

Overview

The *Statistical Section* presents detailed information as a context for understanding what the information in the *Financial Statements*, note disclosures, and *Required Supplementary Information* says about MOSERS' overall financial health.

Financial Trends Information

- *Changes in Fiduciary Net Position* – This schedule presents financial trend information for the most recent 10 fiscal years.
- *Deductions from Net Position for Benefits and Refunds by Type* – This information is intended to help the reader assess how benefit payments have changed over time.
- *Valuation Assets (Smoothed Market) vs. Pension Liabilities* – This information is intended to help the reader assess how MOSERS' funded status has changed over time.

Revenues Information

- *Employer Contribution Rates as a Percent of Payroll* – This information is intended to help the reader assess how MOSERS' contribution requirements have changed over time.

Operating & Economic Information

- *Membership in Retirement Plans* – This information is intended to help the reader assess how MOSERS' membership has changed over time.
- *Distribution of Benefit Recipients by Location* – This information is intended to help the reader evaluate where MOSERS distributes annuity payments.
- *Benefit Recipients by Type of Retirement and Option Elected* – This information is intended to help the reader understand the stratification of benefit payments by amount and elected option.
- *Benefits by Type of Benefit and by Option* – This information is intended to help the reader understand the actuarially determined annual and average monthly benefit amounts by benefit type and option.
- *Average Monthly Benefit Amounts* – This information is intended to help the reader evaluate how benefit payments have changed over time. Figures have been stratified based on years of credited service.
- *Retirees and Beneficiaries – Retirees and Beneficiaries Tabulated by Fiscal Year of Retirement* – This information is intended to help the reader understand how long current retirees have been in retirement.
- *Benefits Tabulated by Attained Ages of Benefit Recipients* – This information is intended to help the reader understand the actuarially determined annual and average monthly benefit amounts by type of recipient, and age of recipient.
- *Principal Participating Employers* – This information is intended to help the reader understand MOSERS' most significant sources of contribution revenue, and how it has changed over time.

Changes in Fiduciary Net Position

Last Ten Fiscal Years

| | 2020 | 2019 | 2018 | 2017 |
|---|-----------------------|-------------------------|----------------------|-------------------------|
| MSEP | | | | |
| <i>Additions</i> | | | | |
| Employer contributions | \$ 436,895,653 | \$ 394,150,042 | \$ 379,557,962 | \$ 335,217,422 |
| Employee contributions | 35,141,960 | 31,286,632 | 28,303,993 | 25,439,343 |
| Member service purchases | 1,388,992 | 1,293,774 | 2,020,720 | 1,691,046 |
| Service transfers in | 2,664,796 | 2,592,737 | 3,297,251 | 3,977,803 |
| Investment income (net of expenses) | 400,354,303 | 313,159,178 | 578,883,501 | 272,073,643 |
| Other | 133,952 | 496,898 | 538,600 | 522,025 |
| Total additions to plan net assets | 876,579,656 | 742,979,261 | 992,602,027 | 638,921,282 |
| <i>Deductions</i> | | | | |
| Benefit payments | 864,807,554 | 842,813,907 | 879,148,738 | 787,300,328 |
| Contribution refunds | 5,224,489 | 6,006,484 | 5,502,698 | 4,820,737 |
| Service transfers out | 3,784,195 | 3,001,189 | 2,060,037 | 1,843,792 |
| Administrative expenses | 8,398,164 | 9,200,826 | 10,024,178 | 8,759,341 |
| Total deductions from plan net position | 882,214,402 | 861,022,406 | 896,735,651 | 802,724,198 |
| Change in net position | \$ (5,634,746) | \$ (118,043,145) | \$ 95,866,376 | \$ (163,802,916) |
| Judicial Plan | | | | |
| <i>Additions</i> | | | | |
| Employer contributions | \$ 39,174,515 | \$ 38,604,668 | \$ 36,892,203 | \$ 34,246,826 |
| Employee contributions | 1,314,570 | 1,138,101 | 902,320 | 786,745 |
| Investment income (net of expenses) | 8,162,709 | 6,051,941 | 10,727,603 | 4,671,168 |
| Other | 0 | 3,895 | 9,981 | 8,963 |
| Total additions to plan net position | 48,651,794 | 45,798,605 | 48,532,107 | 39,713,702 |
| <i>Deductions</i> | | | | |
| Benefit payments | 39,622,268 | 37,585,484 | 35,651,489 | 33,979,837 |
| Contribution refunds | 0 | 7,565 | 5,760 | 4,888 |
| Administrative expenses | 74,450 | 72,141 | 185,763 | 150,387 |
| Total deductions from plan net position | 39,696,718 | 37,665,190 | 35,843,012 | 34,135,112 |
| Change in net position | \$ 8,955,076 | \$ 8,133,415 | \$ 12,689,095 | \$ 5,578,590 |
| Internal Service Fund | | | | |
| <i>Operating revenues</i> | | | | |
| Premium receipts | \$ 32,582,558 | \$ 31,342,778 | \$ 31,119,232 | \$ 28,779,398 |
| Deferred compensation receipts | 1,315,076 | 1,215,000 | 800,000 | 700,000 |
| Miscellaneous income | 484,075 | 494,722 | 480,120 | 480,120 |
| Total operating revenues | 34,381,709 | 33,052,500 | 32,399,352 | 29,959,518 |
| <i>Operating expenses</i> | | | | |
| Premium disbursements | 32,549,567 | 31,325,399 | 31,100,612 | 28,769,588 |
| Deferred compensation disbursements | 0 | 0 | 0 | 0 |
| Premium refunds | 32,991 | 17,379 | 14,211 | 9,810 |
| Administrative expenses | 1,625,602 | 1,649,467 | 1,587,344 | 950,121 |
| Total operating expenses | 34,208,160 | 32,992,245 | 32,702,167 | 29,729,519 |
| <i>Non-operating revenues</i> | | | | |
| Investment income | 53,828 | 127,342 | 85,806 | 36,497 |
| Change in net position | \$ 227,377 | \$ 187,597 | \$ (217,009) | \$ 266,496 |

Changes in Net position continued on page 135

Changes in Fiduciary Net Position (continued)

Last Ten Fiscal Years

| | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
|----|---------------|------------------|------------------|----------------|------------------|------------------|
| \$ | 329,957,369 | \$ 329,752,832 | \$ 326,370,336 | \$ 274,655,284 | \$ 263,373,924 | \$ 263,418,048 |
| | 21,684,920 | 18,099,455 | 14,025,328 | 9,698,883 | 4,955,399 | 599,761 |
| | 2,815,749 | 1,859,005 | 2,909,423 | 3,475,123 | 2,869,085 | 2,814,551 |
| | 2,107,873 | 3,575,815 | 2,252,206 | 2,446,627 | 2,675,339 | 142,248 |
| | 1,194,422 | (237,603,530) | 1,484,709,539 | 778,008,348 | 158,102,123 | 1,395,677,299 |
| | 545,847 | 533,001 | 450,453 | 489,193 | 448,463 | 659,474 |
| | 358,306,180 | 116,216,578 | 1,830,717,285 | 1,068,773,458 | 432,424,333 | 1,663,311,381 |
| | 750,440,412 | 723,994,041 | 677,097,411 | 646,708,308 | 611,522,451 | 597,424,954 |
| | 3,798,199 | 2,479,264 | 1,421,856 | 622,341 | 123,709 | 0 |
| | 3,071,892 | 1,792,495 | 1,916,840 | 1,911,665 | 588,180 | 17,745,828 |
| | 8,489,375 | 8,077,692 | 7,336,922 | 7,575,883 | 7,017,057 | 7,054,581 |
| | 765,799,878 | 736,343,492 | 687,773,029 | 656,818,197 | 619,251,397 | 622,225,363 |
| \$ | (407,493,698) | \$ (620,126,914) | \$ 1,142,944,256 | \$ 411,955,261 | \$ (186,827,064) | \$ 1,041,086,018 |
| \$ | 33,642,497 | \$ 32,696,686 | \$ 29,264,877 | \$ 28,330,649 | \$ 26,324,526 | \$ 27,702,682 |
| | 661,206 | 488,193 | 294,810 | 211,936 | 149,859 | 59,958 |
| | 19,273 | (3,618,469) | 21,388,261 | 10,724,252 | 2,061,916 | 17,460,050 |
| | 8,808 | 8,117 | 6,489 | 6,743 | 5,849 | 8,250 |
| | 34,331,784 | 29,574,527 | 50,954,437 | 39,273,580 | 28,542,150 | 45,230,940 |
| | 32,979,706 | 31,245,906 | 29,406,625 | 27,802,871 | 26,821,412 | 25,488,531 |
| | 10,008 | 0 | 0 | 0 | 0 | 0 |
| | 136,983 | 123,015 | 105,693 | 104,428 | 91,514 | 88,253 |
| | 33,126,697 | 31,368,921 | 29,512,318 | 27,907,299 | 26,912,926 | 25,576,784 |
| \$ | 1,205,087 | \$ (1,794,394) | \$ 21,442,119 | \$ 11,366,281 | \$ 1,629,224 | \$ 19,654,156 |
| \$ | 30,360,162 | \$ 30,177,918 | \$ 29,563,054 | \$ 28,961,637 | \$ 28,578,326 | \$ 28,829,638 |
| | 0 | 0 | 1,000,000 | 0 | 17,500,476 | 54,221,226 |
| | 480,120 | 480,120 | 480,120 | 480,120 | 608,187 | 981,404 |
| | 30,840,282 | 30,658,038 | 31,043,174 | 29,441,757 | 46,686,989 | 84,032,268 |
| | 30,328,802 | 30,157,271 | 29,544,110 | 28,930,950 | 28,556,036 | 28,804,638 |
| | 0 | 0 | 0 | 0 | 17,500,476 | 54,221,226 |
| | 31,360 | 20,646 | 18,942 | 30,687 | 22,291 | 24,999 |
| | 1,015,578 | 960,827 | 755,945 | 805,457 | 778,529 | 826,809 |
| | 31,375,740 | 31,138,744 | 30,318,997 | 29,767,094 | 46,857,332 | 83,877,672 |
| | 18,777 | 12,549 | 11,886 | 12,075 | 11,068 | 11,071 |
| \$ | (516,681) | \$ (468,157) | \$ 736,063 | \$ (313,262) | \$ (159,275) | \$ 165,667 |

Deductions from Net Position for Benefits and Refunds by Type

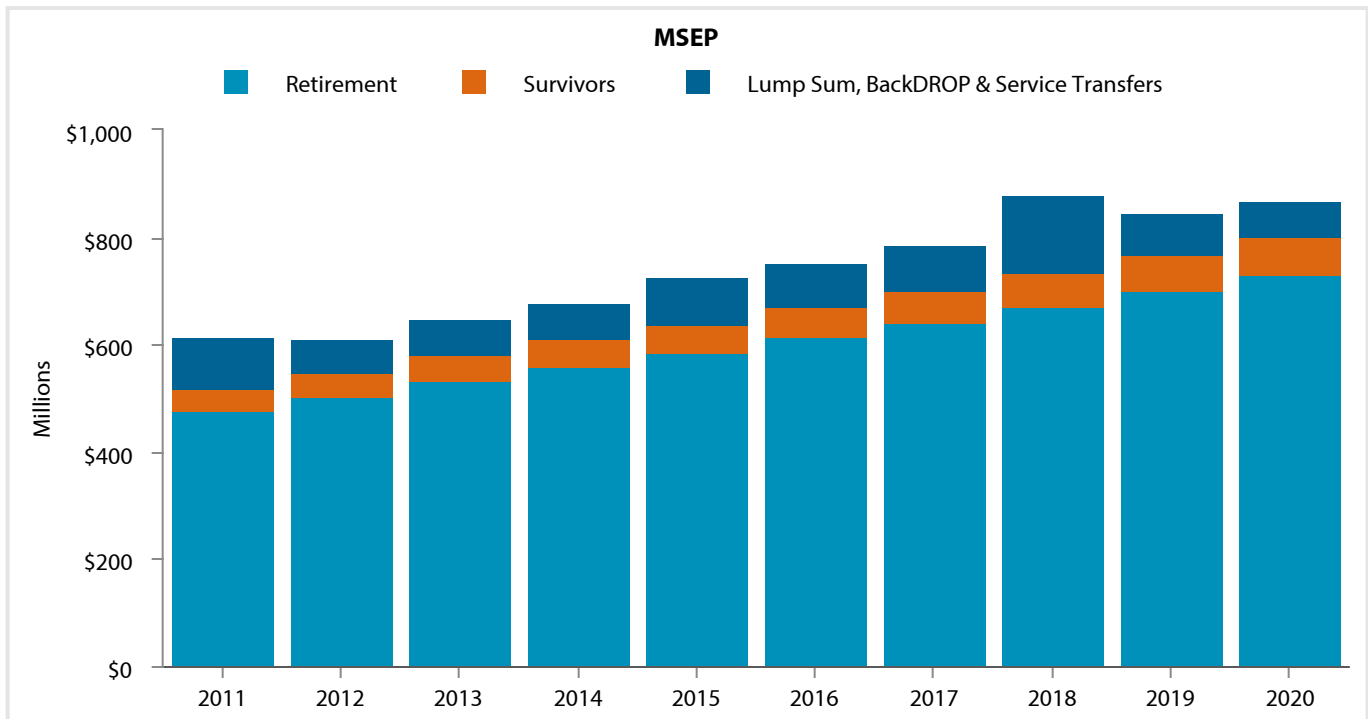
Last Ten Fiscal Years

MSEP

| Type of benefit | 2011 | 2012 | 2013 | 2014 |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Retirement | \$ 476,841,741 | \$ 504,555,055 | \$ 533,962,630 | \$ 560,553,490 |
| Survivors | 39,968,601 | 42,963,959 | 46,659,381 | 49,922,170 |
| Disability | 29,191 | 29,503 | 27,255 | 22,468 |
| Lump-sum | 293,147 | 229,650 | 191,320 | 286,184 |
| BackDROP & service transfers | 98,038,103 | 64,332,464 | 67,779,388 | 68,229,937 |
| Total benefits | \$ 615,170,783 | \$ 612,110,631 | \$ 648,619,974 | \$ 679,014,249 |
| Refunds | \$ 0 | \$ 123,709 | \$ 622,341 | \$ 1,421,856 |

Judicial Plan

| Type of benefit | 2011 | 2012 | 2013 | 2014 |
|-----------------------|----------------------|----------------------|----------------------|----------------------|
| Retirement | \$ 21,025,904 | \$ 22,284,844 | \$ 23,123,707 | \$ 24,609,421 |
| Survivors | 4,462,627 | 4,536,569 | 4,679,169 | 4,797,204 |
| Total benefits | \$ 25,488,531 | \$ 26,821,413 | \$ 27,802,876 | \$ 29,406,625 |
| Refunds | \$ 0 | \$ 0 | \$ 0 | \$ 0 |



* Disability benefits are included, but amounts are too minimal to visually display in graph.

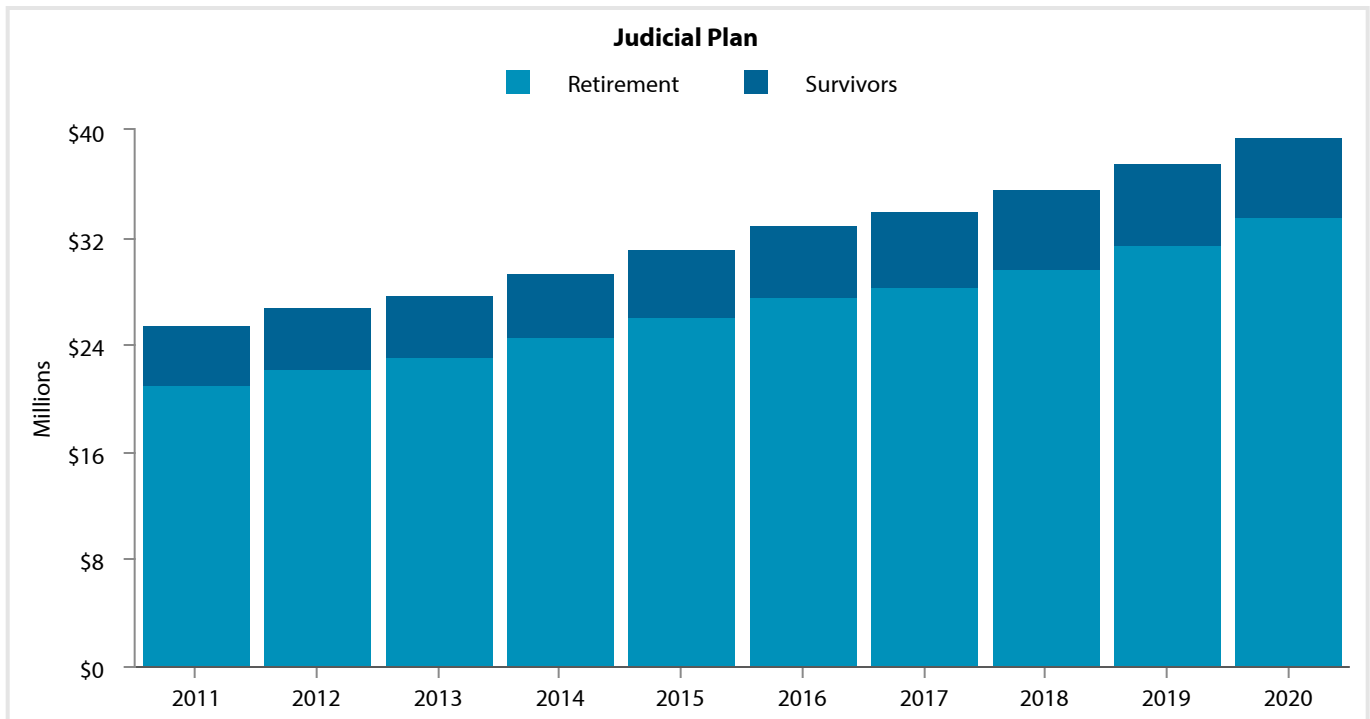
Source: MOSERS' financial records

Deductions from Net Position for Benefits and Refunds by Type (continued)

Last Ten Fiscal Years

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ 586,597,187 | \$ 615,708,229 | \$ 640,637,749 | \$ 670,663,932 | \$ 703,117,097 | \$ 730,310,371 |
| 52,940,062 | 56,495,787 | 59,628,687 | 63,081,129 | 66,493,496 | 70,583,387 |
| 16,857 | 15,470 | 14,821 | 5,223 | 2,260 | 2,300 |
| 57,525 | 267,198 | 123,005 | 61,041,258 | 318,656 | 245,297 |
| 86,174,905 | 81,025,620 | 88,739,858 | 86,417,233 | 75,883,587 | 67,450,394 |
| \$ 725,786,536 | \$ 753,512,304 | \$ 789,144,120 | \$ 881,208,775 | \$ 845,815,096 | \$ 868,591,749 |
| \$ 2,479,264 | \$ 3,798,199 | \$ 4,820,737 | \$ 5,502,698 | \$ 6,006,484 | \$ 5,224,489 |

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| \$ 26,181,505 | \$ 27,641,108 | \$ 28,304,733 | \$ 29,655,995 | \$ 31,463,475 | \$ 33,577,616 |
| 5,064,400 | 5,338,598 | 5,675,104 | 5,995,494 | 6,122,009 | 6,044,652 |
| \$ 31,245,905 | \$ 32,979,706 | \$ 33,979,837 | \$ 35,651,489 | \$ 37,585,484 | \$ 39,622,268 |
| \$ 0 | \$ 10,008 | \$ 4,888 | \$ 5,760 | \$ 7,565 | \$ 0 |



* Disability benefits are included, but amounts are too minimal to visually display in graph.

Source: MOSERS' financial records

Pension Trust Funds

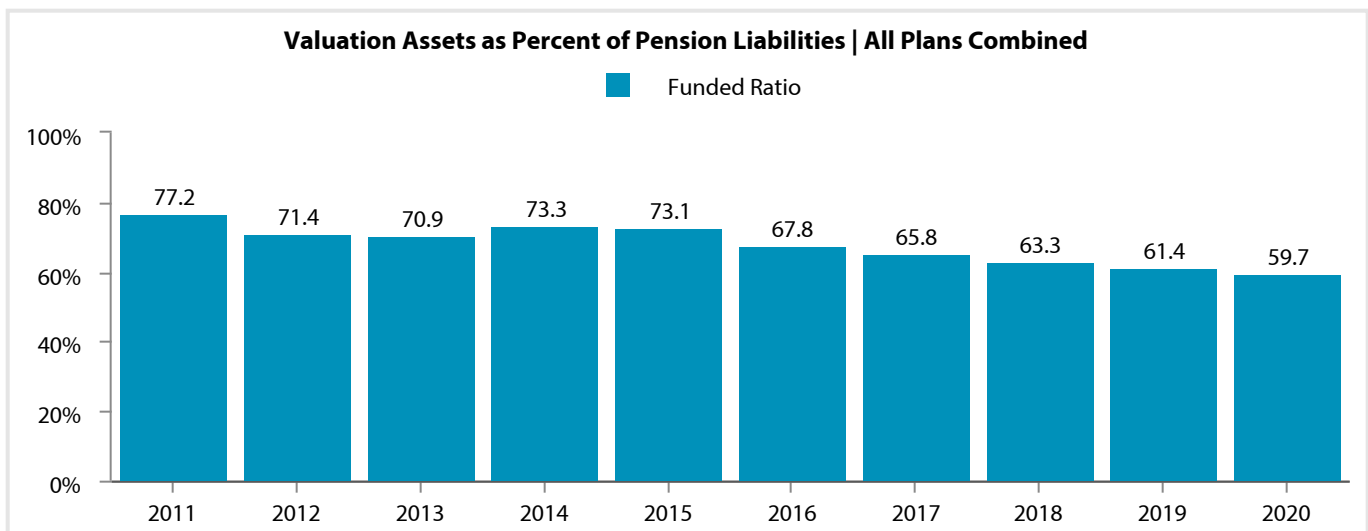
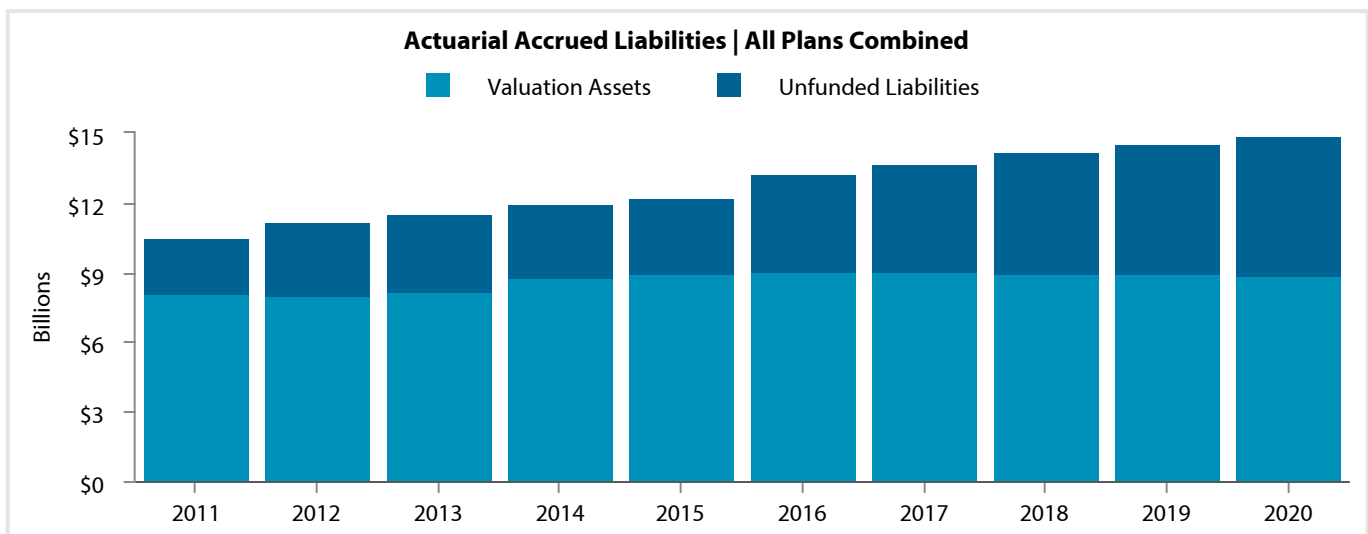
Valuation Assets (Smoothed Market) vs. Pension Liabilities

Last Ten Fiscal Years

MSEP & Judicial Plans Combined

Dollars in Billions

| Fiscal Year | Valuation Assets | Unfunded Liabilities | Accrued Liabilities | Funded Ratios |
|-------------|------------------|----------------------|---------------------|---------------|
| 2011 | \$ 8.1209 | \$ 2.3961 | \$ 10.5170 | 77.2% |
| 2012 | 7.9994 | 3.2076 | 11.2070 | 71.4 |
| 2013 | 8.2076 | 3.3624 | 11.5700 | 70.9 |
| 2014 | 8.7620 | 3.1949 | 11.9569 | 73.3 |
| 2015 | 8.9268 | 3.2838 | 12.2106 | 73.1 |
| 2016 | 9.0215 | 4.2773 | 13.2988 | 67.8 |
| 2017 | 9.0242 | 4.6925 | 13.7167 | 65.8 |
| 2018 | 8.9925 | 5.2140 | 14.2066 | 63.3 |
| 2019 | 8.9546 | 5.6205 | 14.5751 | 61.4 |
| 2020 | 8.8919 | 5.9913 | 14.8833 | 59.7 |



Source: MOSERS' MSEP and Judicial Plan Actuarial Valuation Reports, most recent 10 years.

Pension Trust Funds

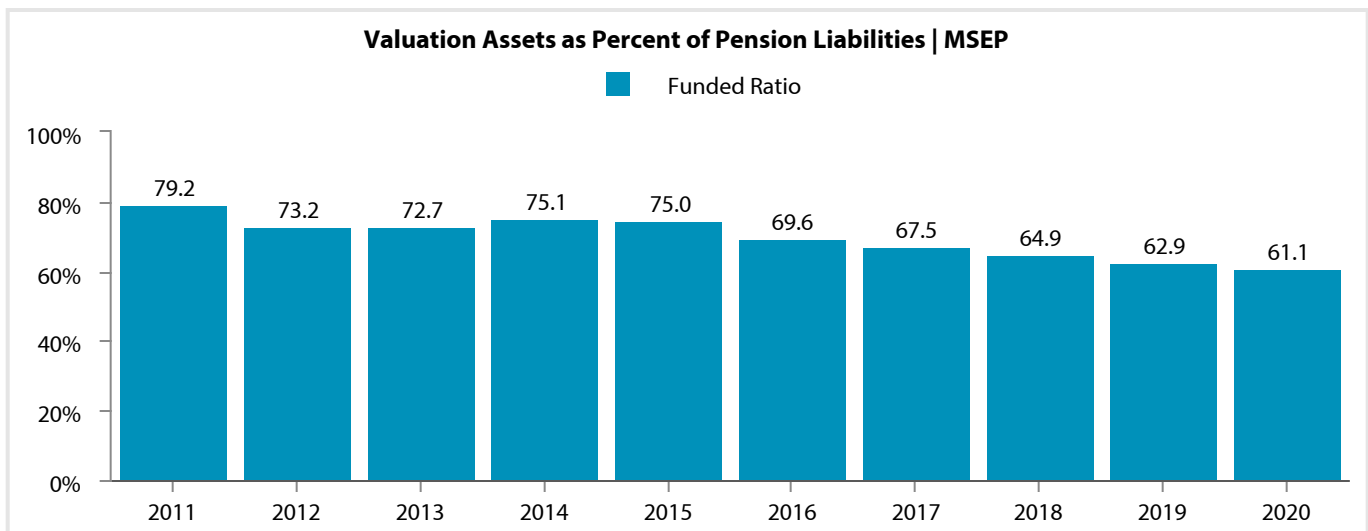
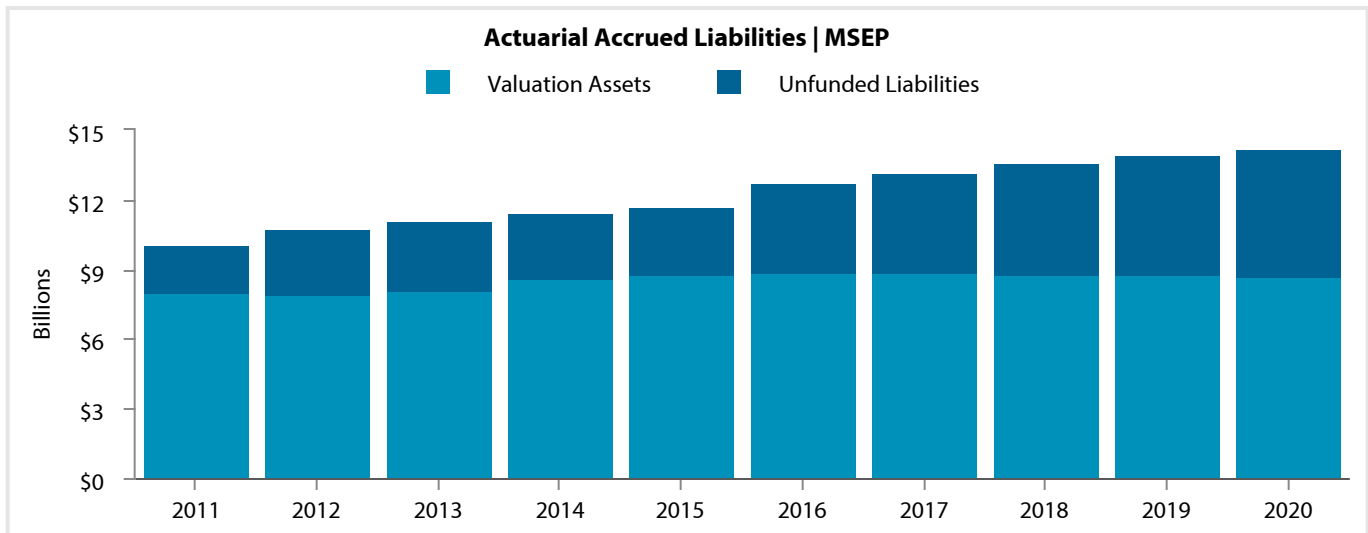
Valuation Assets (Smoothed Market) vs. Pension Liabilities (continued)

Last Ten Fiscal Years

MSEP

Dollars in Billions

| Fiscal Year | Valuation Assets | Unfunded Liabilities | Accrued Liabilities | Funded Ratios |
|-------------|------------------|----------------------|---------------------|---------------|
| 2011 | \$ 8.0225 | \$ 2.1011 | \$ 10.1235 | 79.2% |
| 2012 | 7.8972 | 2.8965 | 10.7937 | 73.2 |
| 2013 | 8.0964 | 3.0382 | 11.1346 | 72.7 |
| 2014 | 8.6378 | 2.8568 | 11.4946 | 75.1 |
| 2015 | 8.7925 | 2.9351 | 11.7276 | 75.0 |
| 2016 | 8.8781 | 3.8731 | 12.7512 | 69.6 |
| 2017 | 8.8724 | 4.2799 | 13.1523 | 67.5 |
| 2018 | 8.8304 | 4.7824 | 13.6128 | 64.9 |
| 2019 | 8.7824 | 5.1752 | 13.9576 | 62.9 |
| 2020 | 8.7112 | 5.5472 | 14.2584 | 61.1 |



Source: MOSERS' MSEP Actuarial Valuation Reports, most recent 10 years

Pension Trust Funds

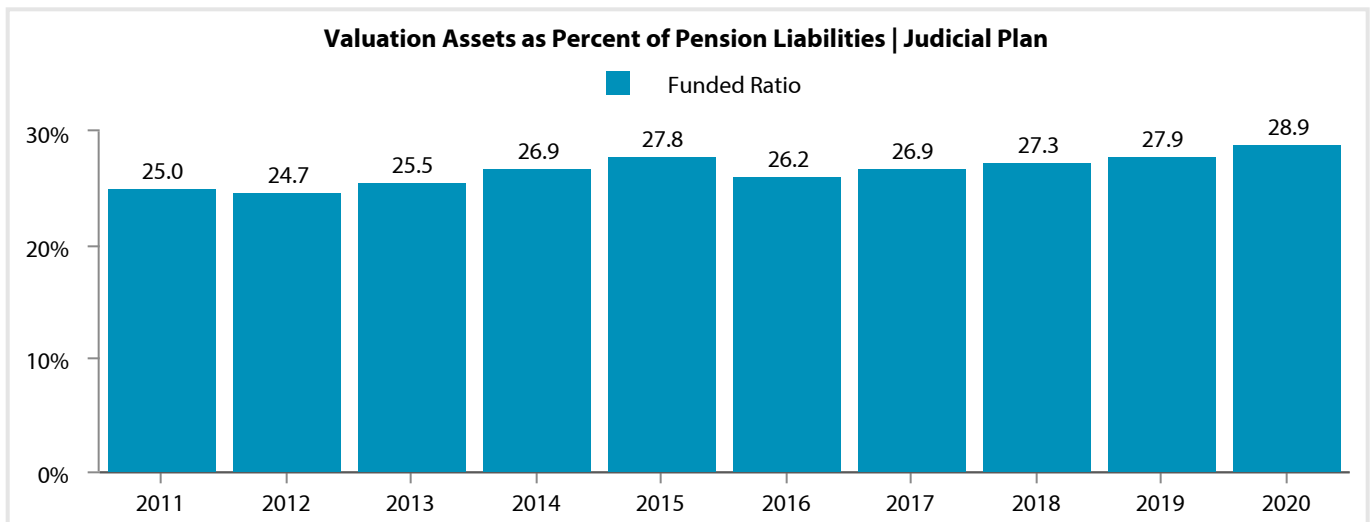
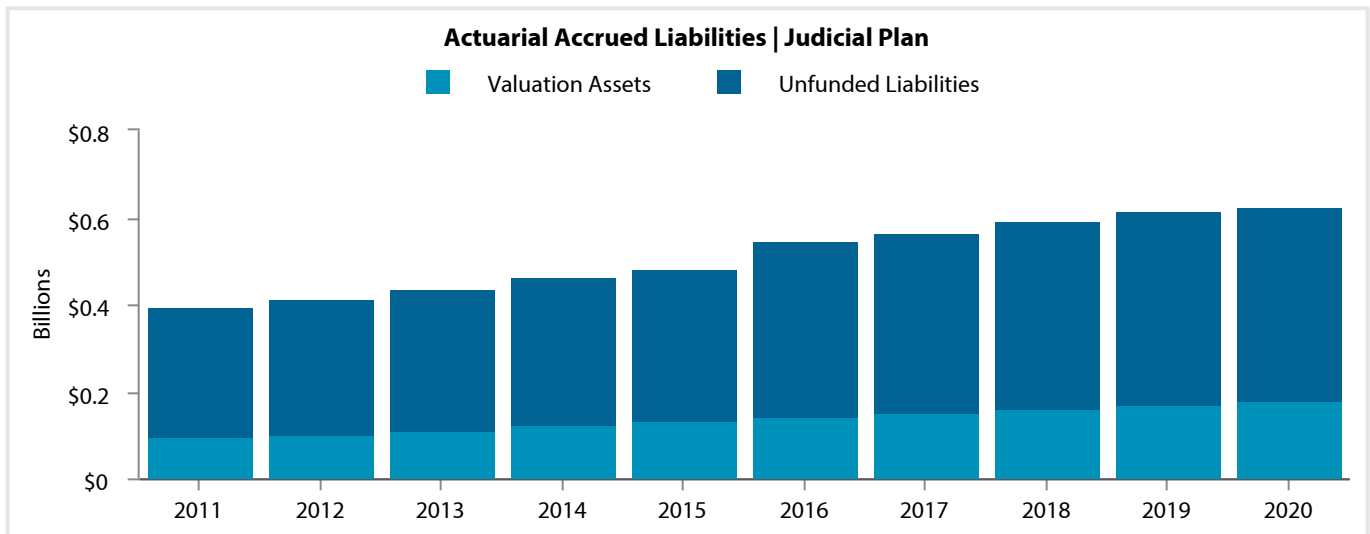
Valuation Assets (Smoothed Market) vs. Pension Liabilities (continued)

Last Ten Fiscal Years

Judicial Plan

Dollars in Billions

| Fiscal Year | Valuation Assets | Unfunded Liabilities | Accrued Liabilities | Funded Ratios |
|-------------|------------------|----------------------|---------------------|---------------|
| 2011 | \$ 0.0984 | \$ 0.2951 | \$ 0.3935 | 25.0% |
| 2012 | 0.1023 | 0.3111 | 0.4133 | 24.7 |
| 2013 | 0.1111 | 0.3242 | 0.4354 | 25.5 |
| 2014 | 0.1243 | 0.3381 | 0.4623 | 26.9 |
| 2015 | 0.1343 | 0.3486 | 0.4830 | 27.8 |
| 2016 | 0.1435 | 0.4042 | 0.5476 | 26.2 |
| 2017 | 0.1518 | 0.4126 | 0.5644 | 26.9 |
| 2018 | 0.1621 | 0.4317 | 0.5938 | 27.3 |
| 2019 | 0.1722 | 0.4453 | 0.6175 | 27.9 |
| 2020 | 0.1807 | 0.4441 | 0.6248 | 28.9 |



Source: MOSERS' Judicial Plan Actuarial Valuation Reports, most recent 10 years

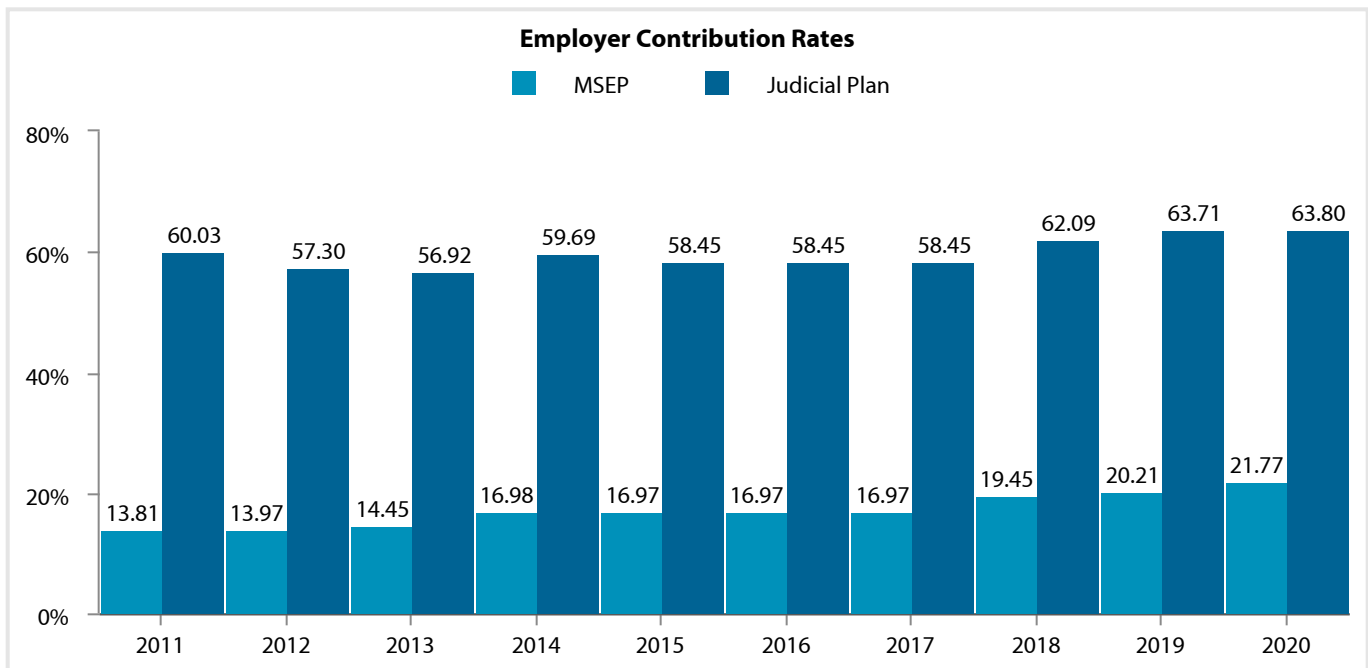
Pension Trust Funds

Employer Contribution Rates as a Percent of Payroll

Last Ten Fiscal Years

| Fiscal Year | MSEP | Judicial |
|-------------|--------|----------|
| 2011 | 13.81% | 60.03% |
| 2012 | 13.97 | 57.30 |
| 2013 | 14.45 | 56.92 |
| 2014 | 16.98 | 59.69 |
| 2015 | 16.97 | 58.45 |
| 2016 | 16.97 | 58.45 |
| 2017 | 16.97 | 58.45 |
| 2018 | 19.45 | 62.09 |
| 2019 | 20.21 | 63.71 |
| 2020 | 21.77 | 63.80 |

Note: In addition to the employer contribution rates, MOSERS also receives a fixed 4% employee contribution from MSEP 2011 and Judicial Plan 2011 members.



Source: MOSERS' MSEP and Judicial Plan Actuarial Valuation Reports, most recent 10 years

Membership in Retirement Plans

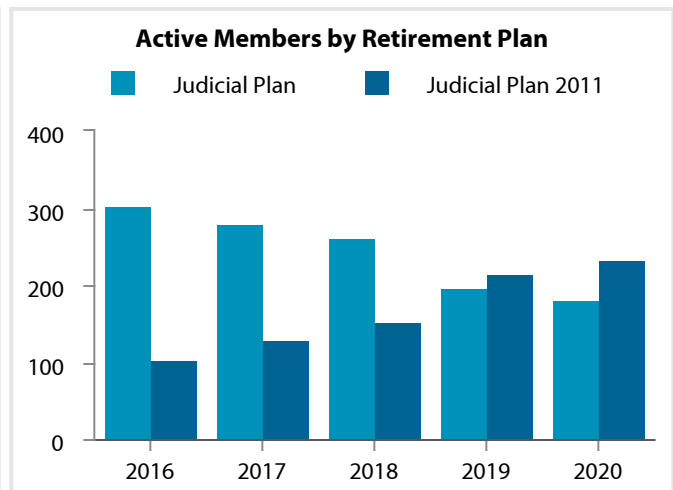
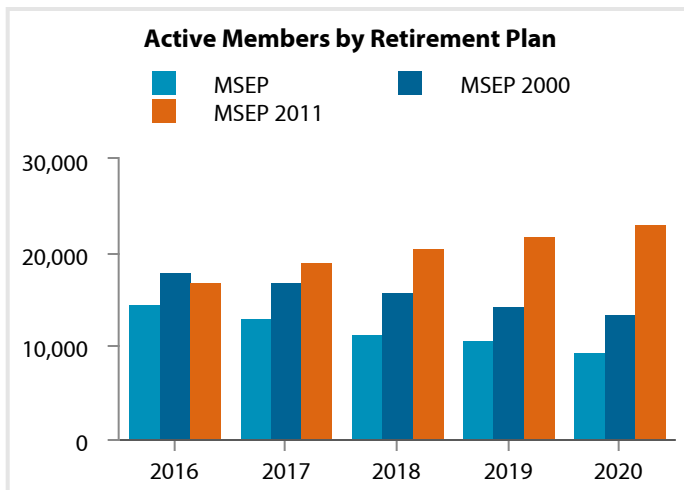
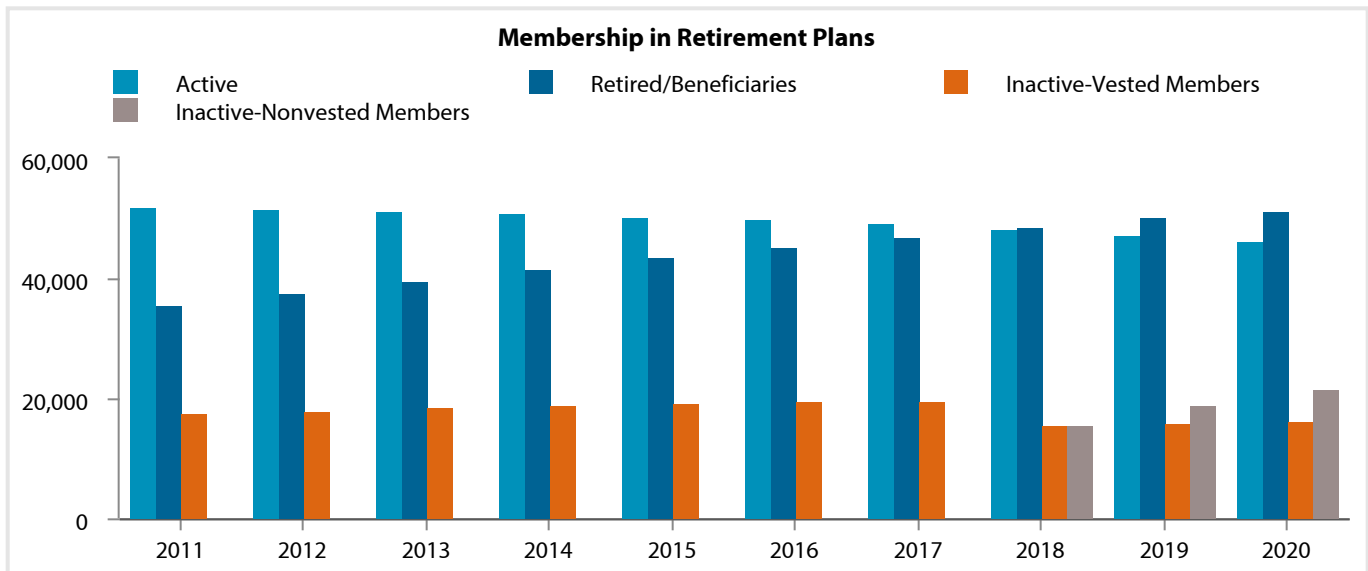
Last Ten Fiscal Years

MSEP & Judicial Plans Combined

| Fiscal Year | Active Members | Retirees and Beneficiaries | Inactive-Vested Members* | Inactive-Nonvested Members** | Totals |
|-------------|----------------|----------------------------|--------------------------|------------------------------|---------|
| 2011 | 52,059 | 35,801 | 17,757 | | 105,617 |
| 2012 | 51,730 | 37,796 | 18,075 | | 107,601 |
| 2013 | 51,233 | 39,636 | 18,581 | | 109,450 |
| 2014 | 51,026 | 41,511 | 18,957 | | 111,494 |
| 2015 | 50,385 | 43,503 | 19,319 | | 113,207 |
| 2016 | 49,872 | 45,368 | 19,538 | | 114,778 |
| 2017 | 49,320 | 47,119 | 19,603 | | 116,042 |
| 2018 | 48,221 | 48,776 | 15,502 | 15,619 | 128,118 |
| 2019 | 47,278 | 50,281 | 16,052 | 18,852 | 132,463 |
| 2020 | 46,417 | 51,447 | 16,335 | 21,735 | 135,934 |

* Excludes members on leave of absence and long-term disability.

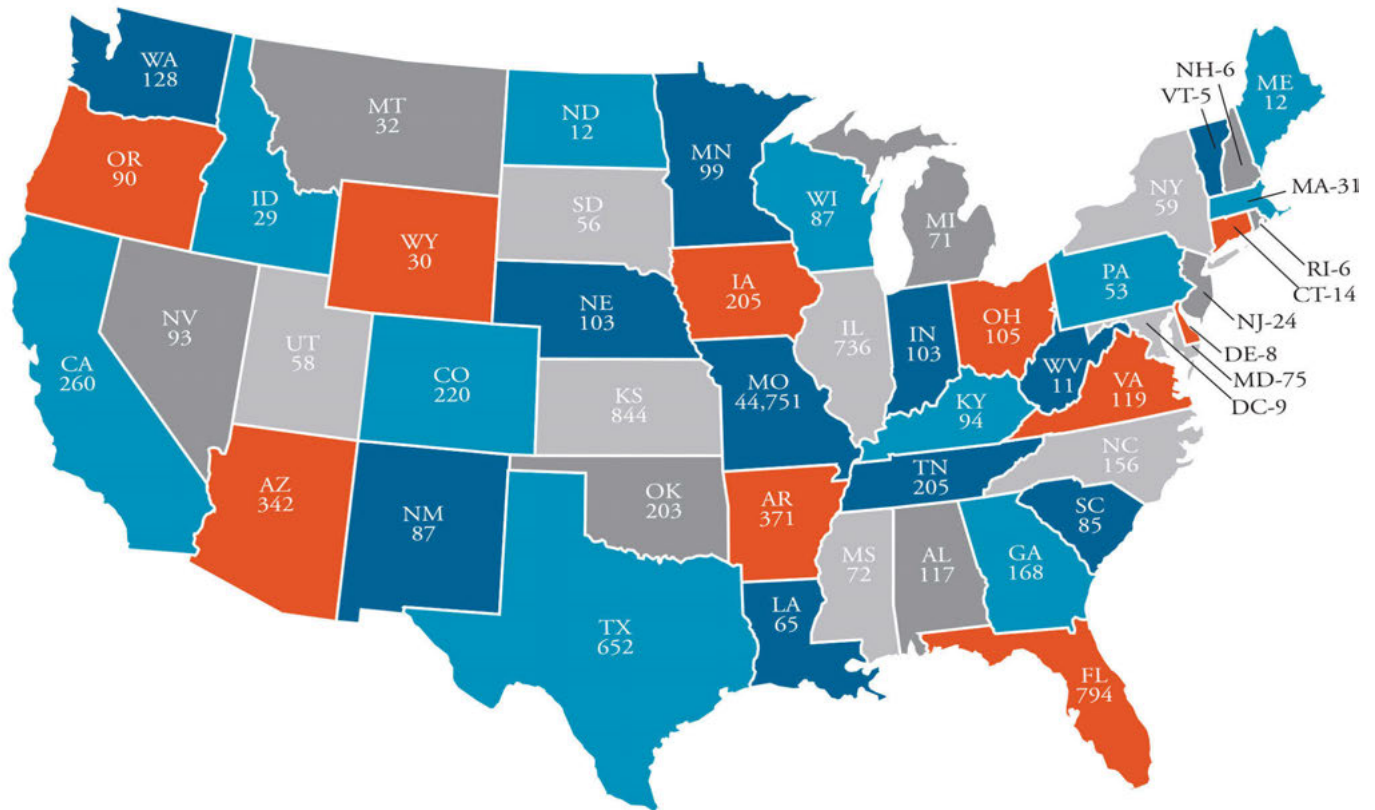
** Inactive-nonvested members of the MSEP 2011 who have not requested a refund of their contributions are now being included in the membership data.



Source: MOSERS' MSEP and Judicial Plan Actuarial Valuation Reports, most recent 10 years

Distribution of Benefit Recipients by Location

June 30, 2020



Benefit Recipients Outside the Continental United States

| | | |
|------------------|--------------------|-------------------|
| 23 Alaska | 1 Ecuador | 3 Puerto Rico |
| 13 Hawaii | 2 Guam | 1 Philippines |
| 1 APO | 1 Germany | 1 Spain |
| 1 Argentina | 1 Hong Kong | 2 Sweden |
| 2 Australia | 1 India | 2 Thailand |
| 1 Brazil | 2 Ireland | 2 The Netherlands |
| 12 Canada | 1 Israel | 5 United Kingdom |
| 1 Costa Rica | 2 Italy | 4 Virgin Islands |
| 1 Croatia | 1 Latvia | |
| 1 Czech Republic | 1 Marshall Islands | |

Source: MOSERS' Pension Administration System

Benefit Recipients by Type of Retirement and Option Elected

June 30, 2020

MSEP

| Amount of Monthly Benefit | Number of Benefit Recipients | Type of Retirement | | | | | | |
|---------------------------|------------------------------|--------------------|--------------|--------------|--------------|----------|----------|------------|
| | | A | B | C | D | E | F | G |
| 1-250 | 5,565 | 2,053 | 2,618 | 241 | 544 | 1 | 0 | 108 |
| 251-500 | 8,484 | 4,167 | 2,977 | 446 | 787 | 0 | 0 | 107 |
| 501-750 | 5,936 | 3,477 | 1,463 | 307 | 640 | 0 | 0 | 49 |
| 751-1000 | 5,259 | 3,771 | 754 | 209 | 487 | 0 | 0 | 38 |
| 1001-1250 | 5,008 | 4,110 | 360 | 139 | 381 | 0 | 0 | 18 |
| 1251-1500 | 4,271 | 3,727 | 161 | 113 | 261 | 0 | 0 | 9 |
| 1501-1750 | 3,485 | 3,121 | 100 | 67 | 195 | 0 | 0 | 2 |
| 1751-2000 | 2,864 | 2,635 | 41 | 52 | 131 | 0 | 0 | 5 |
| Over 2000 | 10,569 | 9,754 | 100 | 166 | 543 | 0 | 0 | 6 |
| Total | 51,441 | 36,815 | 8,574 | 1,740 | 3,969 | 1 | 0 | 342 |

Judicial Plan

| Amount of Monthly Benefit | Number of Benefit Recipients | Type of Retirement | | | | | | |
|---------------------------|------------------------------|--------------------|-----------|-----------|------------|----------|----------|-----------|
| | | A | B | C | D | E | F | G |
| 1-250 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 251-500 | 10 | 0 | 7 | 0 | 2 | 0 | 0 | 1 |
| 501-750 | 6 | 0 | 3 | 0 | 2 | 0 | 0 | 1 |
| 751-1000 | 6 | 0 | 3 | 1 | 1 | 0 | 0 | 1 |
| 1001-1250 | 5 | 0 | 3 | 0 | 1 | 0 | 0 | 1 |
| 1251-1500 | 5 | 0 | 3 | 1 | 1 | 0 | 0 | 0 |
| 1501-1750 | 7 | 1 | 3 | 0 | 0 | 0 | 0 | 3 |
| 1751-2000 | 8 | 0 | 3 | 2 | 2 | 0 | 0 | 1 |
| Over 2000 | 554 | 350 | 59 | 29 | 111 | 0 | 0 | 5 |
| Total | 603 | 351 | 85 | 33 | 121 | 0 | 0 | 13 |

Type of Retirement

A - Normal retirement

B - Early retirement

C - Survivor of active

D - Survivor of retired

E - Disability

F - Occupational disability (Water Patrol)

G - Ex-spouse

Source: MOSERS' Pension Administration System

Benefit Recipients by Type of Retirement and Option Elected (continued)

June 30, 2020

| Option Elected | | | | | | | | | |
|----------------|-----|-------|-----|-------|---|--------|-------|-----|--------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 0 | 15 | 274 | 233 | 334 | 0 | 1,252 | 328 | 41 | 3,088 |
| 6 | 34 | 291 | 280 | 559 | 1 | 1,841 | 699 | 37 | 4,736 |
| 10 | 21 | 168 | 108 | 410 | 0 | 1,275 | 900 | 12 | 3,032 |
| 10 | 32 | 109 | 75 | 384 | 1 | 1,215 | 922 | 7 | 2,504 |
| 6 | 16 | 76 | 44 | 515 | 0 | 1,143 | 841 | 1 | 2,366 |
| 6 | 11 | 51 | 44 | 489 | 0 | 989 | 608 | 3 | 2,070 |
| 7 | 11 | 57 | 34 | 434 | 0 | 783 | 456 | 0 | 1,703 |
| 3 | 3 | 33 | 14 | 413 | 0 | 652 | 350 | 1 | 1,395 |
| 79 | 24 | 99 | 54 | 1,456 | 0 | 2,830 | 1,447 | 0 | 4,580 |
| 127 | 167 | 1,158 | 886 | 4,994 | 2 | 11,980 | 6,551 | 102 | 25,474 |

| Option Elected | | | | | | | | | |
|----------------|---|---|---|----|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 521 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 1 | 13 |
| 557 | 0 | 0 | 0 | 20 | 0 | 1 | 0 | 1 | 24 |

Option Elected

- 1 - Automatic Joint & 50% Survivor
- 2 - Life Income with 60 Guaranteed Payments
- 3 - Life Income with 120 Guaranteed Payments
- 4 - Life Income with 180 Guaranteed Payments
- 5 - Joint & 50% Survivor
- 6 - Joint & 75% Survivor
- 7 - Joint & 100% Survivor
- 8 - Unreduced Joint & 50% Survivor
- 9 - Automatic Minor Survivor
- 10 - No Survivor Option (includes pop-ups)

Benefits Tabulated by Type of Benefit and by Option

June 30, 2020

MSEP Combined

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--|---------------|-----------------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 24,954 | \$ 365,220,252 | \$ 14,636 |
| Unreduced joint & 50% survivor | 9,701 | 197,567,172 | 20,366 |
| Joint & 100% survivor | 8,573 | 156,554,736 | 18,261 |
| Life income with 60 guaranteed payments | 165 | 2,313,612 | 14,022 |
| Life income with 120 guaranteed payments | 1048 | 10,753,704 | 10,261 |
| Life income with 180 guaranteed payments | 735 | 6,338,448 | 8,624 |
| Survivor beneficiary | 3,952 | 52,328,304 | 13,241 |
| Total | 49,128 | 791,076,228 | 16,102 |
| Disability retirement | 1 | 2,316 | 2,316 |
| Death-in-service | 1,728 | 19,459,464 | 11,261 |
| Grand totals | 50,857 | \$ 810,538,008 | 15,938 |

Judicial Plan Combined

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--------------------------------|------------|----------------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 6 | \$ 419,796 | \$ 69,966 |
| Unreduced joint & 50% survivor | 429 | 33,639,060 | 78,413 |
| Joint & 100% survivor | 1 | 11,220 | 11,220 |
| Survivor beneficiary | 121 | 4,865,652 | 40,212 |
| Total | 557 | 38,935,728 | 69,903 |
| Death-in-service | 33 | 1,177,380 | 35,678 |
| Grand totals | 590 | \$ 40,113,108 | 67,988 |

Source: MOSERS' MSEP and Judicial Plan Actuarial Valuation Reports as of June 30, 2020

Benefits Tabulated by Type of Benefit and by Option (continued)

June 30, 2020

MSEP (Closed Plan)

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--|--------|-----------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 5,870 | \$ 94,249,572 | \$ 16,056 |
| Unreduced joint & 50% survivor | 5,195 | 107,707,236 | 20,733 |
| Joint & 100% survivor | 3,147 | 72,551,196 | 23,054 |
| Life income with 60 guaranteed payments | 145 | 2,000,988 | 13,800 |
| Life income with 120 guaranteed payments | 177 | 2,209,968 | 12,486 |
| Survivor beneficiary | 2,669 | 39,535,764 | 14,813 |
| Total | 17,203 | 318,254,724 | 18,500 |
| Disability retirement | 1 | 2,316 | 2,316 |
| Death-in-service | 1,422 | 17,915,784 | 12,599 |
| Grand totals | 18,626 | \$ 336,172,824 | 18,049 |

MSEP 2000

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--|--------|-----------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 18,983 | \$ 270,573,936 | \$ 14,253 |
| Unreduced joint & 50% survivor | 4,491 | 89,783,028 | 19,992 |
| Joint & 100% survivor | 5,379 | 83,827,140 | 15,584 |
| Life income with 60 guaranteed payments | 20 | 312,624 | 15,631 |
| Life income with 120 guaranteed payments | 866 | 8,521,860 | 9,840 |
| Life income with 180 guaranteed payments | 725 | 6,285,276 | 8,669 |
| Survivor beneficiary | 1,283 | 12,792,540 | 9,971 |
| Total | 31,747 | 472,096,404 | 14,871 |
| Death-in-service | 301 | 1,515,792 | 5,036 |
| Grand totals | 32,048 | \$ 473,612,196 | 14,778 |

MSEP 2011

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--|--------|-----------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 101 | \$ 396,744 | \$ 3,928 |
| Unreduced joint & 50% survivor | 15 | 76,908 | 5,127 |
| Joint & 100% survivor | 47 | 176,400 | 3,753 |
| Life income with 60 guaranteed payments | 0 | 0 | 0 |
| Life income with 120 guaranteed payments | 5 | 21,876 | 4,375 |
| Life income with 180 guaranteed payments | 10 | 53,172 | 5,317 |
| Survivor beneficiary | 0 | 0 | 0 |
| Total | 178 | 725,100 | 4,074 |
| Death-in-service | 5 | 27,888 | 5,578 |
| Grand totals | 183 | \$ 752,988 | 4,115 |

Benefits Tabulated by Type of Benefit and by Option (continued)

June 30, 2020

Judicial Plan

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--------------------------------|--------|-----------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 4 | \$ 335,808 | \$ 83,952 |
| Unreduced joint & 50% survivor | 428 | 33,605,916 | 78,518 |
| Joint & 100% survivor | 0 | 0 | 0 |
| Survivor beneficiary | 121 | 4,865,652 | 40,212 |
| Total | 553 | 38,807,376 | 70,176 |
| Death-in-service | 33 | 1,177,380 | 35,678 |
| Grand totals | 586 | \$ 39,984,756 | 68,233 |

Judicial Plan 2011

| Type of Benefit | Number | Annual Benefits | Average Annual Benefits |
|--------------------------------|--------|-----------------|-------------------------|
| Service retirement | | | |
| Life income annuity | 2 | \$ 83,988 | \$ 41,994 |
| Unreduced joint & 50% survivor | 1 | 33,144 | 33,144 |
| Joint & 100% survivor | 1 | 11,220 | 11,220 |
| Survivor beneficiary | 0 | 0 | 0 |
| Total | 4 | 128,352 | 32,088 |
| Death-in-service | 0 | 0 | 0 |
| Grand totals | 4 | \$ 128,352 | 32,088 |

Source: MOSERS' MSEP and Judicial Plan Actuarial Valuation Reports as of June 30, 2020

Average Monthly Benefit Amounts

Last Ten Fiscal Years

MSEP

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 367 | \$ 336 | \$ 492 | \$ 819 | \$ 1,220 | \$ 1,652 | \$ 2,142 | \$ 1,006 |
| | Average final average salary | \$ 1,442 | \$ 2,631 | \$ 2,507 | \$ 3,063 | \$ 3,234 | \$ 3,523 | \$ 3,884 | \$ 3,063 |
| | Number of retirees | 4 | 601 | 498 | 444 | 495 | 495 | 280 | 2,817 |
| 2012 | Average monthly benefit | \$ 126 | \$ 303 | \$ 521 | \$ 818 | \$ 1,232 | \$ 1,624 | \$ 2,271 | \$ 939 |
| | Average final average salary | \$ 7,854 | \$ 2,572 | \$ 2,648 | \$ 3,050 | \$ 3,295 | \$ 3,488 | \$ 4,109 | \$ 3,055 |
| | Number of retirees | 5 | 592 | 537 | 407 | 473 | 373 | 196 | 2,583 |
| 2013 | Average monthly benefit | \$ 251 | \$ 326 | \$ 523 | \$ 753 | \$ 1,243 | \$ 1,697 | \$ 2,017 | \$ 928 |
| | Average final average salary | \$ 3,744 | \$ 2,665 | \$ 2,593 | \$ 2,814 | \$ 3,314 | \$ 3,637 | \$ 3,689 | \$ 3,011 |
| | Number of retirees | 5 | 600 | 558 | 386 | 438 | 388 | 204 | 2,579 |
| 2014 | Average monthly benefit | \$ 280 | \$ 308 | \$ 520 | \$ 809 | \$ 1,199 | \$ 1,691 | \$ 2,207 | \$ 937 |
| | Average final average salary | \$ 4,426 | \$ 2,675 | \$ 2,614 | \$ 3,029 | \$ 3,229 | \$ 3,650 | \$ 3,999 | \$ 3,066 |
| | Number of retirees | 5 | 636 | 507 | 370 | 436 | 392 | 199 | 2,545 |
| 2015 | Average monthly benefit | \$ 219 | \$ 315 | \$ 522 | \$ 801 | \$ 1,268 | \$ 1,723 | \$ 2,217 | \$ 999 |
| | Average final average salary | \$ 5,058 | \$ 2,596 | \$ 2,624 | \$ 2,954 | \$ 3,416 | \$ 3,729 | \$ 4,016 | \$ 3,119 |
| | Number of retirees | 6 | 644 | 519 | 437 | 450 | 487 | 250 | 2,793 |
| 2016 | Average monthly benefit | \$ 151 | \$ 307 | \$ 506 | \$ 819 | \$ 1,300 | \$ 1,838 | \$ 2,360 | \$ 1,016 |
| | Average final average salary | \$ 3,284 | \$ 2,623 | \$ 2,600 | \$ 3,020 | \$ 3,445 | \$ 3,968 | \$ 4,204 | \$ 3,175 |
| | Number of retirees | 6 | 611 | 502 | 430 | 505 | 423 | 215 | 2,692 |
| 2017 | Average monthly benefit | \$ 309 | \$ 339 | \$ 562 | \$ 946 | \$ 1,365 | \$ 1,860 | \$ 2,391 | \$ 1,116 |
| | Average final average salary | \$ 4,658 | \$ 2,731 | \$ 2,849 | \$ 3,426 | \$ 3,641 | \$ 4,030 | \$ 4,291 | \$ 3,406 |
| | Number of retirees | 9 | 518 | 508 | 459 | 440 | 477 | 239 | 2,650 |
| 2018 | Average monthly benefit | \$ 402 | \$ 338 | \$ 584 | \$ 922 | \$ 1,420 | \$ 1,887 | \$ 2,511 | \$ 1,148 |
| | Average final average salary | \$ 5,977 | \$ 2,815 | \$ 2,899 | \$ 3,323 | \$ 3,802 | \$ 4,096 | \$ 4,538 | \$ 3,488 |
| | Number of retirees | 7 | 523 | 475 | 486 | 520 | 515 | 208 | 2,734 |
| 2019 | Average monthly benefit | \$ 198 | \$ 369 | \$ 609 | \$ 886 | \$ 1,356 | \$ 1,840 | \$ 2,321 | \$ 1,131 |
| | Average final average salary | \$ 5,081 | \$ 2,907 | \$ 2,900 | \$ 3,076 | \$ 3,637 | \$ 3,978 | \$ 4,206 | \$ 3,390 |
| | Number of retirees | 3 | 484 | 388 | 409 | 456 | 428 | 225 | 2,393 |
| 2020 | Average monthly benefit | \$ 270 | \$ 321 | \$ 602 | \$ 901 | \$ 1,375 | \$ 1,822 | \$ 2,391 | \$ 1,110 |
| | Average final average salary | \$ 5,379 | \$ 2,677 | \$ 3,012 | \$ 3,149 | \$ 3,707 | \$ 3,967 | \$ 4,329 | \$ 3,390 |
| | Number of retirees | 8 | 475 | 378 | 378 | 447 | 441 | 172 | 2,299 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 264 | \$ 325 | \$ 540 | \$ 850 | \$ 1,299 | \$ 1,768 | \$ 2,278 | \$ 1,032 |
| | Average final average salary | \$ 4,793 | \$ 2,682 | \$ 2,710 | \$ 3,099 | \$ 3,474 | \$ 3,817 | \$ 4,118 | \$ 3,213 |
| | Number of retirees | 58 | 5,684 | 4,870 | 4,206 | 4,660 | 4,419 | 2,188 | 26,085 |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

General Employees in the MSEP*

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 39 | \$ 302 | \$ 472 | \$ 802 | \$ 1,217 | \$ 1,622 | \$ 2,124 | \$ 992 |
| | Average final salary | \$ 925 | \$ 2,612 | \$ 2,486 | \$ 3,052 | \$ 3,234 | \$ 3,518 | \$ 3,862 | \$ 3,055 |
| | Number of retirees | 3 | 571 | 491 | 440 | 494 | 492 | 278 | 2,769 |
| 2012 | Average monthly benefit | \$ 126 | \$ 290 | \$ 502 | \$ 805 | \$ 1,232 | \$ 1,617 | \$ 2,271 | \$ 932 |
| | Average final salary | \$ 7,854 | \$ 2,557 | \$ 2,626 | \$ 3,036 | \$ 3,295 | \$ 3,475 | \$ 4,109 | \$ 3,045 |
| | Number of retirees | 5 | 584 | 532 | 404 | 473 | 372 | 196 | 2,566 |
| 2013 | Average monthly benefit | \$ 169 | \$ 301 | \$ 502 | \$ 746 | \$ 1,234 | \$ 1,697 | \$ 1,995 | \$ 921 |
| | Average final salary | \$ 4,244 | \$ 2,653 | \$ 2,568 | \$ 2,813 | \$ 3,295 | \$ 3,637 | \$ 3,645 | \$ 3,001 |
| | Number of retirees | 3 | 574 | 551 | 384 | 437 | 388 | 203 | 2,540 |
| 2014 | Average monthly benefit | \$ 262 | \$ 298 | \$ 514 | \$ 803 | \$ 1,195 | \$ 1,691 | \$ 2,207 | \$ 935 |
| | Average final salary | \$ 5,382 | \$ 2,663 | \$ 2,612 | \$ 3,029 | \$ 3,230 | \$ 3,650 | \$ 3,999 | \$ 3,065 |
| | Number of retirees | 3 | 629 | 503 | 368 | 435 | 392 | 199 | 2,529 |
| 2015 | Average monthly benefit | \$ 219 | \$ 301 | \$ 517 | \$ 786 | \$ 1,268 | \$ 1,723 | \$ 2,208 | \$ 994 |
| | Average final salary | \$ 5,058 | \$ 2,581 | \$ 2,623 | \$ 2,947 | \$ 3,416 | \$ 3,729 | \$ 4,007 | \$ 3,116 |
| | Number of retirees | 6 | 633 | 517 | 433 | 450 | 487 | 249 | 2,775 |
| 2016 | Average monthly benefit | \$ 151 | \$ 297 | \$ 506 | \$ 819 | \$ 1,285 | \$ 1,838 | \$ 2,343 | \$ 1,011 |
| | Average final salary | \$ 3,284 | \$ 2,617 | \$ 2,600 | \$ 3,020 | \$ 3,420 | \$ 3,968 | \$ 4,184 | \$ 3,168 |
| | Number of retirees | 6 | 603 | 502 | 430 | 502 | 423 | 213 | 2,679 |
| 2017 | Average monthly benefit | \$ 230 | \$ 313 | \$ 551 | \$ 934 | \$ 1,355 | \$ 1,853 | \$ 2,379 | \$ 1,109 |
| | Average final salary | \$ 5,026 | \$ 2,710 | \$ 2,839 | \$ 3,414 | \$ 3,624 | \$ 4,016 | \$ 4,265 | \$ 3,395 |
| | Number of retirees | 6 | 500 | 504 | 456 | 439 | 476 | 238 | 2,619 |
| 2018 | Average monthly benefit | \$ 220 | \$ 329 | \$ 577 | \$ 921 | \$ 1,397 | \$ 1,887 | \$ 2,511 | \$ 1,142 |
| | Average final salary | \$ 5,477 | \$ 2,813 | \$ 2,889 | \$ 3,321 | \$ 3,762 | \$ 4,096 | \$ 4,538 | \$ 3,477 |
| | Number of retirees | 6 | 517 | 474 | 485 | 517 | 515 | 208 | 2,722 |
| 2019 | Average monthly benefit | \$ 198 | \$ 340 | \$ 594 | \$ 868 | \$ 1,345 | \$ 1,840 | \$ 2,321 | \$ 1,126 |
| | Average final salary | \$ 5,081 | \$ 2,903 | \$ 2,885 | \$ 3,077 | \$ 3,624 | \$ 3,978 | \$ 4,206 | \$ 3,390 |
| | Number of retirees | 3 | 463 | 384 | 403 | 454 | 428 | 225 | 2,360 |
| 2020 | Average monthly benefit | \$ 237 | \$ 307 | \$ 597 | \$ 901 | \$ 1,360 | \$ 1,814 | \$ 2,391 | \$ 1,105 |
| | Average final salary | \$ 5,720 | \$ 2,658 | \$ 3,012 | \$ 3,149 | \$ 3,682 | \$ 3,952 | \$ 4,329 | \$ 3,381 |
| | Number of retirees | 7 | 468 | 376 | 378 | 445 | 440 | 172 | 2,286 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 192 | \$ 307 | \$ 529 | \$ 841 | \$ 1,290 | \$ 1,762 | \$ 2,270 | \$ 1,026 |
| | Average final average salary | \$ 4,252 | \$ 2,677 | \$ 2,704 | \$ 3,059 | \$ 3,382 | \$ 3,691 | \$ 4,156 | \$ 3,172 |
| | Number of retirees | 48 | 5,542 | 4,834 | 4,181 | 4,646 | 4,413 | 2,181 | 25,845 |

* Excludes legislators, elected officials, water patrol, and administrative law judges.

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

Legislators in the MSEP

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 0 | \$ 992 | \$ 1,512 | \$ 2,021 | \$ 2,744 | \$ 3,242 | \$ 0 | \$ 1,247 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 30 | 4 | 4 | 1 | 1 | 0 | 40 |
| 2012 | Average monthly benefit | \$ 0 | \$ 1,069 | \$ 1,659 | \$ 2,225 | \$ 0 | \$ 0 | \$ 0 | \$ 1,335 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 7 | 3 | 1 | 0 | 0 | 0 | 11 |
| 2013 | Average monthly benefit | \$ 374 | \$ 907 | \$ 1,513 | \$ 2,120 | \$ 0 | \$ 0 | \$ 0 | \$ 1,036 |
| | Average final salary | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 2 | 25 | 5 | 2 | 0 | 0 | 0 | 34 |
| 2014 | Average monthly benefit | \$ 307 | \$ 1,051 | \$ 1,496 | \$ 1,995 | \$ 2,744 | \$ 0 | \$ 0 | \$ 1,296 |
| | Average final salary | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 2 | 6 | 3 | 2 | 1 | 0 | 0 | 14 |
| 2015 | Average monthly benefit | \$ 0 | \$ 977 | \$ 1,735 | \$ 2,162 | \$ 0 | \$ 0 | \$ 0 | \$ 1,315 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 10 | 2 | 3 | 0 | 0 | 0 | 15 |
| 2016 | Average monthly benefit | \$ 0 | \$ 1,048 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,048 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 2017 | Average monthly benefit | \$ 499 | \$ 954 | \$ 1,580 | \$ 1,995 | \$ 0 | \$ 0 | \$ 0 | \$ 1,041 |
| | Average final salary | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 2 | 17 | 3 | 1 | 0 | 0 | 0 | 23 |
| 2018 | Average monthly benefit | \$ 0 | \$ 1,122 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,122 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| 2019 | Average monthly benefit | \$ 0 | \$ 1,017 | \$ 1,496 | \$ 2,117 | \$ 2,744 | \$ 0 | \$ 0 | \$ 1,327 |
| | Average final salary | \$ 0 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 0 | 21 | 2 | 6 | 1 | 0 | 0 | 30 |
| 2020 | Average monthly benefit | \$ 499 | \$ 956 | \$ 1,621 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,053 |
| | Average final salary | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,993 |
| | Number of retirees | 1 | 6 | 2 | 0 | 0 | 0 | 0 | 9 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 408 | \$ 988 | \$ 1,563 | \$ 2,091 | \$ 2,744 | \$ 3,242 | \$ 0 | \$ 1,190 |
| | Average final average salary | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0 | \$ 2,993 |
| | Number of retirees | 7 | 135 | 24 | 19 | 3 | 1 | 0 | 189 |

Note: COLA increases are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

Elected Officials in the MSEP

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members | |
|-------------------------------------|-------------------------|------------------------------------|----------|----------|-------|-----------|-------|------|-------------|-------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | | |
| 2011 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2012 | Average monthly benefit | \$ 0 | \$ 0 | \$ 3,781 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 3,781 |
| | Average final salary | \$ 0 | \$ 0 | \$ 8,093 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 8,093 |
| | Number of retirees | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 2013 | Average monthly benefit | \$ 0 | \$ 0 | \$ 4,489 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 4,489 |
| | Average final salary | \$ 0 | \$ 0 | \$ 8,979 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 8,979 |
| | Number of retirees | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2014 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2015 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | Average monthly benefit | \$ 0 | \$ 2,993 | \$ 3,099 | \$ 0 | \$ 5,576 | \$ 0 | \$ 0 | \$ 0 | 3,889 |
| | Average final salary | \$ 0 | \$ 8,979 | \$ 7,207 | \$ 0 | \$ 11,152 | \$ 0 | \$ 0 | \$ 0 | 9,113 |
| | Number of retirees | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 3 |
| 2018 | Average monthly benefit | \$ 1,496 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 1,496 |
| | Average final salary | \$ 8,979 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 8,979 |
| | Number of retirees | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2019 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | Average monthly benefit | \$ 0 | \$ 3,234 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 3,234 |
| | Average final salary | \$ 0 | \$ 9,703 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | 9,703 |
| | Number of retirees | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ten Years Ended June 30, 2020 | | | | | | | | | | |
| Average monthly benefit | | \$ 1,496 | \$ 3,114 | \$ 3,788 | \$ 0 | \$ 5,576 | \$ 0 | \$ 0 | \$ 0 | 3,556 |
| Average final average salary | | \$ 8,979 | \$ 9,341 | \$ 8,093 | \$ 0 | \$ 11,152 | \$ 0 | \$ 0 | \$ 0 | 8,898 |
| Number of retirees | | 1 | 2 | 4 | 0 | 1 | 0 | 0 | 0 | 8 |

Note: COLA increases are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

Uniformed Water Patrol in the MSEP

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|-------|-----------|-----------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 0 | \$ 0 | \$ 721 | \$ 0 | \$ 0 | \$ 3,086 | \$ 4,553 | \$ 3,200 |
| | Average final salary | \$ 0 | \$ 0 | \$ 2,964 | \$ 0 | \$ 0 | \$ 5,077 | \$ 6,912 | \$ 5,388 |
| | Number of retirees | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 5 |
| 2012 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 959 | \$ 0 | \$ 0 | \$ 0 | \$ 959 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 2,794 | \$ 0 | \$ 0 | \$ 0 | \$ 2,794 |
| | Number of retirees | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2013 | Average monthly benefit | \$ 0 | \$ 69 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 69 |
| | Average final salary | \$ 0 | \$ 1,291 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,291 |
| | Number of retirees | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2014 | Average monthly benefit | \$ 0 | \$ 0 | \$ 780 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 780 |
| | Average final salary | \$ 0 | \$ 0 | \$ 2,507 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,507 |
| | Number of retirees | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2015 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 4,539 | \$ 4,539 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 6,321 | \$ 6,321 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 2016 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 4,221 | \$ 4,221 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 6,375 | \$ 6,375 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 2017 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 1,079 | \$ 0 | \$ 0 | \$ 0 | \$ 1,079 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 2,846 | \$ 0 | \$ 0 | \$ 0 | \$ 2,846 |
| | Number of retirees | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2018 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 1,492 | \$ 0 | \$ 0 | \$ 0 | \$ 1,492 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 4,347 | \$ 0 | \$ 0 | \$ 0 | \$ 4,347 |
| | Number of retirees | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2019 | Average monthly benefit | \$ 0 | \$ 0 | \$ 671 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 671 |
| | Average final salary | \$ 0 | \$ 0 | \$ 2,659 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,659 |
| | Number of retirees | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2020 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| | Number of retirees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 0 | \$ 69 | \$ 724 | \$ 1,177 | \$ 0 | \$ 3,086 | \$ 4,417 | \$ 2,431 |
| | Average final average salary | \$ 0 | \$ 1,291 | \$ 8,130 | \$ 9,987 | \$ 0 | \$ 10,154 | \$ 32,895 | \$ 62,455 |
| | Number of retirees | 0 | 1 | 3 | 3 | 0 | 2 | 5 | 14 |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

Administrative Law Judges and Legal Advisors in the MSEP

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|-----------|-----------|-----------|-----------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 0 | \$ 0 | \$ 3,216 | \$ 4,101 | \$ 0 | \$ 0 | \$ 0 | \$ 3,511 |
| | Average final salary | \$ 0 | \$ 0 | \$ 6,433 | \$ 8,202 | \$ 0 | \$ 0 | \$ 0 | \$ 7,023 |
| | Number of retirees | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| 2012 | Average monthly benefit | \$ 0 | \$ 2,493 | \$ 0 | \$ 4,378 | \$ 0 | \$ 4,204 | \$ 0 | \$ 3,692 |
| | Average final salary | \$ 0 | \$ 8,756 | \$ 0 | \$ 8,756 | \$ 0 | \$ 8,408 | \$ 0 | \$ 8,640 |
| | Number of retirees | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 2013 | Average monthly benefit | \$ 0 | \$ 0 | \$ 2,657 | \$ 0 | \$ 4,134 | \$ 0 | \$ 4,450 | \$ 3,747 |
| | Average final salary | \$ 0 | \$ 0 | \$ 5,314 | \$ 0 | \$ 8,267 | \$ 0 | \$ 8,900 | \$ 7,494 |
| | Number of retirees | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| 2014 | Average monthly benefit | \$ 0 | \$ 2,433 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,433 |
| | Average final salary | \$ 0 | \$ 8,146 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 8,146 |
| | Number of retirees | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2015 | Average monthly benefit | \$ 0 | \$ 2,259 | \$ 0 | \$ 3,012 | \$ 0 | \$ 0 | \$ 0 | \$ 2,636 |
| | Average final salary | \$ 0 | \$ 7,936 | \$ 0 | \$ 6,023 | \$ 0 | \$ 0 | \$ 0 | \$ 6,980 |
| | Number of retirees | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 2016 | Average monthly benefit | \$ 0 | \$ 853 | \$ 0 | \$ 0 | \$ 3,811 | \$ 0 | \$ 0 | \$ 3,072 |
| | Average final salary | \$ 0 | \$ 3,508 | \$ 0 | \$ 0 | \$ 7,623 | \$ 0 | \$ 0 | \$ 6,594 |
| | Number of retirees | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 4 |
| 2017 | Average monthly benefit | \$ 401 | \$ 0 | \$ 0 | \$ 5,065 | \$ 0 | \$ 5,298 | \$ 5,273 | \$ 4,009 |
| | Average final salary | \$ 5,777 | \$ 0 | \$ 0 | \$ 10,129 | \$ 0 | \$ 10,596 | \$ 10,546 | \$ 9,262 |
| | Number of retirees | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 4 |
| 2018 | Average monthly benefit | \$ 0 | \$ 0 | \$ 3,860 | \$ 0 | \$ 5,313 | \$ 0 | \$ 0 | \$ 4,950 |
| | Average final salary | \$ 0 | \$ 0 | \$ 7,720 | \$ 0 | \$ 10,625 | \$ 0 | \$ 0 | \$ 9,899 |
| | Number of retirees | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 4 |
| 2019 | Average monthly benefit | \$ 0 | \$ 0 | \$ 4,353 | \$ 0 | \$ 5,115 | \$ 0 | \$ 0 | \$ 4,734 |
| | Average final salary | \$ 0 | \$ 0 | \$ 8,707 | \$ 0 | \$ 10,230 | \$ 0 | \$ 0 | \$ 9,469 |
| | Number of retirees | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 2020 | Average monthly benefit | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 4,630 | \$ 5,323 | \$ 0 | \$ 4,861 |
| | Average final salary | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 9,260 | \$ 10,647 | \$ 0 | \$ 9,722 |
| | Number of retirees | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 401 | \$ 2,010 | \$ 3,460 | \$ 4,139 | \$ 4,588 | \$ 4,942 | \$ 4,862 | \$ 3,887 |
| | Average final average salary | \$ 5,777 | \$ 7,087 | \$ 6,921 | \$ 8,278 | \$ 9,176 | \$ 9,884 | \$ 9,723 | \$ 8,369 |
| | Number of retirees | 1 | 4 | 5 | 4 | 10 | 3 | 2 | 29 |

Note: COLA increases are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Average Monthly Benefit Amounts (continued)

Last Ten Fiscal Years

Judicial Plan

| Members Retiring During Fiscal Year | | Years Credited Service by Category | | | | | | | All Members |
|-------------------------------------|------------------------------|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| | | <5 | 5-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | |
| 2011 | Average monthly benefit | \$ 0 | \$ 2,188 | \$ 4,615 | \$ 4,566 | \$ 4,807 | \$ 4,866 | \$ 4,650 | \$ 4,384 |
| | Average final salary | \$ 0 | \$ 7,994 | \$ 9,299 | \$ 9,132 | \$ 9,613 | \$ 9,732 | \$ 9,299 | \$ 9,187 |
| | Number of retirees | 0 | 4 | 9 | 10 | 5 | 3 | 5 | 36 |
| 2012 | Average monthly benefit | \$ 1,740 | \$ 2,353 | \$ 4,561 | \$ 4,621 | \$ 0 | \$ 5,020 | \$ 0 | \$ 3,684 |
| | Average final salary | \$ 9,114 | \$ 7,797 | \$ 10,179 | \$ 9,241 | \$ 0 | \$ 10,040 | \$ 0 | \$ 9,055 |
| | Number of retirees | 1 | 5 | 4 | 4 | 0 | 1 | 0 | 15 |
| 2013 | Average monthly benefit | \$ 0 | \$ 2,277 | \$ 4,234 | \$ 4,625 | \$ 5,444 | \$ 5,452 | \$ 5,293 | \$ 4,699 |
| | Average final salary | \$ 0 | \$ 8,123 | \$ 8,696 | \$ 9,251 | \$ 10,888 | \$ 10,904 | \$ 10,585 | \$ 9,767 |
| | Number of retirees | 0 | 2 | 6 | 4 | 5 | 4 | 2 | 23 |
| 2014 | Average monthly benefit | \$ 0 | \$ 2,310 | \$ 4,571 | \$ 5,151 | \$ 5,117 | \$ 4,869 | \$ 5,293 | \$ 4,313 |
| | Average final salary | \$ 0 | \$ 8,259 | \$ 9,143 | \$ 10,303 | \$ 10,233 | \$ 9,738 | \$ 10,585 | \$ 9,435 |
| | Number of retirees | 0 | 4 | 6 | 3 | 3 | 1 | 1 | 18 |
| 2015 | Average monthly benefit | \$ 1,114 | \$ 3,140 | \$ 5,572 | \$ 5,572 | \$ 5,970 | \$ 5,572 | \$ 5,848 | \$ 5,392 |
| | Average final salary | \$ 11,143 | \$ 9,419 | \$ 11,143 | \$ 11,143 | \$ 11,940 | \$ 11,143 | \$ 11,697 | \$ 11,253 |
| | Number of retirees | 1 | 3 | 7 | 10 | 7 | 4 | 7 | 39 |
| 2016 | Average monthly benefit | \$ 0 | \$ 4,193 | \$ 5,575 | \$ 5,452 | \$ 6,166 | \$ 5,844 | \$ 0 | \$ 5,545 |
| | Average final salary | \$ 0 | \$ 11,688 | \$ 11,503 | \$ 10,903 | \$ 12,332 | \$ 11,688 | \$ 0 | \$ 11,569 |
| | Number of retirees | 0 | 2 | 3 | 5 | 4 | 2 | 0 | 16 |
| 2017 | Average monthly benefit | \$ 602 | \$ 4,487 | \$ 5,506 | \$ 6,054 | \$ 5,878 | \$ 6,178 | \$ 5,931 | \$ 5,293 |
| | Average final salary | \$ 8,136 | \$ 11,696 | \$ 11,367 | \$ 12,108 | \$ 11,756 | \$ 12,355 | \$ 11,861 | \$ 11,574 |
| | Number of retirees | 2 | 3 | 2 | 4 | 6 | 4 | 2 | 23 |
| 2018 | Average monthly benefit | \$ 0 | \$ 4,549 | \$ 5,525 | \$ 6,114 | \$ 5,989 | \$ 6,238 | \$ 6,365 | \$ 5,955 |
| | Average final salary | \$ 0 | \$ 12,477 | \$ 11,947 | \$ 12,227 | \$ 11,978 | \$ 12,477 | \$ 12,730 | \$ 12,259 |
| | Number of retirees | 0 | 1 | 4 | 4 | 4 | 4 | 3 | 20 |
| 2019 | Average monthly benefit | \$ 603 | \$ 0 | \$ 5,658 | \$ 6,025 | \$ 6,037 | \$ 6,074 | \$ 6,074 | \$ 5,653 |
| | Average final salary | \$ 9,520 | \$ 0 | \$ 11,371 | \$ 12,051 | \$ 12,075 | \$ 12,147 | \$ 12,147 | \$ 11,758 |
| | Number of retirees | 2 | 0 | 10 | 13 | 7 | 2 | 4 | 38 |
| 2020 | Average monthly benefit | \$ 0 | \$ 3,163 | \$ 5,389 | \$ 6,415 | \$ 6,237 | \$ 6,256 | \$ 6,415 | \$ 5,875 |
| | Average final salary | \$ 0 | \$ 12,653 | \$ 10,927 | \$ 12,830 | \$ 12,501 | \$ 12,511 | \$ 12,830 | \$ 12,132 |
| | Number of retirees | 0 | 1 | 5 | 1 | 7 | 4 | 1 | 19 |
| Ten Years Ended June 30, 2020 | | | | | | | | | |
| | Average monthly benefit | \$ 877 | \$ 2,932 | \$ 5,089 | \$ 5,422 | \$ 5,796 | \$ 5,762 | \$ 5,669 | \$ 5,122 |
| | Average final average salary | \$ 9,262 | \$ 9,284 | \$ 10,407 | \$ 10,844 | \$ 11,596 | \$ 11,524 | \$ 11,338 | \$ 10,825 |
| | Number of retirees | 6 | 25 | 56 | 58 | 48 | 29 | 25 | 247 |

Note: COLA increases are excluded from the above for comparison purposes.

Source: MOSERS' Pension Administration System

Retirees and Beneficiaries Tabulated by Fiscal Year of Retirement

As of June 30, 2020

MSEP

| Fiscal Year of Retirement | Number | Total Annual Benefit | Average Monthly Benefit |
|---------------------------|--------|----------------------|-------------------------|
| 1980 and prior | 23 | \$ 105,506 | \$ 382 |
| 1981 | 13 | 89,801 | 576 |
| 1982 | 12 | 100,031 | 695 |
| 1983 | 4 | 47,027 | 980 |
| 1984 | 23 | 200,462 | 726 |
| 1985 | 35 | 299,371 | 713 |
| 1986 | 53 | 501,911 | 789 |
| 1987 | 71 | 864,176 | 1,014 |
| 1988 | 86 | 1,378,009 | 1,335 |
| 1989 | 117 | 1,999,098 | 1,424 |
| 1990 | 128 | 1,948,882 | 1,269 |
| 1991 | 182 | 3,568,331 | 1,634 |
| 1992 | 226 | 3,929,419 | 1,449 |
| 1993 | 318 | 5,847,121 | 1,532 |
| 1994 | 313 | 5,689,716 | 1,515 |
| 1995 | 457 | 8,618,338 | 1,572 |
| 1996 | 498 | 9,989,987 | 1,672 |
| 1997 | 533 | 10,206,220 | 1,596 |
| 1998 | 651 | 13,295,929 | 1,702 |
| 1999 | 798 | 16,174,985 | 1,689 |
| 2000 | 874 | 17,364,419 | 1,656 |
| 2001 | 1,869 | 36,624,842 | 1,633 |
| 2002 | 1,287 | 21,761,675 | 1,409 |
| 2003 | 1,450 | 25,932,884 | 1,490 |
| 2004 | 1,969 | 33,561,810 | 1,420 |
| 2005 | 1,433 | 22,349,636 | 1,300 |
| 2006 | 1,603 | 23,536,503 | 1,224 |
| 2007 | 1,916 | 28,894,289 | 1,257 |
| 2008 | 1,953 | 28,723,536 | 1,226 |
| 2009 | 2,049 | 30,550,356 | 1,242 |
| 2010 | 2,134 | 30,968,385 | 1,209 |
| 2011 | 2,748 | 41,926,107 | 1,271 |
| 2012 | 2,574 | 36,738,657 | 1,189 |
| 2013 | 2,683 | 36,639,882 | 1,138 |
| 2014 | 2,712 | 37,994,040 | 1,167 |
| 2015 | 2,996 | 44,166,624 | 1,228 |
| 2016 | 2,996 | 44,491,796 | 1,238 |
| 2017 | 2,947 | 47,809,808 | 1,352 |
| 2018 | 3,120 | 50,362,614 | 1,345 |
| 2019 | 2,829 | 45,517,591 | 1,341 |
| 2020 | 2,758 | 42,547,879 | 1,286 |
| | 51,441 | \$ 813,317,653 | \$ 1,318 |

Source: MOSERS' Pension Administration System

Retirees and Beneficiaries Tabulated by Fiscal Year of Retirement (continued)

As of June 30, 2020

Judicial Plan

| Fiscal Year of Retirement | Number | Total Annual Benefit | Average Monthly Benefit |
|---------------------------|--------|----------------------|-------------------------|
| 1980 and prior | 3 | \$ 51,115 | \$ 1,420 |
| 1981 | 0 | 0 | 0 |
| 1982 | 0 | 0 | 0 |
| 1983 | 1 | 22,369 | 1,864 |
| 1984 | 0 | 0 | 0 |
| 1985 | 0 | 0 | 0 |
| 1986 | 0 | 0 | 0 |
| 1987 | 5 | 228,470 | 3,808 |
| 1988 | 1 | 79,384 | 6,615 |
| 1989 | 2 | 65,428 | 2,726 |
| 1990 | 4 | 225,155 | 4,691 |
| 1991 | 7 | 349,336 | 4,159 |
| 1992 | 3 | 154,365 | 4,288 |
| 1993 | 5 | 255,164 | 4,253 |
| 1994 | 3 | 127,796 | 3,550 |
| 1995 | 10 | 754,877 | 6,291 |
| 1996 | 6 | 302,820 | 4,206 |
| 1997 | 4 | 253,745 | 5,286 |
| 1998 | 10 | 606,162 | 5,051 |
| 1999 | 12 | 794,468 | 5,517 |
| 2000 | 11 | 802,856 | 6,082 |
| 2001 | 14 | 1,260,837 | 7,505 |
| 2002 | 13 | 1,025,708 | 6,575 |
| 2003 | 15 | 1,053,086 | 5,850 |
| 2004 | 15 | 1,055,561 | 5,864 |
| 2005 | 13 | 1,155,653 | 7,408 |
| 2006 | 12 | 474,636 | 3,296 |
| 2007 | 44 | 3,070,816 | 5,816 |
| 2008 | 27 | 1,733,276 | 5,350 |
| 2009 | 31 | 1,822,842 | 4,900 |
| 2010 | 13 | 812,183 | 5,206 |
| 2011 | 35 | 2,166,725 | 5,159 |
| 2012 | 19 | 988,451 | 4,335 |
| 2013 | 28 | 1,977,891 | 5,887 |
| 2014 | 23 | 1,457,959 | 5,282 |
| 2015 | 53 | 3,961,971 | 6,230 |
| 2016 | 26 | 1,714,337 | 5,495 |
| 2017 | 32 | 2,168,843 | 5,648 |
| 2018 | 31 | 2,360,814 | 6,346 |
| 2019 | 48 | 3,319,863 | 5,764 |
| 2020 | 24 | 1,518,155 | 5,271 |
| | 603 | \$ 40,173,117 | \$ 5,552 |

Source: MOSERS' Pension Administration System

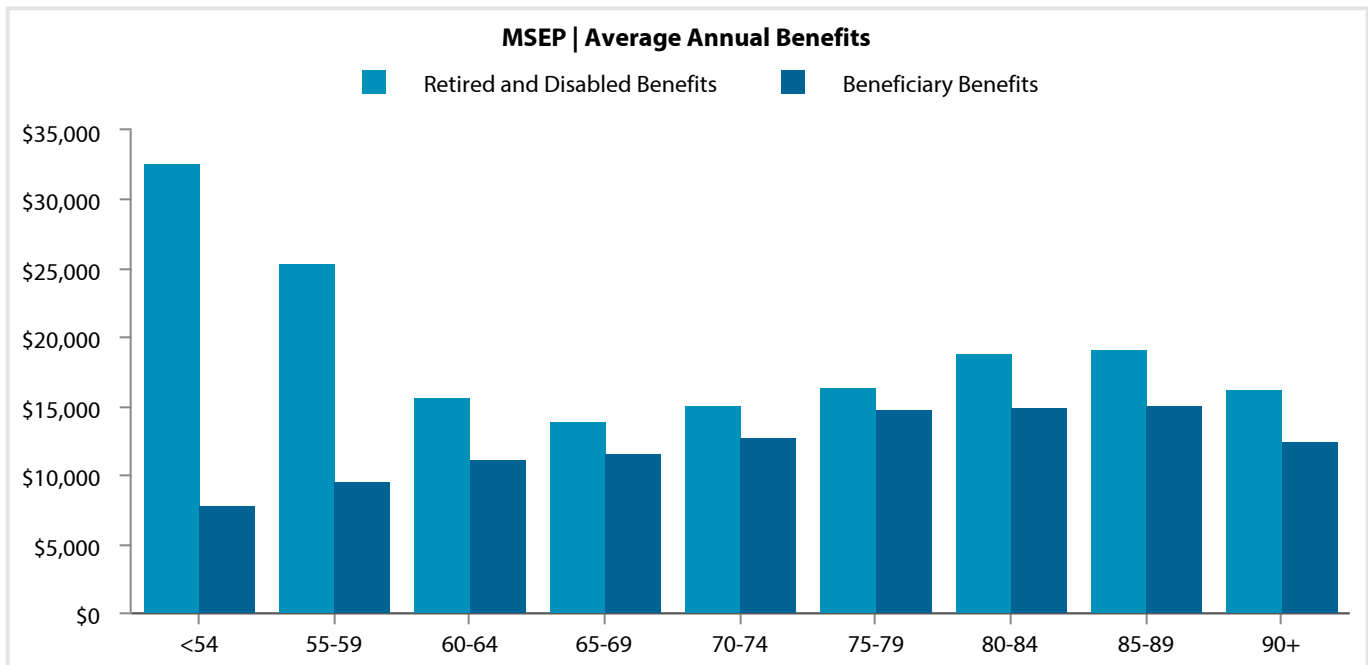
Benefits Tabulated by Attained Ages of Benefit Recipients

As of June 30, 2020

MSEP

| Attained Ages | Retired and Disabled | | Beneficiaries | | Totals | |
|---------------|----------------------|-----------------------|---------------|----------------------|---------------|-----------------------|
| | No. | Annual Benefits | No. | Annual Benefits | No. | Annual Benefits |
| <54 | 442 | \$ 14,468,340 | 543 | \$ 4,240,320 | 985 | \$ 18,708,660 |
| 55-59 | 2,910 | 73,890,672 | 327 | 3,140,052 | 3,237 | 77,030,724 |
| 60-64 | 8,091 | 126,757,680 | 534 | 5,943,396 | 8,625 | 132,701,076 |
| 65-69 | 11,613 | 161,734,884 | 726 | 8,463,648 | 12,339 | 170,198,532 |
| 70-74 | 10,385 | 157,074,048 | 943 | 12,075,168 | 11,328 | 169,149,216 |
| 75-79 | 5,875 | 96,338,688 | 823 | 12,137,268 | 6,698 | 108,475,956 |
| 80-84 | 3,289 | 61,907,076 | 756 | 11,295,024 | 4,045 | 73,202,100 |
| 85-89 | 1,646 | 31,475,904 | 623 | 9,415,572 | 2,269 | 40,891,476 |
| 90+ | 926 | 15,102,924 | 405 | 5,077,344 | 1,331 | 20,180,268 |
| Totals | 45,177 | \$ 738,750,216 | 5,680 | \$ 71,787,792 | 50,857 | \$ 810,538,008 |

Average age at retirement: 61.4 years • Average age now: 70.8 years



Average annual benefit : \$16,352 retired and disabled • \$12,639 beneficiaries

Source: MOSERS' MSEP Actuarial Valuation Report as of June 30, 2020

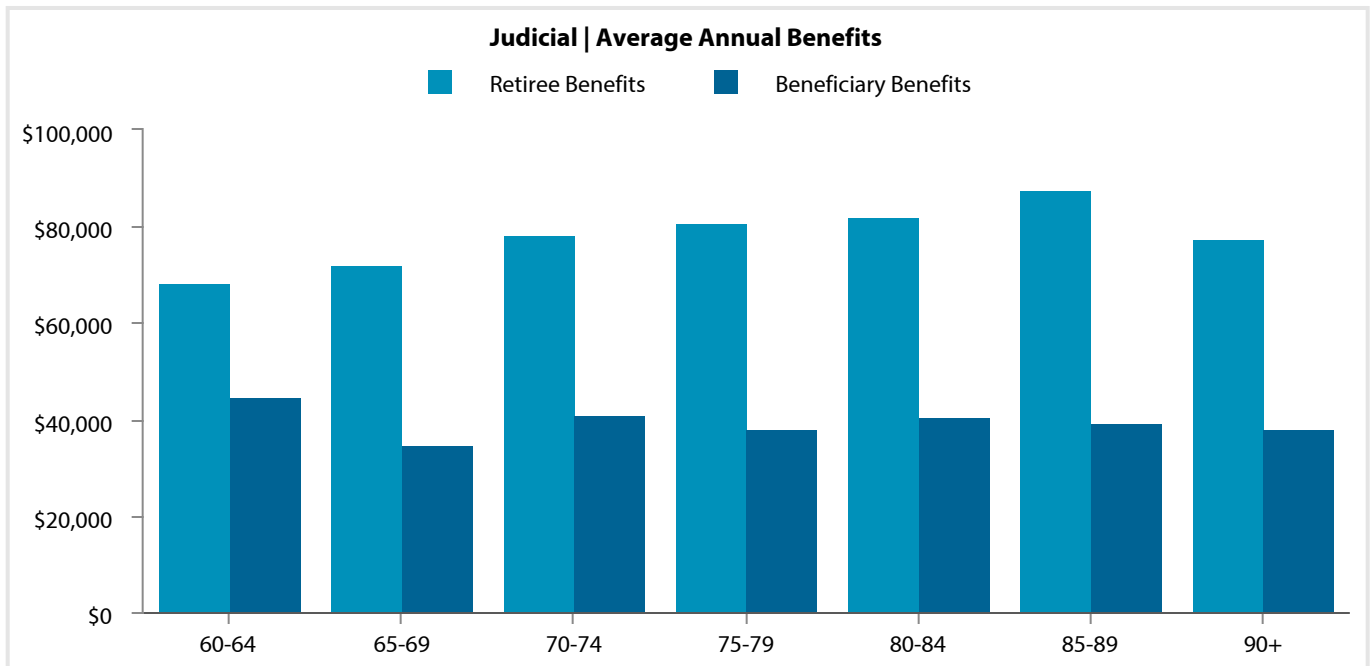
Benefits Tabulated by Attained Ages of Benefit Recipients (continued)

As of June 30, 2020

Judicial Plan

| Attained Ages | Retirees | | Beneficiaries | | Totals | |
|---------------|------------|----------------------|---------------|---------------------|------------|----------------------|
| | No. | Annual Benefits | No. | Annual Benefits | No. | Annual Benefits |
| 60-64 | 23 | \$ 1,571,940 | 9 | \$ 404,916 | 32 | \$ 1,976,856 |
| 65-69 | 84 | 6,052,320 | 13 | 450,600 | 97 | 6,502,920 |
| 70-74 | 151 | 11,834,880 | 21 | 859,488 | 172 | 12,694,368 |
| 75-79 | 83 | 6,709,704 | 27 | 1,029,480 | 110 | 7,739,184 |
| 80-84 | 46 | 3,783,228 | 25 | 1,013,472 | 71 | 4,796,700 |
| 85-89 | 31 | 2,718,324 | 22 | 866,232 | 53 | 3,584,556 |
| 90+ | 18 | 1,398,600 | 37 | 1,418,844 | 55 | 2,817,444 |
| Totals | 436 | \$ 34,068,996 | 154 | \$ 6,043,032 | 590 | \$ 40,112,028 |

Average age at retirement: 65.5 years • Average age now: 76.6 years



Average benefit paid: \$78,140 retirees • \$39,240 beneficiaries

Source: MOSERS' Judicial Plan Actuarial Valuation Report as of June 30, 2020

Principal Participating Employers

Current Year and Nine Years Ago

| Participating Employer | 2020 | | | 2011 | | |
|-------------------------------------|-------------------|------|-----------------------|-------------------|------|-----------------------|
| | Covered Employees | Rank | Percent of Membership | Covered Employees | Rank | Percent of Membership |
| State of Missouri | 40,101 | 1 | 86.9% | 45,034 | 1 | 86.5% |
| Missouri State University | 1,791 | 2 | 3.9 | 1,857 | 2 | 3.6 |
| University of Central Missouri | 879 | 3 | 1.9 | 1,125 | 3 | 2.2 |
| Southeast Missouri State University | 808 | 4 | 1.8 | 952 | 4 | 1.8 |
| Northwest Missouri State University | 545 | 5 | 1.2 | 624 | 6 | 1.2 |
| Truman State University | 507 | 6 | 1.1 | 650 | 5 | 1.2 |
| Missouri Southern State University | 383 | 7 | 0.8 | 443 | 7 | 0.9 |
| Missouri Western State University | 323 | 8 | 0.7 | 413 | 9 | 0.8 |
| Lincoln University | 293 | 9 | 0.6 | 437 | 8 | 0.7 |
| Harris-Stowe State University | 191 | 10 | 0.4 | 186 | 10 | 0.4 |
| All others | 309 | | 0.7 | 341 | | 0.7 |
| Total | 46,130 | | 100.0% | 52,062 | | 100.0% |

Source: MOSERS' Pension Administration System

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