

# Recent New Brunswick Pension Reform (the “Shared Risk Pension Plan”)

Presented by W. Paul McCrossan (retired FCIA) at  
The American Academy of Actuaries April 28, 2014 in Washington D.C.

# The New Brunswick “Players”

- Task force Chair, senior lawyer with extensive pension regulatory and “troubled plan” experience
- Prominent provincial economics professor specialist in public policy
- Supernumerary actuary (me)
- Government actuary and his associates
- Senior New Brunswick public servants
- Cabinet subcommittee chaired by the provincial Premier

# The 2011 Prior Pension Problems

- Almost all provincial pensions underfunded (many seriously)
- Public sector pension financial reporting standards made it difficult to measure problem in a market consistent manner
- Out of date (or largely unknown) Canadian pensioner mortality data on rapid mortality improvements especially by education / income
- Lack of rigorous risk management by pension funds and regulators
- Rapid aging of Canada's Maritime provinces leading to higher spending and lower tax revenues
- Demographics might “eat the province alive” within a decade

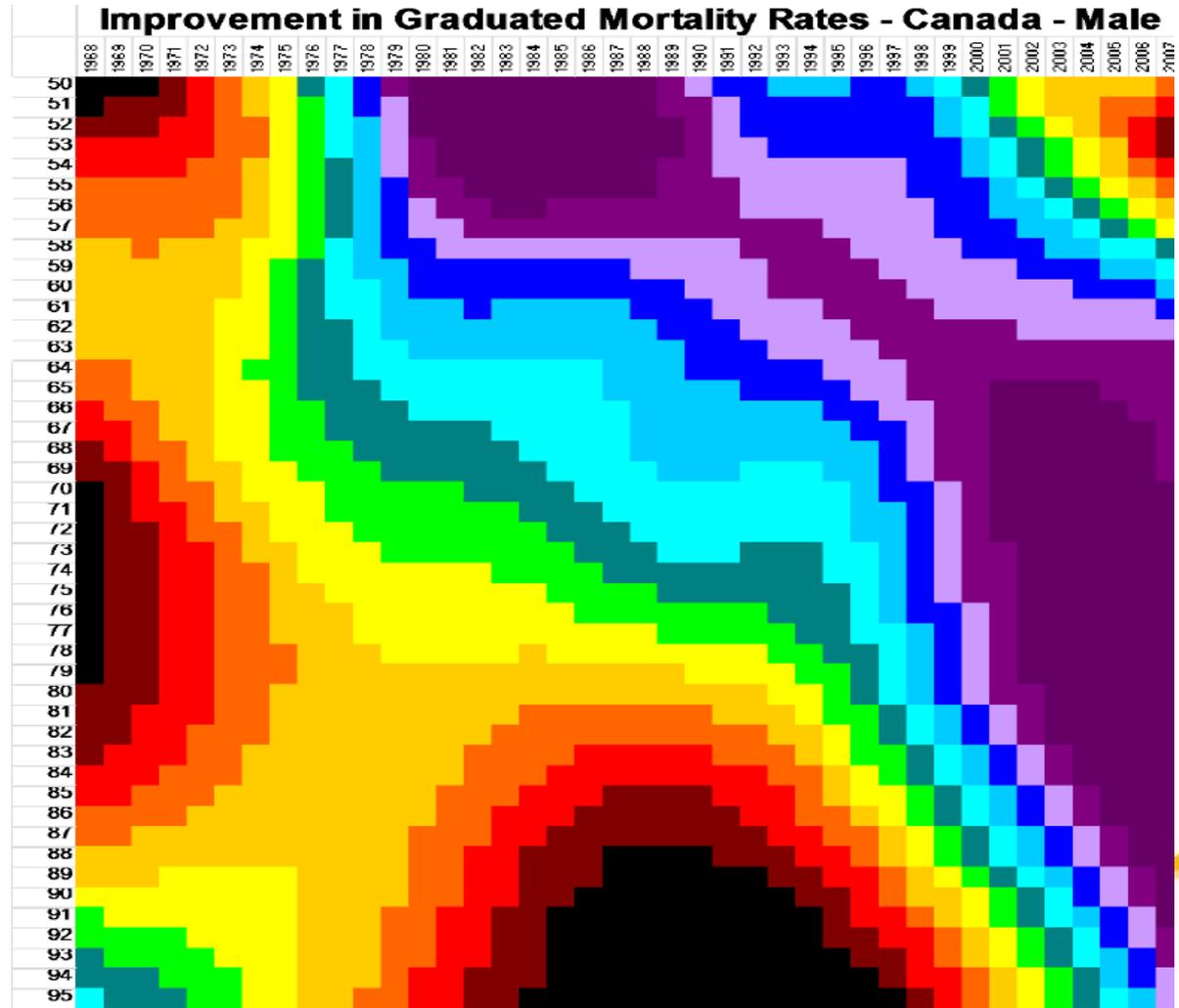
# 2007 IMF Warning to Canada on the Need for Pension Risk Management

- “OSFI and the provinces should ensure that the regulatory framework for pension funds focuses increasingly on the adequacy of risk management practices and resources, in addition to the traditional solvency approach. “
- “These developments require continued reinforcement of risk management skills in pension funds and their supervisors. Poor risk management and large losses by pension funds could lead to political pressure for bailouts. The large number of medium and small defined benefit pension funds may find it costly to operate in this environment ... The regulatory framework for pension funds will need to focus increasingly on the adequacy of risk management practices and resources, in addition to the traditional solvency approach.”

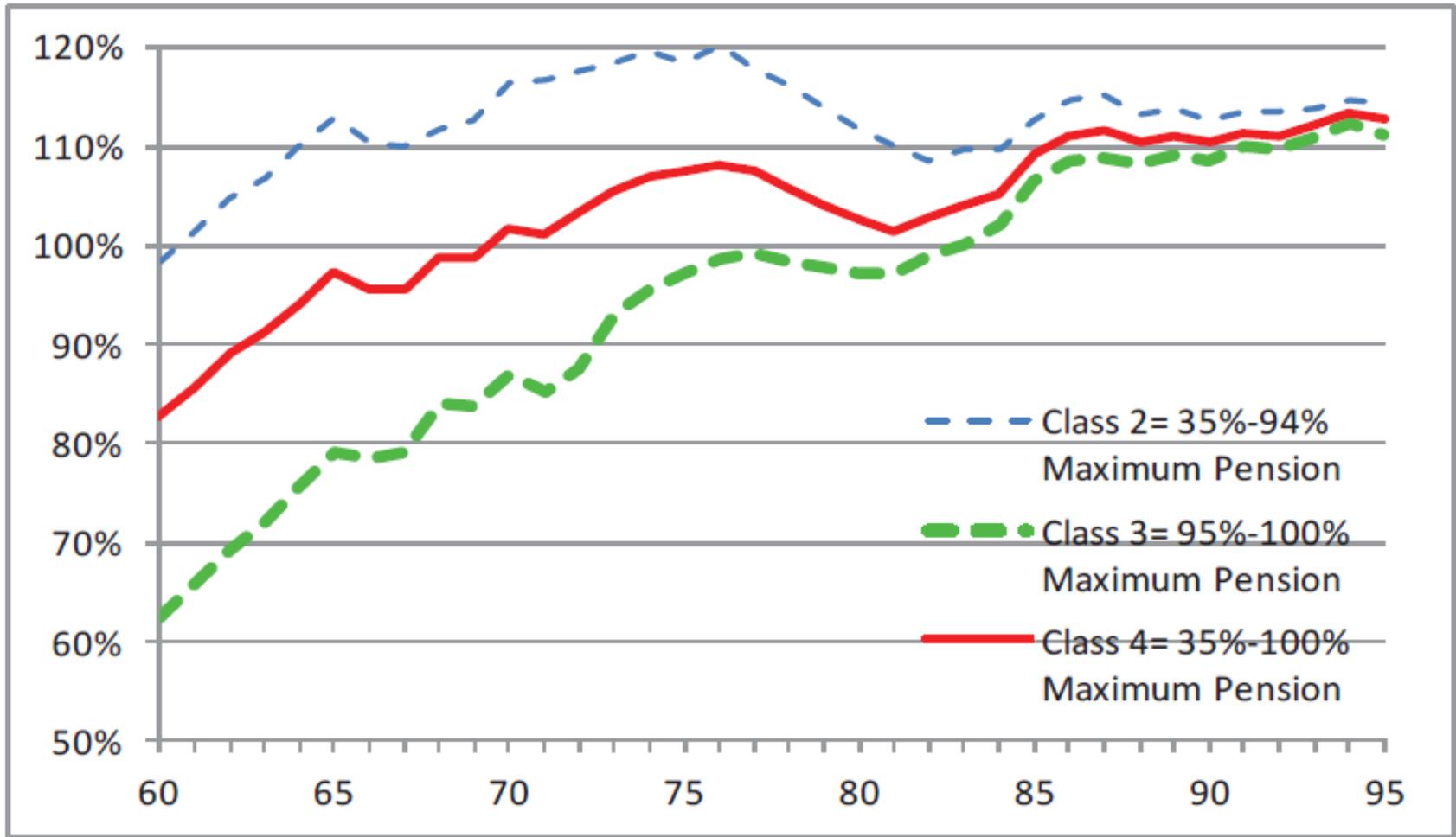
# Canada-wide Rates of Mortality Improvement (all working males)

Note both purple diagonal centered at YOB 1935 and post 60's

Band	Colour
0.00%	Black
0.25%	Dark Red
0.50%	Red
0.75%	Orange-Red
1.00%	Orange
1.25%	Yellow-Orange
1.50%	Yellow
1.75%	Light Green
2.00%	Green
2.25%	Light Blue
2.50%	Blue
2.75%	Light Purple
3.00%	Dark Purple
More	Very Dark Purple



# Canada-wide Male Mortality Rates (above and below median income)



# The “Key” Political Question

- In a democratically elected government, can steps be taken to head off a problem while there is still time when the voting population is largely unaware of the emerging problem and solutions are “painful”
- The Premier’s approach “What is the *right thing* to do?”

# The Mandate of the New Brunswick Pension Task Force

- Three Objectives:
  - Stability (Efficiency)
  - Sustainability (Sustainability)
  - Affordability (Efficiency)
- Two Principles:
  - Transparency (Alignment & Governance)
  - Inter-generational equity (Sustainability)

# The Process

- Review regulatory filing of large New Brunswick pension plans adjusting for current mortality and market consistent asset / liability measurement
- Use large mature municipal pension plan's request for substantial funding relief as a test case
- Consider how to modify the “Dutch pension (defined ambition) model” as a foundation from which to deal with severely underfunded pension plans when strengthened by rigorous risk management including security objectives for both base benefits” and “target benefits”
- Reflect unpublished / largely unknown mortality rate and mortality improvement data
- Seek up to date risk management information from retired Dutch ABP personnel
- Find an appropriate “market consistent” liability measure and a proxy to risk based capital (“the 15 year open group funded ratio”)

# The First Test Case

## (Province-wide professional hospital workers)

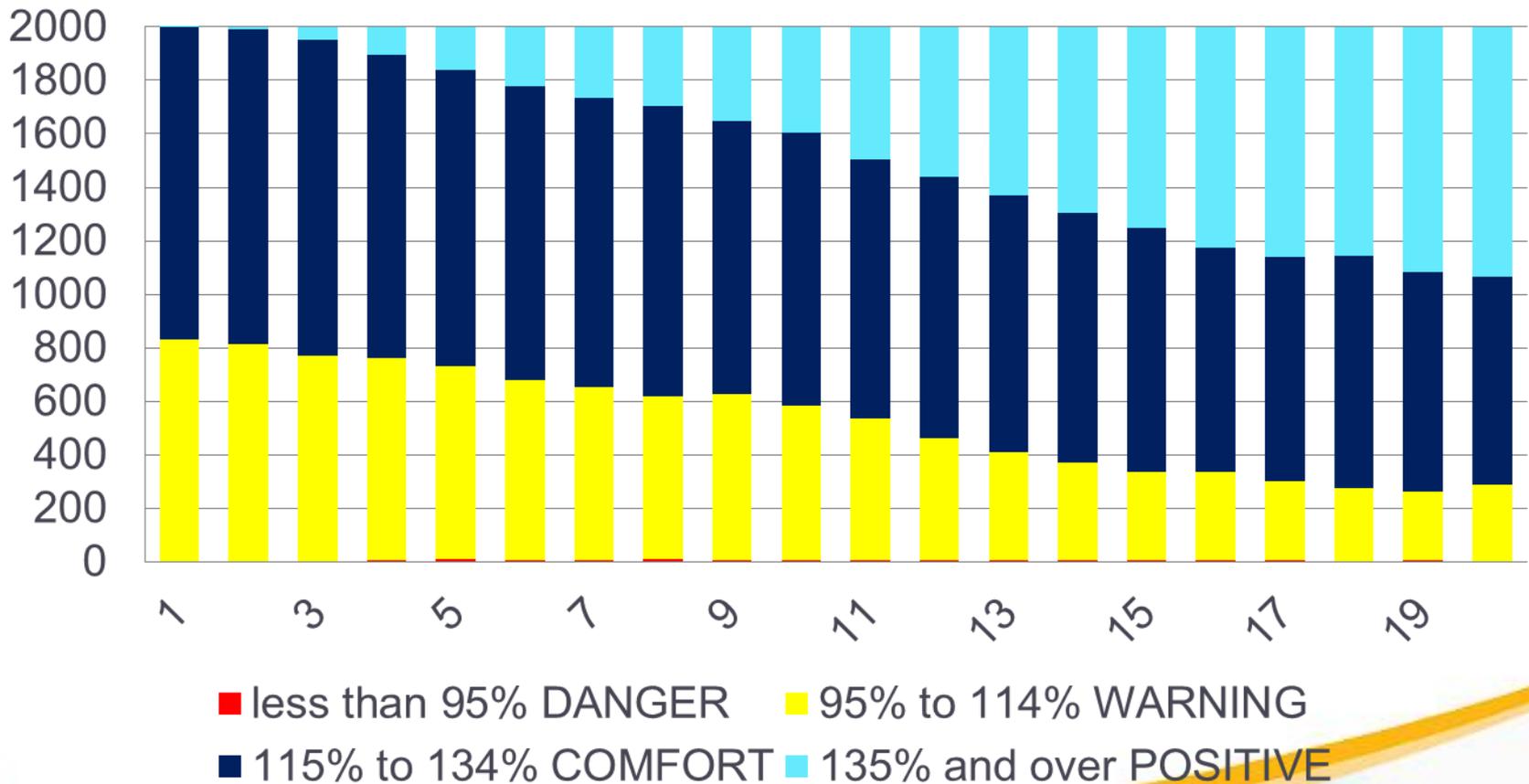
- Trustees had sought court direction as to their fiduciary duties
- Court judgment mandated large increase in contributions or large reduction in benefits, or both
- Using up to date mortality and market consistent measures, the situation was much worse than the trustees had imagined
- Unions trusted task force Chair with whom it had a long relationship
- Over 5 months of “transparent” meetings, a solution acceptable to the major professional hospital employees and the government was found.
- Complete sharing of communications between government and unions with unions having the primary role in member communications

# The Shared Risk Pension Plan Template Emerges

- Unions played a major role in shared risk template design reflecting membership concerns for a secure pension
- “Defined ambition” template acceptable only with strong base benefit (97.5%) and target benefit (75%) security constraints as stated under investment management policy and funding policy
- All prior earned benefits preserved in base benefits except for adopting conditional indexing in place of final averaging and COLA
- **Base benefits could be reduced in the future but only if their restoration became the plan’s top priority**
- Very small pre-determined changes in future contributions allowed with no contribution holidays unless mandated by Income Tax Act
- Future service unreduced retirement age and future service early retirement discounts increased (but not quite to actuarial neutrality)
- All part time and casual workers covered by new plan
- Future indexing shared by actives, deferred vesteds and retirees (with priority to reversing past reductions)

# Sample Expected 15 Year Open Group Funded Status

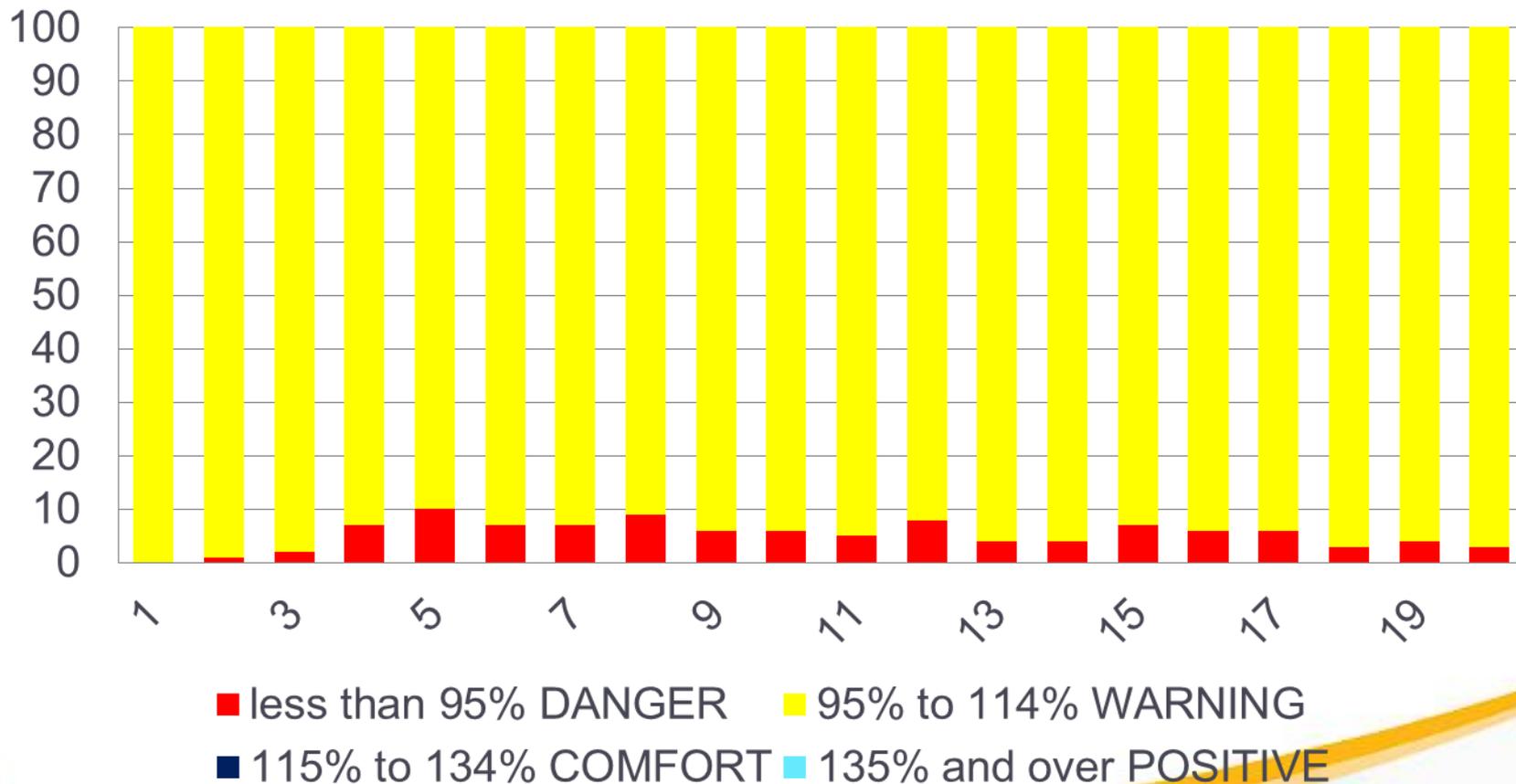
## Distribution of Funding Levels by Year



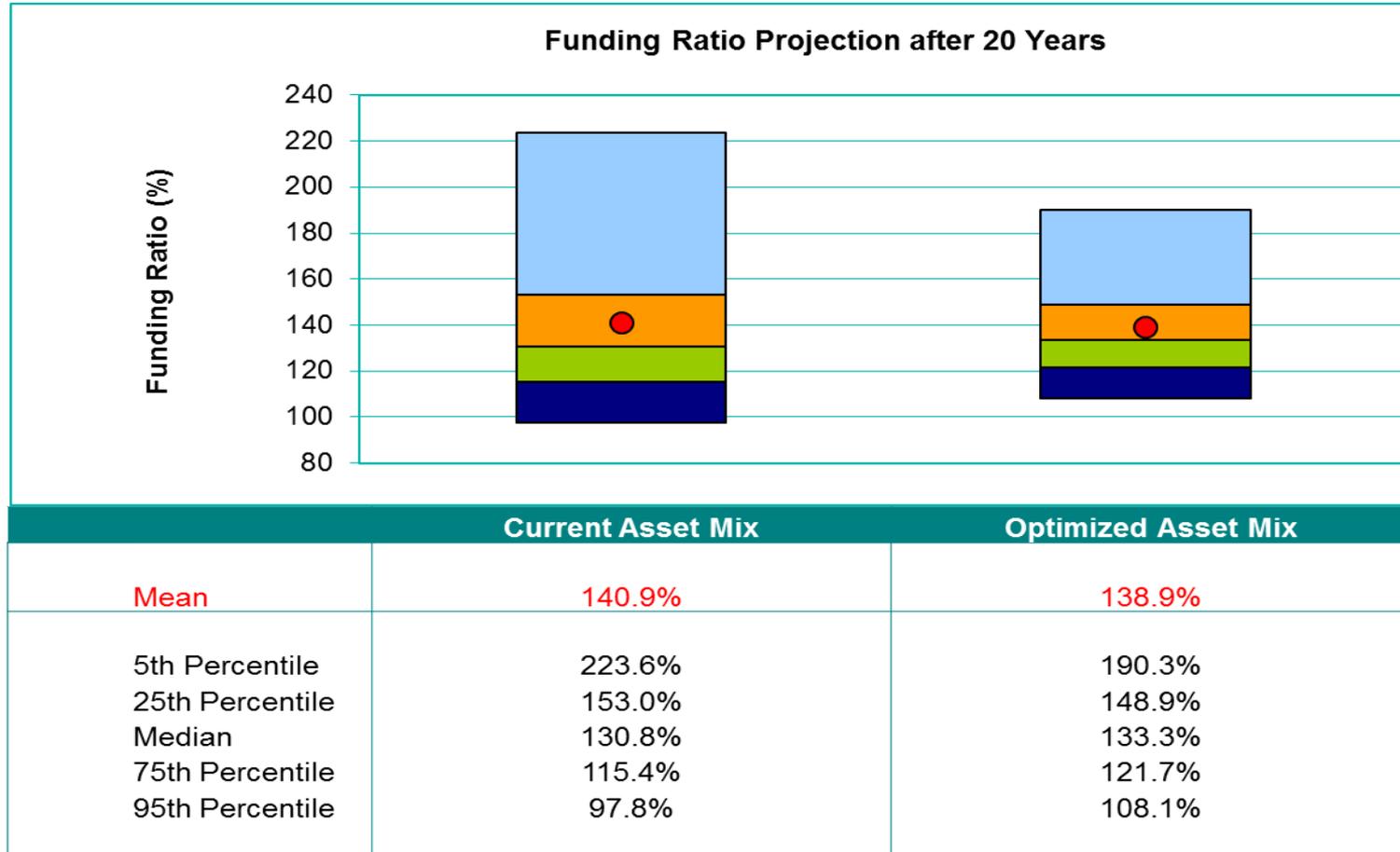
■ less than 95% DANGER    
 ■ 95% to 114% WARNING  
■ 115% to 134% COMFORT    
 ■ 135% and over POSITIVE

# Worst 5% Sample Distribution of Future Benefit Reduction Possibility

Distribution of Funding Levels by Year



# Funding Ratio Projections



# Subsequent Conversions to Shared Risk Plans

- Province-wide non-professional hospital workers (CUPE)
- Two large troubled municipal employees' pension plans (CUPE, fire, police)
- Province wide Pipefitters (plumbers) plan
- Members of the Legislative Assembly (MLA's) plan
- Public Sector Superannuation Act employees (public service and key crown corporations)
- Provincial teachers' pension plan conversion to new hybrid plan agreed but not yet law
- Start of conversion by several private sector DB plans

# Emergence of Opposition to Shared Risk Conversion

- Led by union representing highest paid professional employees (PIPSC) and some of most senior retired public service employees
- “A past deal is a past deal” and no contingent benefits could be contemplated to replace previously guaranteed benefits earned
- Government legislated PSSA changes with significant but not unanimous union support

# Back to “The Key” Political Question

- Can a government take action to avert a serious financial problem about which voters are largely unaware?
- Conventional wisdom is that the “political solution” is to “kick the can down the road” until the problem becomes critical rather than inflict any “pain”.
- New Brunswick has a fixed election date in September, 2014
- Other Canadian governments (both provincial and federal) have identified the cost of “entitlements” as critical to them. They are now taking some action and watching New Brunswick closely



# South Dakota Retirement System

## **Review of SDRS Administrative Practices and Plan Governance in Conjunction with *Retirement for the AGES: Measuring for Success***

For Presentation to the American Academy of Actuaries  
Retirement for the AGES Forum - April 28, 2014

Robert A. Wylie, Executive Director/Administrator  
South Dakota Retirement System



# SDRS Mission Statement

*To plan, implement and administer income replacement programs, and to encourage additional savings for retirement, all of which offer SDRS members and their families the resources and the opportunity to achieve financial security at retirement, death or disability by providing an outstanding, appropriate and equitable level of benefits.*

The Board of Trustees believes this mission is achievable with the resources available in a progressive working environment, by sound and efficient management, through superior investment performance and by exercising the fiduciary responsibility associated with the proper stewardship of member assets.



# South Dakota and SDRS Background

- Comparatively small population in State – 835,000 citizens
- Fiscally conservative and essentially debt free
- SDRS created in 1974, a consolidation of 11 separate plans
- Total membership: 77,000 (nearly all public employees in the state)
- Annuitants – 23,000 (over \$400M annual benefits)
- Trust fund assets of \$10B
- *Statutorily fixed and matching contribution rates*
- *Statutorily defined funding thresholds that require the Board to initiate corrective action if not met*



# Board Alignment, Governance, Efficiency and Sustainability

- Primarily elected Board of Trustees with balanced employer and employee representation and Governor appointees – Nonpartisan
- Board of Trustees initiates necessary or desirable legislation and takes full responsibility for:
  - Maintaining the actuarial soundness of SDRS
  - Minimizing risk of benefit reductions to members
  - Avoiding risk to the employers and members of higher contributions
- Separation of retirement administrative and investment activities
  - Individual boards (SDRS Board of Trustees and South Dakota Investment Council)
  - Different reporting relationships, and representation of SDRS and SDIC on each board
  - Majority of the Investment Council are independent trustees with a financial background and appointed by the legislature - Nonpartisan
  - Cost efficiency of administrative and investment functions is regularly measured and compared to benchmarks and to peers



# Legislative and Executive Oversight – Alignment and Governance

- Standing Senate and House Retirement Laws Committees (RLC)
  - Source of knowledge and expertise about SDRS within Legislature
  - All retirement related legislation normally referred by the Legislature to RLC for recommendation to the entire body
  - Any other proposed retirement legislation is normally referred by the RLC back to the SDRS Board of Trustees to consider, assess, and recommend before consideration by RLC
  - Positive working relationship and partnership with SDRS Board of Trustees resulting in:
    - joint educational and information meetings
    - timely reporting, disclosure, and full transparency
    - shared ownership and responsibility with Board of Trustees for the success of SDRS
    - regular communication with SDRS staff
- Supportive Executive Branch with two appointees on the SDRS Board
- SDRS is independent of the Executive Branch and Legislature



# Funding and Funding Policy – Efficiency and Sustainability

- Fixed statutory and matching member and employer contribution rates that have never been increased (or decreased) because of System experience
- The SDRS comprehensive Funding Policy reflects the fixed funding rates and includes:
  - Target funding standards
  - Establishment of a Cushion and Reserve to protect the System during unfavorable economic periods and to fund future benefit improvements
  - Funding standards defining the conditions for consideration of benefit improvements
  - Funding standards defining the conditions for consideration of corrective actions and benefit reductions
- Fiscally conservative designs and practices with outstanding investment performance have produced historically high funded ratios – Market Value funded ratio above 100% in 24 of the last 28 years



# Funding Policy – Governance and Sustainability

## Elements

<b>Funding Objectives</b> (Discussed at the Quadrennial Funding Study presentations in 1999 and 2002, and formally adopted April 2006 and revised September 2013)	<b>Establishment of Cushion and Reserve</b> (The Reserve for Funding of Long-Term Benefit Goals, adopted in 1995 and later revised in 1998, 2001 and 2013)	<b>Policy Regarding Consideration of Benefit Improvements</b> (Adopted in 2004 and revised in 2013)	<b>Statutory Conditions That Would Require Corrective Action</b> (SDCL 3-12-122, refined during 2004 Legislative Session)
<ul style="list-style-type: none"> <li>• <b>Funded Ratios (Assets ÷ Actuarial Accrued Liabilities)</b> <ul style="list-style-type: none"> <li>○ Based on Market Value of Assets – 100% or greater</li> <li>○ Based on Actuarial Value of Assets – 100%</li> </ul> </li> <li>• <b>Ratio of Market Value of Assets to Actuarial Value of Assets</b> <ul style="list-style-type: none"> <li>○ Exceeds 100%, which results in a Cushion</li> </ul> </li> <li>• <b>Maintain a fully funded system</b> <ul style="list-style-type: none"> <li>○ No Unfunded Liabilities under Entry Age Normal Cost method</li> <li>○ If future Unfunded Liabilities created because of unfavorable experience, fully fund over a period not to exceed 20 years (amortization over a shorter period at Board discretion)</li> </ul> </li> <li>• <b>Statutory fixed contributions meet or exceed the actuarially required contribution each year</b> <ul style="list-style-type: none"> <li>○ Normal Cost plus expenses when System is fully funded</li> <li>○ Includes payment of Unfunded Liabilities over a period not to exceed 20 years if System not fully funded (amortization over a shorter period at Board discretion)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Cushion</b> <ul style="list-style-type: none"> <li>○ Excess of Market Value of Assets over Actuarial Value</li> <li>○ Captures all net favorable experience</li> </ul> </li> <li>• <b>Actuarial Value of Assets</b> <ul style="list-style-type: none"> <li>○ asset value if all assumptions met</li> <li>○ minimizes volatility in actuarial measures</li> <li>○ limited to 80-120% of market value of assets</li> <li>○ set to market value if no Cushion for five consecutive years</li> </ul> </li> <li>• <b>Reserve</b> <ul style="list-style-type: none"> <li>○ Delays recognition of asset gains (and liability experience gains/losses) over five years, but recognizes asset losses immediately</li> </ul> </li> <li>• <b>Both Cushion and Reserve provide resources to:</b> <ul style="list-style-type: none"> <li>○ Protect SDRS during times of unfavorable experience, and</li> <li>○ Pre-fund benefit improvements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>After consideration of the expense of the benefit improvement the Market Value Funded Ratio must be at least 120%</b></li> <li>• <b>In addition, the following guidelines must be satisfied:</b> <ul style="list-style-type: none"> <li>○ Reserve is sufficient to fully fund the present value of the benefit improvement</li> <li>○ After consideration of the recommended benefit improvement all funding objectives must still be met</li> </ul> </li> <li>• <b>Proposed benefit improvement must be consistent with both the Board's long-term benefit goals and public policy with regard to retirement practices</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Funded status report to Governor and Retirement Laws Committee (RLC) if any of the following exists:</b> <ul style="list-style-type: none"> <li>○ Contributions not sufficient to fund current benefit structure</li> <li>○ Funded Ratio (based on Market or Actuarial Value) less than 80%</li> <li>○ Market Value of Assets less than 90% of the Actuarial Value of Assets</li> </ul> </li> </ul> <p>The report shall include an analysis of the conditions required for an improvement of the funded status of the system and recommendations for the circumstances and timing for any future benefit changes, contribution changes, or changes in actuarial assumptions</p> <ul style="list-style-type: none"> <li>• <b>If any of the above conditions exist for three consecutive actuarial valuations, the following recommendations shall be made by the Board to the Governor and RLC, effective as soon as possible to improve the SDRS funded status</b> <ul style="list-style-type: none"> <li>○ Benefit reductions</li> <li>○ Contribution changes</li> <li>○ Combination of the two</li> </ul> </li> </ul>



# Benefit Plan Design – Alignment and Sustainability

- Hybrid plan design that includes the features of both defined benefit and defined contribution plans and focuses on building reserves to limit risk and fund benefit improvements
- Benefits designed to meet income replacement needs for career employees, but balanced by affordability, and based on an extensive analysis that considers Social Security, personal savings, and SDRS benefits
- Unusual portability features that provide a choice to terminated members of:
  - Most of the employer contributions and all of the member contributions accumulated with interest in a lump sum, or
  - A lifetime benefit at retirement indexed with the SDRS COLA before and after retirement (indexing the deferred vested benefit prior to retirement)



# Actuarial Methodologies and Risk Mitigation – Sustainability

- Due to fixed statutory contribution rates and the requirement to maintain these stable rates, SDRS has used the frozen unfunded actuarial accrued liability method since 1996 and an actuarial asset valuation method with corridor designed to match assumptions
- The frozen unfunded liability is re-initialized based on the entry age accrued liability method with each experience study – Most recently in 2012
- In FY 2013, the frozen unfunded liability was paid off from the Cushion. As such, the actuarial accrued liability as of June 30, 2013 is equal to the entry age accrued liability
- The portion of the statutory contributions which had been allocated to pay the frozen unfunded liability is now available to build the Cushion and mitigate risk
- This reallocation is estimated to raise the likelihood of maintaining the SDRS funded status by 3% to 4% and, if necessary, provide a resource to amortize an unfunded liability of approximately 5-6% of accrued liabilities



# Actuarial Methodologies and Risk Mitigation - Sustainability

- Future benefit improvement methodology provides for fully funding of any benefit improvement when funding policy objectives are met and a focus on flexible benefits that track with plan experience
- The Board of Trustees recent established an objective to allocate 20% of annual contributions to mitigate risk
- SDRS Cushion reflects favorable investment results and equals excess of market value of assets over actuarial value and improves sustainability
- Cushion has existed in all but three of the last 28 years
- A COLA based on both the CPI and the SDRS funded status, with minimum and maximum benefits was enacted in 2010
- Key operational decisions are based on market value of assets
- Identification and proposed corrections of inequities, benefits that have higher than expected costs, inefficiencies, and to meet best practices and enhance sustainability



# Board Policies, Practices, and Initiatives – Alignment and Efficiency

- Creation of a member savings goal to meet total income replacement needs at retirement considering benefits from SDRS, Social Security, and savings
- The Special Pay Plan that permits transfer of termination pay to a tax-efficient retirement savings account
- Administration of a tax and cost efficient voluntary 457 savings plan- Supplemental Retirement Plan (SRP)
- Implemented an automatic enrollment provision for new employees under the SRP in 2010
- Provide a unique opportunity to convert other retirement savings to additional lifetime benefits from SDRS at retirement through the Supplemental Annuity Benefit



# State of the SDRS and Pending Issues

- Fully funded status is a significant accomplishment
- System is sound, in balance, and meets Funding Goals
- Conservative actuarial assumptions overall but mortality improvement must be addressed as well as improving probability of sustainability
- Strong overall benefit practices, with a number of above average practices but a lower than average benefit formula multiplier
- Early retirement subsidies are very significant
- Below average employer and member costs
- Fixed statutory employer and member contributions that meet actuarial requirements with a margin that will increase the Cushion each year
- Precedent of corrective actions when required