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Social Security: Adjustment Factors for Early or Delayed Benefit Claiming

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SUMMARY

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Social Security: Adjustment Factors for Early or Delayed Benefit Claiming

Social Security is a work-based, federal insurance program that provides monthly cash benefits to insured workers and their eligible family members in the event of the worker's retirement, disability, or death. The Social Security full retirement age (FRA)—between 65 and 67, depending on year of birth—is the age at which workers can first claim full (i.e., unreduced) Social Security retired-worker benefits.

When a worker claims benefits before or after FRA, there is an actuarial adjustment in monthly benefits. The adjustment for benefit claiming can be sizable, and it is typically permanent. Workers can claim reduced retirement benefits as early as age 62 (the early eligibility age). For each of the 36 months immediately preceding the FRA, the monthly rate of reduction from the full retirement benefit is five-ninths of 1%. This equals a 6⅔% reduction each year. For each month earlier than three years (i.e., for each month in excess of 36 months) before FRA, the monthly rate of reduction is five-twelfths of 1%. This equals a 5% reduction each year. For workers with an FRA of 66, claiming benefits at 62 results in a 25% reduction in their monthly benefits. For workers with an FRA of 67, claiming benefits at age 62 results in a 30% benefit reduction. Workers who delay claiming benefits until after the FRA receive a delayed retirement credit (DRC), which applies up to the age of 70. For workers born in 1943 or later, the credit is two-thirds of 1% per month (or 8% per year). A worker with an FRA of 66, for example, receives a 32% benefit increase if he or she claims benefits at age 70. A worker with an FRA of 67 receives a 24% benefit increase.

These benefit adjustments for early and delayed claiming are intended to provide the worker with roughly the same total lifetime benefits, regardless of when he or she claims benefits, based on average life expectancy—also called actuarial fairness. Because of this, theoretically, claiming behavior for average-mortality beneficiaries will not affect program outlays in the long run.

Researchers have noticed several issues with the actuarial adjustment. For example, the adjustment factors were determined more than four decades ago based on life expectancy and interest rates at the time of enactment. Some researchers argue that the actuarial adjustment factors should be updated to reflect the increase in longevity and the decline in interest rates. Specifically, a longer life expectancy and a lower interest rate will call for a smaller actuarial adjustment—reducing the early claiming penalty and lowering the credit for delayed claiming.

Additionally, because an individual's mortality may differ from the population average, the actuarial adjustment schedule does not appear to be *perfectly* fair for all beneficiaries. The actuarial factors may advantage one group relative to another by gender, income level, and other measures. For example, research has found that late claimers of Social Security benefits have higher lifetime earnings and lower mortality than those who claim at age 62, and the benefit increase from delayed claiming is larger for those with higher lifetime earnings because their delayed benefits exceed the actuarially fair amounts (which are based on workers with average life expectancy). Some researchers maintain that this may undermine the redistributive element built into the Social Security benefit formula, which replaces a higher proportion of career-average earnings for low earners than for high earners.

Policy options to change the adjustment factors to address these issues may include updating the factors periodically based on changes in life expectancy and interest rates or altering the factors based on differential mortality rates by income or other factors.

Moreover, policy options could redesign the adjustment factors to promote benefit claiming at a later age. Claiming Social Security benefits after age 62 (the early eligibility age) is often considered the best decision economically and is recognized as an important way to enhance retirement security among older Americans. However, a policy that encourages delayed retirement through the adjustment factors may reduce actuarial fairness. If adjustment factors were not actuarially fair for certain groups of the population, incentives for the timing of work and benefit claiming may be altered. Policy decisions that affect claiming behavior may also affect the long-term cost of the Social Security program.

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Introduction

Social Security is a work-based, federal insurance program that provides monthly cash benefits to insured workers and their eligible family members in the event of the worker's retirement, disability, or death. The Social Security full retirement age (FRA)—between 65 and 67, depending on year of birth—is the age at which workers can first claim full (i.e., unreduced) Social Security retired-worker benefits.[1] Benefits claimed between age 62 and FRA are subject to a reduction for "early retirement," while workers who claim benefits after FRA (up to age 70) receive a delayed retirement credit (DRC).[2] These adjustments are intended to provide the worker with roughly the same total lifetime benefits, regardless of when he or she claims benefits, based on average life expectancy—also called *actuarial fairness*. Because of this, claiming behavior for average-mortality beneficiaries will likely not affect the program's outlays in the long run.

Research has shown that the adjustment factors for early and delayed benefit claiming, together with the increase in FRA, encourage older individuals to work longer and postpone claiming Social Security benefits. Because Social Security is mainly financed by payroll taxes from covered workers,[3] late claimers may contribute more to the Social Security program by working more and paying more Social Security payroll taxes. (The program's cost may not be affected much due to the actuarial fairness of the adjustment factors.)

Some researchers, however, argue that the actuarial adjustments are decades old and do not reflect improvements in longevity or other important developments over that time.[4] The adjustment factors for early benefit claiming were enacted in 1956, when Congress first set 62 as the program's earliest benefit eligibility age for women. (Men were allowed to claim benefits at age 62 beginning in 1961.) Those actuarial adjustments for early benefit claiming were changed in 1983 when Congress enacted legislation to gradually increase the FRA from 65 to 67. The adjustment factors for delayed benefit claiming after FRA were enacted in 1972 and then modified in 1977 and 1983. Much has changed since these actuarial adjustments were introduced: Interest rates have generally declined, life expectancy has increased, and longevity improvements have been much greater for higher earners than for lower earners.[5] If adjustment factors were not actuarially fair, incentives for the timing of work and benefit claiming may be altered. Policy decisions that affect claiming behavior may also affect the long-term cost of the Social Security program.

This report explains how the adjustment factors work for early and delayed claiming of Social Security benefits and discusses determinants of actuarial fairness based on average life expectancy. It also shows the legislative history and rationale for the establishment of those adjustment factors. Additionally, the report discusses policy issues with the adjustment factors, including the impacts on claiming behavior, labor force participation among older workers, benefit equity, and program solvency. Finally, the report describes policy options that may

[1] The FRA is also referred to as the normal retirement age. In statute, the term *retirement age* is used. See Social Security Act, §216(l) (42 U.S.C. §416[l]).

[2] Age-based benefit adjustments may not apply to certain Social Security beneficiaries, such as disabled workers and disabled adult children.

[3] See CRS Report R42035, *Social Security Primer*.

[4] Alicia H. Munnell and Anqi Chen, *Are Social Security's Actuarial Adjustments Still Correct?*, Center for Retirement Research (CRR) at Boston College, no. 19-18, November 2019.

[5] See CRS Report R44846, *The Growing Gap in Life Expectancy by Income: Recent Evidence and Implications for the Social Security Retirement Age*.

address some of these issues. Discussions in this report mainly focus on retired workers unless otherwise noted.[6]

Adjustment Factors for Early or Delayed Benefit Claiming

Social Security benefits are adjusted based on the age at which a person claims benefits to provide roughly the same total lifetime benefits regardless of when a person begins receiving benefits, based on average life expectancy. The earlier a worker begins receiving benefits (before FRA and as early as age 62), the lower the monthly benefit will be, to offset the longer expected period of benefit receipt. Conversely, the longer a worker delays claiming benefits (past FRA and up to age 70), the higher the monthly benefit will be, to take into account the shorter expected period of benefit receipt. The benefit adjustment is based on the number of months between the month the worker attains FRA and the month he or she claims benefits.[7]

Actuarial Reduction for Claiming Benefits Before FRA

When a worker claims benefits before the month in which he or she attains FRA, there is an actuarial reduction in monthly benefits. The reduction for claiming benefits before FRA can be sizable, and it is typically permanent:[8] All future monthly benefits are payable at the actuarially reduced amount. For each of the 36 months immediately preceding the FRA, the monthly rate of reduction from the full retirement benefit is five-ninths of 1%. This equals a 6⅔% reduction each year. For each month earlier than three years (i.e., for each month in excess of 36 months) before FRA, the monthly rate of reduction is five-twelfths of 1%. This equals a 5% reduction each year. The earliest a worker can claim retirement benefits is age 62. For workers with an FRA of 66, claiming benefits at 62 results in a 25% reduction in their monthly benefits. For workers with an FRA of 67, claiming benefits at 62 results in a 30% reduction in their monthly benefits (see **Table 1**).

Social Security monthly benefits can change after claiming through a cost-of-living adjustment (COLA),[9] additional work, or an adjustment at FRA if one had benefits withheld due to the Retirement Earnings Test (RET).[10]

[6] For consistency, this report refers to Social Security benefit claiming after FRA as being "delayed" and benefit claiming after age 62, but before FRA, as being "postponed" or "late."

[7] The day of birth is ignored for adjustment purposes, except for those born on the first of the month. Workers born on the first of the month base their FRAs as if their birthdays were in the previous month (e.g., someone born on February 1, 1980, who has an FRA of 67 can apply for full retirement benefits in January 2047).

[8] Under the Retirement Earnings Test (RET), the actuarially reduced benefit may be further temporarily decreased due to earnings, and monthly benefits may be recomputed at FRA, offsetting some of the actuarial reduction for early retirement. For more information, see CRS Report R41242, *Social Security Retirement Earnings Test: How Earnings Affect Benefits*.

[9] For more information, see CRS Report 94-803, *Social Security: Cost-of-Living Adjustments*.

[10] For more information, see CRS Report R41242, *Social Security Retirement Earnings Test: How Earnings Affect Benefits*.

Delayed Retirement Credit for Claiming Benefits After FRA

Workers who claim benefits after the month in which they attain FRA receive a DRC. As with the actuarial reduction for early claiming, the DRC is permanent. The DRC has been modified over the years. Initially, the Social Security Amendments of 1972[11] provided a DRC that increased benefits by one-twelfth of 1% for each month between ages 65 and 72 that a worker did not claim benefits (i.e., 1% per year). The credit, which was effective after 1972, applied only to the worker's benefit, not to a widow(er)'s benefit payable on the worker's record. The Social Security Amendments of 1977[12] increased the credit to 3% per year and included the credit for deceased workers in the computation of a widow(er)'s benefit.

The credit was further increased under the Social Security Amendments of 1983.[13] As shown in **Table 1**, the credit increases gradually based on the worker's year of birth until it reaches 8% per year (two-thirds of 1% per month) for workers born in 1943 or later (i.e., workers who became eligible for retirement benefits or turned age 62 in 2005 or later). In addition, the maximum age at which the DRC applies was lowered from 72 to 70. Any further delay in claiming benefits past age 70 does not result in a higher benefit. The increase in the DRC was intended to ensure that workers who claim benefits after FRA receive roughly the same total lifetime benefits as if they had claimed benefits earlier (based on average life expectancy). A worker with an FRA of 66, for example, receives a 32% benefit increase if he or she claims benefits at age 70. A worker with an FRA of 67 receives a 24% benefit increase.

Table 1. Benefit Adjustments for Early and Delayed Claiming by Birth Year

		Benefits as a Percentage (%) of Full Monthly Benefit If Worker Claims at Specified Age								
Year of Birth	Full Retirement Age	62	63	64	65	66	67	68	69	70
1916 or earlier	65	80.00	86.67	93.33	100.00	101.00	102.00	103.00	104.00	105.00
1917-1924	65	80.00	86.67	93.33	100.00	103.00	106.00	109.00	112.00	115.00
1925-1926	65	80.00	86.67	93.33	100.00	103.50	107.00	110.50	114.00	117.50
1927-1928	65	80.00	86.67	93.33	100.00	104.00	108.00	112.00	116.00	120.00
1929-1930	65	80.00	86.67	93.33	100.00	104.50	109.00	113.50	118.00	122.50
1931-1932	65	80.00	86.67	93.33	100.00	105.00	110.00	115.00	120.00	125.00
1933-1934	65	80.00	86.67	93.33	100.00	105.50	111.00	116.50	122.00	127.50
1935-1936	65	80.00	86.67	93.33	100.00	106.00	112.00	118.00	124.00	130.00
1937	65	80.00	86.67	93.33	100.00	106.50	113.00	119.50	126.00	132.50
1938	65 and 2 months	79.17	85.56	92.22	98.89	105.42	111.92	118.42	124.92	131.42
1939	65 and 4 months	78.33	84.44	91.11	97.78	104.67	111.67	118.67	125.67	132.67

[11] P.L. 92-603.

[12] P.L. 95-216.

[13] P.L. 98-21.

Year of Birth	Full Retire-ment Age	Benefits as a Percentage (%) of Full Monthly Benefit If Worker Claims at Specified Age								
		62	63	64	65	66	67	68	69	70
1940	65 and 6 months	77.50	83.33	90.00	96.67	103.50	110.50	117.50	124.50	131.50
1941	65 and 8 months	76.67	82.22	88.89	95.56	102.50	110.00	117.50	125.00	132.50
1942	65 and 10 months	75.83	81.11	87.78	94.44	101.25	108.75	116.25	123.75	131.25
1943-1954	66	75.00	80.00	86.67	93.33	100.00	108.00	116.00	124.00	132.00
1955	66 and 2 months	74.17	79.17	85.56	92.22	98.89	106.67	114.67	122.67	130.67
1956	66 and 4 months	73.33	78.33	84.44	91.11	97.78	105.33	113.33	121.33	129.33
1957	66 and 6 months	72.50	77.50	83.33	90.00	96.67	104.00	112.00	120.00	128.00
1958	66 and 8 months	71.67	76.67	82.22	88.89	95.56	102.67	110.67	118.67	126.67
1959	66 and 10 months	70.83	75.83	81.11	87.78	94.44	101.33	109.33	117.33	125.33
1960 or later	67	70.00	75.00	80.00	86.67	93.33	100.00	108.00	116.00	124.00

Source: Social Security Administration, https://www.ssa.gov/planners/retire/retirechart.html, and 20 C.F.R. §404.313.

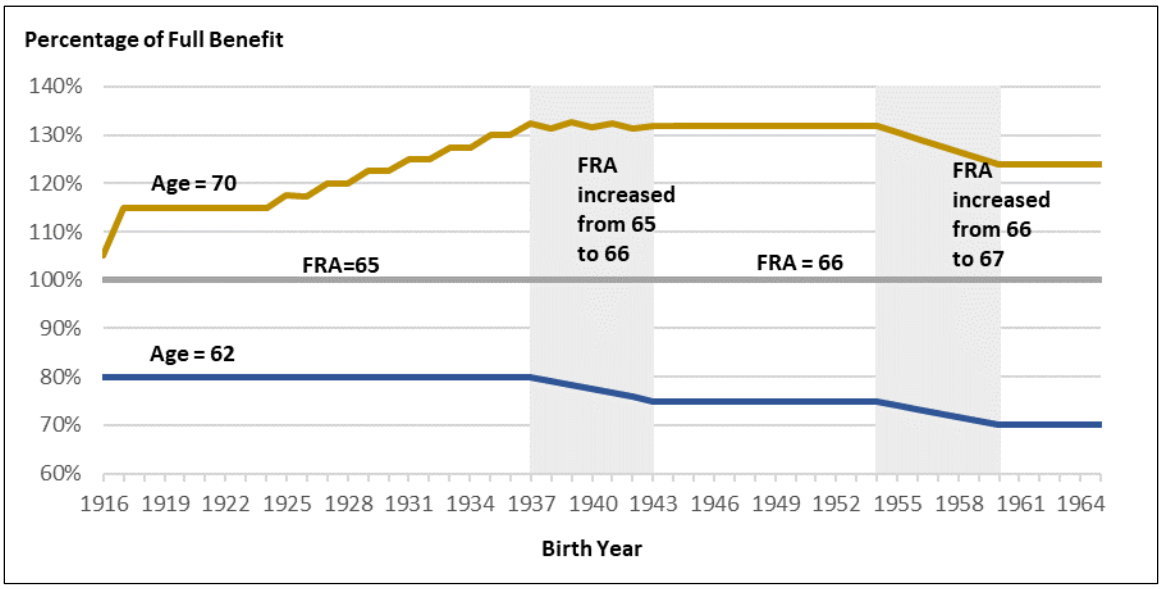
Notes: Initially, the delayed retirement credit applied up to age 72. Under the Social Security Amendments of 1983, the maximum age at which the DRC applies was lowered from 72 to 70. Percentages are approximate due to rounding. Persons born on January 1 of any year should refer to the previous year of birth.

Benefit Adjustments for Retired Workers by Cohort

Workers who claim Social Security benefits before FRA are subject to an actuarial reduction in their monthly benefits, while those who claim benefits after FRA may have DRCs added to their monthly benefits. However, the size of benefit adjustments for early and delayed claiming are generally different, and those adjustments also change by cohort. This is mainly because legislation increased the DRC from 1% to 8% per year for those born between 1916 and 1943, and the FRA increased from age 65 to 67 for those born between 1937 and 1960 (see **Figure 1**).

Figure 1. Percentage of Full Monthly Benefit Under Social Security for Early and Delayed Claiming by Birth Year

Beneficiaries Receive the Full Benefit (100%) at the Full Retirement Age (FRA)



Source: CRS based on Social Security Administration, https://www.ssa.gov/planners/retire/retirechart.html, and 20 C.F.R. §404.313.

Notes: Initially, the delayed retirement credit applied up to age 72. Under the Social Security Amendments of 1983, the maximum age at which the DRC applies was lowered from age 72 to age 70. Percentages are approximate due to rounding. Persons born on January 1 of any year should refer to the previous year of birth.

For example, the size of the monthly benefit reduction before FRA was larger compared to the size of the monthly benefit increase after FRA for those born before 1937. Suppose a worker who was born in 1917 with an FRA of 65 had a full (i.e., unreduced) benefit of $1,000 per month. The worker would get $66.67 less in a monthly benefit if he or she claimed benefits one year before FRA at age 64, compared with $30.00 more per month if that worker delayed claiming for one year after FRA to age 66. Initial monthly benefits could be reduced to $800 per month if the worker claimed benefits at age 62 and could be increased to $1,150 per month if the worker claimed benefits at age 70.

As the DRC increased over time, the size of the monthly benefit adjustment after FRA increased compared to the size of the monthly benefit reduction before FRA. For those born in 1943 (FRA = 66) and with a full benefit of $1,000 per month, the size of the monthly benefit reduction was $66.67 per month if the worker claimed benefits one year before FRA at age 65, while the size of benefit increase was $80.00 per month if the worker delayed claiming for one year after FRA to age 67. Initial monthly benefits could be reduced to $750 per month if the worker claimed benefits at age 62 and could be increased to $1,320 per month if the worker claimed benefits at age 70.

As the FRA continues to increase to 67 for those born in 1960 or later, the largest possible benefit reduction for early claiming becomes larger, and the largest possible benefit increase for delayed claiming becomes smaller. For example, for those born in 1960 (FRA = 67) and with a full benefit of $1,000 per month, initial monthly benefits could be reduced by $300 to $700 if the worker claimed benefits at age 62 and could be increased by $240 to $1,240 if the worker claimed benefits at age 70.

Adjustment Factors for Auxiliary Benefits

Social Security auxiliary benefits may be paid to the spouse, former spouse, survivor, dependent child, or parent of a Social Security–covered worker and are equal to specified percentages of the worker's basic monthly benefit amount (subject to a maximum family benefit amount).[14] A person may qualify for a spousal or survivor benefit as well as for a Social Security benefit based on his or her own work record (a retired-worker benefit). In such cases, the person in effect receives the higher of the worker benefit and the spousal or survivor benefit. When the person's retired-worker benefit is higher than the spousal or survivor benefit to which he or she would be entitled, the person receives only the retired-worker benefit. Conversely, when the person's retired-worker benefit is lower than the spousal or survivor benefit, the person is referred to as dually entitled and receives the retired-worker benefit plus a spousal or survivor benefit that is equal to the difference between the retired-worker benefit and the full spousal or survivor benefit. In essence, the person receives a total benefit amount equal to the higher spousal or survivor benefit.[15] Spousal and survivor benefits are also reduced if they are claimed early, but different rules apply.

Spousal Benefits

At FRA, a spouse is eligible to receive 50% of a retired-worker's benefit and can claim a spousal benefit only after the worker claims his or her own benefit. Spousal benefits can start at age 62 and are reduced for each month they are claimed before the FRA by slightly different reduction factors than those described earlier. Specifically, spousal benefits are reduced at a rate of 25/36 of 1% for each month in the three-year period prior to FRA and at a rate of five-twelfths of 1% per month before that and as early as age 62. The spousal benefit, however, does not increase with DRCs after FRA as does the worker's benefit. Additionally, the spousal benefit does not increase if the retired worker earns DRCs. **Table 2** shows an example of how spousal benefits would be reduced based on a spouse's claiming age, assuming that the spouse had no earnings and the primary worker claimed benefits at the worker's FRA. If the spouse claimed benefits at FRA or later, he or she would be entitled to 50% of the primary worker's full benefit. If the spouse claimed benefits at age 62 and has an FRA of 67, he or she would receive 32.5% of the worker's benefit if the spouse's FRA is 67 (a reduction of 35% on the spousal benefit).[16]

Widow(er) Benefits

In comparison, benefits for widow(er)s and divorced widow(er)s can be claimed as early as age 60 (or age 50 if disabled), resulting in a wider take-up age range compared to the other benefit types. The widow(er) benefit is unreduced if the widow(er) claims at FRA and thereafter, and the adjustment for early claiming is a constant rate of reduction, reaching a cumulative maximum reduction of 28.5% if benefits are claimed at age 60 (or between age 50 to 60 if disabled).[17]

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[14] See CRS Report R42035, *Social Security Primer*, Table 3.

[15] For more information, see CRS In Focus IF10738, *Social Security Dual Entitlement*.

[16] For discussions of possible combinations of the worker's benefit and spousal benefits based on different claiming ages, see Brian J. Alleva, *Social Security Retirement Benefit Claiming-Age Combinations Available to Married Couples*, Social Security Administration (SSA), Research and Statistics Note No. 2017-01, September 2017. The study finds that a couple with a nonearning spouse entitled to only the spousal benefit can face almost 6,000 possible month-of-age claiming combinations, depending on their respective birth years. For couples with a lower-earning spouse who is entitled to an own-record benefit only or who is dually entitled to both an own-record benefit and a spousal benefit, possible claiming-age combinations number over 9,000.

[17] The Social Security FRA for widow(er)s is also increasing from 65 to 67, but the increases affect the adjustment schedule of survivors with a two-birth-year delay. For example, the FRA for retired workers who were born in 1943-

Similar to spousal benefits, there are no DRCs for widow(er) benefits. The deceased worker's benefit claiming decision affects that of his or her surviving spouse: If that deceased worker started receiving benefits before reaching his or her FRA, survivors can receive no more than the deceased worker would have received, and survivors can also inherit DRCs if the deceased worker claimed benefits after reaching his or her FRA. An example of the benefit adjustment for a widow(er) is displayed in **Table 2**. If the deceased worker claimed benefits at FRA, the dependent widow(er) would be entitled to 100% of the deceased worker's benefit if the widow(er) claimed benefits at FRA or later and would be entitled to as low as 71.5% of the deceased worker's benefit if the widow(er) claimed benefits at the earliest eligibility age of 60 (or, if disabled, at the earliest eligibility age of 50).

Table 2. Illustrative Example: Social Security Spousal and Widow(er) Benefits as a Percentage of a Worker's Full Benefit

The Worker Is Assumed to Claim Benefit at the Full Retirement Age (FRA)

	FRA=66		FRA=67	
Claiming Age of the Spouse or Widow(er)	Spousal Benefits as a Percentage of a Worker's Full Benefit	Widow(er) Benefits as a Percentage of a Worker's Full Benefit	Spousal Benefits as a Percentage of a Worker's Full Benefit	Widow(er) Benefits as a Percentage of a Worker's Full Benefit
60	—	71.50%	—	71.50%
61	—	76.25%	—	75.57%
62	35.00%	81.00%	32.50%	79.64%
63	37.50%	85.75%	35.00%	83.71%
64	41.67%	90.50%	37.50%	87.79%
65	45.83%	95.25%	41.67%	91.86%
66	50.00%	100.00%	45.83%	95.93%
67	50.00%	100.00%	50.00%	100.00%
68	50.00%	100.00%	50.00%	100.00%
69	50.00%	100.00%	50.00%	100.00%
70	50.00%	100.00%	50.00%	100.00%

Source: CRS based on Section 202(q) of the Social Security Act (42 U.S.C. 402(q)).

Notes: The spouse, widow(er), and worker are assumed to have the same FRA. The spouse and widow(er)s are assumed to have no earnings. Dashes mean "not applicable."

Legislative History

This section summarizes legislation that established or changed the actuarial adjustment factors for early and delayed benefit claiming under Social Security.

1954 is age 66, while the FRA of 66 is for widow(er) born in 1945-1956. See SSA, "Full Retirement Age for Survivors Born Between 1945 and 1956: 66," https://www.ssa.gov/benefits/survivors/1945s.html.

Actuarial Reduction for Early Benefit Claiming

1950s and 1960s

The original Social Security Act of 1935 set 65 as the age at which retirement benefits could be received. The Social Security Amendments of 1956 (P.L. 84-880) allowed female workers and wives to start receiving benefits at age 62[18] but at a reduced level to take into account the longer period over which they would receive benefits. The actuarial reduction was set at five-ninths of 1% for each month before age 65 that a retired female worker claimed benefits and 25/36 of 1% for each month before age 65 that a wife's benefit was drawn. The size of the reduction in the monthly benefit for early claimers was intended to "closely approximate an 'actuarial-equivalent' basis, so that no additional cost to the system arises on account of early retirement."[19] That is, for a woman with average life expectancy, Congress intended the cost of lifetime benefits to be the same whether she claimed at 62 or 65. The early benefit adjustment factors that were adopted in 1956 remain in effect today.

The 1961 Amendments (P.L. 87-64) lowered the earliest age at which male retirees could receive benefits to age 62 as one possible solution to the economic problem of unemployed older workers.[20] The same adjustment factor was applied to men—a male worker's benefit was reduced at the same rate as for a female worker, and husband's insurance benefits were reduced at the same rate as for a wife's benefits.

The 1965 Amendments (P.L. 89-97) allowed widows to receive reduced benefits as early as age 60. (Widowers were added in the 1972 Amendments.) The adjustment for early claiming was set at a constant rate of reduction, reaching a cumulative maximum reduction of 28.5% if widow(er)'s benefits are claimed at age 60.

1980s

In the Social Security Amendments of 1983 (P.L. 98-21), Congress provided for a gradual increase in the FRA from 65 to 67, leaving 62 as the earliest age at which retired-worker and spousal benefits can be claimed. The actuarial benefit reduction was retained for the first 36 months of benefits claimed before FRA and a new factor (five-twelfths of 1%) was applied for each additional month. For older widow(er)s, reduced benefits continued to be available at age 60 (age 50 if disabled) with the monthly reduction adjusted for each age cohort so as to maintain a 28.5% reduction if claimed at age 60 (age 50-60 if disabled).

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[18] The 1948 Social Security Advisory Council recommended lowering the age at which women could receive benefits to 60. The justification for doing so was that the husband's retirement benefits were inadequate to "maintain the family." Surveys at the time showed that families in which the wife was also entitled to benefits had a substantially higher standard of living. Because the majority of married men who reached age 65 had younger wives, lowering the age at which women could receive benefits would permit the younger, female spouse to claim benefits when the husband claimed benefits. See SSA, *A Comprehensive Social Security Program*, 1948 Advisory Council Annual Report, retrieved in March 2022, https://www.ssa.gov/history/reports/48advise2a.html.

[19] Robert Myers, *Social Security* (Philadelphia: Pension Research Council, Wharton School of the University of Pennsylvania, and University of Pennsylvania Press, 1993), p. 52.

[20] Wilbur J. Cohen and William L. Mitchell, "Social Security Amendments of 1961: Summary and Legislative History," *Social Security Bulletin*, vol. 24, no. 9 (September 1961).

DRC

1960s

The introduction of the DRC was closely related to the RET, under which Social Security monthly benefits are withheld if beneficiaries have earnings that exceed certain thresholds.[21] In 1960, the House Committee on Ways and Means called for a RET study on the DRC proposal.[22] The DRC would have been provided to workers who delayed benefit claiming beyond age 65 (the FRA for those who attained FRA in 1960). Supporters of this proposal argued that the option would (1) provide incentives for older people to continue working, (2) be reasonable based on the shorter period of benefit payments, and (3) cost little or nothing because more people would work beyond FRA. Opponents argued that it was unclear how the DRC could increase the number of people who would work after FRA. They also noted that a modest increase of the benefit by 1%-2% per year would be less costly (increasing the program cost by 0.14%-0.28% of taxable earnings) but that an actuarially fair increase in benefits would be substantial (about 7.2% per year) and costly. Because of the doubt about its impact on work incentives beyond FRA and cost concerns, the Department of Health, Education, and Welfare did not recommend the DRC at that time.[23]

1970s

The Social Security Amendments of 1972 (P.L. 92-603) enacted the DRC, providing a benefit increase of 1% per year (or one-twelfth of 1% per month) after 1970 in which an individual between ages 65 (FRA) and 72 did not receive benefits. The objective of the DRC was to increase benefits for workers who did not receive benefits due to the RET (i.e., benefits were withheld due to earnings).[24] Some workers claimed benefits, but their benefits were fully withheld due to earnings, while some others did not claim benefits because they did not want to be subject to the RET. No increased benefits were paid under this provision to the worker's dependents or survivors.[25]

The Social Security Amendments of 1977 (P.L. 95-216) increased the DRC from 1% per year to 3% per year for beneficiaries who attained age 62 after 1978 (or the FRA of 65 after 1981). The DRC continued to apply to workers who delayed benefit claiming beyond FRA and up to age 72 and was also payable to surviving spouses (whose benefits were based on the worker's record) effective for months after May 1978. The report from the House Committee on Ways and Means indicated that the change was intended to encourage workers whose benefits would be computed under the new wage-indexed system to remain in the labor force.[26] The wage-indexed formula

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[21] See CRS Report R41242, *Social Security Retirement Earnings Test: How Earnings Affect Benefits*.

[22] Department of Health, Education, and Welfare, *The Retirement Test Under Old-Age And Survivors Insurance*, A Report on a Study Called for by the Committee on Ways and Means of the House of Representatives, 85th Congress, 2nd Session, in House Report No. 2288 on H.R. 13549, the Social Security Amendments of 1958, March 23, 1960, https://www.ssa.gov/history/reports/ret1.html.

[23] At that time, SSA was an agency within the Department of Health, Education, and Welfare (now the Department of Health and Human Services). SSA became an independent agency on March 31, 1995 (P.L. 103-296).

[24] U.S. Congress, House, *Social Security Amendments of 1972 Conference Report*, 92nd Cong., 2nd sess., October 1972, Report No. 92-1605, p. 38, https://www.ssa.gov/history/pdf/Downey%20PDFs/Amendments%20to%20the%20Social%20Security%20Act%201969-1972%20Vol.%206.pdf#page=55.

[25] Robert M. Ball, "Social Security Amendments of 1972: Summary and Legislative History," *Social Security Bulletin*, March 1973.

[26] U.S. House Committee on Ways and Means, *Committee Report Accompany H.R. 9346*, 95th Congress, 1st Session,

enacted at the same time (i.e., the current-law formula) relied on wage histories that were indexed up to age 60 and unindexed after age 60.[27] Therefore, some further adjustment (e.g., DRC) was needed after age 65 to enable the wage computation to keep pace with real wage growth in the economy.

1980s and Later

The Social Security Amendments of 1983 (P.L. 98-21) further increased the DRC from 3% to 8% per year for persons who attained FRA between 1990 and 2009 based on a phased-in schedule (see **Table 1**). The 8% DRC rate, which applied to individuals attaining FRA in 2009 and later, was considered to be actuarially fair based on average life expectancy.[28] This change was motivated by a long-standing belief that the DRC could provide incentives for individuals to remain in employment beyond FRA.[29] The legislation also lowered the maximum age at which the DRC applied from 72 to 70 because the RET did not apply to beneficiaries who were age 70 or older for those who attained age 70 after 1983.[30]

In 2000, the Senior Citizens' Freedom to Work Act (P.L. 106-182) eliminated the RET for beneficiaries beginning with the month they attain FRA (i.e., these beneficiaries can have any amount of earnings without triggering a withholding of their benefits). Despite the historical relationship between the DRC and RET, the legislation retained the DRC for seniors who choose to delay benefit application beyond the FRA, mainly because it provides an actuarially fair adjustment to benefits for those who delay claiming and receive a shorter period of benefit payments.[31] Additionally, the legislation allowed beneficiaries currently receiving benefits to voluntarily suspend their benefits between FRA and age 70 to earn DRCs.[32]

October 12, 1977, https://www.ssa.gov/history/pdf/Downey%20PDFs/Social%20Security%20Amendments%20of%201977%20Vol%201.pdf.

[27] For more information, see CRS Report R46658, *Social Security: Benefit Calculation*.

[28] U.S. Senate Committee on Finance, Report on Social Security Amendments of 1983, 98th Congress, 1st Session, Rept. 98-23, March 11, 1983, https://www.ssa.gov/history/pdf/Downey%20PDFs/Social%20Security%20Amendments%20of%201983%20Vol%202.pdf#page=7.

[29] U.S. House Committee on Ways and Means, *Report on H.R. 1900*, 98th Congress, 1st Session, Rept. 98-25, March 4, 1983, https://www.ssa.gov/history/pdf/Downey%20PDFs/Social%20Security%20Amendments%20of%201983%20Vol%201.pdf#page=7.

[30] The age at which the RET no longer applies decreased from 72 to 70 beginning in 1982.

[31] U.S. House, *Congressional Record* (March 1, 2000), p. H602, https://www.ssa.gov/history/pdf/Downey%20PDFs/Senior%20Citizens'%20Freedom%20to%20Work%20Act%20of%202000.pdf#page=64.

[32] Based on the 2000 legislation (P.L. 106-182), a worker at FRA or older could file and suspend Social Security benefits, which (1) allowed the worker to accrue DRCs during the period of suspension and, at the same time, (2) allowed eligible family members (such as a spouse or dependent child) to claim benefits on the worker's record. The latter allowed workers and spouses to collect more in Social Security benefits than Congress intended and was inconsistent with the concept behind Social Security spousal benefits. Therefore, under the Bipartisan Budget Act of 2015 (P.L. 114-74), benefits are no longer payable to eligible family members based on the worker's record during the period of suspension, with the exception of divorced spouses. For more information, see CRS In Focus IF10435, *Social Security's Filing Rules: Changes Enacted in 2015*.

Actuarial Fairness of Adjustment Factors and Related Issues

Social Security adjustment factors for early and delayed benefit claiming are intended to be actuarially fair.[33] That is, lifetime benefits are intended to be about the same for the average beneficiary regardless of claiming age. For individuals who claim benefits early, monthly benefits are reduced to take into account the longer period of time they are received (assuming the beneficiary lives to average life expectancy). For individuals who claim benefits later, the higher monthly benefit takes into account the shorter period of time they are received (assuming the beneficiary lives to average life expectancy). Ideally, setting an actuarially fair adjustment schedule could make Social Security outlays independent of the average individual's claiming behavior, thus reducing the volatility of program outlays.

Present Value Approach

People may value today's dollars more than future dollars because they can invest today's money and earn interest. To calculate the value of lifetime Social Security benefits, policymakers and researchers usually discount all future benefits to today (or to a particular age, such as age 62) at a specified interest rate (also sometimes referred to as a *discount rate*).[34] This amount is usually referred to as the present value (PV).

Most researchers agree that an adjustment schedule is actuarially fair if it equalizes a person's expected PV of lifetime benefits for all claiming ages from 62 to 70.[35] Two determinants may affect the PV of lifetime benefits: life expectancy and the interest rate. Life expectancy affects how long a beneficiary can receive benefit payments from Social Security, while the interest rate affects the amount Social Security would need to put aside today to meet the cost of future benefits.

Life Expectancy

Life expectancy is the average number of years an individual will live given survival to a particular age and subject to age-specific mortality rates.[36] Life expectancy is commonly presented at birth as well as at a given age (e.g., age 66). When calculated at birth, life expectancy represents the average expected life span. Alternatively, life expectancy may refer to additional

[33] Slightly different terms are also used to denote the same concept, such as *actuarial neutrality*, *actuarial equivalence*, and *marginal fairness*.

[34] In defined benefit (DB) pension plans, the interest rate is also used to calculate the present value of future benefit obligations. The interest rate typically affects the funded status of the pension plan and affects the timing of required employer contributions. The interest used by private-sector single-employer DB pensions is found in the Internal Revenue Code (26 U.S.C. §430). Private-sector multiemployer and public sector DB plans generally use the expected return on the plan's investments for their interest rates. For more information, see CRS Report R46366, *Single-Employer Defined Benefit Pension Plans: Funding Relief and Modifications to Funding Rules*.

[35] DRC is payable up to age 70. Individuals who claim Social Security benefits beyond age 70 do not earn additional DRCs.

[36] See CRS Report R44846, *The Growing Gap in Life Expectancy by Income: Recent Evidence and Implications for the Social Security Retirement Age*. Life expectancy has an inverse relationship with mortality rates (also referred to as death rates): As mortality rates decline, life expectancy increases. Life expectancy can be studied in the aggregate (i.e., full population) or separately across demographic subgroups.

expected years of life when it is calculated for ages after birth (e.g., a life expectancy of 20 years at age 66, which indicates an expected age at death of 86).

Table 3 shows a hypothetical example of how expected lifetime benefits may differ by claiming age and life expectancy. The example assumes the FRA for a worker to be age 66 and an unreduced benefit at FRA of $12,000 per year (or $1,000 per month). The unadjusted lifetime benefit (i.e., without actuarial adjustments for early or delayed claiming) is the sum of all benefits expected to be received during the remaining lifetime.[37] For example, if the life expectancy at age 66 were 10 years, claiming benefits at the FRA of 66 would result in a total expected lifetime benefit of $120,000 ($12,000 ×10 = $120,000). If a person claimed benefits at age 62, he or she would expect to receive 14 years of benefits (or four more years between ages 62 and 66), and the total unadjusted expected lifetime benefit would be $168,000 ($12,000 × 14 = $168,000). Compared to the total expected lifetime benefit when the claiming age was 66, claiming benefits at age 62 would result in 40% more lifetime benefits if there were no actuarial adjustments. Therefore, to equalize the lifetime benefit for an early claimer (e.g., age 62) to a claimer at FRA, the monthly benefit for the early claimer should be reduced to account for the additional years of benefit receipt.

If life expectancy increases, the differential in unadjusted expected lifetime benefits between an early claimer and a claimer at FRA decreases as well. For example, when the life expectancy at age 66 was 10 years, claiming benefits at age 62 resulted in 40% more unadjusted lifetime benefits than for claimers at FRA. The differential for claiming at age 62 decreases to about 27% for average persons with a life expectancy of 15 years at age 66 and 20% for those with a life expectancy of 20 years at age 66. Increases in longevity mean that people receive benefits for a longer period of time, so the percentage increase in unadjusted lifetime benefits from early claiming is smaller. This smaller percentage increase suggests that a smaller reduction for early claiming would be required to keep lifetime benefits constant across claiming ages.

Similar comparisons apply to persons who delay benefit claiming. For example, if the life expectancy at age 66 were 10 years, people who claim benefits at age 70 would expect to receive six years of benefits (or four fewer years between ages 66 and 69 compared to a claimer at FRA), and the total unadjusted lifetime benefit would expect to be $72,000 ($12,000 × 6 = $72,000). This would result in a 40% decline in unadjusted expected lifetime benefits compared to those who claim benefits at FRA (who would receive a total lifetime benefit of $120,000 [$12,000 × 10 = $120,000]). Therefore, to equalize the expected lifetime benefit for a delayed claimer (e.g., age 70) to a claimer at FRA, the monthly benefit for the delayed claimer should be increased to account for the fewer years of benefit receipt. As shown in **Table 3**, this actuarial adjustment (i.e., permanent increase) for delayed claiming also becomes smaller as life expectancy increases.

[37] In this example, the interest rate is assumed to be zero, and the effect of the COLA is not included. For discussions about the interest rate, see the section in this report titled "Interest Rates." For information on the COLA, see CRS Report 94-803, *Social Security: Cost-of-Living Adjustments*.

Table 3. Hypothetical Example: Unadjusted Expected Lifetime Benefits by Claiming Age and Life Expectancy

Assume FRA Is Age 66, and the Benefit at FRA Is $12,000 per Year (or $1,000 per Month)

	Social Security Benefit Claiming Age		
	62	**FRA=66**	**70**
Life expectancy at age 66 is 10 years			
Expected years of benefits receipt	14	10	6
Total expected lifetime benefits without actuarial adjustments	$168,000	$120,000	$72,000
Percentage change in expected lifetime benefits compared to benefits claimed at FRA	40.00%	0.00%	-40.00%
Life expectancy at age 66 is 15 years			
Expected years of benefits receipts	19	15	11
Total expected lifetime benefits without actuarial adjustments	$228,000	$180,000	$132,000
Percentage change in expected lifetime benefits compared to benefits claimed at FRA	26.67%	0.00%	-26.67%
Life expectancy at age 66 is 20 years			
Expected years of benefits receipts	24	20	16
Total expected lifetime benefits without actuarial adjustments	$288,000	$240,000	$192,000
Percentage change in expected lifetime benefits compared to benefits claimed at FRA	20.00%	0.00%	-20.00%

Source: CRS.

Notes: FRA is full retirement age. Interest rate is assumed to be zero. Cost-of-living adjustments to Social Security benefits are not included. For simplicity, the life expectancy at ages 62-65 and ages 67-70 are not adjusted by survival to a particular age or age-specific mortality rates.

Interest Rates

As mentioned earlier, to calculate the PV for lifetime Social Security benefits, all future benefits are usually discounted to today (or to a particular age, such as age 62) at a specified interest rate. There is no clear conclusion on what interest rates should be used when discounting future Social Security benefits. Many researchers agree that the government-guaranteed, tax preferred, inflation-indexed nature of the Social Security benefit warrants a low discount rate.[38] The inflation-indexed rate is also referred to as a "real" interest rate, which is considered appropriate because Social Security benefits are generally automatically increased every year by the COLA (close to annual inflation).[39]

[38] See discussions in James E. Duggan and Christopher J. Soares, "Actuarial Nonequivalence in Early and Delayed Social Security Benefit Claims," *Public Finance Review*, vol. 30, no. 3 (2002), pp. 188-207.

[39] See CRS Report 94-803, *Social Security: Cost-of-Living Adjustments*.

The actuarial value of lifetime benefit payments to a beneficiary can be thought of as the amount of money that Social Security would need to meet the cost of projected future benefits.[40] The amount available for future benefits depends partly on the interest that Social Security could earn on those assets. In practice, excess Social Security payroll tax revenues are invested in U.S. government securities (special issues) held by the Social Security trust funds, and the trust funds receive interest on those special U.S. government obligations.[41] Therefore, the interest rate for Social Security PV calculations is usually measured by the rate for the special-issue obligations held by the trust funds.[42]

Some researchers also note that the interest rate might be higher from the perspective of an average American. This is partly because individuals may expect higher rates of return on their capital investments, they may have higher-level risks related to health conditions and unemployment, and they may prefer current benefits to future benefits.[43] In addition, some argue that the political risk inherent in the Social Security program calls for a *premium* above the risk-free rate.[44]

Table 4 illustrates a hypothetical example of how the PV of unadjusted expected lifetime benefits (i.e., without actuarial adjustments for early or delayed claiming) may differ by claiming age and interest rate. The example assumes the FRA to be age 66, life expectancy at age 66 to be 15 years, and the unreduced benefit at FRA to be $12,000 per year (or $1,000 per month). If the interest rate were zero, the PV of unadjusted expected lifetime benefits at a given claiming age would be equal to the sum of the total lifetime benefits at that claiming age (i.e., no discounting). As discussed above, to achieve actuarial fairness, benefits for early claimers should be adjusted downward to account for a longer expected period of benefit receipt (based on average life expectancy), while benefits for delayed claimers should be adjusted upward to account for a shorter expected period of benefit receipt (based on average life expectancy).

These actuarial adjustments for early and delayed claiming are typically affected by the interest rate. In general, higher interest rates correspond to lower PV dollar amounts relative to lower interest rates. For example, if the interest rate were 2%, the amount Social Security would need to put aside at age 62 to pay future benefits would be lower for claimers at all ages, as those funds can grow over time based on a positive investment return (see **Table 4**). Specifically, Social Security would need $1.00 at age 62 to pay a $1.00 benefit amount at age 62, compared to $0.92 at age 62 to pay a $1.00 benefit at age 66 and $0.85 to pay a $1.00 benefit at age 70. Future benefits are generally worth less today than current benefits, as they are discounted over a longer

[40] In practice, under current law, the Social Security program operates on a primarily *pay-as-you-go* basis. That is, payroll taxes paid by current workers and their employers are used to fund benefit payments for current beneficiaries.

[41] See SSA, "Special Issue Securities," https://www.ssa.gov/oact/ProgData/specialissues.html. See also CRS Report RL33028, *Social Security: The Trust Funds*.

[42] Special-issue investments in Social Security trust funds bear interest rates determined monthly under a formula specified by law. An interest rate is determined on the last business day of a month and applies to securities issued in the following month. Interest on special-issue investments is paid at the end of June and the end of December. Because the trust funds hold no cash, investments are redeemed each month to pay for benefits and administrative expenses. When investments are redeemed, interest is paid. The amount of interest paid is used to offset the amount of investment redemptions. An effective interest rate provides a measure of the rate of return on an investment portfolio. SSA calculates an effective interest rate by dividing interest earned on investments during a calendar year by the average level of investments during the year. For more information, see SSA, "Interest Rates," https://www.ssa.gov/oact/ProgData/intRates.html.

[43] Frank W. Heiland and Na Yin, *Have We Finally Achieved Actuarial Fairness of Social Security Retirement Benefits and Will It Last?*, Michigan Retirement and Disability Research Center at University of Michigan, Working Paper 2014-307, 2014.

[44] See discussion of discount rates in Dean R. Leimer, "A Guide to Social Security Money's Worth Issues," *Social Security Bulletin*, vol. 58, no. 2, pp. 611-636 (1995).

period of time. For this reason, the positive interest rate decreases (by discounting) the present cost of lifetime benefits paid to early claimers by a *smaller* magnitude than those paid to late claimers (e.g., a zero-dollar decrease in the present cost from discounting a $1.00 benefit at age 62 to $1.00 at age 62 is *smaller* than a $0.08 decrease from discounting a $1.00 benefit at age 66 to $0.92 at age 62).

Therefore, an interest rate greater than zero would result in a smaller decrease in the present cost of lifetime benefits paid to claimers at age 62 than to claimers at FRA. To keep the actuarial fairness of adjustment factors, the increasing interest rate would call for an increase in the actuarial reduction for early claiming. In the hypothetical example in **Table 4**, compared to the PV of unadjusted expected lifetime benefits when the claiming age was 66, claiming benefits at age 62 would result in about 27% more PV of unadjusted expected lifetime benefits if the interest rate is assumed to be at 0%, about 32% more if the interest rate were 2%, and about 38% more if the interest rate were 4%.

Similarly, because the positive interest rate would result in a smaller decrease in the present cost of lifetime benefits paid to claimers at FRA than to delayed claimers (e.g., at age 70), it would call for an increase in the actuarial adjustment for delayed claiming. For example, claiming benefits at age 70 would result in about 27% less PV of unadjusted lifetime benefits than claimers at FRA if the interest rate is assumed to be at 0%, compared to about 30% less if the interest rate were 2%, and about 33% less if the interest rate were 4%.

Table 4. Hypothetical Example: Present Value (PV) of Unadjusted Expected Lifetime Benefits by Claiming Age and Interest Rate

Assume FRA Is Age 66, and the Benefit at FRA Is $12,000 per Year (or $1,000 per Month)

	Social Security Benefit Claiming Age		
	62	**FRA=66**	**70**
Expected years of benefits receipt	19	15	11
Total unadjusted expected lifetime benefits at respective claiming age	$228,000	$180,000	$132,000
Interest rate = 0%			
PV of unadjusted expected lifetime benefits at age 62	$228,000	$180,000	$132,000
Percentage change in PV of expected lifetime benefits compared to benefits claimed at FRA	26.67%	0.00%	-26.67%
Interest rate = 2%			
PV of unadjusted expected lifetime benefits at age 62	$191,904	$145,298	$102,240
Percentage change in PV of expected lifetime benefits compared to benefits claimed at FRA	32.08%	0.00%	-29.63%
Interest rate = 4%			
PV of unadjusted expected lifetime benefits at age 62	$163,912	$118,610	$79,887
Percentage change in PV of expected lifetime benefits compared to benefits claimed at FRA	38.19%	0.00%	-32.65%

Source: CRS.

Notes: FRA is full retirement age. The life expectancy at age 66 is assumed to be 15 years. Cost-of-living adjustments to Social Security benefits are not included. For simplicity, the life expectancy at ages 62-65 and ages 67-70 are not adjusted by survival to a particular age or age-specific mortality rates.

Combined Effects of Life Expectancy and Interest Rates

In summary, both life expectancy and the interest rate affect the PV of expected Social Security lifetime benefits. In the absence of actuarial reduction for early claiming, a person who claimed benefits at age 62 would receive a larger unadjusted expected lifetime benefit (due to the longer benefit receipt) than that for a similar person who claimed at the FRA of age 66. The percent increase in lifetime benefits the person expected to receive compared to the benefits claimed at FRA would be lower if the life expectancy is longer and the interest rate is smaller (see **Table 5**). Therefore, an increase in life expectancy or a decline in interest rate calls for a smaller actuarial reduction for early claiming to provide for actuarial fairness in average lifetime benefits.

The same pattern applies to persons who claim Social Security benefits after FRA. In the absence of credits for delayed claiming, a person who claimed benefits at age 70 would receive a smaller unadjusted expected lifetime benefit (due to the shorter benefit receipt) than that for a similar person who claimed at the FRA of age 66. Therefore, their benefits are adjusted upward by the DRCs, and a longer life expectancy and a smaller interest rate would also require a smaller credit for delayed claiming to provide for actuarial fairness in average lifetime benefits (see **Table 5**).

Table 5. Hypothetical Example: Percentage Change in Present Value (PV) of Unadjusted Expected Lifetime Benefits by Claiming Age, Life Expectancy, and Interest Rate

Assume the Full Retirement Age (FRA) Is 66

	Percentage Change in PV of Unadjusted Expected Lifetime Benefits Compared to Benefits Claimed at FRA		
	Life Expectancy at Age 66 Is 10 Years	**Life Expectancy at Age 66 Is 15 Years**	**Life Expectancy at Age 66 Is 20 Years**
		Claiming Benefits at Age 62	
Interest rate = 0%	40.00%	26.67%	20.00%
Interest rate = 2%	45.88%	32.08%	25.21%
Interest rate = 4%	52.36%	38.19%	31.25%
		Claiming Benefits at Age 70	
Interest rate = 0%	-40.00%	-26.67%	-20.00%
Interest rate = 2%	-42.39%	-29.63%	-23.29%
Interest rate = 4%	-44.75%	-32.65%	-26.71%

Source: CRS.

Notes: Cost-of-living adjustments to Social Security benefits are not included. For simplicity, the life expectancy at ages 62-65 and ages 67-70 are not adjusted by survival to a particular age or age-specific mortality rates.

Actuarial Fairness of Current-Law Adjustment Factors

Social Security actuarial adjustment factors for early and delayed claiming are intended to be actuarially fair for an average beneficiary. This section discusses how and why the actuarial adjustment schedule does not appear to be *perfectly* actuarially fair for certain groups of

beneficiaries, including differences by birth cohort, gender, income level, and concerns for changes in life expectancy and interest rates. The actuarial fairness of the adjustment schedule for auxiliary benefits is also discussed.

Differences by Birth Cohort

The actuarial adjustment factors for early claiming were first established in 1956 for women and 1961 for men and then amended in 1983 when Congress enacted a gradual increase in the FRA from age 65 to age 67. The actuarial adjustment factors for delayed claiming (or DRCs) were first established in 1972 and then increased several times until they reached 8% per year for those born in 1943 or later. As shown in **Figure 1**, people born in different years may face different actuarial adjustment schedules. Therefore, whether the adjustment factors are actuarially fair may differ by birth cohort.

Robert Myers, the former chief actuary of the Social Security Administration (SSA), and his coauthor argued in a 1990 paper that the current-law adjustment factors for early benefit claiming associated with FRA of 65 were actuarially fair for beneficiaries retiring in 1990. They also suggested that the early-claiming adjustment associated with the FRA of 67 will be "reasonably close to the theoretically correct values" and that the corresponding DRCs (8% per year) will be "approximately correct" for workers retiring in 2030.[45] In a book published in 1993, Myers also characterized the 8% DRC as "not much less than the true actuarial equivalent (about 9%)."[46]

To analyze the actuarial fairness, one study built a theoretical framework of the adjustment schedule by assuming a constant interest rate consistent with the Social Security trust funds. The framework suggests that the actuarial fairness requires the benefit reduction schedule for early claiming to be "concave"—that is, the benefit reduction from ages 63 to 62 should be smaller than that from ages 65 to 64. The study finds that the actuarial reduction adjustment for early claiming was not exactly, but close to, actuarially fair for average beneficiaries who reached FRA in the 1980s (FRA of 65). The result also suggests that the projected increase in FRA would result in an actuarial reduction more in line with the actuarially fair schedule because the reduction schedule becomes more "concave" (see **Table 1**).[47]

Researchers also argued that the DRC was too small to be actuarially fair before it reached 8% per year.[48] In particular, the actuarial fairness of the DRC schedule improved significantly across beneficiaries born in 1917-1943, which is primarily the result of the rising DRC for those born in 1924-1943 and the increase in FRA.[49]

Differences by Gender

Statistics show that, on average, women tend to live longer than men do.[50] Since life expectancy affects the expected PV of lifetime benefits, women and men would likely call for different

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[45] Robert Myers and B. D. Schobel, "Early-Retirement Reduction and Delayed-Retirement Increase Factors under U.S. Social Security Law," *Transactions*, vol. XLII (1990), pp. 295-320.

[46] Myers, *Social Security*, p. 99.

[47] Frank Heiland and Na Yin, *Actuarial Fairness of Early Social Security Retirement Benefits*, September 23, 2011, https://paa2012.princeton.edu/papers/122711.

[48] Myers and Schobel, "Early-Retirement Reduction;" Duggan and Soares, "Actuarial Nonequivalence;" and Monika Queisser and Edward Whitehouse, *Neutral or Fair? Actuarial Concepts and Pension-System Design*, Organization for Economic Co-operation and Development (OECD) Social Employment and Migration Working Paper no. 40, 2006.

[49] Heiland and Yin, *Actuarial Fairness*.

[50] Elizabeth Arias and Jiaquan Xu, *United States Life Tables, 2019*, National Center for Health Statistics, March 22,

actuarially fair adjustment factors for early and delayed claiming. Based on the earlier discussion, the actuarially fair adjustments would be greater for men than for women, reflecting women's longer life expectancy, holding everything else constant. One researcher notes that Social Security adjustment factors for early and delayed claiming

> are not *perfectly* actuarial—and cannot be, because the Social Security program treats men and women exactly the same, while they have different mortality experience, on average. Thus, the reduction and increase factors must slightly disadvantage one gender relative to the other.[51]

Studies generally suggest that the actuarial adjustment schedule tends to favor one gender. One 2002 study examined the actuarial fairness of adjustment factors across gender among Social Security beneficiaries born between 1900 and 1933 (FRA of 65). The study compared the actual reduced benefits with an actuarially fair benefit generated by using the mortality estimates of the sample studied and a constant interest rate of 3% per year. The analysis found that early male claimers enjoyed an actuarial premium, while early female claimers faced an actuarial loss due to their longer life expectancy. Therefore, the authors argue that gender-neutral statutory adjustments tend to offset a portion of the female life expectancy advantage in Social Security.[52]

Another 2014 study derives the conditions under which adjustment factors are considered to be actuarially fair and estimates how much the actual adjustment schedule deviates from the fair schedule by gender. The study focuses on average male and female beneficiaries born in 1917-1960 and uses the cohort life table data up to 2008 from the Human Mortality Database to estimate the mortality rate. The findings show that the actuarial reduction for early claiming tends to be too high (unfavorable) for women, while the adjustment factors for delayed claiming (i.e., DRC) are too small (unfavorable) for men. The authors suggest that the increase in the life expectancy will improve the actuarial fairness for male beneficiaries but not for females.[53]

Differences by Income

Higher income people tend to have lower mortality.[54] For this reason, research generally finds that the actuarial fairness of benefit adjustments varies by beneficiaries' income levels mainly due to the difference in life expectancy.

For example, in addition to gender differences, the 2002 study mentioned earlier also examined how actuarially fair adjustment schedules for early and delayed claiming may differ by income.[55] The authors found that low-income persons would call for a higher actuarial reduction for early claiming and a larger increase for delayed claiming than high-income persons would, since low-income beneficiaries tend to have a shorter life expectancy. Therefore, their result suggested that low-income men enjoyed an actuarial premium for early claiming, and the DRC of 8% per year was too low for actuarial fairness for those with lower earnings.

2022, https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-19.pdf.

[51] Bruce D. Schobel, "When to Claim and How to Optimize Social Security Benefits," *Benefits Magazine*, vol. 52, no. 4 (2015), pp. 16-20.

[52] Duggan and Soares, "Actuarial Nonequivalence."

[53] Heiland and Yin, *Actuarial Fairness*.

[54] See CRS Report R44846, *The Growing Gap in Life Expectancy by Income: Recent Evidence and Implications for the Social Security Retirement Age*.

[55] Duggan and Soares, "Actuarial Nonequivalence."

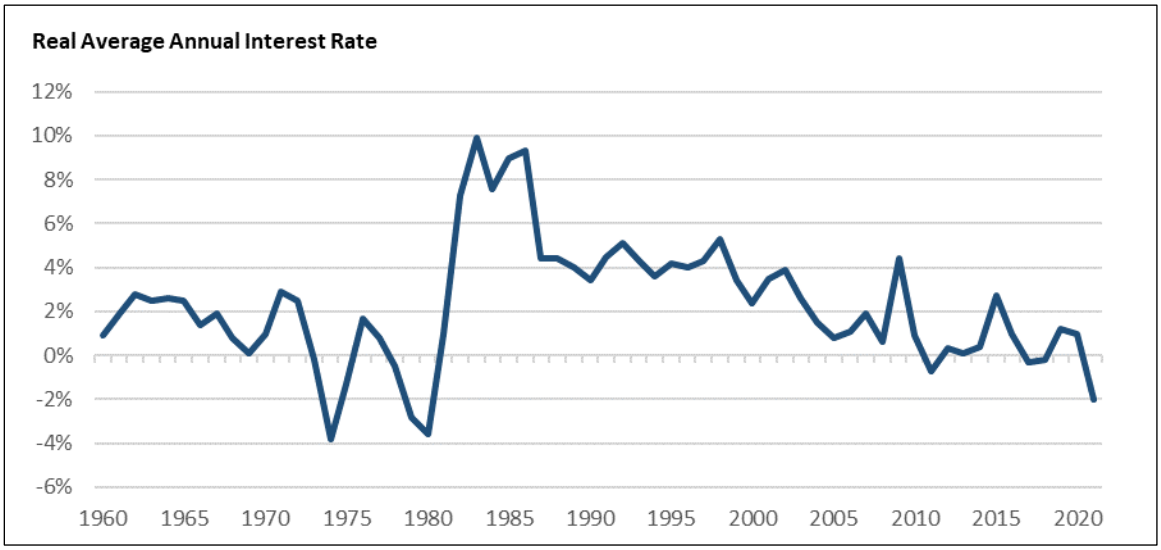
Changes in Life Expectancy and Interest Rates

The adjustment factors for early and delayed claiming were essentially designed starting in the 1950s and through 1983. A 1990 study detailed that adjustment factors for early benefit claiming were initially set using mortality tables from the 1950s and the interest rates at that time.[56] The study noted that as mortality rates continue to decline, adjustment factors that "may have been theoretically correct at one time will become incorrect as time goes by."

Both the life expectancy and interest rates have changed substantially since the middle of the last century. People live longer today compared to seven decades ago. The life expectancy at age 65 was 12.8 years for men and 15.1 years for women in 1950 and grew to 17.0 years for men and 19.5 years for women in 2020.[57] The real interest rate on the special-issue government obligations held by the Social Security trust funds also changed substantially over time. The average real interest rate was 1.0% in 1950, peaked at 8.1% in 1984, and then gradually declined to -3.3% in 2021 (see **Figure 2**).

Figure 2. Real Average Annual Interest Rates for Special-Issue Government Obligations Held by the Social Security Trust Funds

1960-2021



Source: Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund, *The 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, Table V.B2, https://www.ssa.gov/oact/tr/2021/tr2021.pdf.

Notes: The average special-issue interest rate for a calendar year is the average of the 12 monthly interest rates on new issues during the year. The real interest rate for each year is the realized or expected annual real yield on securities issuable in the prior year. The 2021 data is based on the intermediate assumption in the 2021 trustees report.

[56] Myers and Schobel, "Early-Retirement Reduction." Some conservatism was applied by using "individual annuity" mortality rates, which assume greater longevity, because individuals seeking out annuities have greater life expectancy than the average population does.

[57] Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund, *The 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, Table V.A4, https://www.ssa.gov/oact/tr/2021/tr2021.pdf.

During the second half of the 20th century, the life expectancy generally increased and so did the interest rate. As discussed earlier, the increase in the life expectancy requires a lower adjustment for early and delayed claiming, while the increase in interest rates requires a higher adjustment schedule. Therefore, the rising interest rates offset the increase in the life expectancy, so several studies found that the adjustment factors for early and delayed claiming (8% per year) were roughly actuarially fair.[58]

After 2000, however, the interest rate continued to decline, so the low interest rate and the continued increase in longevity call for a lower adjustment for early and delayed claiming. Therefore, several researchers suggest that the actuarial adjustment factors should be smaller than they are under current law—reducing the early claiming penalty and lowering the DRCs. For example, one study estimates that the lifetime benefits for the early claimer (age 62) are about 94% of the lifetime benefits for the individual who claims at age 65 in 2020. This implies that the reduction for early claiming is too large.[59] Another study shows that because of declines in interest rates, combined with improvements in mortality and changes in program rules (DRC increasing from 3% to 8%), delaying is actuarially advantageous for a large number of people, even for individuals with mortality rates that are twice the average. This actuarial advantage of delay applies to singles and the primary earner in a couple.[60]

Research also estimates the adjustment schedule that would be actuarially fair for early and delayed claiming using today's life expectancy and interest rates. One study uses updated life expectancy and interest rate in January 2021 and estimates the actuarially fair adjustment factors for beneficiaries with FRA of 67. The results show that the benefit for retired workers who claimed benefits at age 62 should be increased from 70% of the full benefit to 80.3%, and the benefit for retired workers who claimed at age 70 should be decreased from 124% of the full benefit to 116.7%.[61] Another study finds similar results.[62] The authors use unpublished mortality data from the SSA's Office of the Chief Actuary and inflation-adjusted annual interest rates on the trust funds assets and find that, for new beneficiaries in 2018, the benefit at age 62 should be equal to 77.5% of the full benefit (as opposed to 70%) and the benefit at age 70 should be equal to 119.9% (as opposed to 124%) of the full benefit. These conclusions—that the current-law actuarial reduction for early claiming and the DRC are too large—remain the same under different assumptions of long-run interest rates.[63]

Auxiliary Benefits

As explained earlier, spousal and survivor benefits are adjusted differently than worker benefits under Social Security are. As shown in **Table 2**, typically, the reduction factors for spousal benefits are greater than those for retired-worker benefits. The reduction in widow(er) benefits depends on the age of the widow(er) at the time of the worker's death. (There are no credits for either spousal and widow(er) benefits if the person delays benefit claiming.) Different from

[58] Natalia Jivan, *How Can the Actuarial Reduction for Social Security Early Retirement Be Right?*, CRR, Just the Facts on Retirement Issues, no. 11 (July 2004); Alicia H. Munnell and Steven A. Sass, *Can the Actuarial Reduction for Social Security Early Retirement Still be Right?*, CRR, no. 12-6 (March 2012); Heiland and Yin, *Actuarial Fairness*.

[59] Munnell and Chen, *Are Social Security's Actuarial Adjustments Still Correct?*

[60] John B. Shoven and Sita Nataraj Slavov, "Does It Pay to Delay Social Security?," *Journal of Pension Economics and Finance*, vol. 13, no. 2 (2014), pp. 121-144.

[61] Mark Warshawsky, *It Is Time to Update the Adjustment Factors for Age in Social Security Retirement Benefits*, American Enterprise Institute Economics Working Paper 2021-12, August 2021.

[62] Andrew G. Biggs, Anqi Chen, and Alicia H. Munnell, *The Consequences of Current Benefit Adjustments for Early and Delayed Claiming*, CRR, Working Paper 2021-3, January 2021.

[63] Biggs, Chen, and Munnell, *The Consequences of Current Benefit Adjustments*.

retired-worker benefits, studies generally find that auxiliary benefits for early claimers deviate from the actuarially fair level.

The reduction for spousal benefits applies only during the joint lifetime of the worker and spouse. Therefore, an analysis of whether adjustment schedules for spouses are actuarially fair has to consider the several elements discussed earlier for retired-worker benefits and also the relative ages of the worker and the spouse. One study found that female spouses who claimed benefits at age 62 in 1990 and 2030 would generally receive a benefit higher than the actuarially fair level regardless of the age of the husband. Therefore, persons eligible for spousal benefits would have an actuarial advantage to claim benefits as soon as possible rather than deferring claims to receive a larger amount. The study also found that the benefit for women who claimed widow benefits at age 60 in 1990 was below the actuarial level but will become greater than the theoretically correct level for those claiming widow benefits at age 60 in 2030.[64]

It is worth noting that auxiliary benefits today are not as important as in the 1960s, because most spouses or survivors are eligible for larger benefits as retired workers—that is, based on their own earnings records. The percentage of women aged 62 or older entitled to benefits based on their own work records—as retired workers or as dually entitled beneficiaries—grew from 43.3% in 1960 to 81.4% in 2020.[65] During the same period, the percentage of those older women beneficiaries entitled only to wife's benefits decreased from 32.8% to 7.2% and from 23.4% to 11.4% for those entitled only to widow benefits.[66]

Actuarial Adjustment Factors and Retirement Decisions

As discussed earlier, if the adjustment factors for early and delayed benefit claiming are actuarially fair for average workers, lifetime benefits are about the same for the average beneficiary regardless of claiming age. That is, the actuarial adjustment factors are irrelevant to Social Security claiming decisions and employment decisions for average older workers. However, the adjustment factors may affect these retirement decisions in two ways: (1) the increase of the DRC from a level considered to be actuarially unfair (3%) to a level approximately actuarially fair (8%) may affect people's decisions about Social Security benefit claiming and employment at older ages, and (2) some groups of the population may receive actuarial advantages for certain claiming strategies because their mortality rates deviate from that of the average beneficiary.

Effects of the DRC

Research has found mixed effects of the DRC increase on workers' Social Security benefit claiming decisions. One 2009 study used a public-use microdata extract from the SSA's Master Beneficiary Record to analyze the effect on claiming behavior from three policy changes occurring around the same time—the increase in FRA, the elimination of the RET for those above the FRA,[67] and the incremental increase in the DRC for those claiming benefits after the FRA.

[64] Myers and Schobel, "Early-Retirement Reduction."

[65] SSA, *Annual Statistical Supplement, 2021*, Table 5.A14, https://www.ssa.gov/policy/docs/statcomps/supplement/2021/5a.html#table5.a14. The percentage of widow beneficiaries includes disabled widows, mothers, and female parents.

[66] SSA, *Annual Statistical Supplement, 2021*, Table 5.A14.

[67] See CRS Report R41242, *Social Security Retirement Earnings Test: How Earnings Affect Benefits*.

The study found evidence suggesting that increases in the DRC did not lead to substantial changes in claiming behavior.[68]

A more recent study in 2021 uses SSA's administrative data to estimate the effect of the increase of the DRC from 3% to 5.5% on individuals' claiming behavior. The study does not analyze the effect of the DRC increase from 5.5% to 8%, because the increase coincided with other Social Security policy changes (e.g., FRA and RET). The authors find that the increase in the DRC led to a significant increase in delayed claiming of Social Security benefits, and the effects were larger for those with higher lifetime incomes, who would have a greater financial incentive to delay given their longer life expectancies and higher earnings.[69]

In another study, an author analyzed the changes in the DRC on men's employment using the Survey of Income and Program Participation. The study found that the DRC increase substantially induced increased labor supply for men aged 65-69, but the study did not explore the effect of the DRC changes on Social Security claiming decisions.[70]

Several studies have shown that, theoretically, people may gain from delaying the age at which they claim Social Security benefits,[71] and, in some cases, delaying benefits claiming to age 70 would maximize the lifetime benefit.[72] Evidence, however, shows that the majority of beneficiaries claim benefits before FRA,[73] even though people on average are claiming later than they did 30 years ago.[74] Other factors, such as present bias (i.e., a tendency to overweigh the value of rewards they can receive immediately), may also affect an individual's decision of when to claim Social Security benefits.[75]

Claiming Behavior and Life Expectancy

The adjustment factors are intended to be actuarially fair for people with average life expectancy. A longer life expectancy would normally result in a smaller adjustment compared to current law for both the early retirement reduction and the DRC. Thus, people with longer life expectancy (or lower mortality rates) tend to receive an actuarial advantage under current law by claiming later.

Research based on claiming data has found that workers who claim a retired-worker benefit at older ages have lower mortality than those who claim at age 62. For example, a series of SSA studies in the early 2000s showed that several data sets all supported the finding: People who

[68] Hugo Benítez-Silva and Na Yin, "An Empirical Study of the Effects of Social Security Reforms on Benefit Claiming Behavior and Receipt Using Public-Use Administrative Microdata," *Social Security Bulletin*, vol. 69, no. 3 (2009).

[69] Mark Duggan and et al., "The Effects of Changes in Social Security's Delayed Retirement Credit: Evidence From Administrative Data," Stanford University Institute for Economic Policy Research, Working Paper No. 21-035, June 2021.

[70] Jonathan F. Pingle, *Social Security's Delayed Retirement Credit and the Labor Supply of Older Men*, Federal Reserve Board, Divisions of Research and Statistics and Monetary Affairs, Finance and Economics Discussion Series, August 2006.

[71] For example, Courtney Coile et al., "Delays in Claiming Social Security Benefits," *Journal of Public Economics*, vol. 84, no. 3 (June 2002), pp. 357-385.

[72] For example, Shoven and Slavov, "Does It Pay to Delay Social Security?"

[73] SSA, *Annual Statistical Supplement, 2021*, Table 6. A4, https://www.ssa.gov/policy/docs/statcomps/supplement/2021/6a.html#table6.a4.

[74] See CRS In Focus IF11115, *Social Security Retirement Benefit Claiming Age*.

[75] For example, see George Loewenstein and Drazen Prelec, "Anomalies in Intertemporal Choice: Evidence and an Interpretation," *Quarterly Journal of Economics*, vol. 107, no. 2 (1992), pp. 573-597.

claimed Social Security benefits early tended to have higher mortality rates.[76] One recent study also finds similar evidence using the SSA's data.[77]

Recent research extends the analysis of actuarial factors and earnings-related mortality to include earnings-related claiming behavior and analyzes the combined effect on lifetime Social Security benefits. One study uses SSA's data and shows that late claimers in Social Security have higher lifetime earnings and lower mortality than those who claim at age 62.[78] The study also finds that the benefit increase from delayed claiming is larger for those with higher lifetime earnings and lower mortality because their delayed benefits exceed the actuarially fair amounts (which are based on workers with average life expectancy). Consequently, the estimated result shows that the lifetime benefit is 1.9% higher for those in the highest quartile of lifetime earnings compared to what the amount would be if they had the same claiming ages as those in the lowest quartile. The authors argue that this may undermine the redistributive element built into the Social Security benefit formula, which replaces a higher proportion of career-average earnings for low earners than for high earners.[79]

Another recent study finds similar results by estimating the total cost of lifetime benefits by lifetime earnings quintile in 2018, based on constant mortality, earnings-related mortality (mortality rates differing by earnings levels), and earnings-related claiming behavior (the Social Security claiming age differing by earnings levels).[80] The authors show that, with earnings-related mortality, the actuarial adjustment no longer keeps the lifetime benefit the same regardless of claiming age. Low earners generally lose lifetime benefits from delaying, while high earners receive an overly generous benefit increase when they delay Social Security claiming. However, the study also shows that "a substantial portion of high earners claim early and receive a larger actuarial reduction than their life expectancy would warrant" using the Health and Retirement Study data. Since high-earning late claimers receive an actuarial advantage while high-earning early claimers receive an actuarial disadvantage, in aggregate, the study finds that earnings-related claiming slightly decreases the cost of lifetime benefits (roughly 0.6%) over a system where claiming across the earnings distribution is assumed to be constant.

Actuarial Adjustment Factors and Social Security Solvency

This section discusses the relationship between the actuarial adjustment factors and the financing of the Social Security program. Two cases are analyzed: (1) when adjustment factors are actuarially fair and (2) when adjustment factors deviate from actuarial fairness.

Actuarially Fair Adjustment Factors

Theoretically, if the adjustment factors are actuarially fair, the expected PV of lifetime benefits is about the same regardless of the claiming age. Thus, theoretically, claiming behavior would not

[76] Hilary Waldron, *Links Between Early Retirement and Mortality*, SSA, ORES Working Paper no. 93, August 2001; Hilary Waldron, *Do Early Retirees Die Early? Evidence from Three Independent Data Sets*, SSA, ORES Working Paper no. 97, July 2002; Hilary Waldron, *Heterogeneity in Health and Mortality Risk Among Early Retiree Men*, SSA, ORES Working Paper no. 105, May 2004.

[77] Irena Dushi, Leora Friedberg, and Anthony Webb, *Is the Adjustment of Social Security Benefits Actuarially Fair, and If So, for Whom?*, Michigan Retirement and Disability Research Center at University of Michigan, Working Paper 2021-421, September 2021.

[78] Dushi, Friedberg, and Webb, *Is the Adjustment of Social Security Benefits Actuarially Fair?*

[79] See CRS Report R42035, *Social Security Primer*.

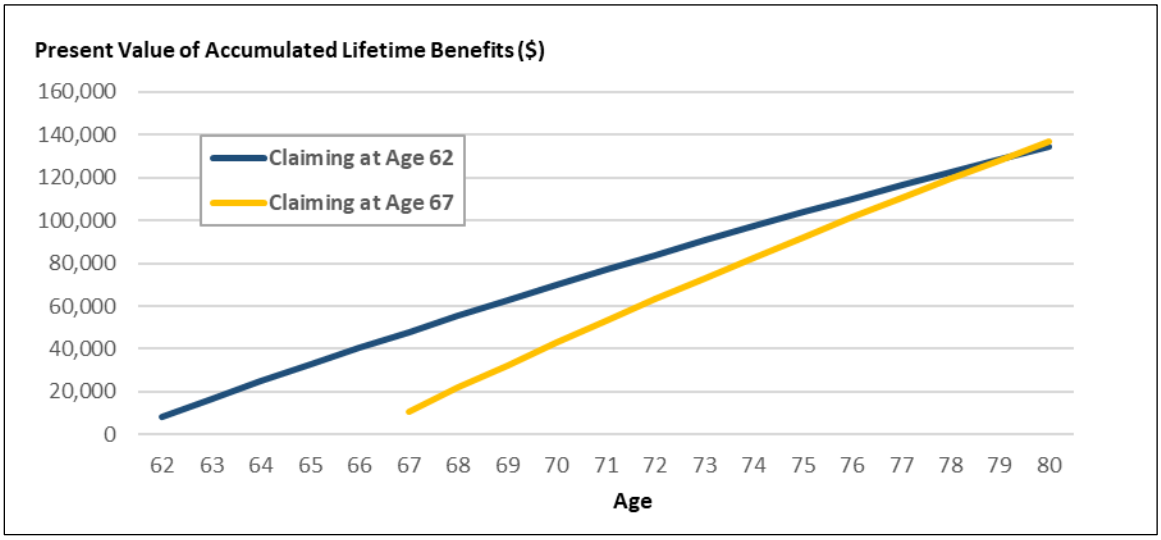
[80] Biggs, Chen, and Munnell, *The Consequences of Current Benefit Adjustments for Early and Delayed Claiming*.

affect Social Security program outlays in the long run. However, claiming benefits early still affects the Social Security trust funds in several ways.

First, early retirees can affect the cash flow of the Social Security trust funds. When a worker claims benefits early, he or she begins taking money from the trust funds sooner than would be the case if benefit claiming were delayed until FRA or later. **Figure 3** shows a hypothetical example about the PV of accumulated lifetime Social Security benefits for a beneficiary who had a FRA of 67 and a full benefit amount of $12,000 per year. If the beneficiary claimed benefits at age 62, he or she would receive $8,400 per year (a 30% reduction to full benefits) for a relatively longer period. If the beneficiary claimed benefits at the FRA, the person would receive $12,000 per year for five fewer years, holding everything else constant. At around age 80, the PV of accumulated lifetime benefits was about the same for the early retiree and the retiree at FRA, thus not affecting trust fund solvency in the long run. However, because more outflows from the Social Security trust funds occur earlier due to the early retiree, the trust fund balance could be drawn down more quickly than it would otherwise be for the later or delayed retiree.[81] This effect might be persistent over time because some members of every year-of-birth cohort choose to retire early.

Figure 3. Hypothetical Example: Present Value of Accumulated Lifetime Benefits by Claiming Age

Assume Interest Rate to Be 2% and Full Benefit at Age 67 (Full Retirement Age) to Be $12,000 per Year



Source: CRS.

Notes: The example assumes that the beneficiary was born in 1960, with a full retirement age of 67 and a full benefit of $12,000 per year. If the beneficiary claimed Social Security benefits at age 62, he or she would receive $8,400 per year (a 30% reduction of full benefit). The present value is evaluated at the end of age 62 with an interest rate of 2%.

Second, when many people retire early, Social Security loses the payroll taxes that early retirees would have paid if they had continued to work (assuming early retirees leave the labor force). Individuals with lifetime (i.e., 35 or more years) covered earnings will not lose much of their basic benefits if they stop working. The program, however, loses the payroll tax contributions

[81] The balance in the Social Security trust funds may also affect the amount of interest earned.

from those early retirees who stop working. Researchers suggested that this loss in payroll taxes was relatively smaller than the cash flow effect.[82]

Adjustment Factors Deviating from Actuarial Fairness

Because of the increase in life expectancy and the decline in interest rates, researchers have suggested that adjustment factors for early and delayed benefit claiming are no longer actuarially fair for the average beneficiary. They argue that the current-law reduction factors for early claiming are too large (reducing benefits for early claimers by a larger amount than needed), while the current-law credits for delayed claiming are too high (increasing benefits for delayed claimers by a higher amount than needed). That is, the average beneficiary who claims Social Security early would receive a benefit amount less than is actuarially fair, thus providing financial relief to the system. And the average beneficiary who claims Social Security benefits after FRA would receive a benefit amount greater than actuarially fair, thus increasing the financial burden to the system.

Research is limited in estimating how claiming behavior may affect trust fund solvency. One study estimates that, compared with adjustment factors that account for the changes in life expectancy and interest rates, the current-law actuarial adjustments saved about $2.2 billion from early claimers and paid $0.3 billion more to delayed claimers, thus saving about $1.9 billion in total for the Social Security program. Most gains of the savings came from those claiming at age 62, who are typically lower earners.[83]

In addition to average beneficiaries, recent research has found that high earners are increasingly likely to delay claiming. Because high earners also tend to have longer life expectancy, they could receive actuarial advantages from delayed claiming. One study finds that this claiming behavior has a modest effect on total Social Security payouts, resulting in an increase of 0.2% for current retirees and around 0.5% for most recent retiring cohorts.[84]

Policy Options

Policy options relating to adjustment factors may fall into three categories: (1) to restore the actuarial fairness for average workers, (2) to build up the actuarial fairness for most workers, and (3) to enhance income adequacy by giving up some actuarial fairness.

Restore Actuarial Fairness for Average Workers

Policymakers can update the adjustment factors for early and delayed claiming to reflect today's mortality rate and interest rate. Based on most estimates, the actuarial reduction factors for early claiming would be smaller than in current law, resulting in a higher monthly benefit for early claimers. Since most early claimers have relatively low income, this change might improve their retirement security. Those estimates also suggest that the actuarial factors for delayed claiming would be smaller than current-law credits, resulting in a lower monthly benefit for those claiming after FRA. Since most delayed claimers have relatively high income, this change would not likely affect their retirement income adequacy but would likely reduce the actuarial advantage those high earners receive under current law.

[82] Myers and Schobel, "Early-Retirement Reduction."

[83] Biggs, Chen, and Munnell, *The Consequences of Current Benefit Adjustments for Early and Delayed Claiming*.

[84] Dushi, Friedberg, and Webb, *Is the Adjustment of Social Security Benefits Actuarially Fair?*

At least three questions arise when updating the adjustment factors: (1) what mortality rates and interest rates should be used, (2) how frequently should the adjustment factors be changed, and (3) how would benefits be affected?

What Mortality Rates and Interest Rates Should Be Used?

Mortality rates can be based on those for the Social Security population and those projected in the trustees' report or other mortality data.[85] Historical estimates for the mortality rate generally change slowly.[86]

As mentioned earlier, there is no clear consensus on what interest rates should be used when estimating the adjustment factors under Social Security. Alternative options can include the return on U.S. government securities (special issues) held by the trust funds,[87] marketable Treasury bonds available to the public, the trustees' projection on real interest rates, and a risk-free rate with a premium to reflect additional risks faced by an average American.[88] Among those options, using real returns on the special issues might be the most appropriate, since they can reflect the borrowing and financing costs of the federal government at the time the adjustment factors are updated, can roughly match the risk-free rate facing the public in their financial decisionmaking, and are easier to administer.

How Frequently Should Adjustment Factors Be Changed?

The frequency of changing the actuarial factors can be done on an *ad hoc* or automatic basis. An ad hoc change approved by Congress every few years can provide stability for the benefit adjustment, but it may not reflect the change in market interest rates in a timely manner. (The change in mortality rate is generally slow.) An automatic adjustment to the actuarial factors can reflect immediate changes in market rates and lessen the concern about actuarial unfairness and related losses or gains in system outlays. An annual automatic change to the actuarial factors, however, may result in volatile changes given the ups and downs of the market and may confuse the public about the choices available to them. One study models the automatic change in actuarial factors by using five-year and 10-year moving averages and suggests that both are close to the annual adjustment and could be used to avoid the volatility in the annual change in adjustment factors.[89]

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[85] See Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund, *The 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, Table V.A4; National Center for Health Statistics, "Mortality Statistics," https://www.cdc.gov/nchs/nvss/deaths.htm.

[86] Some foreign pensions adjust retirement benefits based on changing life expectancy. For example, in Sweden, the old-age pension includes a component that is calculated based on an annuity factor depending on average life expectancy at the time of retirement for the appropriate age cohort (based on the most recent five-year average of unisex life expectancy projections). In Norway, the total old-age pension is adjusted based on a life expectancy factor, which is calculated based on the life expectancy of the insured's cohort and the age at which the insured claims the pension. In Denmark, the pension is increased for each month of deferral after the normal retirement age, and the increment for deferring the pension for a year is based on the ratio of the period of deferral to the average life expectancy at the time the pension is claimed. For additional information on foreign pensions, see SSA, *Social Security Programs Throughout the World: Europe, 2018*, https://www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/europe/index.html; and OECD, *Pensions at a Glance 2021*, https://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm.

[87] See SSA, "Special Issue Securities."

[88] See discussions of discount rates in Leimer, "A Guide to Social Security Money's Worth Issues."

[89] Warshawsky, *It Is Time to Update the Adjustment Factors for Age in Social Security Retirement Benefits*.

How Would Benefits Be Affected?

The actuarial factors would be adjusted by cohort as has been done in previous legislation (see **Figure 1**). That is, a retired worker would face one set of adjustment factors as early as age 62 to decide at which age to claim Social Security benefits. Once initial benefits are adjusted for claiming ages, the benefit level would not change with further variation in mortality rates or interest rates. (Benefits may increase with COLAs.) This design would help with program administration, public understanding, and individual planning.

Establish Actuarial Fairness for Most Workers

As discussed, the actuarial fairness of adjustment factors generally differs by gender and income, because, on average, women live longer than men do, and high-income individuals tend to have a longer life expectancy than do those with low income. Therefore, the actuarial fairness of adjustment factors for *most* workers would call for different factors for men and women and by income level.

Assigning different actuarial factors by gender and income may improve the actuarial fairness for different groups among the population. This would avoid the situation in which uniform adjustment factors disadvantage one gender or income group relative to another.

However, several issues may have to be considered. First, some undesirable outcomes may arise when altering the actuarial adjustment factors by, for example, income-related mortality. Low earners with shorter life expectancy would face a larger actuarial reduction for early claiming and a larger credit for delayed claiming, while high earners with longer life expectancy would face a smaller actuarial reduction and a smaller DRC. Therefore, low earners who may not be able to postpone benefit claiming would receive a lower monthly benefit than under current law.

Second, the Social Security program treats men and women the same under current law. Making gender distinctions in the parameters of the Social Security program might raise constitutional or other legal issues.[90]

Third, research has shown various estimates for mortality rates by income. Those estimates may vary due to differences in data sets, income measures, income comparison groups, and the types of life expectancy measure.[91] It may be a challenge for policymakers to agree on a fair and accurate method to project differential mortality rates by income. It may also be a difficult task to create an administratively effective method to estimate differential adjustment factors for different types of individuals.

Enhancing Income Adequacy by Giving up Actuarial Fairness

Because claiming benefits before the FRA results in permanently reduced benefits, many researchers argue that postponing claiming is often considered the best decision economically and

[90] For example, in 1977, the U.S. Supreme Court struck down provisions of the Social Security Act that required a man—but not a woman—to prove economic dependence on his insured spouse to establish eligibility for spousal benefits. See SSA, "*Goldfarb and Mathews*: Legal Challenges to the Dependency Test for Spouse's Benefits," *Social Security Bulletin*, vol. 47, no. 12 (December 1984).

[91] For more information, see the Appendix in CRS Report R44846, *The Growing Gap in Life Expectancy by Income: Recent Evidence and Implications for the Social Security Retirement Age*.

is recognized as an important way to enhance retirement security.[92] From this perspective, policymakers can change the adjustment factors to encourage later retirement.

One study uses SSA's Modeling Income in the Near Term microsimulation model to analyze how changing the early retirement reductions would affect claiming decisions.[93] Under current law, postponing benefit claiming from age 62 to 63 can increase monthly benefits by 5% of the full benefit amount, while postponing benefit claiming from age 66 to 67 (FRA) can increase monthly benefits by 6.67% of the full benefit amount. The program offers the largest incentive to postpone claiming right before FRA and the smallest incentive to postpone claiming just past the age of 62 (see **Table 6**). The study proposes to reverse the pattern of incentives by offering a larger incentive to postpone claiming from age 62 to 63 (about 8% of the full benefit amount) and a smaller incentive to postpone claiming right before FRA from age 66 to 67 (about 5%). The study suggests that the proposed pattern for early retirement reduction would likely encourage delayed claiming and increase monthly and lifetime Social Security benefits. The authors acknowledge that the proposed pattern would likely reduce the actuarial fairness of adjustment factors for early retirement, thus affecting the program solvency and related administrative costs. However, they did not assess the cost of the proposed change on the program solvency in the same study.

Table 6. Social Security Early Retirement Reduction: Current Law Versus One Policy Option

Assume the Full Retirement Age (FRA) Is 67

	Percentage of Monthly Benefit Reduction If Claiming at Age...					
	62	**63**	**64**	**65**	**66**	**67**
Current law	30.00%	25.00%	20.00%	13.33%	6.67%	0.00%
Policy option	30.00%	22.12%	14.09%	9.42%	4.67%	0.00%

Source: Current law is based on Social Security Administration, https://www.ssa.gov/planners/retire/retirechart.html. The policy option is from Melissa Knoll and Anya Olsen, "Incentivizing Delayed Claiming of Social Security Retirement Benefits Before Reaching the Full Retirement Age," *Social Security Bulletin*, vol. 74, no. 4 (November 11, 2014).

Another option would be to elect an adjustment schedule steeper than current law—a larger benefit reduction for early claiming and a larger benefit credit for delayed claiming after FRA. Supporters believe that these policies could provide more incentive for workers to continue working and delay benefit claiming. Opponents of those polices argue that reducing the benefits for early claiming to a level lower than the actuarially fair level would result in inadequate benefits for those who still claimed before FRA, such as those with certain health problems and those in physically demanding jobs. Opponents are also more concerned with the equity issues that would arise from those changes: Wealthier people may be able to afford to live off savings and private pensions and claim benefits later, while poorer retirees who are less likely to have pensions and without the option of continuing to work may not be able to wait and may have to claim the actuarially unfair benefit before FRA.[94]

[92] For example, see Coile et al., "Delays in Claiming Social Security Benefits."

[93] Melissa Knoll and Anya Olsen, "Incentivizing Delayed Claiming of Social Security Retirement Benefits Before Reaching the Full Retirement Age," *Social Security Bulletin*, vol. 74, no. 4 (November 11, 2014), pp. 21-43, https://www.ssa.gov/policy/docs/ssb/v74n4/v74n4p21.html.

[94] Myers and Schobel, "Early-Retirement Reduction."

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