## Legislative Education Study Committee

Representative Dennis Roch, Chair
Senator John Sapien, Vice Chair
Friday, October 14, 2016

## Educational Retirement Trends and Fund Sustainability <br> Jan Goodwin, Executive Director Rick Scroggins, Deputy Director

Mary Lou Cameron, Board Chair
H. Russell Goff, Board Vice Chair

## Highlights

Average monthly retirement benefit in FY 2016 2,432 retirees was \$1,926 (\$23,112 annual)

The ERB pension replaces 58.75\% of pre-retirement income for members with 25 years' service credit

Total benefits paid in FY 2016 were $\$ 981.8$ million

## Retirement Trends

## Retirements by Fiscal Year

FY12
FY13
FY14
FY15
FY16

14

## Retirement Trends, continued

## NMERB's retirement eligibilities

## Tier 1

- Began employment before July 1, 2010
- 25 \& out; Rule of 75; 65 \& 5

Tier 2

- Began employment on or after July 1, 2010 and before July 1, 2013
- 30 \& out; Rule of 80; 67 \& 5

Tier 3

- Began employment on or after July 1, 2013
- 30 \& out; Rule of 80; 67 \& 5


## Retirement Trends, continued

Median Age at Retirement


## Retirement Trends, continued

Retirees by Year

$\square 25$ \& Out $\quad$ Rule of $75 \square 65$ \& 5

## Retirement Trends, continued



NEW MExico
 RETREARENT

## Retirement Trends, continued



## Life Expectancy for the General US Population - from Age 65



Since 2010, life expectancies continue to increase. The latest published rates (2012) are 20.5 years for females and 17.9 years for males, both from age 65.

NEW MEXICO


## Mortality Rates by State



Source: National Vital Statistics

## Retirement Trends, continued

Average Age At Death
Healthy Retirees

|  | Male | Female |
| :--- | :---: | :---: |
|  | 81.1 | 81.9 |
| 2007 | 80.8 | 83.9 |
| 2008 | 80.0 | 82.9 |
| 2009 | 81.0 | 81.8 |
| 2010 | 80.8 | 83.7 |
| 2011 | 80.1 | 83.1 |
| 2012 | 80.1 | 82.8 |
| 2013 | 80.6 | 82.6 |
| 2014 | 80.7 | 82.3 |
| 2015 | 80.9 | 82.2 |

" there is not a noticeable trend in the average age at death over the past 10 years for the healthy retirees. On average, healthy male retirees died at age 80.7 over the past 10 years and healthy female retirees died at age 82.3. There is a smaller percentage of the retirees that are dying each year, but the average age at death over the past 10 years has hovered around the same age. Over a longer period of time, we would obviously expect to see the average age increase. . ."
R. Ryan Falls, F.S.A., E.A., M.A.A.A.

Senior Consultant \& Actuary
Gabriel Roeder Smith \& Company

## Expected Retirements




|  | \# | \% of Active | Tier 1 <br> Total \% |
| :---: | :---: | :---: | :---: |
| Can retire now-end of FY16 | 8,581 | 14.28\% | 14.28\% |
| K-12 | 5,765 | 9.59\% | $9.59 \%$ |
| University | 2,656 | 4.42\% | 4.42\% |
| Other | 160 | 0.27\% | 0.27\% |
| Meet qualification by end of FY17 | 2,000 | 3.33\% | 17.61\% |
| K-12 | 1,477 | 2.46\% | 12.05\% |
| University | 489 | 0.81\% | 5.23\% |
| Other | 34 | 0.06\% | 0.32\% |
| Meet qualification by end of FY19 | 3,983 | 6.63\% | 24.24\% |
| K-12 | 2,924 | 4.87\% | 16.92\% |
| University | 999 | 1.66\% | 6.90\% |
| Other | 60 | 0.10\% | 0.42\% |
| Meet qualification by end of FY21 | 3,928 | 6.54\% | 30.77\% |
| K-12 | 2,912 | 4.85\% | 21.76\% |
| University | 955 | 1.59\% | 8.49\% |
| Other | 61 | 0.10\% | 0.52\% |
| Meet qualification by end of FY26 | 8,815 | 14.67\% | 45.45\% |
| K-12 | 6,693 | 11.14\% | 32.90\% |
| University | 1,999 | 3.33\% | 11.81\% |
| Other | 123 | 0.20\% | 0.73\% |


| \# | \% of Active | Tier 2 \& 3 Total \% | TOTAL\% |
| :---: | :---: | :---: | :---: |
| 77 | 0.13\% | 0.13\% | 14.41\% |
| 44 | 0.07\% | 0.07\% | 9.67\% |
| 30 | 0.05\% | 0.05\% | 4.47\% |
| 3 | 0.00\% | 0.00\% | 0.27\% |
| 121 | 0.20\% | 0.33\% | 17.94\% |
| 76 | 0.13\% | 0.20\% | 12.25\% |
| 42 | 0.07\% | 0.12\% | 5.35\% |
| 3 | 0.00\% | 0.01\% | 0.33\% |
| 456 | 0.76\% | 1.09\% | 25.33\% |
| 301 | 0.50\% | 0.70\% | 17.62\% |
| 149 | 0.25\% | 0.37\% | 7.26\% |
| 6 | 0.01\% | 0.02\% | 0.44\% |
| 725 | 1.21\% | 2.29\% | 33.07\% |
| 474 | 0.79\% | 1.49\% | 23.25\% |
| 238 | 0.40\% | 0.76\% | 9.25\% |
| 13 | 0.02\% | 0.04\% | 0.57\% |
| 1,881 | 3.13\% | 5.43\% | 50.87\% |
| 1,237 | 2.06\% | 3.55\% | 36.45\% |
| 610 | 1.02\% | 1.78\% | 13.59\% |
| 34 | 0.06\% | 0.10\% | 0.83\% |

## Sustainability

ERB Active and Retirees
FY01-FY16
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## Net Cash Flow Defined

- Retirement plans generally have contributions coming in and benefits being paid out
- The net (non-investment) cash flow is the difference between (1) contributions and (2) benefits and expenses
- These cash flows will be different for each plan since all plans have different plan provisions, membership characteristics and contribution policies


## Net Cash Flow Defined

$$
\begin{aligned}
& \text { Net Cash Flow }=\mathrm{C}-\mathrm{B}-\mathrm{E} \\
\mathrm{C}= & \text { Contributions } \\
\mathrm{B}= & \text { Benefits Paid } \\
\mathrm{E}= & \text { Administrative Expenses }
\end{aligned}
$$

- If $\mathrm{C}-\mathrm{B}-\mathrm{E}$ is negative $=$ Negative Cash Flow
- If $\mathrm{C}-\mathrm{B}-\mathrm{E}$ is positive $=$ Positive Cash Flow
- Younger plans tend to have positive cash flows, whereas older, more mature plans may have negative cash flows.


## Sustainability, continued

## ERB Negative Cash Flow



NMERB



## Net Cash Flow Impact

When assessing the impact of cash flow on a pension plan, it is important to remember why a pension plan has assets -- TO PAY BENEFITS

So just because a plan has negative cash does not necessarily imply it is in trouble

In fact, some would say that the primary purpose of pre-funding is so the investment return can pay a significant portion of the benefit payments

## Net Cash Flow Impact on Liquidity

The real issue with negative cash flow has to do with whether the plan has enough liquidity to make all the required benefit payments without changing its investment portfolio to one comprised of a larger percentage of short term (cash generating) investments

## Sustainability, continued

New Mexico Educational Retirement Board

## Total Fund Asset Growth Summary

Market Value History
Since NEPC began tracking performance, October 1, 2005 thru June 30, 2016


|  | Last Three <br> Months | Year-To-Date | One Year | Three Years | Five Years | Since <br> 10/1/05 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\$ 11,145,741,106$ | $\$ 11,110,179,629$ | $\$ 11,416,629,337$ | $\$ 10,123,852,370$ | $\$ 9,513,175,807$ | $\$ 7,694,652,364$ |
| Beginning Market Value | $-\$ 74,216,554$ | $-\$ 162,801,840$ | $-\$ 351,495,583$ | $-\$ 966,321,930$ | $-\$ 1,567,850,568$ | $-\$ 2,787,166,762$ |
| Net Cash Flow | $\$ 295,077,077$ | $\$ 419,223,841$ | $\$ 301,467,876$ | $\$ 2,09,071,190$ | $\$ 3,421,276,391$ | $\$ 6,459,116,028$ |
| Net Investment Change | $\$ 11,366,601,630$ | $\$ 11,366,601,630$ | $\$ 11,366,601,630$ | $\$ 11,366,601,630$ | $\$ 11,366,601,630$ | $\$ 11,366,601,630$ |
| Ending Market Value |  |  |  |  |  |  |

## Sustainability, continued

Benefit Payments, Contributions and Net Assets (in millions \$)


## Return vs. 7.75\% Target

## NMERB Fiscal Year Returns

Net of Fees


## Recruiting and Retaining Teachers

159 teachers retained each year solely due to the defined benefit plan
\$1.6 million saved in teacher turnover costs by the retention affect of the defined benefit pension

## Effect of salary increases

Current long-term assumption for salary increases:

- $3.75 \%$ for longer service members with at least 10 years' service
- $12.5 \%$ for members during first 10 years of employmentincludes merit increases

Salary increases benefit the fund- higher level of contributions

## Recruiting and Retaining Teachers, continued

Enhanced benefits for longevity
Social Security:

- Based on 35-year work history
- Higher income replacement for low wage earners
- Income replacement ranges from 30-90\%
- 2015 earnings cap \$118,000 NMERB:
- No cap on number of years worked
- All levels of wage earners have similar benefit
- 2015 earnings cap \$265,000
- No limit on income replacement


## Recruiting and Retaining Teachers, continued

## NMERB:

- Same multiplier for all years- 2.35\%

Arizona:

- Multiplier increases to encourage longevity
- 2.1\% first 20 years
- 2.15\% up to 25 years
- 2.2\% up to 30 years
- 2.3\% years past 30

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## Contribution Rate History



| SCHEDULE OF CONTRIBUTION RATES |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | wage category | Date Range | Member Rate | Employer Rate | Total | \% Employee Pays |
| 58-59 |  | 7/1/1957-6/30/1959 | 3.00\% | 4.00\% | 7.00\% | 42.86\% |
| 60-74 |  | 7/1/1959-6/30/1974 | 4.00\% | 6.50\% | 10.50\% | 38.10\% |
| 75-79 |  | 7/1/1974-6/30/1979 | 5.50\% | 6.50\% | 12.00\% | 45.83\% |
| 80-81 |  | 7/1/1979-6/30/1981 | 6.50\% | 6.50\% | 13.00\% | 50.00\% |
| 82-84 |  | 7/1/1981-6/30/1984 | 6.80\% | 6.80\% | 13.60\% | 50.00\% |
| 85-93 |  | 7/1/1984-6/30/1993 | 7.60\% | 7.60\% | 15.20\% | 50.00\% |
| 94-2005 |  | 7/1/1993-6/30/2005 | 7.60\% | 8.65\% | 16.25\% | 46.77\% |
| 2006 |  | 7/1/2005-6/30/2006 | 7.675\% | 9.40\% | 17.075\% | 44.95\% |
| 2007 |  | 7/1/2006-6/30/2007 | 7.75\% | 10.15\% | 17.90\% | 43.30\% |
| 2008 |  | 7/1/2007-6/30/2008 | 7.825\% | 10.90\% | 18.725\% | 41.79\% |
| 2009 |  | 7/1/2008-6/30/2009 | 7.90\% | 11.65\% | 19.55\% | 40.41\% |
| $\begin{gathered} 2010 \& \\ 2011 \end{gathered}$ | \$20k or less | 7/1/2009-6/30/2011 | 7.90\% | 12.40\% | 20.30\% | 38.92\% |
| $\begin{gathered} 2010 \& \\ 2011 \end{gathered}$ | Over \$20K | 7/1/2009-6/30/2011 | 9.40\% | 10.90\% | 20.30\% | 46.31\% |
| 2012 | $\begin{gathered} \$ 20 \mathrm{k} \text { or } \\ \text { less } \end{gathered}$ | 7/1/2011-6/30/2012 | 7.90\% | 12.40\% | 20.30\% | 38.92\% |
| 2012 | Over \$20K | 7/1/2011-6/30/2012 | 11.15\% | 9.15\% | 20.30\% | 54.93\% |
| 2013 | \$20k or less | 7/1/2012-6/30/2013 | 7.90\% | 12.40\% | 20.30\% | 38.92\% |
| 2013 | Over \$20K | 7/1/2012-6/30/2013 | 9.40\% | 10.90\% | 20.30\% | 46.31\% |
| 2014 | $\begin{gathered} \$ 20 \mathrm{k} \text { or } \\ \text { less } \end{gathered}$ | 7/1/2013-6/30/2014 | 7.90\% | 13.15\% | 21.05\% | 37.53\% |
| 2014 | Over \$20K | 7/1/2013-6/30/2014 | 10.10\% | 13.15\% | 23.25\% | 43.44\% |
| 2015 | \$20k or less | 7/1/2014 - future | 7.90\% | 13.90\% | 21.80\% | 36.24\% |
| 2015 | Over \$20K | 7/1/2014 - future | 10.70\% | 13.90\% | 24.60\% | 43.50\% |

## Questions



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