TOUGH CHOICES FACING FLORIDA'S GOVERNMENTS

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YEARS IN THE MAKING: FLORIDA'S UNDERFUNDED MUNICIPAL PENSION PLANS

In recent months, municipal pensions in Florida have been under increased scrutiny. Cities as varied as Jacksonville and Temple Terrace have sought to deal with poorly funded pension plans. In November 2011, *Report Card: Florida Municipal Pension Plans*, authored by the LeRoy Collins Institute (LCI), highlighted the problem giving "D" or "F" grades to nearly one-third of the pension plans in Florida's 100 largest municipalities.¹ The report used recent financial statements to grade municipal plans and did not include plans in municipalities with populations less than 20,000. In doing so, LCI could not address whether the problems were short-term—the result of temporarily depressed market conditions—or whether similar problems exist in smaller cities and towns.

Years in the Making: Florida's Underfunded Municipal Pension Plans addresses both issues. The report uses data from the 2005 to 2011 Annual Reports of Florida Local Government Retirement Systems, published by the Florida Department of Management Services (DMS), to analyze several important trends in all 492 local government pensions.² This approach gauges whether Florida's municipal pension plans are fundamentally healthy and just need time to weather the current financial storm, or have structural problems that require significant repair.



September 2012

LCI's trend analysis indicates that the problems facing many municipal pension plans are long-standing and not likely to be quickly resolved. Specifically, spanning the past few years, LCI finds:

The underfunding of Florida municipal pensions is not new, nor was it caused by the recent drop in the stock market – though market conditions have certainly made the problem worse.

- The typical municipal pension plan's funding levels have been below 80 percent since 2004 and those levels have continued to decline nearly every year since 2001.

- Asset values fell sharply in 2008, and while they have mostly returned to their pre-2007 values, asset values are growing slowly.

The ratio of retirees relative to active participants is increasing.

- The number of active participants in local pension plans has been fairly constant, but the number of retired participants is on the rise - doubling in the typical public safety plan over the last five years.

From 2004 to 2010, plan managers tended to underestimate salary growth of covered employees and overestimate the rate of return on their pension investments—actions that contribute to optimistic pension liabilities and can result in failing to contribute sufficient funds into retirement plans.

- During most of this time, the typical pension plan's actual salary growth exceeded the assumed rate of growth used to forecast its liability.

- Additionally, the typical pension plan's actual rate of return on its investments was less than the assumed rate used to forecast its liability.

Annual pension contributions and the portion of those contributions that are used to pay down the unfunded liability have risen.

- Annual pension contributions have significantly increased as a share of payroll.

- The portion of the annual contribution that goes toward paying down the unfunded liability in the typical plan has risen significantly.

- The employees' and state's portion of the annual contribution has not changed, but the portion paid by local governments has significantly increased, especially for public safety plans.

> A new troubling trend may be emerging where annual payouts exceed contributions.

- The year 2010 was the first year in recent history when the amount of money paid to retirees in the typical plan was more than the contribution for benefits that were earned in that year.

A Note on Reading the Figures in this Report

The Figures in this report provide information on "typical" pension plans. LCI uses "median" values to identify "typical" observations.

The median is the middle observation—half of the values are larger than the median and half of the values are smaller. The median differs from the average because it is not disproportionately affected by extremely high or extremely low values (so-called outliers).

In the bar chart Figures (such as Figures 2 and 3), each bar rises up to the median value in each year.

In the box plot Figures (such as Figure 1), the line in the center of the box is the median value. The top of the box identifies the value that is greater than 75 percent of the observed values. The bottom of the box identifies the value that is greater than 25 percent of the observed values. Each box, therefore, identifies the middle 50 percent of observations. The length of the lines coming out of the top and bottom of the boxes

are equal to 1.5 times the height of their boxes and indicate the expected variation of most of the bottom and top 25 percent of the observations. "Any observed values that fall outside of the box and its lines are considered outliers, are relatively rare, and are not presented in the graphs (as noted by phrase "excludes outside values" on each of the figures)."

Also, a brief note on the years of data in this report. All of the Figures in this report provide data over multiple years. The years in Figures 4 and 5 (participant information) are the years of the annual reports (2005 to 2011). The rest of the report uses the year of the actuarial valuation date.

Underfunding is Not a New Problem

Much of the recent discussion on pension plans has focused on their funding levels (plan assets/plan liabilities). While any level below 100 percent is technically underfunded, it is widely, though not universally, held that the 80 percent funding level is a useful benchmark for identifying public sector plans that are in trouble (i.e., those falling below the benchmark).

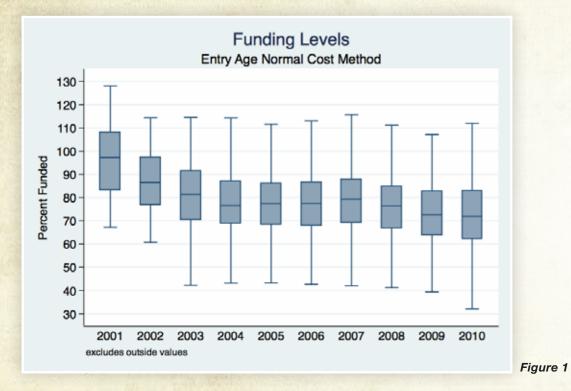


Figure 1 illustrates the change in funding levels from 2001 to 2010 for governments using the entry age normal cost method.³ It combines police, firefighter, and general employee plans because their trends are very similar (in terms of direction and funding levels).

LCI's data source (DMS's Annual Reports of Florida Local Government Retirement Systems) provides information on funding ratios in previous years, which allows us to use the 2005 annual report to look at funding ratios as far back as 2001. Figure 1 clearly shows that the typical funding levels of Florida municipal pensions started falling well before 2008.

In 2001, the typical municipal pension was nearly 100 percent funded.⁴ In 2002, funding levels fell to just below 90 percent and then to approximately 80 percent in the following year. Funding levels remained relatively stable from 2004 to 2007, with more than half of the pension plans under 80 percent funded during that period of relatively strong market returns.

The financial crisis is certainly associated with a drop in funding levels after 2007. However, it is important to note that funding levels dropped in every year (except 2007) over the past decade. Besides the drops in 2002 and 2003, annual declines have been relatively small, but they have steadily fallen to the point where the typical pension plan is approaching the 70 percent funding level in 2010 (meaning that nearly half of

the municipal pension plans in the state were less than 70 percent funded). In 2009 and 2010, nearly three quarters of all pension plans were fewer than 80 percent funded and, conversely, a little more than one quarter of the municipal pension plans were more than 80 percent funded.

These results indicate that the current pension funding issues are not the direct result of the recent drop in the stock market and suggest that discussions about structural repairs to municipal pension plans are prudent responses to a decade-long trend.

One complication in judging the effect of the market decline, however, is that the actuarial valuation of pension assets that is used to calculate the funding ratio is not the market value of those assets, but is usually a smoothed average of recent market values. This means that dramatic changes in market values from one year to another will not be fully represented in the funding ratio for several years. As such, market values of pension assets must be evaluated.

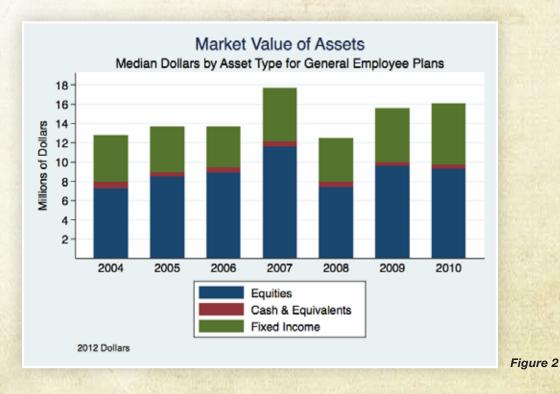
Although Asset Growth has Slowed, Values Have Recovered from their 2007 Decline

A key issue in assessing the funding levels of municipal pensions is whether the current underfunding concerns are associated with "paper" losses in the values of pension assets and if better market conditions will correct much or all of the underfunding issue.

In a very optimistic sense, the paper-loss hypothesis is always true, since especially large increases in asset values could certainly cover the liabilities; however, it is difficult to find credible market observers who are willing to predict such large returns in the foreseeable future.

Figure 2 illustrates the loss of market value of assets for the typical municipality's **general employee plan** in 2008. But, it also shows that those values rebounded in 2009 and 2010. The 2009 and 2010 levels are below the high point of 2007, but are above the pre-2007 values.

Even though the asset values have returned, the growth rate over this period has been slowed by the financial crisis. The growth in the median total asset values between 2004 and 2010 represents an annual growth rate of approximately 4.6 percent, far below the plans' assumed growth rates of 8 percent (this assumption is discussed later in this report).



The bars in Figure 2 (and Figure 3) are divided into the typical plan's allocation across three broad asset classes: equities (e.g., stocks, real estate & mutual funds), cash & cash equivalents (e.g., cash on hand,

certificates of deposit, money market accounts), and fixed income (e.g., bonds, mortgages, corporate debt, treasury notes, bond funds).

Figure 2 shows that pension funds are usually about 60 percent invested in stocks and about 35 percent in bonds. This allocation has remained fairly constant from 2004 to 2010 (plus or minus about 4 percentage points from year-to-year). This allocation is roughly equivalent to the allocation of mutual funds that are targeted toward retirement in about 25 to 30 years. This suggests that most pension plan administrators maintain a consistent asset allocation strategy through changing market conditions and are not chasing yields through stocks during bull markets and running to safety (in bonds or cash) during bear markets.

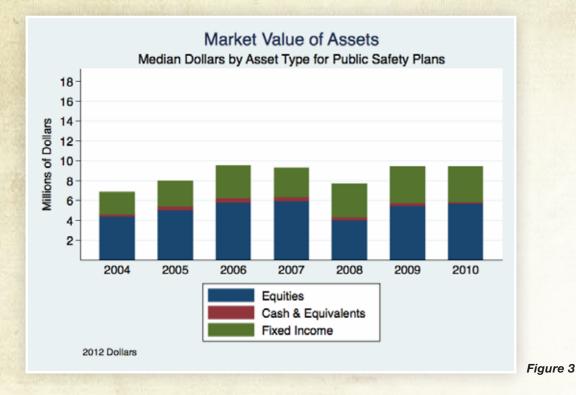


Figure 3 presents the market value of assets in **public safety pension plans** (those covering firefighters and police officers) and their allocation levels from 2004 to 2010. The dollar-value scales in Figures 2 and 3 are held the same to help demonstrate the relative difference in the asset values of general employee and public safety employee pension funds - though readers should be aware that most general employee plans cover more than three times the number of plan participants.

Like the general employee plans, public safety funds are also approximately 60 percent invested in equities and about 35 percent invested in bonds.

It is to be noted again that the market value of equity funds dropped significantly in 2008 and that the value returned to near 2007 levels by 2009, but the values have not grown and have actually declined slightly from 2006 to 2010.

Next, the demands on these plans must be considered.

Growth in Retirees Outstripping Growth in Employees

There are three different kinds of participants in pension plans. *Active participants* are individuals who are currently working and earning future pension benefits. *Retired participants* are individuals who are retired and are collecting their pension benefits. *Terminated participants* are individuals who are no longer earning additional pension benefits, but have not retired.

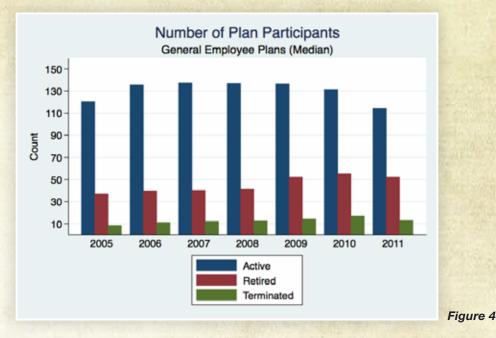


Figure 4 tracks the number of plan recipients by participant in **general employee** plans from 2005 to 2011. This Figure shows a general increase in the number of retired participants for the typical municipal plan.

In 2005, the typical plan had 120 active participants and 37 retirees; in 2011, it had 114 active and 52 retirees. Thus the number of employees stayed relatively stable over most of this time period, and has even declined in the past two years, but the number of retirees has increased—especially in 2009. The increase in the number of retirees is likely attributable to several factors, including demographic shifts and concerns that retirement incentives were going to become less generous (most notably by reducing the payouts or eliminating deferred retirement option programs—so-called DROP plans).

The number of terminated participants has increased slightly over the past seven years, but the number of terminated participants is much smaller than the number of active or retired participants.

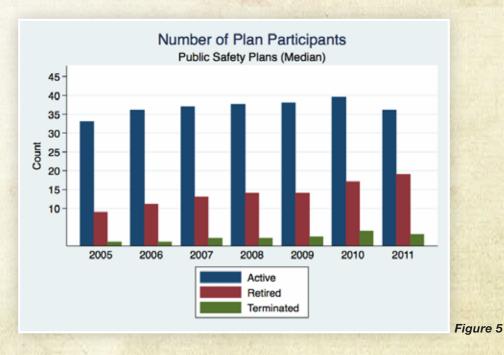


Figure 5 illustrates the distribution of participants in the typical public safety pension plans over the past seven years. Like the general employee plans, the number of active participants has remained fairly stable over the seven year period, with a slight drop in 2011, but the number of retired participants has doubled.

In 2005, the typical public safety plan had 33 active participants and 9 retirees; in 2011, there were 36 active participants and 19 retirees. As of 2011, there were more than half as many retired participants as active participants in the typical public safety plan.

This increase in the number of retirees is important because as the number of retired participants rises, so does the the size of the payouts from pension plans. That is not a problem for well-funded pension plans that are prepared for these pension outlays; but, it is a problem for governments with underfunded pension plans and those that did not anticipate the increase in retirement (such as those that provided retirement incentives in order to reduce payroll costs).

Accuracy of Pension Assumptions

In order to calculate pension liabilities, the trustees of pension plans, in consultation with their professional actuaries and advisors, make several important assumptions that are necessary to forecast their future pension benefits and then calculate the amount of money they need to have set aside to cover the benefits that have already been earned. That calculation results in the actuarially accrued liability, otherwise known as the pension liability.

If pension trustees make optimistic assumptions, they can lower the calculated liability. That may seem advantageous, but it only reduces the assumed size of the liability and does not affect the actual pension benefits. Over the long term, such overestimations will overstate the financial condition of the plan.

Important assumptions include the anticipated:

- Growth in employee salaries
- Long-term rate of return on the investment of pension assets
- Growth in the size of the payroll that is covered by the plan
- Inflationary rate
- Survival rate of pension beneficiaries

The DMS data provide information on the assumed and actual values of two of those key assumptions: salary growth and rates of return. In the next two Figures, focus is placed on the difference between actual and assumed values in recent years.

It is important to note, however, that these assumptions are not intended to be accurate every year; rather, they are intended to be accurate on average over many years (as much as 30 years). The actual growth in salaries and actual returns on investments will almost never be exactly the same as their assumed values. Sometimes actual values will be much higher than assumed levels and other times significantly lower. This is not problematic, so long as the average difference between actual and assumed values is small and does not bias pension plans toward underfunding their actual obligations.

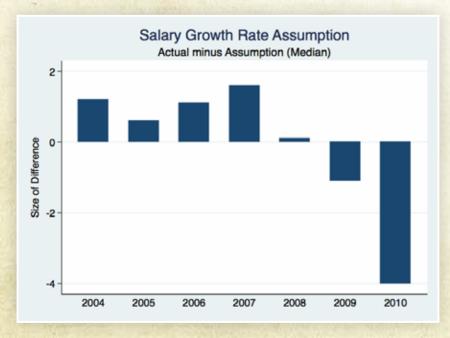


Figure 6

Figure 6 illustrates the accuracy of **salary growth** assumptions from 2004 to 2010 for general and public safety employees. Positive values mean that actual salary increases were greater than the assumptions. Because larger salaries lead to larger pension benefits for retirees, positive values mean that the actual growth in future pension benefits was greater than anticipated.

As Figure 6 shows, for the earliest years salary growth exceeded assumptions, but in the last two years, salary growth has fallen below assumptions. If the pre-2008 results are the norm, the consistent underestimation of salary growth is a likely contributor to the underfunding conditions prior to 2009. The shift from underestimating to overestimating in 2009 likely reflects the tight economic conditions facing many municipalities that have, in turn, significantly reduced salary growth. These last two years of overestimating salary growth will help correct the previous years' underestimations. This general trend is consistent across police, firefighter, and general employee plans.

The median assumed salary growth is 6.3 percent for police plans (from year-to-year the median assumption has been as low as 6 percent and as high as 6.5 percent), 5.9 percent for general employee plans (no lower than 5.7 percent in any single year during the time period analyzed), and 6 percent for firefighter plans (consistent in each of the years analyzed).

Another important assumption is the anticipated **long-term rate of return** on the investment of pension assets. This is similar to the rate of return that individuals may expect to earn on their own retirement investments. However, because pension plans have many participants entering and exiting the plan at different times, pension plans maintain a long-term investment strategy, whereas individuals are generally advised to change their investment strategies as they approach retirement to reduce their exposure to market risk and thereby accept lower rates of return.

The median assumed rate of return for all types of municipal plans was 8 percent in every year from 2004 to 2010. This is consistent with most public pension plans across the country.

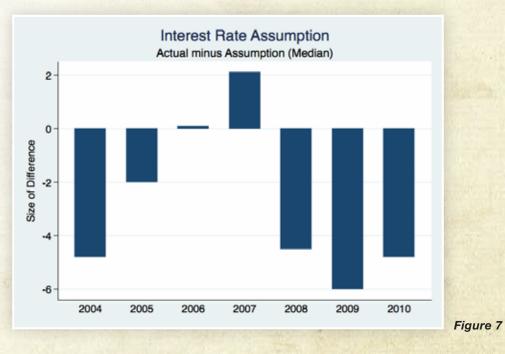


Figure 7 illustrates the accuracy of return on investment assumptions from 2004 to 2010. Positive values mean that typical investment returns were greater than assumed and negative values mean that actual returns fell short of the assumptions. When actual values are less than the assumed levels, plans will need to make up the difference by either achieving returns in future years that exceed their assumptions or by contributing more money into their pension plans out of budgetary resources.

It should not be a surprise that plans did not reach their investment return assumptions from 2008 to 2010. However, it is more unexpected that plans did not meet their assumptions in 2004 or 2005 and barely made their assumptions in 2006. In fact, 2007 was the only year that actual returns were greater than the assumption. Unfortunately, the data do not provide a longer-term analysis. There is a widely held concern that pension investors will seek to recover these "losses" by shifting assets into riskier stocks that pose the possibility of greater returns as well as risks of further losses. Trends are similar among police, fire, and general plans.

Trends in Annual Pension Contributions

Some in the pension community are critical of analyzing the health of pension plans based on their funding levels. They argue that the annual cost of pensions and a government's ability to meet those costs are key to the sustainability of pension funds. This position has merit. The rest of this report, therefore, looks at trends in annual pension contributions (i.e., the budgetary cost of pension plans born by taxpayers and pension participants).

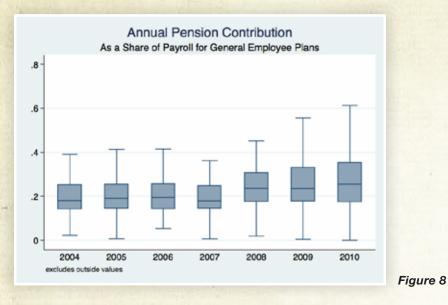


Figure 8 illustrates the growth in annual pension contributions as a share of the total covered payroll for **general employees** from 2004 to 2010. Annual contributions rose from 18 percent of covered payroll in 2004 to 25 percent of covered payroll in 2010. That is a 7-percentage point increase and means that over a fairly short period of time, pension contributions are growing steadily. Put another way, in 2004, pension contributions were less than 20 percent of a typical general employee's pay; in 2010 they were about a quarter of pay.

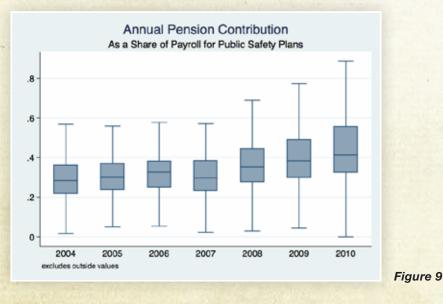


Figure 9 illustrates the growth in the total contributions for **public safety pension plans** from 2004 to 2010. Total contributions rose from 28 percent of covered payroll in 2004 to 41 percent of covered payroll in 2010. That is a 13-percentage point increase. That is, in 2004, pension contributions were a quarter of a typical public safety worker's pay and they are approaching half of their pay in just seven years.

Note that the rate of growth in annual contributions in public safety plans is significantly higher than in general employee plans, and the 2004 value for public safety workers is more than the 2010 value for general workers.

City Governments Paying More

One of the more concerning trends deals with the allocation of payment responsibility for municipal pensions. LCI's analysis over the past seven years shows that local governments are picking up the increase in annual pension costs – especially for public safety plans.



Figure 10

Figure 10 breaks out the total contribution of **general employee** plans into the portion that is paid by the municipality and the portion that the employee contributes out of his or her own pay. The growth in employee contributions is flat from 2004 to 2010. The city's portions, however, have risen significantly—from 13.8 percent in 2004 to 21.3 percent in 2010.

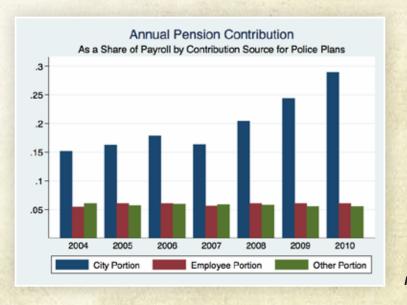




Figure 11 shows the contributions of employees and the city as a proportion of payroll for the typical **police pension** plan. It differs from Figure 10 because most police plans are also funded by the state through the return of insurance premium tax dollars collected within each city's jurisdiction. This Figure shows all three

sources of funding.⁵ Again, the growth in employee contributions is flat from 2004 to 2010. The growth in state contributions from premium tax dollars is also mostly flat. The municipalities' portions, however, have nearly doubled—from 15.1 percent to 28.9 percent.

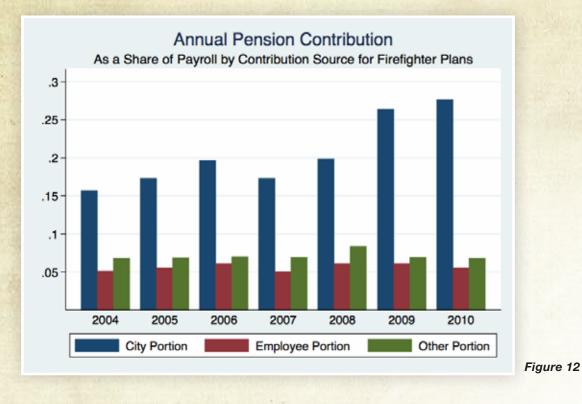


Figure 12 shows the portion of contributions in **firefighter** plans that is paid by the municipality, the portion that employees contribute out of their own pay, and the portion paid by the state through the return of insurance premium tax dollars that were collected within each municipality's jurisdiction. Again, the growth in employee contributions is flat from 2004 to 2010. The growth in state contributions is also mostly flat and is actually more than that of employees. The municipality's portion has risen significantly.

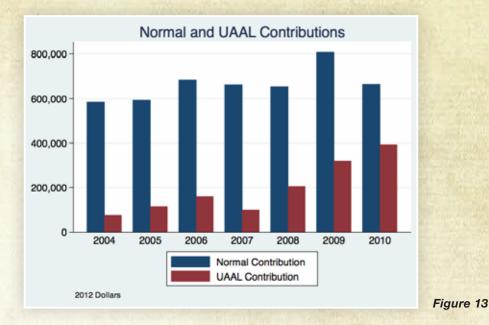
This growing contribution from municipalities comes at a time when many municipalities are fiscally stressed with revenues curtailed and demand for services intensified as a result of tough economic times.

Understanding the Increase in Contributions

Another way to look at the annual contributions is to consider how much of the total annual contribution can be attributed to benefits that are earned during the year by active participants (the normal cost) and how much can be attributed to paying down benefits that were earned in previous years, but are not covered by current assets (the unfunded portion of the liability).

The unfunded portion of the liability (referred to as the unfunded actuarial accrued liability or UAAL) does not need to be paid back in a single year (for most governments, this would be financially implausible). Rather, pension plans with unfunded liabilities are allowed to amortize that liability over many years (most amortize over about 30 years). Therefore, each year's pension contribution includes a portion to cover the benefits that were earned that year and a portion to pay off some of the unfunded liability (this is the UAAL contribution). When unfunded liabilities increase or if plans use shorter amortization periods, the UAAL contribution increases.

Figure 13 illustrates the increase in the normal cost of pensions and the increase in the cost of pensions associated with paying the UAAL contribution. The Figure shows that the rise in the pension contribution costs is partially associated with recognizing larger costs for current workers (the rise in normal contribution) but is especially influenced by lower funding ratios and the increase in payments toward paying for previously earned benefits (the rise in the UAAL contribution). In 2004, the UAAL was a small portion of the total contribution, but in 2010 it is more than a third of the cost.



How does the size of annual contributions match up against the amount that is paid out each year in pension benefits?

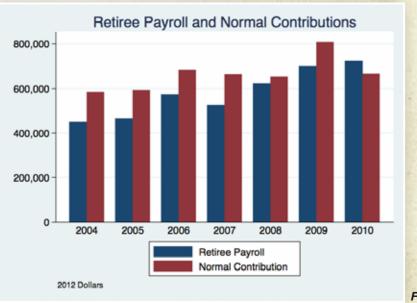


Figure 14

Figure 14 illustrates the payments to retirees (the so-called "retiree payroll") and compares that information to the normal contribution for pension plans each year. Recall that the normal contribution is the cost of benefits that are earned in a given year.

Figure 14 shows that normal costs were greater than the retiree payroll until 2010, which is the first year that the typical government paid out more money in retirement benefits than it contributed for benefits that were earned that year. This is significant because it indicates that Florida's municipalities are entering a period where earned benefits need to be paid and there is less time to improve underfunded plans.

This trend is similar for all classifications of employees.

Conclusion

This report analyzes recent trends in Florida municipal pensions using both funding levels and annual pension contributions. In doing so, it shows that current concerns about underfunded municipal pension

plans were not caused by the downturn in the stock market. Rather, the underfunding began before the stock market fell—even when economic times in the state and nation were relatively strong. In short, it is a problem that has been years in the making.

Other findings include:

- 1. Pension contributions have increased substantially over the past seven years.
- 2. Local governments are picking up more of the pension costs, especially for public safety plans.
- 3. The number of retirees is on the rise and is outstripping the growth of active participants in municipal pension plans.
- 4. Plans tend to overestimate the growth in employee salaries and long-term rate of return on investment of pension assets.
- 5. Payments for unfunded liabilities are making up an increasing proportion of annual pension contributions.

This report shows that while employee and state pension contributions are fairly stable, those costs for municipalities (i.e., taxpayers) are growing—adding insult to injury for many cities struggling to make ends meet.

Endnotes

¹*A* "D" plan was funded at 60-70 percent; an "F" plan was below 60 percent funded. Funding levels are measured as the percent of the plans' liabilities covered by its assets. A "D" means that assets covered only 60-70 percent of the plan's liabilities. LCI's research covered 87 of the largest 100 cities' plans offering defined benefits and not included in the Florida Retirement System (FRS). The remaining cities provided defined benefits to their employees or were part of the FRS. LeRoy Collins Institute. 2011. Report Card: Florida Municipal Pension Plans. November. http://bit.ly/rzxHyq

²LCI covers only those municipalities that offer defined benefit pension plans and plans that are outside of the FRS.

³ The Entry Age Normal Cost Method is the most common actuarial cost method in Florida. Entry Age Actuarial Cost Method allocates the present value of the projected benefits of each individual in the actuarial valuation of the pension plan on a level basis over the service of the individual between the age that they enter the plan and the assumed age that they will exit the plan. New accounting standards require this cost method for all state and local government pension plans in fiscal years beginning after June 15, 2014. The general trend is the same across other funding methods, though the funding ratios for the other methods are higher.

⁴ Other studies have shown that the funding levels of public pension plans were at their peak around 2000, but that those levels are not typical over the past 20 years. See J. Fred Giertz and Leslie E. Papke's (2007) "Public Pension Plans: Myths and Realities for State Budgets", National Tax Journal, LX (2), 305-323

⁵ The state's portion is labeled "other portion" in this report to match the labeling in the original DMS reports. A "D" plan was funded at 60-70 percent; an "F" plan was below 60 percent funded. Funding levels are measured as the percent of the plan's liabilities covered by its assets. A "D" means that assets covered only 60-70 percent of the plans' liabilities.



Tough Choices: A research series focused on state and local government relationships from the LeRoy Collins Institute. Established in 1988, the LeRoy Collins Institute is an independent, nonpartisan, non-profit organization which studies and promotes creative solutions to key private and public issues facing the people of Florida and the nation. The Institute, located in Tallahassee at Florida State University, is affiliated and works in collaboration with the State University System of Florida.

Named in honor of former Florida Governor LeRoy Collins, the Institute is governed by a distinguished board of directors, chaired by Allison DeFoor, D.Min. Other board members include executives, local elected officials, and senior professionals from throughout the state.

Beginning in 2005, the Institute published several reports in a series called, *Tough Choices: Shaping Florida's Future*. These publications provided an in-depth analysis of Florida tax and spending policy including Medicaid, PreK-12 education, higher education, and children's health and welfare. The research concluded Florida's pattern of low spending and low taxes conflicted with the growing demands of the state's residents, predicting trouble may be ahead.

In the newest research series, *Tough Choices: Facing Florida's Governments*, the Institute takes an objective look at the often tumultuous relationship between state and local governments in Florida. This report *Years in the Making: Florida's Underfunded Municipal Pension Plans* is the fourth release in this research series. This report was written by Dr. David Matkin, assistant professor at the Reubin O'D. Askew School of Public Administration and Public Policy. Godwin "Tommy" Thiruchelvam, a master of public administration student in the Askew School, also assisted with the analysis and interpretation of the data.

The Tough Choices research series is funded by the Jessie Ball duPont Fund. The Florida League of Cities generously provided support for this report. Future reports in the Tough Choices research series will examine trends in city and county spending and revenue, state proposals to limit local revenues, and differential effects of the economy and state mandates on fiscally distressed communities.

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