

# **PUBLIC SAFETY PENSION FUNDING CHALLENGES IN ILLINOIS**

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*This article discusses police and firefighter pension funding challenges in Illinois and how municipalities have responded to those challenges. The authors present findings from interviews that were conducted in 2019 with officials from 36 Illinois municipalities. Local officials note the large increases in state-mandated pension contributions, the crowding out of other types of expenditures, and the need for additional revenues. Although there is no panacea for pension funding, this article provides some suggested approaches or strategies that local officials may want to consider as they address pension funding challenges.*

## **INTRODUCTION**

The funding of police and firefighter pension plans is a major challenge for many Illinois municipalities. Drawing from interviews with local officials in Illinois municipalities, this article describes those challenges, discusses how local governments have responded to the challenges, and identifies strategies or approaches municipalities may want to consider as they look to the future. The interviews were conducted prior to COVID-19 and therefore do not reflect the increased fiscal challenges associated with pension funding because of the pandemic and related economic impacts.

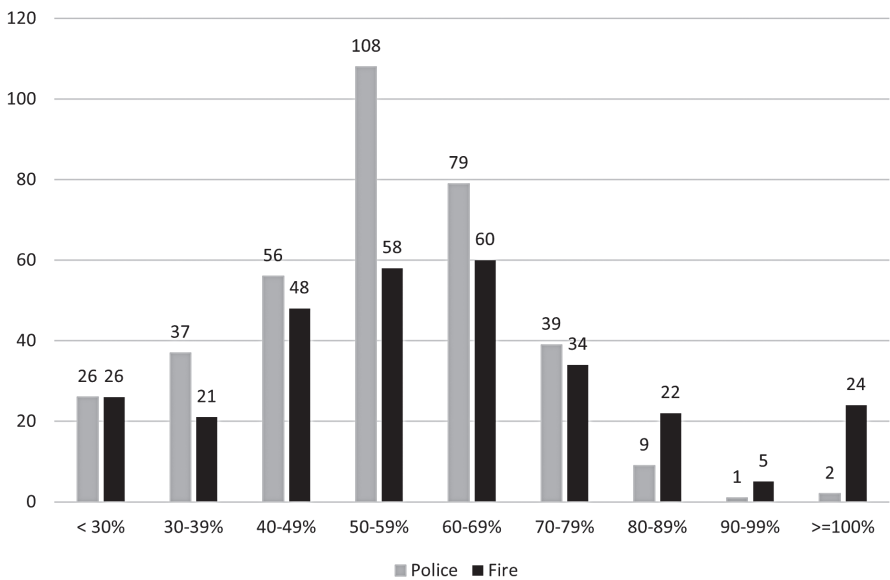
## **BACKGROUND**

Illinois has more than 650 local police and firefighter pension plans. Local pension boards administer the plans, but the state government plays a significant role. State legislation sets the pension and disability eligibility criteria and benefits, mandates which municipalities must maintain a pension plan, and specifies the member composition, training requirements, and authority of the local pension boards. The state sets limits on investment choices depending on the amount of assets in the pension plans. In 2019, the Illinois General Assembly passed legislation that will transition pension plan investments into

two statewide consolidated investment funds, one for police pension funds and one for firefighter pension funds.

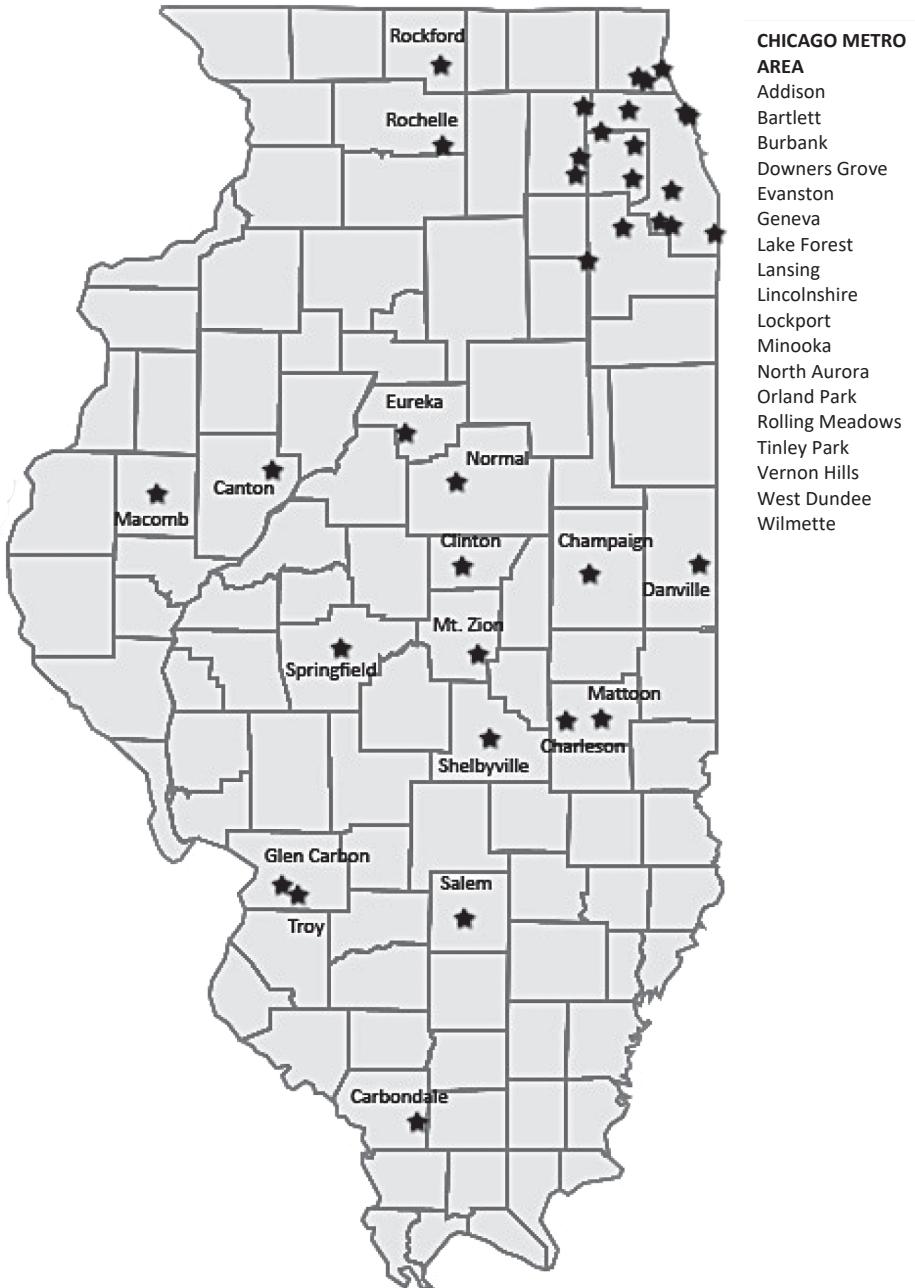
The median funded ratio (pension fund assets divided by accrued pension liabilities) in 2018 was 55% for police pension funds and 59% for firefighter pension funds (author calculations based on data from the Illinois Department of Insurance, 2019). About 33% of the plans had a funded ratio less than 50%, and 90% had a funded ratio below 80% (Figure 1).

**FIGURE 1**  
DISTRIBUTION OF FUNDED LEVELS BY PENSION FUND TYPE - 2018



*Note: This graph shows data for 357 Illinois police pension funds and 298 Illinois firefighter pension funds. Source: Illinois Department of Insurance Public Pension Division, 2019.*

In a previous study, Blanke and Walzer (2018) analyzed factors that may have influenced changes in the Illinois police and firefighter pension funded ratios for individual plans between 2012 and 2016. They found that the unemployment rate and assumed interest rate were negatively correlated with changes and that municipal contributions per participant, the percent of assets invested in equities, and the ratio of participants to pensioners were positively associated with changes. The authors report that the size of the municipality had only a marginal impact on the changes in funded ratios.

**FIGURE 2****MUNICIPALITIES REPRESENTED IN THE INTERVIEWS**

## RESEARCH APPROACH

The research team conducted interviews with local government officials from 36 municipalities in Illinois (Figure 2). The research team selected a sample to include municipalities from each of the quartiles for population and for pension funded ratios as well as municipalities from Cook County, the collar counties, and downstate. It also included some local governments whose pension funded ratios had increased or decreased by the greatest amounts over the past 10 years. Some of the municipalities in the sample did not respond to the research team's request for an interview, including several with the lowest funded levels, and additional municipalities were added to the original sample based on recommendations from interviewees.

Figure 3 shows the population and funded ratio for the police pension fund for each of the municipalities where a local official participated in this study. Most of the interviewees (86%) were from municipalities with police pension funded levels between 40% and 80%. About 44% of the municipalities had a population of less than 20,000, and the police pension funded levels for those smaller municipalities ranged from a low of 42% to a high of 120%. (The high funded level was for a relatively new pension fund with small pension liabilities.) All municipalities included in the interviews had a police pension fund, but eight did not administer a firefighter pension fund. In those municipalities, fire services are being provided by a fire protection district.

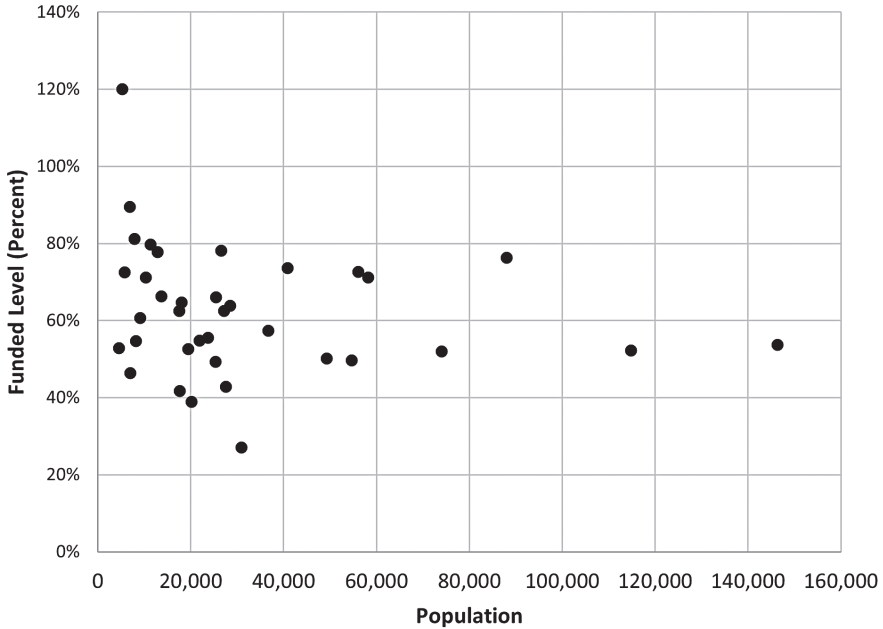
The interviews took place from January through June 2019. Most of the interviewees were the local treasurer or finance/budget director for the municipality. About 39% of the interviewees served as a voting member on a police or firefighter pension board, and an additional 47% were the treasurer for a pension board. The research team conducted most of the interviews by phone, but a few occurred in person. The average phone interview lasted about 25-30 minutes, and the in-person interviews lasted about an hour.

In formulating the interview questions, researchers drew on concepts from a theoretical framework called fiscal federalism. This framework focuses on the relationships between state and local governments and addresses factors such as local needs and preferences, resource constraints, economies of scale, and the consideration of costs and benefits of decisions. The research team also reviewed existing and proposed state legislation, pension reports, and news stories and talked with officials from professional associations, including the Illinois Government Finance Officers Association and the Illinois Municipal

League. In addition, the research team conducted a couple of pilot interviews to test and refine the questions.

### FIGURE 3

#### POLICE PENSION FUNDED LEVELS BY POPULATION



### LOCAL GOVERNMENT PENSION FUNDING CHALLENGES

One of the major pension funding challenges identified by the interviewees was the large growth in the required annual pension contributions. One official said, “The increase in pension expense has been pretty incredible; we now pay two times more than we did 10 years ago.” Another official said that “sustainability is an issue,” noting that the police and firefighter contributions for her municipality had increased from \$1 million to \$7 million over the past 10-12 years.

Interviewees identified several factors that have contributed to the growth in required pension contributions. Some officials referred to issues related to investments, including low market returns, state restrictions on the type of investments, and actual investment performance being less than the assumed rate of return. Changes in actuarial assumptions and mortality tables were

also noted. Other factors interviewees identified were changes in the number of active and nonactive members, higher salaries, increased benefits, higher disability liabilities, past underfunding, the state mandate to reach 90% funded by 2040, and the use of the projected unit credit funding method by some pension plans.

Pension funding is especially challenging for communities that are experiencing economic decline. One official commented, “We have a struggling economy — more taxes won’t help.” That community has decreased the number of government positions through layoffs and attrition and has closed a fire station. Another official said, “We’re doing what we can; we have a declining assessed value and have had a bond rating decrease two times in the past three years, mainly due to pensions.”

Some small non-home rule communities are also facing major challenges. To implement a non-home rule sales tax requires a successful voter referendum, and the local rate is limited to 1%. If the municipality is in a county that is subject to the property tax extension limitation law (PTELL), the growth in the municipality’s property tax extension is restricted to the lesser of 5% or the rate of inflation. “Eventually,” one interviewee from a non-home rule community noted, “all of our property tax and a good share of sales tax revenue is going to wind up going only for pensions.” Another official said her non-home rule community did not fund at the actuarially recommended level during the Great Recession but instead “funded what we could afford.”

Several interviewees commented on the benefits of being a home rule community. One official from a community where a home rule referendum was passed by the voters said, “Home rule really has helped us address pension challenges.” Another official said that with home rule, the municipality can raise different types of revenues, including a home rule sales tax, a food and beverage tax, and an amusement tax.

However, as pointed out by some officials, home rule communities still must cope with economic and political constraints. “We’re home rule, but we have practical limits,” one official said and explained that the municipality has held the general property tax levy constant for about eight years, which has limited the amount of property tax revenues that are available for other purposes. Another official said, “Pension funding is a huge issue; we are home rule and can levy what is necessary legally, but realistically, we don’t want to increase property taxes.”

An additional area of concern expressed by several interviewees was disability payments. One official from a small jurisdiction said, “A disability is a pretty big hardship for our municipality when it happens.” Another explained that duty disabilities can have a major impact: “Theoretically, this could involve someone in their 20s who would get benefits for life.” Other interviewees raised issues such as whether it is appropriate for the local pension board to make disability decisions and why the state requires a municipality to provide free health insurance for life to a disabled member who gets another job.

## **LOCAL GOVERNMENT RESPONSES TO FUNDING CHALLENGES**

### **POLICE AND FIREFIGHTER PENSION FUNDING LEVELS**

Almost all interviewees indicated their municipality is funding the pension funds in accordance with actuarial requirements. Under state law, if a municipality does not contribute the actuarially required amount, then the pension board can request that the State Comptroller redirect a portion of the municipality’s state aid to the pension fund to make up for the shortfall. (See Kass and Crosby, 2019, for a discussion about the initial implementation of this provision.)

Some interviewees said their municipalities contribute more than the actuarially required amount when they can afford to do so. One official said, “During the past five years, we have put extra money into the pension funds; if there is excess money available toward the end of the fiscal year, we will do a budget adjustment to move funds to the pension fund.” Another official also said they contributed “a little more” because “older officers had left and were replaced with new officers at lower salaries, thus freeing up some funds.” And a third interviewee noted, “If there are any funds left in the police department’s budget at year-end, the excess is transferred to the pension fund; this helps avoid year-end spending.”

However, other officials said they do not contribute more than the actuarially required amount due to other needs. For example, several interviewees mentioned the competition for funding between pensions and infrastructure with one official commenting that “choosing to fund pensions is difficult for village trustees when they are swerving around potholes.”

Most of the interviewees (83%) said their municipality hires a local actuary. Under state law, a municipality can use the actuarial figures provided by the

state actuary or can contract with an actuary and use those figures instead. State law stipulates that all actuarial figures should be based on achieving at least a 90% funded level by 2040. Among the municipalities that entered into a contract with a local actuary, most of the interviewees said the local actuarial contribution amounts were higher than the state figures. One interviewer noted the local actuarial amount was 75% more than the state recommended level.

Some municipalities base their contribution amounts on the local actuary's figures, but some municipalities present both the state and local actuary figures to their city council or village board. Several interviewees said that the council or board decides which figures to use based on how tight the budget is for that year. For example, one official said, "This year, we avoided layoffs by using the state amount, which was about \$700,000 lower than the local actuarial amount."

In certain municipalities, interviewees indicated they've established a more aggressive pension funding approach than what the state requires, setting a target rate greater than 90% funded by 2040. For example, Lockport has a target of 100% funded by 2033, and Minooka, Downers Grove, and Normal have a target of 100% by 2040. Some municipalities are using the entry age normal funding method instead of the projected unit credit (PUC) method used by the state. One official explained that the PUC method decreases the current funding requirements by imposing higher costs in the future. Another interviewee noted that "PUC is like a hockey stick — low contributions at first and then large increases."

Some interviewees said that their municipality had revised the actuarial assumptions to align more closely with experience. For example, the Town of Normal decreased its assumed rate of return from 7.5% to 7.0% and then later to 6.75%. A few officials said their municipality discussed this issue but decided not to revise the assumed rate of return because it would have resulted in a higher pension contribution requirement.

## FUNDING SOURCES FOR POLICE AND FIREFIGHTER PENSION CONTRIBUTIONS

The major revenue source for funding Illinois local police and firefighter pension funds is the property tax. However, some of the interviewees said their municipality tries to limit the growth in the overall property tax levy. An official from a home rule municipality explained that their municipality does not increase the levy by more than 5% annually and tries to keep the increase in line with the increase in the consumer price index. An official from



a non-home rule community said, “Last year, we shifted \$100,000 from our self-funded insurance plan’s re-insurance tax levy to the firefighter pension plan tax levy — we’ll continue to do this.”

Other interviewees said their municipality tries to keep the total property tax levy stable. As required pension fund contributions increase, this decreases the amount of property tax revenue available to fund other purposes. Plus, the levy may not be sufficient to meet the pension contribution requirement. One official said, “Last year was the first time the levy was not sufficient to pay for pension disbursements; we drew down on the pension fund.”

Increasing the sales tax rate is another tactic municipalities have tried to help finance pension costs, some interviewees said. One official explained that property tax revenues pay for about one-third of the pension funding and that the remainder is funded with sales tax revenues. Although sales tax revenues can serve as a supplemental source for funding pensions, sales tax revenues were more volatile than property tax revenues during the Great Recession (Mikesell, 2018).

A local official from Canton, a non-home rule community, said voters in her community approved a half-cent sales tax referendum. “Pension funding was the driving factor for the tax,” she said. “Our mayor did a good job of promoting the referendum by explaining that the sales tax is a fairer way to pay for the pension obligation since nonresidents using our services also help pay the tax.”

Interviewees identified various other revenue sources that their municipalities use to help finance pension contributions or to address fiscal challenges associated with pension funding, including sources such as food and beverage taxes, electricity and natural gas utility taxes, video gaming tax revenues, and cannabis taxes. One official said his municipality uses property tax revenues to fund the actuarial amount and uses video gaming tax revenues to fund beyond that amount. Another official said that half of the dollars generated from the municipal tax on recreational cannabis sales are intended for police and firefighter pension contributions above the actuarially required contribution.

Several officials from well-funded pension plans mentioned the significance of interest earnings. In those municipalities, interest earnings accounted for 65% to 70% or more of total pension revenues.

A couple of interviewees said their municipalities implemented a pension fee in 2017:

- Danville uses a public safety pension fee based on square footage for residential and business properties that is added to the sewer bills. The official explained, “We use the property tax to pay the actuarial amount and then try to kick more into unfunded liabilities using the public safety pension fee revenues.”
- Lake Forest has a public safety pension fee, which is a quarterly fee per account that is included on the water and sewer utility bill. When the fee was established in 2017, it was set at \$10 per quarter for single accounts and \$35 per quarter for other accounts; it was increased to \$20 and \$70, respectively, in 2018. The fee was intended to increase public awareness regarding pensions, and the city decreased the tax levy by the estimated amount of revenue from the fee.

## OTHER RESPONSES TO FUNDING CHALLENGES

Some of the interviewees discussed other approaches their municipalities have used to fund pension contributions. A couple of officials said their municipality has used reserves or the fund balance in the general fund to help pay pension costs.

Interviewees also identified approaches that municipalities use to increase the amount of general fund revenues that are available to be used to fund pension contributions. This included shifting the applicable Illinois Municipal Retirement Fund (IMRF) costs to the enterprise funds (e.g., water and sewer), moving motor fuel tax revenue to the general fund to help pay for street expenditures, and cutting back on public works services, such as picking up large household items.

The funding of pension plans also constrains funding for other purposes. For example, one interviewee said there are less funds available for parks and recreation and streets. Another commented, “Buildings don’t get upgraded; vehicles don’t get replaced.”

One interviewee discussed the use of pension obligation bonds in a community where he previously worked. He said the Village of Rantoul had faced police pension contributions that had tripled over 20 years, and so the city issued pension obligation bonds and transferred the bond proceeds into the pension fund. The official said the interest rate on the bonds was “well below 3.25% compared to a return of 5% to 6% on the pension assets” and that the bonds

will result in an estimated savings of \$2.3 million over time. He also said Rantoul has a utility tax on gas, electric and water utility bills that is a set dollar amount per household, with a higher rate for commercial and industrial sites. The revenue from these taxes is dedicated to abating property taxes imposed to satisfy police pension fund obligations.

The Government Finance Officers Association recommends that governments not issue pension obligation bonds. One of the reasons stated is that the interest rate on the invested bond proceeds over the term of the bonds might be less than the interest rate owed on the bonds (GFOA, n.d.). One interviewee said that his municipality considered the issuance of pension obligation bonds but decided it was “too big of a gamble.”

When asked about ways to control pension costs, interviewees noted that their options are limited because the state legislature establishes pension and disability benefit levels. However, some interviewees discussed approaches their municipality has used or considered, including these:

- Considering pension costs when deciding whether to add new positions.
- Holding firm on longevity during contract negotiations because those benefits would be pensionable.
- Using part-time instead of full-time police officers, partially based on pension considerations.
- Converting from sworn positions to civilian non-sworn positions when feasible (e.g., training positions).
- Taking action to prevent salary spikes in the final year prior to retirement.

Some interviewees described efforts to decrease disability claims. One official discussed her village’s work to ease or prevent injuries by having a risk manager and risk management safety committee that seek to “keep the whole place safe.” For example, the village emphasizes doing warm-ups and stretching and has purchased new technology to help lift cots into the ambulance. Several interviewees identified other approaches used regarding disabilities, such as having workers’ compensation benefits in place so employees can return to work when they are better instead of applying for disability benefits, hiring

contract attorneys who specialize in disability cases, and appealing disability cases.

Some interviewees identified practices their municipalities use to decrease the costs associated with pension fund administration. One official said his mayor appoints the same two people to serve on both the firefighter and police pension boards, which saves training costs. Some municipalities perform pension administrative duties in-house. One interviewee explained, “We talked about outsourcing but decided it’s cheaper to do in-house; plus, we have in-house knowledge.” However, another official said that “contracting is more efficient since the firm does that all of the time; it results in more information provided on a monthly basis.” Another said, “Contracting is one of the best things we ever did — there is so much to know to do it right; the laws are constantly changing.”

## **LOOKING TO THE FUTURE**

An analysis of the results of the interviews undertaken for this study suggests some guidance that may be useful for municipal officials to consider as they look to the future.

### **TAKE A MULTIYEAR PERSPECTIVE**

Given the magnitude and growth in pension payments, local government officials may find it helpful to take a multiyear perspective to pension funding. This could entail setting pension plan funding goals and developing strategies to meet those goals.

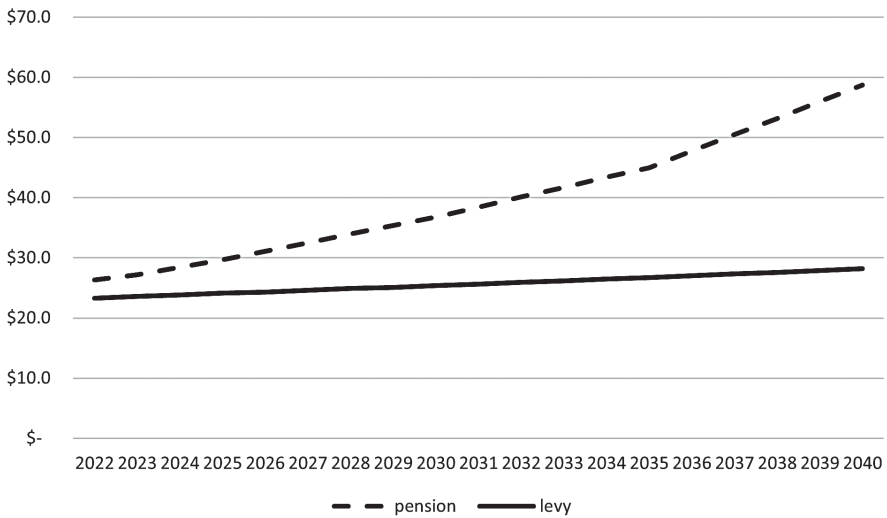
For most of the municipalities in this study, a main goal is to ensure they have sufficient revenues to meet the state-mandated actuarially determined contribution amounts. It can be helpful to look at the estimated funding requirements in future years relative to the estimated amount of revenues that will be generated by existing funding sources, especially because pension contributions may increase significantly in the future.

For example, the budget director for the City of Springfield prepared a chart that shows the estimated revenues from the property tax levy to the estimated pension obligations through 2040 (Figure 4). The figures assume that all actuarial assumptions are met and that contributions proceed unabated. This analysis shows a significant and increasing gap that the city will need to address

through tax increases, additional revenue sources, or other means. This long-term perspective helps set the stage for discussions about how to manage the estimated funding gap and may influence plans for other projects that require significant tax revenues.

## FIGURE 4

ESTIMATED PENSION CONTRIBUTIONS VS. PROPERTY TAX LEVY (IN MILLIONS),  
THE CITY OF SPRINGFIELD, IL



Source: City of Springfield, Illinois. Office of Budget and Management (2019).

Some of the officials interviewed for this study indicated that their municipalities want to avoid large increases in pension contributions in the future. Aaron and Blake of Moody's Investors Service (2020) stated, "Illinois cities tend to backload pension costs if they follow the state's minimum contribution requirement to attain a 90% reported funded ratio by 2040" (pp. 2). As previously discussed, efforts to offset large increases in the future can include using the entry age normal approach rather than the projected unit costs method used by the state, as well as updating mortality tables and other actuarial assumptions. One interviewee described this as "coming to reality."

A multiyear perspective also can help local officials examine the tradeoffs between higher costs now and lower costs in the future. For example, Wilmette

decided to switch to an open 15-year rolling amortization schedule for its police and firefighter pension funds. The government will have to make higher contributions from 2020 through 2023 but anticipates saving about \$38 million in pension contributions by 2040. The municipality is financing the higher contributions through reserves and a “modest” property tax increase. Other communities may not have sufficient capacity to do this, but it still can be worthwhile to examine the short-term and long-term trade-offs when making pension funding decisions.

When municipalities experience fiscal stress, local officials may consider decreasing the pension contribution. Aaron and Blake (2020) state that a decrease in pension contributions by Illinois local governments with severely underfunded pension plans can constrain asset accumulation and, in the worst cases, lead to insolvency. Therefore, local officials should consult with an actuary regarding the impacts of a decreased pension contribution in both the short-term and long-term.

## LEARN FROM THE PAST AND FROM PEERS

One way to make better decisions for the future is to learn from the past. For example, if a plan is underfunded, what factors have contributed to the underfunding? How much is attributable to state changes in benefit levels, past municipal underfunding, lower than estimated investment earnings, or changes in actuarial assumptions? If a municipality is not satisfied with a past action or outcome, what action, if any, can be taken to bring about improvements in the future?

Municipal officials also may learn from discussions with officials from other municipalities regarding pension- and disability-related issues. This could include the approaches that other municipalities are using to mitigate pension and disability costs, the advantages and disadvantages of relying on particular types of revenue sources to finance pension costs, how some non-home rule communities have educated the public about a sales tax referendum, and how and why a municipality has revised the actuarial funding methods or assumptions.

Municipalities that are nearing the 5,000 population threshold that triggers the establishment of a police or firefighter pension fund may find it helpful to talk to officials in other communities that have recently started a pension fund. An official from one municipality noted that his government had started setting aside funds for the pension plan eight years before its creation.

## EDUCATE STATE AND LOCAL DECISION MAKERS AND THE PUBLIC

The results of the interviews for this study suggest variation across municipalities in the level of understanding of pension plan funding by local elected officials. Most discussions about pension funds appear to occur in conjunction with the budget process and the setting of the property tax levy. This makes sense, but that also is a time when elected officials have many issues to address, including constituent demands. Therefore, it may be helpful to establish additional times during the year to engage with city council or village board members on pension matters. This could include presentations or discussions at city council or village board meetings, appointment of a committee of the legislative body to examine pension issues and make recommendations, or increased communication between the pension board members and elected officials. Some municipalities have someone who informally serves as a “champion” of pension issues. In some municipalities, that has been the mayor, city manager, finance director, or a city council member. Some interviewees commented on the role that the actuary or the pension board has played in communicating concerns and recommending action.

Several interviewees said that the public primarily cares about the big picture, focusing on services and taxes. These interviewees said, with a few exceptions (e.g., those who complain that they personally do not have a pension plan), residents are not interested in the intricacies of pension plan funding. As one interviewee stated, “People just want things to work.” Another said, “Citizens care about having police officers and firefighters on the streets.” Yet, the residents and local businesses bear most of the fiscal burden of funding police and firefighter pension plans. Therefore, local officials need to make decisions about what type and amount of information the public needs and how best to convey that information. Several interviewees indicated their mayor includes a discussion of pensions in the annual state of the city speech. Local finance or budget directors also may include pensions in the annual budget presentation. Some municipalities include information about the pension funds on the municipal web page, and some have a separate property tax rate for pensions. Several of the officials from municipalities located in Cook County noted that their municipality’s pension liabilities and funded ratio are listed on the county tax bill.

The other group that needs to be informed about local pension plan funding challenges is state legislators and their staffs. When the researchers asked interviewees to identify major factors that have contributed to local police

and firefighter pension plan funding challenges, the most frequent answer was that state government establishes pension and disability benefits but that local governments must fund those benefits. Therefore, it is important for local officials to help state legislators understand pension funding challenges at the local level. In the interviews, the local officials identified several suggestions for state officials to consider:

- Allow non-home rule municipalities to implement a local sales tax without a voter referendum if the revenues will be used for pensions.
- Provide an exemption from PTELL for non-home rule municipalities that need to increase property taxes to fund pension plans.
- Give more guidance to municipalities that have to establish a pension plan because they have reached the 5,000 population threshold (a “starter packet” would be helpful).
- Extend the 2040 deadline for pension plans to be 90% funded.
- Clarify what is considered a “catastrophic injury” for disability pension benefit eligibility.

Several interviewees also suggested that the state give local pension boards more flexibility regarding investments and decrease the number of hours of required training. These items are both addressed in the 2019 state legislation that consolidates the investment function for Illinois police and firefighter pension funds.

## **CONCLUSION**

The funding of local police and firefighter pension plans in Illinois is a major challenge for many municipalities. The COVID-19 pandemic, combined with expected future increases in pension contribution requirements, has exacerbated the challenges. This article has discussed how some municipalities in Illinois have responded to the funding challenges as well as concerns expressed by local finance officials. Additional research and discussion are needed to hear from officials in communities that are struggling the most and who may have been less likely to consent to an interview for this research study. It also will be important to hear the perspectives of others, including police officers and firefighters, union or association representatives, other pension board members, and state and local elected officials.



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## REFERENCES

- Aaron, T., & Blake, T. (2020, May 18). *State and local government — Illinois: Already high pension-related credit risks compounded by coronavirus revenue shock*. Moody's Investors Service. [https://www.moodys.com/research/State-and-local-government-Illinois-Already-high-pension-related-credit--PBM\\_1226663](https://www.moodys.com/research/State-and-local-government-Illinois-Already-high-pension-related-credit--PBM_1226663)
- Blanke, A., & Walzer, N. (2018). Insights into rising pension costs in Illinois municipalities. *Illinois Municipal Policy Journal*. 3(1): 117-134.
- Government Finance Officers Association. (n.d.). *Pension obligation bonds*. Retrieved August 10, 2020 from <https://www.gfoa.org/materials/pension-obligation-bonds>
- Kass, A., & Crosby, A. (2019). *Life preservers or anchors? An examination of state intervention in municipal pension funding in Illinois*. University of Illinois Chicago, Government Finance Research Center. [https://gfrc.uic.edu/wp-content/uploads/sites/188/2019/07/2019July\\_Life-Preservers-or-Anchors.pdf](https://gfrc.uic.edu/wp-content/uploads/sites/188/2019/07/2019July_Life-Preservers-or-Anchors.pdf)
- Mikesell, J. L. (2018). *Fiscal administration: Analysis and applications for the public sector*. Cengage Learning.
- State of Illinois Department of Insurance Public Pension Division. (2019). *2019 Biennial report (2017-2018)*. [https://insurance.illinois.gov/Reports/Pension/pension\\_biennial\\_report\\_2019.pdf](https://insurance.illinois.gov/Reports/Pension/pension_biennial_report_2019.pdf)

