

**Many railroad workers and annuitants want to know how their railroad retirement benefits are calculated.**

This document describes the various components of a railroad retirement annuity, defines terms, and explains the calculation of each component. It also provides various tables at the end to help individuals understand how their annuities are calculated.

- The calculation of annuities is presented in general terms. For specific cases, please contact your local Railroad Retirement Board office. Addresses and telephone numbers of Board offices are listed in telephone directories with other U.S. Government agencies. They are also available by calling the Board's Help Line at 800-808-0772 or by visiting the Board's Web site at [www.rrb.gov](http://www.rrb.gov).

## Components of a regular annuity

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### Overview

There are as many as four components of a regular annuity

- tier 1
- tier 2
- vested dual benefit
- supplemental annuity

Below is specific information about each component.

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### Tier 1

Tier 1 is based on earnings under both

- railroad retirement
- and*
- social security covered earnings an employee has acquired.

The calculation uses the social security benefit formula,  
*but* with railroad retirement age and service requirements.

**Note:** Certain factors may differ for annuities based on disability.

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### Tier 2

Tier 2 is based *only* on railroad earnings.

It is computed under a separate formula that compares to retirement benefits paid over and above social security benefits to workers in other industries.

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### Vested Dual Benefit

The vested dual benefit is payable as part of the regular annuity *if* an employee

- qualified for both railroad retirement and social security benefits before 1975
  - and*
  - met certain vesting requirements.
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## Components of a regular annuity, Continued

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### **Supplemental Annuity**

A supplemental annuity may also be payable to an employee who is age 60 and has at least 30 years of creditable railroad service; or is age 65 and has 25-29 years of railroad service.

A "current connection" with the railroad industry is required for supplemental annuities. Eligibility is further limited to employees who had some rail service before October 1981.

A current connection is generally defined as having at least 12 months of railroad service in the 30 months preceding death or retirement. An employee whose last 12 months of railroad service occurred prior to the 30 months before retirement or death may maintain a current connection if the employee did not perform any regular employment between the end of the 30-month period containing the last 12 months of railroad service and the month of retirement or death. For purposes of the supplemental annuity or survivors' benefits, an employee who was terminated involuntarily and without fault on or after October 1, 1975, after 25 years of service and did not thereafter decline an offer of employment in the same class or craft in the railroad industry is deemed to have a current connection.

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## Terms used in Tier 1

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**Overview** The Railroad Retirement Board calculates the tier 1 component for annuities based on age and service using a number of factors.

The following is an explanation of the terms involved.

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**First year of eligibility** For most cases, the Railroad Retirement Board considers the year the employee attains age 62, becomes disabled, or dies as his or her first year of eligibility.

However, in cases where benefits (either full or reduced) are paid at ages 60-61 based on 30 years of railroad service, the Railroad Retirement Board deems the year the annuity begins as the eligibility year.

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**Indexing** Indexing is a process for bringing the actual reported earnings for prior years of employment up to the dollar value level of the recent earnings.

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**Indexing year** The indexing year is the second year prior to the first year of eligibility.

**Example:** For a person attaining age 62 in 2002, the indexing year is 2000.

However, an employee born on January 1 is deemed to have attained his or her first year of eligibility in the prior year. Consequently, the applicable “indexing year,” “indexing factors,” and “bend points” will be for that earlier year.

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## Terms used in Tier 1, Continued

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### Indexing factors

To determine the indexing factor for a particular year, divide the average wage for the indexing year by the average wage in each prior year to obtain the indexing factor for each prior year.

$$\frac{\text{Average wage for indexing year}}{\text{Average wage for } \underline{\hspace{2cm}} \text{ (year)}} = \text{Indexing factor for } \underline{\hspace{2cm}} \text{ (year)}$$

**Note:** Table 1 shows the indexing factors applicable to the earnings of workers who were first eligible in 1999-2002. The column entitled "National Wage Series" shows the average annual wage from 1951-2000.

**Example:** For a person who attains age 62 in 2002, the

- indexing year is 2000.
- average annual wage for 2000 was \$32,154.82.

To index earnings for a particular year, e.g., 1975, obtain from Table 1 the average annual wage for that year (\$8,630.92). Then divide the average annual wage for 2000 (\$32,154.82) by \$8,630.92, which yields an indexing factor of 3.7255379.

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### Indexed earnings

For indexed earnings, multiply the employee's actual earnings covered under railroad retirement and/or social security in a particular year, up to the maximum earnings creditable, by the indexing factor to obtain the indexed earnings.

$$\begin{array}{l} \text{Employee's actual reported earnings for } \underline{\hspace{2cm}} \text{ (year)} \\ \text{(but not exceeding the maximum annual taxable earnings)} \end{array} \times \text{Indexing factor} = \text{Indexed earnings for } \underline{\hspace{2cm}} \text{ (year)}$$

**Note:** Refer to Table 3 for the maximum annual tier I taxable earnings amounts.

**Example:** Actual covered earnings in 1975 of \$10,000 multiplied by 3.7255379, result in indexed earnings of \$37,255.38 for 1975.

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**Terms used in Tier 1, Continued**

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**AIME** The AIME (Average Indexed Monthly Earnings) is the quotient obtained by dividing the total indexed earnings in the benefit computation years by the divisor months. The amounts less than \$1 in the quotient are dropped so that the AIME is expressed in whole dollar amounts.

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**PIA** The PIA (primary insurance amount) is an amount determined by applying a formula to the AIME.

The formula consists of brackets in which 3 percentages are applied to the amounts of the AIME.

The dollar amounts defining the brackets are called “bend points,” and the bend points are different for each calendar year the first year of eligibility is attained.

**Note:** Table 5 shows the bend points for the years 1979-2002.

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**Full PIA** The full PIA is payable to an employee retiring

- at age 60 with 30 (or more) years of service.
- at full retirement age with less than 30 years of service.
- at any age on the basis of disability.

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**Reduced PIA** The retirement age for unreduced benefits is gradually rising from 65 to 67, depending on the year of birth.

- maximum annuity reduction for retirement at age 62 is gradually increasing from 20 percent to 30 percent.

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The retirement age for benefits *increases* as follows:

If attaining age 62 in ...	Then retirement age is ...
2000 through 2004	increasing from 65 to 66 at the rate of two months per year.
2005 through 2016	age 66.
2017 through 2021	increasing from 66 to 67 at the rate of two months per year.
2022 and later	age 67.

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Reduced benefits continue to be available but at greater reductions.

For employees retiring in the year 2000 *and later* at --

- age 62 with less than 30 years of service  
Table 2 shows the age reduction increases required.
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## Terms used in Tier 1, Continued

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**Note:** Age reductions were required in the tier I component of 30-year employees who retired at ages 60-61 before 2002 and attained age 60 or completed 30 years of service after June 1984. The age reductions are applied *only* to tier I. If an employee affected by this provision was born before 1938 and attained 60/30 eligibility after December 1985, tier I is permanently reduced by 20% if the employee was born on the first or second day of the month. Otherwise the reduction is 19.444%. For those born after 1937 who retired before 2002, the reduction ranged from 20.833% to 23.333%, depending on the year of birth. (In reduced 60/30 cases, tier I was rounded down to the nearest dollar.) In both cases, tier I is frozen until the first month throughout which the employee is age 62. It is then recomputed to reflect interim increases in national wage levels and will become subject to future cost-of-living increases. No reduction will apply if the employee retired at age 62 or older with 30 years of service, or at age 60 with 30 years of service and retirement is after 2001.

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### Reduced PIA

The reduced PIA is payable to an employee retiring as early as

- age 62 with less than 30 years of service.

To compute the reduced PIA, reduce the monthly benefit by 5/9 of 1% (or 1/180) for each of the first 36 months the employee is under full retirement age when the annuity begins and 5/12 of 1% (or 1/240) for each additional month.

**Example:** An employee born in 1939 retires in 2002 at age 63 with less than 30 years of service. His annuity begins with the month he is age 63.

The PIA is \$600.

This PIA is reduced by 15.555%  
(5/9 of 1% (0.0055555) multiplied by 28 months,  
with 28 being the number of months under his full  
retirement age of 65 years and 4 months).

Subtract the resulting reduction, \$93.33, from \$600 to obtain \$506.67. Use this amount to the exact cent.

**Example:** An employee born in 1940 retires in 2002 at age 62 with less than 30 years of service. His annuity begins with the first full month he is age 62.

The PIA is \$600.

This PIA is reduced by 22.083%  
(5/9 of 1% (0.0055555) multiplied by 36 months and 5/12  
of 1% (0.0041666) multiplied by 5 months, with 41 being  
the number of months under his full retirement age of  
65 years and 6 months).

Subtract the resulting reduction, \$132.50, from \$600 to obtain \$467.50. Use this amount to the exact cent.

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## Determining the Tier 1 amount

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**Overview** There are eight steps in computing a tier 1 benefit amount for those whose first year of eligibility is in 1991 or later. They are listed below.

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**Step 1** Determine the number of computation years to use --

- The number of computation years is 35 for employees whose first year of eligibility was in 1991 or later (it will likely be fewer than 35 years if disabled).
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**Step 2** Index creditable earnings --

- Determine the employee's first year of eligibility

First Year of Eligibility	Then ... multiply each year's indexing factor by the employee's actual railroad and social security earnings for that same year.
1999 through 2002	use Table 1 and select the appropriate column of indexing factors
earlier than 1999	refer to pages 5-6, the sections entitled <b>Indexing year, Indexing factors, and Indexed earnings</b> in the previous chapter entitled "Terms used in Tier 1" for the formulas to use.

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**Step 3** Compute the AIME --

- Select the highest 35 years of indexed creditable earnings from Step 2, if the person's first year of eligibility is 1991 or later (it will likely be fewer than 35 years if disabled).
- Total them.
- Divide by 420 months (which is 35 years expressed in months).
- Round the result to the nearest lower dollar.

**Example:** For a person attaining age 62 in 2002, the highest 35 years of indexed earnings are used.

If the sum of these earnings equals \$450,000, the AIME is \$1,071  
( $\$450,000 \div 420 \text{ months} = \$1,071.43$ , rounded to \$1,071).

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## Determining the Tier 1 amount, Continued

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### Step 4

Compute the PIA --

- Determine the “bend points” for the first year of eligibility.
- Using the AIME, calculate
  - 90 % of the first AIME bend point,
  - plus 32 % of the amount in excess of the first bend point  
but less than or equal to the second bend point,
  - plus 15 % of the amount over the second bend point.

**Note:** Receipt of a **pension from noncovered employment** based, in part or in whole, on employment not covered by social security or railroad retirement *after* 1956 may cause a reduced percentage amount to be applied to the first AIME bend point.

An explanation of this calculation is contained in the Appendix of this document.

- Round the result to the nearest lower ten cents.
- Apply a cost-of-living increase (if needed)  
for each year between the first year of eligibility and the year of retirement
- Round the result to the nearest lower ten cents.

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## Determining the Tier 1 amount, Continued

Step 4,  
(continued)

### Examples of PIA computations:

*For retired employees who attained age 62 in 2002,  
the bend points are \$592 and \$3,567.*

Thus the formula is 90% of the first \$592 of AIME;  
plus 32% of the next \$2,975 of AIME;  
plus 15% of the AIME above \$3,567.

The following are examples of PIA computations for such  
employees who attained age 62 in 2002 with different AIME  
amounts:

Ex.	If AIME is...	Then PIA is ...	Based on ...
1	\$500	\$450.00	90% of \$500
2	\$1,500	\$823.36 rounded <u>\$823.30</u>	90% of \$592 (\$532.80); plus 32% of \$908 (\$290.56).
3	\$3,600	\$1,489.75 rounded <u>\$1,489.70</u>	90% of \$ 592 (\$532.80); plus 32% of \$2,975 (\$952.00); plus 15% of \$ 33 (\$ 4.95).

*For retired employees who attained age 62 in prior years,  
the bend points will be different and the PIA is increased to  
reflect cost-of-living adjustments between the year of  
attainment of age 62 and the year of retirement.*

After the PIA is calculated for the year of attainment of age 62,  
apply the cost-of-living increases due for each year through 2001.  
The result is the current 2002 PIA.

**Example:** An employee who attained age 62 in 1999 would  
receive cost-of-living adjustments for the years  
1999-2001. The adjustments are cumulative, with  
*each step rounded to the next lower ten cents.*

If the age 62 PIA was \$500,  
the cost-of-living adjustments would be:

Year	PIA	Multiplied by...	Equals...(rounded)
1999	\$500.00	1.025	\$512.50
2000	\$512.50	1.035	\$530.40
2001	\$530.40	1.026	\$544.10

\$544.10 would be the PIA effective December 2001.

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## Determining the Tier 1 amount, Continued

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### Step 5

Consider if **delayed retirement credits** are due.

Did the worker delay retirement past full retirement age

or

were benefits withheld because of work deductions after full retirement age?

- If yes, the delayed retirement credit is  $\frac{13}{24}$  of 1% per month up until age 70 for those who attain full retirement age January 1, 2002, or later with a birth date January 2, 1937, through January 1, 1939.

For those who attain full retirement age in later years, the delayed retirement credit gradually increases every other year until it becomes 8% per year beginning in 2008 (earned in 2008 but payable effective 2009).

Delayed retirement credits earned in a particular year are payable effective with January of the following year. (If earned in the year the worker turns age 70, the delayed retirement credits are payable effective with the month age 70 is attained.)

- If no, go to Step 6.
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### Step 6

Consider receipt of **workers' compensation or public disability benefits**.

For employees who are under age 65 and receiving a disability annuity, the tier I amount is, under certain circumstances, reduced for receipt of workers' compensation or public disability benefits

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### Step 7

Consider **age reductions**.

Is the employee retiring at  
age 60 or older with 30 years of railroad service

or

Full retirement age or older with less than 30 years of railroad service?

- If yes, go to Step 9. No age reductions apply.
- If no, the tier 1 benefit is actuarially reduced.  
The monthly benefit is reduced by  $\frac{5}{9}$  of 1% (or  $\frac{1}{180}$ ) for each of the first 36 months the employee is under full retirement age when the annuity begins and  $\frac{5}{12}$  of 1% (or  $\frac{1}{240}$ ) for each additional amount.

Refer to attached Table 2 to determine maximum reductions in the year 2000 and later.

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## Determining the Tier 1 amount, Continued

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### Step 8

Consider reducing for receipt of any **social security benefits**.

Is the employee receiving any social security benefits (whether paid on the employee's own earnings record or on another person's earnings record)?

- If yes, reduce the tier 1 amount by the amount of the social security benefit.
  - If no, this is the net tier 1 payable to the employee.
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