

PERS: By The Numbers

May 2013

| Topic | Page(s) |
|--------------------------------------|----------------|
| System Demographics..... | 2 |
| System Benefits..... | 3-9 |
| System Funding Level and Status..... | 10-12 |
| System Revenue..... | 13-17 |
| Economic Benefit of PERS..... | 18-20 |

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<http://oregon.gov/PERS>

1. System Demographics (as of December 31, 2011)

PERS employers: Approximately 900, including all state agencies, universities, and community colleges; all school districts; and almost all cities, counties, and other local government units.

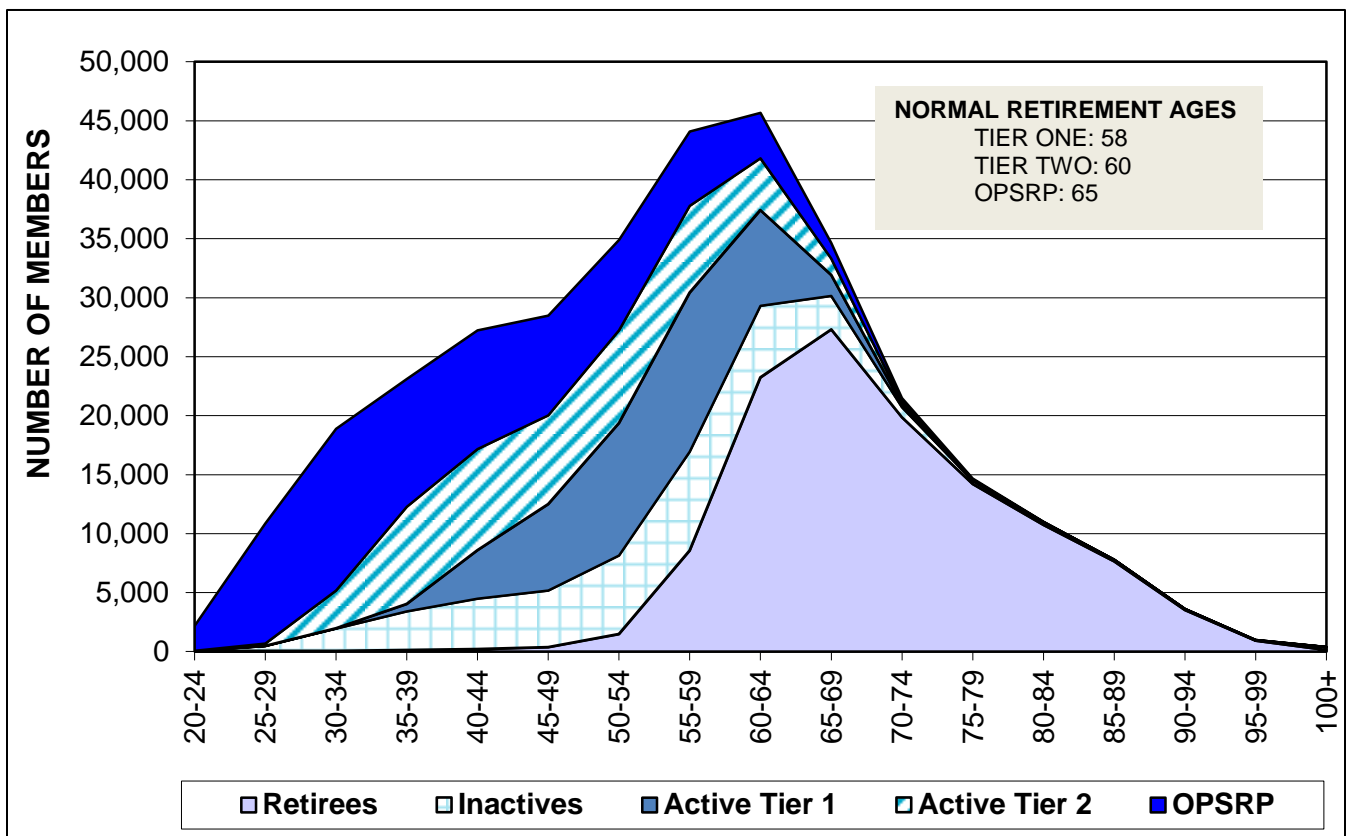
PERS members: approximately 95% of all public employees in Oregon.

Membership by category

| | | State Govt. | Local Govt. | School Districts | Total |
|------------------|----------|-------------|-------------|------------------|----------------|
| Tier One | Active | 12,866 | 15,368 | 18,648 | 46,882 |
| | Inactive | 5,222 | 6,941 | 8,089 | 20,252 |
| Tier Two | Active | 12,757 | 16,640 | 19,733 | 49,130 |
| | Inactive | 3,226 | 6,049 | 6,914 | 16,189 |
| OPSRP | Active | 19,751 | 25,122 | 30,087 | 74,960 |
| | Inactive | 1,056 | 1,345 | 1,665 | 4,066 |
| Sub-total | Active | 45,374 | 57,130 | 68,468 | 170,972 |
| | Inactive | 9,504 | 14,335 | 16,668 | 40,507 |
| Retirees* | | 28,310 | 31,383 | 58,715 | 118,408 |
| TOTAL | | | | | 329,887 |

* Includes beneficiaries but not members who received total lump-sum retirement or account withdrawal payouts.

Member age distribution (as of December 31, 2011)



2. System Benefits

PERS benefit component comparisons

The primary components and differences among the PERS Tier One and Tier Two programs, the Oregon Public Service Retirement Plan (OPSRP) Pension Program, and the Individual Account Program (IAP) are shown below. Tier One covers members hired before January 1, 1996; Tier Two covers members hired between January 1, 1996 and August 28, 2003; and OPSRP covers members hired on or after August 29, 2003. The IAP contains all member contributions (6% of covered salary) made on and after January 1, 2004.

| | Tier One | Tier Two | OPSRP Pension | IAP |
|---|--|---|--|---|
| Normal retirement age | 58 (or 30 yrs) P&F = age 55 or 50 w/25 yrs | 60 (or 30 yrs) P&F = age 55 or 50 w/25 yrs | 65 (58 w/30 yrs) P&F = age 60 or 53 w/25 yrs | 55 |
| Early retirement | 55 (50 for P&F) | 55 (50 for P&F) | 55, if vested (50 for P&F) | 55 |
| Regular account earnings | Guaranteed assumed rate annually (currently 8%) | No guarantee; market returns | N/A; no member account | No guarantee; market returns |
| Variable account earnings | Market returns on 100% global equity portfolio | Market returns on 100% global equity portfolio | N/A; no member account | N/A |
| Retirement calculation methods | Money Match, Full Formula, or Formula + Annuity (if eligible) | Money Match or Full Formula | Formula | Six account distribution options |
| Full Formula benefit factor | 1.67% general; 2.00% P&F | 1.67% general; 2.00% P&F | 1.50% general; 1.80% P&F | N/A |
| Formula + Annuity benefit factor | 1.00% general; 1.35% P&F | N/A | N/A | N/A |
| Oregon state income tax remedy | If eligible, higher of 9.89% on service time before Oct. 1, 1991 or 4.0% or less based on total service time | No tax remedy provided | No tax remedy provided | No tax remedy provided |
| Lump-sum vacation payout | | | | |
| Included in covered salary (6%) | Yes | Yes | No | Yes for Tier One and Tier Two; no for OPSRP |
| | | | | |
| Included in FAS | Yes | No | No | N/A |
| Unused sick leave included in FAS | Yes, if the employer participates in the sick leave program | Yes, if the employer participates in the sick leave program | No | N/A |
| 6% "pickup" included in FAS | Yes | Yes | No | N/A |
| Vesting | Contributions in each of 5 yrs or active member at age 50 | Contributions in each of 5 yrs or active member at age 50 | 5 yrs qualifying service or normal retirement age | Immediate |
| 2% maximum annual COLA after retirement | Can retire through July 1 and receive maximum COLA for the year | Can retire through July 1 and receive maximum COLA for the year | COLA prorated in year of retirement based on retirement date | N/A; no COLA provided |

P&F = police and firefighters; FAS = final average salary; COLA = cost-of-living adjustment; N/A = not applicable

Note: PERS uses three methods to calculate Tier One and Tier Two retirement benefits: Full Formula, Formula + Annuity (for members who made contributions before August 21, 1981), and Money Match. PERS uses the method (for which a member is eligible) that produces the highest benefit amount. OPSRP Pension benefits are based only on a formula method.

2. System Benefits (continued)

Summary of findings from PERS' Replacement Ratio Study for 2011

The Replacement Ratio Study population of 75,179 retirements was drawn from 92,456 retirements from January 1990 through December 2011, and covers retired members who selected comparable monthly benefit options. The techniques used in the 2011 PERS Replacement Ratio Study are consistent with the techniques used in previous studies.

The calculations are based on the benefit at the time of retirement and do not include any subsequent cost-of-living adjustments (COLAs) or federal Social Security benefits that a retiree may be eligible for based on the retiree's work history. The calculations also do not include the effects of the post-retirement *Strunk/Eugene* benefit adjustments, which generally impacted retirements occurring in 2000-2004 and would reduce the reported replacement ratios for those periods by several percentage points.

Average age at retirement

- 59 years old for all retirees from 1990-2011; 61 years old for those who retired in 2011

Average years of service at retirement

- 22 years for all retirees from 1990-2011; 23 years for those who retired in 2011

Average monthly retirement benefit

- For all retirees from 1990-2011, the average monthly retirement benefit at time of retirement was \$2,160 per month, or about \$25,920 annually
- For those retirees in the most recent year (2011), the average monthly retirement benefit was \$2,672 per month, or about \$32,064 annually

Average public employee salaries at retirement

- For all retirees from 1990-2011, the final salary at retirement averaged \$45,425 annually
- For 2011 retirees, the final salary at retirement averaged \$62,108 annually

Average salary replacement ratio (see chart on following page)

- For all retirees from 1990-2011, the average annual retirement benefit equaled 54% of final salary at the time of retirement
- For 2011 retirees, the average annual retirement benefit equaled 50% of final salary
- For all retirees from 1990-2011, there were 7.6% who received annual benefits more than 100% of final salary. The average years of service for this group was 31 years
- For 2011 retirees, there were 5.3% who received annual benefits more than 100% of final salary. The average years of service for this group was 34 years

For members who retire with 30 years of service (see chart on following page)

- From 1990-2011, the average retirement benefit for 30-year members equaled 80% of final salary and the average monthly benefit was \$3,468 per month
- The average retirement benefit for 30-year members peaked at 100% of final salary in 2000 and their average monthly benefit was \$4,200 per month
- For 2011 only, the average retirement benefit for 30-year members equaled 74% of final salary and the average monthly benefit was \$3,990 per month
- 11.49% of retirees from 1990-2011 had 30 years of service
- 10.35% of retirees in 2011 had 30 years of service

2. System Benefits (continued)

Summary of findings from PERS' Replacement Ratio Study for 2011 (continued)

Average salary replacement ratio based on final salary (FS) at retirement

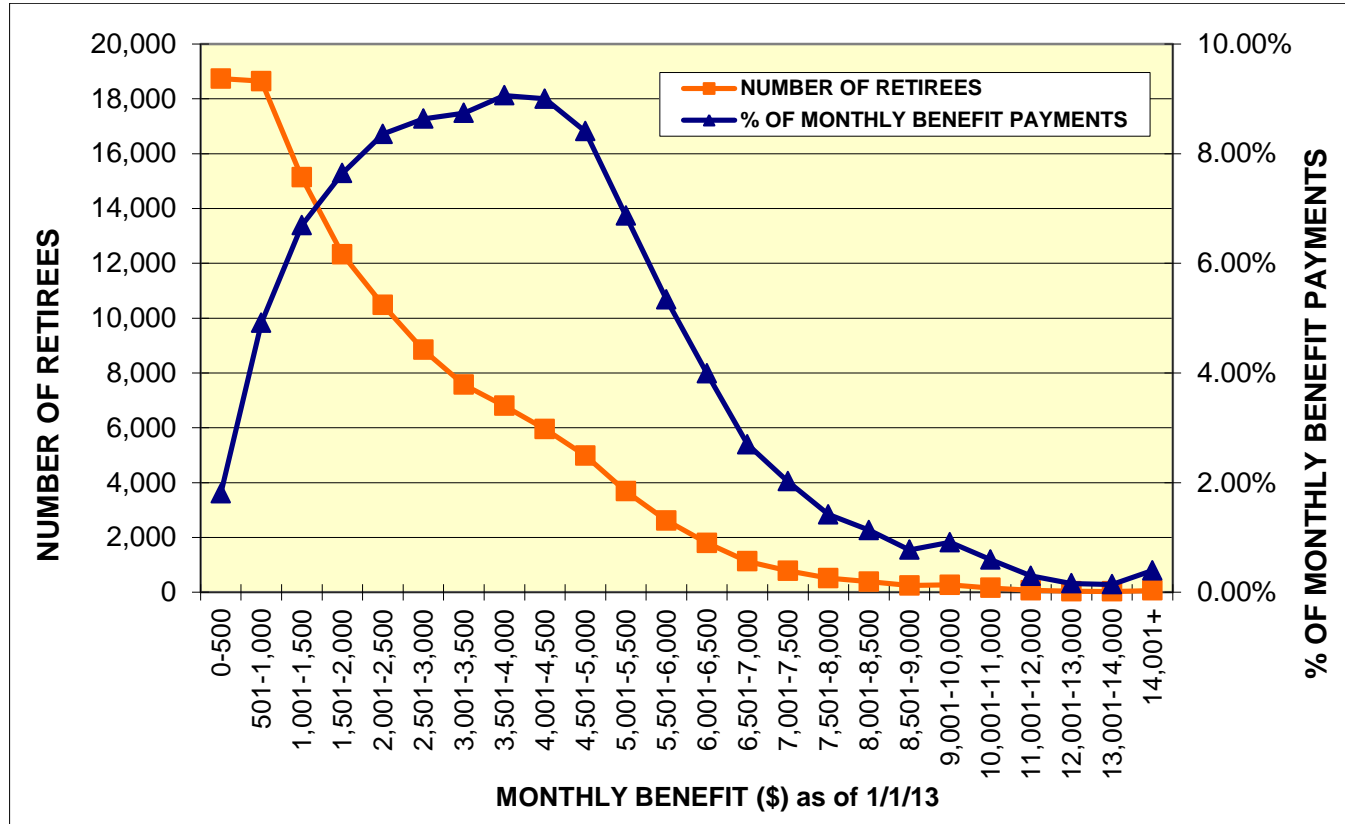
| Calendar Year | Retirees with 30 Years of Service | | All Retirees in Study | | |
|------------------|-----------------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------------------|
| | # of Retirees in Study* | Average Replacement Ratio Based on FS | # of Retirees in Study* | Average Replacement Ratio Based on FS | % of Retirees Receiving >100% of FS |
| 1990 | 146 | 61% | 1,866 | 44% | .0% |
| 1991 | 217 | 61% | 2,377 | 45% | .1% |
| 1992 | 205 | 67% | 2,432 | 48% | .5% |
| 1993 | 289 | 66% | 2,744 | 48% | .5% |
| 1994 | 302 | 67% | 3,298 | 49% | .3% |
| 1995 | 304 | 66% | 2,827 | 47% | 1.0% |
| 1996 | 281 | 70% | 2,477 | 49% | 1.4% |
| 1997 | 295 | 83% | 3,107 | 57% | 7.5% |
| 1998 | 465 | 89% | 4,567 | 65% | 12.0% |
| 1999 | 548 | 93% | 4,644 | 65% | 14.0% |
| 2000 | 273 | 100% | 2,112 | 63% | 15.8% |
| 2001 | 391 | 99% | 3,146 | 66% | 16.5% |
| 2002 | 670 | 96% | 4,605 | 68% | 17.4% |
| 2003 | 942 | 93% | 7,631 | 66% | 14.4% |
| 2004 | 471 | 84% | 3,259 | 55% | 5.5% |
| 2005 | 393 | 84% | 2,548 | 51% | 4.4% |
| 2006 | 347 | 83% | 2,952 | 50% | 4.3% |
| 2007 | 372 | 84% | 3,226 | 51% | 4.9% |
| 2008 | 417 | 80% | 3,480 | 52% | 5.0% |
| 2009 | 432 | 77% | 3,881 | 53% | 6.2% |
| 2010 | 414 | 75% | 3,516 | 48% | 4.3% |
| 2011 | 464 | 74% | 4,484 | 50% | 5.3% |
| Total/Avg | 8,639 | 80% | 75,179 | 54% | 6.4% |

* Includes monthly benefit payments for members retiring from active service within the preceding 12 months. Benefits related to inactive, lump sum, judge and legislator retirements are excluded.

2. System Benefits (continued)

Monthly benefit payment amounts as of January 1, 2013

Based on 121,276 monthly benefit payments (includes alternate payees and survivors; excludes lump sum and unit payments) totaling \$281.2 million for the month. Benefit payment amounts include compounded annual cost-of-living adjustments (COLAs) and other post-retirement benefit adjustments.



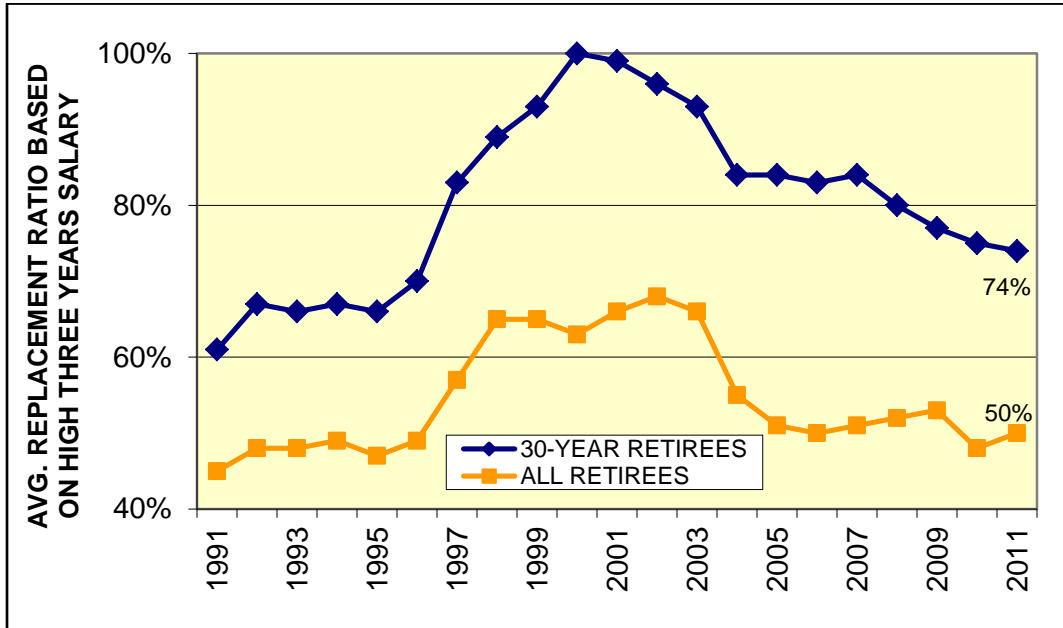
| Monthly Benefit (\$) | Number of Retirees | Percent of Benefits Paid | Monthly Benefit (\$) | Number of Retirees | Percent of Benefits Paid |
|----------------------|--------------------|--------------------------|----------------------|--------------------|--------------------------|
| 0 - 500 | 18,734 | 15.45% | 3,001 - 3,500 | 7,571 | 6.24% |
| 501 - 1,000 | 18,645 | 15.37% | 3,501 - 4,000 | 6,799 | 5.61% |
| 1,001 - 1,500 | 15,135 | 12.48% | 4,001 - 4,500 | 5,955 | 4.91% |
| 1,501 - 2,000 | 12,328 | 10.17% | 4,501 - 5,000 | 4,986 | 4.11% |
| 2,001 - 2,500 | 10,478 | 8.64% | 5,001 - 5,500 | 3,686 | 3.04% |
| 2,501 - 3,000 | 8,846 | 7.29% | 5,501 - 6,000 | 2,617 | 2.16% |
| Subtotal | 84,166 | | Subtotal | 31,614 | |
| % of total | 69.40% | 38.04% | % of total | 26.07% | 47.41% |

| Monthly Benefit (\$) | Number of Retirees | Percent of Benefits Paid | Monthly Benefit (\$) | Number of Retirees | Percent of Benefits Paid |
|----------------------|--------------------|--------------------------|----------------------|--------------------|--------------------------|
| 6,001 - 6,500 | 1,801 | 1.49% | 9,001 - 10,000 | 270 | 0.22% |
| 6,501 - 7,000 | 1,125 | 0.93% | 10,001 - 11,000 | 160 | 0.13% |
| 7,001 - 7,500 | 786 | 0.65% | 11,001 - 12,000 | 73 | 0.06% |
| 7,501 - 8,000 | 515 | 0.42% | 12,001 - 13,000 | 36 | 0.03% |
| 8,001 - 8,500 | 387 | 0.32% | 13,001 - 14,000 | 30 | 0.02% |
| 8,501 - 9,000 | 249 | 0.21% | 14,001 and up | 64 | 0.05% |
| Subtotal | 4,863 | | Subtotal | 633 | |
| % of total | 4.01% | 12.04% | % of total | 0.52% | 2.50% |

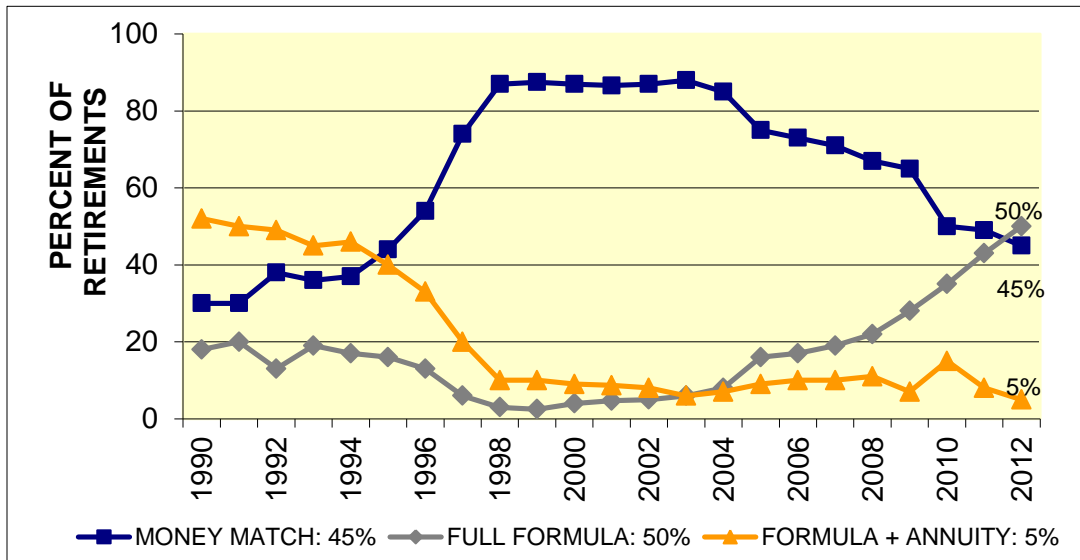
- Average annual benefit: \$27,820
- Median annual benefit: \$21,825

System Benefits (continued)

Replacement ratio trends (data from PERS' Replacement Ratio Study)



Trend in retirement calculation methods (data from PERS' Replacement Ratio Study)



Retirees with Hours Reported Working in a PERS-Covered Position in 2012

| Hours | Retirees Working by Employer Group | | | Total |
|--------------|------------------------------------|--------------|--------------|---------------|
| | State | Local Govt | K-12 | |
| < 200 | 388 | 1,202 | 2,913 | 4,503 |
| 200 - 400 | 270 | 559 | 1,290 | 2,119 |
| 401 - 600 | 211 | 408 | 830 | 1,449 |
| 601 - 800 | 169 | 317 | 552 | 1,038 |
| 801 - 1039 | 294 | 467 | 576 | 1,337 |
| > 1039 | 141 | 266 | 203 | 610 |
| Total | 1,473 | 3,219 | 6,364 | 11,056 |

2. System Benefits (continued)

Average IAP account balances and distributions to retirees, withdrawals, and deceased

| Year | Total IAP Account Balance After Earnings Crediting (\$M) | # of Members | Average IAP Account Balance (\$) | # of Distributions to Retirees, Withdrawals, and Deceased |
|------|--|--------------|----------------------------------|---|
| 2004 | 423.4 | 162,119 | 2,611 | 2 |
| 2005 | 928.9 | 181,055 | 5,130 | 4,131 |
| 2006 | 1,396.8 | 197,491 | 7,072 | 6,557 |
| 2007 | 2,120.5 | 210,133 | 10,091 | 6,705 |
| 2008 | 1,851.2 | 218,192 | 8,484 | 8,624 |
| 2009 | 2,742.8 | 231,256 | 11,847 | 7,727 |
| 2010 | 3,536.9 | 236,265 | 14,970 | 8,695 |
| 2011 | 3,939.7 | 238,062 | 16,549 | 11,479 |
| 2012 | 4,916.6 | 240,637 | 20,432 | 14,728 |

Tier One/Tier Two benefit payment options selected in calendar year 2012

| Option (definitions below) | Quantity | Percent |
|----------------------------|--------------|-------------|
| 1 | 1,562 | 25.78 |
| Refund Annuity | 460 | 7.59 |
| 15-Year Certain | 297 | 4.90 |
| 2 | 1,055 | 17.41 |
| 2A | 1,191 | 19.66 |
| 3 | 176 | 2.90 |
| 3A | 334 | 5.51 |
| Lump Sum 1 | 113 | 1.86 |
| Lump Sum 2 | 58 | 0.96 |
| Lump Sum 2A | 87 | 1.12 |
| Lump Sum 3 | 4 | 0.07 |
| Lump Sum 3A | 18 | 0.30 |
| Total Lump Sum | 547 | 9.03 |
| AS refund | 176 | 2.90 |
| Total | 7,756 | 100% |

Option 1 (non-refund): This option is paid for the member's lifetime. No benefit of any kind is paid to anyone after the member dies.

Refund Annuity Option: This option is paid for the member's lifetime. When the member dies, the designated beneficiary receives a lump-sum refund of any amount remaining in the member's account, if any.

15-Year Certain Option: This option is paid for the member's lifetime. If the member dies before receiving 180 monthly payments (15 years), the beneficiary is entitled to receive the remainder of the 180 monthly payments. Once the member has received at least 180 payments, no benefit is payable to the beneficiary.

Survivorship Options (Option 2, Option 2A, Option 3, and Option 3A): Under any of the survivorship options, the member may name only one beneficiary who must be a living person. The monthly benefit payment is paid to the member until his/her death, and then paid to the beneficiary if then living (under Options 2 and 2A, at the same base amount as the member; under Option 3 and 3A, at ½ the base amount of the member).

Lump-Sum Options (Lump-Sum Option 1, Lump-Sum Option 2, Lump-Sum Option 2A, Lump-Sum Option 3, and Lump-Sum Option 3A): These options provide a lump-sum payment of the member's account balance plus a lifetime monthly pension from the employer's contributions. The lifetime monthly pension options are the same as those for the non-refund and survivorship options described above.

Total Lump-Sum: The balance of the member's account and a matching amount funded by employers' contributions are paid out in total; there is no ongoing monthly benefit.

AS refund is a one-time payment based on an actuarial calculation if the Option 1 benefit is less than \$200 per month.

2. System Benefits (continued)

PERS Retiree Health Insurance Program information

The Oregon PERS Health Insurance Program offers optional medical, dental, and long-term care insurance plans to eligible Tier One/Tier Two retirees, their spouses, and dependents. Upon retirement, these insurance options become a choice available to all PERS retirees. While primarily serving our Medicare-eligible (age 65 and over) population, the PERS Health Insurance Program also offers insurance coverage options for those not yet Medicare eligible.

Active members, their spouses, and dependents are not eligible for the PERS Health Insurance Program. Oregon Revised Statute 243.303 requires Oregon public employers to make their active employee group insurance programs available to their retirees and dependents that are not yet Medicare eligible (the rate must be no more than the blended rate for the entire group). Public employers may charge pre-Medicare retirees the entire monthly premium (as state government does) or may choose to subsidize the insurance premium for eligible retirees (as provided in varying degrees by individual school districts and local governments).

There are two statutory trust funds administered by PERS as part of the Health Insurance Program that provide premium subsidies for eligible Tier One and Tier Two retirees or surviving spouses. These trusts are known as the Retirement Health Insurance Account (RHIA), serving all qualifying PERS retirees, and the Retiree Health Insurance Premium Account (RHIPA), serving qualifying state government retirees. Both trusts are funded from employer contributions on an actuarial basis.

Program Enrollment (as of February 2013)

| Medical Plans (four plans offered) | Totals | Medicare | Non-Medicare |
|---|---------------|-----------------|---------------------|
| Covered lives | 56,323 | 53,628 | 2,695 |
| Retirees (or surviving spouses) | 45,559 | 43,939 | 1,620 |
| Spouses/Dependents | | 9,696 | 1,068 |
| Average age of enrolled retirees | 74 | 75 | 57 |
| Dental Plans (two plans offered) | 33,489 | | |
| Long Term Care Plan | 2,018 | | |

Statutory Health Insurance Premium Subsidies

| | |
|--|-------------|
| Retirees receiving RHIA (trust fund held by PERS*) | 42,173 |
| Retirees receiving RHIPA (trust fund held by PERS**) | 1,207 |
| RHIA monthly payment total | \$2,530,380 |
| RHIPA monthly payment total | \$ 351,878 |

Employer rates (effective July 1, 2013):

RHIA: 0.59%

RHIPA (state only): 0.27%

Unfunded actuarial liabilities (as of December 31, 2011): \$222 million (RHIA); \$30 million (RHIPA)

* The RHIA subsidy is \$60 per month for Medicare eligible retirees.

** The RHIPA subsidy is for state government pre-Medicare retirees only and varies depending on the employee's years of state service, from \$161.59 (8 years) to \$323.18 (30+ years) per month for Plan Year 2013.

3. System Funding Level and Status

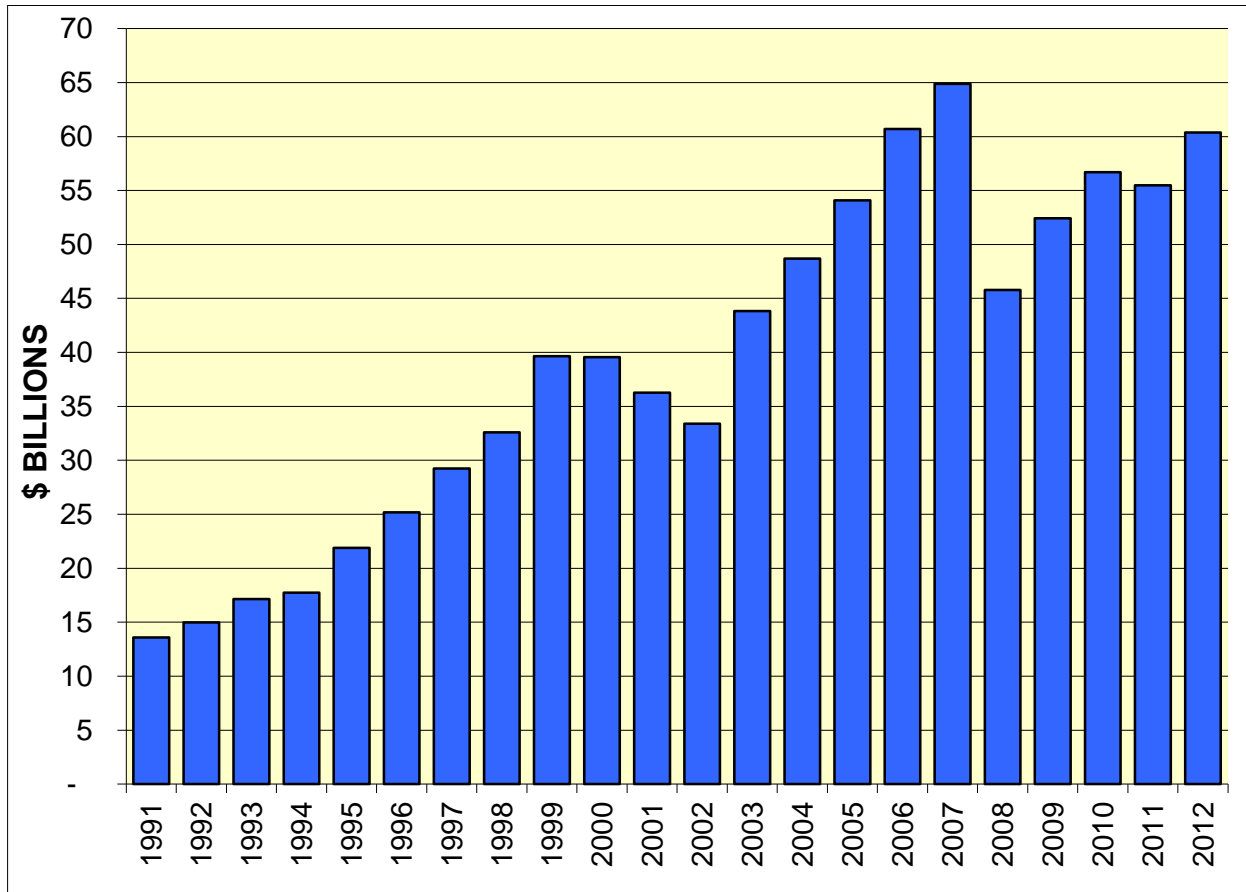
Funded status as of December 31, 2012

The Oregon Public Employees Retirement Fund (OPERF) is invested under oversight and direction of the Oregon Investment Council with staff support from the Investment Division of Oregon State Treasury.

As of December 31, 2012, PERS was estimated to be 87% funded (including employer side accounts). Side accounts hold deposits of pension obligation bond proceeds and other advance lump-sum payments.

As of December 31, 2012, the unfunded actuarial liability (UAL) (when including side accounts) was estimated to be \$8.5 billion. The UAL fluctuates based on various factors including investment returns, Board reserving policies, statutory plan design changes, and litigation outcomes.

PERS fund value (calendar year ending December 31, 2012)



3. System Funding Level and Status (continued)

Unfunded actuarial liability history and funded ratio for Tier One/Tier Two*

| Valuation** Date | With Side Accounts*** (starting in 2002) | | Without Side Accounts | |
|---------------------|---|------------------|-----------------------|------------------|
| | UAL (\$M) | Funded Ratio (%) | UAL (\$M) | Funded Ratio (%) |
| 1993 | 1,449 | 92.4 | 1,449 | 92.4 |
| 1995 | 2,291 | 90.2 | 2,291 | 90.2 |
| 1997 | 2,556 | 91.9 | 2,556 | 91.9 |
| 1999 | 943 | 97.7 | 943 | 97.7 |
| 2000 | 1,545 | 96.4 | 1,545 | 96.4 |
| 2001 | -2,031 | 105.4 | -2,031 | 105.4 |
| 2002 | 3,204 | 92.0 | 3,983 | 89.9 |
| 2003 | 1,751 | 96.1 | 6,227 | 86.0 |
| 2004 | 2,122 | 95.6 | 7,678 | 84.0 |
| 2005 | -1,751 | 104.0 | 4,919 | 91.0 |
| 2006 | -5,019 | 109.7 | 2,229 | 95.7 |
| 2007 | -6,120 | 111.5 | 1,538 | 97.1 |
| 2008 | 10,998 | 80.0 | 16,133 | 70.4 |
| 2009 | 8,108 | 86.0 | 13,598 | 76.0 |
| 2010***** | 7,700 | 87.0 | 13,300 | 78.0 |
| 2011 | 11,030 | 82.0 | 16,255 | 73.0 |
| 2012 (estimated) | 8,500 | 87.0 | 14,000 | 78.0 |

* Includes RHIA/RHIPA.

** 2000-2003 UALs were calculated using actuarial value of assets (AVA) based on year-to-year changes in asset values smoothed over four-year periods. All other UALs since 1997 were calculated using an AVA based on fair market value.

*** The official PERS valuation UAL and funded ratio are based on accepted actuarial standards and methodologies. These methodologies are subject to review and revision every two years. A negative UAL amount represents a surplus.

***** 2010 and after includes the OPSRP Pension Program.

Unfunded actuarial liability history and funded ratio for the OPSRP Pension Program*

| Valuation Date | UAL (\$M) | Funded Ratio (%) |
|----------------|-----------|------------------|
| 2005 | -1.2 | 102.3 |
| 2006 | -36.0 | 131.3 |
| 2007 | -72.1 | 135.5 |
| 2008 | 66.3 | 80.3 |
| 2009 | 90.0 | 83.2 |

* The official PERS valuation UAL and funded ratio are based on accepted actuarial standards and methodologies. These methodologies are subject to review and revision every two years. A negative UAL amount represents a surplus. The OPSRP Pension Program UAL for 2010 and after is reported with Tier One/Tier Two.

3. System Funding Level and Status (continued)

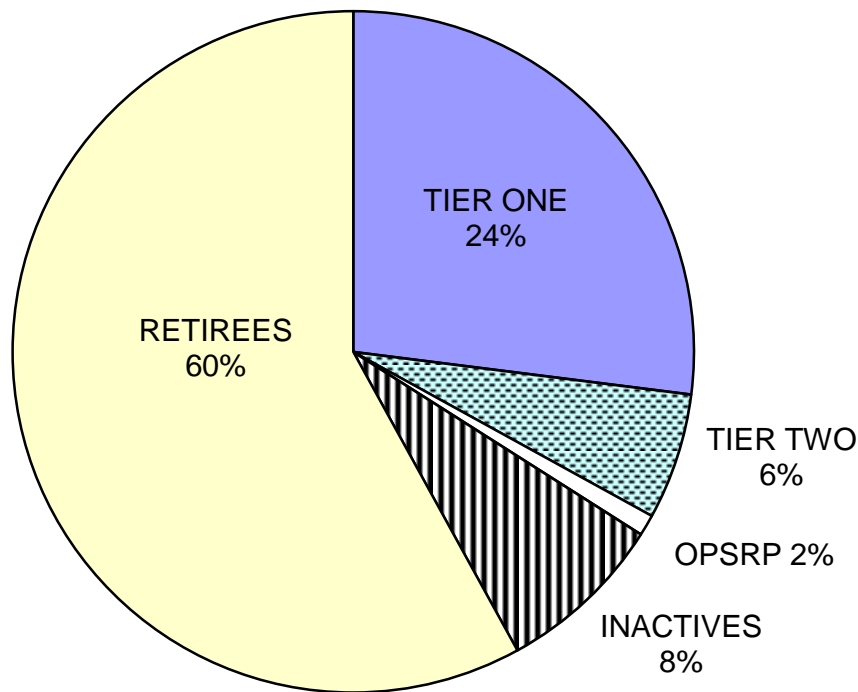
Actuarial accrued liabilities

Before PERS reform in 2003, PERS' liabilities were growing by about 12% annually. Reform reduced liability growth to an expected average of 3 to 4% annually over the long-term, which is close to the system's annual inflation rate assumption of 2.75%. Liabilities grew about 3.4% per year in 2010 and 2011.

Approximately 68% of PERS' total accrued liability is for members who are no longer working in PERS-covered employment (retirees and inactives). As a result, approximately 40% of an employer's contribution rate is associated with these groups.

Tier One active members represent 24% of the accrued liabilities. More than 56% of Tier One active member liability is for members over age 55, and approximately 80% of the Tier One active member liability is for members over age 50. Because the average retirement age is 61, a large shift in liabilities between active and retired is anticipated in the near future.

More than 71,000 PERS members are currently eligible to retire based on age or service.



4. System Revenue

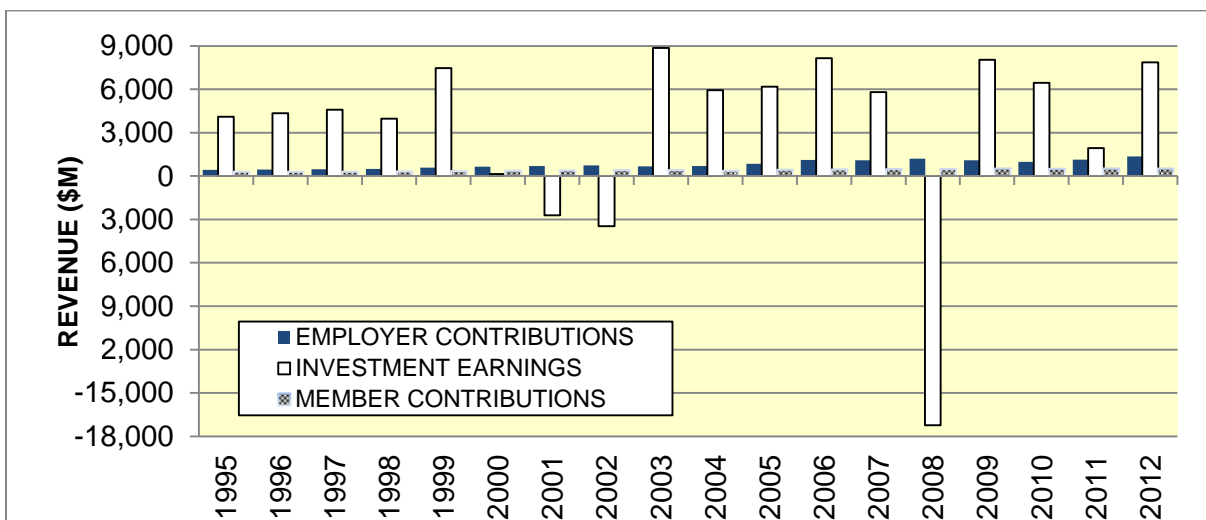
Member and employer contributions and investment income for calendar years

| Year | Member Contributions (\$M) | Employer Contributions (\$M) | Amortization of Employer Side Accounts (\$M)* | Total Employer (\$M) | Net Investment & Other Income (\$M) |
|------|----------------------------|------------------------------|---|----------------------|-------------------------------------|
| 1995 | 287 | 427 | N/A | 427 | 4,110 |
| 1996 | 296 | 463 | N/A | 463 | 4,358 |
| 1997 | 291 | 473 | N/A | 473 | 4,582 |
| 1998 | 318 | 488 | N/A | 488 | 3,978 |
| 1999 | 347 | 577 | N/A | 577 | 7,463 |
| 2000 | 359 | 654 | N/A | 654 | 143 |
| 2001 | 385 | 689 | N/A | 689 | -2,708 |
| 2002 | 398 | 725 | 8 | 733 | -3,460 |
| 2003 | 405 | 582 | 97 | 679 | 8,866 |
| 2004 | 371** | 408 | 278 | 686 | 5,933 |
| 2005 | 434 | 504 | 357 | 861 | 6,179 |
| 2006 | 456 | 637 | 474 | 1,111 | 8,163 |
| 2007 | 468 | 633 | 466 | 1,099 | 5,808 |
| 2008 | 484 | 669 | 541 | 1,210 | -17,235 |
| 2009 | 515 | 561 | 540 | 1,101 | 8,053 |
| 2010 | 502 | 435 | 558 | 993 | 6,444 |
| 2011 | 510 | 627 | 509 | 1,136 | 1,935 |
| 2012 | 513 | 915 | 443 | 1,358 | 7,859 |

* PERS' methodology to track amortization of side accounts began in 2002. Side accounts hold deposits of pension obligation bond proceeds and other lump-sum payments.

** Since January 1, 2004, member contributions have been placed in the Individual Account Program (IAP), instead of the legacy Tier One/Tier Two member accounts.

- Member contributions equal 6% of covered salary and now go to the IAP. The member contribution is currently assumed and paid or “picked up” by 53% of all employers for more than 50% of their employees. This totals approximately 70% of all employees.
- PERS Reform legislation led to a reduction in employer rates beginning in 2003. Also, starting in 2002, employers were given the option to deposit lump-sum payments into side accounts, reducing subsequent “new dollar” annual contributions for the employers that make such deposits.
- Employer contribution amounts are from the calendar year-end records. Data for calendar year 2004 and beyond includes employer contributions for OPSRP Pension Program, Tier One/Tier Two, and post- retirement health care (RHIA, RHIPA).



4. System Revenue (continued)

Regular account earnings available for crediting and actual distributions to Tier One and Tier Two member regular, variable, and Individual Account Program (IAP) accounts

| Year | Earnings | Distributions (%) | | | |
|------|---------------------|-------------------|----------|------------------|--------|
| | Regular Account (%) | Tier One | Tier Two | Variable Account | IAP |
| 1970 | 5.09 | 5.09 | | 7.47 | |
| 1971 | 6.27 | 6.27 | | 9.47 | |
| 1972 | 7.46 | 7.46 | | 13.87 | |
| 1973 | 0.00 | 0.00 | | -16.39 | |
| 1974 | 0.00 | 5.50 | | -18.16 | |
| 1975 | 9.19 | 7.50 | | 18.94 | |
| 1976 | 10.38 | 7.75 | | 18.58 | |
| 1977 | 4.79 | 7.00 | | -2.62 | |
| 1978 | 7.37 | 7.00 | | 7.03 | |
| 1979 | 12.32 | 11.09 | | 20.40 | |
| 1980 | 16.92 | 13.00 | | 29.94 | |
| 1981 | 4.37 | 7.50 | | -2.25 | |
| 1982 | 15.31 | 11.50 | | 22.39 | |
| 1983 | 18.37 | 13.00 | | 23.12 | |
| 1984 | 7.33 | 7.50 | | 4.00 | |
| 1985 | 21.38 | 15.00 | | 27.99 | |
| 1986 | 22.70 | 18.37 | | 18.98 | |
| 1987 | 9.00 | 7.50 | | 4.54 | |
| 1988 | 16.86 | 13.50 | | 18.62 | |
| 1989 | 19.74 | 14.50 | | 26.84 | |
| 1990 | -1.53 | 8.00 | | -7.84 | |
| 1991 | 22.45 | 15.00 | | 35.05 | |
| 1992 | 6.94 | 8.00 | | 10.54 | |
| 1993 | 15.04 | 12.00 | | 12.65 | |
| 1994 | 2.16 | 8.00 | | -1.76 | |
| 1995 | 20.78 | 12.50 | | 29.92 | |
| 1996 | 24.42 | 21.00 | 24.42 | 21.06 | |
| 1997 | 20.42 | 18.70 | 20.42 | 28.87 | |
| 1998 | 15.43 | 14.10 | 13.63 | 21.45 | |
| 1999 | 24.89 | 11.33* | 21.97 | 28.83 | |
| 2000 | 0.63 | 8.00 | 0.54 | -3.24 | |
| 2001 | -7.17 | 8.00 | -6.66 | -11.19 | |
| 2002 | -8.93 | 8.00 | -8.93 | -21.51 | |
| 2003 | 23.79 | 8.00 | 22.00 | 34.68 | |
| 2004 | 13.80 | 8.00 | 13.27 | 13.00 | 12.77 |
| 2005 | 13.04 | 8.00 | 18.31** | 8.29 | 12.80 |
| 2006 | 15.57 | 8.00 | 15.45 | 15.61 | 14.98 |
| 2007 | 10.22 | 7.97*** | 9.47 | 1.75 | 9.46 |
| 2008 | -27.18 | 8.00 | -27.18 | -43.71 | -26.75 |
| 2009 | 19.12 | 8.00 | 19.12 | 35.57 | 18.47 |
| 2010 | 12.44 | 8.00 | 12.44 | 15.17 | 12.13 |
| 2011 | 2.21 | 8.00 | 2.21 | -7.80 | 2.15 |
| 2012 | 14.29 | 8.00 | 14.68 | 18.43 | 14.09 |

* The PERS Board originally credited these accounts at 20%. That allocation was later reduced to 11.33% to comply with subsequent court decisions and legislative findings.

** Tier Two regular account crediting, based solely on earnings, was 13.74%. However, the PERS Board deployed \$9 million from the Capital Preservation Reserve and \$17 million from the Contingency Reserve that was added to Tier Two earnings. As a result, Tier Two was credited with a total of 18.31%. The dollars allocated from the reserves were originally withheld from Tier Two regular account earnings.

*** After crediting Tier One accounts with the assumed rate of 8%, member attorney fees in the *Strunk* case were deducted by order of the Oregon Supreme Court resulting in an effective crediting rate of 7.97%.

- In determining plan funding, the actuary must project future earnings of the PERS Fund. This is called the “assumed earnings rate.” Historical assumed earnings rates are:
 - 5.0% for 1971 - 1974
 - 7.0% for 1975 - 1978
 - 7.5% for 1979 – 1988
 - 8.0% for 1989 – current.

- Earnings credited to IAP accounts since 2004: 7.8%.

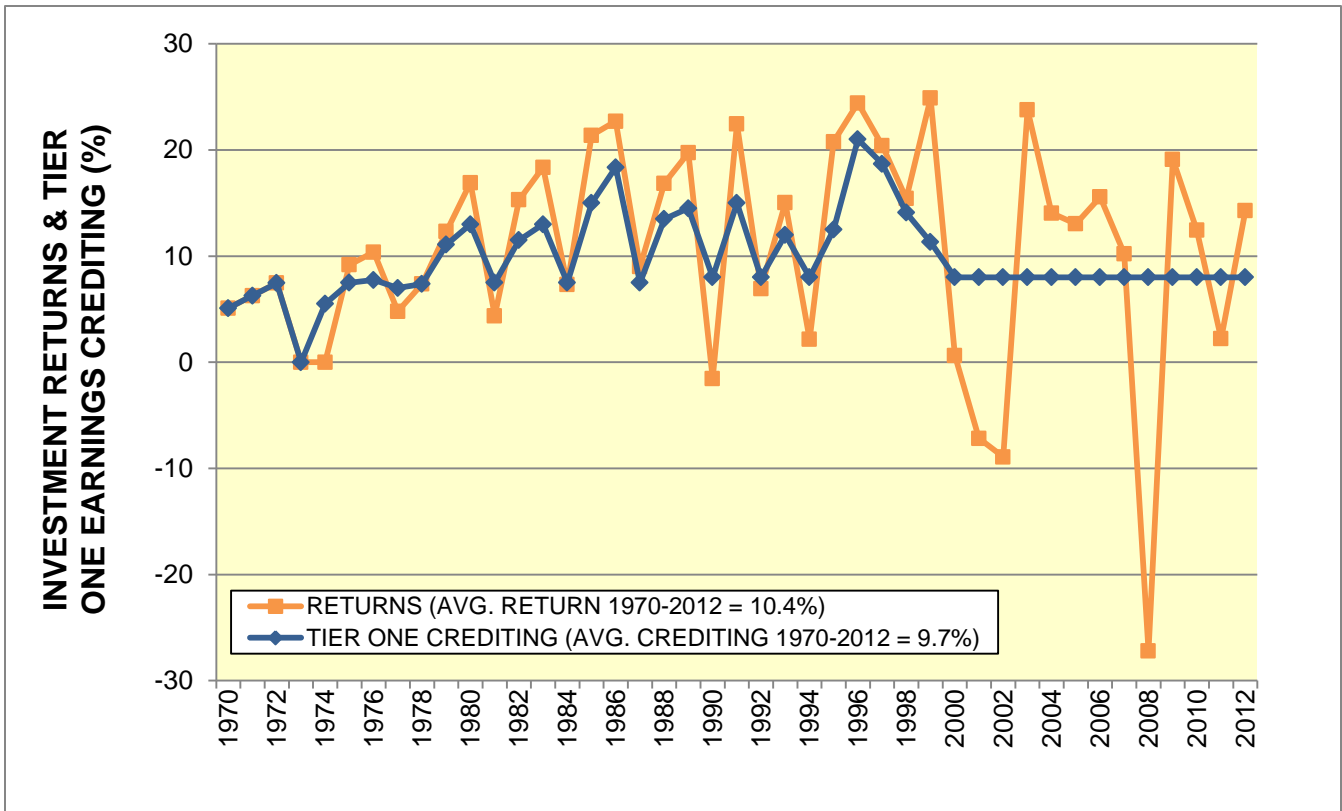
- Earnings credited to Tier Two accounts since 1996: 9.7%.

43-year averages (1970-2012)

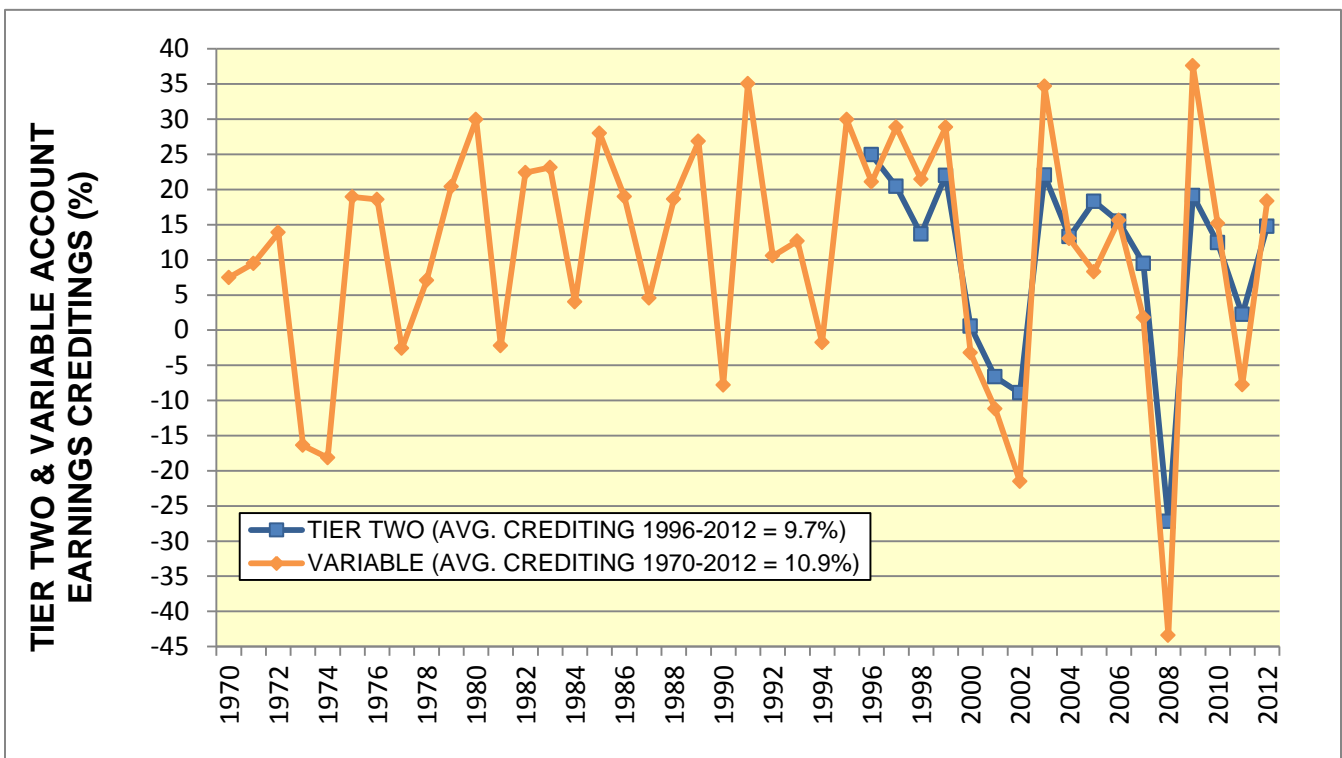
- Regular account earnings available for crediting: 10.4%.
- Earnings credited to Tier One regular accounts: 9.7%.
- Earnings credited to variable accounts: 10.9%.

4. System Revenue (continued)

Regular account earnings available for crediting and actual distributions to Tier One member regular accounts



Actual distributions to Tier Two member regular accounts and to Tier One and Tier Two member variable accounts (invested in an equity only portfolio)



4. System Revenue (continued)

2012 earnings crediting (\$ millions)

| Reserve/Account | Balance Before Crediting | 2012 Crediting | Balance After Crediting | 2012 Rates |
|----------------------------------|--------------------------|------------------|-------------------------|------------|
| Contingency Reserve | \$533.3 | \$66.9 | \$600.2 | N/A |
| Tier One Member Regular Accts | 5,961.8 | 476.9 | 6,438.2 | 8.00% |
| Tier One Rate Guarantee Reserve | (345.3) | 330.3 | (15.0) | N/A |
| Benefits-In-Force (BIF) Reserve | 18,774.0 | 2,700.1 | 21,471.1 | 14.38% |
| Tier Two Member Regular Accts | 666.0 | 97.8 | 763.8 | 14.68% |
| Employer Reserves | 16,784.2 | 2,412.0 | 19,196.2 | 14.38% |
| OPSRP Pension Program | 1,041.2 | 145.1 | 1,186.3 | 13.94% |
| UAL Lump-Sum Payment Side Accts* | 4,782.3 | 735.9 | 5,518.2 | Various |
| IAP Accounts** | 4,262.8 | 592.3 | 4,855.1 | 14.09% |
| Regular Account Total | \$52,459.8 | \$7,577.3 | \$60,017.1 | |

* Side account earnings rates for lump sums on deposit vary depending on when the deposit was made within the calendar year and are not affected by Board reserving or crediting decisions.

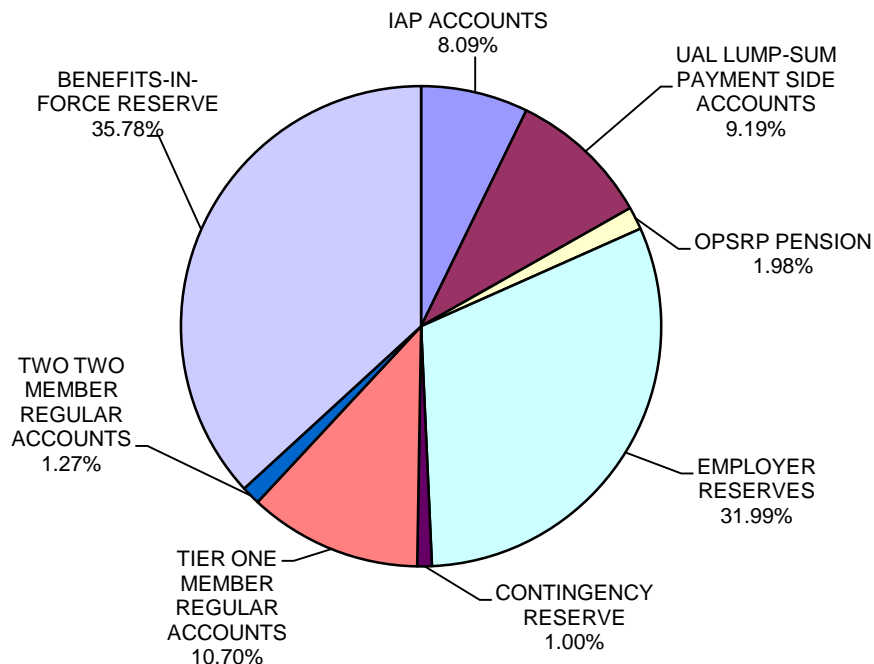
** Informational only; not affected by Board reserving or crediting decisions.

Contingency Reserve: This reserve can be used for any purpose the Board determines is appropriate so long as the use of the funds furthers the trust's purpose. It is funded in years that investment income exceeds the assumed rate (currently 8 percent).

Tier One Rate Guarantee Reserve: This reserve is used to credit the assumed rate on Tier One member regular accounts in years when the fund earns below 8 percent, and to hold excess earnings from the years when the fund earns more than 8 percent.

Benefits-In-Force Reserve: This reserve is used to pay retired member's benefits and annuities. It is funded by earnings and fund transfers from member accounts and employer reserves associated with retirements processed during a calendar year.

Percent of total Regular Account after 2012 earnings crediting



4. System Revenue (continued)

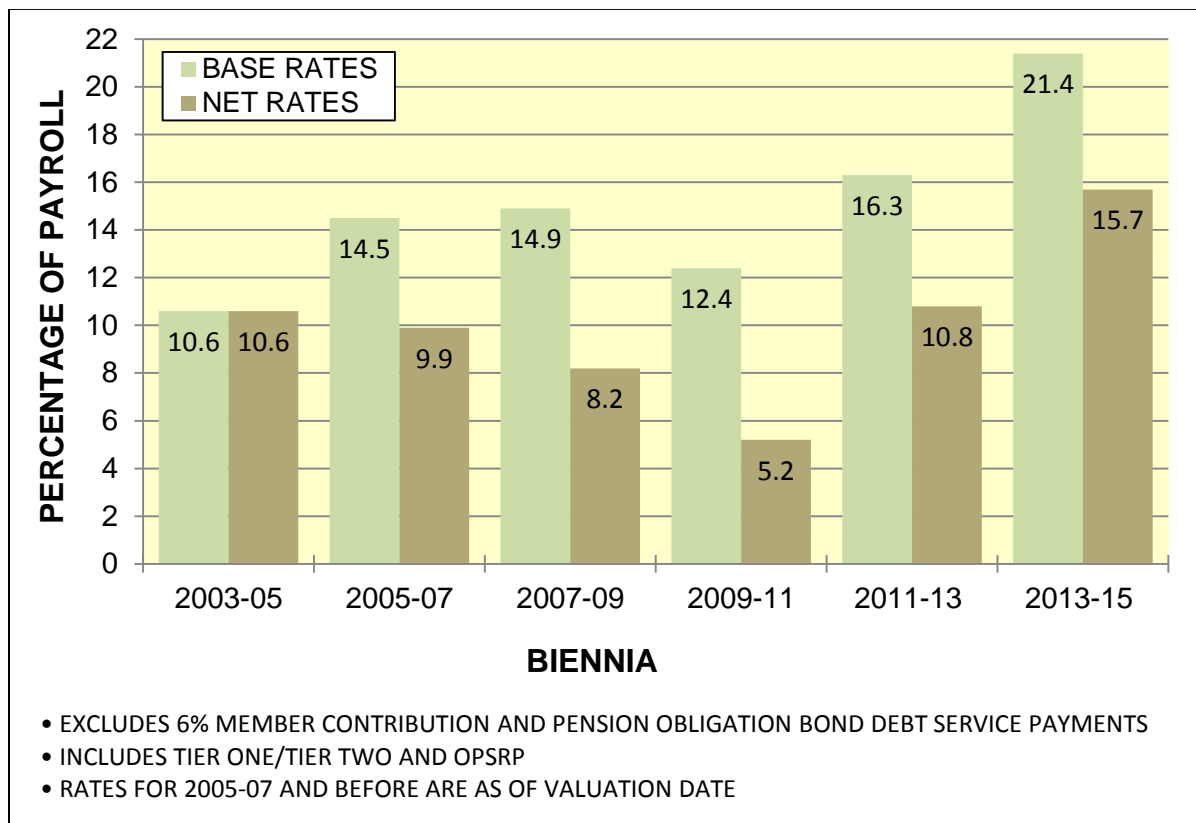
System-wide average employer contribution rates excluding retiree health insurance (RHIA/RHIPA)

| Valuation Year | Rate Effective Dates | Average Rate With Side Accounts (%) | Average Rate Without Side Accounts (%) | Annualized Salary (\$M) |
|----------------|----------------------|-------------------------------------|--|-------------------------|
| 1975 | Various | 11.21 | 11.21 | 1,014.5 |
| 1977 | Various | 11.87 | 11.87 | 1,226.8 |
| 1979 | Various | 10.97 | 10.97 | 1,488.0 |
| 1982 | Various | 10.13 | 10.13 | 2,062.1 |
| 1985 | Various | 10.87 | 10.87 | 2,428.3 |
| 1987 | Various | 11.30 | 11.30 | 2,764.7 |
| 1989 | Various | 9.74 | 9.74 | 3,199.4 |
| 1991 | Various | 9.19 | 9.19 | 3,887.5 |
| 1993 | Various | 9.15 | 9.15 | 4,466.8 |
| 1995 | Various | 9.42 | 9.42 | 4,848.1 |
| 1997 | Various | 11.40 | 11.40 | 5,161.6 |
| 1999 | 7/1/01 – 6/30/03 | 10.74 | 10.74 | 5,676.6 |
| 2001 | 7/1/03 – 6/30/05 | 10.64 | 10.64 | 6,256.5 |
| 2003* | 7/1/05 – 6/30/07 | 14.47* | 18.89* | 6,248.5 |
| 2005** | 7/1/07 – 6/30/09 | 8.22 | 15.01 | 6,792.0 |
| 2007 | 7/1/09 – 6/30/11 | 4.73 | 12.42 | 7,721.8 |
| 2009 | 7/1/11 – 6/30/13 | 10.8 | 16.3 | 8,512.0 |
| 2011 | 7/1/13 – 6/30/15 | 15.7 | 21.4 | 8,600.0 |

* December 31, 2003 rates were phased-in. Actual rate paid averaged 10.58% with employer side accounts and 15.10% without employer side accounts.

** Includes weighted average rate for Tier One/Tier Two and OPSRP beginning in 2005.

System-wide average employer contribution rates as a percent of covered salary (net rates include side account offsets)



5. Economic Impact of PERS Benefit Payments

PERS benefits contribute to Oregon's economy

Oregon PERS paid approximately \$3.2 billion in total monthly benefits in 2011, with \$2.8 billion to PERS benefit recipients living in Oregon. Funding of these benefits came primarily from investment earnings on contributions previously paid by members and public employers. These benefit recipients spent a significant portion of this money on goods and services in Oregon, which helped support local businesses. These businesses then purchased goods, in part, from other local vendors, further supporting Oregon's workforce and economy.

Annual PERS benefits generate \$3.3 billion in total economic value to Oregon

PERS benefits paid to Oregon residents have a significant impact on Oregon's economy. The \$2.8 billion in annual benefit payments multiply to \$3.3 billion in total economic value to Oregon when the full financial impact of these dollars spent in local communities is considered (based upon economic multipliers provided by the U.S. Department of Commerce's Bureau of Economic Analysis).

The economic activity generated by PERS benefit payments sustain an estimated 29,725 Oregon jobs, and add approximately \$906 million in wages to Oregon's economy.

Additionally, the state of Oregon collected an estimated \$136 million in income taxes on PERS retiree benefits during 2011.

Investment income provided 73% of total PERS' revenues from 1970-2012, with member contributions providing 6% and employer contributions providing 21%.

5. Economic Benefit of PERS (continued)

PERS benefit payments by state (2011 calendar year)

