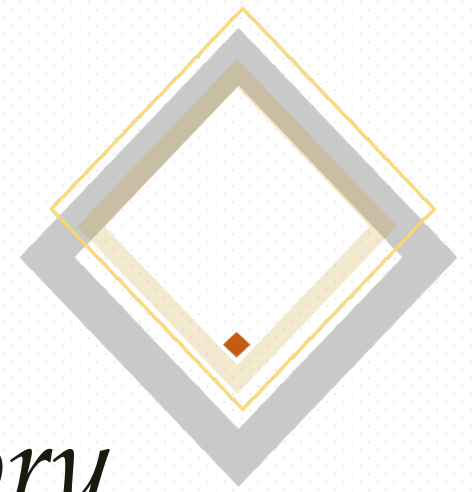


Montana's Public Pension Plans – *Actuarial Basics & Legislative History*



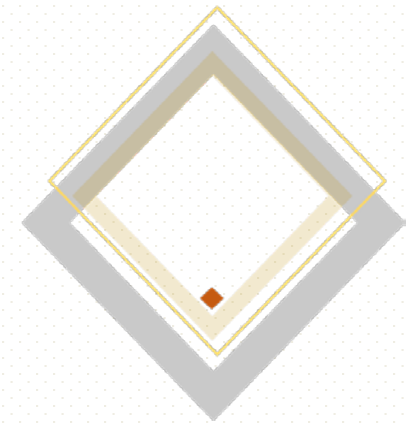
For the State Administration and Veterans' Affairs Interim Committee

By Sheri Scurr, Legislative Research Analyst

November 14, 2017

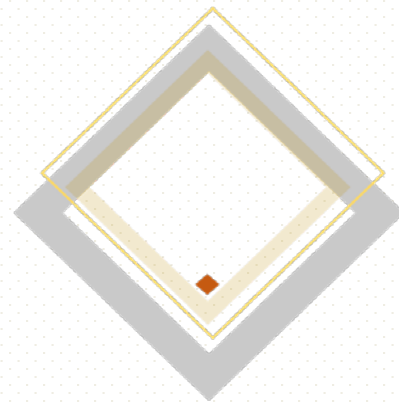


All Public Employees Eleven Retirement Plans



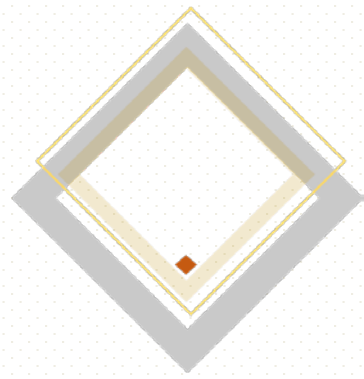
- Nine Defined Benefit Plans (DB)
 - *benefits depend on formula, ___% x Years of Service x Salary*
 - *benefits are fixed, costs are estimated*
- Two Defined Contribution Plans (DC)
 - *costs are fixed, benefits depend on account balance at retirement*
- All but one plan are cost-sharing plans
 - *both the employer and employee contribute (except in Volunteer Firefighters)*
- Membership is required by law
 - *there are a few specific exemptions*

Roles & Responsibilities



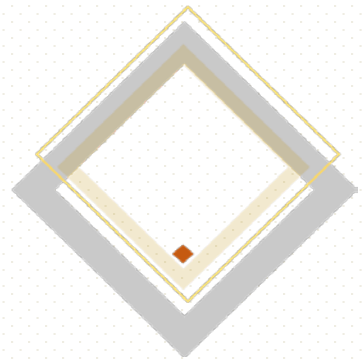
- Montana Constitution, Art. VIII, Sec. 15. Governing boards administer plans, including **actuarial determinations**, are fiduciaries for beneficiaries
 - *Public Employees' Retirement Board – 9 plans*
 - *Teachers' Retirement Board – Teachers' Retirement System*
 - *Board of Regents – Montana University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

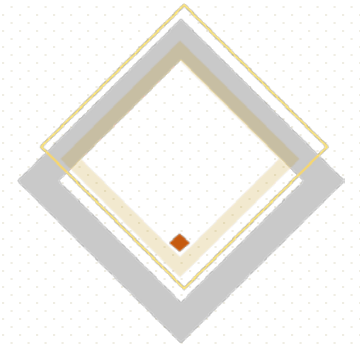


- PERS – Public Employees' Retirement System – choice between DB and DC
- JRS – Judges' Retirement system
- HPORS – Highway Patrol Officers' Retirement System
- SRS – Sheriffs' Retirement System
- GWPORS – Game Wardens' and Peace Officers' Retirement System
- MPORS – Municipal Police Officers' Retirement 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

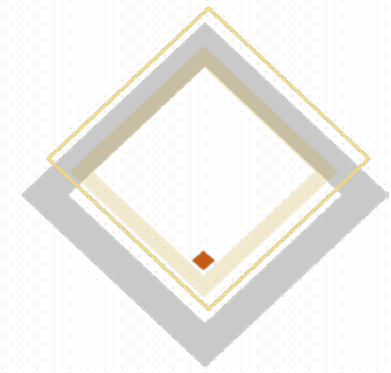
- Retirement rates and timing
- Disability rates
- Mortality rates
- Withdrawals from employment

Economic

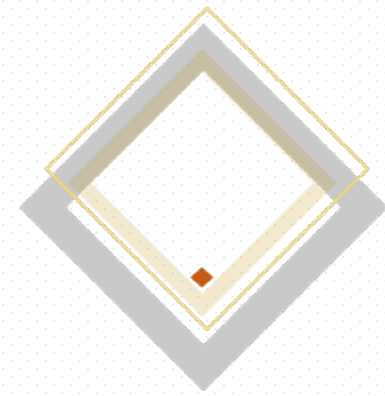
- Investment Rate of Return (IRR)
- Pay increases
- Inflation

Actuarial Standards Board – Standards of Practice
<http://www.actuarialstandardsboard.org>

Actuarial Gains and Losses



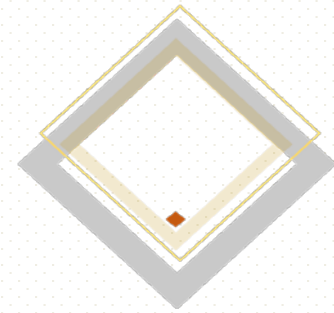
- Occur when experience differs from assumptions
- Experience studies done every 4-6 years
- Actuaries may recommend adjustments to assumptions
- Boards decide whether to adjust assumptions
- Assumption changes also cause gains or losses
- PERB reduced IRR assumption from 7.75% to 7.65%, as recommended
 - *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*

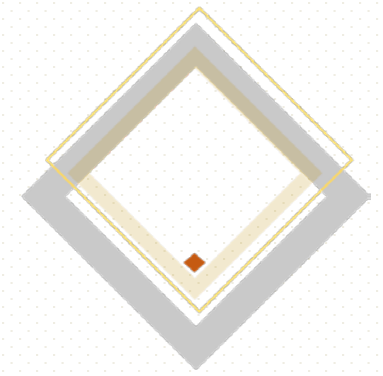
More information on how actuarial assumption is set and evaluated could be a “deep dive” topic for another meeting.



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

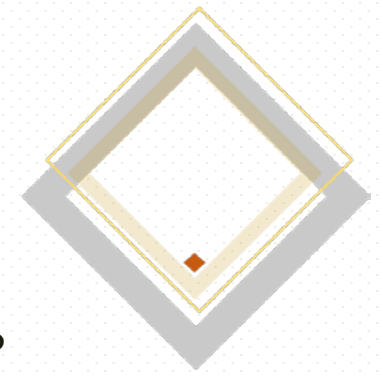
- Schedule depends on contributions available after normal costs paid

Example of contributions in PERS

| | |
|--------------------------|---------------|
| <i>Employee =</i> | <i>7.9%</i> |
| <i>Employer =</i> | <i>8.57%</i> |
| <i>Total =</i> | <i>16.47%</i> |
| <i>minus</i> | |
| <i>Normal Cost =</i> | <i>9.86%</i> |
| <i>minus expenses* =</i> | <i>0.3%</i> |
| <i>To pay UAAL =</i> | <i>6.31%</i> |

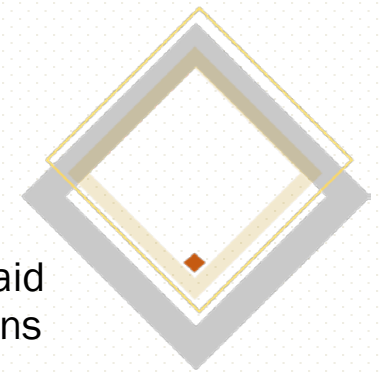
**includes .04% to education fund*

Actuarially Required Contribution (ARC)



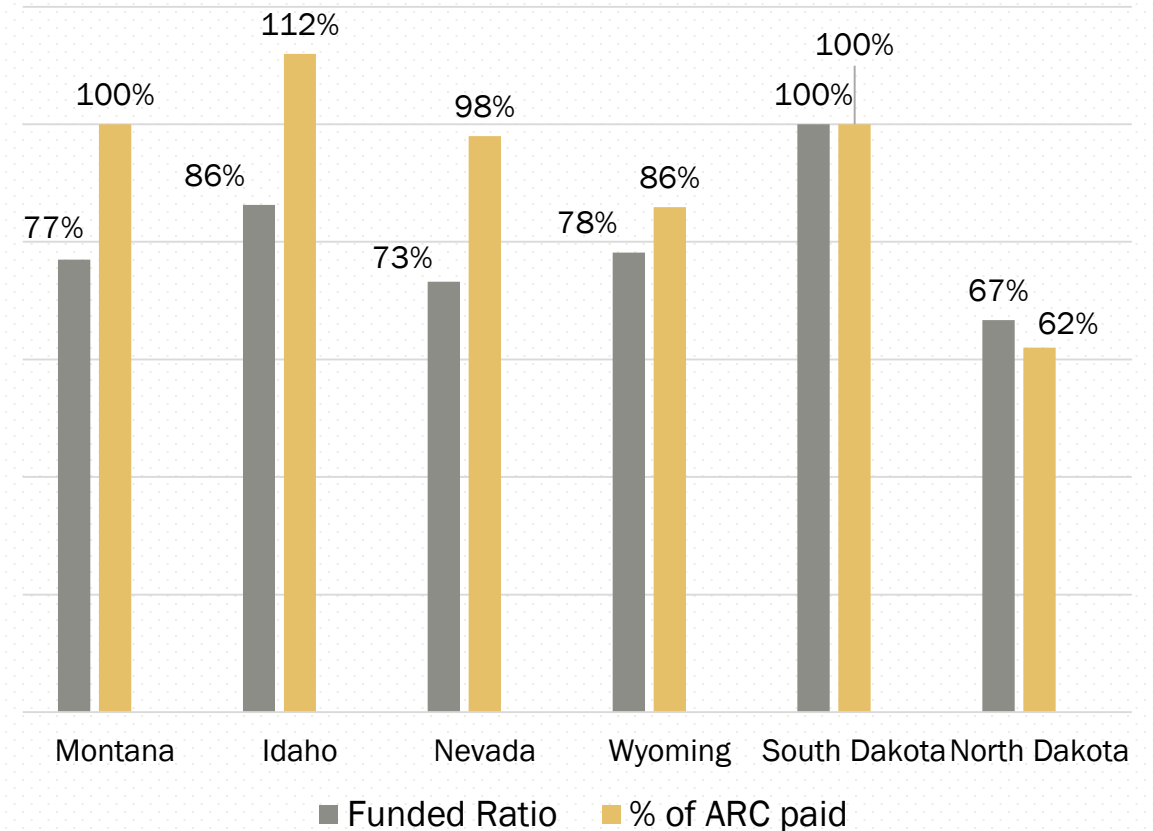
- Contribution amount required for a 30-year amortization = ARC
 - *Previous example: Is the 6.31% sufficient to amortize the UAAL in 30 years or less?*
- If amortization schedule exceeds 30 years, there is an ARC shortfall
- Paying more than the ARC moves plan toward 100% funding faster than 30 years
- 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

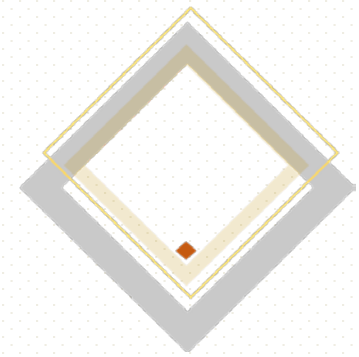


- Percent of liabilities covered by current assets
- 80% is good, progress is goal, more than 100% provides “funding reserve”
- Avg. of public plans in FY 2016 = **71.5%** funded (www.publicplansdata.org)

Funded Ratios and % of ARC paid FY 2016 (rounded) – PERS Plans



Legislative Options



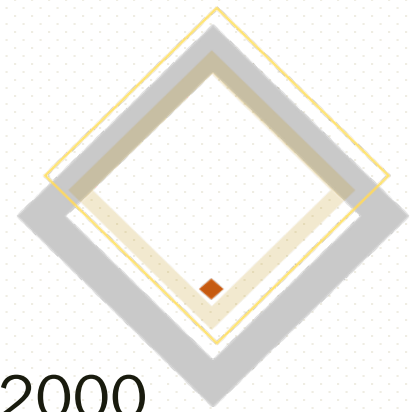
- If plan actuarially unsound, or better funding is desired:

- *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%

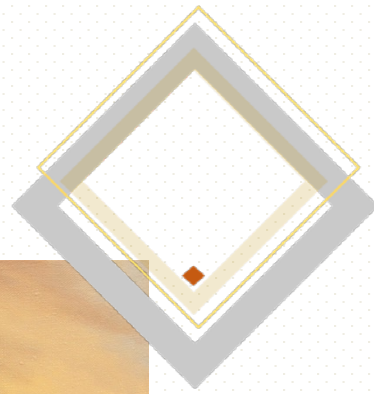
Plans Did Not Amortize

PERS-DB in 2004, 2006,
2010, 2012

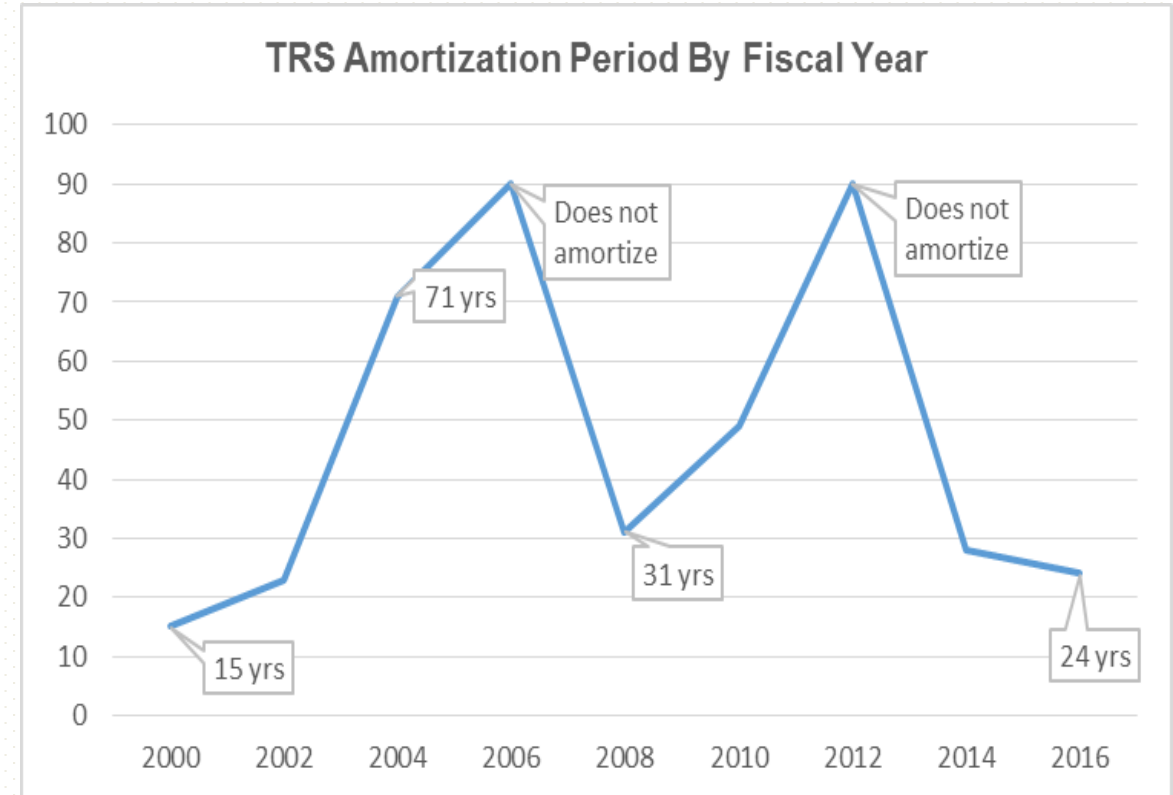
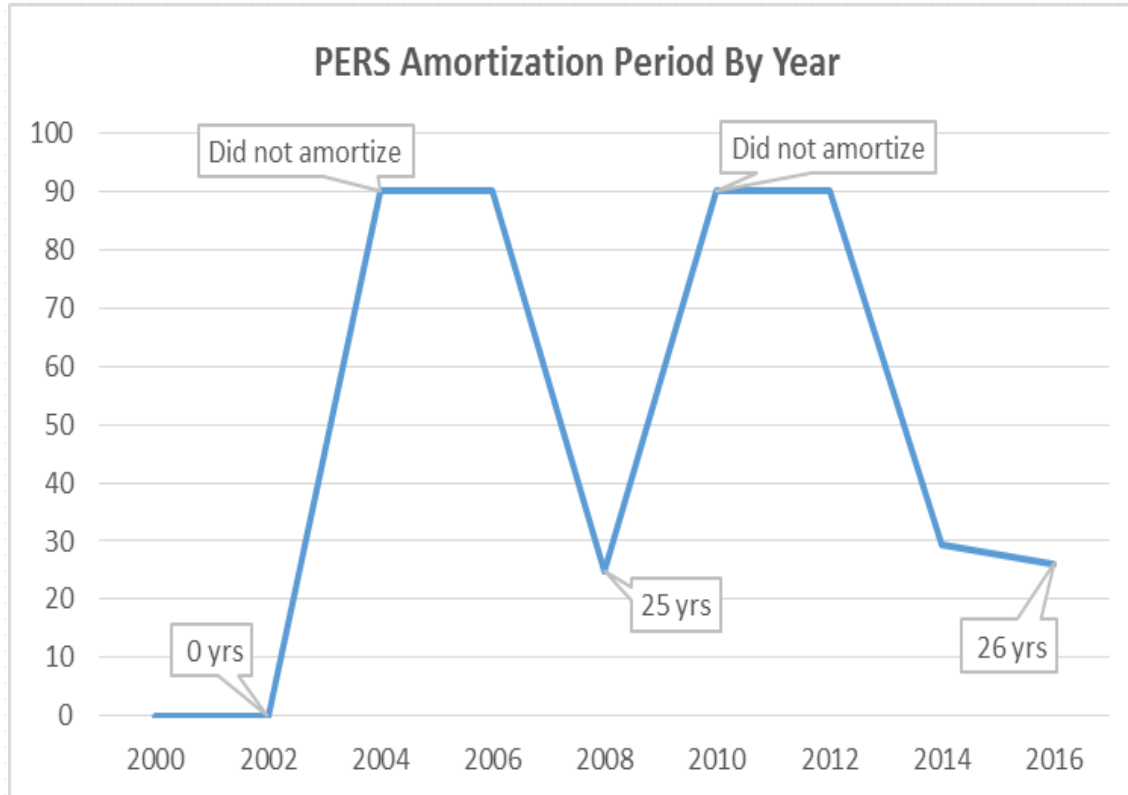
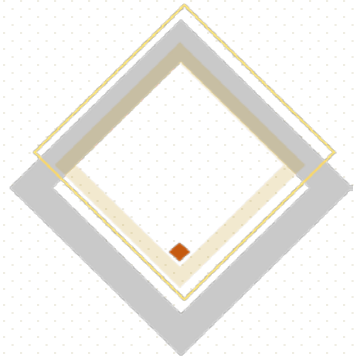
TRS in 2006, 2012

SRS in 2004, 2006, 2012-16

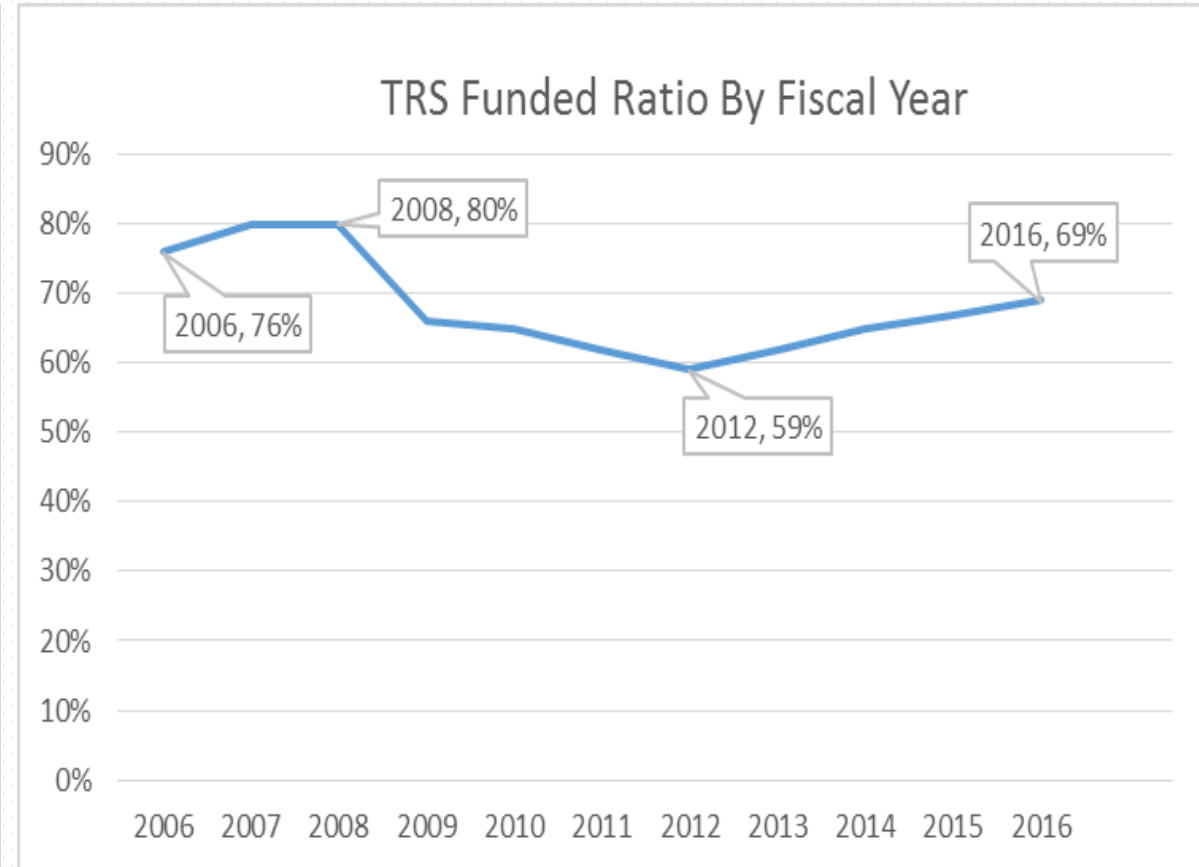
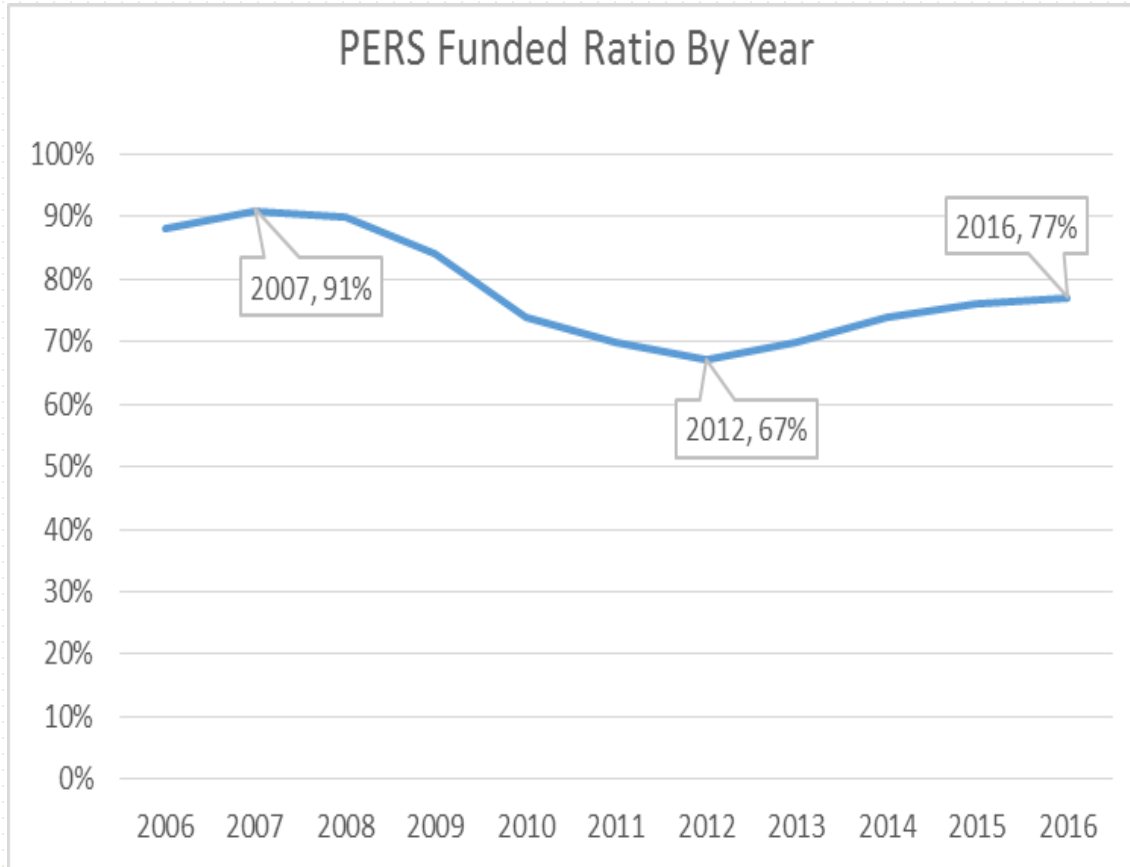
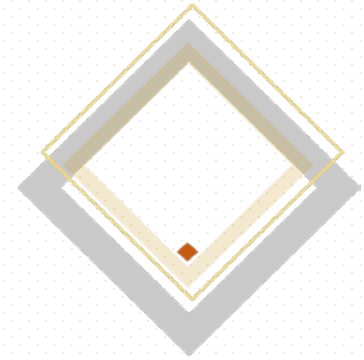
GWPORS in 2010, 2012-16



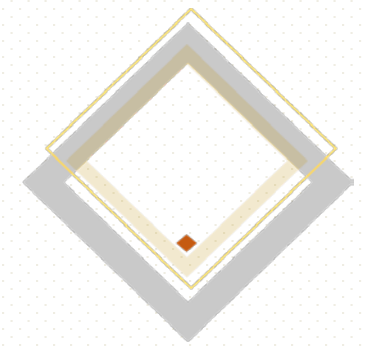
Extreme Changes in Amortization Periods



Funded Ratios Dipped, But Recovering



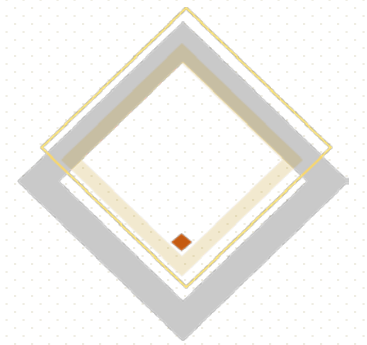
Legislative History



■ 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

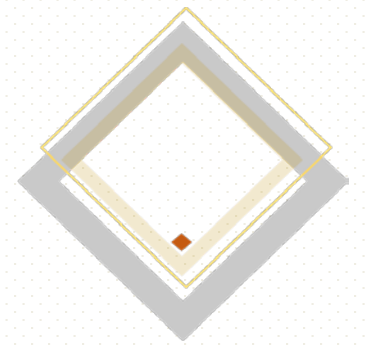


- 1997 – PERS more than 100% funded
 - *HB 170 - 1.5% GABA for MPERA systems, mostly unfunded - extended amortization period to 26 years*

- 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

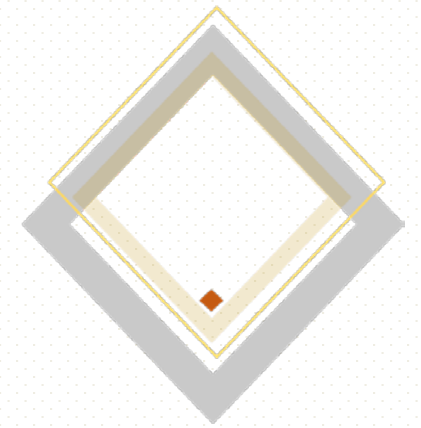
- *PERS – 125% funded*
- *TRS – 88% funded, 15-year amortization schedule*

■ Legislation

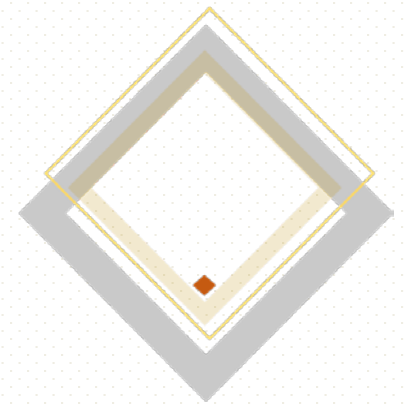
- *PERS – GABA increased to 3%*
- *TRS – Board authorized to increase 1.5% GABA to max. of 3% if amortization would be 25 years or less*

Market Losses

2005 Special Session



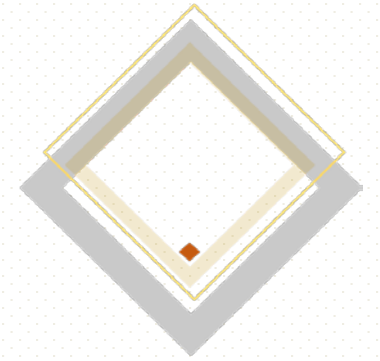
- Market losses
 - *FY 02 loss of 5.1%, FY 03 loss of 7.23% (PERS)*
- Valuations in FY 04
 - *PERS – Does Not Amortize*
 - *TRS – 71.4 years*
- 2005 Special Session
 - *\$25 million cash infusion to PERS-DB*
 - *\$100 million cash infusion to TRS*
 - *SRS and GWPORS not addressed*



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*
- http://leg.mt.gov/css/Committees/interim/2005_2006/st_admin_vet_affairs/default.asp

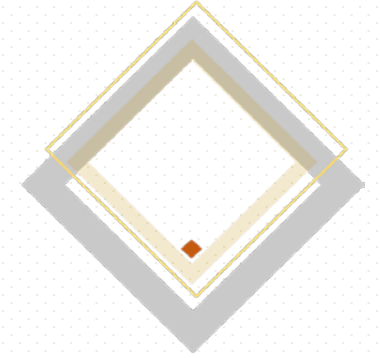
- 2007-08 Interim - SAVA

- *HJR 59 – study plan design and funding options*
- *No recommendations*
- http://leg.mt.gov/css/Committees/interim/2007_2008/st_admin_vet_affairs/staff_reports/reports.asp

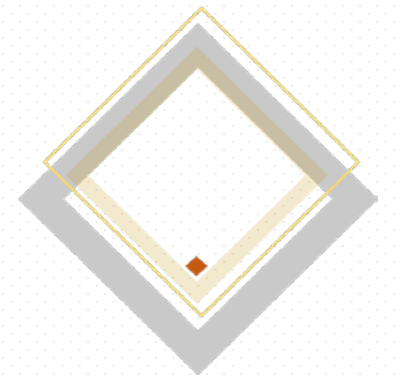
- 2009-10 Interim - SAVA

- *HB 659 – study plan design and benefit changes - consultant hired*
- *2 bills, hybrid cash balance plan design change for TRS – both failed*
- http://leg.mt.gov/css/Committees/interim/2009_2010/State_Administration_and_Veterans_Affairs/As_signed_Studies/hb659.asp

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

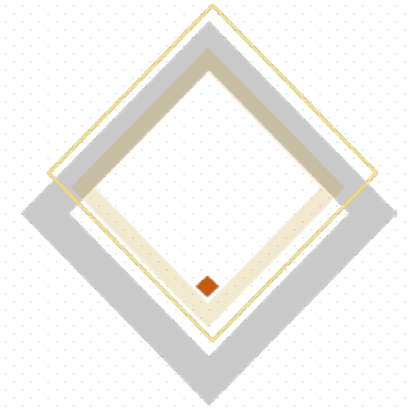
- *PERS, SRS, GWPORS – Do Not Amortize*
- *TRS – 49.5-year amortization*

■ Legislative Actions

- *Benefit reductions for new hires in PERS, SRS, GWPORS*
- *Contribution increase for new hires in PERS*

2013 Regular Session

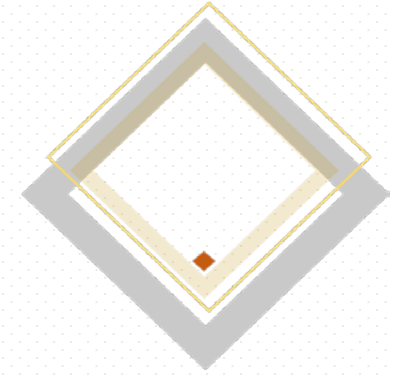
Special Joint Pension Committee



- 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**

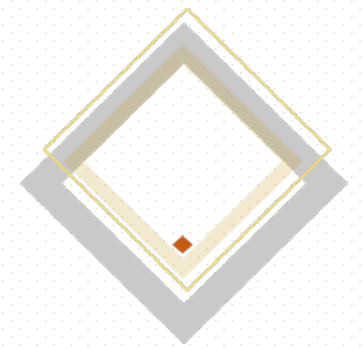
2015 Regular Session



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

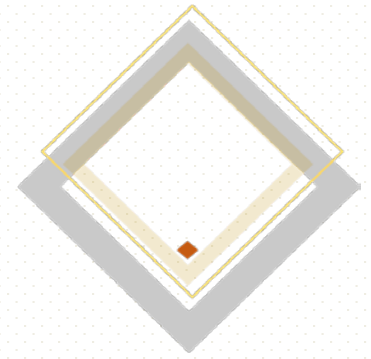
- No legislative actions regarding contributions or benefits

FY2016 Actuarial Valuations



| | June 30, 2016 | |
|--|----------------|-------------------|
| | Percent Funded | Years to Amortize |
| Public Employees'-- Defined Benefit Plan | 77% | 26 |
| Teachers' | 69% | 24 |
| Game Wardens' and Peace Officers' | 84% | Does not amortize |
| Highway Patrol Officers' | 66% | 28 |
| Judges' | 166% | 0 |
| Sheriffs' | 83% | Does not amortize |
| Municipal Police Officers' | 69% | 18 |
| Firefighters' Unified | 78% | 9 |
| Volunteer Firefighters' | 80% | 7 |

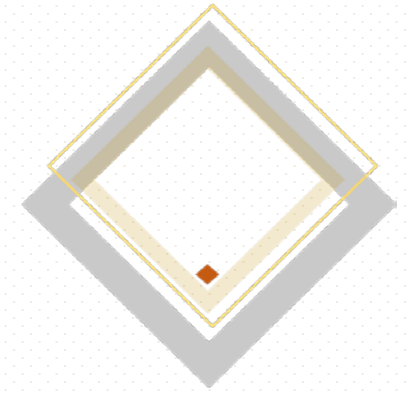
2017 Regular Session



- 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*

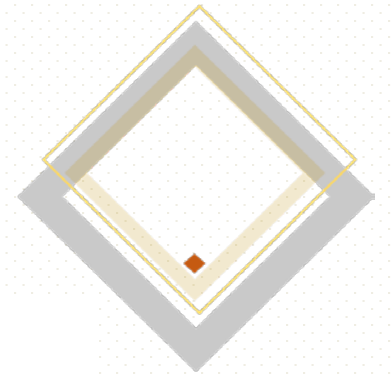
- HB 136 - Funding for GWPORS - did not pass

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>