Pension Fund Baseline Analysis
Presentation to Task Force

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Outline

- National Retirement Funding Pressures
- Lexington's Challenge
- How Did We Get Here?
- Next Steps

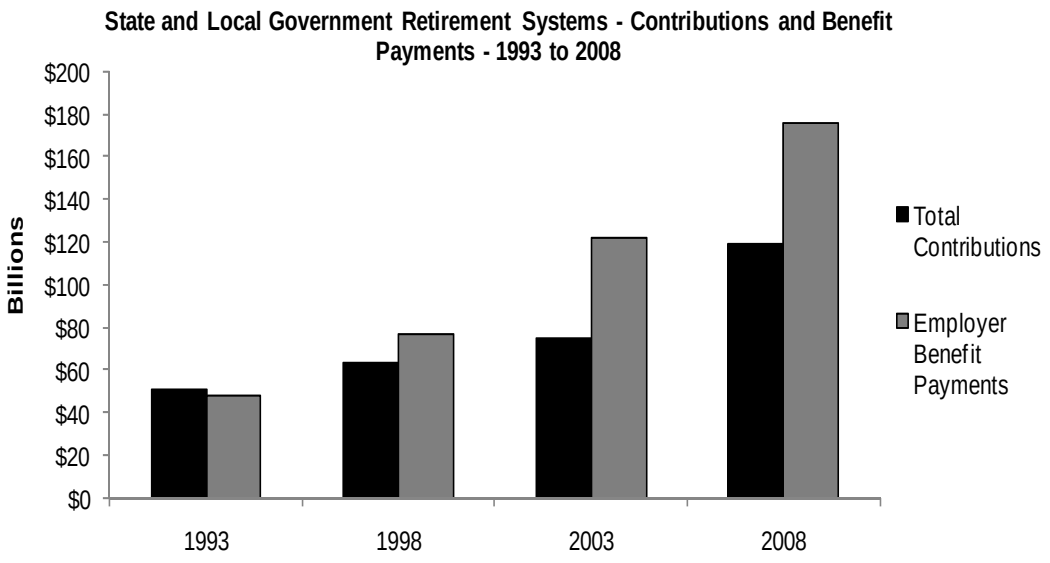
National Pension Funding Pressures

Overview

- Lexington-Fayette Urban County Government faces a growing retiree benefit funding and sustainability crisis associated with its Policemen's and Firefighters' Retirement Fund (PFRF) that threatens the future solvency of the fund as well as the City's ability to provide services
- State and local governments across the country are facing similar pension funding pressures. PFRF's difficulties are part of a broader retiree benefit crisis facing the public sector nationally

Retirement Funding Pressures

- State and local governments retirement systems across the country face more than a **$1.35 trillion funding** gap between benefits promised and plan assets. Many factors, to varying degrees, contributed to this funding challenge:
  - Retirement of the "baby boomer" generation combined with increasing life expectancy is requiring more years of benefit payments to more retirees. From 1970 to 2006, life expectancy at age 65 increased by more than three years (to 83.5 years). From 1993 to 2008, overall participation in state and local retirement systems increased by almost 44%
  - Benefit payments by state and local retirement systems increased 263% from 1993 to 2008, while combined employer and employee contributions to replenish these systems increased by only 133%
  - Unfunded benefit improvements given retroactively or made when pension funding levels appeared high in 1998-2000 resulted in millions of dollars in costs, further exacerbated structural imbalances
  - During the same period, some actuaries increased plan discount rate assumptions, effectively reducing liabilities in the short-term but increasing the long-term risk. The sharp downturn in the investment holdings of retirement systems in late 2007/2008 and continued low returns further aggravated funding shortfalls



Sources: "The Widening Gap Update," The Pew Center on the States (June 28, 2012); U.S. Census Bureau, State & Local Public Employee Retirement Systems, 2008 Annual Survey

National Pension Reform

- According to data published by the National Conference of State Legislatures, from 2009 through 2012, **45 states have enacted major pension changes** for broad groups of public employees in an effort to address long-term funding pressures, with many of these states making changes to pension plan designs and other features in more than one year:
  - 30 increased **employee contributions**
  - 33 enacted higher **age and service** requirements (for new hires)
  - 21 reduced the amount of **post-retirement benefit increases (COLAs)** (11 apply to future hires upon retirement)
  - 17 adopted longer periods for calculating **final average salary**
  - 12 reduced the **multiplier** for certain classes of employee
- In 2012 alone, 3 state retirement systems (Kansas, Louisiana, and Virginia) replaced their defined-benefit pension plans altogether, and will require future hires to enroll in either a cash balance plan (Kansas and Louisiana) or hybrid DB-DC model (Virginia). In Virginia, the hybrid DB-DC model will also be mandatory for local government participating agencies and teachers
- Michigan also enacted major reform in 2012. The State will offer its school employees an optional defined-contribution plan in addition to the hybrid plan that has been mandatory for new members since 2010
- Other states, such as New York, Ohio, and California, also made significant changes to benefit formulas, retirement **eligibility ages**, **employee contributions**, and **other plan features** to address ongoing cost pressures

Source: National Conference of State Legislatures, "State Pension Reform, 2009-2011", "Pension and Retirement Plan Enactments in 2012 State Legislatures" (August 31, 2012)

Lexington’s Challenge

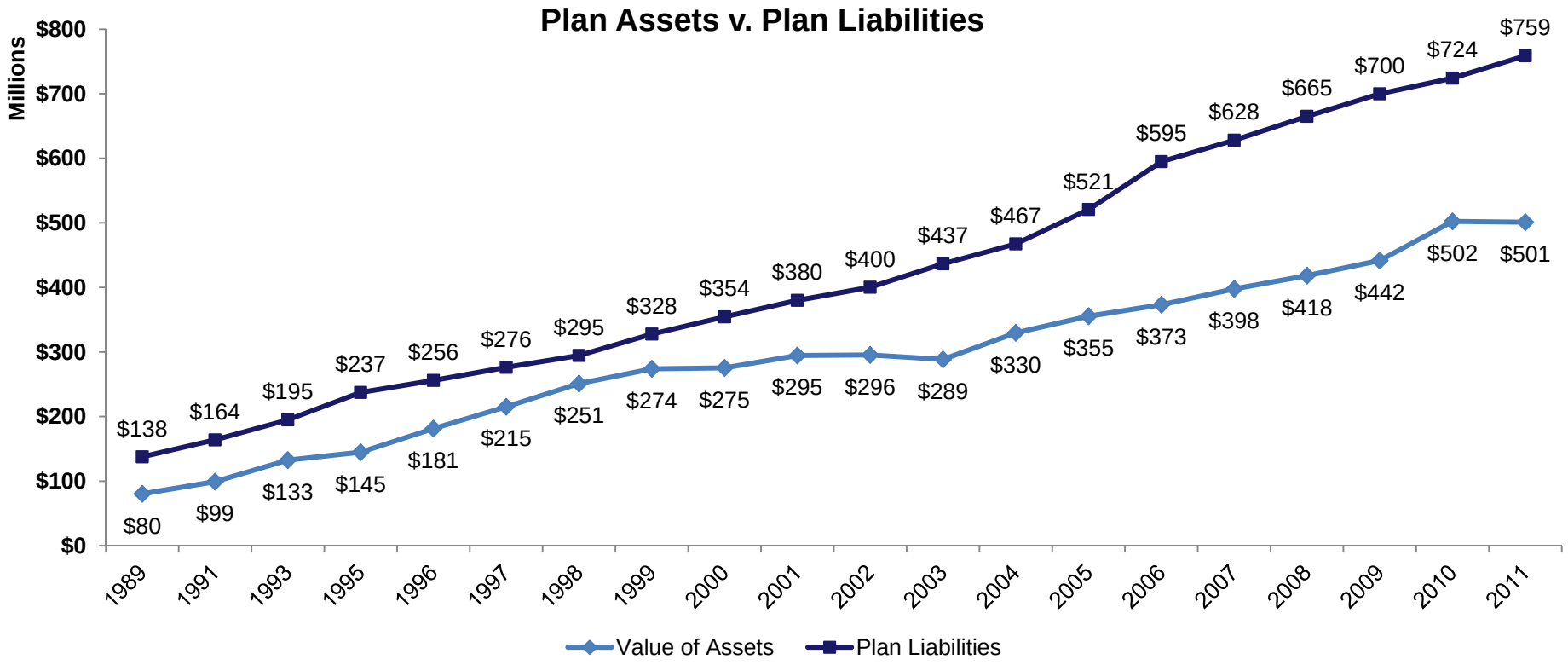
Current Description of the Benefit

- Lexington-Fayette Urban County Government offers the Policemen's and Firefighters' Retirement Fund (PFRF) for sworn municipal police and fire fighters
  - Benefits levels and employee contributions are determined by the State Legislature
  - The Lexington-Fayette Pension Board sets actuarially recommended annual contributions and determines cost of living adjustments (COLAs) within the state-defined range
- PFRF is funded through a combination of City and member contributions. While plan benefit levels are controlled by state statute, City public safety officers and taxpayers are solely responsible for its funding
- All other sworn municipal police and fire fighters in the Commonwealth of Kentucky are members of the County Employee Retirement System (CERS) Hazardous Pension Plan

	Lexington-Fayette Urban County Government
Plan Name	Police & Fire Retirement Fund
Vesting Period	20 years
Normal Retirement Age	Any age with 20 years service (includes purchased time)
Employee Contribution	11 % of pay
Participate in Social Security	No
Basis for Final Average Compensation (FAC)	Highest average 3 complete, consecutive years of salary (no overtime)
Benefit Formula	2.5% x FAC x YOS
Multiplier	2.5%
Post-Retirement COLAs	Automatic 2% - 5% Range set by state statute % determined by Pension Board

Historical PFRF Assets and Liabilities

- The gap between PFRF assets and liabilities has continued to grow throughout several mayoral administrations. As of July 1, 2011, the plan had an unfunded actuarial accrued liability of **$257,781,662**

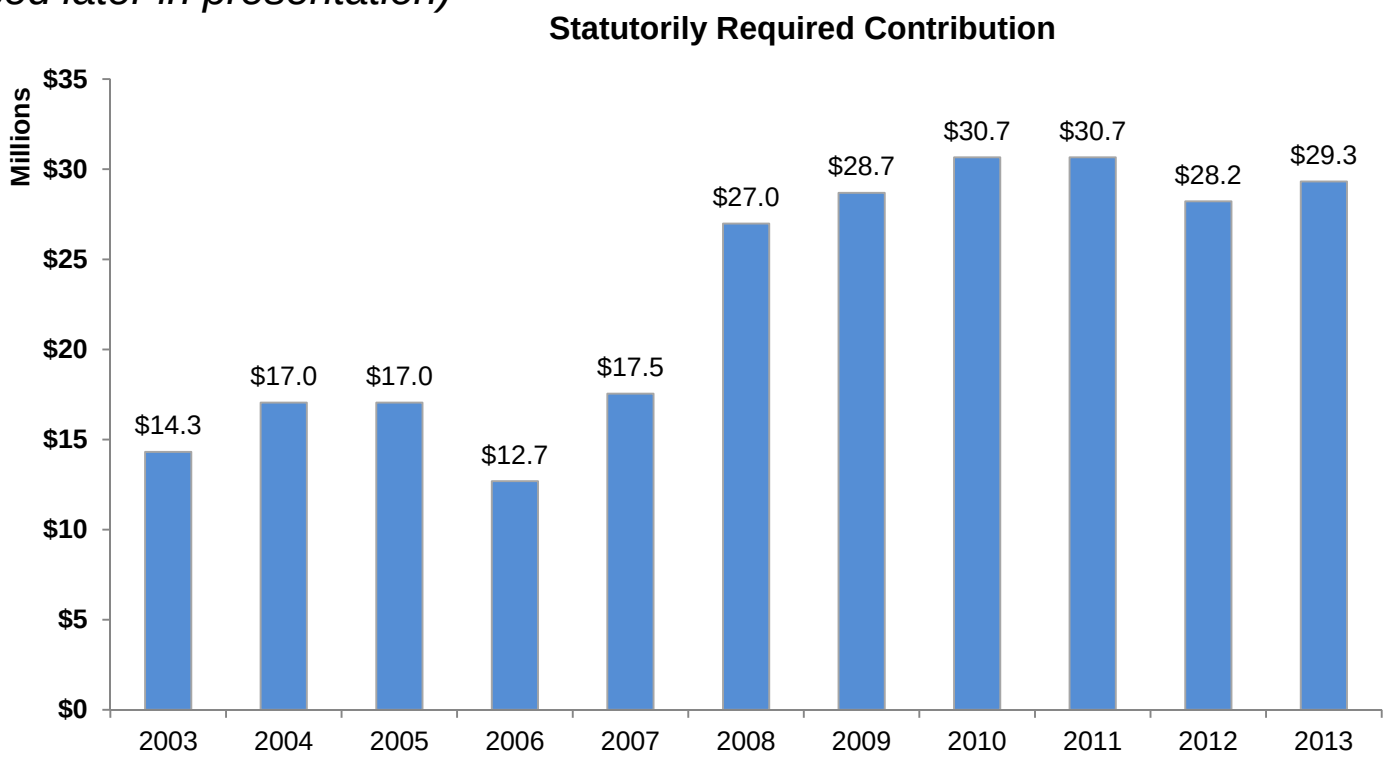


Baesler Administration	Miller Administration	Isaac Administration	Newberry Administration	Gray Admin.

Sources: 2011 Lexington-Fayette Urban County Government CAFR; 2004, 2006, 2008, 2010 PFRF Valuations

Impact on Budget

- Over the past decade, the City's PFRF statutorily required contribution has more than doubled even with recent cash infusions from bond proceeds. The City's required contribution grew from **$14.3M** in FY2003 to **$29.3M** by FY2013
- In FY2009, FY2010, and FY2012, the City issued pension obligation bonds in order to meet the required contribution and begin addressing the significant unfunded liability *(to be discussed later in presentation)*



Sources: 2011 Lexington-Fayette Urban County Government CAFR; 2004, 2006, 2008, 2010 PFRF Valuations; LFUCG "Budget in Brief FY2013"

Impact on City Budget

- Based on the July 1, 2011 valuation, the City's FY2013 statutory contribution is approximately **$29.3M**
- In FY2013, the City budgeted $16.2M toward the contribution (an increase from FY2012; does not include budgeted amounts for debt service payments on pension bonds), which leaves a **$13.1M gap**
  - In its FY2013 budget, the City also proposed a $34M pension obligation bond to address the remaining $13.1M gap and address the prior unfunded liability
  - In FY2012, the City contributed $13.1M **plus an additional $31M** from a pension obligation bond to cover City obligations in FY2012 and a portion of FY2011
- A $13.1M gap in FY2013 is equivalent to:
  - Finance Department ($5.8M) and Social Services ($7.5M) operating budgets
  - Environmental Quality & Public Works ($10.6M) and Planning, Preservation & Development ($3.2M) operating budgets
  - 25%of the Fire & Emergency Department ($55.1 M) operating budget

Slide amended from original to reference City debt service payments on pension bonds.

Retiree Benefit Funding Gap

- As of the July 1, 2011 valuation, the Lexington-Fayette Police and Fire Pension Fund had a total unfunded actuarial accrued liability of **$257,781,662**, **over 80%** of the City's FY2012 annual budget. The plan was 66% funded:
  - The plan valuation assumes an 8% return on investment and utilizes "smoothing"
  - Under GASB new accounting and financial reporting proposal, a government may be required to use a discount rate equivalent to the yield for an "AA" investment grade municipal bond (or similar index) for any unfunded pension liability, resulting in higher pension expenses
- By just changing the investment return assumption from 8% to 7.5% (which we think is prudent), the liability will likely increase by 12.5%. With additional changes recommended in the experience study (increased life expectancy), we would expect the next valuation to show an unfunded actuarial accrued liability 12.5% - 17.5% greater than 2011 for a total liability between **$290,000,000** and **$303,000,000**
  - Increase comes in spite of additional money from pension bonds
  - The unfunded liability **does not include** the significant cost of unfunded other post-retirement benefits (OPEB)

Source: Lexington-Fayette Urban County Government, Policemen's and Firefighter's Retirement Fund, July 1, 2011 Valuation; FY2012 Adopted Budget, FY2013 Adopted Budget; Comprehensive Annual Financial Report FY2011

How did we get here?

Lexington-Fayette PFRF

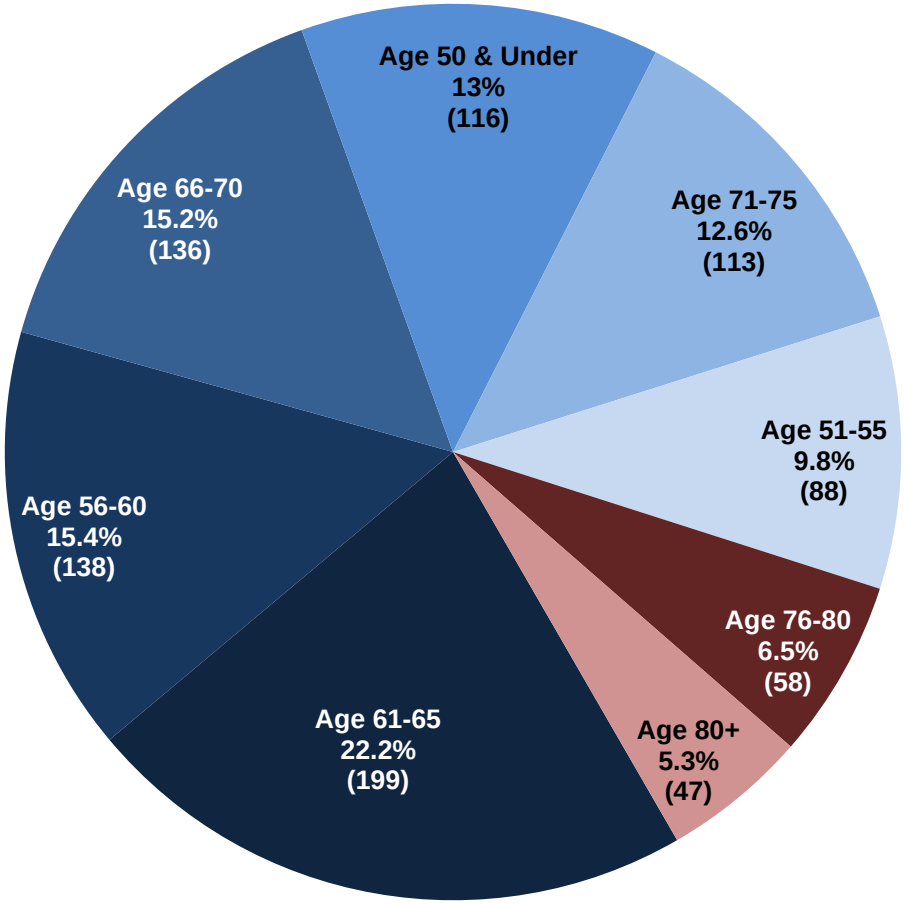
- The City's pension funding crisis is part of a larger national problem. **Many** factors drove the growth in pension liabilities, many of which parallel issues plaguing retirement systems across the country:
  - Members and beneficiaries are living longer
  - Investment losses
  - Historical underfunding of the plan
  - Plan benefit changes that were insufficiently funded
  - Wage increases granted beyond actuarial growth assumptions
  - Automatic cost of living adjustments are granted despite the plan's underfunded status
  - COLAs provided despite only partial funded from increased employee contributions (2% increase)
- Although Lexington's experience is not unique, the City needs a solution that specifically addresses the system's existing benefit structure, funding mechanisms, and underlying structural imbalance:
  - The City has historically paid less than the actuarially recommended PFRF annual required contribution (ARC). The City's minimum contribution is set by state law
  - Police and firefighters on service retirement and disability retirement have received annual cost of living increases (COLAs) beyond the Cost of Living Index, which further increases the plan liabilities
  - In 2009, 2010, 2012, and 2013, the City issued pension bonds to infuse the system with funds in an effort to reduce the unfunded liability. The City now makes debt service payments on the pension bonds in addition to funding the actuarially required contribution

Slide amended from original to correct inaccuracy regarding contribution history.

Plan Membership

- Police and fire fighters are fully vested and eligible for normal retirement after 20 years of service
- As of July 1, 2010, 13% of annuitants were under the age of 50.
- Younger retirees and their beneficiaries tend to remain in the retirement system and receive annuities over longer periods than those who retire at an older age

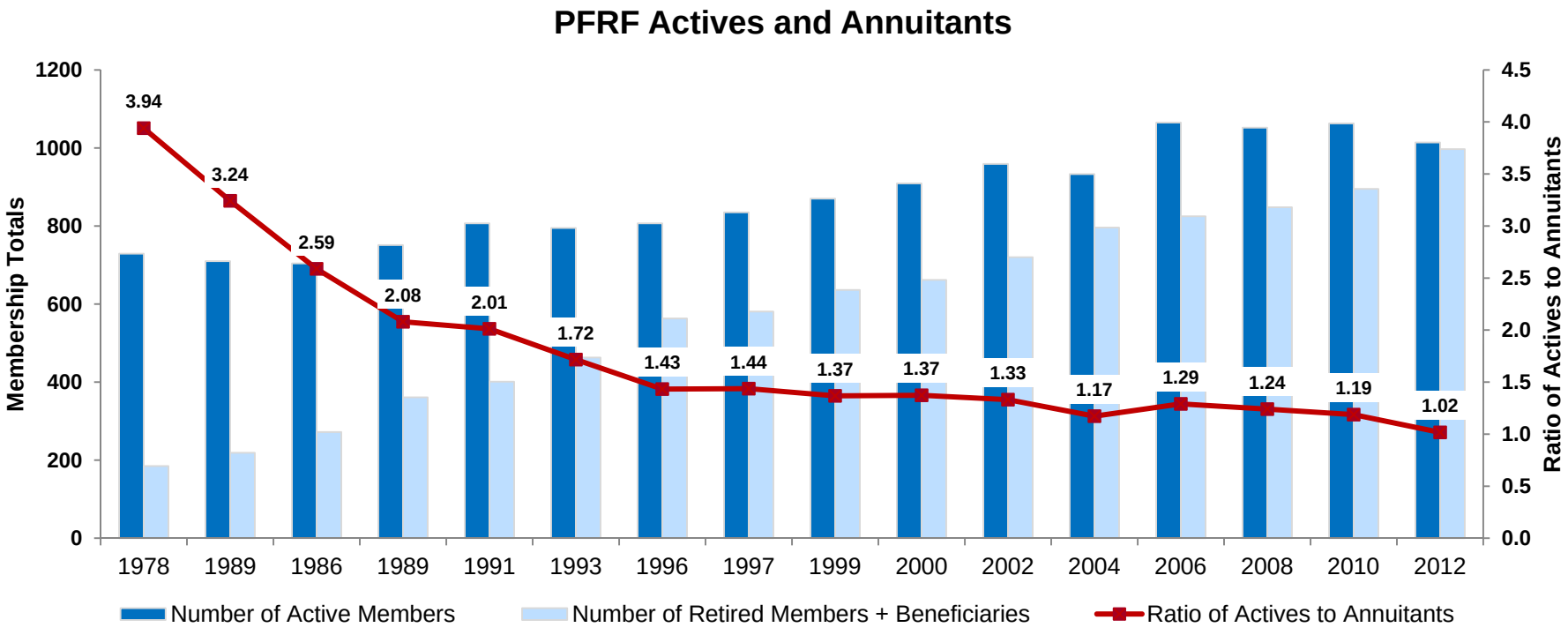
Age of PFRF Annuitants (as of July 1, 2010)



Source: 2010 Actuarial Valuation

Plan Membership Changes

- The number of PFRF annuitants - retirees, beneficiaries, and disability pensioners - relative to active members has increased significantly over the past three decades
- A growing base of annuitants combined with a low or negative rate of growth in active members reduces a retirement system's external cash flow, as system contributions decline while payouts for benefits and administrative expenses rise
- As the ratio of actives to annuitants declines, underfunded plans are exposed to greater investment risks as the unfunded liability must be amortized over a smaller active payroll base



Experience Study

July 1, 2005-June 30, 2010

- Cavanaugh Macdonald completed a 5-year study (2005-2010) of the PFRF economic and demographic experience to assess the accuracy of actuarial assumptions
- Rates of pre-retirement mortality were less than expected for both genders across all age groups
- The study also noted that male service retirees and beneficiaries were **living longer** than anticipated
  - However, more non-disabled female retirees and beneficiaries died during the study period than anticipated
- Cavanaugh Macdonald recommended that mortality rate assumptions for both groups be updated in order **to account for future improvements in longevity**

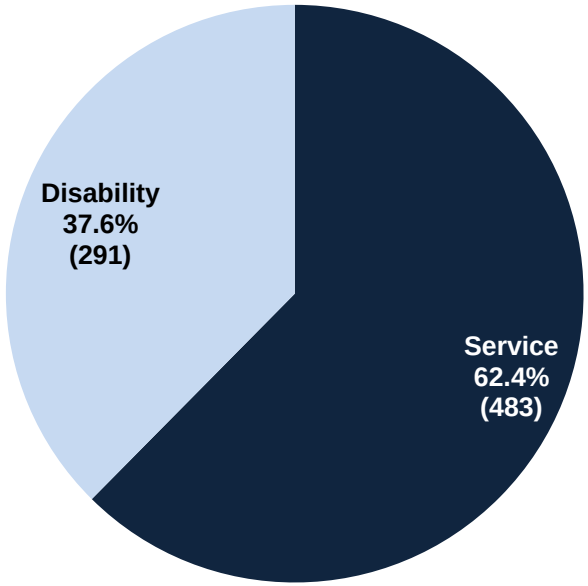
CENTRAL AGE OF GROUP	NUMBER OF POST-RETIREMENT DEATHS					
	SERVICE RETIREMENTS AND DEPENDENTS OF DECEASED MEMBERS					
	MALES			FEMALES		
	Actual	Expected	Ratio of Actual to Expected	Actual	Expected	Ratio of Actual to Expected
52 & Under	1	0.83	1.205	1	0.13	7.692
57	1	2.78	0.360	0	0.23	0.000
62	2	4.81	0.416	1	0.49	2.041
67	9	6.88	1.308	2	0.78	2.564
72	8	5.74	1.394	2	1.31	1.527
77	2	3.76	0.532	3	1.88	1.596
82	2	2.26	0.885	5	3.25	1.538
87 & Over	1	2.28	0.439	6	4.99	1.202
TOTAL	26	29.34	0.886	20	13.06	1.531

Source: Cavanaugh Macdonald, "PFRF Experience Study," 2005-2010

Disability Retirements

- PFRF provides occupational and non-occupational disability benefits for members. Service disability pensioners receive a minimum of 60% of their last rate of salary (maximum 75% of salary)
- As of the July 1, 2010 valuation, 37.6% of PFRF annuitants (291 members) receive disability pensions
  - In comparison, the Kentucky County Employees Retirement System (CERS Hazardous) for police and fire fighters has 7.8% of annuitants (487 members) receiving disability pensions
- Impact to PFRF depends upon whether the individual retiring on disability has sufficient years of service to retire regardless of disability

Service vs. Disability PFRF Annuitants as of July 1, 2010



Note: Figure does not include beneficiaries of deceased members
Sources: 2010 Actuarial Valuation; Kentucky Retirement Systems Comprehensive Annual Financial Report, 2011

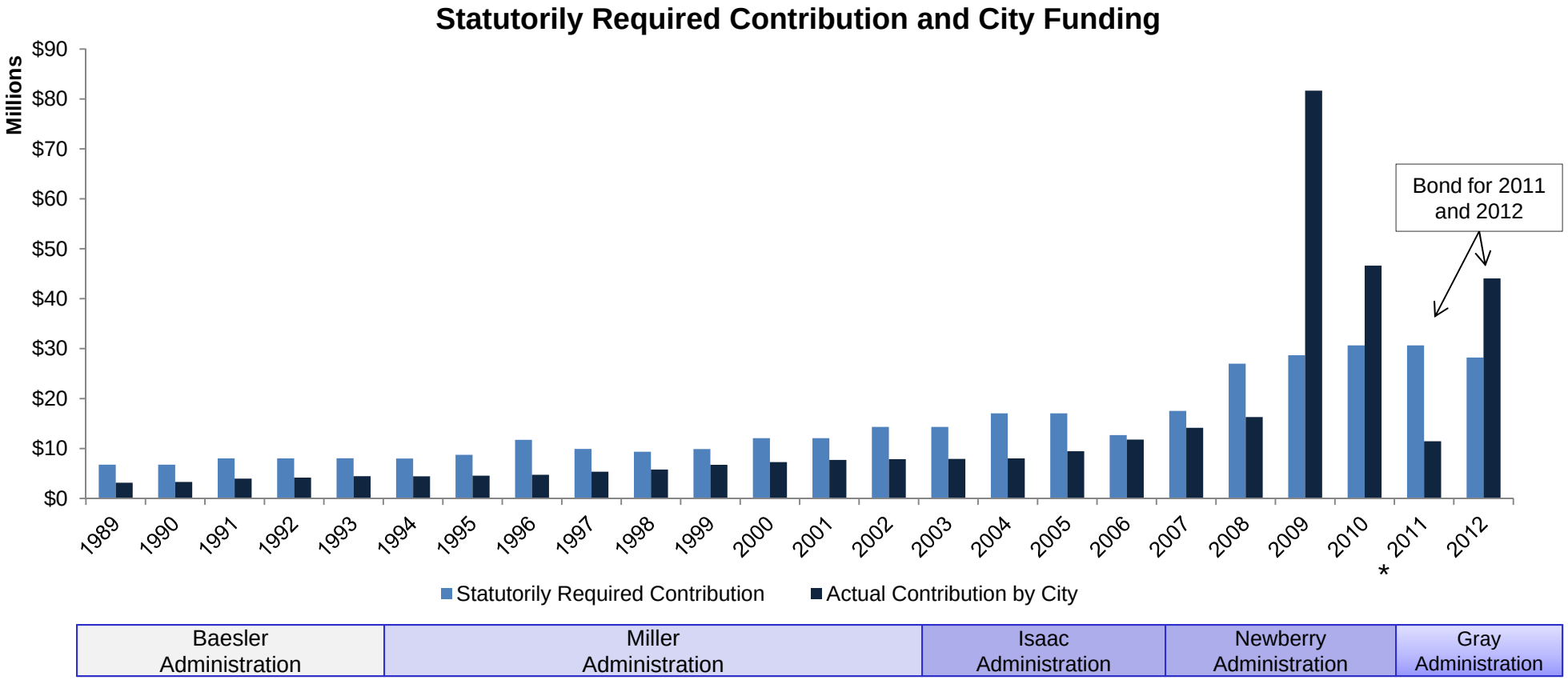
Investment Losses and Wage Increases

- Steep declines in **investment returns** have a significant impact on plan assets as investment earnings typically make up a large portion of public pension fund revenues.
- PFRF investment returns were not immune from late 2007 market downturns. The plan has assumed an **8% return on investment** since 1986. Like many pension funds across the country, the plan suffered a **26.84% loss in 2008** which further aggravated the existing unfunded liability.
  - While helpful, subsequent positive returns in 2009, 2010, and 2011 were not sufficient to make up for the 2008 loss
- In its experience study, Cavanaugh Macdonald found that actual **salary increases** have been higher than expected. Because salary increases have exceeded the actuarial assumptions, PFRF's liabilities have increased
  - We understand that there were particularly large salary increases agreed to in the mid-2000s on the basis of needing to become more competitive with other jurisdictions. Current collective bargaining agreements call for wage increases below actuarial assumptions

Source: Actuarial Valuations 1986-2011, Cavanaugh Macdonald, "PFRF Experience Study," 2005-2010

Historical City Funding

- The City has historically paid less than the statutorily required contribution for PFRF. In FY2009 and FY2010, the City issued pension bonds to infuse the system with funds in an effort to reduce the unfunded liability and settle a lawsuit. In FY2012, the City issued a $31M pension obligation bond to fund 2012 and a portion of the 2011 contribution



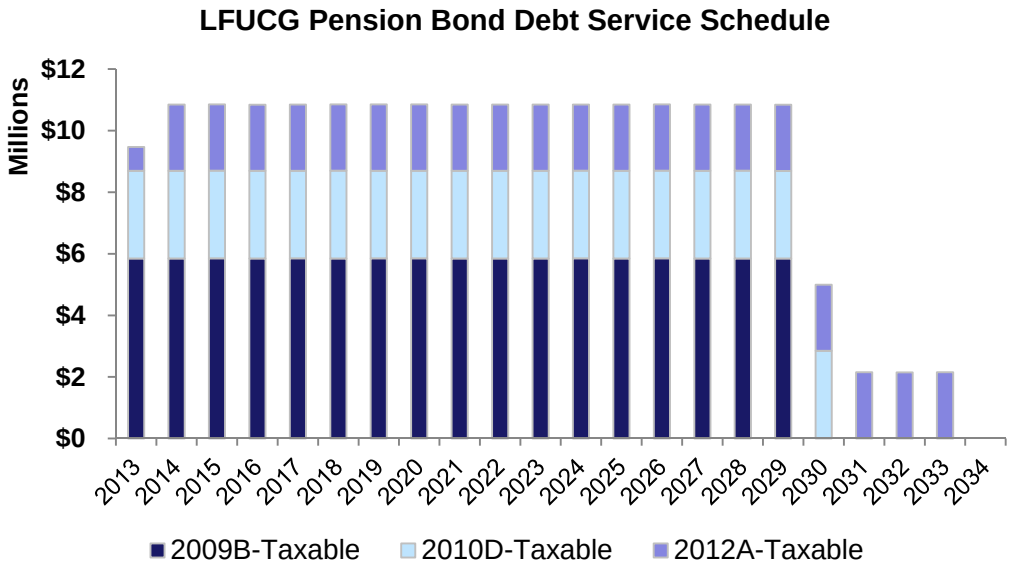
* Due to the timing of the FY2012 pension bond, a portion of the bond issuance was dedicated to the City's FY2011 statutory requirement

Sources: FY2012 and FY2013 statutory required contributions based on 2010 actuarial valuation; 2011 Lexington-Fayette Urban County Government CAFR; 2004, 2006, 2008, 2010 PFRF Valuations

Slide amended from original to reference lawsuit settlement.

Pension Bond History

- In FY2009, the City issued **$70 million** in pension bonds to reduce the unfunded liability of the PFRF system. In FY2010, an additional **$35 million** was bonded:
  - The principal payment and debt service payments for these two bond issues cost the city nearly **$3,000,000 each year** in 2011 and 2012
- In FY2012, the City bonded $31 million for its pension funds. The FY2013 budget proposes bonding an **additional $34 million** to dedicate toward the PFRF pension fund
- Starting in 2014, the City will pay approximately $10.8 million toward pension bond debt service annually through 2029. The City will make final payments on the existing debt in 2033. These payments are **in addition to** annual contributions



Lexington has a self-imposed cap on debt service, prohibiting payments from exceeding 10% of percent of general fund revenues. In FY2013, **debt service payments are projected to approach the cap** in part due to the increasing pension related debt service

Source: Comprehensive Annual Financial Report FY2011, LFUCG "Budget in Brief," FY2000-FY2013

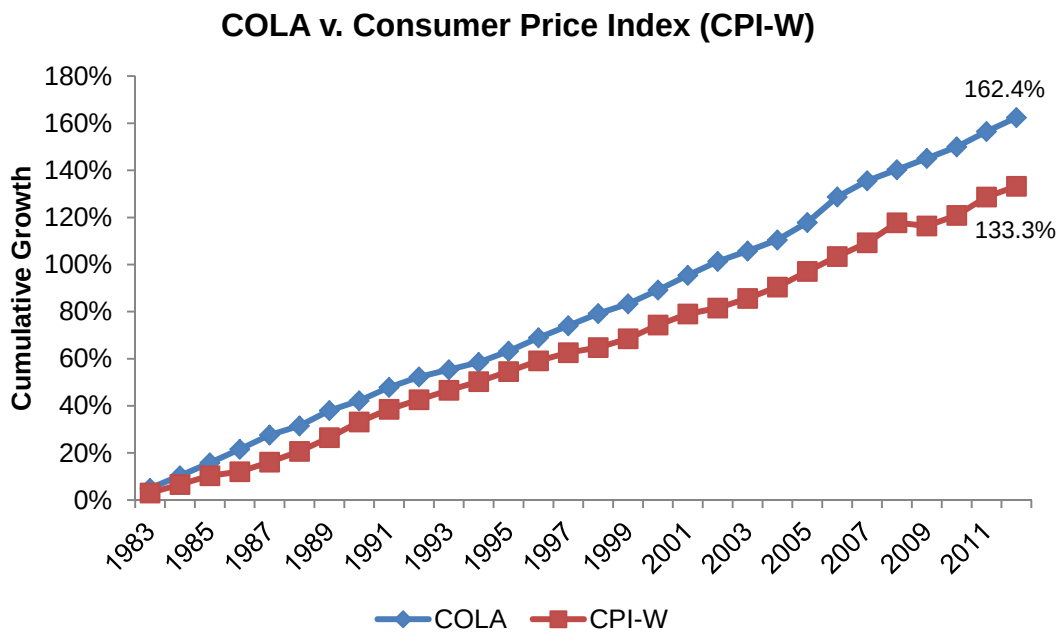
Plan Benefit Changes

A number of benefit changes have occurred to the Policemen's and Firefighters' Retirement Fund since 1974:

- **Retirement Eligibility:**
  - **1978:** Normal retirement eligibility was age 50 and 20 YOS
  - **1994:** Normal retirement eligibility reduced to age 46 and 20 YOS (HB 380)
  - **2006:** **Minimum retirement age (46) eliminated**. Police and fire fighters can retire with full benefits after 20 YOS
- **Employee Contributions:**
  - **1974:** Employee contributions increased from 6% to 8% of salary (KRS 67A). Employer contributions remained at 12%
  - **1982:** **Employee contributions increased from 8% to 10% of salary**
  - **1990:** Employee contributions increased from 8% to 10.5%-11% based on date of hire. Employer contributions increased from 15% to 17% of payroll (HB 697)
  - **2006:** Puckett v. LFUCG case determined that the Pension Board has authority to set City contribution rates
- **Cost of Living Adjustments (COLAs):**
  - **1978:** Employees receive 2% COLA after reaching age 60 or 3 years of retirement, whichever is later
  - **1982:** **COLAs amended to provide employees between 2% and 5% annually after age 51 or 1 year of retirement, whichever is later**
  - **1990:** COLA benefits provided for **previous retirees** (HB 697)
- **Service Benefit:**
  - **1996:** Minimum monthly annuity set at 1996 US poverty level (HB 747)
  - **2000:** **Members permitted to purchase 4 years of service (ghost time)**; 75% average wage cap on annuities eliminated (HB636)
  - **2001:** Minimum monthly annuity increased to $1,000 (SB 20)
  - **2002:** **Special pay and hazardous duty pay included in benefit calculation**; widows permitted to receive pension benefits upon remarriage (SB 184)
  - **2006:** Minimum monthly annuity increased from $1,000 to $1,250 (SB 108)
- **Disability Benefits:**
  - **1994:** **Minimum disability benefit reduced from 75% to 60% plus half of the amount by which a member's percentage of disability exceeds 20% with overall cap of 75% (HB 380)**
  - **2001:** Disability retirees receive same COLA as service retirees (SB 20)

Historical Comparison of COLA to CPI

- PFRF retirees on service and disability pensions receive automatic cost of living adjustments (COLAs). The PFRF Board of Trustees determines the annual COLA within the 2% to 5% range set by the State Legislature
- Since 1983, the cumulative growth of cost of living adjustments has outpaced the CPI-W by 29.1%



Year	COLA	CPI-W
1983	5.0%	3.0%
1984	5.0%	3.5%
1985	5.0%	3.5%
1986	5.0%	1.6%
1987	5.0%	3.6%
1988	3.0%	4.0%
1989	5.0%	4.8%
1990	3.0%	5.3%
1991	4.0%	4.0%
1992	3.0%	2.9%
1993	2.0%	2.8%
1994	2.0%	2.5%
1995	3.0%	2.8%
1996	3.5%	2.9%
1997	3.0%	2.2%
1998	3.0%	1.3%
1999	2.3%	2.2%
2000	3.2%	3.5%
2001	3.3%	2.7%
2002	3.0%	1.4%
2003	2.2%	2.2%
2004	2.3%	2.6%
2005	3.5%	3.5%
2006	5.0%	3.2%
2007	3.0%	2.9%
2008	2.0%	4.1%
2009	2.0%	-0.6%
2010	2.0%	2.1%
2011	2.6%	3.5%
2012	2.3%	2.0%*
Cumulative Growth: (1983-2011)	**156.5%**	**128.7%**
Cumulative Growth: (1983-2012)	**162.4%**	**133.3%**

Note: Prior to 2001, members on disability retirement received a flat 2% COLA until the member reached age 47 (then retirement age). SB 20 amended this provision providing those on disability pensions with the same COLAs as service retiree's regardless of age

Sources: Bureau of Labor Statistics, Consumer Price Index, Urban Wage Consumers (Seasonally Adjusted); * 2012 represents annual average through October 2012. Yearly CPI-W growth developed by using average annual change

Slide amended from original to note yearly CPI growth developed by using average annual change.

COLA Analysis

- In 1982, employee contributions were increased from 8% to 10% in conjunction with changes to the COLA provision, permitting post-retirement benefit adjustments between 2%-5% annually.
- The Hay Group examined the extent to which employee contributions fund post-retirement benefit adjustments for several "working life" scenarios (20, 25, 30, and 35 years of service)
- For all employee service periods, the **2% employee contributions are insufficient** to fund even the minimum COLA of 2%
- An employee retiring after 20 years of service has sufficient contributions to fund 16 years of 2% COLAs (12 years of 3% COLAs). In order to fully fund the 2% COLA benefit, employee contributions for that employee would have to increase from 11% to 13.4% (18.1% for 3% COLAs)

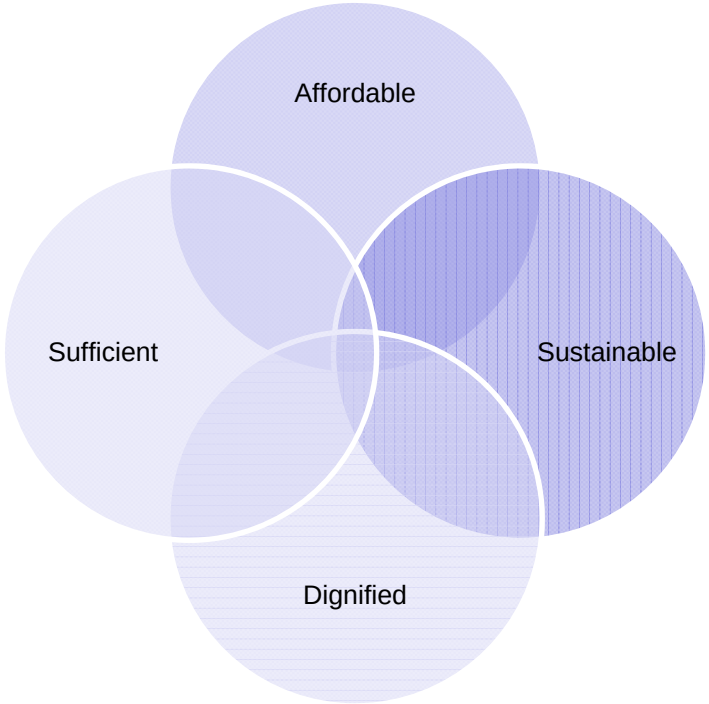
Employee Contributions & COLA Funding				
YOS at Retirement	**20 Years**	**25 Years**	**30 Years**	**35 Years**
Life Expectancy at Retirement	35	30	26	22
Number of Years of COLA funded by Additional Employee Contribution of 2%				
w/ 2% COLA	16	17	18	19
w/ 3% COLA	12	12	13	14
Employee Contribution Rate Needed to Fully Fund Pension Benefit w/ COLA for Single Retiree*				
w/ 2% COLA	13.4%	14.6%	12.0%	12.4%
w/ 3% COLA	18.1%	16.3%	14.6%	13.2%

Notes:
Assumes member hired at age 25, lives to at least age 80
Results based on 8% return on investment
Assumes benefits ceases when member passes (single)
Source: Hay Group

Next Steps

Required Changes

- Shared solution
  - City and taxpayers
  - Current employees
  - Retirees
  - Future hires
- Affordable, sustainable, sufficient, and dignified plan
- In addition other changes:
  - City must contribute more to pension fund
  - COLA must be addressed



Slide amended from original to include “dignified” to describe final plan.

Questions