## Appendix D: Computing a Retired-Worker Benefit

## Overview

This section provides instructions and a worksheet for computing a retired-worker benefit for persons born in the years 1943 through 1956. The worksheet assumes that the worker had no prior period of entitlement to disability benefits and did not work after becoming entitled to retired-worker benefits.

The worksheet describes the various steps used in computing a benefit. The steps are based on the following Social Security program goals:

- To provide a benefit based on lifetime earnings. Benefits are related to the 35 highest earnings years (the number of computation years), but only for years after 1950. If there are fewer than 35 years with earnings, then years of no earnings are included among the 35 computation years.
- To index lifetime earnings. Earnings used in the computation are not the actual covered earnings but an amount that reflects earnings increases in average wage levels for each year after the earnings were paid. This procedure is termed wage indexing. Currently, earnings are generally indexed to wage levels in the year the worker turns age 60. For example, for a person attaining age 62 in 2018, actual earnings in 1990 of $\$ 20,000$ are indexed to $\$ 46,264.22$, on the basis of 2016 wage levels. Earnings after age 60 are included at their actual (nominal) value.
- To replace a portion of the indexed earnings. Indexed earnings are averaged over the number of computation years to calculate the average indexed monthly earnings (AIME). A benefit formula is applied to the AIME to produce the primary insurance amount (PIA), the amount payable to a worker who retires at the full retirement age (FRA). The benefit formula is weighted to provide a higher replacement of earnings for lower-wage workers. The formula for persons aged 62 in 2018 is 90 percent of the first $\$ 895$ of AIME; plus 32 percent of the next $\$ 4,502$; plus 15 percent of the AIME over $\$ 5,397$.
- To permit early retirement. Persons can retire as early as age 62 , but the monthly benefit is reduced. This reduction applies to all future benefits. The reduction is calculated as $5 / 9$ of 1 percent for each month immediately preceding the FRA, up to 36 months. If the number of months exceeds 36 , then the benefit is further reduced $5 / 12$ of 1 percent per month. For a person aged 62 in 2018, the maximum reduction is 26.67 percent if the individual is entitled to benefits for all 52 months between ages 62 and 66 and 4 months.
- To provide for price indexing after age 62. Benefits are adjusted annually in December to reflect
increases in the Consumer Price Index (CPI-W). The benefit increase in 2017 was 2.0 percent. These cost-of-living adjustments are applied to the benefit for each year after the person attained age 62-even if the person was not actually receiving benefits.
- To give credit for earnings after age 61. Earnings after age 61 (which are not indexed) can be substituted for earnings in earlier years if they result in a higher benefit.
- To give credit for late retirement. Persons who initiate benefits after FRA may receive increased benefits as a result of the delayed retirement credit provision. The benefit is increased by a specified percentage for each month between FRA and age 70 a benefit is deferred. See Table 2.A20 for percentage increases.


## Clarifying the Worksheet Procedure

## Step 1 - Determining the Number of Computation Years

For workers born in the years 1943 through 1956, the number of computation years is 35 .

## Step 2 - Wage Indexing of Earnings

The following description and examples are provided for persons who wish to compute the index factors and indexed earnings. The indexing year is the year a person attains age 60 . Beneficiaries born on January 1 are deemed to have attained age 60 on December 31 of the prior year.

The average wage for the indexing year is divided by the average wage in each prior year to obtain the factor for each prior year. For example, for a person attaining age 62 in 2018, the indexing year is 2016. The average annual wage for 2016 was $\$ 48,642.15$. The average annual wage for 1990 was $\$ 21,027.98$. The amount $\$ 48,642.15$ divided by $\$ 21,027.98$ yields a factor of 2.3132108.

The worker's actual earnings covered under Social Security in that year, up to the maximum earnings creditable, are multiplied by the indexing factor to obtain the indexed earnings (see Worksheet 1). For example, actual covered earnings of $\$ 10,000$ in 1990, multiplied by 2.3132108 , result in indexed earnings of $\$ 23,132.11$; actual earnings of $\$ 51,300$ (the maximum creditable) result in indexed earnings of $\$ 118,667.71$.

## Step 3 - Computing the Average Indexed Monthly Earnings (AIME)

After the earnings in each year have been indexed, they are used in computing average indexed monthly
earnings. The years of highest indexed earnings corresponding to the number of computation years are selected and totaled. This total is then divided by the number of months in the computation years. The result, rounded to the nearest lower dollar, is the average indexed monthly earnings.

For example, for a person attaining age 62 in 2018, the highest 35 years of indexed earnings are used. If the sum of these earnings equals \$400,000, the AIME is $\$ 952$ ( $\$ 400,000$ divided by 420 months $=\$ 952.38$, rounded to \$952).

## Step 4 - Computing the Primary Insurance Amount (PIA)

The PIA, the amount from which all Social Security benefits payable on a worker's earnings record are based, is computed by applying a formula to the AIME. The formula consists of brackets in which three percentages are applied to amounts of AIME. The dollar amounts defining the brackets are called bend points, and the bend points are different for each calendar year of attainment of age 62. The PIA is rounded to the nearest lower 10 cents.

For retired workers who attained age 62 in 2018, the bend points are $\$ 895$ and $\$ 5,397$. Thus the formula is 90 percent of the first $\$ 895$ of AIME; plus 32 percent of the next $\$ 4,502$ of AIME; plus 15 percent of AIME above $\$ 5,397$. The following are examples of PIA computations for such workers with different AIME amounts.

Example 1 - AIME of $\$ 700$
PIA is \$630
Based on: 90 percent of $\$ 700$
Example 2 - AIME of $\$ 1,500$
PIA is \$999.10, rounded to $\$ 999.10$
Based on: 90 percent of $\$ 895$ (\$805.50); plus 32 percent of $\$ 605$ (\$193.60)
Example 3 - AIME of $\$ 6,000$
PIA is $\$ 2,336.59$, rounded to $\$ 2,336.50$
Based on: 90 percent of $\$ 895$ ( $\$ 805.50$ ); plus 32 percent of $\$ 4,502(\$ 1,440.64)$; plus 15 percent of $\$ 603$ (\$90.45)

The above calculations are applicable to workers who attain age 62 in 2018. For workers who attained age 62 in prior years, the bend points will be different, and the PIA must be increased to reflect cost-of-living adjustments between the year of attainment of age 62 and 2018. Worksheet 2 shows cost-of-living increase factors for 2004 through 2018. After the PIA is calculated for the year of attainment of age 62, cost-of-living increases are applied for each year through 2017. The result is the current 2018 PIA.

For example, a worker who attained age 62 in 2015 would receive cost-of-living adjustments for the years 2015-2017. The adjustments are cumulative, with each
step rounded to the next lower dime. If the PIA at age 62 was $\$ 700$, the cost-of-living adjustments would be:

2015: $\$ 700$ multiplied by $1.000=\$ 700$
2016: $\$ 700$ multiplied by $1.003=\$ 702.10$, rounded to $\$ 702.10$
2017: $\$ 702.10$ multiplied by $1.020=\$ 716.14$, rounded to $\$ 716.10$
$\$ 716.10$ would be the PIA effective December 2017.

## Step 5 - Computation of the Monthly Benefit

The full PIA is payable to a worker who retires at the full retirement age (FRA). In 2000, workers reaching age 62 were the first to be affected by incremental increases in the FRA—from age 65 for workers born before 1938 to age 67 for workers born 1960 and later.

## Early retirement reduces benefits:

Workers can still retire as early as age 62, but the monthly benefit is reduced. The reduction is calculated as $5 / 9$ of 1 percent for each month immediately preceding the FRA, up to 36 months. If the number of months exceeds 36 , then the benefit is further reduced $5 / 12$ of 1 percent per month. Workers attaining age 62 in 2018 have their benefits computed based on the FRA of 66 and 4 months. See Table 2.A17.1 to determine the FRA based on the year of birth as well as the benefit reduction factors. For individuals electing benefits at exactly age 62 in 2018, the maximum reduction is 26.67 percent.

For example, in 2018 a worker with a PIA of $\$ 700$ would receive $\$ 513$ at age 62. The PIA is reduced by $\$ 186.69$, reflecting a reduction rate of $5 / 9$ of 1 percent for each of the first 36 months and a reduction rate of $5 / 12$ of 1 percent for each of the additional 16 months for a total reduction of 26.67 percent. After reduction of the PIA by $\$ 186.69$, the benefit amount is rounded down to the nearest lower dollar.

## Delayed retirement increases benefits:

Delayed retirement increases the benefit amount (by a certain percentage depending on a person's date of birth) if the worker delays retirement beyond FRA. Benefit increases stop accumulating when the worker reaches age 70, even if he or she continues to delay taking benefits. Delayed retirement increases begin to apply to benefits in January of the year following the year the worker reaches FRA. The credit given for delayed retirement will gradually reach 8 percent per year ( $16 / 24$ of 1 percent monthly) for those born 1943 and later. See Table 2.A20 for percentage increases.

For example, a worker born in June 1952 will reach FRA in June 2018. If the worker delays receiving benefits until November 2018 (5 months after FRA), his or her benefit will be $103.33 \%$ of the PIA. If the worker's PIA is $\$ 700$, his or her benefit would increase to $\$ 723.31$, rounded to \$723.30.

## Instructions for computing a retired-worker benefit (only for workers attaining age 62 in years 2005-2018)

## STEP 1.-Determining the Number of Computation Years

1 Number of Computation Years.
STEP 2.—Indexing of Earnings (Use Worksheet 1 for Steps 2 and 3.)

| 2 | Enter in column 2 your earnings in each year 1957 through 2017. If none, enter "0." |  |
| :---: | :--- | :--- |
| 3 | Column 3 contains the maximum earnings creditable under Social Security for each year. |  |
| 4 | Enter in column 4 the lower amount from columns 2 or 3 for each year. |  |
| 5 | Enter in column 5 the indexing factors applicable to the year you attained age 62 from Table 2.A8. <br> (This table contains the indexing factors for persons attaining age 62 during the period 2003-2018.) |  |
| 6 | Multiply column 4 by column 5 and enter results in column 6 in dollars and cents. These are your <br> indexed earnings. |  |
| STEP 3.-Computing the Average Indexed Monthly Earnings (AIME) |  |  |

STEP 3.-Computing the Average Indexed Monthly Earnings (AIME)

| 7 | Enter the number of computation years from line 1. | 35 |
| :---: | :--- | :---: |
| 8 | Place an " $X$ " in column 7 next to each of the 35 highest indexed earnings entries. |  |
| 9 | Add all individual indexed earnings marked with an " $X$. " |  |
| 10 | Number of months in the computation period. | 420 |
| 11 | Divide line 9 by line 10. |  |
| 12 | Round the result in line 11 to the next lower dollar. This is your average indexed monthly earnings (AIME). |  |
| STEP 4. |  |  |


| 13 | Enter first bend point from Worksheet 2 based on year of attainment of age 62. (If your birthday is January 1, enter prior year.) |  |
| :---: | :---: | :---: |
| 14 | Enter second bend point from Worksheet 2. |  |
| 15 | If your AIME (obtained in line 12) is equal to or less than line 13, complete line 16, otherwise skip to line 17. |  |
| 16 | Multiply line 12 by 0.9 . (If you receive a pension on the basis of noncovered employment, see Table 2.A11.1.) Round to next lower dime to obtain your PIA at age 62. Continue with line 26. |  |
| 17 | If your AIME (obtained in line 12) is greater than line 13 but less than or equal to line 14, complete lines 18-20, otherwise skip to line 21. |  |
| 18 | Multiply line 13 by 0.9. (If you receive a pension on the basis of noncovered employment, see Table 2.A11.1.) |  |
| 19 | Subtract line 13 from line 12 then multiply by 0.32 . |  |
| 20 | Add line 18 to line 19, and round to next lower dime to obtain your PIA at age 62. Continue with line 26. |  |
| 21 | If your AIME (obtained in line 12) is greater than line 14, complete lines 22-25. |  |
| 22 | Multiply line 13 by 0.9. (If you receive a pension on the basis of noncovered employment, see Table 2.A11.1.) |  |
| 23 | Subtract line 13 from line 14 then multiply by 0.32 . |  |
| 24 | Subtract line 14 from line 12 then multiply by 0.15 . |  |
| 25 | Add lines 22, 23, and 24, and round to the next lower dime to obtain your PIA at age 62. Continue with line 26. |  |
| 26 | If you attained age 62 in 2018, skip to line 32. Otherwise you will need to adjust your PIA to reflect cost-of-living adjustments (COLAs) from the year you attained age 62 through 2017 by using lines 27-31 and Worksheet 2. |  |
| 27 | Enter year of attainment of age 62. |  |
| 28 | Place an " X " corresponding to the year you attained age 62 in column 5 (Worksheet 2). |  |
| 29 | Place an "X" in column 5 (Worksheet 2) next to each subsequent year through 2017. |  |
| 30 | Enter your PIA at age 62 from either line 16, 20, or 25-here and in the first row of column 6 (Worksheet 2). |  |
| 31 | Beginning with first year marked, multiply your PIA at age 62 by the corresponding factor (column 4), round to the next lower dime, and enter in column 6. The resulting PIA is then multiplied by the next factor and is again rounded to the next lower dime. Continue this process through 2017. Enter this last figure, which is your current PIA. |  |

(Continued)

## Instructions for computing a retired-worker benefit (only for workers attaining age 62 in years 2005-2018)-Continued

## STEP 5.-Computing the Monthly Benefit

| 32 | Enter your current PIA from either line 16, 20, 25, or 31. |  |
| :---: | :---: | :---: |
| 33 | Using Table 2.A17.1, determine your full retirement age and enter here. |  |
| 34 | If you retired at your full retirement age, round the PIA from line 32 to the next lower dollar to obtain your monthly benefit. If you retired before the full retirement age, skip to line 35 . If you retired after the full retirement age, skip to line 45. |  |
| 35 | If you retired before the full retirement age, enter your age at retirement in years and months, and complete lines 36-44. |  |
| 36 | Subtract line 35 from line 33, and convert the result to months to determine the total number of reduction months. |  |
| 37 | If line 36 is greater than 36 reduction months, subtract 36 months and enter the result here. |  |
| 38 | " 0.0055556 " (the decimal equivalent of $5 / 9$ of 1 percent-the monthly reduction factor for the first 36 months) has been entered. | 0.0055556 |
| 39 | " 0.0041667 " (the decimal equivalent of $5 / 12$ of 1 percent-the monthly reduction factor for months above 36) has been entered. | 0.0041667 |
| 40 | Multiply line 36 (but not more than 36 months) by line 38 to obtain the percent reduction for the first 36 months. |  |
| 41 | Multiply line 37 by line 39 to obtain the percent reduction for months in excess of 36. |  |
| 42 | Add line 40 to line 41 to obtain the total percent reduction. |  |
| 43 | Multiply line 32 by line 42 to obtain the amount of benefit reduction. |  |
| 44 | Subtract line 43 from line 32, and round to the next lower dollar to obtain your monthly benefit. |  |
| 45 | If you retired (or plan to retire) after the full retirement age, enter your actual (or planned) age at retirement in years and months, and complete lines $46-50$. If you worked (or plan to work) after attaining age 70, enter " 70 years 0 months." |  |
| 46 | Subtract line 33 from line 45 , and convert the result to months to determine the total number of delayed months. |  |
| 47 | " 0.006667 " (the decimal equivalent of $16 / 24$ of 1 percent-the monthly percentage increase for persons born 1943 or later) has been entered. | 0.006667 |
| 48 | Multiply line 46 by line 47 to obtain the total percent increase. |  |
| 49 | Multiply line 32 by line 48 to obtain the amount of benefit increase. |  |
| 50 | Add line 32 to line 49, and round to the next lower dollar to obtain your monthly benefit. |  |

Worksheet 1: Indexing of earnings

| Year | Your earnings | $\begin{array}{r} \text { Maximum } \\ \text { taxable } \\ \text { earnings }(\$) \\ \hline \end{array}$ | Lower of columns 2 or 3 | Indexing factor | Column 4 times column 5 | Highest indexed earnings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1957 |  | 4,200 |  |  |  |  |
| 1958 |  | 4,200 |  |  |  |  |
| 1959 |  | 4,800 |  |  |  |  |
| 1960 |  | 4,800 |  |  |  |  |
| 1961 |  | 4,800 |  |  |  |  |
| 1962 |  | 4,800 |  |  |  |  |
| 1963 |  | 4,800 |  |  |  |  |
| 1964 |  | 4,800 |  |  |  |  |
| 1965 |  | 4,800 |  |  |  |  |
| 1966 |  | 6,600 |  |  |  |  |
| 1967 |  | 6,600 |  |  |  |  |
| 1968 |  | 7,800 |  |  |  |  |
| 1969 |  | 7,800 |  |  |  |  |
| 1970 |  | 7,800 |  |  |  |  |
| 1971 |  | 7,800 |  |  |  |  |
| 1972 |  | 9,000 |  |  |  |  |
| 1973 |  | 10,800 |  |  |  |  |
| 1974 |  | 13,200 |  |  |  |  |
| 1975 |  | 14,100 |  |  |  |  |
| 1976 |  | 15,300 |  |  |  |  |
| 1977 |  | 16,500 |  |  |  |  |
| 1978 |  | 17,700 |  |  |  |  |
| 1979 |  | 22,900 |  |  |  |  |
| 1980 |  | 25,900 |  |  |  |  |
| 1981 |  | 29,700 |  |  |  |  |
| 1982 |  | 32,400 |  |  |  |  |
| 1983 |  | 35,700 |  |  |  |  |
| 1984 |  | 37,800 |  |  |  |  |
| 1985 |  | 39,600 |  |  |  |  |
| 1986 |  | 42,000 |  |  |  |  |
| 1987 |  | 43,800 |  |  |  |  |
| 1988 |  | 45,000 |  |  |  |  |
| 1989 |  | 48,000 |  |  |  |  |
|  |  |  |  |  |  | (Continued) |

Worksheet 1: Indexing of earnings-Continued

| Year | Your earnings | $\begin{array}{r} \text { Maximum } \\ \text { taxable } \\ \text { earnings }(\$) \\ \hline \end{array}$ | Lower of columns 2 or 3 | Indexing factor | Column 4 times column 5 | Highest indexed earnings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1990 |  | 51,300 |  |  |  |  |
| 1991 |  | 53,400 |  |  |  |  |
| 1992 |  | 55,500 |  |  |  |  |
| 1993 |  | 57,600 |  |  |  |  |
| 1994 |  | 60,600 |  |  |  |  |
| 1995 |  | 61,200 |  |  |  |  |
| 1996 |  | 62,700 |  |  |  |  |
| 1997 |  | 65,400 |  |  |  |  |
| 1998 |  | 68,400 |  |  |  |  |
| 1999 |  | 72,600 |  |  |  |  |
| 2000 |  | 76,200 |  |  |  |  |
| 2001 |  | 80,400 |  |  |  |  |
| 2002 |  | 84,900 |  |  |  |  |
| 2003 |  | 87,000 |  |  |  |  |
| 2004 |  | 87,900 |  |  |  |  |
| 2005 |  | 90,000 |  |  |  |  |
| 2006 |  | 94,200 |  |  |  |  |
| 2007 |  | 97,500 |  |  |  |  |
| 2008 |  | 102,000 |  |  |  |  |
| 2009 |  | 106,800 |  |  |  |  |
| 2010 |  | 106,800 |  |  |  |  |
| 2011 |  | 106,800 |  |  |  |  |
| 2012 |  | 110,100 |  |  |  |  |
| 2013 |  | 113,700 |  |  |  |  |
| 2014 |  | 117,000 |  |  |  |  |
| 2015 |  | 118,500 |  |  |  |  |
| 2016 |  | 118,500 |  |  |  |  |
| 2017 |  | 127,200 |  |  |  |  |

Worksheet 2: Computing the primary insurance amount (PIA) for workers retiring after age 62


NOTE: . . . = not applicable.
CONTACT: (410) 965-0090 or statistics@ssa.gov.

Table 2.A8-Factors for indexing earnings, 1951-2018

| Year | $\begin{array}{r} \hline \text { Annual } \\ \text { maximum } \\ \text { taxable } \\ \text { earnings } \\ \text { (dollars) } \\ \hline \end{array}$ | Average annual wage ${ }^{a}$ (dollars) | Factors for workers who were first eligible (attained age 62, became disabled, or died) $\mathrm{in}^{\mathrm{b}}$ - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1951 | 3,600 | 2,799.16 | 11.7613570 | 11.8793102 | 12.1697045 | 12.7354456 | 13.2014390 | 13.8082175 | 14.4348590 | 14.7669194 |
| 1952 | 3,600 | 2,973.32 | 11.0724443 | 11.1834885 | 11.4568731 | 11.9894764 | 12.4281746 | 12.9994114 | 13.5893479 | 13.9019581 |
| 1953 | 3,600 | 3,139.44 | 10.4865581 | 10.5917265 | 10.8506453 | 11.3550665 | 11.7705514 | 12.3115619 | 12.8702826 | 13.1663513 |
| 1954 | 3,600 | 3,155.64 | 10.4327236 | 10.5373522 | 10.7949418 | 11.2967734 | 11.7101254 | 12.2483585 | 12.8042109 | 13.0987597 |
| 1955 | 4,200 | 3,301.44 | 9.9719880 | 10.0719959 | 10.3182096 | 10.7978791 | 11.1929764 | 11.7074398 | 12.2387443 | 12.5202851 |
| 1956 | 4,200 | 3,532.36 | 9.3200919 | 9.4135620 | 9.6436801 | 10.0919923 | 10.4612610 | 10.9420925 | 11.4386642 | 11.7017999 |
| 1957 | 4,200 | 3,641.72 | 9.0402118 | 9.1308750 | 9.3540827 | 9.7889322 | 10.1471118 | 10.6135041 | 11.0951638 | 11.3503976 |
| 1958 | 4,200 | 3,673.80 | 8.9612717 | 9.0511432 | 9.2724019 | 9.7034542 | 10.0585062 | 10.5208258 | 10.9982797 | 11.2512848 |
| 1959 | 4,800 | 3,855.80 | 8.5382852 | 8.6239146 | 8.8347295 | 9.2454354 | 9.5837284 | 10.0242258 | 10.4791431 | 10.7202059 |
| 1960 | 4,800 | 4,007.12 | 8.2158558 | 8.2982516 | 8.5011055 | 8.8963021 | 9.2218202 | 9.6456832 | 10.0834215 | 10.3153811 |
| 1961 | 4,800 | 4,086.76 | 8.0557508 | 8.1365409 | 8.3354418 | 8.7229370 | 9.0421116 | 9.4577147 | 9.8869226 | 10.1143620 |
| 1962 | 4,800 | 4,291.40 | 7.6716037 | 7.7485413 | 7.9379573 | 8.3069744 | 8.6109288 | 9.0067134 | 9.4154542 | 9.6320478 |
| 1963 | 4,800 | 4,396.64 | 7.4879726 | 7.5630686 | 7.7479507 | 8.1081348 | 8.4048137 | 8.7911246 | 9.1900815 | 9.4014907 |
| 1964 | 4,800 | 4,576.32 | 7.1939724 | 7.2661199 | 7.4437430 | 7.7897852 | 8.0748156 | 8.4459588 | 8.8292515 | 9.0323601 |
| 1965 | 4,800 | 4,658.72 | 7.0667308 | 7.1376022 | 7.3120836 | 7.6520053 | 7.9319942 | 8.2965729 | 8.6730862 | 8.8726023 |
| 1966 | 6,600 | 4,938.36 | 6.6665695 | 6.7334277 | 6.8980289 | 7.2187022 | 7.4828364 | 7.8267704 | 8.1819632 | 8.3701816 |
| 1967 | 6,600 | 5,213.44 | 6.3148171 | 6.3781476 | 6.5340639 | 6.8378173 | 7.0880148 | 7.4138016 | 7.7502532 | 7.9285405 |
| 1968 | 7,800 | 5,571.76 | 5.9087111 | 5.9679688 | 6.1138581 | 6.3980771 | 6.6321844 | 6.9370199 | 7.2518342 | 7.4186559 |
| 1969 | 7,800 | 5,893.76 | 5.5858942 | 5.6419145 | 5.7798332 | 6.0485242 | 6.2698413 | 6.5580224 | 6.8556371 | 7.0133446 |
| 1970 | 7,800 | 6,186.24 | 5.3217981 | 5.3751697 | 5.5065678 | 5.7625553 | 5.9734087 | 6.2479648 | 6.5315086 | 6.6817598 |
| 1971 | 7,800 | 6,497.08 | 5.0671871 | 5.1180053 | 5.2431169 | 5.4868572 | 5.6876227 | 5.9490433 | 6.2190215 | 6.3620842 |
| 1972 | 9,000 | 7,133.80 | 4.6149205 | 4.6612030 | 4.7751479 | 4.9971334 | 5.1799798 | 5.4180675 | 5.6639491 | 5.7942429 |
| 1973 | 10,800 | 7,580.16 | 4.3431695 | 4.3867267 | 4.4939619 | 4.7028757 | 4.8749551 | 5.0990230 | 5.3304257 | 5.4530472 |
| 1974 | 13,200 | 8,030.76 | 4.0994775 | 4.1405907 | 4.2418090 | 4.4390008 | 4.6014250 | 4.8129206 | 5.0313395 | 5.1470807 |
| 1975 | 14,100 | 8,630.92 | 3.8144161 | 3.8526704 | 3.9468504 | 4.1303303 | 4.2814601 | 4.4782491 | 4.6814801 | 4.7891731 |
| 1976 | 15,300 | 9,226.48 | 3.5681994 | 3.6039844 | 3.6920852 | 3.8637216 | 4.0050962 | 4.1891827 | 4.3792952 | 4.4800368 |
| 1977 | 16,500 | 9,779.44 | 3.3664423 | 3.4002039 | 3.4833232 | 3.6452547 | 3.7786356 | 3.9523132 | 4.1316763 | 4.2267216 |
| 1978 | 17,700 | 10,556.03 | 3.1187786 | 3.1500564 | 3.2270607 | 3.3770793 | 3.5006475 | 3.6615479 | 3.8277155 | 3.9157685 |
| 1979 | 22,900 | 11,479.46 | 2.8678980 | 2.8966598 | 2.9674697 | 3.1054205 | 3.2190486 | 3.3670059 | 3.5198067 | 3.6007765 |
| 1980 | 25,900 | 12,513.46 | 2.6309206 | 2.6573058 | 2.7222647 | 2.8488164 | 2.9530554 | 3.0887868 | 3.2289615 | 3.3032407 |
| 1981 | 29,700 | 13,773.10 | 2.3903057 | 2.4142778 | 2.4732958 | 2.5882735 | 2.6829791 | 2.8062971 | 2.9336518 | 3.0011377 |
| 1982 | 32,400 | 14,531.34 | 2.2655805 | 2.2883017 | 2.3442401 | 2.4532184 | 2.5429823 | 2.6598655 | 2.7805750 | 2.8445395 |
| 1983 | 35,700 | 15,239.24 | 2.1603387 | 2.1820045 | 2.2353444 | 2.3392604 | 2.4248545 | 2.5363082 | 2.6514104 | 2.7124036 |
| 1984 | 37,800 | 16,135.07 | 2.0403952 | 2.0608581 | 2.1112366 | 2.2093830 | 2.2902250 | 2.3954907 | 2.5042023 | 2.5618092 |
| 1985 | 39,600 | 16,822.51 | 1.9570159 | 1.9766426 | 2.0249624 | 2.1190982 | 2.1966365 | 2.2976007 | 2.4018699 | 2.4571226 |
| 1986 | 42,000 | 17,321.82 | 1.9006040 | 1.9196649 | 1.9665918 | 2.0580141 | 2.1333174 | 2.2313712 | 2.3326348 | 2.3862949 |
| 1987 | 43,800 | 18,426.51 | 1.7866606 | 1.8045788 | 1.8486925 | 1.9346339 | 2.0054226 | 2.0975980 | 2.1927907 | 2.2432338 |
| 1988 | 45,000 | 19,334.04 | 1.7027957 | 1.7198728 | 1.7619158 | 1.8438231 | 1.9112891 | 1.9991378 | 2.0898622 | 2.1379375 |
| 1989 | 48,000 | 20,099.55 | 1.6379431 | 1.6543699 | 1.6948116 | 1.7735994 | 1.8384959 | 1.9229988 | 2.0102679 | 2.0565122 |
| 1990 | 51,300 | 21,027.98 | 1.5656245 | 1.5813259 | 1.6199820 | 1.6952912 | 1.7573224 | 1.8380943 | 1.9215103 | 1.9657128 |
| 1991 | 53,400 | 21,811.60 | 1.5093767 | 1.5245140 | 1.5617813 | 1.6343849 | 1.6941875 | 1.7720575 | 1.8524767 | 1.8950911 |
| 1992 | 55,500 | 22,935.42 | 1.4354182 | 1.4498139 | 1.4852551 | 1.5543012 | 1.6111735 | 1.6852279 | 1.7617066 | 1.8022330 |
| 1993 | 57,600 | 23,132.67 | 1.4231786 | 1.4374514 | 1.4725905 | 1.5410478 | 1.5974351 | 1.6708581 | 1.7466847 | 1.7868655 |
| 1994 | 60,600 | 23,753.53 | 1.3859801 | 1.3998799 | 1.4341005 | 1.5007685 | 1.5556820 | 1.6271859 | 1.7010305 | 1.7401611 |
| 1995 | 61,200 | 24,705.66 | 1.3325659 | 1.3459300 | 1.3788318 | 1.4429305 | 1.4957277 | 1.5644759 | 1.6354746 | 1.6730972 |
| 1996 | 62,700 | 25,913.90 | 1.2704348 | 1.2831758 | 1.3145435 | 1.3756536 | 1.4259891 | 1.4915320 | 1.5592203 | 1.5950887 |
| 1997 | 65,400 | 27,426.00 | 1.2003909 | 1.2124294 | 1.2420677 | 1.2998086 | 1.3473689 | 1.4092981 | 1.4732546 | 1.5071454 |
| 1998 | 68,400 | 28,861.44 | 1.1406888 | 1.1521286 | 1.1802928 | 1.2351619 | 1.2803568 | 1.3392059 | 1.3999814 | 1.4321867 |
| 1999 | 72,600 | 30,469.84 | 1.0804756 | 1.0913116 | 1.1179891 | 1.1699618 | 1.2127711 | 1.2685137 | 1.3260811 | 1.3565864 |

Table 2.A8—Factors for indexing earnings, 1951-2018-Continued

| Year | Annualmaximumtaxableearnings(dollars) | Average annual wage ${ }^{a}$ (dollars) | Factors for workers who were first eligible (attained age 62, became disabled, or died) $\mathrm{in}^{\text {b }}$ - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| 1951 | 3,600 | 2,799.16 | 14.5442240 | 14.8879771 | 15.3544671 | 15.8339180 | 16.0362966 | 16.6055245 | 17.1832371 | 17.3774097 |
| 1952 | 3,600 | 2,973.32 | 13.6923069 | 14.0159250 | 14.4550906 | 14.9064581 | 15.0969825 | 15.6328683 | 16.1767418 | 16.3595408 |
| 1953 | 3,600 | 3,139.44 | 12.9677936 | 13.2742878 | 13.6902155 | 14.1176993 | 14.2981423 | 14.8056723 | 15.3207674 | 15.4938938 |
| 1954 | 3,600 | 3,155.64 | 12.9012213 | 13.2061420 | 13.6199345 | 14.0452238 | 14.2247405 | 14.7296650 | 15.2421157 | 15.4143533 |
| 1955 | 4,200 | 3,301.44 | 12.3314705 | 12.6229251 | 13.0184435 | 13.4249509 | 13.5965397 | 14.0791655 | 14.5689850 | 14.7336162 |
| 1956 | 4,200 | 3,532.36 | 11.5253287 | 11.7977301 | 12.1673923 | 12.5473253 | 12.7076968 | 13.1587720 | 13.6165708 | 13.7704396 |
| 1957 | 4,200 | 3,641.72 | 11.1792258 | 11.4434471 | 11.8020084 | 12.1705321 | 12.3260877 | 12.7636172 | 13.2076684 | 13.3569165 |
| 1958 | 4,200 | 3,673.80 | 11.0816076 | 11.3435217 | 11.6989520 | 12.0642577 | 12.2184550 | 12.6521640 | 13.0923376 | 13.2402825 |
| 1959 | 4,800 | 3,855.80 | 10.5585378 | 10.8080891 | 11.1467426 | 11.4948052 | 11.6417242 | 12.0549614 | 12.4743581 | 12.6153198 |
| 1960 | 4,800 | 4,007.12 | 10.1598180 | 10.3999456 | 10.7258106 | 11.0607294 | 11.2021003 | 11.5997325 | 12.0032916 | 12.1389302 |
| 1961 | 4,800 | 4,086.76 | 9.9618304 | 10.1972785 | 10.5167933 | 10.8451854 | 10.9838013 | 11.3736848 | 11.7693797 | 11.9023750 |
| 1962 | 4,800 | 4,291.40 | 9.4867899 | 9.7110104 | 10.0152887 | 10.3280212 | 10.4600270 | 10.8313185 | 11.2081442 | 11.3347975 |
| 1963 | 4,800 | 4,396.64 | 9.2597097 | 9.4785632 | 9.7755582 | 10.0808049 | 10.2096510 | 10.5720550 | 10.9398609 | 11.0634826 |
| 1964 | 4,800 | 4,576.32 | 8.8961458 | 9.1064065 | 9.3917405 | 9.6850024 | 9.8087896 | 10.1569645 | 10.5103293 | 10.6290972 |
| 1965 | 4,800 | 4,658.72 | 8.7387974 | 8.9453391 | 9.2256264 | 9.5137012 | 9.6352990 | 9.9773157 | 10.3244303 | 10.4410976 |
| 1966 | 6,600 | 4,938.36 | 8.2439535 | 8.4387995 | 8.7032152 | 8.9749775 | 9.0896897 | 9.4123393 | 9.7397982 | 9.8498591 |
| 1967 | 6,600 | 5,213.44 | 7.8089726 | 7.9935379 | 8.2440020 | 8.5014252 | 8.6100847 | 8.9157102 | 9.2258912 | 9.3301448 |
| 1968 | 7,800 | 5,571.76 | 7.3067774 | 7.4794733 | 7.7138301 | 7.9546983 | 8.0563700 | 8.3423407 | 8.6325739 | 8.7301230 |
| 1969 | 7,800 | 5,893.76 | 6.9075785 | 7.0708393 | 7.2923923 | 7.5201009 | 7.6162178 | 7.8865648 | 8.1609414 | 8.2531610 |
| 1970 | 7,800 | 6,186.24 | 6.5809943 | 6.7365362 | 6.9476144 | 7.1645571 | 7.2561297 | 7.5136949 | 7.7750993 | 7.8629588 |
| 1971 | 7,800 | 6,497.08 | 6.2661396 | 6.4142399 | 6.6152195 | 6.8217830 | 6.9089745 | 7.1542170 | 7.4031149 | 7.4867710 |
| 1972 | 9,000 | 7,133.80 | 5.7068617 | 5.8417435 | 6.0247848 | 6.2129118 | 6.2923211 | 6.5156747 | 6.7423575 | 6.8185469 |
| 1973 | 10,800 | 7,580.16 | 5.3708114 | 5.4977507 | 5.6700136 | 5.8470626 | 5.9217958 | 6.1319972 | 6.3453318 | 6.4170347 |
| 1974 | 13,200 | 8,030.76 | 5.0694592 | 5.1892760 | 5.3518733 | 5.5189882 | 5.5895283 | 5.7879354 | 5.9892999 | 6.0569797 |
| 1975 | 14,100 | 8,630.92 | 4.7169491 | 4.8284343 | 4.9797252 | 5.1352197 | 5.2008546 | 5.3854653 | 5.5728277 | 5.6358013 |
| 1976 | 15,300 | 9,226.48 | 4.4124747 | 4.5167637 | 4.6582890 | 4.8037464 | 4.8651447 | 5.0378389 | 5.2131073 | 5.2720160 |
| 1977 | 16,500 | 9,779.44 | 4.1629797 | 4.2613718 | 4.3948948 | 4.5321276 | 4.5900542 | 4.7529838 | 4.9183420 | 4.9739198 |
| 1978 | 17,700 | 10,556.03 | 3.8567160 | 3.9478696 | 4.0715695 | 4.1987063 | 4.2523714 | 4.4033145 | 4.5565075 | 4.6079966 |
| 1979 | 22,900 | 11,479.46 | 3.5464743 | 3.6302953 | 3.7440446 | 3.8609543 | 3.9103024 | 4.0491034 | 4.1899732 | 4.2373204 |
| 1980 | 25,900 | 12,513.46 | 3.2534255 | 3.3303203 | 3.4346703 | 3.5419197 | 3.5871901 | 3.7145218 | 3.8437514 | 3.8871863 |
| 1981 | 29,700 | 13,773.10 | 2.9558785 | 3.0257408 | 3.1205473 | 3.2179880 | 3.2591181 | 3.3748045 | 3.4922153 | 3.5316777 |
| 1982 | 32,400 | 14,531.34 | 2.8016418 | 2.8678587 | 2.9577183 | 3.0500745 | 3.0890585 | 3.1987084 | 3.3099927 | 3.3473960 |
| 1983 | 35,700 | 15,239.24 | 2.6714987 | 2.7346397 | 2.8203250 | 2.9083911 | 2.9455642 | 3.0501206 | 3.1562355 | 3.1919013 |
| 1984 | 37,800 | 16,135.07 | 2.5231753 | 2.5828106 | 2.6637387 | 2.7469153 | 2.7820245 | 2.8807759 | 2.9809992 | 3.0146848 |
| 1985 | 39,600 | 16,822.51 | 2.4200675 | 2.4772659 | 2.5548869 | 2.6346645 | 2.6683390 | 2.7630550 | 2.8591827 | 2.8914918 |
| 1986 | 42,000 | 17,321.82 | 2.3503079 | 2.4058575 | 2.4812410 | 2.5587190 | 2.5914228 | 2.6834086 | 2.7767654 | 2.8081431 |
| 1987 | 43,800 | 18,426.51 | 2.2094043 | 2.2616236 | 2.3324878 | 2.4053209 | 2.4360641 | 2.5225352 | 2.6102952 | 2.6397918 |
| 1988 | 45,000 | 19,334.04 | 2.1056960 | 2.1554641 | 2.2230020 | 2.2924164 | 2.3217165 | 2.4041287 | 2.4877692 | 2.5158813 |
| 1989 | 48,000 | 20,099.55 | 2.0254986 | 2.0733713 | 2.1383369 | 2.2051076 | 2.2332918 | 2.3125652 | 2.3930202 | 2.4200616 |
| 1990 | 51,300 | 21,027.98 | 1.9360685 | 1.9818275 | 2.0439248 | 2.1077474 | 2.1346872 | 2.2104605 | 2.2873633 | 2.3132108 |
| 1991 | 53,400 | 21,811.60 | 1.8665119 | 1.9106269 | 1.9704932 | 2.0320229 | 2.0579948 | 2.1310459 | 2.2051858 | 2.2301046 |
| 1992 | 55,500 | 22,935.42 | 1.7750540 | 1.8170075 | 1.8739404 | 1.9324551 | 1.9571545 | 2.0266261 | 2.0971332 | 2.1208310 |
| 1993 | 57,600 | 23,132.67 | 1.7599183 | 1.8015140 | 1.8579615 | 1.9159773 | 1.9404660 | 2.0093452 | 2.0792511 | 2.1027469 |
| 1994 | 60,600 | 23,753.53 | 1.7139183 | 1.7544268 | 1.8093989 | 1.8658982 | 1.8897469 | 1.9568258 | 2.0249045 | 2.0477862 |
| 1995 | 61,200 | 24,705.66 | 1.6478657 | 1.6868131 | 1.7396665 | 1.7939885 | 1.8169181 | 1.8814118 | 1.9468668 | 1.9688666 |
| 1996 | 62,700 | 25,913.90 | 1.5710337 | 1.6081651 | 1.6585543 | 1.7103435 | 1.7322040 | 1.7936906 | 1.8560938 | 1.8770679 |
| 1997 | 65,400 | 27,426.00 | 1.4844166 | 1.5195008 | 1.5671119 | 1.6160457 | 1.6367009 | 1.6947976 | 1.7537603 | 1.7735780 |
| 1998 | 68,400 | 28,861.44 | 1.4105883 | 1.4439276 | 1.4891707 | 1.5356708 | 1.5552987 | 1.6105059 | 1.6665360 | 1.6853681 |
| 1999 | 72,600 | 30,469.84 | 1.3361281 | 1.3677075 | 1.4105624 | 1.4546079 | 1.4731997 | 1.5254927 | 1.5785652 | 1.5964032 |

Table 2.A8-Factors for indexing earnings, 1951-2018-Continued

| Year | Annual maximum taxable | Average annual wage ${ }^{\text {a }}$$\qquad$ | Factors for workers who were first eligible (attained age 62, became disabled, or died) $\mathrm{in}^{\mathrm{b}}$ - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | earnings (dollars) |  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 2000 | 76,200 | 32,154.82 | 1.0238565 | 1.0341246 | 1.0594042 | 1.1086534 | 1.1492193 | 1.2020409 | 1.2565917 | 1.2854984 |
| 2001 | 80,400 | 32,921.92 | 1.0000000 | 1.0100289 | 1.0347194 | 1.0828211 | 1.1224418 | 1.1740327 | 1.2273124 | 1.2555455 |
| 2002 | 84,900 | 33,252.09 | 1.0000000 | 1.0000000 | 1.0244454 | 1.0720695 | 1.1112968 | 1.1623754 | 1.2151260 | 1.2430789 |
| 2003 | 87,000 | 34,064.95 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0464877 | 1.0847789 | 1.1346387 | 1.1861306 | 1.2134164 |
| 2004 | 87,900 | 35,648.55 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0365903 | 1.0842351 | 1.1334396 | 1.1595134 |
| 2005 | 90,000 | 36,952.94 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0459631 | 1.0934307 | 1.1185841 |
| 2006 | 94,200 | 38,651.41 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0453818 | 1.0694298 |
| 2007 | 97,500 | 40,405.48 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0230041 |
| 2008 | 102,000 | 41,334.97 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2009 | 106,800 | 40,711.61 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2010 | 106,800 | 41,673.83 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2011 | 106,800 | 42,979.61 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2012 | 110,100 | 44,321.67 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2013 | 113,700 | 44,888.16 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2014 | 117,000 | 46,481.52 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2015 | 118,500 | 48,098.63 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2016 | 118,500 | 48,642.15 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2017 | 127,200 | 50,321.89 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2018 | 128,400 | -- | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |

Table 2.A8—Factors for indexing earnings, 1951-2018-Continued

| Year | Annual maximum taxable earnings (dollars) | $\begin{array}{r} \text { Average } \\ \text { annual } \\ \text { wage } \\ \text { (dollars) } \end{array}$ | Factors for workers who were first eligible (attained age 62, became disabled, or died) $\mathrm{in}^{\mathrm{b}}$ - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| 2000 | 76,200 | 32,154.82 | 1.2661122 | 1.2960368 | 1.3366460 | 1.3783834 | 1.3960010 | 1.4455537 | 1.4958451 | 1.5127483 |
| 2001 | 80,400 | 32,921.92 | 1.2366110 | 1.2658384 | 1.3055013 | 1.3462663 | 1.3634733 | 1.4118715 | 1.4609910 | 1.4775004 |
| 2002 | 84,900 | 33,252.09 | 1.2243324 | 1.2532695 | 1.2925386 | 1.3328988 | 1.3499350 | 1.3978526 | 1.4464844 | 1.4628299 |
| 2003 | 87,000 | 34,064.95 | 1.1951173 | 1.2233639 | 1.2616960 | 1.3010931 | 1.3177228 | 1.3644969 | 1.4119683 | 1.4279237 |
| 2004 | 87,900 | 35,648.55 | 1.1420271 | 1.1690189 | 1.2056482 | 1.2432952 | 1.2591861 | 1.3038825 | 1.3492451 | 1.3644917 |
| 2005 | 90,000 | 36,952.94 | 1.1017150 | 1.1277541 | 1.1630904 | 1.1994085 | 1.2147385 | 1.2578572 | 1.3016185 | 1.3163269 |
| 2006 | 94,200 | 38,651.41 | 1.0533021 | 1.0781969 | 1.1119804 | 1.1467025 | 1.1613589 | 1.2025828 | 1.2444211 | 1.2584832 |
| 2007 | 97,500 | 40,405.48 | 1.0075764 | 1.0313905 | 1.0637074 | 1.0969222 | 1.1109424 | 1.1503766 | 1.1903987 | 1.2038503 |
| 2008 | 102,000 | 41,334.97 | 0.9849193 | 1.0081979 | 1.0397881 | 1.0722560 | 1.0859609 | 1.1245084 | 1.1636305 | 1.1767796 |
| 2009 | 106,800 | 40,711.61 | 1.0000000 | 1.0236350 | 1.0557089 | 1.0886740 | 1.1025887 | 1.1417264 | 1.1814475 | 1.1947980 |
| 2010 | 106,800 | 41,673.83 | 1.0000000 | 1.0000000 | 1.0313333 | 1.0635372 | 1.0771307 | 1.1153647 | 1.1541687 | 1.1672109 |
| 2011 | 106,800 | 42,979.61 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0312255 | 1.0444059 | 1.0814784 | 1.1191035 | 1.1317495 |
| 2012 | 110,100 | 44,321.67 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0127813 | 1.0487312 | 1.0852170 | 1.0974801 |
| 2013 | 113,700 | 44,888.16 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0354962 | 1.0715215 | 1.0836298 |
| 2014 | 117,000 | 46,481.52 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0347904 | 1.0464836 |
| 2015 | 118,500 | 48,098.63 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0113001 |
| 2016 | 118,500 | 48,642.15 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2017 | 127,200 | 50,321.89 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |
| 2018 | 128,400 | -- | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 | 1.0000000 |

SOURCES: Social Security Act of 1935 (the Act), as amended through December 31, 2017; regulations issued under the Act; and precedential case decisions (rulings). Social Security Administration, "Cost-of-Living Increase and Other Determinations for 2018," Federal Register, vol. 82, no. 240 (December 15, 2017). See the Social Security Program Rules page (https://www.ssa.gov/regulations/index.htm) for specific laws, regulations, rulings, legislation, and a link to the Federal Register.
NOTE: -- = not available.
a. National average wage levels. For years before 1978, average wages were determined from wages earned during the first quarter of the year and reported to the Social Security Administration (SSA) for Social Security tax purposes. These wages were then multiplied by 4 to obtain the average wage for the year. For 1973-1977 from data collected on all taxable wages reported to SSA; for 1957-1972, based on 1 percent statistical sample; for 1951-1956, based on 1/10 of 1 percent statistical sample. For 1978-1984, from wage data collected by the Internal Revenue Service during processing of annual tax returns. For years after 1984, from W-2 data processed by SSA. For years after 1977, the average wage amounts have been adjusted to be consistent with the pre-1978 series.
b. The indexing factor for a given year represents the ratio of the average annual wage for the second year before the year of first eligibility to the average annual wage for the year to be indexed. Multiplying a worker's covered earnings, up to the maximum taxable amounts for various years after 1951, by the indicated factors gives the indexed earnings. Earnings in the year before the year of first eligibility, and any earnings thereafter, are not indexed. The actual taxable earnings for those years are considered in calculating the average indexed monthly earnings (AIME).
CONTACT: (410) 965-0090 or statistics@ssa.gov.

Table 2.A11.1—Computation of primary insurance amount (PIA) based on Windfall Elimination Provision (WEP), by year enacted

| Year effective | Provision |
| :---: | :---: |
|  | Enacted in 1983 |
| 1986 | Workers first eligible for pensions based on noncovered employment and disability or retired workers after December 31, 1985. ${ }^{\text {a }}$ The benefit computation formula uses a reduced factor of the usual first average indexed monthly earnings (AIME) bend point. |
|  | Year eligible Factor (percent) |
|  | 1986 80 |
|  | 1987 |
|  | 1988 60 |
|  | 198950 |
|  | 1990 and later 40 |
|  | WEP is not applicable to persons who were federal employees or nonprofit employees on January 1, 1984, and who were covered by Social Security on that date with no Civil Service Retirement System coverage; to persons with Railroad Retirement pensions; or to workers with 30 years of substantial Social Security earnings. Workers with $26-29$ years of coverage have less than full WEP applied. ${ }^{\text {b }}$ For benefits payable before January 1989 : |
|  | Years of coverage Factor (percent) |
|  | 26 50 |
|  | 27 60 |
|  | 28 70 |
|  | 2980 |
|  | Enacted in 1988 |
| 1989 | 5 percent added to factor for each year of coverage over 20. |
|  | Years of coverage Factor (percent) |
|  | 2145 |
|  | 22 50 |
|  | 23 55 |
|  | 24.60 |
|  | 25 65 |
|  | 26 70 |
|  | 27 75 |
|  | 28 - 80 |
|  | 2985 |

Table 2.A11.1—Computation of primary insurance amount (PIA) based on Windfall Elimination Provision (WEP), by year enacted-Continued
Year effective

Enacted in 1988 (cont.) Earnings required for a year of substantial coverage (decoupled from the definition of a year of coverage for special minimum PIA). ${ }^{\text {b }}$

| Year | Earnings (dollars) |
| :---: | :---: |
| 1991 | 9,900 |
| 1992 | 10,350 |
| 1993 | 10,725 |
| 1994 | 11,250 |
| 1995 | 11,325 |
| 1996 | 11,625 |
| 1997 | 12,150 |
| 1998 | 12,675 |
| 1999 | 13,425 |
| 2000 | 14,175 |
| 2001 | 14,925 |
| 2002 | 15,750 |
| 2003 | 16,125 |
| 2004 | 16,275 |
| 2005 | 16,725 |
| 2006 | 17,475 |
| 2007 | 18,150 |
| 2008 | 18,975 |
| 2009 | 19,800 |
| 2010 | 19,800 |
| 2011 | 19,800 |
| 2012 | 20,475 |
| 2013 | 21,075 |
| 2014 | 21,750 |
| 2015 | 22,050 |
| 2016 | 22,050 |
| 2017 | 23,625 |
| 2018 | 23,850 |
|  |  |

SOURCES: Social Security Act of 1935 (the Act), as amended through December 31, 2017; regulations issued under the Act; and precedential case decisions (rulings). Social Security Administration, "Cost-of-Living Increase and Other Determinations for 2018," Federal Register, vol. 82, no. 240 (December 15, 2017). See the Social Security Program Rules page (https://www.ssa.gov/regulations/index.htm) for specific laws, regulations, rulings, legislation, and a link to the Federal Register.
a. Reduction in PIA will not be greater than one-half the amount of the pension based on noncovered employment performed after 1956.
b. See Table 2.A12a. Before 1991, a year of substantial coverage for WEP was the same amount as for the minimum PIA ( 25 percent of the "old law" contribution and benefit base). For 1991 and following, a year of substantial coverage under WEP provisions remains 25 percent of the old law base, while the criterion for computing the special minimum PIA was changed to 15 percent of the base.
CONTACT: (410) 965-0090 or statistics@ssa.gov.

Table 2.A17.1—Full retirement age and maximum reduction of retired-worker benefits, by year of birth

| Year of birth ${ }^{\text {a }}$ | Year of attainment <br> of age 62 | Year of attainment <br> of age 65 | Full retirement age |
| :--- | :---: | :---: | :---: | :---: | :---: | | Maximum <br> reduction months |
| :---: |
| 1935 |
| 1936 |

SOURCES: Social Security Act of 1935 (the Act), as amended through December 31, 2017; regulations issued under the Act; and precedential case decisions (rulings). See the Social Security Program Rules page (https://www.ssa.gov/regulations/index.htm) for specific laws, regulations, rulings, legislation, and a link to the Federal Register.
a. If birthday is January 1 , refer to previous year.
b. The monthly reduction factor is 0.0055556 for the 36 months immediately preceding full retirement age and 0.0041667 for prior months. CONTACT: (410) 965-0090 or statistics@ssa.gov.

