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February 24, 2025

Police and Fire Retirement System
of the City of Detroit
One Detroit Center
500 Woodward Ave., Suite 3000
Detroit, Michigan 48226

Attention: Mr. David Cetlinski, Executive Director

Re: Police and Fire Retirement System of the City of Detroit – Supplemental Actuarial Valuation of Proposed Changes in DROP Provisions

Dear Mr. Cetlinski:

Enclosed is a supplemental actuarial valuation report for the Police and Fire Retirement System of the City of Detroit (PFRS) regarding the financial effects of using a 15-year maximum DROP period for Detroit Police Command Officers Association (DPCOA). This report contains results for both the Component I (Hybrid) and Component II (Legacy) plans.

Please contact us if you have any questions.

Sincerely,
Gabriel, Roeder, Smith & Company

James R. Sparks, ASA, FCA, MAAA

Judith A. Kermans, EA, FCA, MAAA

JRS/JAK:rmn
Enclosure

cc: Kelly Tapper, City of Detroit Retirement Systems
Jason T. Taylor, GRS

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

Police and Fire Retirement System of the City of Detroit (DPCOA) Supplemental Actuarial Report as of June 30, 2024

Requested By:	Police and Fire Retirement System of the City of Detroit Attn: Mr. David Cetlinski, Executive Director
Date:	February 24, 2024
Submitted By:	James R. Sparks, ASA, FCA, MAAA Judith A. Kermans, EA, FCA, MAAA Gabriel, Roeder, Smith & Company

This report contains an actuarial valuation of a proposed change in benefits for members of the Police and Fire Retirement System of the City of Detroit (DPFRS). The Proposed change is to extend the maximum DROP participation period for the DPCOA members from 10 to 15 years. The purpose of this report is to estimate the financial effect of the proposed change on the DPFRS.

James R. Sparks, and Judith A. Kermans are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

This report may be shared with other parties, but only in its entirety and only with the permission of the DPFRS. Gabriel, Roeder, Smith & Company is not responsible for unauthorized use of this report. This report should not be used for any purpose other than the purpose stated above. The actuaries issuing this report are independent of the plan and the plan sponsor.

The date of the valuations was June 30, 2024. This means that the results of the supplemental valuations indicate what the June 30, 2024 valuations would have shown if the proposed benefit changes had been in effect on that date. Supplemental valuations do not predict the result of future actuarial valuations. Rather, supplemental valuations give an indication of the probable long-term cost of the benefit change only without comment on the complete end result of the future valuations.

Any alterations in current plan provisions or in the DROP provisions that were modeled could have a significant financial impact on employer contributions.

Actuarial assumptions and methods were consistent with those used in the regular actuarial valuation reports of the Retirement System on the valuation date, unless otherwise noted. For additional information, please see the June 30, 2024 actuarial valuation of Component II issued January 31, 2025 and the June 30, 2024 actuarial valuation of Component I issued February 14, 2025. **The June 30, 2024 valuations reflected plan changes outlined in the supplemental actuarial valuation for the DPFRS dated November 13, 2024**. **The most significant plan change that pertains to this analysis was that future amounts deposited into the DROP accounts for members hired before July 1, 2014 was increased from 75% to 85%.** Actuarial assumptions are adopted by the Retirement Board of Trustees and the Investment Committee. In particular:

- The assumed rate of interest is 6.75%;
- The assumed VPIF (COLA) rate for Component I (Hybrid) is 1.0%; and
- Wage inflation is 3.0%.

It is our understanding that this proposal only impacts DPCOA members and that benefits for current inactive members, retired members, and active Firefighters, Lieutenants and Sergeants (DPLSA), and Police Officers (DPOA) would not be affected by the proposed benefit changes to DPCOA. Therefore, they were excluded from this study.

A brief summary of the data, as of June 30, 2024, used in this valuation is presented below:

Component I (Hybrid):

Non-DROP Active Members	**DPCOA**
Count	31
Annual Pay*	$4,077,999
Average Age	49.3
Average Service	10.0
DROP Active Members	
Count	7
Average Age	54.8

Component II (Legacy):

Non-DROP Active Members	**DPCOA**
Count	31
Average Age	49.3
Average Service	14.4
DROP Active Members	
Count	9
Average Age	56.5

** Total non-DROP payroll for all Component I (Hybrid) plan members, as of June 30, 2024, is $212,896,977.*

Present Provisions:

Component I (Hybrid): DPCOA members shall be entitled to participate in the DROP program under Component II **for a maximum of 10 years.**

Component II (Legacy): DPCOA members shall be entitled to participate in the DROP program under Component II **for a maximum of 10 years.**

Proposed Provisions:

Component I (Hybrid): DPCOA members shall be entitled to participate in the DROP program under Component I **for a maximum of 15 years.**

Component II (Legacy): DPCOA members shall be entitled to participate in the DROP program under Component II **for a maximum of 15 years.**

Discussion

The expectation is that increasing the maximum DROP period will lengthen members overall careers (for members who utilize the DROP provision). Our current valuation assumptions for DPCOA members include a 7-year DROP duration period. **For this study, we have modeled an increase in the average expected length of participation from 7 years to 9 years to reflect the option a member would have of staying in the DROP program for 15 years. We do not have experience upon which to base a DROP duration assumption.**

For members in the DROP program on June 30, 2024, it was assumed that this change would be on a future basis only. This means that no retroactive DROP payments would be expected to be made as part of the change.

The above change in assumed DROP behavior is intended to estimate the financial impact of the proposed benefit provision change by delaying assumed retirements. Delaying retirement is expected to result in a lower estimate of System costs (normal costs and accrued liabilities), all other things (pay increases in particular) being unchanged.

This valuation assumes Component I employer and member contributions as a percentage of payroll cease when a member enters the DROP.

The financial effect of the proposal is shown below:

	Before Changes	With Proposed Changes	Increase / Decrease
Component I (Hybrid)			
Actuarial Information			
Actuarial Accrued Liability (AAL)	$ 447,694,119	$ 447,558,237	$ (135,882)
Funding Value of Assets	388,452,161	388,452,161	-
Unfunded Actuarial Accrued Liability (UAAL)	59,241,958	59,106,076	(135,882)
Funded Ratio	86.767%	86.794%	0.026%
Total Normal Cost Rate	19.000%	18.998%	-0.002%
Average Member Contribution Rate	7.260%	7.260%	0.000%
Employer Normal Cost Rate	11.740%	11.738%	-0.002%
Employer Contributions			
$0 Minimum UAAL + RSF Contribution (13 Remaining Amortization Years)	2.600%	2.590%	-0.010%
Normal Cost Contribution	11.740%	11.738%	-0.002%
Total Contribution %	14.340%	14.328%	-0.012%
Estimated FY 2026 Employer Contribution $	$ 32,388,669	$ 32,361,991	$ (26,678)
Component II (Legacy)			
Actuarial Information			
Actuarial Accrued Liability (AAL)	$ 3,161,254,822	$ 3,161,142,716	$ (112,106)
Funding Value of Assets	2,273,507,700	2,273,507,700	-
Unfunded Actuarial Accrued Liability (UAAL)	887,747,122	887,635,016	(112,106)
Funded Ratio	71.918%	71.920%	0.003%
Employer Contributions			
Closed 30-yr (Beginning in FY 2024) Lvl Principal *(To Be Paid in Quarterly Installments)*	$ 89,068,579	$ 89,056,528	$ (12,051)

The figures shown above are based on the June 30, 2024 actuarial valuations. **The June 30, 2024 valuations reflected Plan Amendment changes outlined in the supplemental actuarial valuation for the DPFRS dated November 13, 2024**. **The most significant Plan change that pertains to this analysis was that future amounts deposited into the DROP accounts for members hired before July 1, 2014 was increased from 75% to 85%.** The proposed changes to the DPCOA summarized in this study would be first reflected in the valuation that is issued after the adoption of this change. Reflecting Plan changes for GASB purposes may differ depending on the timing of implementation.

Comments

Comment 1 — We have been provided with a Memorandum of Understanding (MOU) that describes the changes. Within that MOU, there is language which states that the Chief of Police must grant DROP extensions past 10 years. We have not considered that requirement in our analysis and have assumed all individuals in the study were eligible for the proposed provision. Additionally, for the purposes of this study no assumption was made for current DPOA or DPLSA members to be promoted to DPCOA and; therefore, DPOA and DPLSA members were excluded from the cost analysis.

Comment 2 — The financial effects of this proposal represent potential long-term cost savings if members enter the DROP and work longer than they otherwise would have under the current provision. Additional outcomes are possible. If actual experience is outside of the scenario modeled, the change in cost may be outside of the amounts shown as well. In fact, if members accelerate the time at which they leave active status (to the DROP or retire) as a result of the proposed change, costs could potentially increase as a result of the proposed provision rather than decrease.

Comment 3 — Section 12.7 (1) and (2) of the Combined PFRS Plan reads as follows:

Sec 12.7. Cost Neutrality

(1) The DROP program shall be effective only for as long as it is cost-neutral to the City, provided however, that the DROP program shall continue during the pendency of proceedings, described in paragraph (2) below, designed to restore the Retirement System to cost neutrality.
(2) If the City contends that the DROP program is not cost-neutral, including, but not limited to, making the City's annual contribution to the Retirement System higher than it would be if the DROP program was not in effect…

When the DROP was first implemented, it was deemed to be cost neutral at that time. However, we have not evaluated whether the **current** DROP program as a whole is cost-neutral to the City.

Please note that studies performed to determine the financial impact of the DROP will have limited value because it is not possible to know when plan participants would have retired in the absence of the DROP. The Police and Fire Retirement System is an extraordinarily complicated system with multiple tiers of benefits and frozen benefits, which could affect retirement timing, etc. These complexities make changes in the DROP provisions extraordinarily difficult to model. Consequently, there could be interactions and effects that actuarial modelling does not capture well, therefore, a risk of a material difference exists.

Comment 4 — Component I wage inflation is assumed to be 3.00% per year. Component I also has an assumption that the non-DROP active headcount remains constant. To the extent that member behavior changes the length of time spent in the DROP, the actual non-DROP headcount and payroll growth may differ from assumed. That potential impact was not evaluated in this analysis.

Comments (Concluded)

Comment 5 — This report does not reflect the potential impact on restoration benefits of Component II or fiscal responsibility provisions of Component I. Any change in member behavior regarding entry into the DROP will likely affect the short-term growth of the non-DROP payroll and therefore contributions received, since members in the DROP do not make contributions. These changes will be reflected in valuations as they occur.

Comment 6 — This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the tool. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Comment 7 — The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed plan provisions that are outlined in the report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in this report.

Comment 8 — If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Comment 9 — No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

Comment 10 — In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

Comment 11 — This report is intended to describe the financial effect of the proposed plan changes on the Retirement System. Except as otherwise noted, potential effects on other benefit plans were not considered.

Comment 12 — The reader of this report should keep in mind that actuarial calculations are mathematical estimates based on current data and assumptions about future events (which may or may not materialize). Please note that actuarial calculations can and do vary from one valuation year to the next, sometimes significantly if the group valued is very small (e.g., less than 100 lives). As a result, the cost impact of a benefit change may fluctuate over time, as the demographics of the group changes.

Comment 13 — A determination of the Plan sponsor's ability to make contributions when due (before and/or after the proposed changes) was outside our scope of expertise and was not performed.