INDEPENDENT FISCAL OFFICE

TO: Governor Josh Shapiro
All Members of the General Assembly

FROM: Matthew Knittel, Director
Independent Fiscal Office

DATE: May 17, 2023

RE: Actuarial Note for Senate Bill 464, Printer's Number 449

The Independent Fiscal Office (IFO) submits an actuarial note for **Senate Bill 464, Printer's Number 449** in accordance with section 615-B of the Administrative Code of 1929. As the legislation was determined to likely have a material impact on local pension systems in the state, the IFO submitted a formal request to its contracted actuary (Foster & Foster) for an actuarial note. A copy of the actuarial note is attached. A response from the Pennsylvania Municipal Retirement System (PMRS) that addresses practical issues that could impact participating municipalities is also included at the end of this note.

Bill Summary

The bill would amend Title 53 (Municipalities Generally) of the Pennsylvania Consolidated Statutes to mandate that local police departments allow police officers to purchase pension service credit for prior service time at other police departments.

Major provisions of the bill include:

- The legislation would apply to all cities, other than cities of the first class, boroughs, towns, townships and regional police departments within the Commonwealth.
- Officers that have vested in their current pension system would be allowed to purchase up to five years of prior service credit.
- Officers would be prohibited from purchasing any service credit that, when combined with credited military service, exceeds five years.
- The legislation uses a standard interest rate of 4.75% and a cap on the normal cost rate of 10% in the calculation used to determine the purchase cost.
- The legislation stipulates that the provisions of the bill will not impact portability between pension systems managed by PMRS.
- Provisions of the legislation would take effect 60 days after enactment.

Review of Findings

According to data supplied by the Pennsylvania Department of the Auditor General, there are 923 police-only retirement plans in the Commonwealth, and 886 of those plans would be subject to this legislation.[1] This does not include: (1) police plans associated with the City of Philadelphia, (2) plans in which officers may be included in non-uniform plans and (3) defined contribution plans. Due to the large number of plans and variance in plan design, Foster & Foster used the City of Pittsburgh's police pension plan (the largest impacted plan) as a model for the analysis. The analysis includes individual scenarios for officers that purchase three years of service credit. Senate Bill 464, P.N. 449 is similar to legislation analyzed in January 2022 under a prior General Assembly and noted in the current analysis from Foster & Foster.[2] Highlights of the analysis include:

- Based on Foster & Foster's experience, there are two typical scenarios in which service credit purchases occur: **Scenario 1** accelerates normal retirement and is purchased at the earliest date possible (after vesting); **Scenario 2** accelerates normal retirement and occurs immediately prior to retirement. Based on the actuary's experience, most cases would reflect Scenario 2.
- The actuary believes it is reasonable to assume that 10% of all retiring police officers will be eligible to purchase service credit and all who are eligible will do so.

Based on data from the Auditor General, there are currently 11,744 active members in defined benefit police plans that would be subject to this legislation. The Foster & Foster analysis assumes that 10% of these individuals will eventually purchase an average of three years of service credit at a $44,378 net cost to the employer as demonstrated in Scenario 2 (see attached note). The expected increase in the Unfunded Actuarial Liability (UAL) would total $52.1 million, approximately 5.5% of current police plan UAL ($952.7 million). These are general estimates and will vary depending on the plans affected by the purchase of service credit. The dollar impact noted above would occur over the remaining career of officers that purchase service credit. Modest additional costs would be incurred prospectively as new officers enter the plans and qualify for this benefit. Estimated costs are based only on qualified defined benefit police plans. Some local plans currently allow for the purchase of credit for prior police service, which would reduce the financial impact of the legislation by an unknown amount.

For 2021, there were approximately 21,300 local police officers in the Commonwealth.[3] Of the 21,300, 55% were enrolled in defined benefit police plans subject to this legislation. The local police officers that remain (45%) are not subject to the legislation and include: (1) members of the City of Philadelphia police system (26%), (2) officers, likely employed by counties and special purpose local governments, included in non-uniform plans (19%) and (3) a nominal number (0.2%) of officers in defined contribution plans.

The legislation includes language to hold harmless the portability and transfer of service credit between municipal systems served by PMRS. However, PMRS notes that this language may not address all practical issues related to implementation of this legislation. A memo from the system that details these issues is included at the end of this note.

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[1] Data from the Pennsylvania Auditor General is as of May 3, 2023. Some municipalities may not have filed and would not be included in the dataset. Costs could increase by an unknown amount for these unreported plans.

[2] See: Independent Fiscal Office's Actuarial Note for Senate Bill 669, P.N. 733 (January 31, 2022).

[3] See: *Municipal Police Officers' Education and Training Commission: 2021 Annual Report*.

May 4, 2023

VIA EMAIL

Mr. Mathieu Taylor, Fiscal Analyst II
Independent Fiscal Office
State of Pennsylvania

Re: Senate Bill No. 464 – Actuarial Analysis

Dear Mr. Taylor:

As you are aware, proposed Senate Bill No. 464, Printer's Number 449 would require cities (other than a city of the first class), boroughs, towns, townships, and regional police departments to amend their statute to allow uniformed police officers who have satisfied vesting requirements the option to purchase up to five years of pension credit for prior part-time or full-time police service. The required calculation methodology outlined in SB 464 reads as follows:

"The amount due for the purchase of credit for prior police service shall be computed by:

(1) Multiplying the normal cost rate for the police pension plan a police officer is buying into, but not to exceed 10%, by the police officer's average annual rate of compensation over the first three years of service with the police department; and

(2) Multiplying the product from paragraph (1) by the number of years and fractional part of a year of creditable prior police service being purchased together with interest at the rate of 4.75% compounded annually from the date of initial entry into the full-time service with the police department to the date of payment.

As requested, we have performed a special analysis to determine the potential actuarial impact of Senate Bill No. 464.

Methodology

The methodology used in this analysis is the same as in our previous analysis dated January 11, 2022, regarding Senate Bill No. 669, except as follows:

- Eliminated prior Scenario 1, which considered a participant who purchased service to become vested. Under the new proposed Bill, purchasing service prior to vesting is not allowed.

- Changed Scenarios 2 and 3 (now Scenarios 1 and 2) to be based on an Act 600 Police Pension Plan rather than the City of Pittsburgh Police Pension Plan (or a plan like it). The City of Pittsburgh Police Pension Plan's service requirement for both vesting and retirement is 20 years of service; therefore, it is not possible to accelerate retirement eligibility under that plan (or a plan like it) if it is not possible to purchase service prior to becoming vested.

- Updated interest rate and salary increase assumptions to 7.00% and 4.75% per year respectively, consistent with the January 1, 2021 actuarial valuation report for the City of Pittsburgh Police Pension Plan.

- Mortality rates were projected an additional year (5 years beyond 2023 instead of 2022).

- Compensation data was updated consistent with data used for the January 1, 2021 actuarial valuation report for the City of Pittsburgh Police Pension Plan.

To determine the estimated actuarial impact for plan sponsors to allow prior police service purchases as allowed by SB 464, our analysis includes hypothetical, yet realistic individual employee scenarios to help us draw conclusions. For each scenario (as detailed on the following page), we have 1) estimated the cost to purchase three (3) years of prior police service using the calculation methodology required under SB 464, and 2) estimated the full actuarial cost of purchasing such service. The excess of the full actuarial cost when compared to the cost determined using the SB 464 calculation methodology will be the estimated impact to the sponsoring municipality. While SB 464 allows an individual to purchase up to five (5) years of prior police service, we have analyzed the impact of an officer purchasing an average of three (3) years of prior service, as you requested. We think that this is a reasonable approximation since not all eligible police officers will be able to purchase a full five (5) years.

Please note the full actuarial cost was estimated by calculating the difference between the actuarial present value of the projected benefit payable at normal retirement date and the actuarial present value of the projected benefit reflecting the additional service purchased payable at the adjusted normal retirement date (if applicable). Unless otherwise stated, the actuarial present values were calculated assuming the individual remains employed until the normal retirement date using a salary increase rate of 4.75% per year. In addition, the present values are based on an interest rate of 7.00% and post-retirement mortality using unisex rates (based on 50% male / 50% female) of the PubS.H-2010 for Healthy Retirees and PubS.H-2010 for Contingent Survivors, projected five (5) years using scale MP-2021.

Additionally, the calculations reflect compensation in the first three (3) years of employment of $57,000, $66,000 and $74,500 based on average compensation amounts reported in the City of Pittsburgh Policemen's Relief and Pension Fund's January 1, 2021 actuarial valuation report with an adjustment to account for an inflationary component of 2.50% per annum. We feel that this assumption is reasonable and is appropriate for the purpose of this analysis.

Individual Scenarios

Scenario 1 – An officer purchases prior service (at the earliest date possible) to accelerate normal retirement

This is similar to Scenario 2 in our previous analysis dated January 11, 2022.

This scenario considers an Act 600 Police Pension Plan where the plan provides for 100% vesting after completion of 12 years of service and normal retirement eligibility at attainment of age 50 and completion of 25 years of service.

This scenario considers an officer hired at age 33 whose normal retirement date, absent purchasing prior service, would be upon attainment of age 58 and completion of 25 years of service. This scenario assumes the officer wants to purchase three (3) years of prior police service in order to be eligible to retire at age 55, and further assumes that the officer purchases the service at the earliest possible date (age 45, following attainment of vested status). Please note we feel this scenario is less likely to occur, as our experience in processing military buybacks for plans across the state is that officers typically request to purchase eligible service at the time of termination of employment.

With that stated, below is a summary of the results.

Purchase Cost	Dollars	% of Pay [1]
Actuarial Cost	$50,400	44.6%
Less Officer Cost (SB 464)	($34,468)	(30.5%)
Equals Sponsor Cost	**$15,932**	**14.1%**

[1] Represented as a percentage of the police officer's estimated annual rate of compensation on the date of the assumed purchase date (age 45).

Please note the actuarial cost was determined assuming the benefit accrual was equal to 50% of average compensation over the final 36 months of employment (prorated for service less than 25 years), payable at the normal retirement date. This formula is representative of the benefits for Act 600 Police Pension Plans.

Scenario 2 – An officer purchases prior service (prior to retirement) to accelerate normal retirement

This is similar to Scenario 3 in our previous analysis dated January 11, 2022.

This scenario considers an Act 600 Police Pension Plan where the plan provides for 100% vesting after completion of 12 years of service and normal retirement eligibility at attainment of age 50 and completion of 25 years of service.

This scenario considers an officer hired at age 33 whose normal retirement date, absent purchasing prior service, would be upon attainment of age 58 and completion of 25 years of service. This scenario assumes the officer wants to purchase three (3) years of prior police service in order to be eligible to retire at age 55, and further assumes that the officer purchases the service at retirement age (age 55). As previously stated, we feel this scenario is more likely to occur, as our experience in processing military buybacks for plans across the state (as well as service purchases in other states) is that officers typically request to purchase eligible service closer to their retirement date. Below is a summary of the results.

Purchase Cost	Dollars	% of Pay [1]
Actuarial Cost	$99,200	55.1%
Less Officer Cost (SB 464)	($54,822)	(30.5%)
Equals Sponsor Cost	**$44,378**	**24.6%**

[1] Represented as a percentage of the police officer's estimated annual rate of compensation on the date of the assumed purchase date (age 55).

Please note the actuarial cost was determined assuming the benefit accrual was equal to 50% of average compensation over the final 36 months of employment (prorated for service less than 25 years), payable at the normal retirement date. This formula is representative of the benefits for Act 600 Police Pension Plans.

Conclusion

We feel the scenarios analyzed represent realistic events in which an individual would exercise the ability to purchase prior police service, as established in Senate Bill No. 464. As you can see, each of the scenarios explored surround an officer purchasing eligible prior police service to accelerate their normal retirement age. Since the standard benefit formula is a fixed percentage of average compensation (i.e. 50% of average compensation over the final 36 months of employment), purchasing additional service will not increase the benefit amount, but rather will only lower their retirement date.

Based on our experience, we feel that if adopted, SB 464 will most likely result in officers purchasing eligible service around the time of retirement in order to accelerate their normal retirement date, as represented in Scenario 2. While Scenario 1 could/will happen from time to time, we feel that the majority would occur as in Scenario 2. Each time a service purchase of three (3) years occurs, therefore, the plan will realize a loss of 24.6% of pay (or $44,378 in our example). This loss will be categorized as an increase in unfunded actuarial liability and amortized over some period of time determined by the fund. We think that it is reasonable to assume that 10% of all retiring police officers will be eligible to purchase service and will do so under these provisions. If so, then the plan will exhibit losses of this magnitude approximately 1 out every 10 retirements from the fund.

Please note future actuarial measurements may differ significantly from current measurements due to such factors as: individual experience differing from that anticipated by the assumptions; changes in assumptions; changes in plan provisions or applicable law.

Administrative/Implementation Concerns

Below are a few suggestions to consider which we feel would improve the administration of future service purchases, and in most cases protect the costs borne by the sponsoring municipality.

1) Require that the officer purchase eligible service in the initial years of employment (i.e. no later than 5) to receive the subsidized purchase cost as established in SB 464, or otherwise require that the officer pay the full actuarial cost in order to receive credit for prior police service. Comparing the results in Scenarios 1 and 2, we demonstrated that purchasing the service earlier in the officer’s career results in a lower cost to the individual, and a much lower cost to the plan sponsor.

2) If the goal is to minimize the impact to the sponsoring municipality, this would be accomplished by requiring that the officer pay the full actuarial cost at the time of retirement. It should be noted that while this minimizes the impact to the sponsor, it would maximize the cost to the participating officer.

If you have any questions or would like to discuss our findings in greater detail, please let us know.

Respectfully submitted,

Bradley R. Heinrichs, FSA, EA, MAAA

To: Mathieu Taylor, Fiscal Analyst, Independent Fiscal Office

From: Timothy Reece, Chief Executive Officer
Pennsylvania Municipal Retirement System

Date: May 16, 2023

Re: S.B. 464, P.N. 449 – Design Memo – PMRS

Thank you for the opportunity to provide analysis on SB 464 which would require municipalities to offer full-time police officers the ability to purchase pension service (up to five years) for time they worked for police departments of other municipalities. While the Pennsylvania Municipal Pension System (PMRS), does not see a substantial financial impact of the proposed legislation as currently conceived, we have identified a few practical issues. They are outlined below.

<u>Legal issues:</u>

PMRS does not see any legal issues with this proposed legislation as it is mandating concepts already available in PMRS' plan documents. This legislation simply removes the discretion of the municipalities m offering the provisions and makes them mandatory.

By way of background, most PMRS plans currently allow for the action being proposed by this legislation. First, PMRS plan documents allow municipalities to offer Portability. If the municipality elects to offer Portability, and the vast majority do, a police officer who leaves the employ of one municipality served by PMRS and enters the employ of another municipality served by PMRS within one year of separating from the first municipality, that police officer has the ability to move their pension service (not capped at 5 years) from the old plan to the new plan. Portability only pertains when both municipalities are served by PMRS.

In instances where the previous municipality is not served by PMRS, PMRS plan documents allow municipalities the ability to allow their employees to purchase time they worked for other public entities (federal government, state government, other local governments inside Pennsylvania and other municipalities served outside of Pennsylvania). This concept is called Permissive Service Credit. Under current PMRS plan documents, the municipality can choose which types of governmental service can be purchased. Further, the municipality can decide whether to cap the amount of service that can be purchased.

In sum, PMRS plan documents currently give municipalities the ability to allow the purchase of service referenced in the proposed legislation. SB 464 simply removes the discretion of the municipalities and rather mandates it (at least for police service).

Practical Issues:

1. SB 464 caps the amount of service that can be purchased at 5 years. Currently, PMRS plan documents give municipalities the ability to cap the service but do not mandate the cap. PMRS would like to see the 5 year cap removed from the legislation or simply require municipalities to allow the purchase for a minimum of five years and give municipalities to cap the service to be purchased at anything over five years.

2. SB 464 provides the interest rate to be used when determining the cost of the purchase at 4.75%. To keep consistent with the regular interest rate used by PMRS, PMRS would like to see SB 464 amended for PMRS plans to state that the interest rate to be used when purchasing service in PMRS plans would be the regular interest rate, as amended, set by the Pennsylvania Municipal Retirement Board.

Again, we appreciate the opportunity to share PMRS concerns with the legislation. If we can provide any additional insight, please let us know.