

# Kansas Public Employees Retirement System

Senate Ways and Means Committee

January 29, 2013

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Senate Ways and Means Committee  
Date: 01-29-2013  
Attachment #: 1

# KPERS Overview

KPERS is a fiduciary providing retirement, disability and survivor benefits to our members and their beneficiaries with a 97-member staff.

Administers three statewide, defined benefit plans for public employees.

- Kansas Public Employees Retirement System
- Kansas Police and Firemen's Retirement System
- Kansas Retirement System for Judges

Partners with more than 1,500 state and local government employers.

- State of Kansas
- 286 school districts
- 105 counties
- 418 cities and townships
- Other employers include libraries, hospitals, community colleges and conservation districts

# KPERS Overview

Directed by Board of Trustees with 9 members:

**Gary Price**, Chairperson, Olathe  
Retired school administrator  
Board member since July 2009  
Elected member - school

**Chris Long**, Mission Hills  
President, Palmer Square Capital  
Board member since Sept 2011  
Appointed by the Governor

**Doug Mays**, Vice-Chairperson, Topeka  
Doug Mays & Associates, LLC, Kansas Government Affairs  
Board member since July 2011  
Appointed by the Speaker of the House

**Terry Matlack**, Shawnee  
Managing Director, Tortoise Capital Advisors, LLC  
Board member since May 2011  
Appointed by the Governor

**Lois Cox**, Manhattan  
Dir of Investments, Kansas State University Foundation  
Board member since August 2012  
Appointed by the Governor

**Lon Pishny**, Garden City  
Pishny Financial Services  
Board member since July 2005 and July 1999 – Sept 2003  
Appointed by the President of the Senate

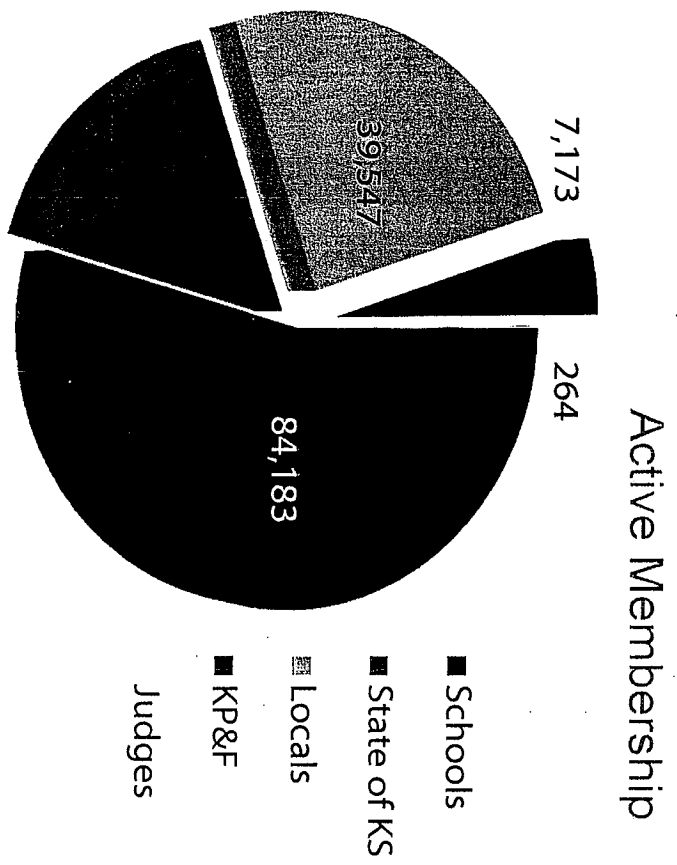
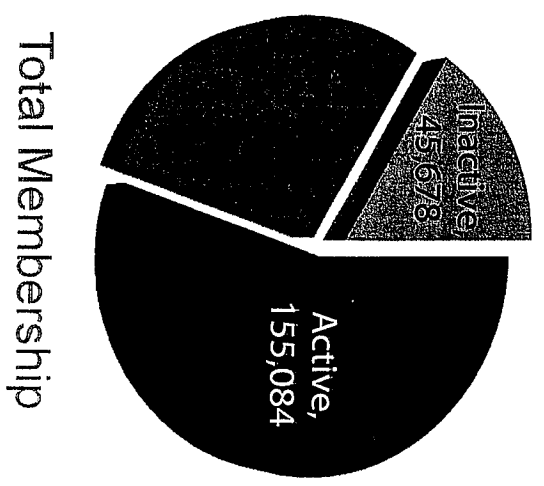
**Ron Estes**, Wichita  
Kansas State Treasurer  
Board member since Jan 2011  
Statutory member

**Vacant** - awaiting appointment  
Appointed by the Governor

**Ron Hagen**, Hutchinson  
Dir of Criminal Justice Program at Central Christian College  
Board member since July 2009  
Elected member - non-school (retired KBI)

# Who Are Our Members

- More than 281,000 members
- State of Kansas is largest single employer
- More than half of active members employed by school districts
- Nearly 90% of KPERS retirees are in Kansas



# Who Are Our Members

	KPERS	KP&F	Judges
Active members	147,647	7,173	264
Inactive members	44,266	1,405	7
Retirees	<u>75,997</u>	<u>4,315</u>	<u>215</u>
Total Membership	267,910	12,893	486
Average current age (active members)	45.58	39.56	58.08
Average years of service (active members)	11.25	11.66	12.57
Average age of retirees and beneficiaries	72.25	65.32	74.50
Average annual retirement benefit	\$12,690	\$27,696	\$37,367

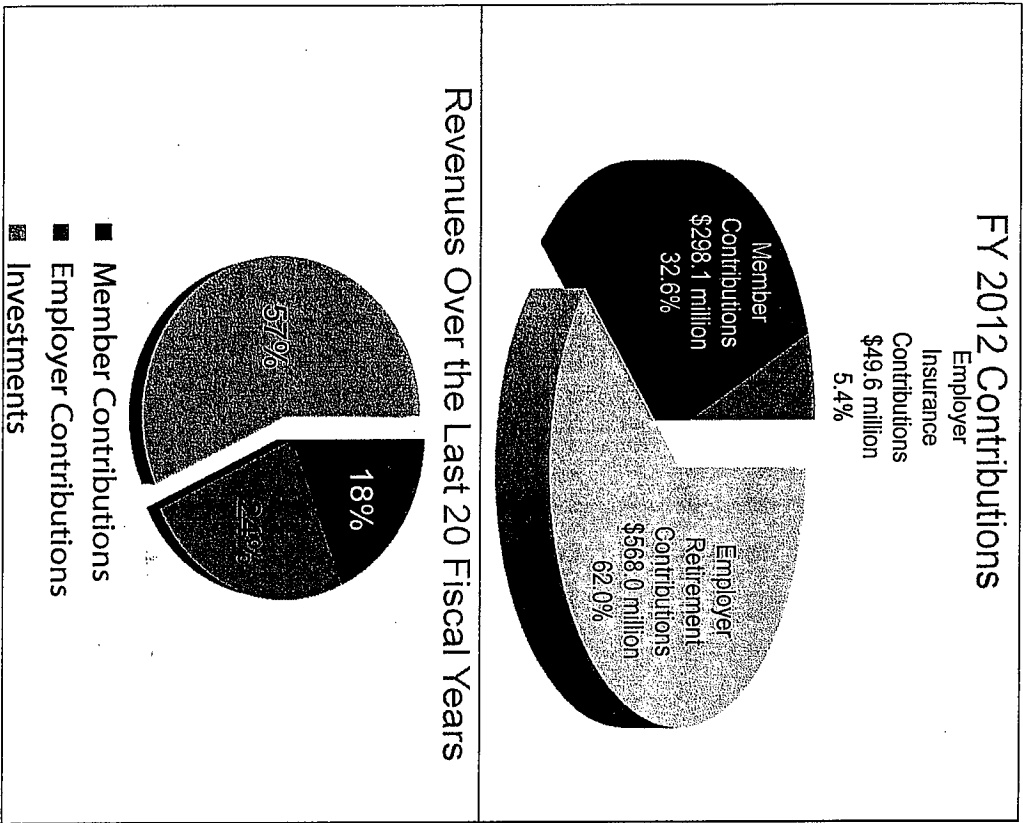
# How KPERS Works

- Legislature defines benefits and funding
  - membership eligibility
  - vesting
  - employee and employer contributions
  - benefit formula
  - service credit
  - retirement eligibility
- Actuary estimates how much benefits will cost
- Employers and members make contributions
- KPERS invests the money over time
- KPERS pays benefits with contributions + investment earnings
- KPERS is not like Social Security
  - Social Security utilizes contributions from current employees to pay the benefits of current retirees
  - KPERS benefits are “pre-funded”; current contributions are invested to pay benefits down the road

# How Benefits Are Funded

**Contributions + Investments – Expenses = Benefits**

- **Employee Contributions**
  - Tier 1 = 4% of pay
  - Tier 2 = 6% of pay
- **Employer Contributions**
  - % of pay set by annual actuarial valuation
  - Statutory cap on annual rate increase
  - State pays for state and school employees
- **Total Contributions for FY 2012:**  
**\$915.7 million**

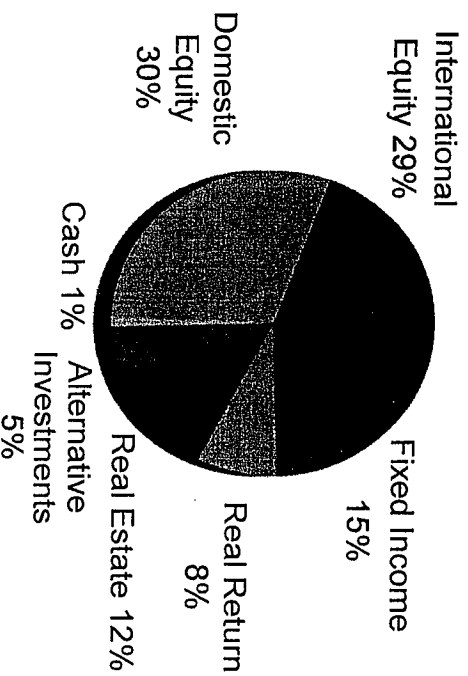


# How Benefits Are Funded

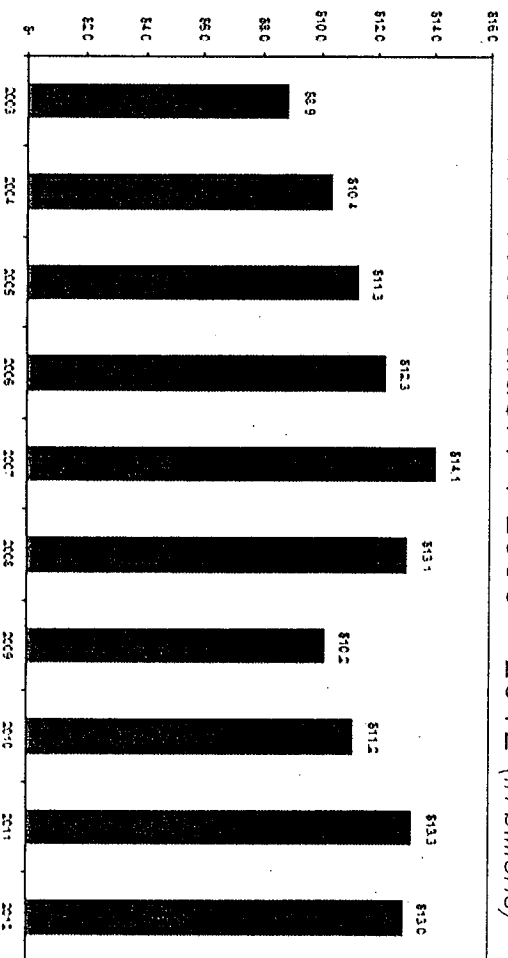
## Contributions + Investments – Expenses = Benefits

- Over the years, investment returns make up approximately 60.0 percent of revenues
- Staff of 8 internal investment professionals, over 100 years of combined experience
- 3 investment consultants and 33 investment managers
- Work together with disciplined, diversified and long-term investment approach
- Manage investment of more than \$13 billion of trust fund assets in the U.S. and international markets
- Use a target asset allocation

Target Asset Allocation



Net Asset Value: FY 2000 – 2012 (in billions)

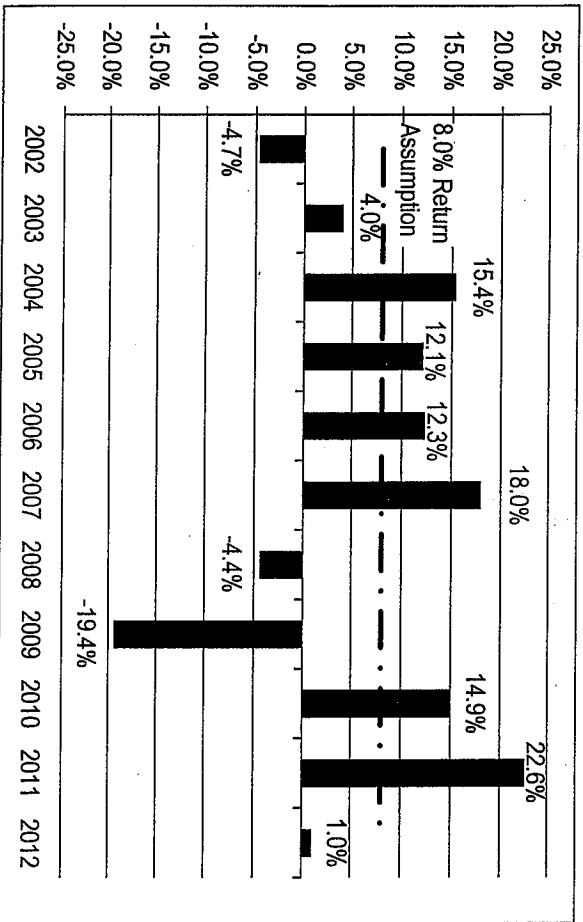




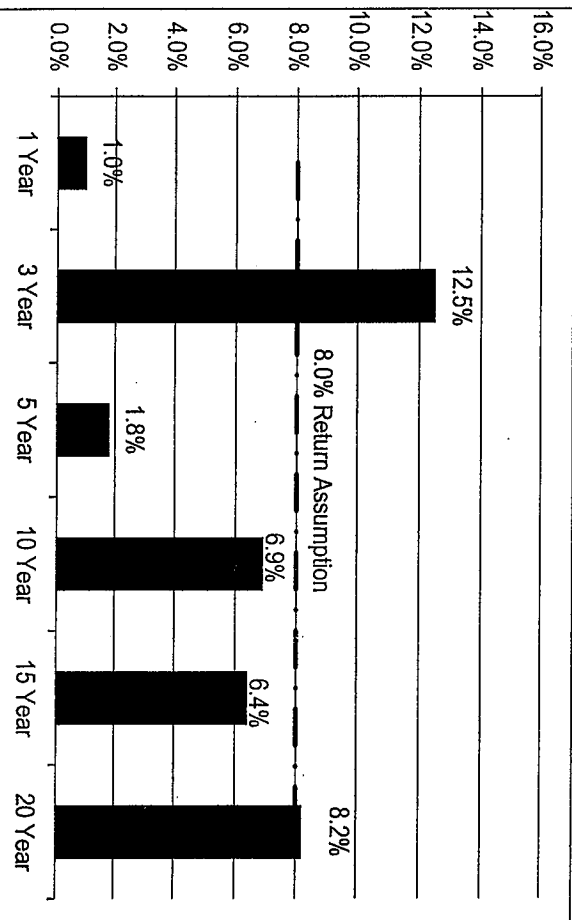
# How Benefits Are Funded

Contributions + Investments – Expenses = Benefits

- FY 2011 return, 22.6%
  - FY 2012 return, 1.0 %
  - FY 2013 return to-date, 6.0% (as of 11/30/12)
  - 8.0% long-term return assumption
  - Earned 8.0% over the last 25 years
- Total Returns by Fiscal Year



## Average Annual Return through 6/30/12



## How Benefits Are Funded

Contributions + Investments – Expenses = Benefits

- Total investment fees for FY 2012: \$29.4 million
  - 22 basis points on \$13.1 billion in assets
- Total benefit administration expenses for FY 2012: \$10 million

# How Benefits Are Funded

Contributions + Investments – Expenses = **Benefits**

- Final average salary x multiplier (1.75%) x years of service
- Lifetime retirement benefit and \$4,000 death benefit
- After about three years in retirement, most retirees begin receiving more in total benefits than they paid in contributions (if no lump-sum option)
- KPERS paid about **\$1.36 billion** in total benefits in FY 2012 (retirement, death benefits, disability benefits, withdrawals)

## Average member

Final average salary      \$40,000

Service                      20 years

Benefit                      \$14,000 a year

## Long-term member

Final average salary      \$40,000

Service                      30 years

Benefit                      \$21,000 a year



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# All in a Day's Work

## Fiscal year 2012 by the numbers

- 972,000 retirement benefit payments totaling over \$1.2 billion
- 41,500 beneficiary designations processed
- \$9.4 million in active member death benefits
- 10,000 members withdrew their contributions (\$50 million)
- \$24 million in benefits to 3,000 disabled employees
- 92,000 incoming calls (average wait time 11 seconds)
- 6,464 new retirees
- 13,000 e-mail requests
- 23,000 member enrollments and transfers

# Key 2011 Valuation Results

- The 12/31/11 actuarial valuation report incorporated a portion of the HB 2333 changes and some relatively minor changes in actuarial assumptions.
  - No Tier 3 members in this valuation since the cash balance plan doesn't take effect until 2015.
  - Therefore, the cash balance plan has no cost impact on this valuation.
  - Changes for Tier 1 and 2 members and the higher employer contribution increase caps had an impact on this valuation.
- The **UAL** for the System as a whole increased \$964 million –
  - Asset loss of \$852 million and liability gain of \$192 million
    - Due to smoothing, the asset loss still largely consists of 2008 losses.
      - \$902 million in deferred losses has yet to be recognized, except to the extent offset by favorable returns above 8%.
    - As a result, the actuarial value of assets remains above the market value.
      - The System's unfunded liability on a market value basis is \$10.1 billion.
- The System's **funded ratio** declined from 62.2% to 59.2%.

# Key 12/31/11 Valuation Measurements

Group	Contribution Rates*		Actuarial Funded Status	
	Actuarial Rate	Statutory Rate	Unfunded Actuarial Liability (in Millions)	Funded Ratio
State	10.80%	11.27%	\$1,122.8	71.3%
School	15.41%	11.27%	\$5,797.6	52.1%
Local	9.77%	8.84%	\$1,542.4	61.2%
KP&F	19.92%	19.92%	\$738.6	69.8%
Judges	22.59%	22.59%	\$26.8	82.5%
<b>System Totals</b>			<b>\$9,228.1</b>	<b>59.2%</b>

\*Effective for fiscal year beginning in 2014. (FY 2015 for State and School Groups, State KP&F employers, and Judges. CY 2014 for Local Group and Local KP&F employers.)

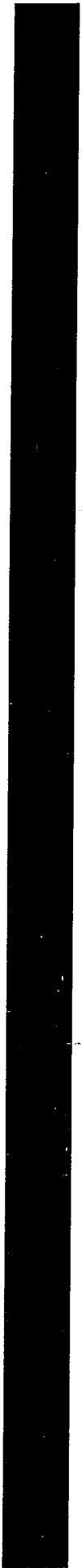
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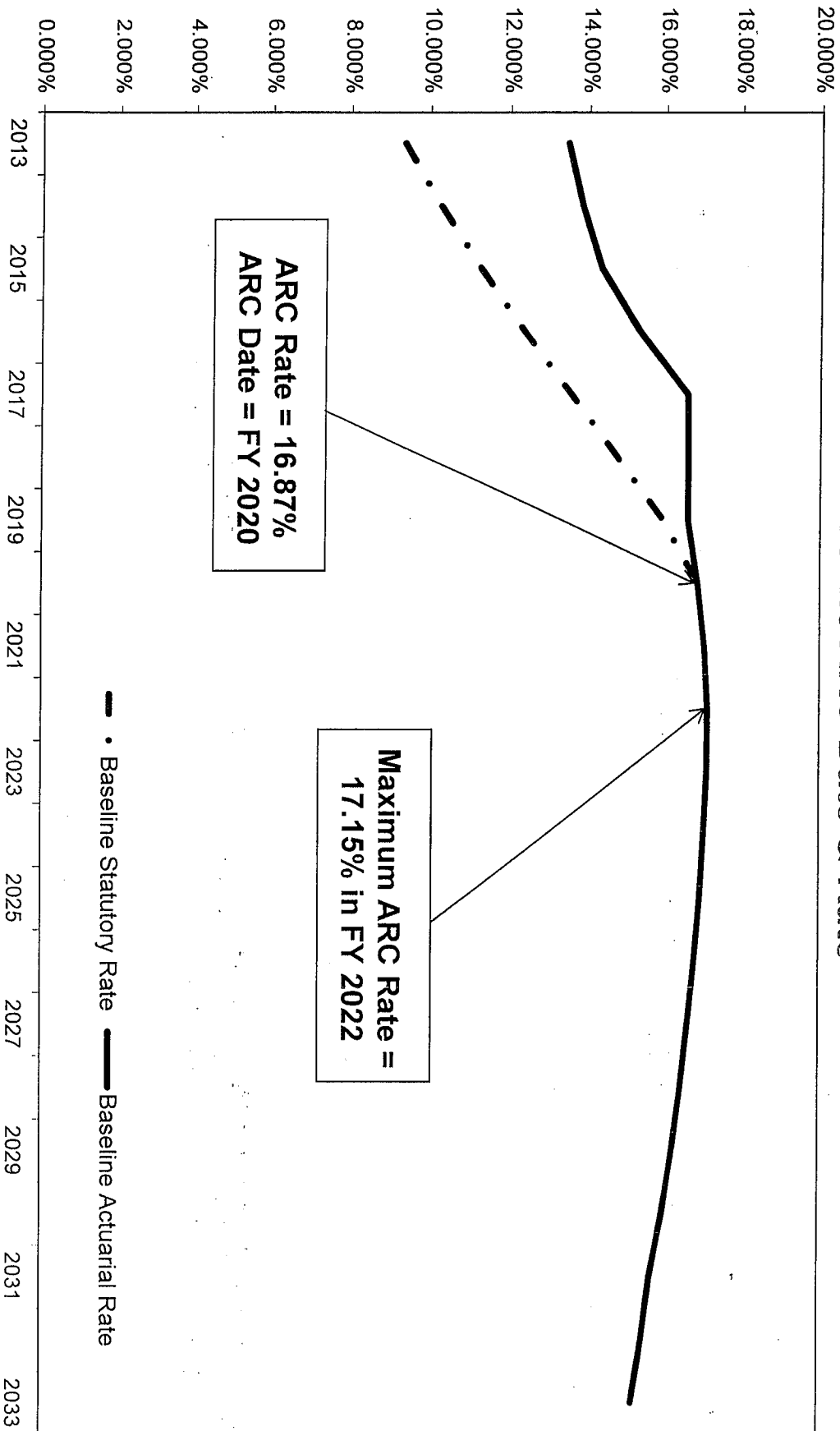
# Projections of Long-Term Funded Status

- KPERS' actuary models future trends in the System's long-term funding status, using the "snapshot" data in the valuation.
- Graphs for the KPERS State-School Group and Local Group follow, showing projections of their –
  - ARC rates and statutory rates
  - Unfunded actuarial liability
  - Funded ratios



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### State-School Group Baseline ARC Date & Rate



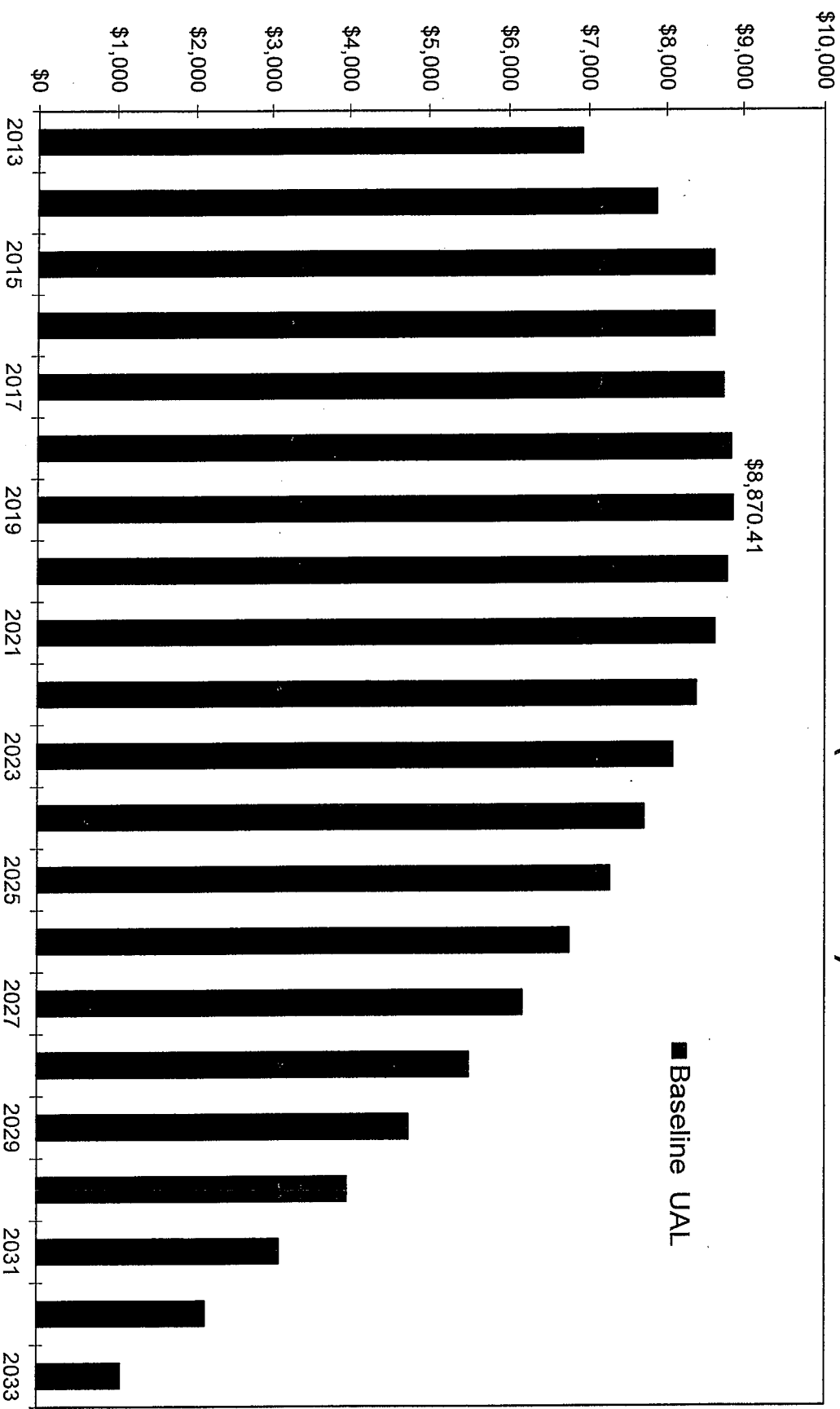
Fiscal Year Ending In...





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### State-School Group Baseline UAL (in millions)

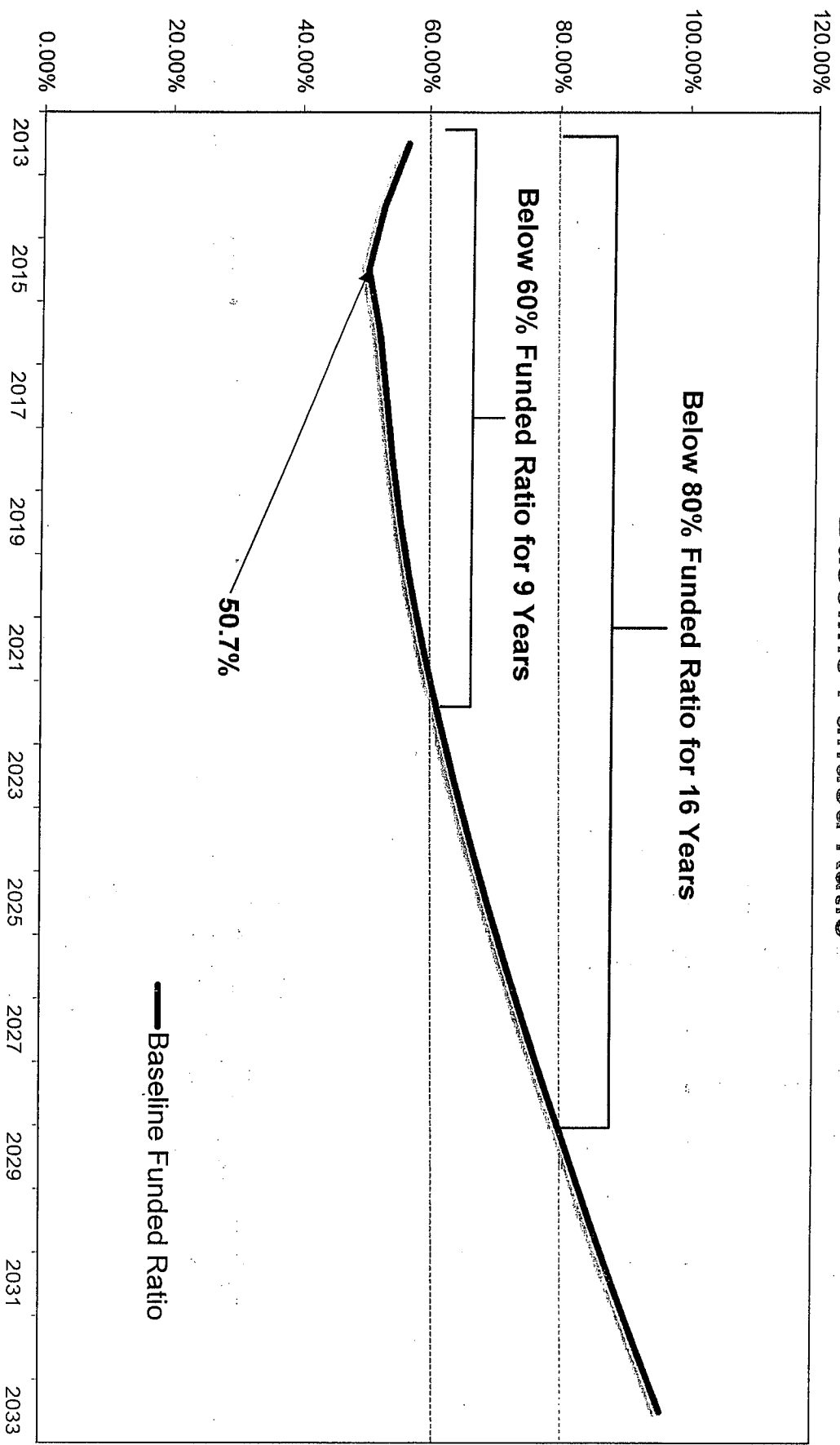


Fiscal Year Ending In...



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### State-School Group Baseline Funded Ratio

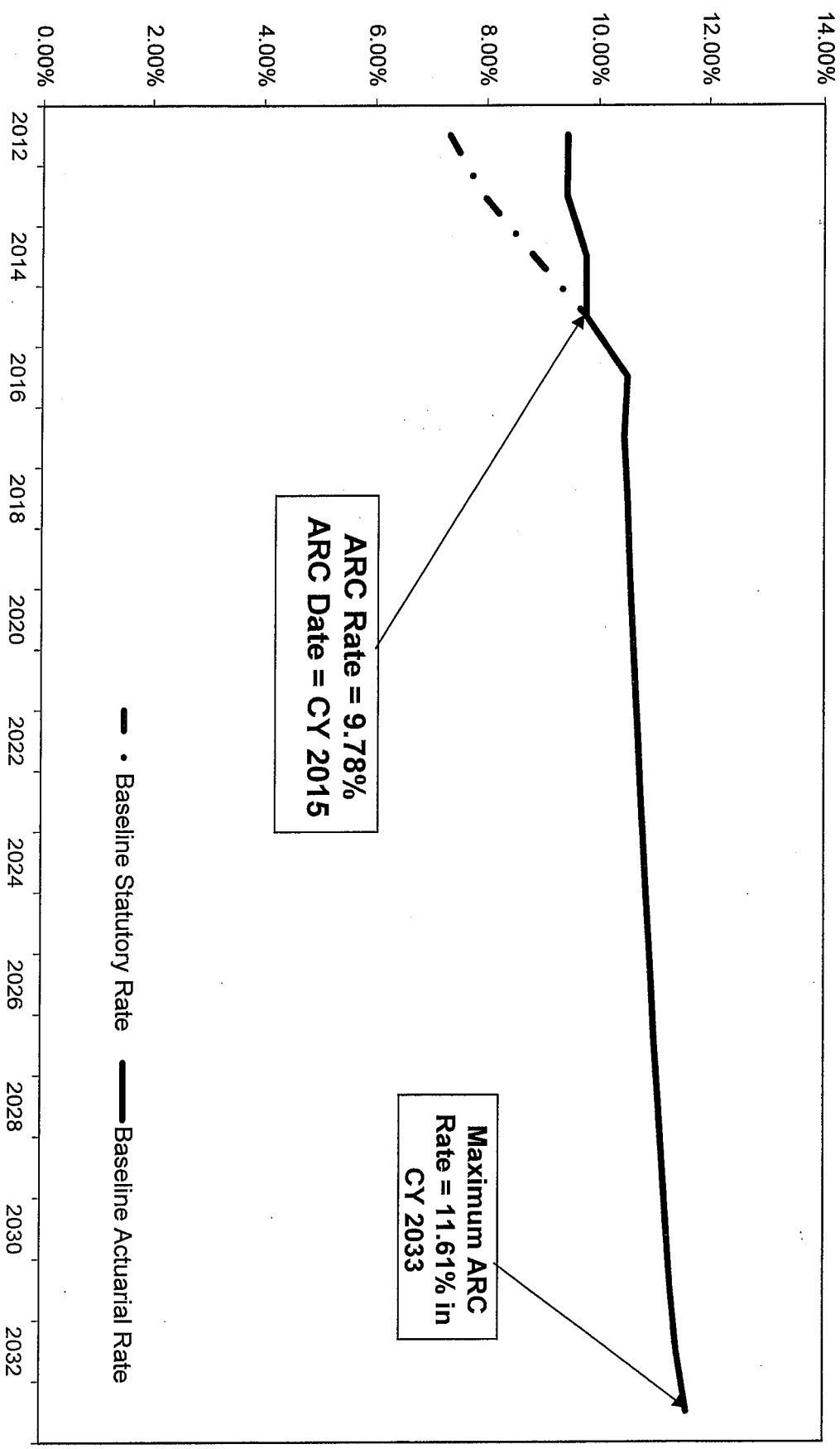


Fiscal Year Ending In...



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### Local Group Baseline ARC Date & Rate



ARC Rate = 9.78%  
ARC Date = CY 2015

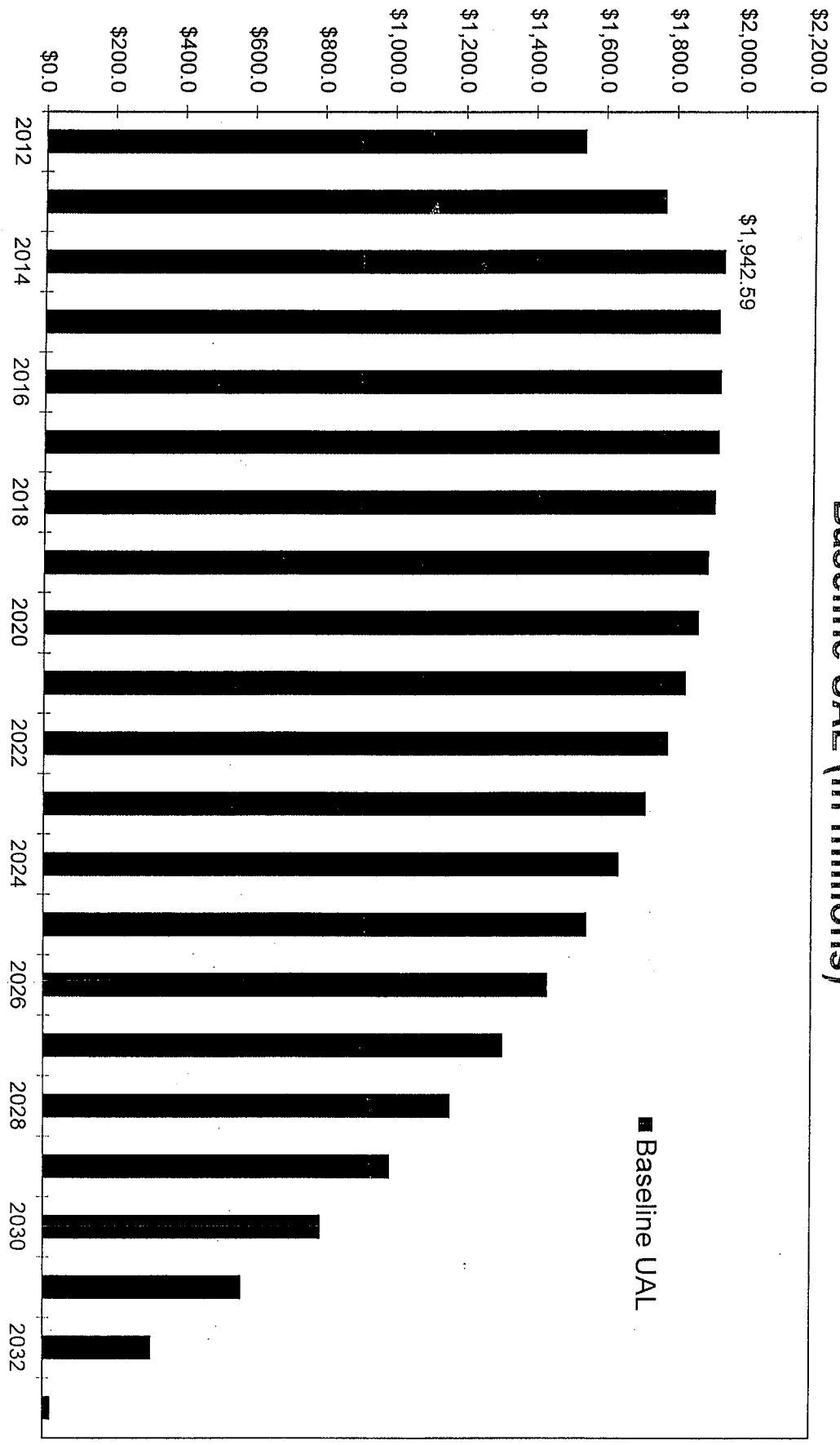
Maximum ARC  
Rate = 11.61% in  
CY 2033

--- • Baseline Statutory Rate    — Baseline Actuarial Rate

Calendar Year Ending In...



**Local Group  
Baseline UAL (in millions)**



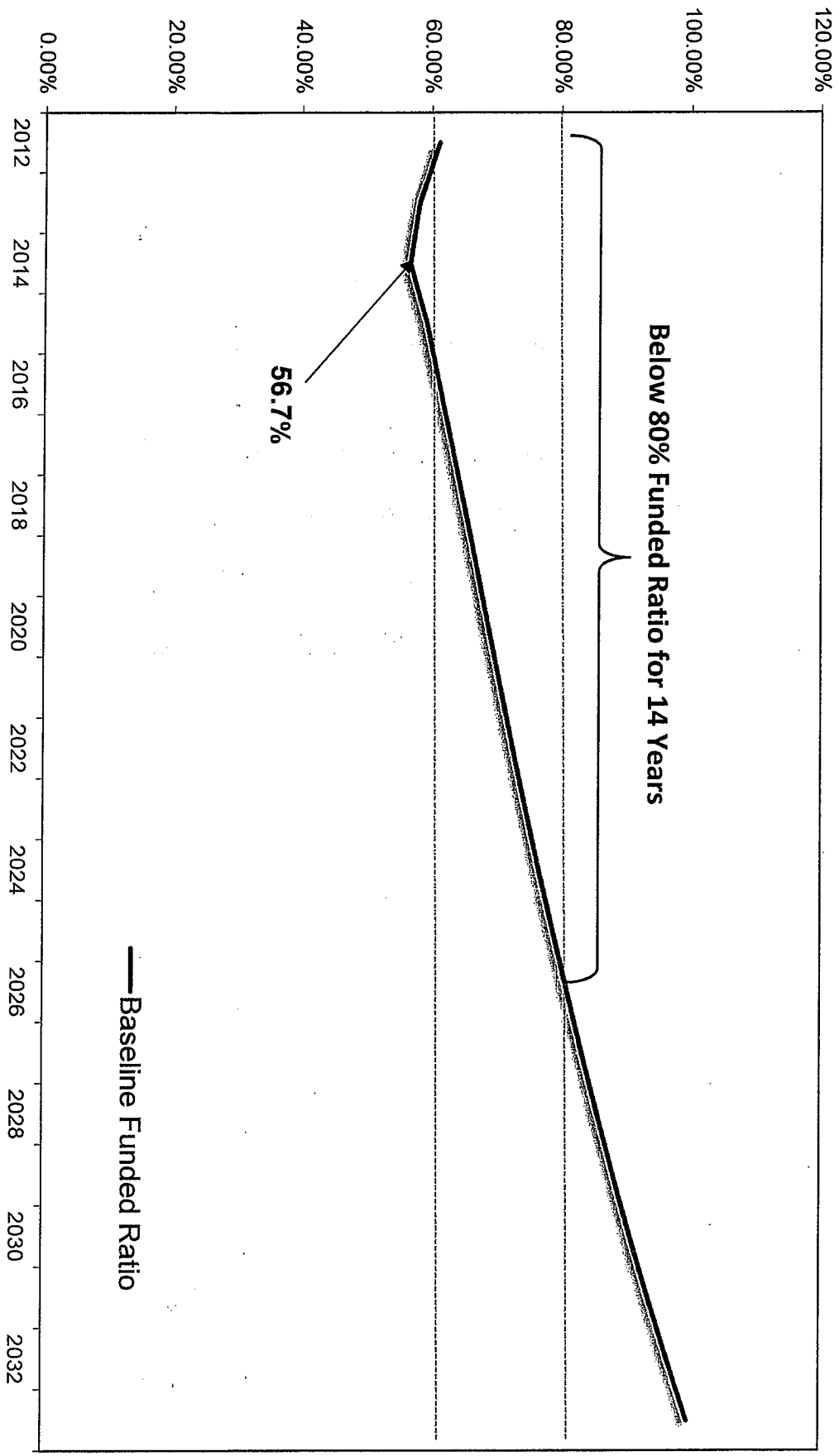
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Calendar Year Ending In...



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### Local Group Baseline Funded Ratio



Calendar Year Ending In...

# Employer Contributions

- A fundamental principle of sound funding for a defined benefit plan is to consistently pay the full ARC rate.
- Due to the 0.6% statutory cap on employer rate increase, there is a significant gap between KPERS' statutory and ARC rates.
  - In the current fiscal year, the statutory employer rate for the State/School Group is 70% of its ARC rate (9.37% statutory rate vs. 13.46% actuarial rate).
  - The Local Group's statutory rate is 84% of the ARC rate in CY 2013 (7.94% statutory rate vs. 9.43% actuarial rate).
- Last session's KPERS bill (2012 HB 2333) raises the cap on employer contribution increases, beginning FY 2014.
- As a result, employer contribution growth will accelerate.
  - State/School Group contributions are projected to increase by \$54 million from FY 2013 to FY 2014.
  - Between FY 2016 and FY 2017, the increase would be almost \$80 million.
- Accelerating employer contributions in the near term can help reduce contributions paid over the longer term.



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# State-School Group Employer Contributions

<u>Employer Contributions*</u>	<u>Baseline</u>	<u>Statutory Cap (in Millions)</u>
--------------------------------	-----------------	------------------------------------

FY 2013 Total Contributions	0.6%	\$411.51
FY 2014 Increase over Prior FY	0.9%	\$54.34
FY 2014 Total Contributions		\$465.84
FY 2015 Increase over Prior FY	1.0%	\$60.32
FY 2015 Total Contributions		\$526.16
FY 2016 Increase over Prior FY	1.1%	\$69.37
FY 2016 Total Contributions		\$595.53
FY 2017 Increase over Prior FY	1.2%	\$79.05
FY 2017 Total Contributions		\$674.58

\*All Funds

# KPERS' Long-Term Funding

- Over KPERS' 51-year history, the Legislature provided various benefit enhancements
- Made significant plan design changes in 1993
  - Common plan design features in most state defined benefit plans
    - Provided unreduced retirement under "Rule of 85"
    - Increased benefit formula multiplier to 1.75% for all service (from 1.4%)
  - Costs of the plan enhancements borne by employers
- Added statutory cap on employer contribution increases
  - Intended to make enhancements more affordable over short term
  - Statutory rate was expected to converge with actuarial rate within a short period
    - However, employer contributions remained below the actuarially required rate from that point forward
- Also adopted actuarial methods that lowered employer contributions in initial years, shifting cost of enhancements into the future.

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# Long-Term Funding

- These changes, along with later experience losses and other factors adversely affecting liabilities contributed to long-term funding issues that emerged in 2001-2002.
- By 2001 and 2002, actuarial projections indicated
  - The statutory rate would not reach the actuarial rate before the end of the amortization period in 2033.
  - The UAL had reached \$2.6 billion.
- KPERS began working with the Legislature to develop a plan to address the shortfall and bring the Plan into actuarial balance.

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# Factors Affecting the System's UAL

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## Historical Changes to System's UAL (1993-2011)

<b>Effect of Employer Contribution Cap/Lag</b>	\$3,095	37.5%
<b>Actuarial Methodology (Includes changes to fund benefit liabilities more rapidly)</b>	\$2,405	29.1%
<b>Changes in Assumptions/Demographic Experience</b>	\$1,500	18.2%
<b>Actual vs. Assumed Investment Returns</b>	\$1,477	17.9%
<b>Benefit Changes (after 1993)</b>	\$264	3.2%
<b>Bond Issue</b>	(\$481)	-5.9%
<b>Total</b>	\$8,260	100.00%

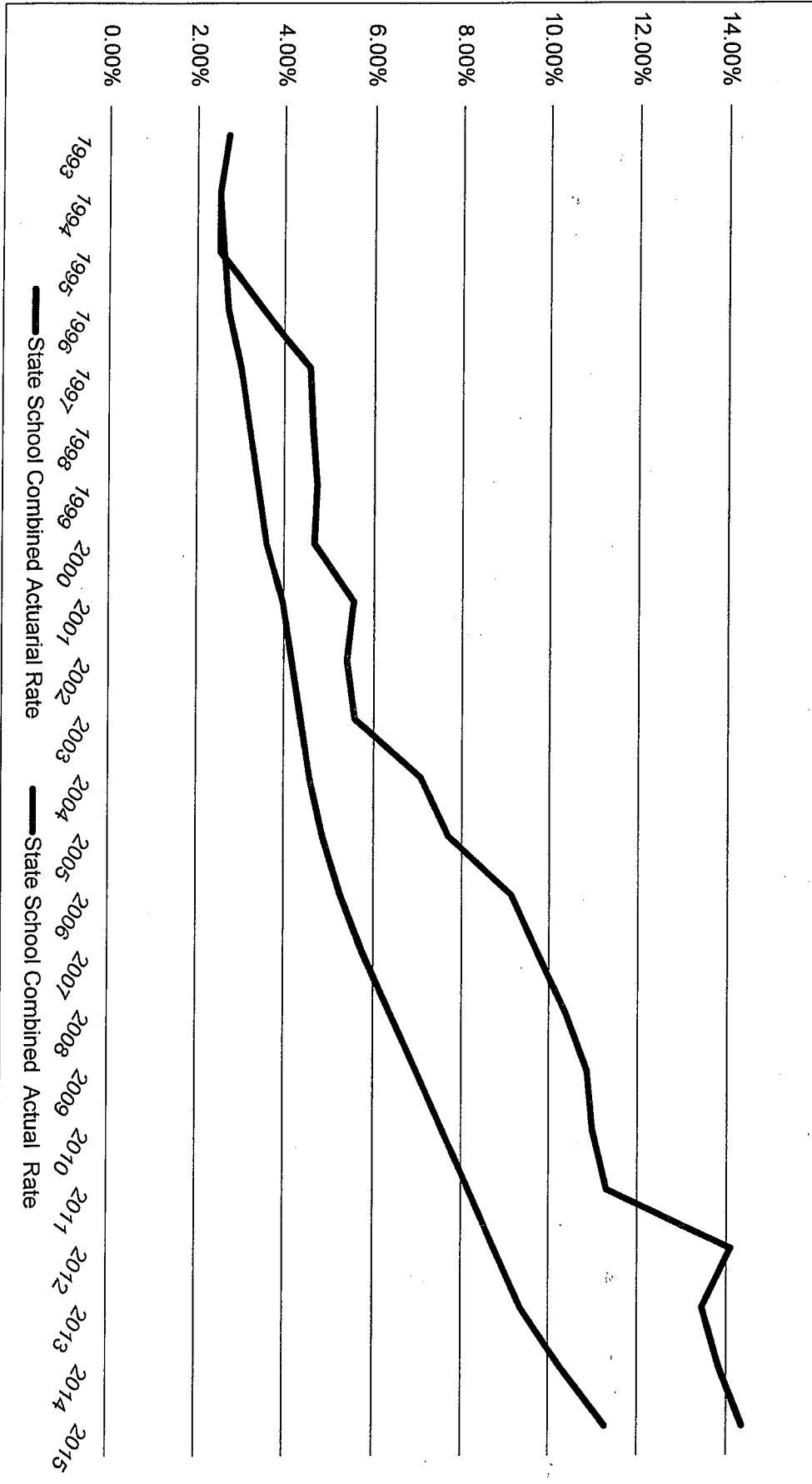
- Changes to actuarial methodology –
  - Provided greater stability in the System's ongoing cost
  - Funded benefit liabilities more rapidly, which is more a conservative approach.
- Changes in demographic assumptions (such as mortality and retirement rates) were made to better reflect actual experience over time
- Differences between actuarial assumptions and actual experience also may affect the UAL.



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# Employer Contribution Cap

State/School Group  
Actuarial Versus Statutory Rates: FY 1993-2015



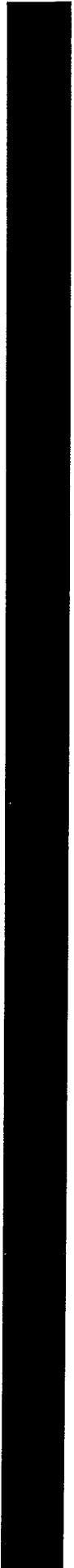


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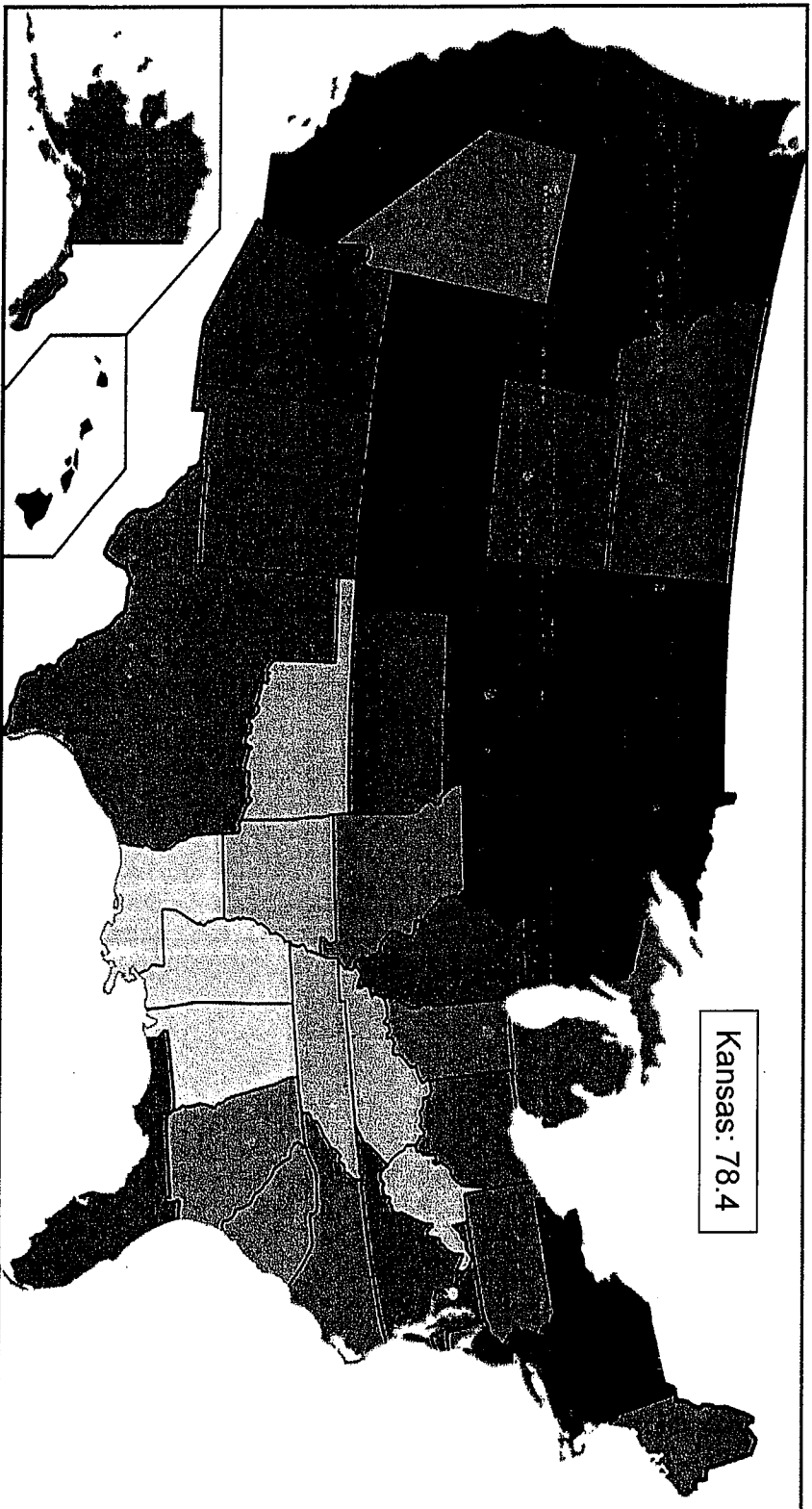
# Changes in Assumptions/Demographics

Changes to actuarial assumptions affect the Unfunded Actuarial Liability

- Retirement Rates
  - Length of career
  - Early retirement
  - Eliminating the Rule of 85
- Payment selections
  - Total number of partial lump sum payments
- Mortality
  - Life expectancy is increasing



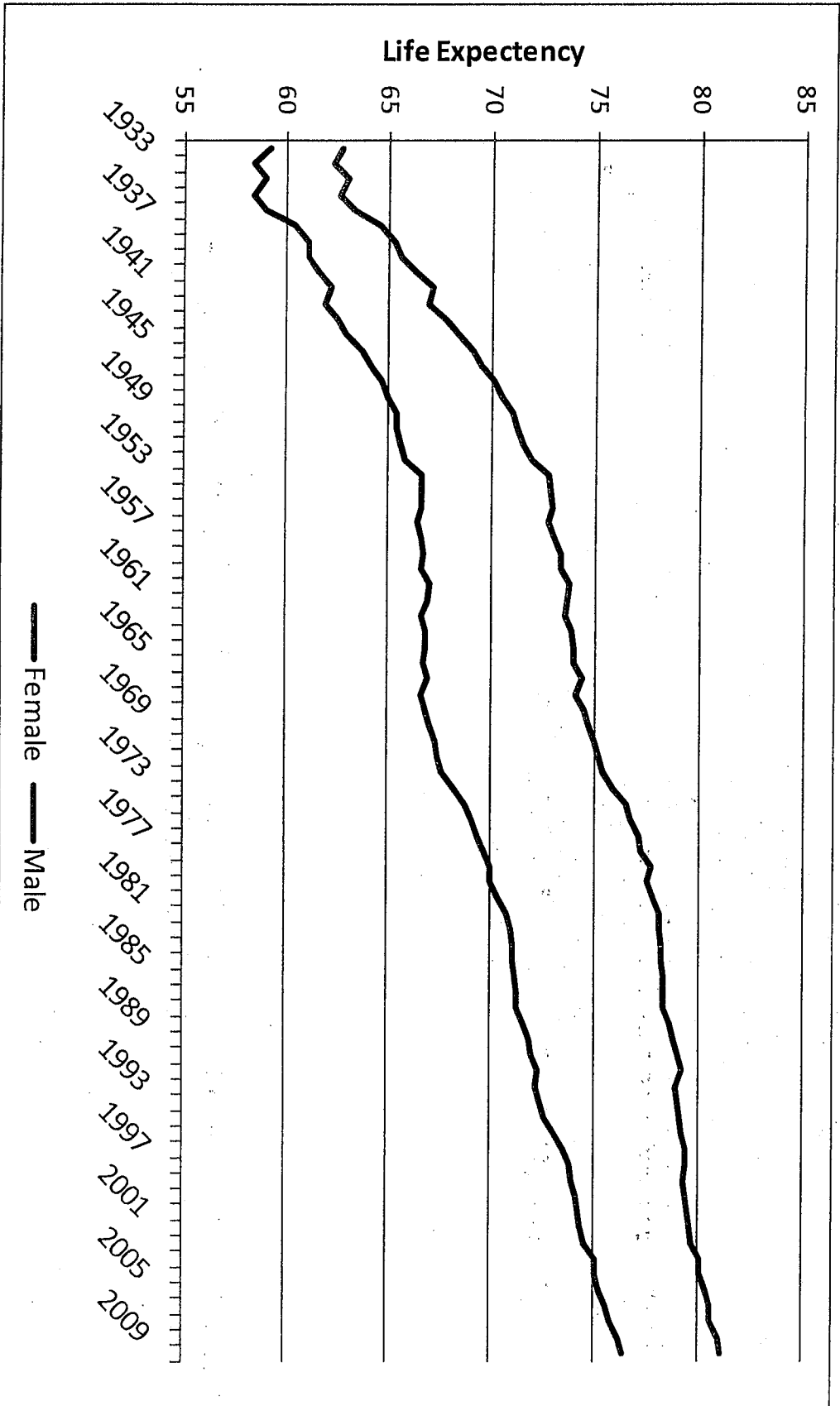
# Life Expectancy at Birth – By Geography



Source: American Human Development Report

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# Life Expectancy at Birth – By Gender

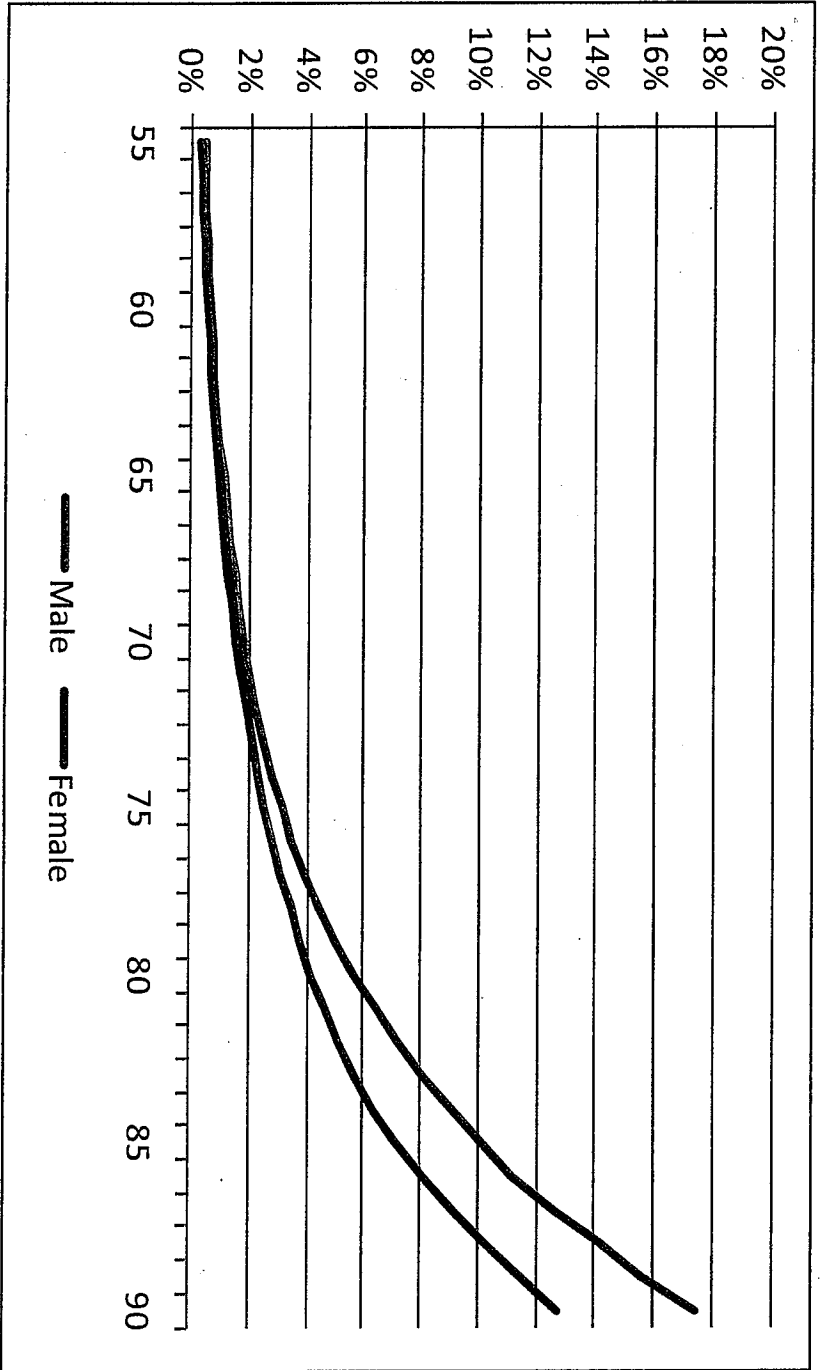


Source: Human Mortality Database



# Life Expectancy at Birth – By Gender

## Probability of Death



Source: RP-2000 Generational Mortality Table projected to 2013



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# Life Expectancy at Age 60 – By Gender

	1960	1970	1980	1990	2000	2010
Males	75.8	76.1	77.4	78.6	79.7	81.7
Females	79.7	80.7	82.2	82.9	83.1	84.6

- Data reflects U.S. population.
- Mortality at older ages has also improved in the last 50 years.



# Life Expectancy at Age 60 – By Gender

	1960	1970	1980	1990	2000	2010
Males	75.8	76.1	77.4	78.6	79.7	81.7
Females	79.7	80.7	82.2	82.9	83.1	84.6

- Data reflects U.S. population.
- Mortality at older ages has also improved in the last 50 years.



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## Will We Keep Living Longer?

- If mortality rates keep improving, members will spend longer periods of time in retirement
- Differences of opinion exist
  - Some believe improvements will continue at current rate of even accelerate
    - Assumes medical advancements will occur to help slow or even reverse the aging process
  - Others believe rate of improvement cannot continue
    - Obesity and related health issues
    - Biomechanical limits on human lifespan



# Long-Term Funding Response

The Legislature took action to address long-term funding issues

- Gradually raised statutory cap of 0.2% on employer rate increases (2003)
  - Reached 0.6% in FY 2008
- Issued \$500 million in pension obligation bonds (2004)
- Created new plan design for future employees (2007)

	Tier 1	Tier 2 (Effective 7/1/2009)
Employee contributions	4%	6%
Full retirement age	<ul style="list-style-type: none"> <li>• 85 "points" (age + service)</li> <li>• 65 with 1 year service</li> <li>• 62 with 10 years service</li> </ul>	<ul style="list-style-type: none"> <li>• 65 with 5 years service</li> <li>• 60 with 30 years service</li> </ul>
Final average salary	3 years No final payouts (e.g. vacation or sick leave) if hired 7/1/93 or later	5 years No final payouts

- These actions, plus strong investment returns from 2004-2007, improved projected funded status significantly
- Plan remained vulnerable to market downturns

# Impact of 2008 Crisis

- Unprecedented investment market declines in 2008
- Substantial negative impact on KPERS' long-term funded status
- In the 12/31/08 actuarial valuation report for the entire System
  - 12% decline in funded ratio to 59%
  - \$2.7 billion increase in UAL to \$8.3 billion
  - Actuarial value of assets significantly greater than the market value
    - About \$2 billion in deferred losses (averaged in over next four years)
    - On a current market value basis, a funded ratio of 49% and a UAL of \$10.3 billion
- Statutory and actuarial contribution rates for school employers no longer projected to converge
- Over the following four years, the Legislature and the KPERS Study Commission evaluated multiple options for addressing KPERS' funded status.
  - Ultimately resulted in passage of 2012 Sub HB 2333.

# HB 2333: Employer Contributions

- Raises statutory cap on employer contribution increases:

State/School Group			
Fiscal Year	Cap	Statutory rate	Actuarial rate
2013	0.60%	9.37%	13.46%
2014	0.90%	10.27%	13.83%
2015	1.00%	11.27%	14.34%
2016	1.10%	12.37%	15.34%
2017 and later	1.20%	13.57%	16.59%
FY 2020: Statutory/actuarial rates converge		16.87%	16.87%

} Projected actuarial rates

- Provides contributions from the Expanded Lottery Act Revenue Fund
  - Beginning in FY 2014, dedicates 50% of ELARF revenue after distributing \$10.5 million to higher education programs
  - Continues until KPERs reaches 80.0 percent funding ratio

# HB 2333: Tier 1 Members

- Election – Pending IRS approval

Member Contributions	Benefit Formula	
5% effective January 1, 2014 and 6% effective January 1, 2015	Increase multiplier to 1.85% for future service only, effective January 1, 2014	<b>DEFAULT</b>
or		
Remain at 4%	Multiplier is reduced to 1.40% for future service only, effective January 1, 2014	

# HB 2333: Tier 2 Members

- For all retirements on or after 7/1/12, cost of living increase is eliminated
- For all retirements on or after 1/1/14, multiplier increases to 1.85% for all service

## Current Tier 2

6% contributions

1.75% multiplier

Includes cost of living increase

## Revised Tier 2

6% contributions

1.85% multiplier for all service, starting with January 1, 2014, retirements

Eliminate COLA, first effective for July 1, 2012, retirements



# What Is a Cash Balance Plan?

Defined benefit plan with defined contribution characteristics

- DC features
  - Value of benefit is expressed during working years as account value
    - However, accounts are “notional” or hypothetical accounts
    - Assets don't precisely match account values as in a DC plan
  - Reflects compensation earned over entire career
  - Investment, inflation and longevity risks shared with employee in KPERS plan
- DB features
  - Benefit is paid as lifetime income in retirement
    - Lump sum may be optional form of payment
  - Guaranteed interest crediting rate provides definitely determinable benefit
  - Assets are pooled and professionally managed
  - Actuarial valuation determines contributions required to fund the plan
  - Required actuarial contributions vary depending on the actual experience compared to actuarial assumptions



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## What Is a Cash Balance Plan?

- Cash balance plan design features affecting benefit
  - Total pay credits attributed to employee's cash balance account (employee and employer)
  - Interest credit
  - Annuitization of account balance at retirement
    - Must offer an annuity option
    - Annuity factors (interest rate and mortality)
- KPERS' plan design features reduce employer risks and costs
  - Interest crediting rate is lower than KPERS' investment return assumption, which can provide margin and/or reduce employer contributions
  - Annuity factors (e.g., set interest rate below assumed investment return)
  - Flexibility to change pay credits, interest credits and annuity factors prospectively

# The Kansas Cash Balance Plan

Plan Provision	KPERS Cash Balance Plan
Employee contributions	6%
Employer "pay credit"	<ul style="list-style-type: none"> <li>Based on years of service: 1-4 yrs = 3%, 5-11 years = 4%, 12-23 years = 5%, 24 years+ = 6%</li> <li>May be changed prospectively by the Legislature</li> </ul>
Interest credits	<ul style="list-style-type: none"> <li>5.25% guaranteed. Paid quarterly on prior quarter's ending balance</li> <li>Possible additional interest credits (0-4%) at Board discretion based on statutory criteria, including KPERS' funding, investment returns, market conditions</li> <li>May be changed prospectively by the Legislature</li> </ul>
Vesting	5 years
Normal retirement age	Age 65 with 5 years of service. Age 60 with 30 years of service
Early retirement age	Age 55 with 10 years of service
Retirement benefit	<ul style="list-style-type: none"> <li>Account balance converted to monthly benefit at retirement using annuity factors                             <ul style="list-style-type: none"> <li>— 6% interest rate assumption</li> <li>— Mortality table selected by Board</li> </ul> </li> <li>Annuity factors may be changed prospectively by the Legislature</li> <li>Various forms of payment, including survivor options and self-funded COLA</li> <li>Partial lump-sum option up to 30% (not available at early retirement)</li> </ul>
Termination before retirement	<ul style="list-style-type: none"> <li>Can withdraw employee contribution balance, but forfeit employer account balance</li> <li>Vested members can leave contributions in and receive benefit at retirement age</li> <li>Inactive members earn interest credits on notional account                             <ul style="list-style-type: none"> <li>• Non-vested: two years following termination</li> <li>• Vested: Until retirement or forfeiture of membership</li> </ul> </li> </ul>

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## What HB 2333 Accomplishes

- Employers and current employees take shared steps toward a funding solution
  - Higher statutory cap on increases in employer contributions, beginning FY 2014
  - Current employees pay additional contributions or accept reduced benefits (future service)
- Future employees in cash balance plan share risk to a greater degree than in a traditional DB plan
- Greater flexibility to change new cash balance plan design to manage future affordability and sustainability issues
- Existing DB plan stays OPEN – no adverse impact on cash flow, asset allocation or investment return assumption
- Guaranteed lifetime benefit as the basic foundation for retirement income
- Reduce total employer contributions over long-term

## What HB 2333 Does NOT Affect

- No decrease in benefits already earned by current employees
- The unfunded actuarial liability – it is a “debt” that has already been incurred
  - As structured, does not shorten the UAL’s amortization period