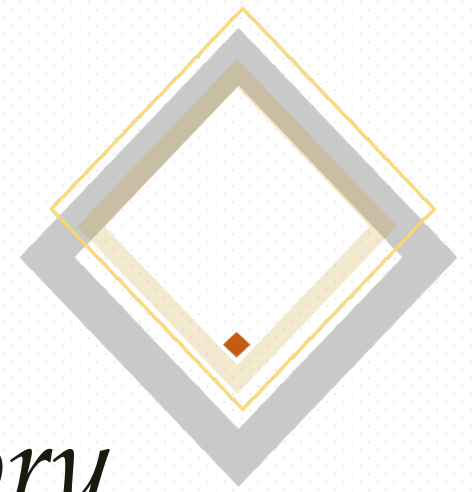


# Montana's Public Pension Plans – *Actuarial Basics & Legislative History*



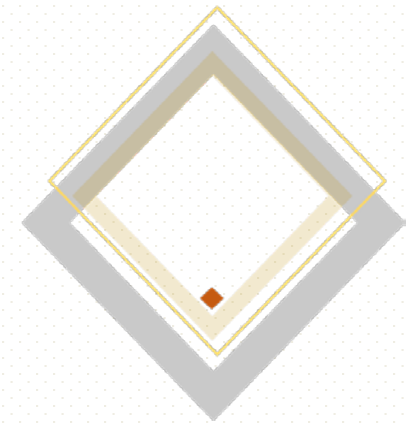
For the State Administration and Veterans' Affairs Interim Committee

*By Sheri Scurr, Legislative Research Analyst*

*November 14, 2017*

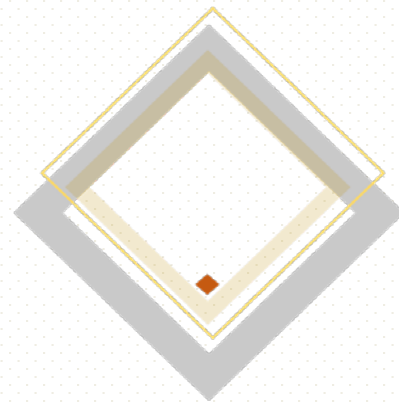


# All Public Employees Eleven Retirement Plans



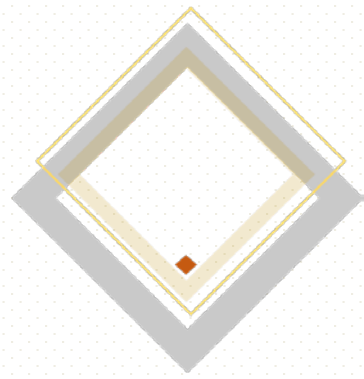
- Nine Defined Benefit Plans (DB)
  - *benefits depend on formula, \_\_\_% x Years of Service x Salary*
  - *benefits are fixed, costs are estimated*
- Two Defined Contribution Plans (DC)
  - *costs are fixed, benefits depend on account balance at retirement*
- All but one plan are cost-sharing plans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

# Roles & Responsibilities



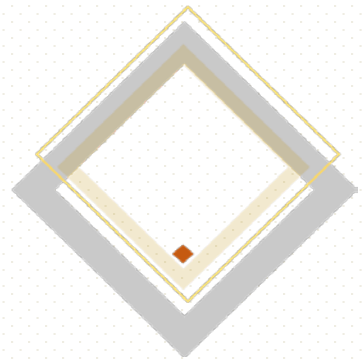
- Montana Constitution, Art. VIII, Sec. 15. Governing boards administer plans, including **actuarial determinations**, are fiduciaries for beneficiaries
  - *Public Employees' Retirement Board – 9 plans*
  - *Teachers' Retirement Board – Teachers' Retirement System*
  - *Board of Regents – Montana University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

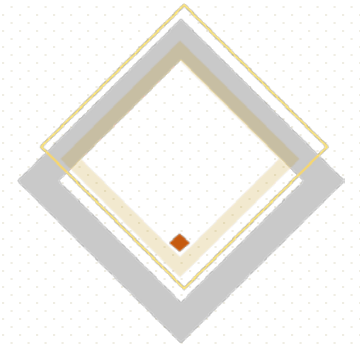


- PERS – Public Employees' Retirement System – choice between DB and DC
- JRS – Judges' Retirement system
- HPORS – Highway Patrol Officers' Retirement System
- SRS – Sheriffs' Retirement System
- GWPORS – Game Wardens' and Peace Officers' Retirement System
- MPORS – Municipal Police Officers' Retirement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

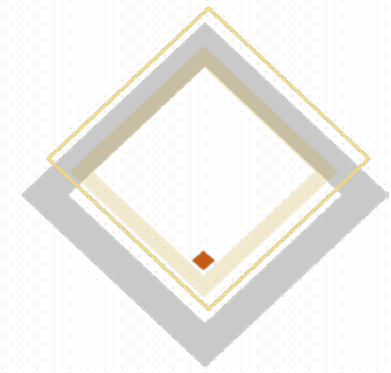
- Retirement rates and timing
- Disability rates
- Mortality rates
- Withdrawals from employment

## Economic

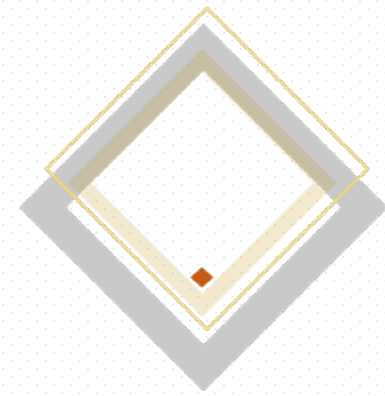
- Investment Rate of Return (IRR)
- Pay increases
- Inflation

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*

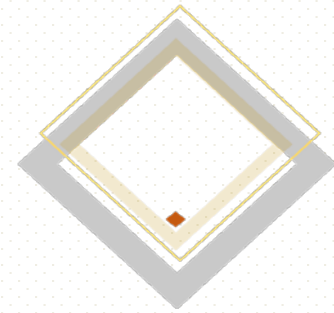


# Investment Rate of Return (IRR)

- 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.*

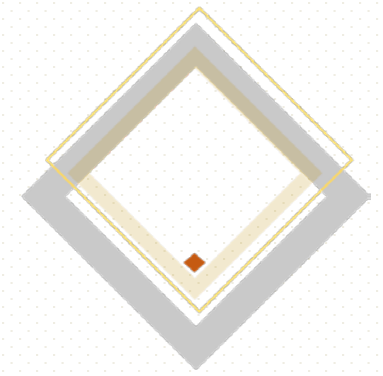




# Unfunded Liabilities – UAAL

*(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

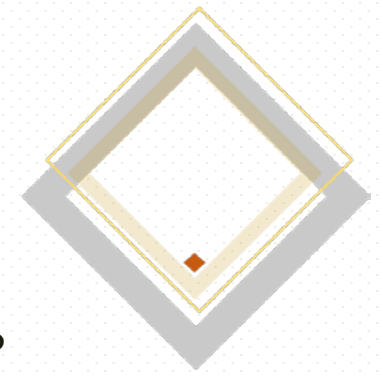
- Schedule depends on contributions available after normal costs paid

## Example of contributions in PERS

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

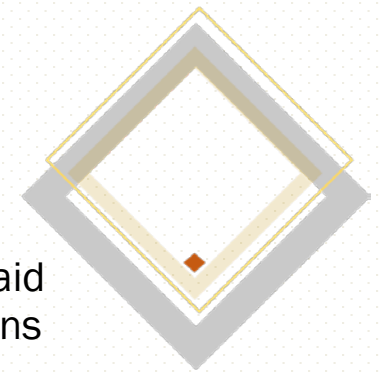
*\*includes .04% to education fund*

# Actuarially Required Contribution (ARC)



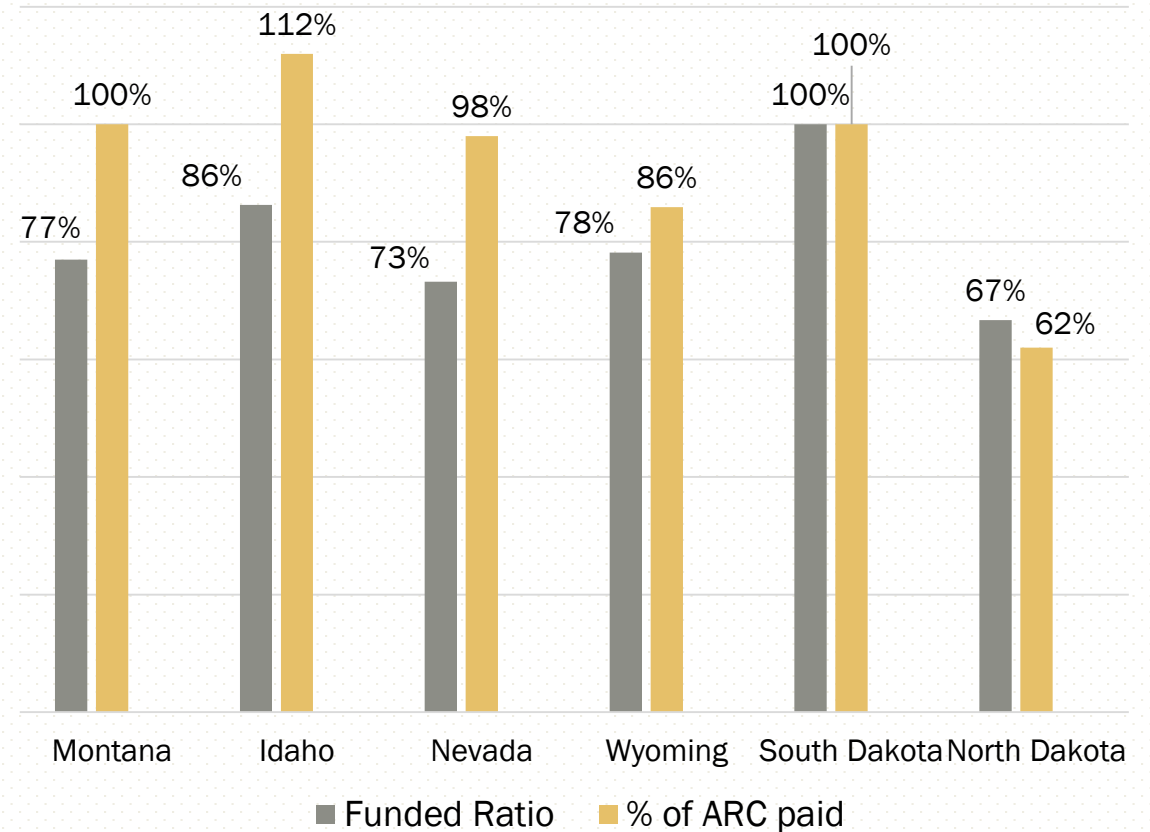
- Contribution amount required for a 30-year amortization = ARC
  - *Previous example: Is the 6.31% sufficient to amortize the UAAL in 30 years or less?*
- If amortization schedule exceeds 30 years, there is an ARC shortfall
- Paying more than the ARC moves plan toward 100% funding faster than 30 years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

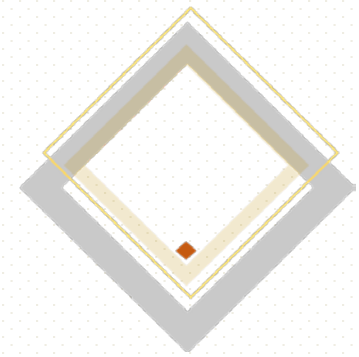


- Percent of liabilities covered by current assets
- 80% is good, progress is goal, more than 100% provides “funding reserve”
- Avg. of public plans in FY 2016 = **71.5%** funded ([www.publicplansdata.org](http://www.publicplansdata.org))

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



# Legislative Options



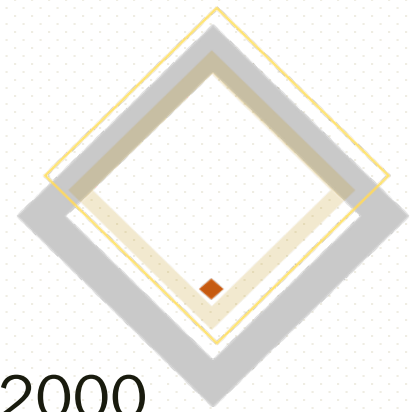
- If plan actuarially unsound, or better funding is desired:

- *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%

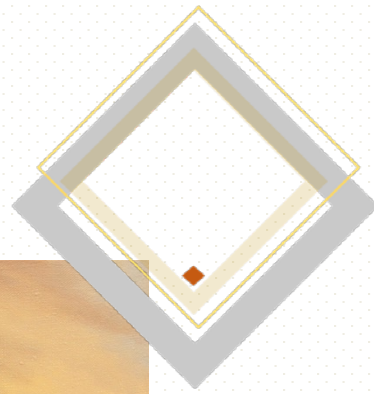
# Plans Did Not Amortize

PERS-DB in 2004, 2006,  
2010, 2012

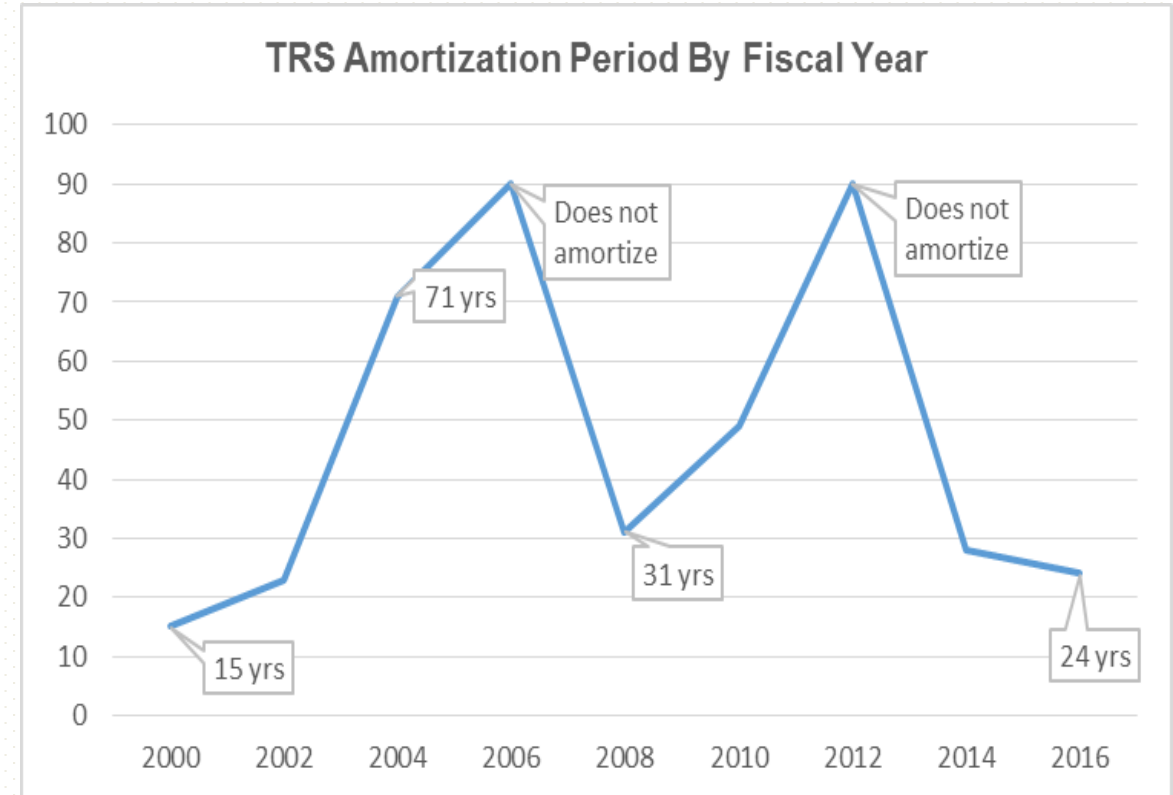
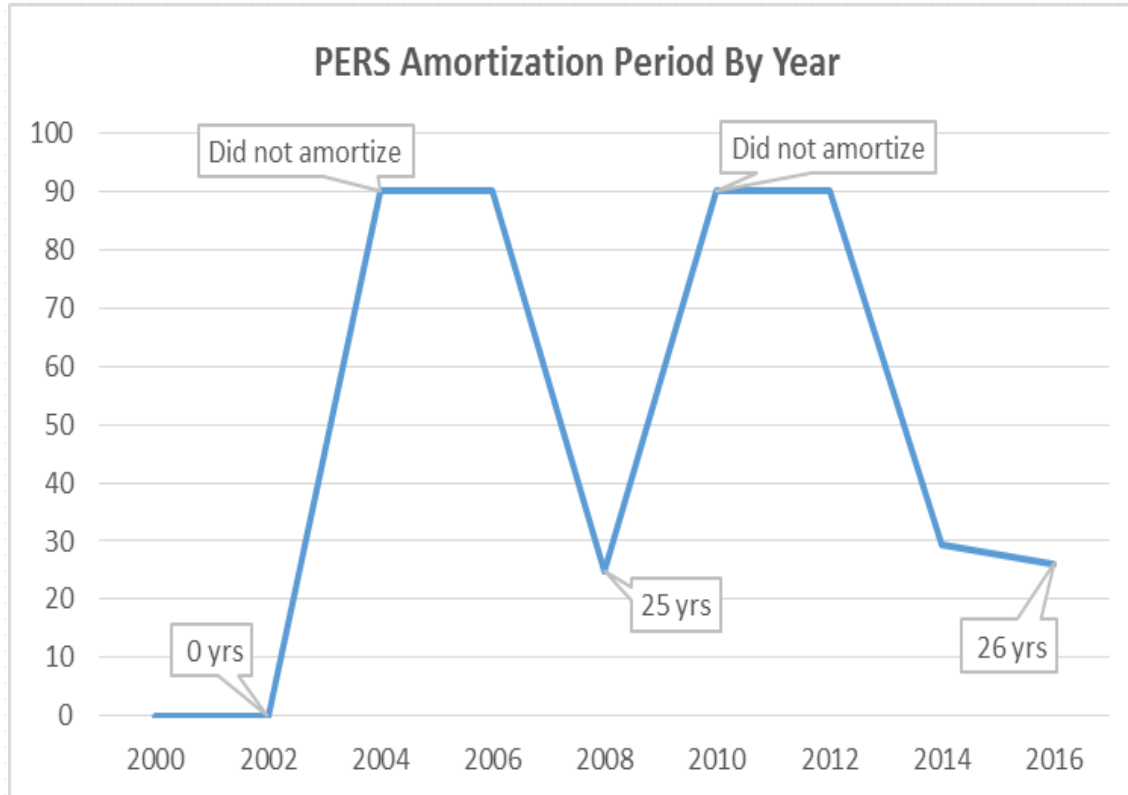
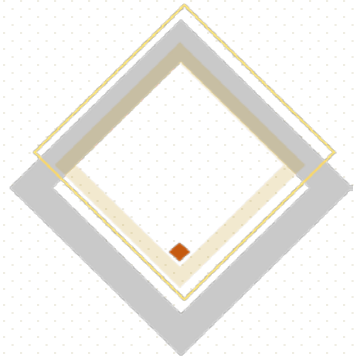
TRS in 2006, 2012

SRS in 2004, 2006, 2012-16

GWPORS in 2010, 2012-16

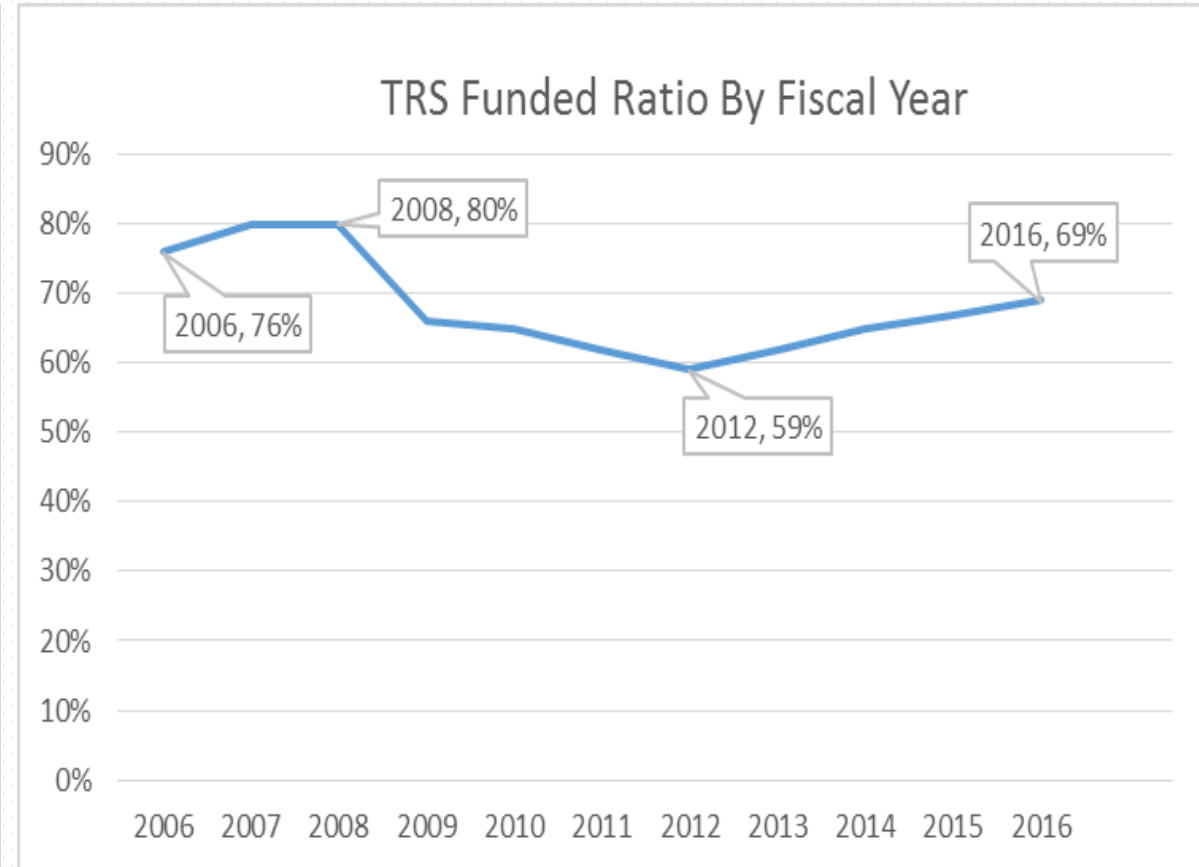
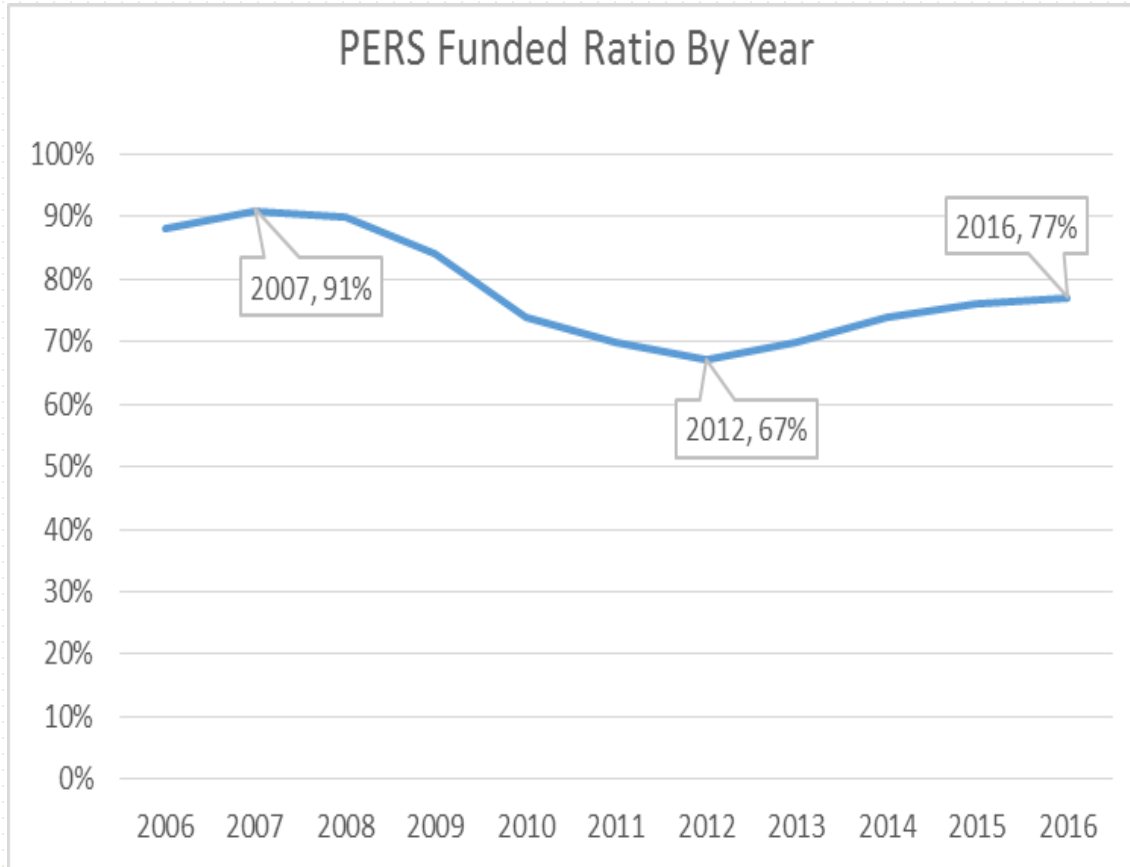
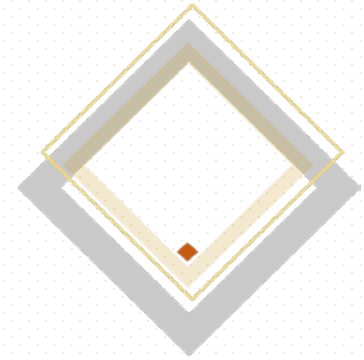


# Extreme Changes in Amortization Periods

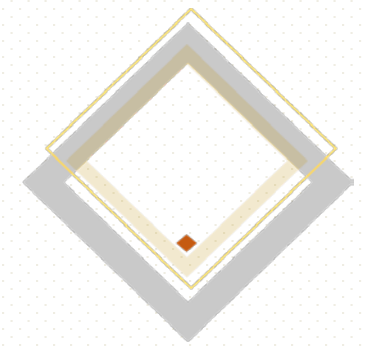




# Funded Ratios Dipped, But Recovering



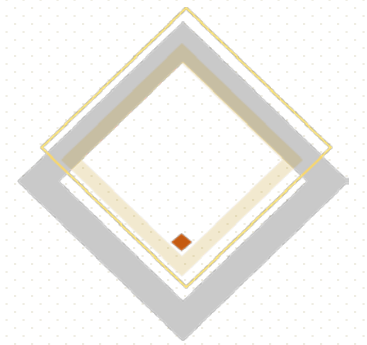
# Legislative History



## ■ 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*

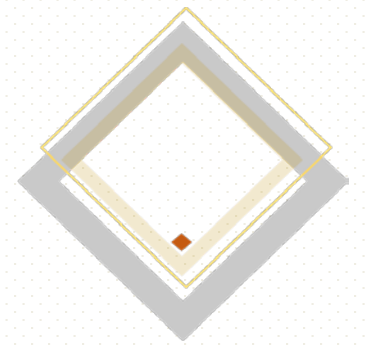
# Legislature Enacts GABA\* and PERS-DC



- 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

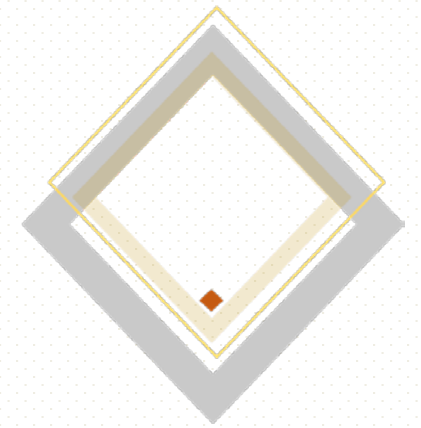
- *PERS – 125% funded*
- *TRS – 88% funded, 15-year amortization schedule*

## ■ Legislation

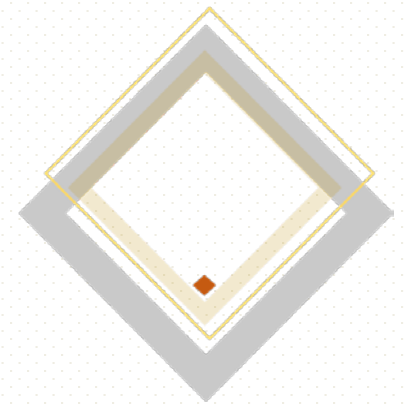
- *PERS – GABA increased to 3%*
- *TRS – Board authorized to increase 1.5% GABA to max. of 3% if amortization would be 25 years or less*

# Market Losses

## 2005 Special Session



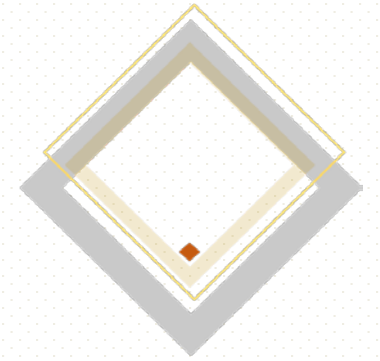
- Market losses
  - *FY 02 loss of 5.1%, FY 03 loss of 7.23% (PERS)*
- Valuations in FY 04
  - *PERS – Does Not Amortize*
  - *TRS – 71.4 years*
- 2005 Special Session
  - *\$25 million cash infusion to PERS-DB*
  - *\$100 million cash infusion to TRS*
  - *SRS and GWPORS not addressed*



# 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](http://leg.mt.gov/css/Committees/interim/2005_2006/st_admin_vet_affairs/default.asp)

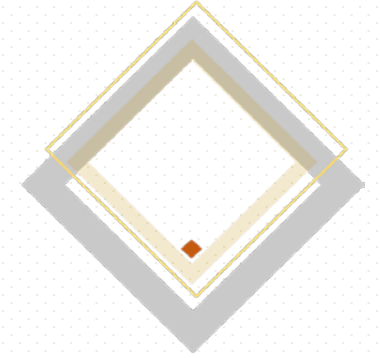
## ■ 2007-08 Interim - SAVA

- *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](http://leg.mt.gov/css/Committees/interim/2007_2008/st_admin_vet_affairs/staff_reports/reports.asp)

## ■ 2009-10 Interim - SAVA

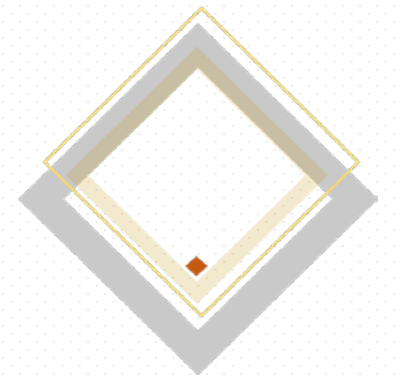
- *HB 659 – study plan design and benefit changes - consultant hired*
- *2 bills, hybrid cash balance plan design change for TRS – both failed*
- [http://leg.mt.gov/css/Committees/interim/2009\\_2010/State\\_Administration\\_and\\_Veterans\\_Affairs/As\\_signed\\_Studies/hb659.asp](http://leg.mt.gov/css/Committees/interim/2009_2010/State_Administration_and_Veterans_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

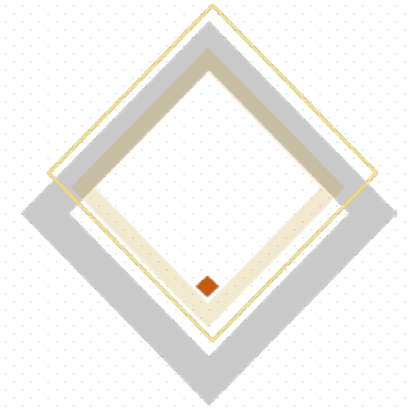
- *PERS, SRS, GWPORS – Do Not Amortize*
- *TRS – 49.5-year amortization*

## ■ Legislative Actions

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

# 2013 Regular Session

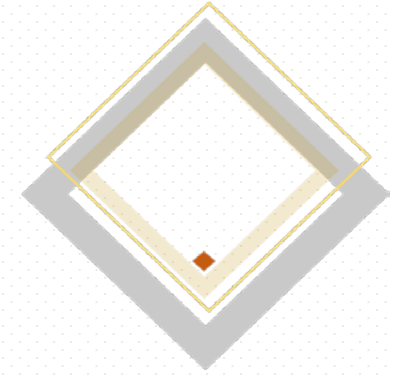
## *Special Joint Pension Committee*



- 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*

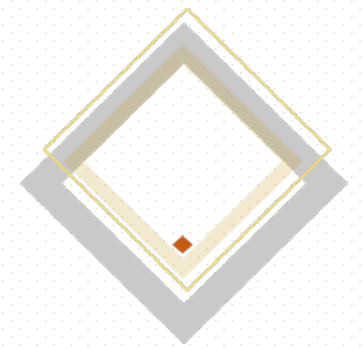
\* **Court later invalidated GABA reductions for current members**

# 2015 Regular Session



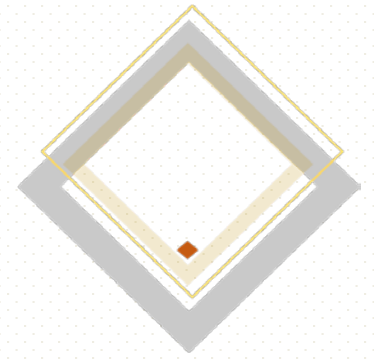
- Valuations for FY 2014
  - *SRS – Still Did Not Amortize*
  - *GWPORS – Still Did Not Amortize*
  - *All other systems amortized in 30 years or less*
  
- No legislative actions regarding contributions or benefits

# FY2016 Actuarial Valuations



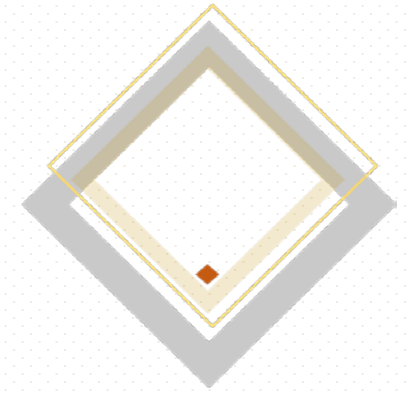
	June 30, 2016	
	Percent Funded	Years to Amortize
Public Employees'-- Defined Benefit Plan	77%	26
Teachers'	69%	24
Game Wardens' and Peace Officers'	84%	Does not amortize
Highway Patrol Officers'	66%	28
Judges'	166%	0
Sheriffs'	83%	Does not amortize
Municipal Police Officers'	69%	18
Firefighters' Unified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

# 2017 Regular Session



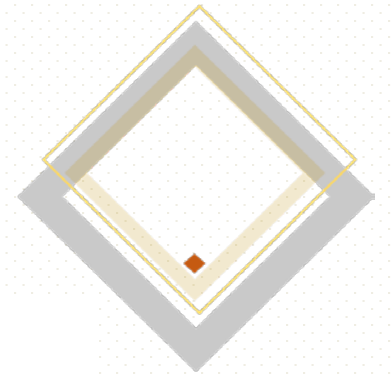
- HB 383 – Funding for SRS
  - *increased employer and employee contributions*
  - *increases terminate if amortization period would be 25 years or less*
  - *employer contribution increase exempted from county mill levy cap*
  
- HB 136 - Funding for GWPORS - did not pass

# 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>