Montana’s Public Pension Plans – Actuarial Basics & Legislative History

For the State Administration and Veterans’ Affairs Interim Committee

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November 14, 2017
All Public Employees
Eleven Retirement Plans

■ Nine Defined Benefit Plans (DB)
  - benefits depend on formula, ___% x Years of Service x Salary
  - benefits are fixed, costs are estimated

■ Two Defined Contribution Plans (DC)
  - costs are fixed, benefits depend on account balance at retirement

■ All but one plan are cost-sharing plans
  - both the employer and employee contribute (except in Volunteer Firefighters)

■ Membership is required by law
  - there are a few specific exemptions
Roles & Responsibilities

- Montana Constitution, Art. VIII, Sec. 15. Governing boards administer plans, including actuarial determinations, are fiduciaries for beneficiaries:
  - Public Employees’ Retirement Board – 9 plans
  - Teachers’ Retirement Board – Teachers’ Retirement System
  - Board of Regents – Montana University System Retirement Plan (DC)

- Montana Constitution, Art. VIII, Sec. 13. Board of Investments decides on pension fund investments – prudent expert rule

- Legislature
  - sets contributions and benefits
  - oversight
PERS Board Plans –
Montana Public Employees’ Retirement Administration (MPERA)

- PERS – Public Employees’ Retirement System – choice between DB and DC
- JRS – Judges’ Retirement system
- HPORS – Highway Patrol Officers’ Retirement System
- SRS – Sheriffs’ Retirement System
- GWPORS – Game Wardens’ and Peace Officers’ Retirement System
- MPORS – Municipal Police Officers’ Retirement System
- FURS – Firefighters’ Unified Retirement System
- VFCA – Volunteer Firefighters’ Compensation Act
Actuarial Valuations

■ Only for Defined Benefit plans
■ Conducted Annually – was every two years until bill passed in 2005
■ Actuaries conduct
  – contracted by retirement boards
  – must use actuarial standards and principles
■ Assessment of a plan’s funding status condition
  – FY snap shot as of June 30
■ Basically answers:
  Are contributions and investment gains sufficient to cover benefits & expenses? 
(C+I = B+E)
Actuarial Assumptions - Projections

Demographic
- Retirement rates and timing
- Disability rates
- Mortality rates
- Withdrawals from employment

Economic
- Investment Rate of Return (IRR)
- Pay increases
- Inflation

Actuarial Standards Board – Standards of Practice
http://www.actuarialstandardsboard.org
Actuarial Gains and Losses

- Occur when experience differs from assumptions
- Experience studies done every 4-6 years
- Actuaries may recommend adjustments to assumptions
- Boards decide whether to adjust assumptions
- Assumption changes also cause gains or losses
- PERB reduced IRR assumption from 7.75% to 7.65%, as recommended
  - Effective July 1, 2017
- IRR gains or losses are smoothed over 4 years
  - So, only 25% of any investment loss or gain will be used in the valuations
Investment Rate of Return (IRR)

- Investment returns represent about 60% of each plan’s income
- If IRR assumption is increased, **actuarial** funding will improve
- If IRR assumption is decreased, **actuarial** funding will decline
- What if assumption is too high or too low?
  - *If too high and target not met, actuarial losses*
  - *If too low and target is exceeded, actuarial gains*

*More information on how actuarial assumption is set and evaluated could be a “deep dive” topic for another meeting.*
Unfunded Liabilities – UAAL
(Unfunded Accrued Actuarial Liabilities)

■ Obligations/costs not covered by current assets

■ Caused by:
  – actuarial losses
  – benefit enhancements applied to past service

■ Contributions must be sufficient to cover:
  – normal cost of benefits and
  – pay off (i.e., amortize) unfunded liabilities
Amortization Schedule

- Is how long to pay off unfunded liabilities

- 30 years is max. desirable, long-term progress and 0 years is goal

- “Does Not Amortize” (DNA) means unfunded liabilities cannot be paid off in any amount of time = plan is unsound

Schedule depends on contributions available after normal costs paid

Example of contributions in PERS

<table>
<thead>
<tr>
<th>Contribution Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>7.9%</td>
</tr>
<tr>
<td>Employer</td>
<td>8.57%</td>
</tr>
<tr>
<td>Total</td>
<td>16.47%</td>
</tr>
<tr>
<td>Normal Cost</td>
<td>9.86%</td>
</tr>
<tr>
<td>minus expenses*</td>
<td>0.3%</td>
</tr>
<tr>
<td>To pay UAAL</td>
<td>6.31%</td>
</tr>
</tbody>
</table>

*Includes .04% to education fund
Actuarially Required Contribution (ARC)

- Contribution amount required for a 30-year amortization = ARC
  - Previous example: Is the 6.31% sufficient to amortize the UAAL in 30 years or less?

- If amortization schedule exceeds 30 years, there is an ARC shortfall

- Paying more than the ARC moves plan toward 100% funding faster than 30 years

- Net actuarial gains over time also move plan toward 100% funding faster than 30 years

- Progress toward 100% funded and 0 yrs amortization is the goal
  - However, these will fluctuate up and down each year, so look at long-term, have cushion
Funded Ratio

- Percent of liabilities covered by current assets

- 80% is good, progress is goal, more than 100% provides “funding reserve”

- Avg. of public plans in FY 2016 = 71.5% funded (www.publicplansdata.org)
Legislative Options

■ If plan actuarially unsound, or better funding is desired:
  - *Increase contributions*
  - *Infuse cash to shore up investment returns*
  - *Reduce benefits (reduces normal cost), BUT ...*
    ■ employees may not contribute more than the normal cost of their benefits
    ■ must be applied to future, so only helps future experience (i.e., takes time)

■ If plan is “overfunded”:
  - *Decide how much cushion above 100% funded to keep*
  - *Decrease contributions and/or*
  - *Increase benefits*
Where We’ve Been

- Financial markets peaked in 2000
- Montana’s plans very healthy
- Sharp market decline in 2001
- Markets struggled but improved by 2007
- Sharp market decline again in 2008
- Markets recovering
- Actual FYTD 6/30/17 returns about 12%
Plans Did Not Amortize

TRS in 2006, 2012
SRS in 2004, 2006, 2012-16
GWPORS in 2010, 2012-16
Extreme Changes in Amortization Periods

PERS Amortization Period By Year

- 2000: 0 yrs
- 2002: 71 yrs
- 2004: 26 yrs
- 2006: 31 yrs
- 2008: 25 yrs
- 2010: Did not amortize
- 2012: Did not amortize
- 2014: 15 yrs
- 2016: 24 yrs

TRS Amortization Period By Fiscal Year

- 2000: 0 yrs
- 2002: 71 yrs
- 2004: 26 yrs
- 2006: 31 yrs
- 2008: 15 yrs
- 2010: Did not amortize
- 2012: Did not amortize
- 2014: 24 yrs
- 2016: 0 yrs
Funded Ratios Dipped, But Recovering

PERS Funded Ratio By Year

TRS Funded Ratio By Fiscal Year
Legislative History

- Pre-1997 Postretirement Benefits
  - PERS and TRS – used investment gains above assumed rate, ad hoc increases also
  - Public safety systems – minimum benefits based on salaries of new officers or certain ranks, funding included special revenue (fees, fines), ad hoc increases also
  - Ad hoc meant not actuarially funded (i.e., not prefunded by contributions and investment earnings) = expensive
  - Best practice recommendations - prefunded actuarial adjustments
Legislature Enacts GABA* and PERS-DC

- **1997** – PERS more than 100% funded
  - HB 170 - 1.5% GABA for MPERA systems, mostly unfunded - extended amortization period to 26 years

- **1999** – TRS 85% funded, 9-year amortization
  - HB 72 – 1.5% GABA, mostly unfunded – extended amortization to 25.5 years)

*GABA is guaranteed annual benefit adjustment for retirees*
2001 Session

- Valuations for FY2000
  - PERS – 125% funded
  - TRS – 88% funded, 15-year amortization schedule

- Legislation
  - PERS – GABA increased to 3%
  - TRS – Board authorized to increase 1.5% GABA to max. of 3% if amortization would be 25 years or less
Market Losses
2005 Special Session

- Market losses
  - FY 02 loss of 5.1%, FY 03 loss of 7.23% (PERS)

- Valuations in FY 04
  - PERS – Does Not Amortize
  - TRS – 71.4 years

- 2005 Special Session
  - $25 million cash infusion to PERS-DB
  - $100 million cash infusion to TRS
  - SRS and GWPORS not addressed
2007 Regular Session

- **Benefit Reductions**
  - 3% GABA reduced to 1.5% for new hires
  - all MPERA plans (n/a VFCA)
  - TRS - GABA was already 1.5%

- **Employer contribution increases in PERS, TRS, and SRS**
  - state GF contribution offset impact on local govt’s and schools

- **$50 million cash infusion to TRS**
Interim Studies

■ 2005-06 Interim - SAVA
  - *HJR 42 – study investment practices*
  - No recommendations

■ 2007-08 Interim - SAVA
  - *HJR 59 – study plan design and funding options*
  - No recommendations

■ 2009-10 Interim - SAVA
  - *HB 659 – study plan design and benefit changes - consultant hired*
  - 2 bills, hybrid cash balance plan design change for TRS – both failed
Market Decline Continues

■ Significant Pension Investment Losses
  - FY 08 – loss of 4.9%
  - FY 09 – losses at lowest point = 20.7%
  - FY 10 – loss of 12.9%, slowly recovering but still losses
  - FY 12 – loss of 2.4%
2011 Regular Session

- Valuations for FY2010
  - *PERS, SRS, GWPORS* – *Do Not Amortize*
  - *TRS* – *49.5-year amortization*

- Legislative Actions
  - *Benefit reductions for new hires in PERS, SRS, GWPORS*
  - *Contribution increase for new hires in PERS*
2013 Regular Session
Special Joint Pension Committee

- Valuations for FY12
  - PERS, TRS, SRS, GWPORS – Do not amortize

- HB 454 – PERS
  - Reduced GABA for future and current members* - sliding scale
  - Temporary contribution increases – both employee and employer
  - Coal Severance Tax contributions – about $33 million

- HB 377 – TRS
  - “Tier Two” created for new members
  - Benefit reductions, GABA reduced for future and current members* - sliding scale
  - Contribution increases
  - One-time sweep of $25 million from school operating reserves
  - Professional retirement option for new members

* Court later invalidated GABA reductions for current members
2015 Regular Session

- Valuations for FY 2014
  - SRS – Still Did Not Amortize
  - GWPORS – Still Did Not Amortize
  - All other systems amortized in 30 years or less

- No legislative actions regarding contributions or benefits
## FY2016 Actuarial Valuations

### Percent Funded and Years to Amortize as of June 30, 2016

<table>
<thead>
<tr>
<th>Plan Description</th>
<th>Percent Funded</th>
<th>Years to Amortize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Employees'-- Defined Benefit Plan</td>
<td>77%</td>
<td>26</td>
</tr>
<tr>
<td>Teachers'</td>
<td>69%</td>
<td>24</td>
</tr>
<tr>
<td>Game Wardens' and Peace Officers'</td>
<td>84%</td>
<td>Does not amortize</td>
</tr>
<tr>
<td>Highway Patrol Officers'</td>
<td>66%</td>
<td>28</td>
</tr>
<tr>
<td>Judges'</td>
<td>166%</td>
<td>0</td>
</tr>
<tr>
<td>Sheriffs'</td>
<td>83%</td>
<td>Does not amortize</td>
</tr>
<tr>
<td>Municipal Police Officers'</td>
<td>69%</td>
<td>18</td>
</tr>
<tr>
<td>Firefighters' Unified</td>
<td>78%</td>
<td>9</td>
</tr>
<tr>
<td>Volunteer Firefighters'</td>
<td>80%</td>
<td>7</td>
</tr>
</tbody>
</table>
2017 Regular Session

■ HB 383 – Funding for SRS
  - *increased employer and employee contributions*
  - *increases terminate if amortization period would be 25 years or less*
  - *employer contribution increase exempted from county mill levy cap*

■ HB 136 - Funding for GWPORS - did **not** pass
Legislative History In Summary

- 2005 – Cash infusions to PERS and TRS
- 2007 – GABA reduced in MPERA plans, TRS cash infusion, contribution increases
- 2011 – Benefit reductions in PERS & TRS, contribution increases new hires PERS
- 2013 – GABA reduced for new hires in PERS & TRS, contributions increased, PERS gets coal tax $, TRS gets one-time sweep of $ and two membership tiers
- 2017 – SRS contribution increases
Present Status of Plans ...

NEXT UP

Questions on this presentation?

MPERA Actuarial Reports: http://mpera.mt.gov/
TRS Actuarial Reports: https://trs.mt.gov/
MBOI Annual Reports: http://investmentmt.com/AnnualReportsAudits