

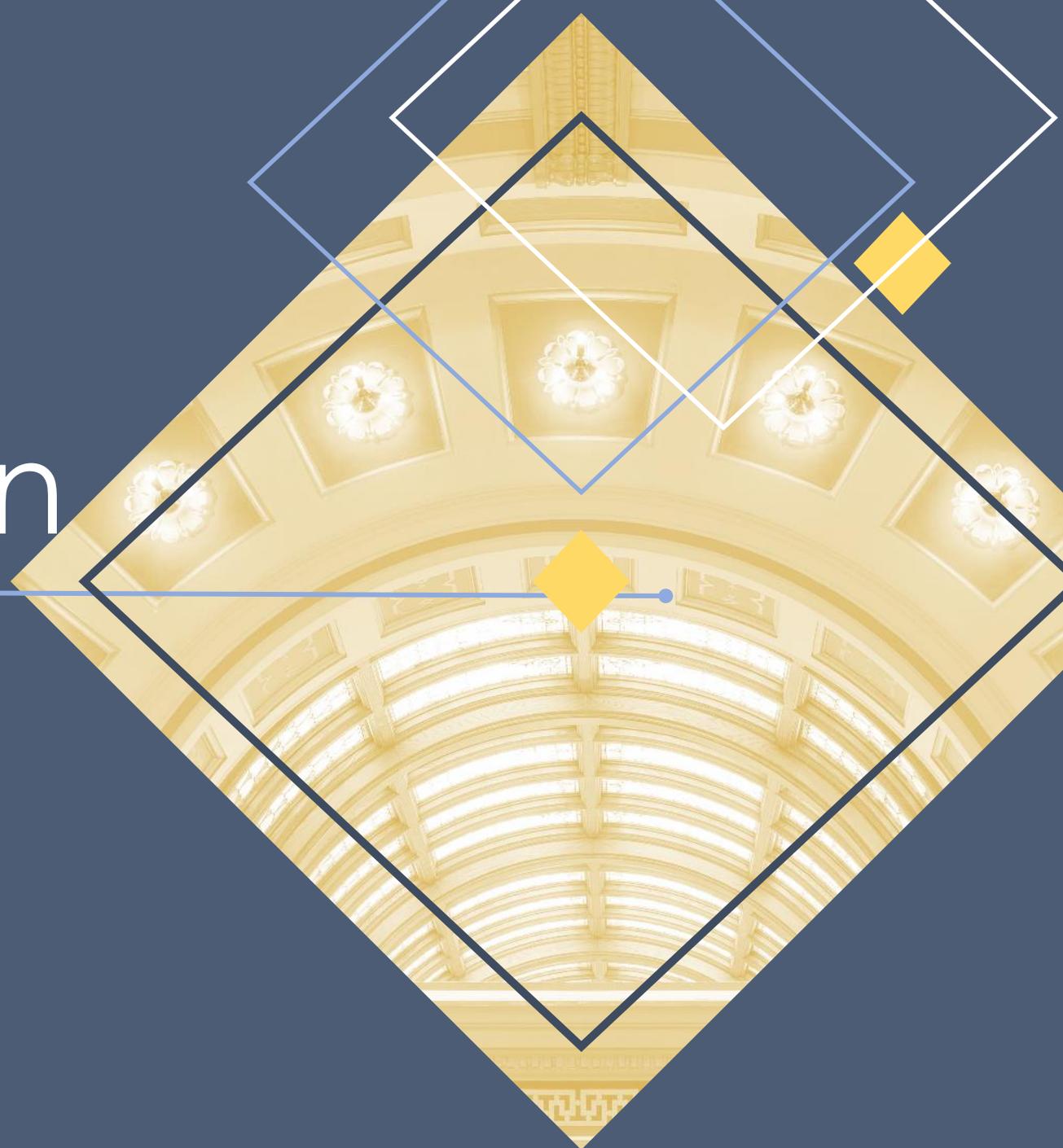
Public Pension Breakout Session

Preflight Briefing

Jan. 15, 2020

BY SHERI S. SCURR, RESEARCH ANALYST

MONTANA LEGISLATIVE SERVICES DIVISION



Welcome to your preflight briefing on Montana's public pensions

I will be covering:

- Aircraft design
- Cockpit control panel
- Your co-pilots and their controls
- Your recent flight history
- Hand off for briefings on flight risks and weather forecasting



Reference materials

- Funding Policy and Montana's Public Pensions
– staff paper, Jan. 15, 2020
- One- page color-coded table of numbers
PERS Benefit Costs, Contributions, and Funding History – LSD handout
- Green Sheets – Tables of Actuarial Data (white paper)

Aircraft design



9 Defined Benefit (DB) plans – PERS and TRS are the largest

- Benefits are known = your destination
- Costs must be estimated = your fuel needs

Contributions are pooled and invested

Benefits are paid at retirement and continue for life of retiree and beneficiary

PERS - passengers, engines, fuel

- PERS aircraft is carrying
 - 539 employers
 - 28,615 employees
 - 25,555 benefit recipients
- Engines & fuel consumption
 - \$5.65 billion invested
 - \$403 million paid in benefits = 7% of invested assets



Contribution Rates Set in Statute

Shared

- Employee (EE)
- Employer (ER) – 48% is local
- State Offsets/Supplementals (GF)

FY 2019 PERS Compensation by Employer Type		
	(\$ Millions)	%
General Fund	\$201	16%
State Special Funds	167	13%
Federal Funds	116	9%
Proprietary Funds	78	6%
University Funds	103	8%
Local Government Funds	608	48%
Total	\$1,273	

Set by legislature based on actuarial cost estimates

- How much fuel will you need to make it to your destination?

Contribution Rate Affects:

Employee take-home pay

- Ability to pay bills
- Recruitment/retention

Employer's budget

- Supported by tax revenues – tax burden
- Other funding - competing interests

Ability of the pension fund to pay:

- Normal cost of benefits – expected actual cost
- Unfunded liabilities =
 - extra fuel needs when flight experience is worse than expected



Cost estimates = actuarial crystal ball

Look at the past to predict the future

Apply assumptions

- Demographic
- Economic

Standards of practice for predictive analytics



In the cockpit - who sits at which controls?

see one-page color coded table of numbers

- BLUE columns – Actuary/PER Board controls
- Actuaries - experience studies & valuations
 - normal cost, funded ratio, and amortization schedule dials/gages
- Actuary recommends assumption adjustments to PER Board
- PER Board adjusts assumptions
 - constitutional duty/power - plan fiduciaries

Investment Rate of Return Dial



Most significant assumption in determining fuel needs

- affects how future liabilities are calculated/discounted

Turn **UP**  this dial = increase your ROI assumption:

- the value of liabilities, i.e your estimated fuel/contribution needs go **DOWN** 

Turn **DOWN**  this dial = lower your ROI assumption:

- the value of liabilities i.e., your estimated fuel/contribution needs go **UP** 

Funded Ratio & Amortization Period



Indicators of financial/fuel health during flight

Conventional wisdom on fuel needs if storms

- no less than 80% funded (actuarial assets to actuarial liabilities)
- no more than a 30-year amortization period

Amortization period = actuarial estimate

- based on contribution amount available (after normal cost is covered) to pay off unfunded liabilities created when flight experience (weather) is worse than predicted

GREEN Columns = Contributions

You, the legislature sits at these controls

Decide how to split contribution costs

- Employee EE – paycheck
- Employer ER – payroll obligation
- State supplementals to help

Additional information – links in Funding Policy paper, Jan. 15

- “Where We’ve Been”, Sheri Scurr, LSD, tables on contribution histories
- Papers by Sam Schaefer, LFD

Some controls are set on Auto Pilot

- Triggers to decrease contributions – see notes, bottom of one-page table

GOLD Column

– Market Return on Investments (ROI)

The Board of Investments sits at these controls

- Constitutional fiduciaries – investing as a prudent expert
- Sets asset allocation strategy
- Decides - How much risk is prudent given the needs?
- Different kinds of investment risks – informed by:
 - RVK – performance reports, market analysis, and peer reviews
 - CEM – benchmarking, management styles, and peer comparisons

Flight history – 1994 to 2001

- see one-page color-coded table of numbers

In-flight indicators – looking great

- Funded ratio increasing
- Amortization schedule dropping fast
- Market returns well above assumed rate of return

Encountered benefit turbulence

- Retirees of 20 years + serious benefit erosion – fixed incomes
- No coherent policy for postretirement adjustments
 - ad hoc, not actuarially funded, different eligibility criteria
 - 1989 statutes – used investment earnings above 8% for one-time adjustments
 - legislative studies, policy principles = recommended a GABA

Guaranteed Annual Benefit Adjustment (GABA)

HB 170 (1997) – PERS and other MPERA Systems

- Repealed 1989 statutes on spending investment returns above 8%
- Replaced other benefits through benefit “swaps”
- Set GABA at 1.5%
- Initiated actuarial funding
 - EE and ER contribution increases
 - 0.10% GF offset to local government and school district increases
- Fuel gage indicators remained healthy
 - PERS = 92% funded, 13-year amortization period

HB 294 (2001) - GABA Increased to 3%

Benefit Turbulence

- 1.5% too low, especially for those who had retired 20 years ago
- cost-of-living increasing at faster pace

Control Panel Indicators

- PERS more than 100% funded
- Cost projections – with 3% GABA – funded ratio still 100% or more
- 8% assumed rate of return deemed conservative
- Market returns were averaging 12%
- Weather reports – fair skies, low risk, could still weather any storm

After 2001 Session - Financial Turbulence

See Funding Policy paper, pg. 4-5, graphs on PERS market returns, funded ratio, amortization schedule

Control Panel Readings FY 2004:

- Unfunded liabilities increasing
 - 7% loss in FY 02
- Contributions insufficient to amortize unfunded liabilities in any amount of time – Does Not Amortize
- BUT, funded ratio still in mid-80% range



FY 2002 – FY 2007: Some Recovery



- Market returns begin to compensate for losses, unfunded liabilities go down
- No contribution rate increase
- Funded ratio attains 90% in FY 2008
- Amortization schedule drops to 25 years

FY 2008: Financial Lightning Strikes

Pension fund value drops 25%
in two years

See graphs, pg. 4-5, Funding
Policy paper

How do you and your
co-pilots stabilize the aircraft?



Co-Pilot Stabilization Efforts

PERS Board/Actuaries

- Losses are smoothed over 4 years – standard procedure
- Special experience studies test actuarial assumptions – systems check
- Board/actuaries begin recommending lower ROI assumption
 - Reduction in assumption increase actuarial liabilities, so adjustments are incremental

Board of Investments

- Examines risk exposure/asset allocation strategy, rebalances portfolio

Legislature's Stabilization Efforts

In 2007, 2011, 2013 sessions

- Benefits lowered (new hires)
- GABA becomes sliding scale (2013)
- Contribution rates increased – see table
 - ER increases phased-in starting FY 2008
 - Offsets for school districts
 - EE increases start in FY 2012
 - State cash infusions start in FY 2014 = on-going GF
 - Value = 2.5% of payroll (about \$30 million)
 - More info., see papers by Sam Schaefer, linked and on LFD website



Today's Control Panel Indicators

PER Board – actuarial indicators

- Actuarial funded ratio – 74%, expected to gradually improve
- Amortization period – 36 years, expected to gradually decrease
- But, PER Board could further reduce assumed ROI – increasing fuel needs

Board of Investments – market indicators - average returns

5-yr	8.4%,
20-yr w/recession	6.4%
25-yr	7.78%

More info. in MBOI annual and quarterly reports

Legislator Questions: Risk Assessments and Stress Testing



How can we better see and understand the risks?

- Actuarial reporting for pension funding purposes
- Financial reporting for budget and cash flow purposes
- Credit rating reporting for debt to income ratios

How can we better anticipate the weather?

- Risk assessments – actuarial risks, financial risks, credit risks
- Is there a better doppler radar tower – crystal ball?
- Spherical prism - different refractions of the same light



How much stress can we take – all perspectives?

- Stress testing = flight simulator – PERS/TRS will be reporting in February



For more information,
contact:

Sheri S. Scurr
Research Analyst, LSD
sscurr@mt.gov 406-444-3596

Sam Schaefer, Fiscal
Analyst, LFD
samschaefer@mt.gov
406-1787