COMPLIANCE AUDIT

City of Philadelphia
Municipal Pension Fund

Philadelphia County, Pennsylvania

For the Period

July 1, 2014 to June 30, 2016

May 2018

Commonwealth of Pennsylvania
Department of the Auditor General

Eugene A. DePasquale • Auditor General

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EUGENE A. DEPASQUALE
AUDITOR GENERAL

The Honorable Mayor and City Council
City of Philadelphia
Philadelphia County
Philadelphia, PA 19102

We have conducted a compliance audit of the City of Philadelphia Municipal Pension Fund for the period July 1, 2014 to June 30, 2016. We also evaluated compliance with some requirements subsequent to that period when possible. The audit was conducted pursuant to authority derived from Section 402(j) of Act 205 and in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform our audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objectives.

The objectives of the audit were:

1. To determine if municipal officials took appropriate corrective action to address the findings contained in our prior audit report; and

2. To determine if the pension plan was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies.

Our audit was limited to the areas related to the objectives identified above. To determine if municipal officials took appropriate corrective action to address the findings contained in our prior audit report, we inquired of plan officials and evaluated supporting documentation provided by officials evidencing that the suggested corrective action has been appropriately taken. To determine whether the pension plan was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies, our methodology included the following:

- We determined whether state aid was properly determined and deposited in accordance with Act 205 requirements by verifying the annual deposit date of state aid and determining whether deposits were made within 30 days of receipt for all years within the period under audit.

- We determined whether annual employer contributions were calculated and deposited in accordance with the fund's governing document and applicable laws and regulations by examining the municipality's calculation of the fund's annual financial requirements and minimum municipal obligation (MMO) and comparing these calculated amounts to amounts actually budgeted and deposited into the pension fund as evidenced by supporting documentation.

- We determined whether annual employee contributions for 50 out of 28,308 active fund members[1] were calculated, deducted, and deposited into the pension fund in accordance with the individual plans' governing documents and applicable laws and regulations by testing members' contributions on an annual basis using the rates obtained from the individual plans' governing documents in effect for all years within the period under audit and examining documents evidencing the deposit of these employee contributions into the pension fund.

- We determined whether retirement benefits calculated for 30 out of 2,306 fund members[2] who retired during the current audit period represent payments to all (and only) those entitled to receive them and were properly determined and disbursed in accordance with the individual plans' governing documents, applicable laws and regulations by recalculating the amount of the monthly pension benefit due to the retired individuals and comparing these amounts to supporting documentation evidencing amounts determined and actually paid to the recipients.

- We determined whether the July 1, 2013, July 1, 2014, and July 1, 2015 actuarial valuation reports were prepared and submitted to the former Public Employee Retirement Commission (PERC) by March 31, 2014, 2015, and 2016, respectively, in accordance with Act 205 and whether selected information provided on these reports is accurate, complete, and in accordance with fund provisions to ensure compliance for participation in the state aid program by comparing selected information to supporting source documentation.

- We determined whether all annual special ad hoc postretirement reimbursements received by the municipality were authorized and appropriately deposited in accordance with Act 147 by tracing information to supporting documentation maintained by fund officials.

The City of Philadelphia contracted with an independent certified public accounting firm for annual audits of the City of Philadelphia Municipal Pension Fund's financial statements which are available at the city's offices. Those financial statements were not audited by us and, accordingly, we express no opinion or other form of assurance on them.

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[1] We selected fund members randomly in order to obtain a representative selection of employee contributions during the current audit period. While the results of representative selections may be projected to their respective population, the characteristics present in the population may differ from the characteristics of the items selected.

[2] We selected fund members randomly in order to obtain a representative selection of fund members who retired during the current audit period. While the results of representative selections may be projected to their respective population, the characteristics present in the population may differ from the characteristics of the item selected.

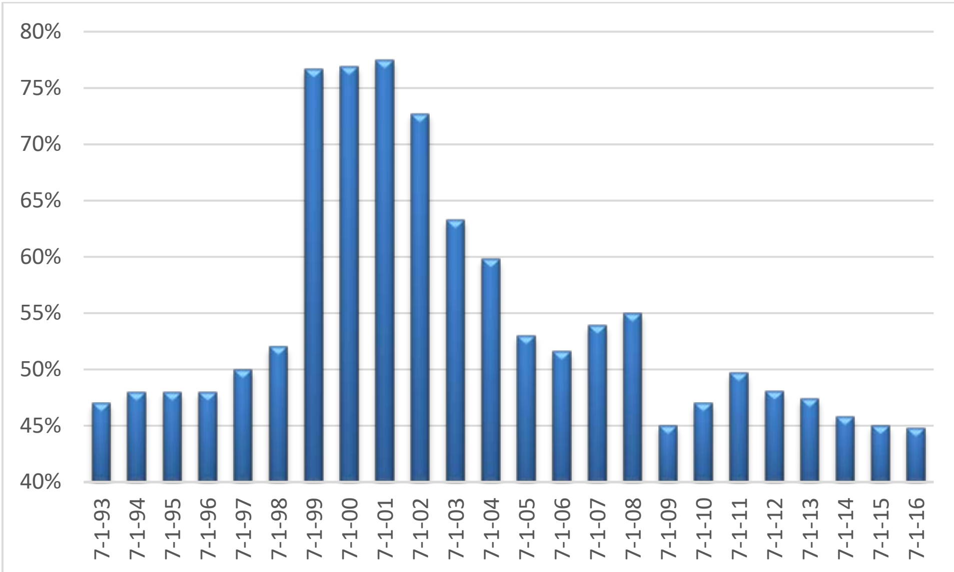
City officials are responsible for establishing and maintaining effective internal controls to provide reasonable assurance that the City of Philadelphia Municipal Pension Fund is administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies. In conducting our audit, we obtained an understanding of the city's internal controls as they relate to the city's compliance with those requirements and that we considered to be significant within the context of our audit objectives, and assessed whether those significant controls were properly designed and implemented. Additionally and as previously described, we tested transactions, assessed official actions, performed analytical procedures, and interviewed selected officials to provide reasonable assurance of detecting instances of noncompliance with legal and regulatory requirements or noncompliance with provisions of contracts, administrative procedures, and local ordinances and policies that are significant within the context of the audit objectives.

The results of our procedures indicated that, in all significant respects, the City of Philadelphia Municipal Pension Fund was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies, except as noted in the following finding further discussed later in this report:

Finding – Partial Compliance With Prior Audit Recommendation – Incorrect Data On Certification Form AG 490 Resulting In Excess Reimbursements By The Commonwealth For Special 1989 Ad Hoc Postretirement Adjustments

The accompanying supplementary information is presented for purposes of additional analysis. We did not audit the information and, accordingly, express no form of assurance on it. However, **we are extremely concerned about the historical trend information contained in the schedule of funding progress included in this report which indicates a continued decline of assets available to satisfy the long-term liabilities of the municipal pension fund. For example, over the past fifteen years, the funded ratio of the city's municipal pension fund went from a high of 77.5% as of July 1, 2001, to a ratio of 44.8% as of July 1, 2016, which is the most recent data available**. This continued condition will require increased municipal contributions to fund the municipal pension fund in accordance with Act 205 funding standards. We continue to encourage city officials to effectively monitor the funding of the municipal pension fund to ensure its long-term financial stability.

A graphic illustration of the deterioration of the funding status of the city's municipal pension fund before and after the issuance of a general obligation bond in 1999, is presented below:



As previously noted, Objective No. 2 of our audit of the City of Philadelphia Municipal Pension Fund is to determine compliance with applicable state laws, contracts, administrative procedures, and local ordinances and policies. Among several provisions relating to municipal pension plans, Act 205 provides for the implementation of a distress recovery program. Three levels of distress have been established:

Level	Indication	Funding Criteria
I	Minimal distress	70-89%
II	Moderate distress	50-69%
III	Severe distress	Less than 50%

The data from the July 1, 2016, actuarial valuation report for the city's police, firefighters' and non-uniformed municipal pension fund contained the following aggregated funding data:

Actuarial Valuation of Assets	Actuarial Accrued Liability	Funding Ratio
$ 4,936,020,000	$ 11,024,798,000	44.8%

Based on the funding information noted above the city is considered to be in Level III severe distress status.

Act 205 of 1984 established mandatory actuarial reporting and funding requirements and a uniform basis for the distribution of state aid to Pennsylvania's public pension plans. Through the establishment of mandatory actuarial reporting and funding requirements, and by providing annual allocations of state aid, Act 205 was intended to provide a pathway for Pennsylvania's municipal pension plans to become fully funded. However, in the 32 years since Act 205 was implemented, despite the deposit of $1.25 billion from the issuance of a general obligation bond in 1999, not only has the City of Philadelphia Municipal Pension Fund failed to achieve progress towards becoming fully funded, the funding status of the city's pension fund has dramatically deteriorated as shown previously in the graphic illustration above. In the most recent actuarial valuation report, it was noted that the city's pension fund assets have remained relatively flat over the last 10 years which is a function of the significant negative cash flow as contributions and investment income have just barely kept pace with benefit payouts and expenses.

The City recently established a new stacked-hybrid plan during 2016, increased member contribution rates, and incrementally lowered the fund's investment rate of return assumption from 8.25 percent in 2010 to 7.75 percent effective July 1, 2016. Despite these actions and regardless of the available remedies pursuant to Act 205 that the city may be required to implement in the future, given the current funded status of its municipal pension fund, the city should continue to consider all available options in its continued efforts to implement an effective strategic plan to deal with its pension funding crisis. Current city officials realize that there are no short-term fixes and that they must continue to make fiscally responsible decisions as both fund fiduciaries and city officials that will benefit the City of Philadelphia and its taxpayers to ensure the city's pension fund has adequate resources to meet current and future benefit obligations to the city's hard-working police officers, firefighters and non-uniformed employees as noted in the Management Perspective section of this report and we commend them for their continued efforts to seek solutions to address this funding crisis.

The contents of this report were discussed with officials of the City of Philadelphia and, where appropriate, their responses have been included in the report. We would like to thank city officials for the cooperation extended to us during the conduct of the audit. The City should also be commended for the steps taken to improve its reporting on Certification Form AG 490 given the large volume of data that must be annually included by the City.

Eugene A. DePasquale

February 16, 2018

EUGENE A. DEPASQUALE
Auditor General

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MANAGEMENT'S PERSPECTIVE

The following summary of the "Positive Strategic Decisions Regarding the Philadelphia Municipal Pension Fund" was received from city officials subsequent to the exit conference held between department personnel and city officials in response to the draft audit report and is hereby provided to ensure a fair, complete and objective report. City officials provided this summary to evidence their views that "not only does the city, its municipal unions, the Pension Board and other city officials take the pension funding issue seriously, but that all relevant parties have heeded the advice of the Auditor General and worked collaboratively to effectuate positive change on behalf of the pension fund and its more than 66,000 members." As such, the following represents the city's perspective.

The City has continued to work with its municipal unions, the Pension Board and other City officials to effect changes that have a positive impact on the Pension Fund.

Among the most notable changes are that certain groups of new employees are mandated to participate in a stacked-hybrid pension plan known as Plan 16. Employees in Plan 16 receive a defined benefit capped at $50,000 of pensionable earnings. All earnings above $50,000 are subject to voluntary participation in a defined contribution plan. Plan 16 will result in a reduction of the rate of growth of liabilities to the Pension Fund.

Other groups of employees continue to be subject to a hybrid pension plan known as Plan 10. Plan 10 is mandatory for some employees, while allowing others to opt out and pay an additional contribution to remain in the traditional defined benefit plan. The multiplier for each year of credited service in Plan 10 is 1.25%, representing a significant reduction from the multiplier used in the traditional defined benefit plans. Like Plan 16, Plan 10 reduces future pension liabilities of the Pension Fund.

The contract negotiated between the City and its largest municipal union, District Council 33, includes a Tiered Pension Contribution structure requiring progressive increases in pension contributions measured by an employee's annual base salary. The schedule begins with a 0.5% pension contribution increase for annual base salaries starting at $45,001, with the pension contribution rate increasing as the salary increment increases.

The Pension Board has adopted policies and made changes that have produced a positive impact, through the reduction of investment manager fees, while increasing returns. For the fiscal year ending June 30, 2017, the Fund returned 12.9% on its investments, 140 basis points above the fund policy benchmark. For the calendar year ending December 31, 2017, the Fund returned 15.4% on its investments, 260 basis points above the fund policy benchmark. Throughout this period, the Fund divested from all but one hedge fund and all opportunistic fixed income managers, greatly enhancing performance. Moreover, the Fund reduced its investment manager fees over the same period by approximately $13.5 million. Passive or index investments increased from 29% of the Fund in fiscal year 2014 to its current level of approximately 57%.

A portion of the revenue generated from an increase in the City's sales tax is dedicated to the Pension Fund. The revenue generated and dedicated to the Pension Fund is above the annual MMO paid by the City. Through fiscal year 2031, the revenue from the sales tax will generate an estimated $863 million towards the Pension Fund. Combined with the projected MMO, the City's cumulative contributions through fiscal year 2031 are estimated to be $10.77 billion.

The adoption of the Revenue Recognition Policy by the Board requires that the local sales tax revenue dedicated to the Pension Fund, as well as the increased employee pension contributions agreed via collective bargaining, to be applied in addition to the City's annual required MMO, rather than defraying a portion of the City's annual cost. The Revenue Recognition Policy will improve the funding status of the plan more quickly.

The Pension Board has voted to reduce the assumed rate of return each year since fiscal year 2008, resulting in a cumulative reduction for the period totaling 105 basis points or 1.05%.

The Fund's actuary, Cheiron, summarized the funding level of the System as follows in the most recent annual actuary report: "While the [funding] ratio may appear to reflect lack of progress in funding, the decrease in the assumed rate of return represents improvement of the System's risk profile improving the likelihood of achieving the assumption in the future." It should be noted the Fund far exceeded the assumed rate in the fiscal year ending June 30, 2017 by returning 12.9%, approximately 520 basis points or 5.2% above the assumed rate. In calendar year 2017, the Fund returned 15.4%.

As indicated in the independent annual audit conducted by Clifton Larson Allen, the Net Pension Liability for the year ending June 30, 2017 decreased from the same period for the prior year. Correspondingly, the Net Asset Position for the Fund increased for the same period.

The continued combined efforts of the City, its municipal unions, the Pension Board and other City officials to make responsible decisions to effect change that positively impacts the health of the Pension Fund is not only showing current positive results for the Fund, but is projected to result in a Fund that is approximately 80% funded by the year 2031.

BACKGROUND

On December 18, 1984, the Pennsylvania Legislature adopted the Municipal Pension Plan Funding Standard and Recovery Act (P.L. 1005, No. 205, as amended, 53 P.S. § 895.101 et seq.). The act established mandatory actuarial reporting and funding requirements and a uniform basis for the distribution of state aid to Pennsylvania's public pension plans. Section 402(j) of Act 205 specifically requires the Auditor General, as deemed necessary, to make an audit of every municipality which receives general municipal pension system state aid and of every municipal pension plan and fund in which general municipal pension system state aid is deposited.

Annual state aid allocations are provided from a 2 percent foreign (out-of-state) casualty insurance premium tax, a portion of the foreign (out-of-state) fire insurance tax designated for paid firefighters and any investment income earned on the collection of these taxes. Generally, municipal pension plans established prior to December 18, 1984, are eligible for state aid. For municipal pension plans established after that date, the sponsoring municipality must fund the plan for three plan years before it becomes eligible for state aid. In accordance with Act 205, a municipality's annual state aid allocation cannot exceed its actual pension costs.

In addition to Act 205, the City of Philadelphia Municipal Pension Fund is also governed by implementing regulations adopted by the former Public Employee Retirement Commission published at Title 16, Part IV of the Pennsylvania Code and applicable provisions of various other state statutes.

The City of Philadelphia Municipal Pension Fund is a single-employer defined benefit pension fund locally controlled by the provisions of the City of Philadelphia Public Employees Retirement Code. The fund is also affected by the provisions of collective bargaining agreements between the city and its police officers, firefighters and non-uniformed employees.

The fund was established May 20, 1915. The fund has 3 basic plans, the 1967 plan, the 1987 plan and Plan 10. Plan 10 was established in 2010 and is a hybrid plan with both defined benefit and defined contribution elements. Police officers who are not Plan 10 participants are required to contribute 5 percent of compensation (6% for participants hired after January 1, 2010), but at least 30% and not more than 50% of the total normal cost for uniformed members while Plan 10 participants are required to contribute 5.5% of compensation. Firefighters who are not Plan 10 participants are required to contribute 5 percent of compensation (6% for participants hired after October 15, 2010), but at least 30% and not more than 50% of the total normal cost for uniformed members while Plan 10 participants are required to contribute 5.5% of compensation. Non-uniformed employees who are members of Plan 67 are required to contribute 3.75 percent of compensation to the fund. Non-uniformed employees who are members of Plan 87 are required to contribute 30% of the gross normal cost. Non-uniformed employees who are members of Plan 10 are required to contribute 50% of the gross normal cost. New employees are required to pay an additional 1.5% effective January 1, 2015 and 2.0% effective January 1, 2016, to opt out of Plan 10 and into Plan 87. As of June 30, 2016, the fund had 28,308 active members, 1,248 terminated members eligible for vested benefits in the future, and 34,984 retirees receiving pension benefits from the fund.

BACKGROUND – (Continued)

Subsequent to the audit period, the city established a stacked-hybrid pension plan in 2016 known as Plan 16 for employees represented by AFSCME District Council 33. Benefits under Plan 16 are similar to Plan 87 except employees participating in Plan 16 receive a defined benefit capped at $50,000 of pensionable earnings. All earnings above $50,000 are subject to voluntary participation in a defined contribution plan requiring additional contributions by the member.

As of June 30, 2016, selected benefit provisions for police officers reported in the plan's actuarial valuation report are as follows:

<u>Eligibility Requirements</u>:

Normal Retirement	Age 50 and 10 years of service
Early Retirement	Age 40 and 10 years of service, or 25 years regardless of age.
Vesting	Member is 100% vested after 10 years of service, as of January 1999 new members (and old members who elect to do so) contribute an additional amount to become vested in 5 years.

<u>Retirement Benefit</u>:

Benefit equals 2.2% of average final compensation times years of credited service, up to a maximum of 20 years, plus 2.0% of average final compensation times years of credited service in excess of 20 years, subject to an overall maximum of 100% of average final compensation. Benefit equals 1.75% of average final compensation times years of credited service to a maximum of 20 years for Plan 10 participants. Under early retirement, the benefit is reduced by one half of 1% for each month prior to normal retirement age, but no reduction is made if at least 25 years of service.

<u>Survivor Benefit</u>:

Benefit is determined using retirement benefit formula under 100% Joint and Survivor option, using a minimum of 10 years of service.

<u>Service Related Disability Benefit</u>:

Annual benefit equal to 70% of final compensation, but reduced by worker's compensation.

Non-Service Related Disability Benefit

Benefit is determined under retirement formula (using a minimum of 10 years of service). Requires 10 years of service if disability is partial; no service requirement if disability is total.

As of June 30, 2016, selected benefit provisions for firefighters reported in the plan's actuarial valuation report are as follows:

Eligibility Requirements:

Normal Retirement	Age 50 and 10 years of service
Early Retirement	Age 40 and 10 years of service, or 25 years regardless of age.
Vesting	Member is 100% vested after 10 years of service, as of January 1999 new members (and old members who elect to do so) contribute an additional amount to become vested after 5 years.

Retirement Benefit:

Benefit equals 2.2 % of average final compensation times years of credited service, up to a maximum of 20 years, plus 2.0% of average final compensation times years of credited service in excess of 20 years, subject to an overall maximum of 100% of average final compensation. Benefit equals 1.75% of average final compensation times years of credited service to a maximum of 20 years for Plan 10 participants. Under early retirement, the benefit is reduced by one half of 1% for each month prior to normal retirement age, but no reduction is made if at least 25 years of service.

Survivor Benefit:

Benefit determined using retirement benefit formula under 100% Joint and Survivor option, using a minimum of 10 years of service.

Service Related Disability Benefit:

Annual benefit of 70% of final compensation, but reduced by worker's compensation.

Non-Service Related Disability Benefit

If at least 5 years of service, benefit determined using the normal retirement formula, using a minimum of 10 years of service.

As of June 30, 2016, selected benefit provisions for non-uniformed employees reported in the plan's actuarial valuation report are as follows:

Eligibility Requirements:

Normal Retirement	Plan Y is age 60 and 10 years of service. Plan J is Age 55.
Early Retirement	Age 52 and 10 years of service, or 33 years regardless of age for Plan Y.
Vesting	Member is 100% vested after 10 years of service, as of January 1999 new members (and old members who elect to do so) contribute an additional amount to become vested after 5 years.

Retirement Benefit:

Plan J benefit equals 2.5% of average final compensation times years of credited service up to a maximum of 20 years, plus 2.0% of average final compensation times years of credited service in excess of 20 years, to a maximum of 80% of average final compensation. Plan Y benefit equals 2.2% of average final compensation times years of credited service, up to a maximum of 10 years, plus 2.0% of average final compensation times years of credited service in excess of 10 years, subject to an overall maximum of 100% of average final compensation. Under early retirement, the benefit is reduced by one half of 1% for each month the employee is younger than normal retirement age, but no reduction if member has 33 or more years of service.

Survivor Benefit:

If employee has at least 10 years of credited service or attained age 60, benefit determined using retirement benefit formula under 100% Joint and Survivor option.

Service Related Disability Benefit:

Annual benefit equals 70% of final compensation, but reduced by worker's compensation.

Non-Service Related Disability Benefit

If at least 10 years of service, benefit determined using the normal retirement formula.

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
STATUS OF PRIOR FINDINGS

Status Of Prior Audit Recommendation

- Incorrect Data On Certification Form AG 64 Resulting In An Underpayment By The Commonwealth For Special 2002 Ad Hoc Postretirement Adjustments

  During the current audit period, the city was not required to file Certification Form AG 64. The Certification Form AG 64 submitted during 2015, previously reported on in the prior audit period, was the final Certification Form AG 64 required to be submitted by the city.

Partial Compliance With Prior Audit Recommendation

The City of Philadelphia has partially complied with the prior audit recommendation concerning the following:

- Incorrect Data On Certification Form AG 490 Resulting In Excess Reimbursements By The Commonwealth For Special 1989 Ad Hoc Adjustments

  As disclosed in the prior audit period, the Certification Forms AG 490 filed by the city contained incorrect data which resulted in the overpayment of postretirement adjustments to the city during the years 2011 through 2015. It was recommended the city reimburse the overpayments back to the Commonwealth and take appropriate action to ensure the accuracy of the information reported in the future.

  During the current audit period, the city partially complied with our prior audit recommendation by reimbursing the total overpayments of the special 1989 ad hoc postretirement adjustments received during the years 2011 through 2015 to the Commonwealth. However, a similar condition occurred during the current audit period. The Certification Forms AG 490 submitted during 2016 and 2017 again contained discrepancies which has resulted in additional overpayments of the special ad hoc postretirement adjustments as further discussed in the finding contained in this report.

<u>Finding – Partial Compliance With Prior Audit Recommendation – Incorrect Data On Certification Form AG 490 Resulting In Excess Reimbursements By The Commonwealth For Special 1989 Ad Hoc Postretirement Adjustments</u>

<u>Condition</u>: As disclosed in the Status of Prior Findings section of this report, the Certification Forms AG 490 filed by the city during the prior audit period contained incorrect data which resulted in the overpayment of postretirement adjustments to the city during the years 2011 through 2015. It was recommended that the city reimburse these overpayments back to the Commonwealth and take appropriate action to ensure the accuracy of the information reported in the future. During the current audit period, the city partially complied with our prior audit recommendation by reimbursing the total overpayments of the special 1989 ad hoc postretirement adjustments received during the years 2011 through 2015 to the Commonwealth. However, a similar condition occurred during the current audit period. The city annually files Certification Form AG 490 with the Department of the Auditor General. The data contained on this form determines the annual state reimbursement the city receives for cost of living adjustments (COLAs) paid to retirees pursuant to the provisions of Chapter 3 of Act 147, as amended. The reimbursement is determined on the total amount of the COLAs paid to eligible retirees and surviving spouses in the previous year reported by the city. However, the Certification Forms AG 490 submitted during 2016 and 2017 again contained discrepancies which has resulted in additional overpayments of the special ad hoc postretirement adjustment reimbursement, as noted below:

Certification Year	Individuals Improperly Certified	Overpayment of Special Ad Hoc Postretirement Adjustment
2016	3	$ 1,800
2017	3	1,800
	Total overpayment	$ 3,600

<u>Criteria</u>: As previously disclosed, pursuant to Act 147, Certification Form AG 490 should report only the amount of special ad hoc postretirement adjustments paid in the previous year to eligible retirees and/or their surviving spouses.

<u>Cause</u>: Although pension fund officials appropriately discontinued monthly pension benefit payments to deceased individuals during the period, fund officials again failed to ensure the accuracy of the data included on Certification Form AG 490.

<u>Effect</u>: The city received excess reimbursements by the Commonwealth in the amount of $3,600 for the years 2016 and 2017.

Finding – (Continued)

Recommendation: We recommend that the total excess reimbursements, in the amount of $3,600 for the years 2016 and 2017, be reimbursed to the Commonwealth. A check in this amount, with interest compounded annually from date of receipt to date of repayment, at a rate earned by the pension fund, should be made payable to: Commonwealth of Pennsylvania and mailed to: Department of the Auditor General, Municipal Pension & Fire Relief Programs Unit, 321 Finance Building, Harrisburg, PA 17120. A copy of the interest calculation must be submitted along with the check.

We also again recommend that pension fund officials establish adequate internal control procedures to ensure the accuracy of the data certified on future Certification Forms AG 490.

Management's Response: The small amount of incorrect data in this finding is largely due to continued reliance on outdated technology and a partial manual database that is due to be replaced by a new integrated pension, payroll and human resources system. In the interim and as a result of the prior state audit, we incorporated available technology to increase reliability of the existing database, reducing the error rate by 85% since the last audit period. The total number of inaccurate submissions in this audit period was for (3) individuals resulting in an excess reimbursement to the Fund of $3,600.

As indicated in the previous AG's audit, "although there were discrepancies noted in the information submitted, the City should be commended for its reporting given the large volume of data that must be annually included on Certification Form AG 490."

Anticipated December 2018 implementation of the new integrated pension system will resolve the issue by eliminating the need for a separate database that does not automatically integrate all required data and relevant information to ensure individuals are not certified incorrectly.

Auditor's Conclusion: Although we are concerned by the city's continued failure to fully correct this previously reported audit finding and encourage timely implementation of the city's proposed corrective action, it appears the city intends to comply with the finding recommendation. Compliance will be evaluated subsequent to the release of the audit report and through our next audit of the pension fund.

It should also be noted that although there were discrepancies noted in the information submitted, the City should again be commended for the steps taken to improve its reporting given the large volume of data that must be annually included on Certification Form AG 490.

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

The supplementary information contained on Pages 10 through 13 reflects the implementation of GASB Statement No. 67, *Financial Reporting for Pension Plans*. The objective of this statement is to improve financial reporting by state and local governmental pension plans.

SCHEDULE OF CHANGES IN THE NET PENSION
LIABILITY AND RELATED RATIOS
FOR THE YEARS ENDED JUNE 30, 2014, 2015, AND 2016

	FYE 2014	FYE 2015	FYE 2016
Total Pension Liability			
Service cost	$ 136,986,515	$ 143,556,347	$ 148,370,075
Interest	774,518,750	791,298,503	802,450,569
Difference between expected and actual experience	-	34,909,464	151,918,733
Changes of assumptions	213,156,725	48,146,352	85,147,737
Benefit payments, including refunds of member contributions	(808,597,357)	(881,464,964)	(889,343,124)
Net Change in Total Pension Liability	316,064,633	136,445,702	298,543,990
Total Pension Liability - Beginning	10,126,155,633	10,442,220,266	10,578,665,968
Total Pension Liability - Ending (a)	$10,442,220,266	$10,578,665,968	$10,877,209,958
Plan Fiduciary Net Position			
Contributions - employer	$ 553,178,927	$ 577,195,412	$ 660,246,511
Contributions - member	53,722,275	58,657,817	67,055,003
Net investment income	681,469,584	13,838,367	(145,681,480)
Benefit payments, including refunds of member contributions	(808,597,357)	(881,666,036)	(889,343,124)
Administrative expense	(8,291,820)	(10,478,541)	(8,553,837)
Net Change in Plan Fiduciary Net Position	471,481,608	(242,452,981)	(316,276,927)
Plan Fiduciary Net Position - Beginning	4,445,223,788	4,916,705,397	4,674,252,416
Plan Fiduciary Net Position - Ending (b)	$ 4,916,705,397	$ 4,674,252,416	$ 4,357,975,489
Net Pension Liability - Ending (a-b)	$ 5,525,514,870	$ 5,904,413,552	$ 6,519,234,469
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	47.08%	44.19%	40.07%
Estimated Covered Employee Payroll	$ 1,556,660,223	$ 1,597,848,869	$ 1,676,411,925
Net Pension Liability as a Percentage of Covered Employee Payroll	354.96%	369.52%	388.88%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System, calculated using the discount rate of 7.85% effective June 30, 2014, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

	1% Decrease (6.85%)	Current Discount Rate (7.85%)	1% Increase (8.85%)
Total Pension Liability	$ 11,450,769,195	$10,442,220,266	$ 9,579,091,917
Fund's Net Pension Liability	4,916,705,397	4,916,705,397	4,916,705,397
Net Pension Liability	$ 6,534,063,798	$ 5,525,514,869	$ 4,662,386,520
Fund Fiduciary Net Position as a Percentage of the Total Pension liability	42.9%	47.1%	51.3%

The following presents the net pension liability of the System, calculated using the discount rate of 7.80% effective June 30, 2015, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

	1% Decrease (6.80%)	Current Discount Rate (7.80%)	1% Increase (8.80%)
Total Pension Liability	$ 11,627,974,119	$10,578,665,968	$ 9,684,000,965
Fund's Net Pension Liability	4,674,252,416	4,674,252,416	4,674,252,416
Net Pension Liability	$ 6,953,721,703	$ 5,904,413,552	$ 5,009,748,549
Fund Fiduciary Net Position as a Percentage of the Total Pension liability	40.2%	44.2%	48.3%

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

The following presents the net pension liability of the System, calculated using the discount rate of 7.75% effective June 30, 2016, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Total Pension Liability	$ 11,968,855,837	$10,877,209,958	$ 9,946,862,734
Fund's Net Pension Liability	4,357,975,073	4,357,975,489	4,357,975,073
Net Pension Liability	$ 7,610,880,764	$ 6,519,234,469	$ 5,588,887,661
Fund Fiduciary Net Position as a Percentage of the Total Pension liability	36.4%	40.1%	43.8%

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS BASED ON ACT 205 MINIMUM MUNICIPAL OBLIGATION (MMO)

Dollar Amounts in Thousands

Fiscal Year Ended June 30	Actuarially Determined Contribution	Actual Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered-employee Payroll
2007	$ 400,256	$ 432,267	$ (32,011)	$ 1,351,826	31.98%
2008	412,449	426,934	(14,485)	1,456,520	29.31%
2009	438,522	455,389	(16,867)	1,463,260	31.12%
2010*	447,446	312,556	134,890	1,421,151	21.99%
2011*	511,000	470,155	40,845	1,371,274	34.29%
2012	507,021	555,690	(48,669)	1,372,174	40.50%
2013*	491,990	781,823	(289,833)	1,429,723	54.68%
2014	523,368	553,179	(29,811)	1,495,421	36.99%
2015	556,030	577,195	(21,166)	1,597,849	36.12%
2016	594,975	660,247	(65,271)	1,676,412	39.38%

* - The deficiencies in the contributions due for 2010 and 2011 were due to the amounts the city was permitted to defer pursuant to Act 44 of 2009. The contributions made in 2013 include the repayment of amounts deferred by the city in 2010 and 2011, plus interest.

The City met its annual Act 205 MMO funding requirements for the years covered by the current audit period.

SCHEDULE OF INVESTMENT RETURNS

Annual money-weighted rate of return, net of investment expenses not funded through the minimum municipal obligation (MMO).

2016	(3.20%)
2015	0.93%
2014	15.77%

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

SCHEDULE OF FUNDING PROGRESS

Historical trend information about the fund is presented herewith as supplementary information. It is intended to help users assess the funding status of the city's pension fund on a going-concern basis, assess progress made in accumulating assets to pay benefits when due, and make comparisons with other state and local government retirement systems.

The actuarial information is required by Act 205 biennially. The historical information, beginning as of July 1, 2011, is as follows (dollars in millions):

	(1)	(2)	(3)	(4)
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded (Assets in Excess of) Actuarial Accrued Liability (b) - (a)	Funded Ratio (a)/(b)
07-01-11	$ 4,719.1	$ 9,487.5	$ 4,768.4	49.7%
07-01-12	4,716.8	9,799.9	5,083.1	48.1%
07-01-13	4,799.3	10,126.2	5,326.9	47.4%
07-01-14	4,814.9	10,521.8	5,706.9	45.8%
07-01-15	4,863.4	10,800.4	5,937.0	45.0%
07-01-16	4,936.0	11,024.8	6,088.8	44.8%

Note: The market values of the fund's assets have been adjusted to reflect the smoothing of gains and/or losses over a 10-year averaging period. These methods will lower contributions in years of less than expected returns and increase contributions in years of greater than expected returns. The net effect over long periods of time is to have less variance in contribution levels from year to year.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the actuarial accrued liability as a factor.

Analysis of the dollar amount of the actuarial value of assets, actuarial accrued liability, and unfunded (assets in excess of) actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability (Column 4) provides one indication of the funding status of the pension fund on a going-concern basis. Analysis of this percentage, over time, indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the fund.

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
SUPPLEMENTARY INFORMATION
NOTES TO SUPPLEMENTARY SCHEDULES
(UNAUDITED)

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation date follows:

	Police Officers	Firefighters	Non-Uniformed Employees
Actuarial valuation date	July 1, 2016	July 1, 2016	July 1, 2016
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal
Amortization method	Level dollar	Level dollar	Level dollar
Remaining amortization period	21 years	20 years	20 years
Asset valuation method	10-year smoothing, value subject to a corridor between 80-120% of market value.	10-year smoothing, value subject to a corridor between 80-120% of market value.	10-year smoothing, value subject to a corridor between 80-120% of market value.
Actuarial assumptions:			
Investment rate of return	7.7%	7.7%	7.7%
Projected salary increases	3.3%	3.3%	3.3%
Cost-of-living adjustments	None assumed	None assumed	None assumed

Deferred Retirement Option Plan (DROP)

As disclosed in prior audit reports, the city should continue to review the cost of maintaining its DROP program. We previously noted that the City has prohibited officials elected to office after September 18, 2009, from participating in the DROP. In addition, non-uniformed employees can only participate in the DROP when they are 2 years older than their minimum retirement age. Furthermore, effective January 1, 2012, the interest rate credited to DROP accounts shall be determined annually based on the lesser of the yield then in effect on one year United States Treasury Bonds or one-half of the then-effective interest rate used to calculate the earnings of the of the reserves of the retirement system.

The City should continue to review the cost of maintaining its DROP program and consider all available options, including termination of the DROP, at its earliest opportunity to do so, to help ensure that benefit obligations to fund members are adequately funded without placing an unfair burden on the taxpayers to meet those benefit obligations.

One Percent Sales and Use Tax Increase Extension

Act 44 of 2009 authorized the City of Philadelphia to temporarily impose a 1% sales and use tax with any monies received from the sales and use tax required to be applied towards payment of the City's MMOs and repayment of amounts deferred with interest. The City adopted Bill No. 090244-A, an ordinance imposing the additional 1% sales and use tax for the period August 1, 2009 to June 30, 2014.

In June of 2014, the City adopted Bill No. 140489, an ordinance which increased the sales and use tax by 1% effective July 1, 2014. The distribution of the tax proceeds is determined as follows:

For fiscal year 2015, the first $120,000,000 shall be distributed to the School District of Philadelphia with the balance going to the City for the pension fund.

For fiscal year 2016, 70% shall be distributed to the School District of Philadelphia and 30% to the City for the pension fund.

For fiscal year 2017, 60% shall be distributed to the School District of Philadelphia and 40% to the City for the pension fund.

For fiscal year 2018, and each fiscal year thereafter, 50% shall be distributed to the School District of Philadelphia and 50% to the City for the pension fund.

CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
REPORT DISTRIBUTION LIST

This report was initially distributed to the following:

The Honorable Tom W. Wolf
Governor
Commonwealth of Pennsylvania

The Honorable James Kenney
Mayor

Mr. Darrell Clarke
Council President

Ms. Rebecca Rhynhart
City Controller

Mr. Rob Dubow
Director of Finance

Mr. Francis X. Bielli, Esquire
Executive Director

Ms. Shamika Taliaferro
Deputy Pension Director

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