

INVESTMENT OVERSIGHT COMMITTEE
LONG TERM SOLVENCY OF THE EDUCATIONAL RETIREMENT BOARD
WEDNESDAY, JULY 27, 2011

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ERB'S RETIREMENT PLAN



Defined Benefit Plans

Defined Benefit (DB) Plans are designed to provide employees with a predictable monthly benefit in retirement. This amount is typically a function of the number of years and employee devotes to the job and the worker's pay – usually at the end of their career. ***ERB provides a defined benefit plan.***

Defined Contribution Plans

Defined Contribution (DC) Plans offer no implicit guarantee of retirement income. Rather, employers (and usually employees) contribute to the plan over the course of a worker's career.

Defined Contribution Plan Characteristics

- DB plans pool the longevity risks of large numbers of individuals. They need only accumulate to enough funds to provide benefits for the average life expectancy of the group.
- DB plans do not age, unlike the individuals in them, they are able to take advantage of the enhanced investment returns that come from a balanced portfolio over long periods of time. This means DB plans can ride out bear markets and take advantage of buying opportunities that they present without having to worry about converting all of their money into cash for benefits in the near future.
- DB plans achieve greater investment returns as compared with DC plans based on individual accounts. Superior returns can be attributed partly to lower fees that stem from economies of scale.
- DB plans, which are professionally managed, achieve greater investment returns as compared with DC plans made up of individual accounts.

Defined Contribution Plan Characteristics

- Individuals in DC plans will need to set aside much more money to last for the “maximum” life expectancy if they want to avoid the risk of running out of money in retirement. Since the maximum life expectancy can be substantially greater than the average life expectancy, a DC plan will have to set aside more money than a DB plan to achieve the same level of monthly retirement income.
- Individuals in DC plans must gradually shift to a more conservative asset allocation as they age in order to protect against financial market shocks later in life.
- DC plans can be more flexible. They allow workers the opportunity to save for retirement in a manner that reflects their individual situations.
- Many workers fail to contribute sufficient amounts to the plans, and individuals' lack of expertise in investment decisions can create unbalanced portfolios.

Retirement Eligibility

- **Rule of 25** – Member has earned and allowed service credit totaling 25 or more years
- **Rule of 75** – Member age and earned service credit add to the sum of 75 or more - A reduction of a member's benefit is applicable only when the member is under 60 years of age and has less than 25 years of earned service credit
- **Rule of 65** – Member age is 65 with at least 5 years of earned service credit

Retirement Eligibility for New Employees after July 1, 2010

- **Rule of 30** – Member has earned and allowed service credit totaling 30 or more years
- **Rule of 80** – Member age and earned service credits add to the sum of 80 or more - A reduction of a member's benefit is applicable only when the member is under 65 years of age and has less than 30 years of earned service credit
- **Rule of 67** – Member age is 67 with at least 5 years of earned service credit

Retirement Benefit Calculation

$$\text{FAS} \times \text{service credit} \times .0235 = \text{Annual benefit}$$

The Final Average Salary is the greater of:

- The member's average annual earnings in the last twenty calendar quarters immediately preceding retirement; or
- The member's average annual earnings in any twenty consecutive calendar quarters in which there are earnings.

Cost of Living Adjustment (COLA)

- The first COLA to a retiree's benefit will be made on July 1 of the year in which the retired member reaches age 65, or on July 1 of the year following the member's retirement date, whichever is later.
- The COLA is tied to the Consumer Price Index (CPI). If the change in CPI is less than 2%, the COLA will be the same percent as the change in CPI; if the change is greater than 2% the COLA will be one half of the change in CPI but not less than 2% and no greater than 4%.
- In 2009, the first time in 54 years, the CPI declined. The COLA statute required a negative adjustment which would have resulted in an annual average decrease of \$69 in the pension benefit.
- HB239 passed in the 2010 legislative session amends the COLA statute to prohibit a decrease in the retirement benefits of retired members over age 65 if there is a decrease in CPI.

Benefit Options

- **Option A** – If the member elects Option A there is no reduction to the monthly benefit other than any “Rule of 75” deductions or any community property or child support reductions. There will be no continuing benefit to a beneficiary or estate upon the retiree’s death, except the balance, if any, of contributions. Those contributions are usually exhausted in 2 to 3 years. Approximately 63% of ERB retirees select Option A.
- **OPTION B** – If the member elects Option B, the monthly benefit is reduced to provide for a 100% survivor’s benefit. The reduced benefit is payable during the life of the member with the provision that, upon the retiree’s death, the same benefit is paid to the beneficiary for his or her lifetime. The named beneficiary may not be changed after the effective date of retirement since the amount of the option is calculated by using both the age of the member and the beneficiary. If the beneficiary predeceases the member, the member’s benefit will be adjusted by returning it to the “Option A Benefit” amount. The IRS prohibits selection of Option B for a non-spouse beneficiary more than ten years younger than the member. Approximately 25% of ERB retirees select Option B.
- **OPTION C** – If the member elects Option C, the monthly benefit is reduced to provide for a 50% survivor’s benefit. The benefit is payable during the life of the member with the provision that, upon the retiree’s death, one half of the member’s benefit is paid to the beneficiary for his or her lifetime. Here again, the named beneficiary may not be changed after the effective date of retirement. If the beneficiary predeceases the member, the member’s benefit is adjusted by returning it to the “Option A Benefit” amount. Approximately 12% of ERB retirees select Option C.

ERB Defined Contribution Plan

An Alternative Retirement Plan (ARP) is available to some higher education faculty and professionals who were initially employed after July 1, 1991. Approximately 1,700 members of higher education institutions participate in this plan.

Legislation passed in 2009 allows a member to switch from the ARP plan into the regular ERB plan after seven years of employment. Before this legislative change the ARP election was irrevocable.

Mature Fund Status

• ERB is a “mature fund” – this means that each year the plan pays out more in benefits than the contributions it takes in. As a result the difference between the amount of contributions and retiree payroll must be paid by the ERB fund.

Contribution Rate History

Fiscal Year	Member Rate	Employer Rate	Total
58-59	3.00%	4.00%	7.00%
60-74	4.00%	6.50%	10.50%
75-79	5.50%	6.50%	12.00%
80-81	6.50%	6.50%	13.00%
82-84	6.80%	6.80%	13.60%
85-93	7.60%	7.60%	15.20%
94-2005	7.60%	8.65%	16.25%
2006	7.675%	9.40%	17.075%
2007	7.75%	10.15%	17.90%
2008	7.825%	10.90%	18.725%
2009	7.90%	11.65%	19.55%
2010 & 2011	7.90%	12.40%	20.30%
2010 & 2011*	9.40%	10.90%	20.30%
2012	7.90%	12.40%	20.30%
2012*	11.15%	9.15%	20.30%

* For members whose annual salary is greater than \$20,000. Members with annual salary of \$20,000 or less, employers will contribute 12.40% in FY10 and 13.15% in FY11.

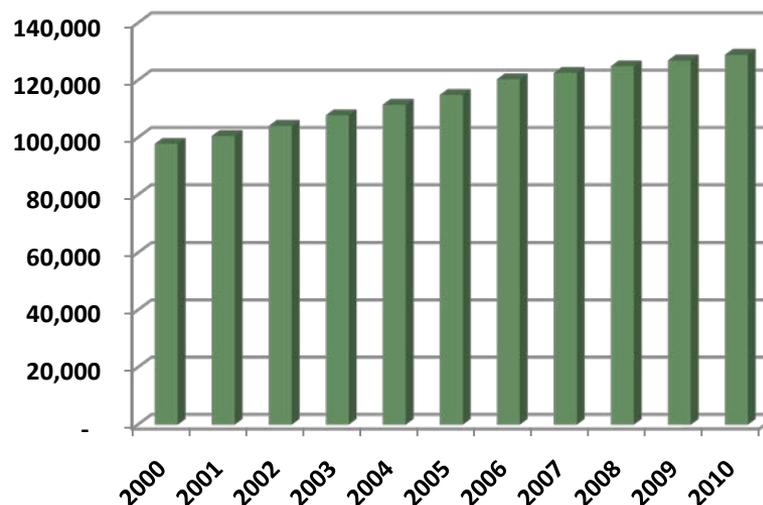
Retiree Payroll Compared to Employee/Employer Contributions

Fiscal Year	Total Contributions	Retiree Payroll	Difference
2000	\$ 295.9	\$ 312.4	\$ (16.5)
2001	\$ 315.2	\$ 339.2	\$ (24.0)
2002	\$ 328.6	\$ 363.9	\$ (35.3)
2003	\$ 337.9	\$ 397.8	\$ (59.9)
2004	\$ 355.6	\$ 425.2	\$ (69.6)
2005	\$ 371.0	\$ 459.2	\$ (88.2)
2006	\$ 408.5	\$ 504.0	\$ (95.5)
2007	\$ 449.6	\$ 547.8	\$ (98.2)
2008	\$ 496.2	\$ 586.0	\$ (89.8)
2009	\$ 538.8	\$ 626.6	\$ (87.8)
2010	\$ 560.9	\$ 659.3	\$ (98.4)
Total	\$ 4,458.2	\$ 5,221.4	\$ (763.2)

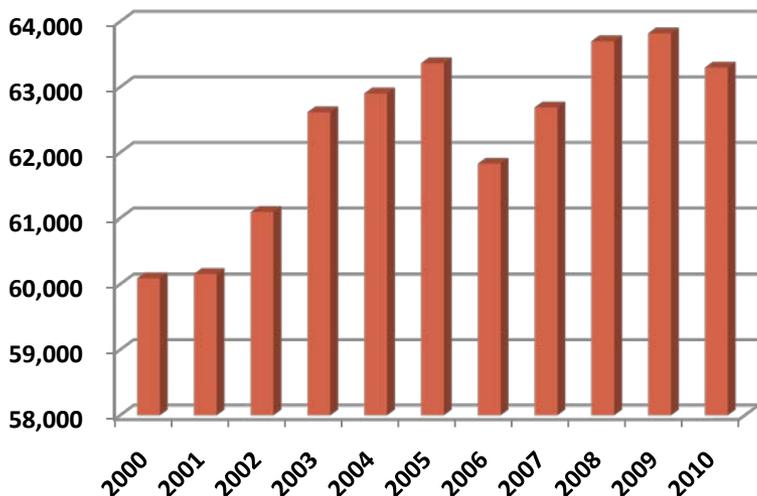
Membership Facts

- Employer Payroll has increased 61.65% from 2000 – 2010 (\$1,795.7 in 2000) to \$2,902.7 in 2010.
- Retiree Payroll has increased 111.2% from 2000 – 2010 (\$312.2 in 2000 to \$659.3 in 2010).
- Active members have increased 5.34% from 2000 – 2010 (60,090 in 2000 to 63,297 in 2010).
- Retired members have increased 59.30% from 2000 – 2010 (21,186 in 2000 to 33,749 in 2010).
- In 2000 there were 3 active members working for each retired member. In 2010 there are 2 active members working for each retired member.

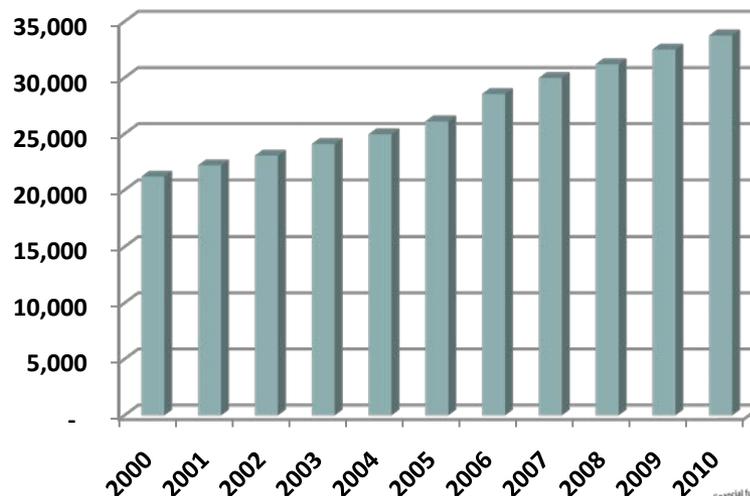
Total Membership: 2000 - 2010



Active Membership: 2000 - 2010



Retired Membership: 2000 - 2010



Membership

	2009	2010	2011
Active Members:	63,819	63,295	65,148 (est)
Retired Members:	32,496	33,747	35,165
Inactive Members:	30,574	31,836	32,764 (est)
Total:	126,889	128,878	

Payroll

	2009	2010
Active Member Payroll (billions) :	\$2,585.7	\$2,575.8
Annuitant Payroll (millions):	\$659.3	\$626.6
Total Contributions (millions):	\$538.8	\$566.8
Refunds (millions):	\$29.7	\$28.8

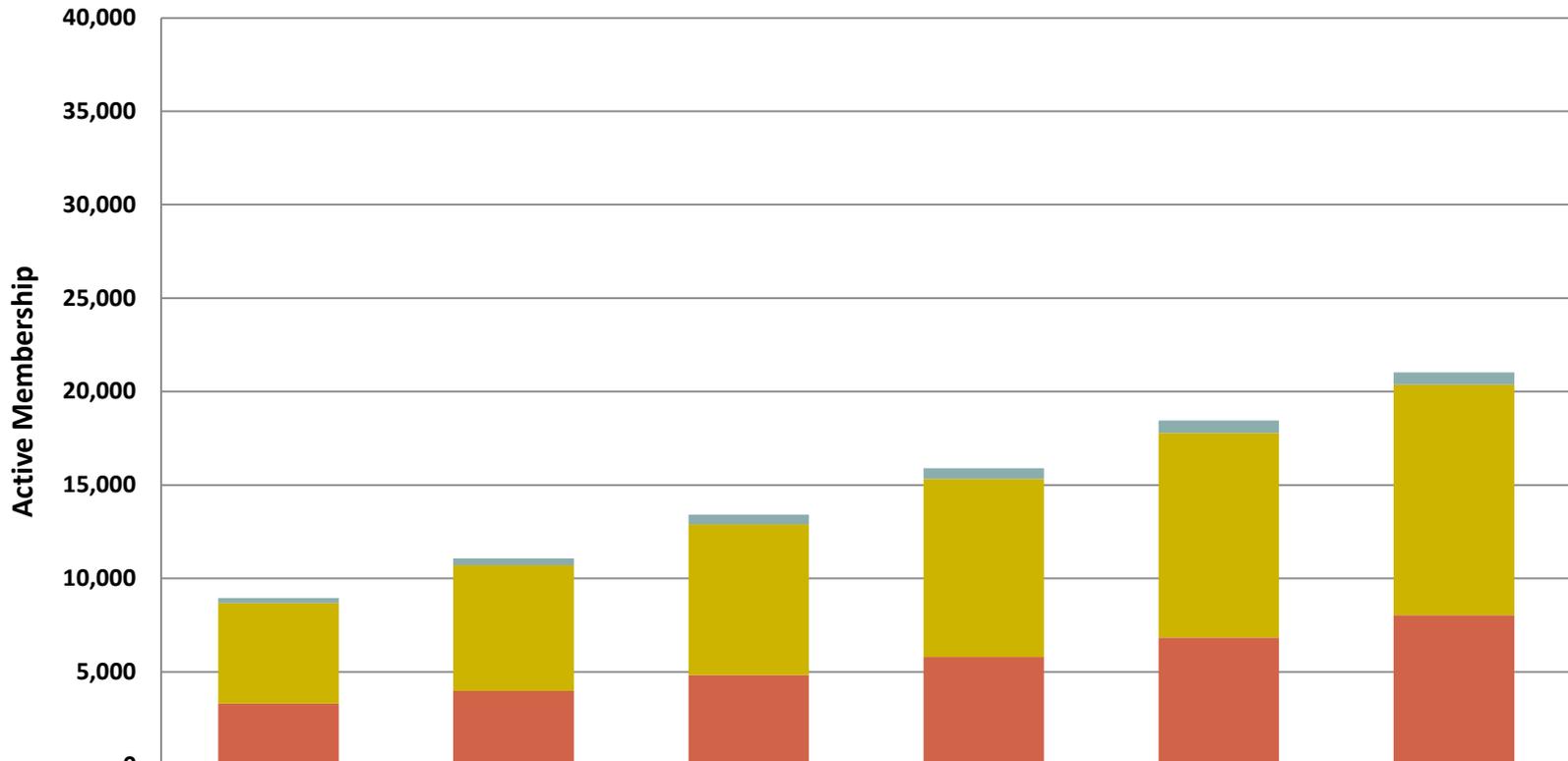
Contributions

	2009	2010
Member Contributions:	\$215.1	\$253.6
Employer Contributions:	\$319.0	\$309.0
ARP Contributions:	\$4.7	\$4.2
Total:	\$538.8	\$566.8

Demographics

	Active Members	Service Retirees
Average Age:	46.5	59.0 (at retirement)
Average Service:	9.7	28.0
Average Salary/Pension:	\$40,695	\$20,320

Retirement Projections: 2010 - 2015



	2010	2011	2012	2013	2014	2015
Rule of 65	272	381	511	567	662	642
Rule of 75	5,379	6,725	8,072	9,539	10,950	12,342
Rule of 25	3,305	3,972	4,828	5,798	6,833	8,039

Total No. Eligible to Retire	8,956	11,078	13,411	15,904	18,445	21,023
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% of Active Membership	14.15%	17.50%	21.19%	25.13%	29.14%	33.21%
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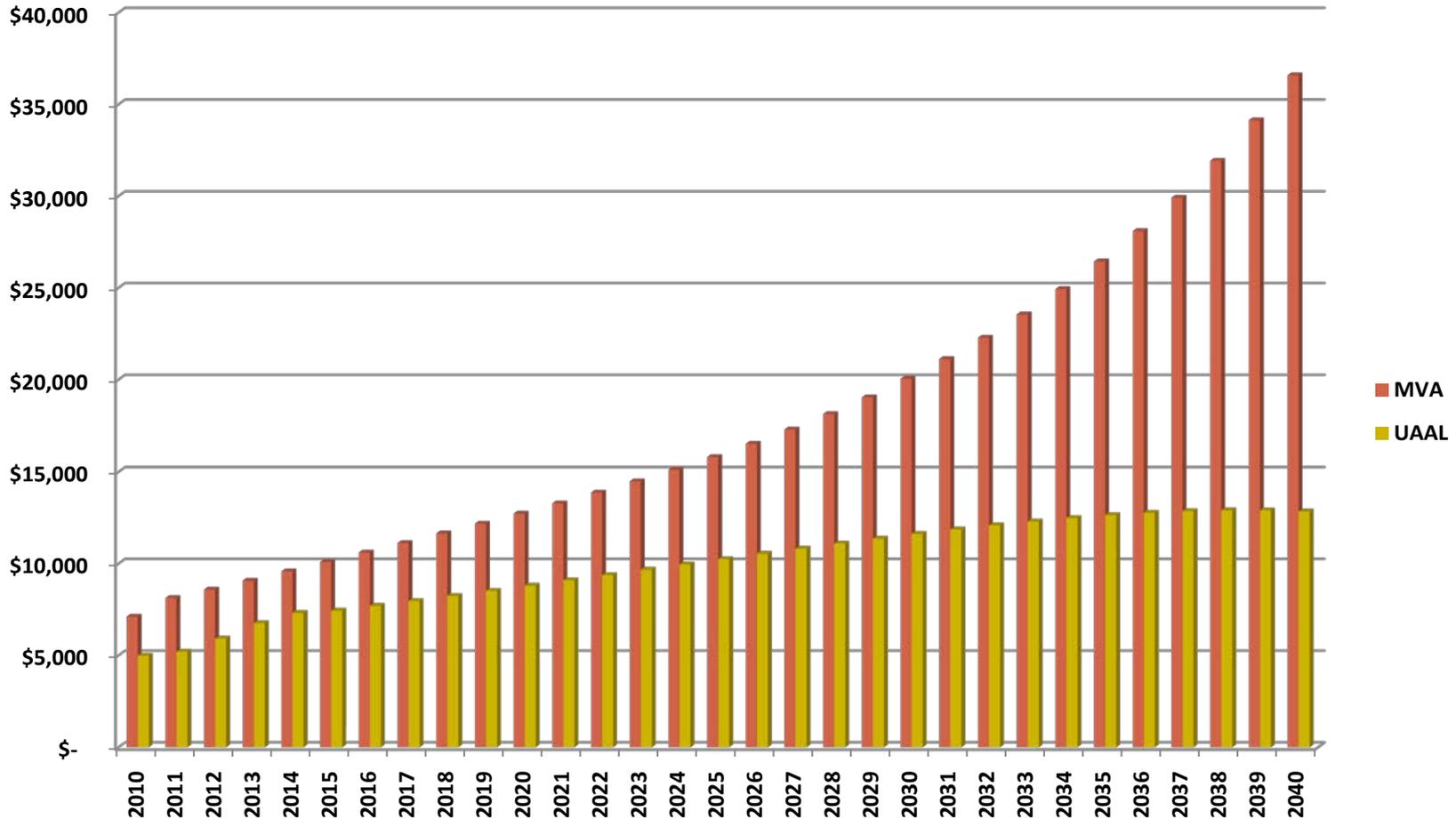
WHERE ARE WE?

Actuarial Experience Study as of June 30, 2010 Summary of Recommendations and Estimated Impact

- ✓ Decrease investment return assumption to 7.75%
 - *UAAL increases by \$473 million and funded ratio decreases from 65.7% to 63.6%*
- ✓ Revisions to post-retirement mortality
- ✓ Changes to retirement rates at ages 65 to 69 and with 25 or more years of service
- ✓ Decrease salary scale for members with at least 10 years of service from 5.00% to 4.75%
- ✓ Change to individual entry age normal cost funding method
 - *Normal cost rate increases from 12.48% to 14.09%*
- ✓ Change the population growth assumption to 0.75% per year (no impact on valuation results)

The ERB board voted to accept these recommendations at the April 2011 board meeting.

Actuarial Market Value of Assets (MVA) vs. Unfunded Actuarial Accrued Liability (UAAL)



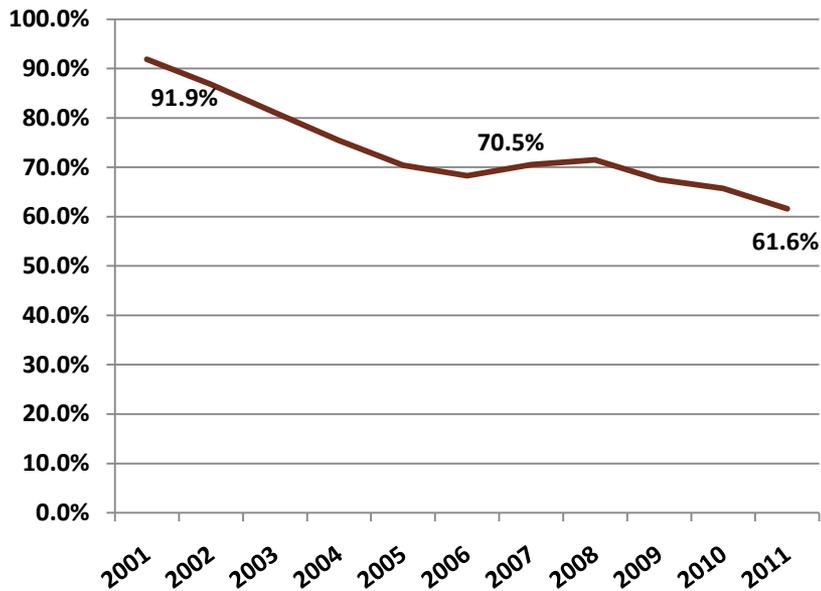
At the April 2011 board meeting the board voted to decrease the investment return assumption to 7.75%, down from 8.00%. As a result the 2010 Unfunded Actuarial Accrued Liability (UAAL) has increased by \$473 million, bringing the total UAAL for 2010 to \$4,990 million. The funded ratio also decreased from 65.7% to 63.6%.

* Dollar amounts are in millions

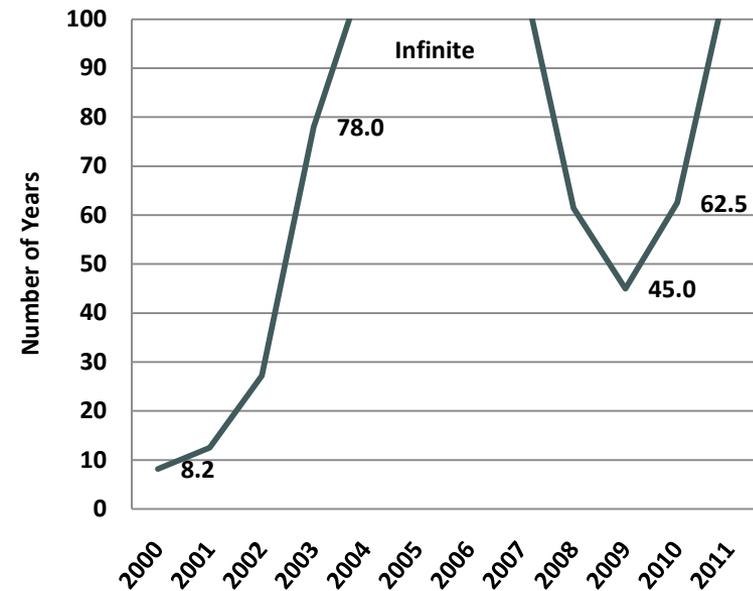
Funded Ratio & Funding Period

- The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is estimated to be 61.6% in 2011. Five years ago the ratio stood at 70.5%. The ratio reached an all time high in 2001 at 91.9%. It began to decrease as the negative investment experience in the 2001 – 2003 fiscal years was phased into the actuarial value of assets. Without any changes the funded ratio will never hit 80%.
- The funding period, also known as the amortization period should not exceed 30 years. ERB's current funding period is estimated to be infinite.

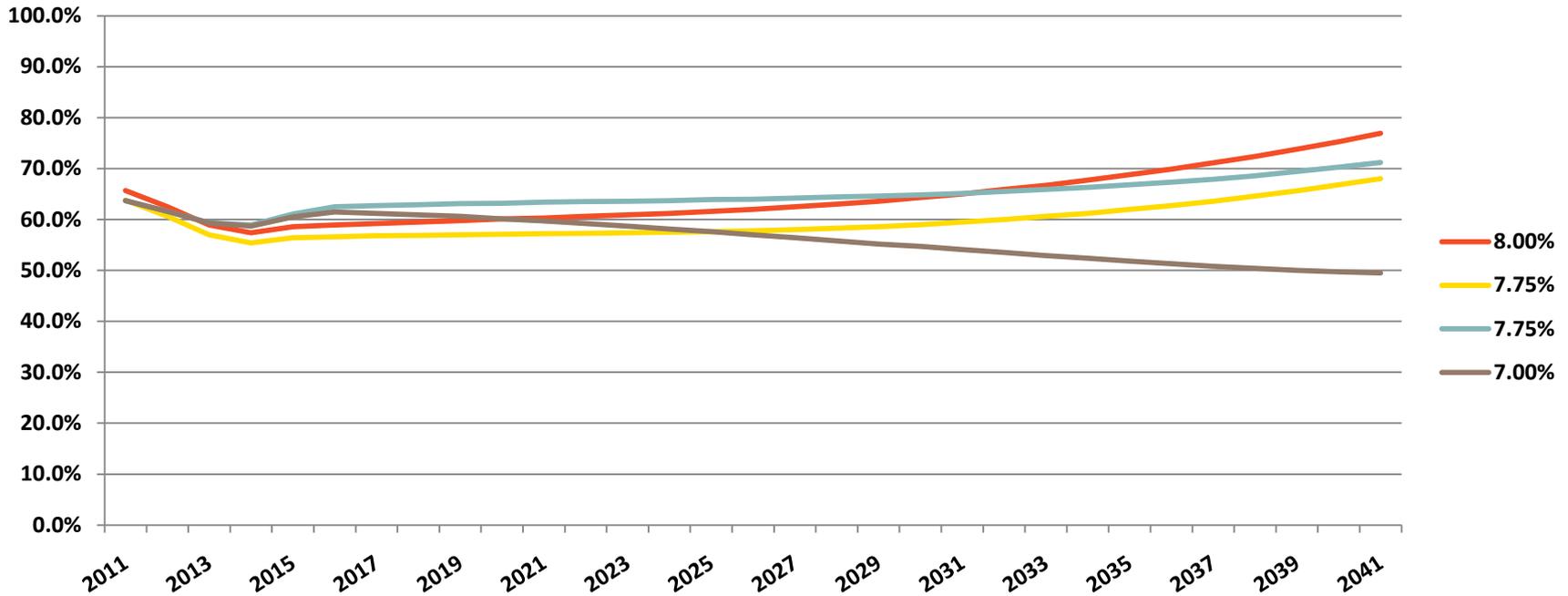
Funded Ratio: 2001 - 2011



Funding Period: 2001 - 2011



Funding Ratio Based on Various Proposals



Scenarios Evaluated

8% (SB91) – Assumes 8.00% market return with shift in contribution rates based on SB91 from 2005 Session

7.75% (SB91) - Assumes 7.75% market return with shift in contribution rates based on SB91 from 2005 Session

7.75% (HB628) – Assumes 19.55% market return for 2011 and 7.75% market return through 2041 with shift in contribution rates based on HB 628 from 2011 Session

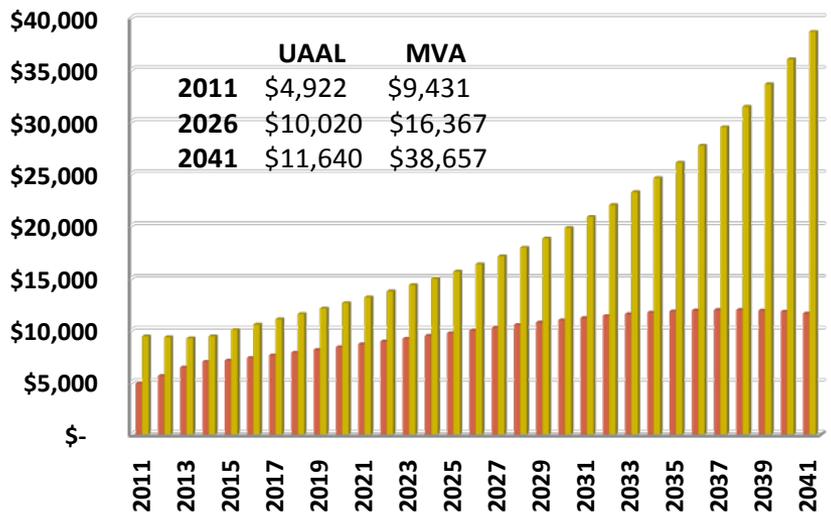
7.00% (HB628) - Assumes 19.55% market return for 2011 and 7.00% market return through 2041 with shift in contribution rates based on HB 628 from 2011 Session

SB91 – Employer contribution rate is 13.15% in 2012 and 13.90% in 2013, member contribution rate drops to 7.90% in 2012.

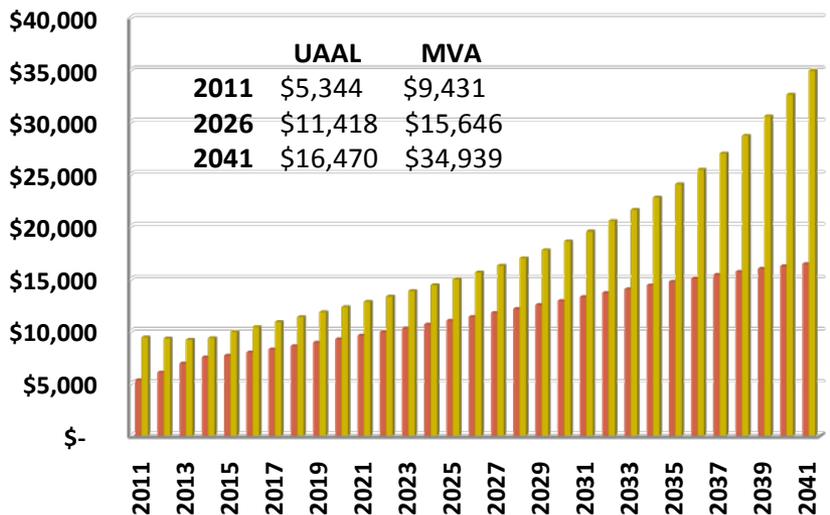
HB628 – Employer contribution rate reaches 13.15% in 2014 and 13.90% in 2015, Member contribution rate is 11.15% in 2012 and 2013 and drops to 7.90% in 2014.

No scenario reaches GASB standard of 80% funding.

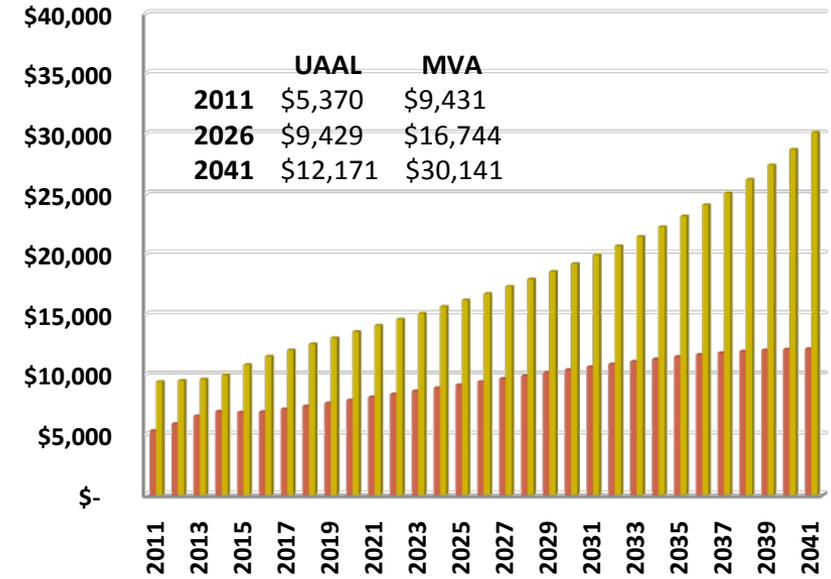
8.00% (SB91)



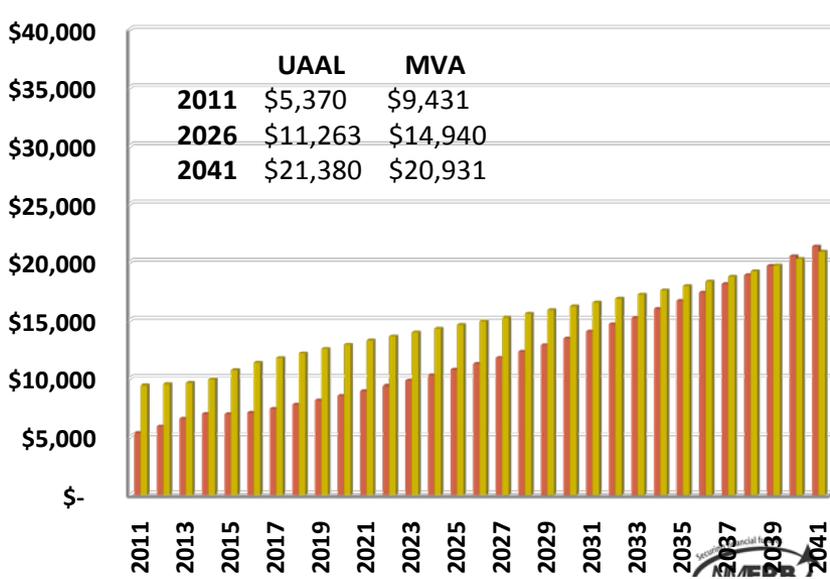
7.75% (SB91)



7.75% (HB628)



7.00% (HB628)



PLAN DESIGN CHANGES

Pension Reform in Other Systems

- **Change the Minimum Retirement Age** – the minimum retirement age is the age an individual can retire and receive full benefits. In New York the minimum retirement age has been increased from 55 to 62 for new employees. ERB does not currently have a minimum retirement age.
- **Cap Pension Benefits** – Part of the Illinois pension reform capped the maximum pension amount at \$106,800 (FICA Wage Limit) and the payout is based on their highest salary based on their highest salary during eight consecutive years of the last ten. ERB does not currently cap pension benefits and the payout is based on the final average salary over the highest twenty consecutive quarters.
- **Increase contributions to the fund** – Montana is reviewing increases in employee and employer contributions. Currently employees pay 6.9% of their salaries while employers pay 7.17%. Over a six year period rates would increase to 12.9% for employees and 13.17% for employers. ERB is in the process of phasing in employee and employer contribution increases which will result in an increase of employee contributions from 7.60% in FY05 to 7.90% in FY09 and employer contributions will increase from 8.65% to 13.90% by FY13. It should be noted that for FY12 employees earning more than \$20,000 are contributing 11.15% and the employer is contributing 9.15%.
- **Reduce Actuarial Assumed Rate of Return** – Utah reduced its investment assumption from 8% to 7.75% while Pennsylvania lowered its assumption from 8.5% to 8%. ERB's investment assumption rate is currently 7.75%.

Pension Reform in Other Systems

- **Update Benefit Formula** – New employees in Nevada will have their annual pension benefits calculated using a 2.5% multiplier, down from 2.67%. The multiplier for ERB is currently 2.35%.
- **Cost of Living Adjustment (COLA)** – Georgia passed a law that ends COLAs for new employees when they retire. The COLA for ERB is currently based on changes to the Consumer Price Index (CPI) and on average is 2%. For FY11 no COLA was given since CPI was negative. The FY12 COLA is 1.6%. ERB retirees are not eligible for a COLA until they reach age 65.
- **Shift to Defined Contribution (DC) Plans** – Alaska and Michigan have exchanged the defined benefit approach for defined contribution. Michigan did so in 1997 and Alaska in 2005. Recent losses in individual employees portfolios have prompted a number of bills in Alaska to repeal the decision. A recent study by the National Institute on Retirement Security has determined that the cost to deliver the same level of retirement income to a group of employees is 46% lower in a defined benefit plan than it is in a DC plan. The characteristics of the two plans are detailed on page 3 of this presentation.

Last Year's Plan

- Sustainable Retirement Benefits
- Maintain equity among members with different start dates
- Share burden with current and future members
- Be on a path to actuarial soundness:
 - 80% funding period
 - Amortize UAAL within 30 years
- Not reduce benefits for current retirees

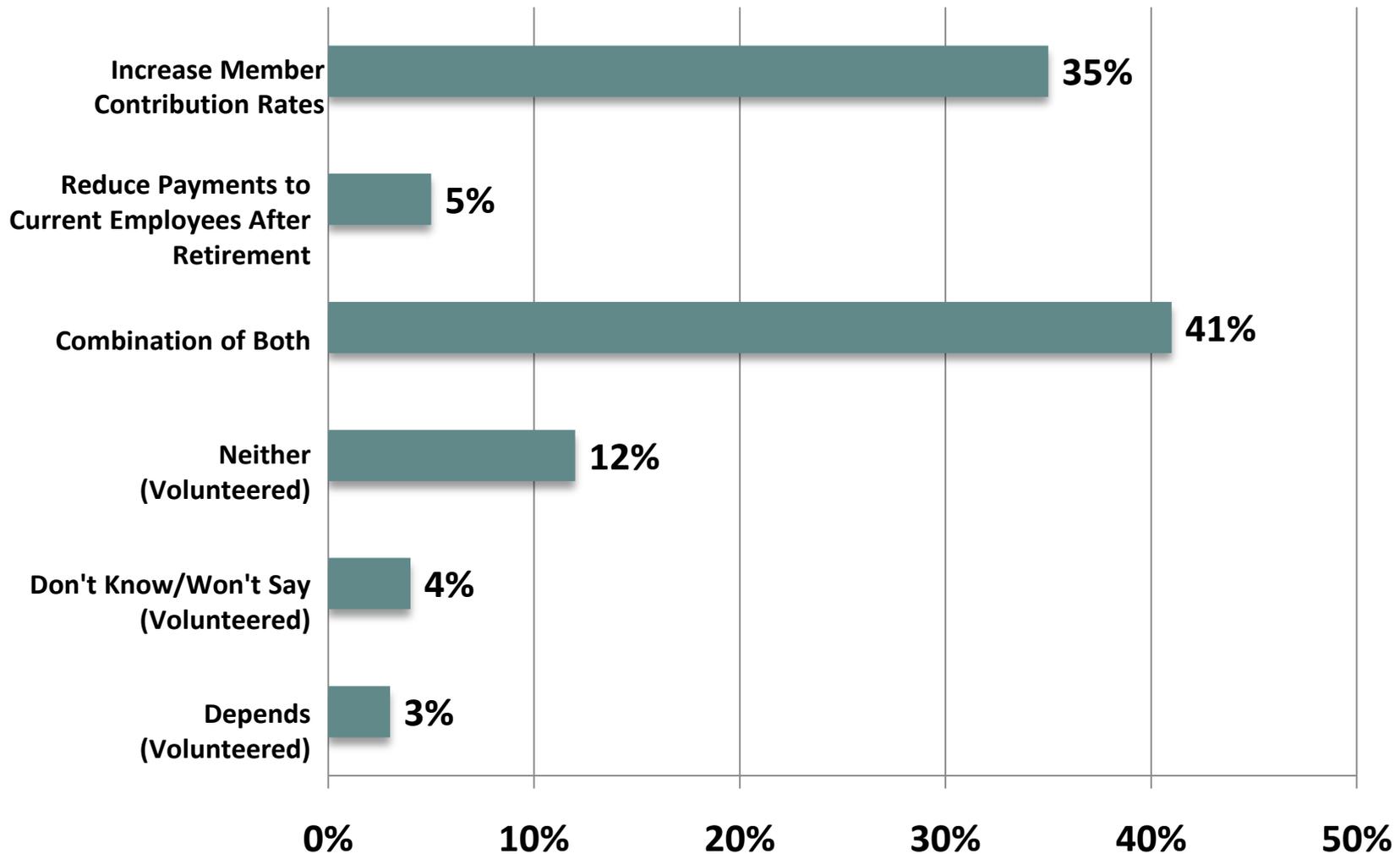
Process previously used

- Board hired Research & Polling, Inc., to survey active members in the fall of 2010
- Survey conducted in the week beginning October 30th
- ERB staff provided R&P with contact numbers for 4,000 active members selected randomly
 - 400 members were randomly polled
- Members were asked their opinions on components of plan design

Research & Polling, Inc., Survey

- Questions:
 - Increase member contributions
 - Increase Final Average Salary (FAS) calculation from 5 years to 7 years
 - Minimum age for unreduced benefits
 - Reduce COLA for current workers
 - Change Multipliers
 - Decrease
 - Incentives for longevity

Preferred Option to Increase Soundness of the ERB Fund



Survey Results

- Members are willing to:
 - Increase current member contribution by 0.5%
 - Change FAS from 5 years to 7 years
 - Minimum age of 60 for unreduced benefits
 - Create multipliers increasing with years of service
 - Minimum retirement age of 60 for *ANY* retirement benefits
- Members are divided on:
 - Increase current member contribution by 1.0%
- Members are not willing to:
 - Reduce multiplier for future service
 - Reduce COLA when current workers retire

Additional information on ERB's 2010 Plan Design Process can be found at:

<http://www.nmerb.org/planchanges.htm>

At the direction of the Board, the staff is currently working with Gabriel Roeder Smith & Company, our actuarial consultant, to examine the impact of combinations of various plan element changes and assumption factors. The results will then be presented to the Board.

The plan elements being reviewed include:

- Multiplier
- Member/Employer contributions
 - GRS has been asked to look at increasing ee contribution to 9.9% and er to 13.9%, consistent with the Board's recommendation last year
- Final Average Salary – 5/7yr or average of entire time
- Minimum Retirement Age
- COLA
- Vesting period to 10 years