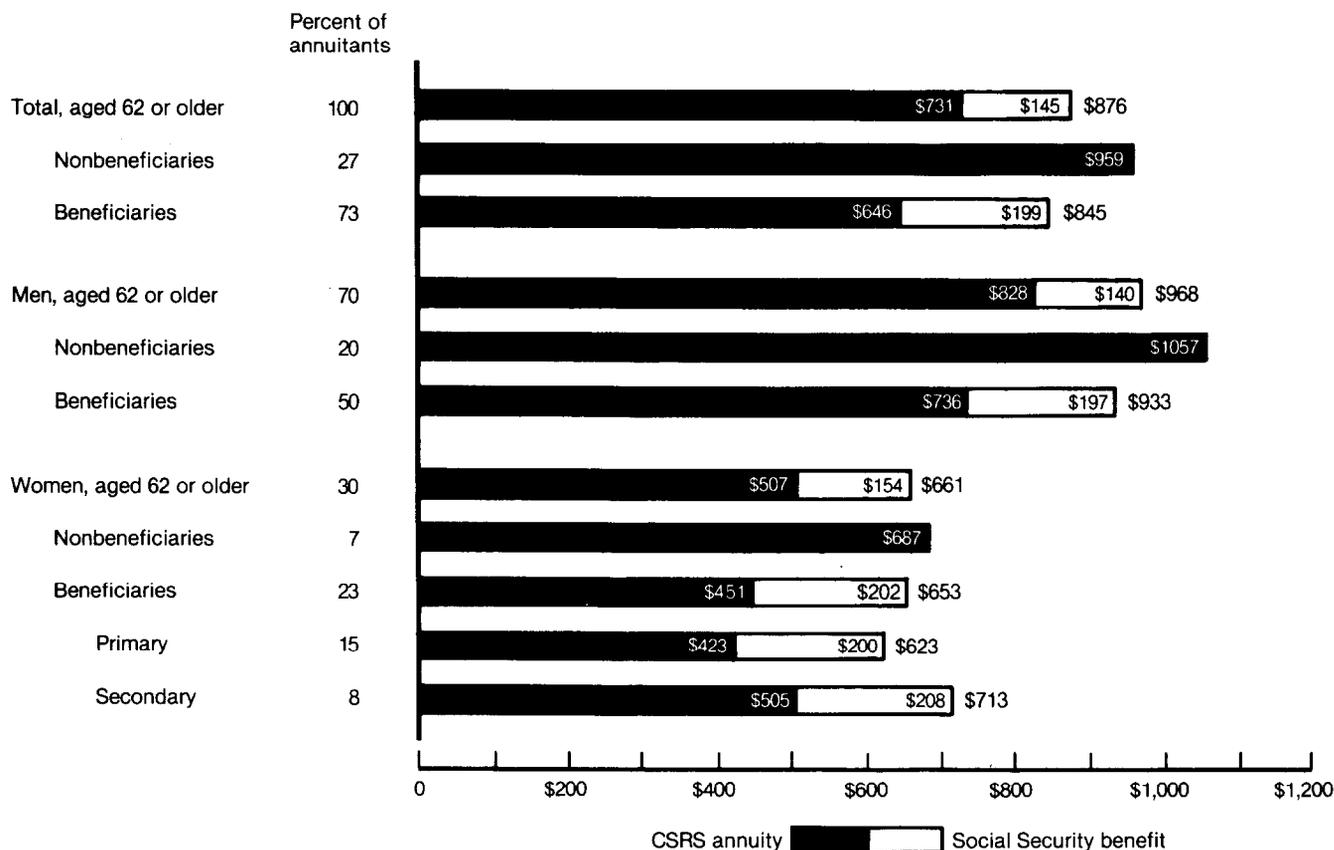
Source: Committee on Post Office and Civil Service, House of Representatives, Committee Print No. 97-5, April 26, 1982.

An alternative method for calculating the CSRS replacement rate is to multiply the average high-3 Federal

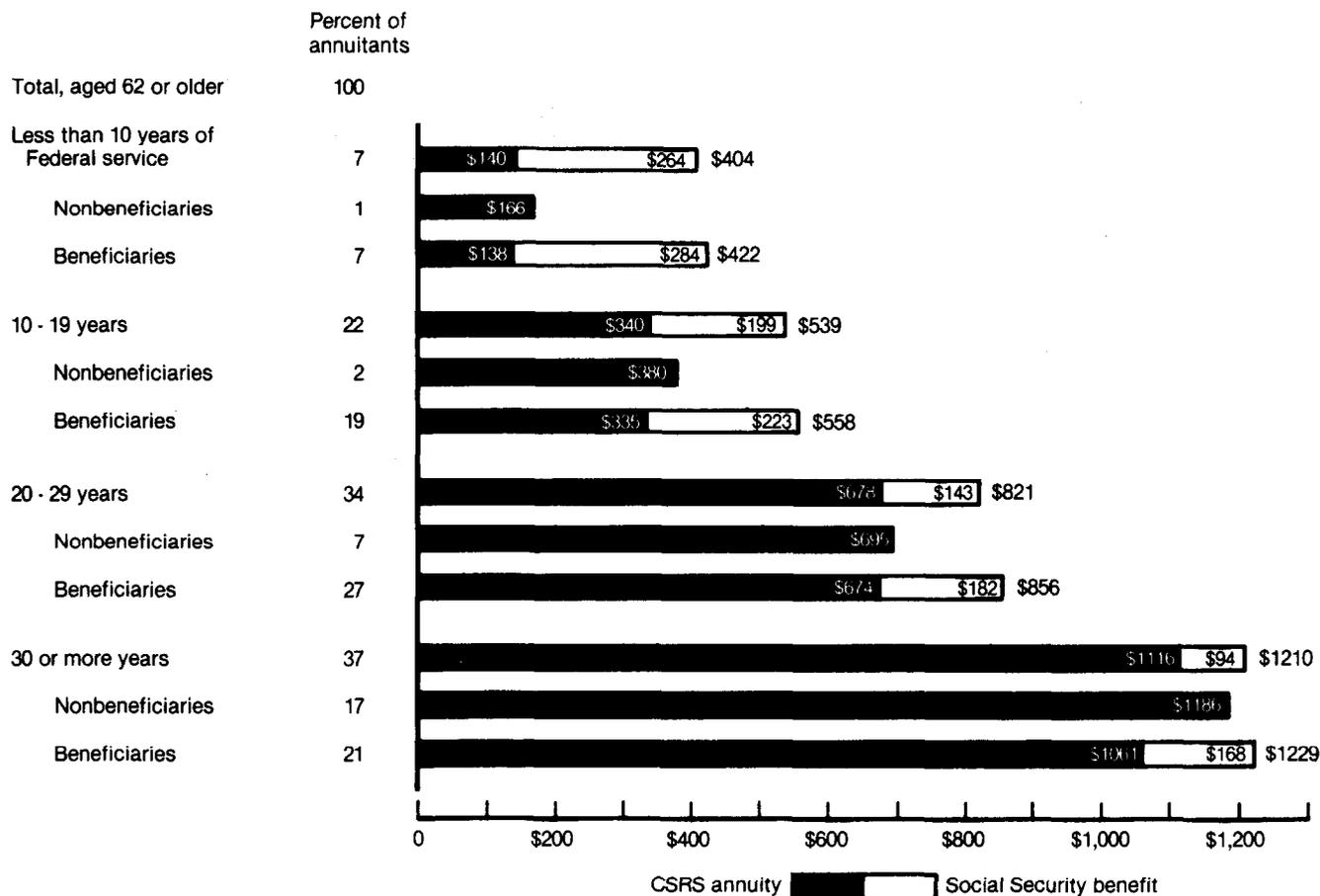
earnings by a wage index for Federal earnings (as done in the 1967 study). However, this method does not preserve the replacement rate from the annuity effective date, and thus was rejected for this study.

The combined replacement rates in this study differ from the CSRS replacement rates only by the inclusion of the Social Security monthly benefit amount (MBA) in the numerator. These rates may overstate the replacement of preretirement earnings since no similar adjustment is made to the denominator for inclusion of Social Security covered preretirement earnings. This may be a particular problem for annuitants with short Federal service since the combined replacement rate may grossly overstate the effect of Social Security benefits if their Federal service occurred very many years before their annuity effective date. For example, suppose a man worked for the Federal Government under CSRS for 10 years between 1948 and 1958 when he was 40 to 50 years of age and elected a deferred annuity when he left Federal employment. Suppose then that he claimed his CSRS annuity at age 62 in 1970. The indexing technique for Federal earnings would apply all of the benefit increases between 1970 and 1979 to his high-3 years of Federal earnings from the 1950's to calculate a replacement rate of 16.25 percent, as dictated by the CSRS benefit formula. But these earnings from the 1950's

**Chart 1.** — Average total benefits of CSRS annuitants aged 62 or older, by sex and Social Security beneficiary status, 1979



**Chart 2. — Average total benefits of CSRS annuitants aged 62 or older, by years of Federal service and Social Security beneficiary status, 1979**



have not been indexed fully to their 1979 value so that the denominator is too small relative to the 1979 Social Security MBA being added in the combined replacement rate numerator. One way to minimize this bias is to focus on long service Federal workers (20 years or more) whose Federal high-3 years of earnings are more likely to coincide with their annuity effective date. This bias may be small since only 6 percent of the employee annuitants on the CSRS rolls in 1979 elected a deferred annuity.<sup>25</sup>

The replacement rate cited in this study for non-Federal male employees with both Social Security and a private pension is one of many calculated by Alan Fox.<sup>26</sup> In the Fox rate that is most closely parallel in concept to the ones calculated in this study, the numerator is the sum of the annualized Social Security monthly benefit amount and the private pension amount, and the denominator is the average of the 3 highest years of earnings in the 10 years preceding retirement.

There are several differences in how the compared replacement rates are calculated, however. The Fox rate

does not restrict the 3 years of earnings averaged in the denominator to consecutive years, although the companion technical note to his article suggests that “unrestricted high-3 and consecutive high-3 years earnings produce virtually identical replacement rates.”<sup>27</sup> A more significant difference is that the Fox rate is calculated from survey data over the 1968–76 period, standardized to 1976. The standardization technique was to index Social Security benefits to 1976 by the statutory increases. Private pensions were indexed by the rate of increase in average Social Security covered wages, and preretirement earnings were indexed by the rate of increase in average wages. By standardizing in this fashion, the resulting replacement rates are those for persons who actually retired in different years, but are computed as if they all made their retirement decision in 1976. The replacement rates in this study, on the other hand, have not been standardized—they are the ones from the effective year of the CSRS annuity. The effect

<sup>25</sup> Office of Personnel Management, *op. cit.*, table B-3.

<sup>26</sup> Alan Fox, *op. cit.*

<sup>27</sup> Alan Fox, Technical Note to “Earnings Replacement Rates and Total Income: Findings From the Retirement History Study” (*Social Security Bulletin*, October 1982), page 5. This document is available from its author, who is with the ORS Division of Retirement and Survivors Studies.

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of the Fox standardization should be small, however, since both wages and prices rose at about the same rate during 1968-76<sup>28</sup> and thus the different rates in the numerator and denominator should almost cancel one another out.

Both the Social Security MBA and the CSRS monthly annuity are referred to in the text as entitlements. Neither represents the actual monthly cash benefit received by an annuitant. After the Social Security MBA is calculated but before a check is issued, several reductions may be necessary: \$1 in benefits is deducted for every \$2 earned in excess of the earnings test amount (\$4,500 per year in 1979), monthly Medicare premiums may be withheld, and other statutory offsets such as the

<sup>28</sup> *Ibid.*, page 4.

public pension offset discussed in the text may apply.<sup>29</sup> Similarly, the CSRS monthly annuity is the gross monthly entitlement after possible reductions for early retirement and for electing a survivor option. The additional reductions from the gross monthly annuity include life and health insurance premiums from policies held as employees and continued into retirement, Medicare premiums, and Federal income taxes that are payable after the CSRS annuity exceeds the amount of the annuitant's CSRS contribution.

<sup>29</sup> An exception to using the unreduced MBA was made for 12 sample annuitants who were Prouty ("special age-72") primary beneficiaries and for 44 sample annuitants who were secondary beneficiaries with benefits that were completely offset. For these individuals, the MBA's were set at zero.