

# INSIGHTS INTO RISING PENSION COSTS IN ILLINOIS MUNICIPALITIES

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*This article examines the funding status of downstate (which includes suburban) Illinois police and fire pension funds in relation to professional recommendations, the numbers of participants, benefits, actuarial assets and liabilities. In addition, relationships between municipal characteristics and changes in funding ratios are analyzed to provide insight into the factors associated with changes in funding ratios. The article concludes with a discussion of potential approaches for addressing rising pensions with possible implications for Illinois.*

## INTRODUCTION

In recent years, a long-standing financial problem plaguing municipalities has become, perhaps, the most serious issue facing municipal leaders, posing a risk of disastrous results in the near future. Pension issues have been increasing for many years, and they have recently surfaced because of changing demographics and shifting finances that resulted from, to some extent, the Great Recession of 2009. The slow post-recession recovery in Illinois, low investment returns and financial issues leading to cutbacks in state-shared resources aggravated the issue (Walzer & Blanke, 2018). Population declines, along with increasing numbers of elderly residents and increases in municipal employees nearing retirement age, will worsen these financial issues. Municipalities must replace retirees because pension payments for previous retirees will increase.

The financial status of a pension fund depends on the number of pensioners, employer contributions, active participant contributions and returns earned on investments. The latter is difficult to predict, but low rates in the post-recession recovery adversely affected the financial performance of suburban and downstate funds. Likewise, the unattainable interest rates used to calculate the required employer contributions prior to the recession weakened the financial status of the funds.

Illinois is certainly not alone in trying to resolve the rising cost of pensions. Likewise, retirement incomes are becoming more important in affecting the

future of local economies. This is especially true in rural areas, where retirees and elderly residents are relatively numerous and growing components of the population base. Thus, discussions that target ways to reduce pension benefits and costs must consider the possibility of significant adverse effects toward these economies (Deller, Stallman & Miller, 2017).

The fiscal situation in Illinois has been more pressing following the passage of an Illinois statute in 2010 that authorized the state Office of the Comptroller to intercept state shared revenue distributions if local governments did not contribute to public safety pension funds according to the recommended actuarial standards (SB 3538, PA 96-1495). The news media reported several instances in which enforcing this statute resulted in significant cutbacks in the availability of local personnel who provide essential services. Several cities have authorized property tax increases to meet the growing pension liabilities. In Harvey, layoffs of public safety personnel due to court-ordered pension payments made the news. These situations led to further discussions about the possibility of allowing municipalities to declare some form of bankruptcy as a possible next step.<sup>1</sup>

In a 2018 survey by the Northern Illinois University (NIU) Center for Governmental Studies (CGS) and the Illinois Municipal League (IML), discussed elsewhere in this issue (Walzer & Blanke, 2018), municipalities stated that higher pension contributions were one of the most important factors underlying the FY2018 budget shortfalls. The average municipality in the survey had slightly less than 60% funding in its police or fire pension funds, which is consistent with the data discussed later in this article.

In other cases, the increasing fiscal issues caused municipalities to consider alternative financing methods, such as borrowing, to meet pension obligations. These practices may create other issues in the future, especially in municipalities facing tax and debt rate limits (Campbell, 2018). In some cases, cities have considered privatizing assets to service pension debts. For example, the City of Alton is exploring the option of privatizing its sewer system and water-treatment plant to achieve this end.<sup>2</sup> This approach warrants careful analysis by local management to ensure sustainable funding. Privatizing an enterprise that operates at a loss could contain costs and provide a one-time source of revenue from an asset sale; however, it also means forgoing future revenue from service charges if operations improve.

These issues are still in flux and are debated on a case-by-case basis. Pension obligations at the state level resulted in attempts to shift a larger portion of the costs to local government agencies, such as schools and possibly public universities.<sup>3</sup> Clearly, decisions about these issues will seriously affect local public financing in Illinois.

At the very least, the growing pension issue is reshaping the level of services provided and the amounts that residents pay for them. This article reviews the pension issue, its severity, and the strategies that municipal leaders have taken to address the concern. Two primary data sources are used in the analyses: the biennial pension reports published by the Illinois Department of Insurance (IDOI) and a survey of mayors conducted by NIU's CGS in collaboration with IML.<sup>4</sup>

The discussion begins by describing the pension system, the professional funding standards, and the changing funding ratios. The financial statuses of suburban and downstate police and fire funds are then discussed to determine their changing effects on municipal finances, along with ideas about future expectations. The third section analyzes factors associated with changes in funding ratios and actions reported by mayors in response to the changing fiscal conditions. The strategies used in other states to address similar issues are briefly discussed to explore the options that Illinois could consider. The final section summarizes the results and the possible approaches, including those currently under consideration.

## **STATUS OF PENSION FUNDS**

Overall, Illinois has 671 pension funds, and 15 are classified by the Illinois Department of Insurance as large funds—statewide and state financed, City of Chicago or Cook County funds. The remaining 656 funds (downstate police and fire funds) operate independently in municipalities that have populations of 5,000 to 500,000 and a full-time police force or full-time fire workforce. This article focuses mainly on the downstate police and fire funds. The analysis excludes pensions for teachers and for employees in the City of Chicago because to adequately explore their issues warrants separate articles. Some other types of municipal employees, such as managers and administrators, have pensions covered under the Illinois Municipal Retirement Fund (IMRF), but the analysis excludes this fund because it does not have the same funding concerns as other plans in the state.

Statewide, 591,687 public employees participate in pension funds, and 491,657 people currently receive pension benefits. Combined, pension funds have \$170.23 billion in actuarial pension assets and \$355.42 billion in actuarial liabilities, meaning less than half of anticipated pension liabilities could be met with current funding (Illinois Department of Insurance, 2017, p. 5). However, funding levels vary widely by fund. For example, IMRF has \$43.23 billion in assets and \$47.81 billion in liabilities, so 90.41% of the fund is covered. On average, about 57% of the downstate police and fire pensions are covered.

Each program is funded at locally-determined amounts and varies in operating procedures and benefits, which may explain some of the variations in funding levels described later. Basic information regarding the number of active participants and pensioners in these funds illustrates the wide variations in funding levels and the number of active participants and pensioners. For example, according to 2016 Illinois Department of Insurance data, 12 downstate fire funds and one police fund were fully funded, so their assets met or exceeded the actuarial-based liabilities. Most, but not all, of these funds are in smaller municipalities. Possible explanations for these differences are explored later in this article.

When examined according to the changes in the funding ratio between 2012 and 2016, the number of police funds in which the funding ratio increased (206) surpassed the number of declines (143). However, changes in the funding ratio for fire funds were more evenly split: 135 funds declined and 142 funds increased. The pension funds that gained funding were predominately in midsized cities with higher incomes. Some pension plans gained funding in every part of the state, but most were located in metropolitan counties.

A more detailed examination of the funds according to funding ratio shows that 65% of the police funds and 58.6% of the fire funds were in the 50% to 80% funding range, with 80% regarded as a bare minimum by federal agencies and some rating groups. The adequacy of this level has been debated with the recommended goal being a higher funding level to avoid fiscal stress in payout periods (Brainard & Zorn, 2012; Miller, 2012). However, nearly one-third (29.2%) of the police funds and 25.6% of the fire funds are significantly underfunded by this criterion. Only 15.8% of the fire funds and 5.7% of the police funds surpassed the 80% level. Those at this level are typically in smaller or midsize municipalities (with average populations of 20,000) in the collar counties of the Chicago metropolitan statistical area. Next, we discuss the fire and police funds in terms of size and financial conditions.<sup>5</sup>

## **POLICE PENSION FUNDS**

An analysis of suburban and downstate police funds shows roughly similar trends and conditions across employment-size groups (Figure 1). The average police pension fund has 1.2 active participants per pensioner, regardless of municipal size. In addition, pension funds with more active employees have a proportional number of pension beneficiaries, so the funds did not necessarily have more participants per pensioner.

The average salary and pension benefits are higher in pension funds with more participants, which, to a degree, may reflect higher living expenses in larger municipalities. The largest police pension funds are located in the collar counties or at the core of downstate metropolitan areas, such as Rockford and Springfield. The smallest police pension funds are located mainly in places with less than 10,000 people. However, salaries are determined by employees' average length of time in service and depth of experience, as well as other measures, so a more sophisticated analysis is needed to understand these differences. Notable differences are the 3.7% increase in the number of active participants in the large police funds and the 3.2% decline in the smallest funds, both of which occurred between 2012 and 2016. Likewise, the number of pensioners increased in every police pension fund size group, but the increase was highest in those with fewer than 10 participants. These trends reflect demographic shifts in smaller communities toward a smaller and older population, and these shifts are occurring throughout the country.

The funding status of the police funds improved between 2012 and 2016. Increases in funding ratios were highest in the funds with the greatest number of active participants and second highest in those with the smallest. The average funding ratio was 59.0% in the largest police funds, and the growth between 2012 and 2016 was 3.1%. The average funding ratio of the fire funds was 55.8%.

The outstanding liability per participant differs by size of the police fund. In the case of the smallest funds, the liability (\$415,666) was more than the outstanding liability in funds with 10 to 49 participants, but less than that for funds with 50 or more participants. The largest unfunded liabilities per participant were in the largest pension funds. Police pension funds with fewer than 10 participants had an average of \$553 in unfunded liabilities per resident, and the largest funds (more than 100 participants) had an average of \$823 in unfunded liabilities per resident.

**FIGURE 1**

SUBURBAN AND DOWNSTATE POLICE PENSIONS BY FUND SIZE

INDICATOR	FEWER THAN 10 PARTICIPANTS	10–49 PARTICIPANTS	50–99 PARTICIPANTS	MORE THAN 100 PARTICIPANTS
	(40 FUNDS)	(236 FUNDS)	(51 FUNDS)	(21 FUNDS)
<b>Average No. of Active Participants in 2016</b>	7	25	66	156
Average Salary, 2016	\$58,373	\$80,060	\$86,771	\$91,918
Change in Participants, 2012–2016	–3.2%	0.3%	0.4%	3.7%
Change in Average Salary, 2012–2016	11.0%	10.2%	8.2%	8.1%
<b>Average No. of Pensioners in 2016</b>	6	19	57	141
Participants per Pensioner in 2016	1.2	1.3	1.2	1.2
<b>Average Benefit, 2016</b>	\$33,812	\$50,223	\$53,266	\$58,453
Change in Pensioners, 2012–2016	28.0%	18.6%	16.2%	10.9%
Change in Average Benefit, 2012–2016	4.2%	10.1%	14.6%	15.0%
<b>Actuarial Assets and Liabilities in 2016</b>				
Actuarial Funding % in 2016	42.7%	58.4%	56.7%	59.0%
Actuarial Funding % in 2012	40.3%	57.2%	56.2%	55.9%
Unfunded Liabilities per Participant, 2016	\$415,666	\$388,325	\$476,252	\$479,034
Unfunded Liabilities per Resident, 2016	\$553	\$731	\$824	\$823

Source: Calculated from Illinois Department of Insurance, Biennial Pension Report 2017, Profile Reports of Individual Retirement Systems and Pension Funds.

## **FIRE PENSION FUNDS**

Examining the status of fire funds is more difficult because some fire protection districts (FPD) serve areas that cover multiple municipalities. In this case, municipalities are not responsible for the service, so the financial obligations do not affect municipal decisions directly. Of the 281 downstate fire pension funds, 84 are in FPDs, which typically have smaller funds, with 44% having fewer than 10 participants.

The salaries and benefits paid to firefighters in FPDs are consistent with those in other pension funds of the same size. However, FPD pension funds typically have higher actuarial funding, with the average FPD pension plan at 71.9%; the average municipal fire pension plan is at 54.1%, with consistent differences across size categories. FPDs share services with multiple communities, so they may have access to additional managerial expertise or the ability to share resources in meeting retirement costs. Regardless, the following figures must be reviewed carefully because of differences between pension plans for individual fire departments and shared FPDs.

When funding levels are compared according to the number of participants, relatively little variation is found, with the range being only 52.9% in funds with 50 to 99 participants to 60.0% in those with 10 to 49 active participants (Figure 2). Equally important is that the funds of each size increased in funding status between 2012 and 2016, but the growth was relatively small in the context of percentage. However, the movement was in a positive direction. The current analysis could not include the internal interest rate adjustments, and these changes could reduce the funding level in specific cases.

Examining the fire pension funds according to the number of participants provides additional insight into the differences among the funds. For example, the number of active participants decreased between 2012 and 2016 in three fund size groups, and this decrease was especially pronounced in those funds with fewer than 10 active participants. One possible explanation may be that retirees were not replaced because of fiscal conditions. Additional discussion of the effects of fiscal changes during the post-recession recovery is found in the other article by Walzer and Blanke in this volume.

Integral to this issue is the effect caused by the discrepancy between the number of participants paying into the fund and the number of pensioners receiving benefits. That concern was identified as an important question for Social

Security and other retirement programs (Reznik, Shoffner, & Weaver, 2006). Nationally, the ratio of active participants to pension beneficiaries decreased consistently between 2001 and 2012 (Wang & Peng, 2016; Public Fund Survey, 2012).

According to this criterion, the smallest funds are in a better position, with 1.2 actives per pensioner; the larger funds are at a 1:1 ratio. The aging of the population suggests that an increased number of retirees is present in these funds and that, assuming they will not always be replaced, for fiscal reasons, the ratio of actives to pensioners is likely to decrease. This trend may reduce the funding ratio and place additional pressure on the fund, depending on the rates of return on investments.

The average change in salaries for participants ranged from 9.9% to 12.1% during this period, with the highest percentage in the smaller funds. However, the salary level also affects these percentages. The average of \$62,757 paid in smaller municipalities, when compared with the \$93,856 paid in those municipalities with the largest number of active participants, means the same compensation increase is a higher percentage of a smaller base.

Because the benefits paid to pensioners are based mainly on salaries at retirement age, it makes sense that the average benefit paid to pensioners in the smaller funds (\$29,073) is lower than that paid in the larger funds (\$56,921). The dollar benefits paid correspond to the salaries of active participants, and those benefits steadily increase with the number of participants.

Somewhat unexpected is the average change in pension benefits when compared with the size of the fund. The smallest funds increased by 4.0%; the largest funds increased by 18.2%. The explanation for this significant difference is not completely clear but reflects the differences among the compensation levels and the lengths of service. The smaller fire pension funds were primarily located in places with populations numbering less than 10,000 people, and those places might have had relatively fewer instances of retirement between 2012 and 2016.

Another important indicator of pension status is the unfunded liabilities per participant and the changes made in recent years. In 2016, funds with the smallest number of active participants had an average of \$304,118 per participant; the largest funds had an average of \$563,748. In other words, the unfunded liability was \$606 per resident in the average municipality.

**FIGURE 2**

SUBURBAN AND DOWNSTATE FIRE PENSION FUNDS BY NUMBER OF PARTICIPANTS

INDICATOR	FEWER THAN 10 ACTIVE PARTICIPANTS (83 FUNDS)	10–49 PARTICIPANTS (144 FUNDS)	50–99 PARTICIPANTS (40 FUNDS)	100+ PARTICIPANTS (14 FUNDS)
<b>Average No. of Active Participants, 2016</b>	3	26	65	141
Average Salary, 2016	\$62,757	\$83,198	\$88,230	\$93,856
Change in Active Participants, 2012–2016	–6.6%	0.3%	–0.5%	–1.1%
Change in Average Salary, 2012–2016	12.1%	10.7%	11.1%	9.9%
<b>Average No. of Pensioners, 2016</b>	2	19	57	131
Active Participants per Pensioner in 2016	1.2	1.1	1.0	1.0
Average Benefit, 2016	\$29,073	\$46,863	\$52,379	\$56,921
Change in Pensioners, 2012–2016	34.7%	16.2%	12.3%	8.8%
Change in Average Benefit, 2012–2016	4.0%	13.3%	12.8%	18.2%
<b>Actuarial Assets and Liabilities, 2016</b>				
Actuarial Funding % in 2016	58.0	60.0	52.9	55.8
Actuarial Funding % in 2012	56.0	59.3	51.1	53.3
Unfunded Liabilities per Participant, 2016	\$304,118	\$389,949	\$538,636	\$563,748
Unfunded Liabilities Per Resident, 2016	\$376	\$505	\$839	\$836

Source: Calculated from Illinois Department of Insurance, Biennial Pension Report 2017, Profile Reports of Individual Retirement Systems and Pension Funds.

## **FACTORS ASSOCIATED WITH FUNDING CHANGES**

Overall improvements in the funding ratios for the pension funds occurred during the period of study, but these improvements varied considerably according to location. In this section, a multivariate analysis is conducted to compare the characteristics of municipalities that achieved improvements in funding ratios with the characteristics of municipalities that experienced no changes. Barth, Hilliard, Jahera, Joo and Lee (2016) examined determinants of funding ratios for local pension funds between 2011 and 2013. They reported that pension funds with larger asset sizes were more likely to have higher funding because they had better access to investment expertise. In addition, they found that pension funds with stronger assumptions about investment returns had higher funded ratios, although this might reflect an overstatement of assets (Stalebrink, 2014).

Another recent study reported similar findings on the changes in pension-funding levels between 2001 and 2009 (Wang & Peng, 2016). They found that the most significant factors that affected changes in pension funding were actual investment returns, changes in investment return assumptions, and the levels of employer and employee contributions. Several community- and fiscal-related factors—including outstanding long-term debt, union membership, and changes in the ratio of participants to beneficiaries—did not seem to effect changes in pension funding.

In this analysis, we explore factors that changed the actuarial funding percent for 524 suburban and downstate police and fire pension funds between 2012 and 2016. The total population size in 2010 and the ratio of the total assets in 2012 to the population are included as control variables that affected the overall fund size and community served. Unemployment rates and the median age are used as economic and demographic control factors. Last, we explore the following factors, which affected pension fund management in 2012:

- Employer contributions per participant
- Share of total fund assets in equities
- Active participants per pensioner
- Assumed interest rate

Overall, the regression analyses accounted for slightly more than one-fourth of the variation in changes in pension funding between 2012 and 2016 (adjusted  $R^2$  of 0.231). Municipalities with lower unemployment rates in 2012 were

more likely to improve their pension funding by 2016. Pension funds with more employees paying into the fund and more employer contributions per participant in the past improved the funding ratio, and this finding is consistent with those of a recent study (Wang & Peng, 2016).

In addition, economic recovery benefitted pension funds by providing a larger share of fund assets that could be invested in equities. Interestingly, the assumed interest rates were associated with declining pension funding relative to liabilities. Pension funds with stronger assumptions about investment returns had a higher risk of being unable to meet obligations in the sense that funding levels might have been overstated and might have led to lower contributions (Miller, 2012; Stalebrink, 2014). Actuarial asset valuations include assumptions on future investment returns. In the future, the actual value of pension assets may be lower than expected if it depends on risky investments (Elder & Wagner, 2016).

## **OPTIONS DISCUSSED FOR PENSION REFORM**

In other states, work is underway to address pension concerns, and the literature on actions being considered is growing (Cipriani, 2014; Smith & Dove, 2016). In Illinois, several options have been proposed, such as consolidating downstate public safety pension funds or converting the defined benefit formula to a defined contribution status. In addition, a statewide property tax was suggested, along with modifying or removing clauses in the Illinois Constitution that prevent changes in benefits. There is insufficient space to discuss these proposals in detail; they are examined elsewhere, so they are only briefly described in the following section (Primo & Jares, 2017).

## **EFFORTS UNDERWAY IN SEVERAL STATES**

Some states, including Utah and Michigan, have realized savings in local costs by offering defined contribution plans to new employees (Smith & Dove, 2016). Many traditional public sector pensions are defined as a benefit in which the employer promises to provide a set benefit when employees retire, based on salary and years of service. Under a defined contribution plan, such as a 401(K) or 403(b), employees make tax-exempt contributions toward their retirement benefits and the employers make matching contributions. In general, defined contribution pension plans are less expensive for employers because more of the investment responsibility is shifted to the employees (Smith & Dove, 2016).

Pennsylvania adopted a hybrid benefit/defined contribution pension plan for new employees (Pew Charitable Trusts, 2017). Care must be taken in adopting defined contribution pension plans and other tiered systems because they may not directly reduce outstanding liabilities for current employees and retirees (Miller, 2012). However, these reforms can reduce the rate at which pension costs increase going forward.

In 2013, Kentucky enacted a pension reform that limited the cost of living adjustments, and it adopted a different tier of pension benefits for new employees (Pew Charitable Trusts, 2013). In 2012, the total unfunded pension liability in Kentucky exceeded the total state tax revenue. Thus, the state enacted a reform that not only prevented pension plans from providing the cost of living adjustments before they were funded, but also eliminated the automatic cost of living adjustment provisions. The new tier of the pension plan includes defined contributions by the state and employee savings that are set aside in a manner similar to 401(K) plans. In addition, appropriations to repay the state pension debt increased in this reform. In 2018, further legislation that made similar reforms to teachers' pensions was passed.<sup>6</sup>

Arizona passed a pension reform referendum in 2016. Proposition 124, which became SB 1428,<sup>7</sup> reduced the rate of cost of living adjustments. The reform chained the cost adjustments to the Consumer Price Index, with a maximum increase of 2%. In addition, the law allowed new employees to choose between a traditional defined benefit pension and a defined contribution plan. In 2017, SB 1442 passed, and it applied the same reforms for corrections officers.<sup>8</sup>

Indubitably, pension reform requires overcoming opposition from the affected groups. Teachers protested the 2018 pension reform in Kentucky because it reduced their retirement benefits. Police officers in Arizona initially opposed the pension reforms in the state for similar reasons. Some people have argued that reducing pension benefits can limit the ability of managers to recruit and retain highly qualified personnel (Quinby, Sanzenbacher, & Aubry, 2018).

Pension reforms passed in other states resulted from compromises between legislators, managers and employees. In the case of Pennsylvania, unions in the public sector offered less resistance to pension reforms because the immediate effect to their benefits was less severe. In addition, enacting the reform protected their benefits from the possibility that more drastic cuts would be enacted in the future. In Arizona, some police officers ultimately voted for Proposition 124 because the compromise ensured their retirement benefits would remain sustainable.

## **OPTIONS CONSIDERED IN ILLINOIS**

Several approaches to reducing pension costs in Illinois have been offered. Most of these proposals involve, in some way, reducing pension benefits and/or requiring agencies to contribute at actuarially-determined levels. The statute authorizing the state Comptroller to intercept state funds distributed to local governments that are currently not contributing at required levels was mentioned earlier. It has caused the municipalities to take action and make significant policy changes. Further actions regarding this approach will be necessary for local officials to work through the issues.

Many discussions have occurred in regard to amending the Illinois Constitution to allow government agencies to refine both the benefits received and/or the participants' contribution levels. The Illinois Supreme Court ruled that the constitution protects these rights; thus, changes would require amendments at that level. Various proposed approaches and results are discussed in detail elsewhere, so they are not presented here. Perhaps the most frequently advanced option has been to change pensions from a defined benefit to a defined contribution and to allow participants to manage their funds.

Another proposal supported by the Illinois Municipal League is to consolidate downstate funds into one professionally and efficiently managed fund. Given the importance of the return on assets invested and the opportunity to apply more sophisticated investment and management practices in larger funds, this approach can improve the condition of these pension systems as a whole. Several options can be pursued, and legislation has been proposed to reorganize the various public safety pension funds.

In regard to financing, proposals to establish a statewide property tax to fund outstanding state pension liabilities were advanced. These liabilities are separate from the downstate police and fire funds, but they still pose a major fiscal issue that ultimately affects local governments. According to an analysis of state liabilities, Haasl, Mattoon and Walstrum (2018) suggested such a tax could be imposed at reasonable rates and still generate sufficient funds to help retire the state pension obligations within a 40-year period.

In these analyses, it is assumed that the state will fully pay the typical costs of the pension benefits. Imposing property taxes to retire the local liabilities from additional property taxes is probably not entirely suitable, primarily because Illinois already has the second highest effective property tax rates in the nation.

This situation nearly forces local governments to divert funds from other uses, to find ways to offload services to other governments and to modernize their delivery systems for providing local services at lower costs. The recent passage of state and local tax limitations on deductions in calculating federal income taxes makes matters even worse.

Given the gravity of the situation in some municipalities and the obstacles encountered in removing obligations, in 2015, Governor Bruce Rauner's administration proposed that municipal governments be allowed to pursue bankruptcy status for pension issues.<sup>9</sup> This approach would require state legislation and would be a dramatic new direction following in the wake of what occurred in Detroit, Michigan. However, this idea is not being actively discussed, though it is sometimes mentioned as an option for municipalities in severe fiscal distress.

## **WHAT DID WE LEARN?**

Several key points were derived from the current analysis of the downstate police pension funds:

- In 2016, fire funds with 10 to 45 participants had the highest funding ratio (60%), and the next highest ratio (59.0%) was reported for police funds with more than 100 active participants. The funding ratios showed clear differences: The average of the 40 funds with fewer than 10 participants was 42.7%; the average of the largest police funds was 59%.
- Overall, the funding ratios of the police funds and the fire funds increased slightly between 2012 and 2016, and more substantial increases occurred in funds with more active participants. Though some funds were fully funded, the averages for the other funds were well below the recommended minimum of 80% or higher funding. According to the 2012 through 2016 trends, it will take a substantial amount of time to reach this percentage.
- The number of pensioners increased the most in the smaller fire funds (34.7%). Growth in the number of pensioners was slightly higher in the fire funds than in the police funds, though the percentage was partly affected by a smaller number of pensioners in the fire funds.
- The estimated unfunded liability per resident in the fire funds ranged from \$376 in the smaller fire funds to \$836 in the larger funds. For police funds,

the unfunded liabilities ranged from an average of \$553 per resident in the smaller funds to \$823 per resident in 2016.

- Comparing the factors associated with changes in funding ratios between 2012 and 2016 shows that unemployment and the assumed interest rate are negatively correlated with changes in pension funding ratios. Alternatively, municipal contributions per participant, the share of assets invested in equities and the ratio of participants to pensioners are positively correlated. Municipality size is only marginally related to changes in funding ratios. The ability of these variables to predict changes in funding ratios is weak, and more research is underway to refine the model.
- A survey of mayors in 2018 clearly shows that pensions are a serious issue, and that mayors are grappling with ways to finance current services and to meet higher pension obligations, some of which involve paying for unfunded contributions in the past. In several instances, the choice involved dismissing personnel from essential services and selling assets.

Pension liabilities could pose serious concerns for intergenerational equity, because current residents are facing higher taxes or reduced services so that retirement benefits for past public servants can be funded (Smith & Dove, 2016). Furthermore, the population in Illinois is aging, and the number of residents at retirement age is expected to increase faster than the working-age population in many parts of the state.<sup>10</sup> Service reductions are underway, at a time when a larger share of the population is becoming more dependent on public services.

## **SUMMARY AND CONCLUSIONS**

Pension obligations have become a major issue throughout Illinois. Although several are fully funded, the average funding ratio hovers in the 50% and higher range, indicating that a substantial amount of future resources must be diverted to pensions. While Illinois is not alone in addressing these issues, it is relatively unique that the Illinois Constitution, reinforced by the courts, guarantees pensioners' rights to their current benefits. These requirements limit the options to revise financing available for local governments working with employees currently in the system.

Several proposed alternatives to address these issues are being discussed. Until these issues are resolved, it is indubitable that financial decisions will be difficult

for many municipal officials as they try to work through the system. The aging of the population and pending retirements in the next decade or beyond will make decisions even more difficult.

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*Andy Blanke is a research associate, and Norman Walzer is a senior research scholar at the Northern Illinois University Center for Governmental Studies. They thank the staff at the Illinois Municipal League for assistance in the data-collection effort.*

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## FOOTNOTES

<sup>1</sup> <http://www.chicagotribune.com/ct-bruce-rauner-municipality-bankruptcy-met-20150204-story.html>

<sup>2</sup> <https://www.thetelegraph.com/news/article/Alton-Council-OKs-sewer-treatment-plant-sale-12718396.php>

<sup>3</sup> [https://www.ilnews.org/news/state\\_politics/gov-bruce-rauner-s-pension-cost-shift-concept-draws-opposition](https://www.ilnews.org/news/state_politics/gov-bruce-rauner-s-pension-cost-shift-concept-draws-opposition)

<sup>4</sup> The Illinois Pension Code (40ILCS 5/1A-108) requires the Illinois Department of Insurance to prepare biennial reports of the status of the pension funds in Illinois. See: [http://insurance.illinois.gov/Reports/Pension/pension\\_biennial\\_report\\_2017.pdf](http://insurance.illinois.gov/Reports/Pension/pension_biennial_report_2017.pdf)

<sup>5</sup> The authors assume that in most cases the number of participants corresponds with population size of municipalities but recognize that unique local circumstances may cause variations in this relationship.

<sup>6</sup> <https://www.courier-journal.com/story/news/politics/2018/04/10/kentucky-pension-reform-bill-becomes-law-tuesday-impact-teachers/502128002/>

<sup>7</sup> <https://www.azleg.gov/legtext/52leg/2r/laws/0002.pdf>

<sup>8</sup> <https://www.azleg.gov/legtext/53leg/1R/laws/0163.pdf>

<sup>9</sup> See endnote 1.

<sup>10</sup> Illinois Department of Public Health, Population Projections for Illinois Counties 2010 to 2025. [https://data.illinois.gov/dataset/438idph\\_population\\_projections\\_for\\_illinois\\_counties\\_2010\\_to\\_2025](https://data.illinois.gov/dataset/438idph_population_projections_for_illinois_counties_2010_to_2025)

## REFERENCES

Barth, J. R., Hilliard, J., Jahera, J. S., Joo, S., & Lee, K. (2016, April 19). State pension plans for public employees: A rough road ahead. *Social Science Research Network*. Advance online publication. Retrieved from <http://dx.doi.org/10.2139/ssrn.2766997>

Brainard, K., & Zorn, P. (2012). *The 80 percent threshold: Its source as a healthy or minimum funding level of public pension plans*. Lexington, KY: National Association of State Retirement Administrators. Retrieved from [https://www.nasra.org/files/Topical%20Reports/Funding%20Policies/80\\_percent\\_funding\\_threshold.pdf](https://www.nasra.org/files/Topical%20Reports/Funding%20Policies/80_percent_funding_threshold.pdf)

- Campbell, E. (2018, January 26). Illinois ponders pension-fund moonshot: A \$107 billion bond sale. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2018-01-26/illinois-ponders-pension-fund-moonshot-a-107-billion-bond-sale>
- Cipriani, G. (2014). Population aging and PAYG pensions in the OLG model. *Journal of Population Economics*, 27(1), 251–256.
- Deller, S., Stallman, J., & Miller, S. (2017). *Potential impacts of pension reductions*. Retrieved from <https://learn.extension.org/events/3292>
- Elder, E. M., & Wagner, G. A. (2016). Can public pensions fulfill their promises? An examination of Pennsylvania's two largest public pensions. *Municipal Finance Journal* 37(3), 1–22.
- Haas, T., Mattoon, R., & Walstrum, T. (2018, May 7). How should the state of Illinois pay for its unfunded pension liability? The case for a statewide residential property tax. *Midwest Economy*. Chicago, IL: Federal Reserve Bank of Chicago. Retrieved from <http://midwest.chicagofedblogs.org/?p=3096>
- Illinois Department of Insurance. (2017). *2017 Biennial Pension Report (2015–2016)*. Retrieved from [http://insurance.illinois.gov/Reports/Pension/pension\\_biennial\\_report\\_2017.pdf](http://insurance.illinois.gov/Reports/Pension/pension_biennial_report_2017.pdf)
- Miller, G. (2012, January 5). Pension puffery [Web article]. *Governing*. Retrieved from <http://www.governing.com/columns/public-money/col-Pension-Puffery.html>
- Primo, D. M., & Jares, J. (2017, November). Illinois's constitutional pension protections, with lessons for New Jersey. *Mercatus on Policy*. Arlington, VA: Mercatus Center at George Mason University. Retrieved from <https://www.mercatus.org/publications/illinois-constitutional-pension-protections-lessons-new-jersey>
- Public Fund Survey. (2012). *Summary of findings for FY2012*. Retrieved from <http://www.publicfundsurvey.org/publicfundsurvey/summaryoffindings.html>
- Pew Charitable Trusts. (2013, September 27). *Kentucky's successful public pension reform: The bipartisan effort in 2013 resulted in fair and effective retirement system for employees and taxpayers alike*. Retrieved from <http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2013/09/27/kentuckys-successful-public-pension-reform>
- Pew Charitable Trusts. (2017). *Pennsylvania's historic pension reforms: How the new law reduces risks for taxpayers, ensures benefits for workers*. Retrieved from <http://www.pewtrusts.org/en/research-and-analysis/articles/2017/12/14/pennsylvanias-historic-pension-reforms>
- Quinby, L. D., Sanzenbacher, G. T., & Aubry, J. P. (2018). *How have pension cuts affected public sector competitiveness?* (State and Local Pension Plans Working Paper No. 59). Location: Center for Retirement Research at Boston College. Retrieved from [http://crr.bc.edu/wp-content/uploads/2018/04/slp\\_59.pdf](http://crr.bc.edu/wp-content/uploads/2018/04/slp_59.pdf)
- Reznik, G. L., Shoffner, D., & Weaver, D. A. (2006). Coping with the demographic challenge: Fewer children and living longer. *Social Security Bulletin*, 66(4). Retrieved from <https://www.ssa.gov/policy/docs/ssb/v66n4/v66n4p37.html>
- Smith, D. J., & Dove, J. A. (2016, June 14). The economic consequences of pension underfunding: Evidence from the retirement systems of Alabama. *Social Science Research Network*. Advance online publication. Retrieved from <http://dx.doi.org/10.2139/ssrn.2795692>
- Stalebrink, O. J. (2014). Public pension funds and assumed rates of return: An empirical examination of public sector defined benefit pension plans. *American Review of Public Administration*, 44, 92–111.

Walzer, N., & Blanke, A. (2018). Municipal fiscal responses in the post-recession era. *Illinois Municipal Policy Journal*, 3(1), 67–82.

Wang, Q., & Peng, J. (2016). An empirical analysis of state and local public pension plan funded ratio change, 2001–2009. *American Review of Public Administration* 46(1), 75–91.