



# **Summary of Actuarial Valuation Results June 30, 2015**

Montana Public Employee Retirement Administration

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# Discussion Topics

Retirement Funding Equation

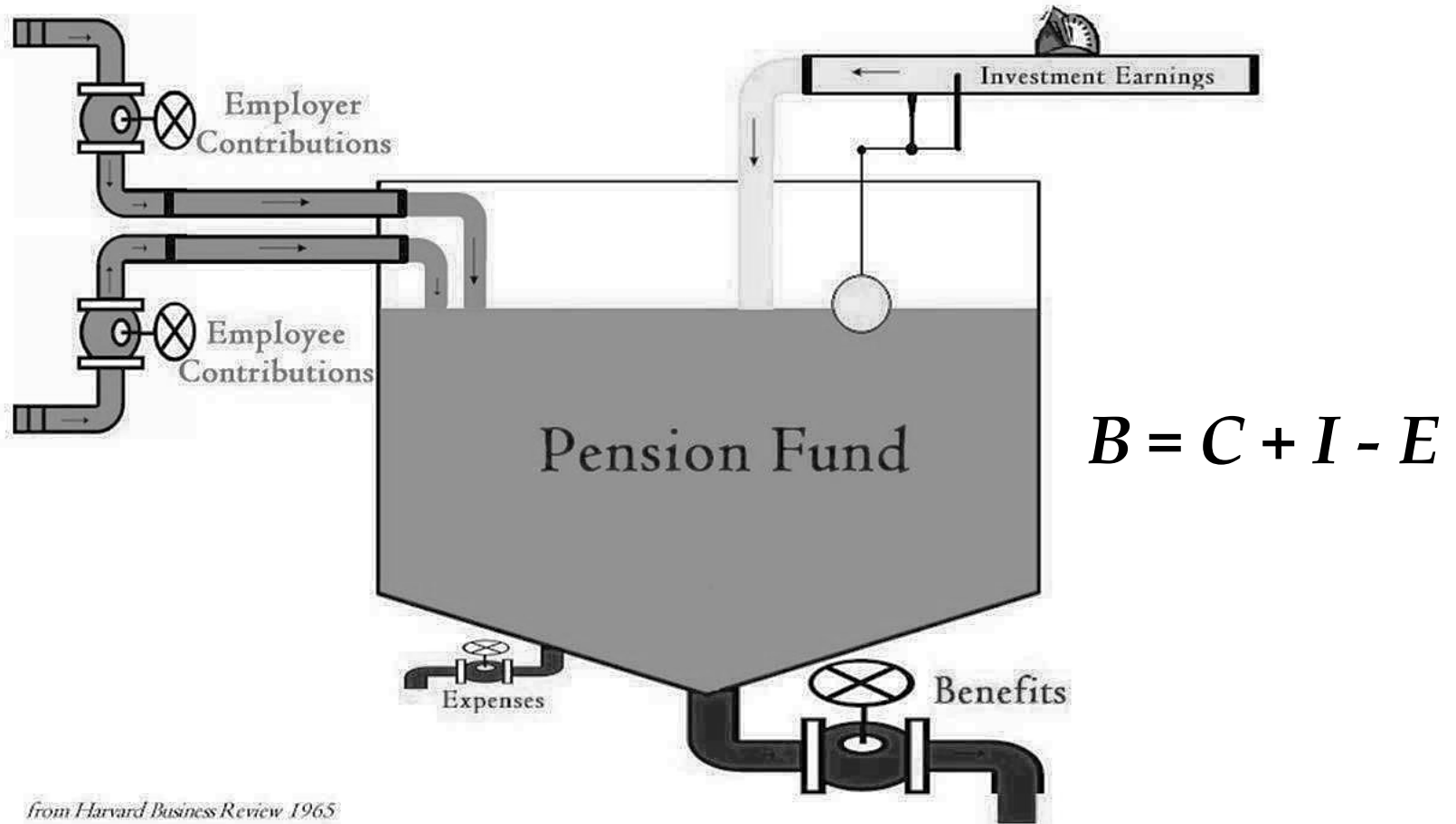
Overall Valuation Results

PERS Summary

Other System Summaries



# Retirement Funding



*from Harvard Business Review 1965*



# Overall Results

- **All plans experienced actuarial gains**
  - 6 of 8 plans are actuarially sound
  - PERS is actuarially sound
- **All systems experienced actuarial *investment* gains**
  - Return on market value was 4.5%
  - Actuarial gain due to asset smoothing 9.0 - 9.6%
  - \$85 million gain for PERS; \$106 million gain for all DB plans
  - Over \$7 billion in total investments, up \$194 million from 2014
- **GABA Settlement PERS-DB**
  - Members hired before July 1, 2007 = 3% GABA
  - Members hired between July 1, 2007 and June 30, 2013 = 1.5% GABA
  - Members hired after July 1, 2013 subject to the sliding scale in HB 454



# PERS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	28,229	<b>28,237</b>
Disabled Members	193	<b>176</b>
Retirees & Beneficiaries	19,888	<b>20,505</b>
Terminated Vested Members	2,825	<b>2,925</b>
Terminated Non-Vested Members	<u>7,666</u>	<u><b>8,839</b></u>
Total Participants	58,801	<b>60,682</b>
Annual Salaries of Active Members	\$1,120,939,764	<b>\$1,156,855,431</b>
Average Annual Salary	\$39,709	<b>\$40,969</b>
Annual Retirements	\$302,758,499	<b>\$326,390,329</b>
Average Annual Benefit	\$15,205	<b>\$15,782</b>



# PERS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$6,177.5	<b>\$6,470.3</b>
Actuarial Value of Assets (AVA)	<u>\$4,595.8</u>	<b><u>\$4,926.5</u></b>
Unfunded AAL (AAL-AVA)	\$1,581.7	<b>\$1,543.8</b>
Less: PCR-UAL	<u>\$5.9</u>	<b><u>\$2.6</u></b>
Net Unfunded Liability	\$1,575.8	<b>\$1,541.2</b>
Funded Ratio (AAL/AVA)	74.4%	<b>76.2%</b>
Statutory Contribution Rate	19.32%	<b>18.79%</b>
Normal Cost Rate	11.63%	<b>11.18%</b>
Available for Amortization	7.42%	<b>7.34%</b>
Years to Amortize	29.3	<b>27.2</b>
Shortfall (Surplus)	(0.09%)	<b>(0.40%)</b>



# Other Systems

**GWPORS** – does not amortize

**SRS** – does not amortize

**HPORS** – amortizes in 28.5 years

**MPORS** – amortizes in 18.3 years

**FURS** – amortizes in 9.7 years

**JRS** – actuarial surplus

**VFCA** – amortizes in 9.3 years



# GWPORS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	955	<b>993</b>
Disabled Members	2	<b>4</b>
Retirees & Beneficiaries	201	<b>227</b>
Terminated Vested Members	87	<b>95</b>
Terminated Non-Vested Members	<u>175</u>	<u><b>235</b></u>
Total Participants	1,420	<b>1,554</b>
Annual Salaries of Active Members	\$40,458,127	<b>\$44,713,334</b>
Average Annual Salary	\$42,365	<b>\$45,029</b>
Annual Retirements	\$4,105,807	<b>\$4,720,886</b>
Average Annual Benefit	\$20,817	<b>\$21,081</b>





# GWPORS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$154.6	<b>\$172.1</b>
Actuarial Value of Assets (AVA)	<u>\$129.4</u>	<b><u>\$145.3</u></b>
Unfunded AAL (AAL-AVA)	\$25.2	<b>\$26.8</b>
Funded Ratio (AAL/AVA)	83.7%	<b>84.4%</b>
Statutory Contribution Rate	19.56%	<b>19.56%</b>
Normal Cost Rate	18.58%	<b>18.24%</b>
Available for Amortization	0.81%	<b>1.15%</b>
Years to Amortize	Infinite	<b>Infinite</b>
Shortfall	2.41%	<b>1.96%</b>



# SRS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	1,307	<b>1,336</b>
Disabled Members	35	<b>32</b>
Retirees & Beneficiaries	498	<b>545</b>
Terminated Vested Members	73	<b>81</b>
Terminated Non-Vested Members	<u>288</u>	<u><b>342</b></u>
Total Participants	2,201	<b>2,336</b>
Annual Salaries of Active Members	\$64,423,961	<b>\$67,881,262</b>
Average Annual Salary	\$44,291	<b>\$50,809</b>
Annual Retirements	\$13,044,129	<b>\$14,432,238</b>
Average Annual Benefit	\$24,772	<b>\$25,256</b>



# SRS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$326.0	<b>\$348.9</b>
Actuarial Value of Assets (AVA)	<u>\$264.9</u>	<b><u>\$288.3</u></b>
Unfunded AAL (AAL-AVA)	\$61.1	<b>\$60.6</b>
Funded Ratio (AAL/AVA)	81.3%	<b>82.6%</b>
Statutory Contribution Rate	19.36%	<b>19.36%</b>
Normal Cost Rate	18.29%	<b>18.05%</b>
Available for Amortization	0.90%	<b>1.14%</b>
Years to Amortize	Infinite	<b>Infinite</b>
Shortfall	4.01%	<b>3.48%</b>



# HPORS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	229	<b>241</b>
Disabled Members	8	<b>7</b>
Retirees & Beneficiaries	314	<b>320</b>
Terminated Vested Members	11	<b>11</b>
Terminated Non-Vested Members	<u>14</u>	<u><b>13</b></u>
Total Participants	576	<b>592</b>
Annual Salaries of Active Members	\$13,901,207	<b>\$14,502,510</b>
Average Annual Salary	\$60,704	<b>\$60,176</b>
Annual Retirements	\$9,336,474	<b>\$9,891,640</b>
Average Annual Benefit	\$30,279	<b>\$31,554</b>



# HPORS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$183.4	<b>\$192.9</b>
Actuarial Value of Assets (AVA)	<u>\$117.2</u>	<b><u>\$125.6</u></b>
Unfunded AAL (AAL-AVA)	\$66.2	<b>\$67.3</b>
Funded Ratio (AAL/AVA)	63.9%	<b>65.1%</b>
Statutory Contribution Rate	49.38%	<b>50.38%</b>
Normal Cost Rate	24.46%	<b>25.26%</b>
Available for Amortization	24.69%	<b>24.89%</b>
Years to Amortize	30.3	<b>28.5</b>
Shortfall	0.14%	<b>(0.72%)</b>



# MPORS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	743	<b>743</b>
Disabled Members	21	<b>21</b>
Retirees & Beneficiaries	695	<b>723</b>
Terminated Vested Members	55	<b>60</b>
Terminated Non-Vested Members	<u>90</u>	<b><u>103</u></b>
Total Participants	1,604	<b>1,650</b>
Annual Salaries of Active Members	\$44,453,805	<b>\$45,161,891</b>
Average Annual Salary	\$59,830	<b>\$60,783</b>
Annual Retirements	\$19,815,161	<b>\$21,203,250</b>
Average Annual Benefit	\$27,803	<b>\$28,617</b>



# MPORS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$474.3	<b>\$497.2</b>
Actuarial Value of Assets (AVA)	<u>\$298.7</u>	<b><u>\$328.0</u></b>
Unfunded AAL (AAL-AVA)	\$175.6	<b>\$169.2</b>
Funded Ratio (AAL/AVA)	63.0%	<b>66.0%</b>
Statutory Contribution Rate	52.78%	<b>52.78%</b>
Normal Cost Rate	25.65%	<b>25.84%</b>
Available for Amortization	26.93%	<b>26.74%</b>
Years to Amortize	19.6	<b>18.3</b>
Shortfall (Surplus)	(6.36%)	<b>(7.23%)</b>



# FURS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	616	<b>627</b>
Disabled Members	10	<b>9</b>
Retirees & Beneficiaries	585	<b>600</b>
Terminated Vested Members	19	<b>21</b>
Terminated Non-Vested Members	<u>66</u>	<u><b>71</b></u>
Total Participants	1,296	<b>1,328</b>
Annual Salaries of Active Members	\$39,494,619	<b>\$41,041,360</b>
Average Annual Salary	\$64,115	<b>\$65,457</b>
Annual Retirements	\$19,207,518	<b>\$20,322,164</b>
Average Annual Benefit	\$32,624	<b>\$33,747</b>





# FURS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$419.0	<b>441.8</b>
Actuarial Value of Assets (AVA)	<u>\$300.9</u>	<b><u>\$333.6</u></b>
Unfunded AAL (AAL-AVA)	\$118.1	<b>\$108.2</b>
Funded Ratio (AAL/AVA)	71.8%	<b>75.5%</b>
Statutory Contribution Rate	57.66%	<b>57.66%</b>
Normal Cost Rate	26.51%	<b>26.51%</b>
Available for Amortization	30.96%	<b>30.96%</b>
Years to Amortize	11.3	<b>9.7</b>
Shortfall (Surplus)	(15.35%)	(17.18%)



# JRS – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	55	<b>55</b>
Disabled Members	0	<b>0</b>
Retirees & Beneficiaries	67	<b>67</b>
Terminated Vested Members	1	<b>2</b>
Terminated Non-Vested Members	<u>0</u>	<u><b>0</b></u>
Total Participants	123	<b>124</b>
Annual Salaries of Active Members	\$6,495,104	<b>\$6,521,161</b>
Average Annual Salary	\$118,093	<b>\$118,567</b>
Annual Retirements	\$3,021,244	<b>\$3,133,947</b>
Average Annual Benefit	\$45,460	<b>\$47,194</b>



# JRS – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$50.6	<b>\$51.9</b>
Actuarial Value of Assets (AVA)	<u>\$78.5</u>	<b><u>\$84.9</u></b>
Unfunded AAL (AAL-AVA)	\$(27.9)	<b>\$(33.0)</b>
Funded Ratio (AAL/AVA)	155.1%	<b>163.6%</b>
Statutory Contribution Rate	32.81%	<b>32.81%</b>
Normal Cost Rate	24.47%	<b>24.35%</b>
Available for Amortization	8.19%	<b>8.31%</b>
Years to Amortize	0	<b>0</b>
Shortfall (Surplus)	(30.96%)	<b>(34.94%)</b>



# VFCA – Summary of Valuation Results

<u>Participants</u>	<u>FY 2014</u>	<u>FY 2015</u>
Active Members	1,935	<b>1,977</b>
Disabled Members	0	<b>0</b>
Retirees & Beneficiaries	1,332	<b>1,371</b>
Terminated Vested Members	939	<b>905</b>
Terminated Non-Vested Members	<u>0</u>	<u><b>0</b></u>
Total Participants	4,206	<b>4,253</b>
Annual Salaries of Active Members	n/a	<b>n/a</b>
Average Annual Salary	n/a	<b>n/a</b>
Annual Retirements	\$2,314,164	<b>\$2,377,170</b>
Average Annual Benefit	\$1,737	<b>\$1,734</b>



# VFCA – Summary of Valuation Results

<u>Assets &amp; Liabilities (000,000's)</u>	<u>FY 2014</u>	<u>FY 2015</u>
Actuarial Accrued Liability (AAL)	\$38.0	<b>\$44.3</b>
Actuarial Value of Assets (AVA)	<u>\$31.3</u>	<b><u>\$33.4</u></b>
Unfunded AAL (AAL-AVA)	\$6.7	<b>\$10.9</b>
Funded Ratio (AAL/AVA)	82.4 %	<b>75.4%</b>
Actual Contributions	\$1.8	<b>\$1.9</b>
Required Contributions	\$0.9	<b>\$0.9</b>
Years to Amortize	5.1	<b>9.3</b>