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# How Social Security Benefits Are Computed: In Brief

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## Summary

With \$812 billion in benefit outlays in 2013, Social Security is the largest program in the federal budget. It provides monthly cash benefits to retired and disabled workers and their family members as well as to the family members of deceased workers. Currently, there are about 58 million beneficiaries. Under current law, Social Security's revenues are projected to be insufficient to pay full scheduled benefits after 2033.

Monthly benefit amounts are determined by federal law. Social Security is an issue of ongoing interest both because of its role in supporting a large portion of the population and because of its long-term financial imbalance, and policy makers have considered numerous proposals to change its benefit computation rules.

The Social Security benefits that are paid to worker beneficiaries and to workers' dependents and survivors are based on workers' past earnings. The computation process involves three main steps:

- First, a summarized measure of lifetime earnings is computed. That measure is called the *average indexed monthly earnings* (AIME).
- Second, a benefit formula is applied to the AIME to compute the *primary insurance amount* (PIA). The benefit formula is progressive. As a result, workers with higher AIMEs receive higher Social Security benefits, but the benefits received by people with lower earnings replace a larger share of past earnings.
- Third, an adjustment may be made based on the age at which a beneficiary chooses to begin receiving payments. For retired workers who claim benefits at the full retirement age (FRA), which is currently 66, and for disabled workers, the monthly benefit equals the PIA. Retired workers who claim earlier receive lower monthly benefits, and those who claim later receive higher benefits.

Benefits for eligible dependents and survivors are based on the worker's PIA. For example, a dependent spouse receives a benefit equal to 50% of the worker's PIA, and a widow(er) receives a benefit equal to 100% of the worker's PIA. Dependent benefits may also be adjusted based on the age at which they are claimed.

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## Introduction

Social Security, which paid \$812 billion in benefits in 2013, is the largest program in the federal budget. There are currently about 58 million Social Security beneficiaries.<sup>1</sup>

Most Social Security beneficiaries are retired and disabled workers, whose monthly benefits depend on their past earnings, their age, and other factors. Benefits are also paid to workers' dependents and survivors. Dependent and survivors benefits are based on the earnings of the workers upon whose work record they claim.

Social Security has an important impact on beneficiaries, both young and old, in terms of income support and poverty reduction. However, under current law, Social Security's revenues are projected to be insufficient to pay full scheduled benefits after 2033. For both of those reasons, is an issue of ongoing interest to policy makers. Most proposals to change Social Security outlays would change the benefit computation rules. Evaluating such proposals requires an understanding of how benefits are computed under current law.

## Eligibility

A person who has sufficient history of earnings in employment subject to Social Security payroll taxes becomes "insured" for Social Security, which makes the worker and qualified dependents eligible for benefits. Insured status is based on the number of "quarters of coverage" (QCs) earned.<sup>2</sup> In 2014, a worker earns one QC for each \$1,200 of earnings, and a worker may earn up to four QCs per calendar year. The amount needed for a QC increases annually by the growth in average earnings in the economy, as measured by Social Security's average wage index.<sup>3</sup>

To be eligible for most benefits, workers must be "fully insured," which requires one QC for each year elapsed after the worker turns 21 years old, with a minimum of 6 QCs and a maximum of 40 QCs. A worker is first eligible for Social Security retirement benefits at 62, so to be eligible for retirement benefits, a worker must generally have worked for 10 years.

Benefits may be paid to eligible survivors of workers who were fully insured at the time of death. Some dependents are also eligible if the deceased worker was "currently insured," which requires earning 6 QCs in the 13 quarters ending with the quarter of death.

To be eligible for disability benefits, workers must also satisfy a recency of work requirement. Workers aged 31 and older must have earned 20 QCs in the 10 years before becoming disabled. Fewer QCs are required for younger workers.<sup>4</sup>

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<sup>1</sup> This report provides an overview of how Social Security benefits are computed. For additional details and a more comprehensive overview of Social Security, see CRS Report R42035, *Social Security Primer*, by Dawn Nuschler.

<sup>2</sup> For details, see "Insured Status" in Social Security Administration, Annual Statistical Supplement, 2013 (February 2014), at <http://www.ssa.gov/policy/docs/statcomps/supplement/2013/oasdi.html>.

<sup>3</sup> The average wage index is the average of all workers' wages subject to federal income taxes and contributions to deferred compensation plans. It is calculated using some wages that are not subject to the Social Security payroll tax.

<sup>4</sup> To be eligible for disability benefits, workers must also be found unable to engage in substantial gainful activity. See CRS Report RL32279, *Primer on Disability Benefits: Social Security Disability Insurance (SSDI) and Supplemental* (continued...)

## Average Indexed Monthly Earnings

The first step of computing a benefit is determining a worker's *average indexed monthly earnings* (AIME), a measure of a worker's past earnings.

### Wage Indexing

Rather than using the amounts earned in past years directly, the AIME computation process first updates past earnings to account for growth in overall economy-wide earnings. That is done by increasing each year of a worker's taxable earnings after 1950 by the growth in average earnings in the economy, as measured by Social Security's average wage index, from the year of work until two years before eligibility for benefits, which for retired workers is at 62. For example, the Social Security average wage grew from \$32,155 in 2000 to \$41,674 in 2010. So if a worker earned \$20,000 in 2000 and turned 60 in 2010, the *indexed* wage for 2000 would be  $\$20,000 \times (\$41,674 / \$32,155)$ , or \$25,921. Earnings from later years—for retired workers, at ages 61 and above—are not indexed.

### Averaging Indexed Earnings

For retired workers, the AIME equals the average of the 35 highest years of indexed earnings, divided by 12 (to change from an annual to a monthly measure). Those years of earnings are known as *computation years*. If the person worked fewer than 35 years in employment subject to Social Security payroll taxes, the computation includes some years of zero earnings. For example, benefits for workers who immigrated to the United States may be based only on their earnings in the United States and could include zero earnings for years before they immigrated, even if they had earnings in another country.<sup>5</sup>

In the case of workers who die before turning 62 years old, the number of computation years is generally reduced below 35 by the number of years until he or she would have reached 62. For example, the AIME for a worker who died at 61 is based on 34 computation years.

For disabled workers, the number of computation years depends primarily on the age at which they become disabled, increasing from two years for those aged 24 or younger to 35 years for those aged 62 or older.<sup>6</sup>

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(...continued)

*Security Income (SSI)*, by William R. Morton.

<sup>5</sup> International "totalization agreements" allow workers who divide their careers between the United States and certain countries to fill gaps in Social Security coverage by combining work credits under each country's system to qualify for benefits under one or both systems. See CRS Report RL32004, *Social Security Benefits for Noncitizens*, by Dawn Nuschler and Alison Siskin.

<sup>6</sup> The number of computation years equals the number of "elapsed years" minus any "dropout years." The number of elapsed years equals the calendar years after an individual turns 21 years old through the year before the individual first becomes eligible for disability benefits, with a minimum of two. For every five elapsed years, there is one disability dropout year, up to a maximum of five. In addition, people with fewer than three disability dropout years may be credited with up to two additional dropout years based on the care of a child, for up to a total of three dropout years. See CRS Report R43370, *Social Security Disability Insurance (SSDI): Becoming Insured, Calculating Benefit Payments, and the Effect of Dropout Year Provisions*, by Umar Moula-Ali.

## Primary Insurance Amount

The next step in determining a benefit is to compute the *primary insurance amount* (PIA) by applying a benefit formula to the AIME.

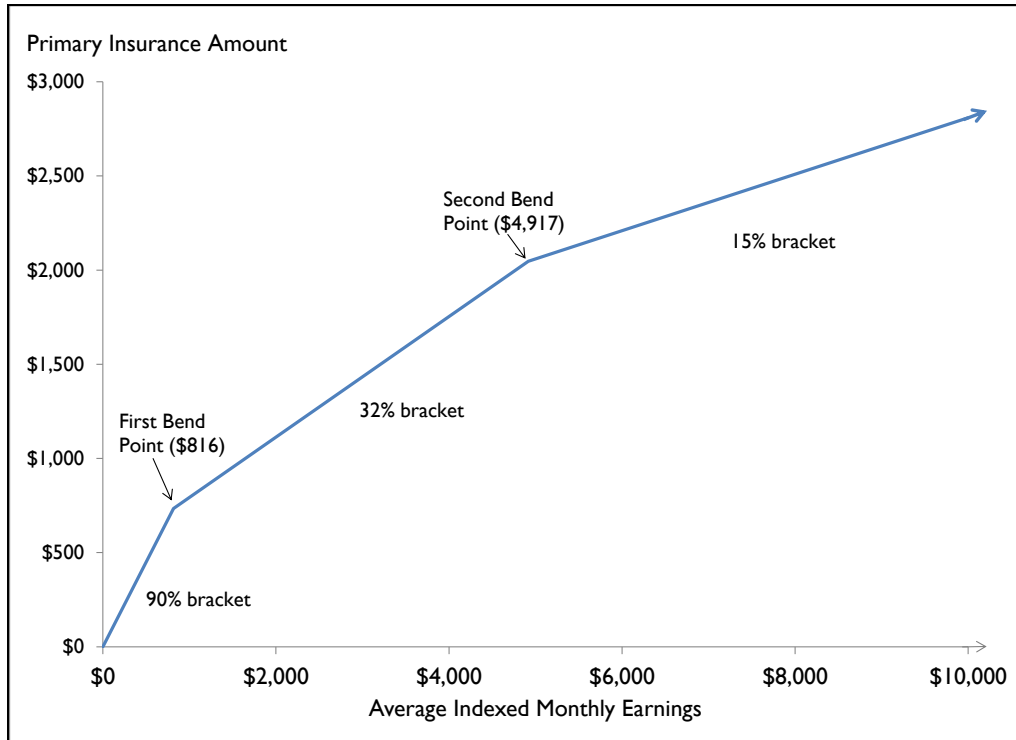
First, the AIME is sectioned into three brackets (or segments) of earnings, which are divided by dollar amounts known as bend points. In 2014, the bend points are \$816 and \$4,917. Those amounts are indexed to the average wage index, so they generally increase each year.

Three factors, which are fixed by law at 90%, 32%, and 15%, are applied to the three brackets of AIME. For workers with AIMEs of \$816 or less in 2014, the PIA is 90% of the AIME. Because the other two factors are lower, that share declines as AIMEs increase, which makes the benefit formula progressive. For workers who become eligible for retirement benefits, become disabled, or die in 2014, the PIA is determined as shown in the example in **Table 1** and in **Figure 1**.

**Table 1. Computation of a Worker's Primary Insurance Amount (PIA) in 2014  
Based on an Illustrative AIME of \$5,000**

Factors	Three Brackets of AIME	PIA for Worker with an Illustrative AIME of \$5,000
90%	first \$816 of AIME, plus	\$734.40
32%	AIME over \$816 and through \$4,917, plus	\$1,312.32
15%	AIME over \$4,917	\$12.45
<b>Total: Worker's PIA</b> (by law, rounded down to nearest 10 cents)		<b>\$2,059.10</b>

**Source:** Congressional Research Service.

**Figure I. Computation of a Worker's Primary Insurance Amount (PIA) in 2014**

Source: Congressional Research Service.

## Wage Indexing Results in Stable Replacement Rates

In the AIME computation, earnings are indexed to the average wage index, and the bend points in the benefit formula are indexed to growth in the average wage index. As a result, replacement rates—the portion of earnings that benefits replace—remain generally stable. That is, from year to year, the average benefits that new beneficiaries receive increase at approximately the same rate as average earnings in the economy.

## Cost-of-Living Adjustment

A cost-of-living adjustment (COLA) is applied to the benefit beginning in the second year of eligibility, which for retired workers is age 63. The COLA applies even if a worker has not yet begun to receive benefits. The COLA usually equals the growth in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) from the third quarter of one calendar year to the third quarter of the next year. For example, beneficiaries received a COLA of 1.5% in January 2014 because the CPI-W increased by 1.5% between the third quarter of 2012 and the third quarter of 2013.<sup>7</sup>

<sup>7</sup> If the CPI-W does not increase over the relevant period, no COLA is payable. No COLA was payable in January 2010 or January 2011 because the CPI-W for the third quarter of 2009 and for the third quarter of 2010 were both lower than the CPI-W for the third quarter of 2008. For details, see CRS Report 94-803, *Social Security: Cost-of-Living Adjustments*, by Gary Sidor.

# How Timing of Benefit Claim Affects Benefit Levels

## Full Retirement Age

The full retirement age (FRA, also called the normal retirement age) is the age at which a worker can receive the full PIA, increased by any COLAs. The FRA was 65 for people born before 1938, but the Social Security Amendments of 1983 (P.L. 98-21) raised the FRA for those born later, as shown in **Table 2**.

**Table 2. Full Retirement Age (FRA) by Year of Birth**

Year of Birth	Year Turning 62	Full Retirement Age
1937 or earlier	1999 or earlier	65
1938	2000	65 and 2 months
1939	2001	65 and 4 months
1940	2002	65 and 6 months
1941	2003	65 and 8 months
1942	2004	65 and 10 months
1943-1954	2005-2016	66
1955	2017	66 and 2 months
1956	2018	66 and 4 months
1957	2019	66 and 6 months
1958	2020	66 and 8 months
1959	2021	66 and 10 months
1960 or later	2022 or later	67

**Source:** Social Security Administration, Office of the Chief Actuary, “Normal Retirement Age,” at <http://www.ssa.gov/OACT/progdata/nra.html>.

## Adjustments for Early and Late Benefit Claim

Retired workers may claim benefits when they turn 62 years old, but the longer that they wait, the higher their monthly benefit. The higher monthly benefit is intended to offset the fewer number of payments that people who delay claim will receive over their lifetimes, so that the total value of lifetime benefits is approximately the same regardless of when they claim.

The permanent reduction in monthly benefits that applies to people who claim *before* the FRA is called an actuarial reduction. It equals  $6\frac{2}{3}\%$  per year for the first three years of early claim and 5% for additional years.<sup>8</sup>

<sup>8</sup> Technically, the actuarial reduction is five-ninths of 1% for each month up to 36 months of benefit entitlement before the FRA and five-twelfths of 1% for each month beyond 36 months.

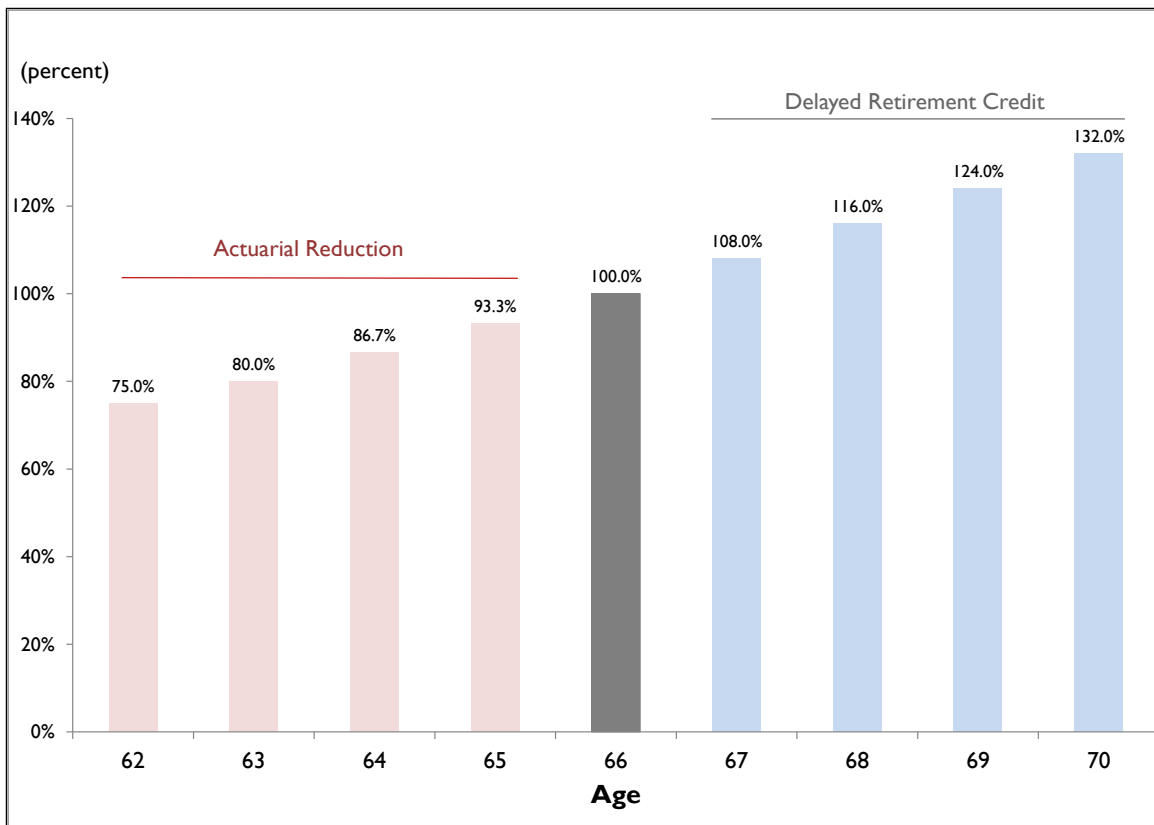


The permanent increase in monthly benefits that applies to those who claim *after* the FRA is called the delayed retirement credit. For people born in 1943 and later, that credit is 8% for each year of delayed claim after the FRA, up to age 70.<sup>9</sup>

For people with an FRA of 66, therefore, monthly benefits are 75% of the PIA for those who claim benefits at the age of 62 and 132% of the PIA for people who wait until the age of 70 to claim (see **Figure 2**). Because people who claim earlier receive more payments over a lifetime, the overall effect of claiming at different ages depends on how long the beneficiary lives. For example, someone who dies at 71 years old would be better off claiming early, but someone who survives to 95 would be better off claiming late.

**Figure 2. Monthly Retirement Benefit by Claim Age**

Percentage of Primary Insurance Amount (PIA), for People with a Full Retirement Age of 66



**Source:** Congressional Research Service.

An increase in the FRA results in lower benefits regardless of when they are claimed. Depending on the claim age, the scheduled increase in the FRA from 66 to 67 will reduce monthly benefits by between 6.1% and 7.7%. For example, people who have an FRA of 66 and who claim at aged 62 receive a benefit equal to 75% of the PIA. But when the FRA increases to 67, claiming at 62 will result in a benefit of 70% of the PIA.

<sup>9</sup> For people born before 1943, the delayed retirement credit varies from 3.0% to 7.5%, depending on the year of birth. See “Delayed Retirement Credit” in Social Security Administration, Office of the Chief Actuary, “Early or Late Retirement?,” at [http://www.ssa.gov/OACT/quickcalc/early\\_late.html#late](http://www.ssa.gov/OACT/quickcalc/early_late.html#late).

## Dependent Benefits

Social Security benefits are payable to the spouse, divorced spouse, or child of a retired or disabled worker and to the widow(er), divorced widow(er), child, or parent of a deceased worker.<sup>10</sup> When dependent beneficiaries also earned worker benefits, they receive the larger of the worker or the dependent benefit.

A spouse's base benefit (that is, before any adjustments) equals 50% of the worker's PIA. A widow(er)'s base benefit is 100% of the worker's PIA. The base benefit for children of a retired or disabled worker is 50% of the worker's PIA, and the base benefit for children of deceased workers is 75% of the worker's PIA.

## Other Adjustments to Benefits

Other benefit adjustments apply in certain situations, notably

- the windfall elimination provision (WEP), which reduces benefits for *worker* beneficiaries who have pensions from employment that was not subject to Social Security payroll taxes;<sup>11</sup>
- the government pension offset (GPO), which reduces Social Security *spousal* benefits paid to people who have pensions from employment that was not subject to Social Security payroll taxes;<sup>12</sup>
- the retirement earnings test, which delays monthly Social Security benefits paid to beneficiaries who are younger than the full retirement age and have earnings above a certain level;<sup>13</sup> and
- the maximum family benefit, which limits the amount of benefits payable to a family.<sup>14</sup>

In some cases, a portion of Social Security benefits may be subject to income tax. Taxation is not a benefit adjustment, but it does affect the net income of beneficiaries. For additional information, see CRS Report RL32552, *Social Security: Calculation and History of Taxing Benefits*, by Noah P. Meyerson.

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<sup>10</sup> The computation of dependent benefits may be quite complex. For additional details and information on other dependent benefits, see “Benefits for the Worker’s Family Members” in CRS Report R42035, *Social Security Primer*, by Dawn Nuschler.

<sup>11</sup> See CRS Report 98-35, *Social Security: The Windfall Elimination Provision (WEP)*, by Gary Sidor.

<sup>12</sup> See CRS Report RL32453, *Social Security: The Government Pension Offset (GPO)*, by Gary Sidor.

<sup>13</sup> See CRS Report R41242, *Social Security Retirement Earnings Test: How Earnings Affect Benefits*, by Dawn Nuschler.

<sup>14</sup> See “Maximum Family Benefit Amount” in CRS Report R42035, *Social Security Primer*, by Dawn Nuschler.