

---

# SUMMARY OF 2018 VALUATION RESULTS

---

# South Carolina Retirement System (SCRS)

## Executive Summary (Dollar amounts expressed in thousands)

|  | Valuation Date: |                |
|--|-----------------|----------------|
|  | July 1, 2018    | July 1, 2017   |
| <b>Membership</b>  |                 |                |
| • Number of  |                 |                |
| - Active Members   | 196,184         | 193,985        |
| - TERI Members   | 0               | 6,630          |
| - Retirees and Beneficiaries   | 142,278         | 133,658        |
| - Inactive Members   | <u>182,933</u>  | <u>176,045</u> |
| - Total  | 521,395         | 510,318        |
| • Projected payroll of active members  | \$9,183,081     | \$8,592,885    |
| • Projected payroll for all members, including working retirees and members in ORP | \$11,128,564    | \$10,921,112   |
| <b>Required Contribution Rates</b>   |                 |                |
| • Employer contribution rate <sup>1</sup>  | 15.56%          | 14.56%         |
| • Member   | 9.00%           | 9.00%          |
| <b>Assets</b>  |                 |                |
| • Market value   | \$26,414,916    | \$25,732,829   |
| • Actuarial value  | 27,030,937      | 27,241,570     |
| • Return on market value   | 7.9%            | 11.9%          |
| • Return on actuarial value  | 4.1%            | 3.7%           |
| • Ratio of actuarial to market value of assets                                     | 102.3%          | 105.9%         |
| • External cash flow %   | -5.0%           | -4.2%          |
| <b>Actuarial Information</b>   |                 |                |
| • Normal cost %  | 10.66%          | 10.72%         |
| • Actuarial accrued liability (AAL)  | \$49,104,763    | \$48,374,725   |
| • Unfunded actuarial accrued liability (UAAL)                                      | 22,073,826      | 21,133,155     |
| • Funded ratio   | 55.0%           | 56.3%          |
| • Funding period (years) <sup>2</sup>  | 22              | 24             |
| <b>Reconciliation of UAAL</b>  |                 |                |
| • Beginning of Year UAAL   | \$21,133,155    | \$18,565,938   |
| - Interest on UAAL   | 1,532,154       | 1,392,445      |
| - Amortization payment   | (1,228,369)     | (1,112,307)    |
| - Assumption/method changes  | 0               | 1,309,385      |
| - Asset experience   | 833,485         | 1,005,145      |
| - Salary experience  | (153,810)       | 147,345        |
| - Other liability experience   | (42,789)        | (174,796)      |
| - Legislative Changes  | <u>0</u>        | <u>0</u>       |
| • End of Year UAAL   | \$22,073,826    | \$21,133,155   |

<sup>1</sup> The employer contribution rates in effect for FY 2018, FY 2019, and FY 2020, are 13.56%, 14.56%, and 15.56% of pay, respectively. These contribution rates include the cost of incidental death benefits.

<sup>2</sup> The funding period for 2018 is determined on an actuarial value of asset basis and is based on the contribution rate scheduled to become effective for FY 2020 (i.e. beginning July 1, 2019 and ending June 30, 2020).

# Police Officers Retirement System (PORS)

## Executive Summary

(Dollar amounts expressed in thousands)

|  | Valuation Date: |               |
|--|-----------------|---------------|
|  | July 1, 2018    | July 1, 2017  |
| <b>Membership</b>  |                 |               |
| • Number of  |                 |               |
| - Active members   | 27,093          | 27,056        |
| - Retirees and beneficiaries   | 18,491          | 17,887        |
| - Inactive members   | <u>17,277</u>   | <u>16,004</u> |
| - Total  | 62,861          | 60,947        |
| • Projected payroll of active members                                  | \$1,306,961     | \$1,263,314   |
| • Projected payroll for all active members, including working retirees | \$1,423,953     | \$1,384,871   |
| <b>Required Contribution Rates</b>                                     |                 |               |
| • Employer contribution rate <sup>1</sup>                              | 18.24%          | 17.24%        |
| • Member   | 9.75%           | 9.75%         |
| <b>Assets</b>  |                 |               |
| • Market value   | \$4,570,431     | \$4,274,123   |
| • Actuarial value  | 4,654,193       | 4,480,894     |
| • Return on market value   | 7.7%            | 11.8%         |
| • Return on actuarial value  | 4.7%            | 4.3%          |
| • Ratio - actuarial value to market value                              | 101.8%          | 104.8%        |
| • External cash flow %   | -0.7%           | -1.4%         |
| <b>Actuarial Information</b>   |                 |               |
| • Normal cost %  | 14.61%          | 14.73%        |
| • Actuarial accrued liability (AAL)                                    | \$7,378,084     | \$7,109,612   |
| • Unfunded actuarial accrued liability (UAAL)                          | 2,723,891       | 2,628,718     |
| • Funded ratio   | 63.1%           | 63.0%         |
| • Funding period (years) <sup>2</sup>                                  | 20              | 23            |
| <b>Reconciliation of UAAL</b>  |                 |               |
| • Beginning of Year UAAL   | \$2,628,718     | \$2,212,544   |
| - Interest on UAAL   | 190,582         | 165,941       |
| - Amortization payment   | (161,576)       | (144,518)     |
| - Assumption/method changes  | 0               | 213,979       |
| - Asset experience   | 117,557         | 142,806       |
| - Salary experience  | 4,816           | 70,073        |
| - Other liability experience   | (56,206)        | (32,107)      |
| - Legislative Changes  | <u>0</u>        | <u>0</u>      |
| • End of Year UAAL   | \$2,723,891     | \$2,628,718   |

<sup>1</sup> The employer contribution rates in effect for FY 2018, FY 2019, and FY 2020, are 16.24%, 17.24%, and 18.24% of pay, respectively. These contribution rates include the cost of accidental and incidental death benefits.

<sup>2</sup> The funding period for 2018 is determined on an actuarial value of asset basis and is based on the contribution rate scheduled to become effective for FY 2020 (i.e. beginning July 1, 2019 and ending June 30, 2020).

# Retirement System for Judges and Solicitors (JSRS)

## Executive Summary (Dollar amounts expressed in thousands)

| Valuation Date:  | July 1, 2018 | July 1, 2017  |
|--|--------------|---|
| <b>Membership</b> <ul style="list-style-type: none"> <li>• Number of               <ul style="list-style-type: none"> <li>- Active members<sup>1</sup> <span style="float: right;">160</span></li> <li>- Retirees and beneficiaries <span style="float: right;">193</span></li> <li>- Inactive members <span style="float: right;"><u>4</u></span></li> <li>- Total <span style="float: right;">357</span></li> </ul> </li> <li>• Projected payroll of active members <span style="float: right;">\$22,347</span></li> </ul>   |              | <span style="float: right;">160</span><br><span style="float: right;">191</span><br><span style="float: right;"><u>3</u></span><br><span style="float: right;">354</span><br><span style="float: right;">\$22,347</span>  |
| <b>Contribution Rates</b> <ul style="list-style-type: none"> <li>• Employer contribution rate <span style="float: right;">52.49%<sup>2</sup></span></li> <li>• Member <span style="float: right;">10.00%</span></li> </ul>   |              | <span style="float: right;">52.49%</span><br><span style="float: right;">10.00%</span>  |
| <b>Assets</b> <ul style="list-style-type: none"> <li>• Market value <span style="float: right;">\$160,036</span></li> <li>• Actuarial value <span style="float: right;">163,358</span></li> <li>• Return on market value <span style="float: right;">7.7%</span></li> <li>• Return on actuarial value <span style="float: right;">4.4%</span></li> <li>• Ratio of actuarial to market value of assets <span style="float: right;">102.1%</span></li> <li>• External cash flow % <span style="float: right;">-2.4%</span></li> </ul>  |              | <span style="float: right;">\$152,151</span><br><span style="float: right;">160,189</span><br><span style="float: right;">11.8%</span><br><span style="float: right;">4.0%</span><br><span style="float: right;">105.3%</span><br><span style="float: right;">-3.3%</span>  |
| <b>Actuarial Information</b> <ul style="list-style-type: none"> <li>• Normal cost % <span style="float: right;">29.86%</span></li> <li>• Actuarial accrued liability (AAL) <span style="float: right;">\$293,815</span></li> <li>• Unfunded actuarial accrued liability (UAAL) <span style="float: right;">130,457</span></li> <li>• Funded ratio <span style="float: right;">55.6%</span></li> <li>• Funding period (years) <span style="float: right;">28</span></li> </ul>  |              | <span style="float: right;">29.30%</span><br><span style="float: right;">\$295,630</span><br><span style="float: right;">135,441</span><br><span style="float: right;">54.2%</span><br><span style="float: right;">30</span>  |
| <b>Reconciliation of UAAL</b> <ul style="list-style-type: none"> <li>• Beginning of Year UAAL <span style="float: right;">\$135,441</span></li> <li>- Interest on UAAL <span style="float: right;">9,819</span></li> <li>- Amortization payment <span style="float: right;">(8,524)</span></li> <li>- Assumption/method changes <span style="float: right;">0</span></li> <li>- Asset experience <span style="float: right;">4,468</span></li> <li>- COLA <span style="float: right;">(5,434)</span></li> <li>- Salary experience <span style="float: right;">(2,402)</span></li> <li>- Other liability experience <span style="float: right;">(2,911)</span></li> <li>- Legislative Changes <span style="float: right;"><u>0</u></span></li> <li>• End of Year UAAL <span style="float: right;">\$130,457</span></li> </ul> |              | <span style="float: right;">\$124,467</span><br><span style="float: right;">9,341</span><br><span style="float: right;">(8,675)</span><br><span style="float: right;">9,577</span><br><span style="float: right;">5,410</span><br><span style="float: right;">(5,276)</span><br><span style="float: right;">(409)</span><br><span style="float: right;">1,006</span><br><span style="float: right;"><u>0</u></span><br><span style="float: right;">\$135,441</span> |

<sup>1</sup> Active member counts include unfilled positions and members in DROP or Retired-in-Place. The active member count also includes 20 and 22 retired-in-place members as of July 1, 2018 and July 1, 2017, respectively.

<sup>2</sup> The contribution rate determined by the July 1, 2018 actuarial valuation is certified by the Board to be effective for the fiscal year beginning July 1, 2019. The contribution rate includes the cost of incidental death benefits.

# Retirement System for Members of the General Assembly of the State of South Carolina (GARS)

## Executive Summary

(Dollar amounts expressed in thousands)

| Valuation Date:  | July 1, 2018   | July 1, 2017   |
|--|--|--|
| <b>Membership</b> <ul style="list-style-type: none"> <li>• Number of               <ul style="list-style-type: none"> <li>- Active positions</li> <li>- Special contributors</li> <li>- Retirees and beneficiaries</li> <li>- Inactive members</li> <li>- Total</li> </ul> </li> <li>• Projected payroll</li> </ul>      | 83<br>17<br>343<br>37<br><hr/> 480<br>\$1,866                              | 87<br>19<br>354<br>35<br><hr/> 495<br>\$1,961                                  |
| <b>Contribution Requirement</b> <ul style="list-style-type: none"> <li>• Member contribution rate</li> <li>• Employer contribution requirement <sup>1</sup></li> </ul>   | 11.00%<br>\$6,329  | 11.00%<br>\$5,804  |
| <b>Assets</b> <ul style="list-style-type: none"> <li>• Market value</li> <li>• Actuarial value</li> <li>• Return on market value</li> <li>• Return on actuarial value</li> <li>• Ratio - actuarial value to market value</li> <li>• External cash flow %</li> </ul>  | \$33,394<br>34,902<br>7.6%<br>2.3%<br>104.5%<br>-2.3%                      | \$31,789<br>34,887<br>10.5%<br>1.8%<br>109.7%<br>-5.5%                         |
| <b>Actuarial Information</b> <ul style="list-style-type: none"> <li>• Normal cost %</li> <li>• Actuarial accrued liability (AAL)</li> <li>• Unfunded actuarial accrued liability (UAAL)</li> <li>• Funded ratio</li> <li>• Funding period from the valuation date</li> </ul>   | 23.68%<br>\$73,004<br>38,102<br>47.8%<br>9 Years                           | 23.77%<br>\$74,855<br>39,968<br>46.6%<br>10 Years                              |
| <b>Reconciliation of UAAL</b> <ul style="list-style-type: none"> <li>• Beginning of Year UAAL</li> <li>- Interest on UAAL</li> <li>- Amortization payment</li> <li>- Assumption change</li> <li>- Asset experience</li> <li>- Liability experience</li> <li>- Legislative changes</li> <li>• End of Year UAAL</li> </ul> | \$39,968<br>2,898<br>(5,421)<br>0<br>1,715<br>(1,058)<br>0<br><hr/> 38,102 | \$39,070<br>2,930<br>(4,593)<br>1,510<br>1,851<br>(800)<br>0<br><hr/> \$39,968 |

<sup>1</sup> The contribution requirement determined by the July 1, 2018 valuation is effective for the fiscal year beginning July 1, 2019. The contribution requirement determined by the July 1, 2017 valuation was adopted by the Board to be effective for the fiscal year beginning July 1, 2018.

# South Carolina National Guard Supplemental Retirement Plan (SCNG)

## Executive Summary

(Dollar amounts expressed in thousands)

| Valuation Date:  | July 1, 2018   | July 1, 2017   |
|--|--|--|
| <b>Membership</b> <ul style="list-style-type: none"> <li>• Number of               <ul style="list-style-type: none"> <li>- Active Members</li> <li>- Retirees and Beneficiaries</li> <li>- Inactive Members</li> <li>- Total</li> </ul> </li> </ul>   | 11,853<br>4,821<br>1,895<br><hr/> 18,569                                   | 12,116<br>4,789<br>1,901<br><hr/> 18,806                                       |
| <b>Annual Required Contribution</b> <ul style="list-style-type: none"> <li>• Member</li> <li>• Employer contribution<sup>1</sup></li> </ul>  | \$0<br>\$5,262   | \$0<br>\$5,290   |
| <b>Assets</b> <ul style="list-style-type: none"> <li>• Market value</li> <li>• Actuarial value</li> <li>• Return on market value</li> <li>• Return on actuarial value</li> <li>• Ratio - actuarial value to market value</li> <li>• External cash flow %</li> </ul>  | \$28,327<br>29,246<br>7.3%<br>3.7%<br>103.2%<br>1.5%                       | \$26,036<br>27,807<br>10.8%<br>3.4%<br>106.8%<br>0.7%                          |
| <b>Actuarial Information</b> <ul style="list-style-type: none"> <li>• Normal cost</li> <li>• Actuarial accrued liability (AAL)</li> <li>• Unfunded actuarial accrued liability (UAAL)</li> <li>• Funded ratio</li> <li>• Amortization period<sup>2</sup></li> </ul>  | \$801<br>66,192<br>36,946<br>44.2%<br>18                                   | \$819<br>66,506<br>38,699<br>41.8%<br>19                                       |
| <b>Reconciliation of UAAL</b> <ul style="list-style-type: none"> <li>• Beginning of Year UAAL</li> <li>- Interest on UAAL</li> <li>- Amortization payment</li> <li>- Assumption/method changes</li> <li>- Asset experience</li> <li>- Other liability experience</li> <li>- Legislative changes</li> <li>• End of Year UAAL</li> </ul> | \$38,699<br>2,806<br>(4,284)<br>0<br>995<br>(1,270)<br>0<br><hr/> \$36,946 | \$37,694<br>2,827<br>(4,115)<br>1,829<br>1,123<br>(659)<br>0<br><hr/> \$38,699 |

<sup>1</sup> The contribution amount determined by the actuarial valuation is effective for the following fiscal year.

<sup>2</sup> As of July 1, 2018, there are three years remaining in the amortization of the unfunded liability attributable to due to the 2006 legislation change and 18 years remaining in the amortization of the unfunded liability due to other plan experience.