

Borough of Swarthmore Employee Pension Plan

Actuarial Valuation Report as of January 1, 2019

February 2020



Prepared by:

Jason L. Fine
Senior Principal

Korn Ferry, Inc.
Philadelphia

for

The Borough of Swarthmore

Date: February 2020



Table of Contents

Section	Page
I. Introduction	1
II. Preamble	2
III. Authority's Minimum Municipal Obligation and Minimum Contribution Requirement for 2020	3
IV. Actuarial Exhibits	
• Exhibit A-1: Normal Cost of Plan Benefits	4
• Exhibit A-2: Actuarial Accrued Liability	5
• Exhibit A-3: Unfunded Actuarial Accrued Liability	6
• Exhibit A-4: Costs to Amortize the Unfunded Actuarial Accrued Liability	7
• Exhibit A-5: Analysis of Change in Plan's Unfunded Actuarial Accrued Liability	8
• Exhibit A-6: Plan's Disclosure Information	9
• Exhibit A-7: Actuarial Assumptions and Cost Method	10
• Exhibit A-8: Summary of Major Plan Provisions	12
V. Financial Exhibits	
• Exhibit F-1: Pension Plan Assets	14
• Exhibit F-2: Asset Reconciliation	15
• Exhibit F-3: Administrative Costs	16
VI. Demographic Exhibits	
• Exhibit D-1: Active Members	17
• Exhibit D-2: Benefit Recipients and Terminated Vested Members	18



I. Introduction

Act 205

In accordance with the Borough's request, we have completed an actuarial valuation of the Borough's Employee Pension Plan as of January 1, 2019. The valuation was based on the personnel and financial data supplied to us by the Borough. The valuation results are presented in this report.

The Pennsylvania Municipal Pension Plan Funding Standard and Recovery Act was signed into law as Act 205 of 1984. As required, we have prepared the January 1, 2019 valuation and this report thereon in accordance with the provisions of Act 205.

Preamble

A copy of this report will be filed as an attachment to Form PC-203C which must be filed with the Public Employee Retirement Commission by March 31, 2020.

Please read the Preamble to the report very carefully. It contains important general information and concepts. It also explains how the results of the January 1, 2019 valuation, as published in this report, will normally form the basis for the Plan's 2021 and 2022 contribution requirements. As indicated on page 3, the Borough's minimum contribution requirement for 2020 is \$41,937 less State Aid.

Changes in Actuarial Assumptions and Methods and Benefits since the Last (1/1/2017) Valuation

The mortality rates were updated to the PubG-2010 table with MP2019 projection, interest rate was decreased from 7.50% to 7.25% and salary scale was decreased from 3.5% to 3.0%.

Other important results and products of the January 1, 2019 valuation are presented in the Actuarial, Financial and Demographic Exhibits which make up the bulk of the report.

Respectfully submitted,

By: 

Jason L. Fine

Enrolled Actuary No.: 17-06680

February 2020



II. Preamble

The Plan

The Borough of Swarthmore sponsors a defined benefit pension plan for its full time non-uniformed employees. A summary of the Plan's provisions is set forth on Exhibit A-8 of this report. The Plan is subject to the funding and reporting requirements of the Pennsylvania Municipal Pension Plan Funding Standard and Recovery Act (Act 205 of 1984). Act 205 requires that an actuarial valuation of the Plan be performed every other year, i.e., as of January 1 of each odd-numbered year. The January 1, 2019 valuation will normally form the basis for the Plan's 2021 and 2022 Financial Requirements and the Borough's 2021 and 2022 Minimum Municipal Obligation (MMO). Similarly, the January 1, 2021 valuation will form the basis for the Plan's 2023 and 2024 Financial Requirements and the Borough's 2023 and 2024 MMO.

MMO Reporting Deadline

For a particular year, the Borough's Chief Administrative Officer must report the Plan's Financial Requirements and the Borough's MMO to Borough Council by the last business day in September of the year preceding the particular year in question. Thus, the Plan's Financial Requirements and the Borough's MMO for 2020 are required to be reported to Borough Council by September 30, 2019.

Financial Requirements

The Plan's 2020 Financial Requirements consist of the following elements:

Normal Cost. This is the cost of benefits allocated to the year 2020 under the Plan's actuarial cost method and the methodology of Act 205. It will be determined by multiplying the Normal Cost Rate as determined in the 2017 valuation by an estimate of 2019 W-2 wages of Plan members.

Administrative Expenses. This is an estimate of the administrative expenses of the Plan expected to be paid from Plan assets in 2020 and is determined by multiplying the Administrative Expense Rate as determined in the 2017 valuation by the estimate of 2019 W-2 wages of Plan members.

Amortization Requirements (if applicable). This is determined in the 2017 valuation and is the amount required to amortize the Plan's Unfunded Actuarial Accrued Liability as of January 1, 2017 over the number of years prescribed under Act 205.

Minimum Municipal Obligation

The Borough's MMO for 2020 is then set equal to the Plan's Financial Requirements for 2020 less the sum of estimated member contributions for 2020 less, if applicable, a funding adjustment equal to 10% of the Plan's surplus with regard to accrued liabilities. The actual contribution that the Borough will be required to make in 2020 will be the 2020 MMO less State Aid deposited in the Plan in 2020.

As indicated on page 3, the Borough's 2020 MMO is \$41,937. Available State Aid is estimated to be \$23,422 resulting in an estimated Borough Contribution requirement of \$18,515.



III. Borough's Minimum Municipal Obligation and Minimum Contribution Requirement for 2020

1. Estimated 2019 W-2 Wages of Active Members	\$	367,500
2. Normal Cost Rate from 2017 valuation		7.6952%
3. Administrative Expense Rate from 2017 valuation		5.6326%
4. Normal Cost for 2020: (1) x (2)	\$	28,280
5. Administrative Expense for 2020: (1) x (3)		20,700
6. Amortization Requirement for 2020 from 2017 valuation		11,975
7. Plan's 2020 Financial Requirements: (4) + (5) + (6)	\$	60,955
8. Estimated 2020 Member Contributions		19,018*
9. Funding Adjustment for 2020 from Exhibit A-3		0
10. Borough's 2020 Minimum Municipal Obligation: (7) - (8) - (9)	\$	41,937
11. 2020 Estimated State Aid (a restricted revenue receipt)		23,422
12. Borough's Estimated Minimum Contribution Requirement for 2020: (10) - (11)	\$	18,515

* assumes members will contribution 5.0% of compensation to the Plan in 2020

Note: The Borough's actual minimum contribution requirement for 2020 will be less the actual amount of State Aid deposited in the Plan in 2020.



IV. Actuarial Exhibits

Exhibit A-1: Normal Cost of Plan Benefits

<u>Type of Plan Benefit</u>	<u>Normal Cost Expressed As A</u>	
	<u>Dollar Amount</u>	<u>% of Estimated 2018 W-2 Wages</u>
Retirement	\$33,769	7.9993%
Disability	0	0.0000
Survivor	199	0.0471
Refund of Member Contributions	0	0.0000
Vested Terminations	0	0.0000
Sub Total	\$33,968	8.0464%
Estimated Average Administrative Fees for 2018 and 2019	19,000	4.5008%
Grand Total	\$52,968	12.5472%

Notes:

1. The normal cost for Plan Benefits is the portion of total Plan liabilities for current active members assigned to a particular plan year in accordance with the Entry Age Actuarial Cost Method, and the actuarial assumptions described in Exhibit A-7.
2. In accordance with Act 205 the administrative expenses of the Plan (actuarial, legal, investment, etc.) may be paid from Plan assets.
3. 2018 W-2 wages (annualized) for the Plan's 6 active members as of 1/1/2019 were \$422,150.



IV. Actuarial Exhibits

Exhibit A-2: Actuarial Accrued Liability as of January 1, 2019

1. <u>Present Value of Benefits a/c Active Members</u>	
(a) Retirement Benefits	\$ 1,839,968
(b) Disability Benefits	0
(c) Survivor Benefits	9,978
(d) Refund of Member Contributions	0
(e) Vested Termination	0
(f) Total	<u>\$ 1,849,946</u>
2. <u>Present Value of Benefits a/c Deferred Vested Benefits</u>	\$ 0
3. <u>Member Refunds Due and Unpaid</u>	\$ 0
4. <u>Present Value of Benefits a/c Benefit Recipients</u>	
(a) Retirement Benefits	\$ 628,150
(b) Disability Benefits	0
(c) Surviving Spouse Benefits	31,408
(d) Surviving Child Benefits	0
(e) Other	0
(f) Total	<u>\$ 659,558</u>
5. <u>Present Value of Other Plan Benefits*</u>	\$ 7,844
6. <u>Present Value of All Plan Benefits: (1.f) + (2) + (3) + (4.f) + (5)</u>	\$ 2,517,348
7. <u>Present Value of Future Normal Costs</u>	\$ 110,341
8. <u>Actuarial Accrued Liability at 1/1/2019: (6) - (7)</u>	\$ 2,407,007

* Post retirement lump sum death benefits.



IV. Actuarial Exhibits

Exhibit A-3: Unfunded Actuarial Accrued Liability (UAAL)

As of January 1, 2019, the Plan had an Unfunded Actuarial Accrued Liability since the Actuarial Value of Plan Assets were not in excess of the Plan's Actuarial Accrued Liability as follows:

1. Actuarial Accrued Liability at 1/1/2019 (Exhibit A-2)	\$ 2,407,007
2. Actuarial Value of Assets at 1/1/2019 (Exhibit F-1)	<u>2,232,407</u>
3. UAAL at 1/1/2019: (1) - (2)	<u>\$ 174,600</u>



IV. Actuarial Exhibits

Exhibit A-4: Costs to Amortize the Unfunded Actuarial Accrued Liability

<i>Description of Base</i>	<i>Date Established</i>	<i>Original Amount</i>	<i>Unamortized Balance at 1/1/2019</i>	<i>Amortization Target Date</i>	<i>Amortization Contribution Requirement</i>
"Fresh start" of UAAL	1/1/17	\$88,365	\$63,053	12/31/2022	\$17,455
Change in Assumptions	1/1/19	97,250	97,250	12/31/2023*	22,263
2017-18 Actuarial Loss	1/1/19	14,297	14,297	12/31/2023*	3,273
Total			\$174,600		\$42,991

* Average working lifetime at 1/1/19 of active members is 5 years.

Modified Total Amortization Requirement

- Unfunded Actuarial Accrued Liability as of 1/1/2019 \$174,600
- 10-year amortization contribution 23,447



IV. Actuarial Exhibits

Exhibit A-5: Analysis of Change in the Plan's Unfunded Actuarial Liability from January 1, 2017 to January 1, 2019

	Unfunded Actuarial Accrued Liability at 1/1/2017	\$	88,365
1.	Normal Cost (including expenses) due 1/1/2017		46,698
2.	Normal Cost (including expenses) due 1/1/2018		46,059
3.	Net interest to 1/1/2019		19,297
4.	Total Expected Contributions with interest through 1/1/19		(137,366)
5.	Increase (decrease) due to change in assumptions		97,250
6.	Increase (decrease) due to Plan amendments		0
7.	Expected Unfunded Actuarial Accrued Liability at 1/1/2019	\$	<u>160,303</u>
8.	Net actuarial loss (gain) for 2017 and 2018		14,297
9.	Actual Unfunded Actuarial Accrued Liability at 1/1/2019	\$	<u>174,600</u>
10.			



IV. Actuarial Exhibits

Exhibit A-6: Plan's Disclosure Information

A. Schedule of Funding Progress

<i>Actuarial Valuation Date*</i>	<i>Actuarial Value of Assets (a)</i>	<i>Actuarial Accrued Liability (AAL) - Entry Age (b)</i>	<i>Unfunded AAL (UAAL) (b-a)</i>	<i>Funded Ratio (a/b)</i>	<i>Covered Payroll (c)</i>	<i>UAAL as a % of Covered Payroll ((b-a)/c)</i>
12/31/94	\$ 647,000	\$ 565,000	\$ (82,000)	114.51%	\$ 197,000	(41.62)%
12/31/96	774,296	610,465	(163,831)	126.84%	226,986	(72.18)%
12/31/98	935,488	627,165	(308,323)	149.16%	240,151	(128.39)%
12/31/00	1,087,308	834,513	(252,795)	130.29%	249,936	(101.14)%
12/31/02	941,280	947,639	6,359	99.33%	281,626	2.26%
12/31/04	1,060,701	1,099,074	38,373	96.51%	307,145	12.49%
12/31/06	1,246,311	1,237,510	(8,801)	100.71%	425,442	(2.07)%
12/31/08	943,283	1,542,001	598,718	61.17%	432,614	138.40%
12/31/10	1,106,525	1,534,669	423,144	72.10%	402,494	106.37%
12/31/12	1,361,156	1,600,218	239,062	85.06%	420,292	56.88%
12/31/14	1,647,166	1,965,164	317,998	83.82%	427,220	74.43%
12/31/16	1,937,420	2,025,785	88,365	95.64%	390,582	22.62%
12/31/18	2,232,407	2,407,007	174,600	92.75%	422,150	41.36%

* Information is not available in all years since, in accordance with Pennsylvania Law (Act 205 of 1984, as amended), valuations are performed biennially. Effective 12/31/02, the Actuarial Value of Assets was determined in accordance with the method described in Exhibit A-8. Prior to 12/31/02, the Actuarial Value of Assets equaled Fair Market Value.

B. Schedule of State (PA) and Borough's Contributions

<i>Year Ended December 31</i>	<i>Annual Required Contribution (a)</i>	<i>State's Contribution (b)</i>	<i>Borough's Annual Required Contribution (c)</i>	<i>Percentage Contributed</i>
1993	\$ 8,056	\$ 8,056	\$ 0	100%
1994	16,512	16,512	0	100
1995	20,370	20,370	0	100
1996	23,755	20,732	3,023	100
1997	25,580	18,423	7,157	100
1998	19,401	19,401	0	100
1999	18,880	19,654	0	100
2000	0	0	0	100
2001	0	0	0	100
2002	18,525	22,673	0	100
2003	19,653	15,659	3,994	100
2004	32,070	30,273	1,797	100
2005	33,045	30,388	2,657	100
2006	33,007	21,158	11,849	100
2007	43,366	26,525	16,840	100
2008	49,641	32,260	17,381	100
2009	48,723	28,838	19,885	100
2010	51,238	29,985	21,253	375
2011	105,243	46,884	58,359	100
2012	95,484	27,494	67,990	100
2013	95,927	26,499	69,428	100
2014	91,381	27,188	54,193	100
2015	82,961	27,188	55,773	100
2016	92,661	27,111	65,250	100
2017	89,498	26,250	63,452	100
2018	45,401	22,700	22,701	100



IV. Actuarial Exhibits

Exhibit A-7: Summary of Economic and Demographic Actuarial Assumptions and Cost Method

I. Economic Actuarial Assumptions

- A. **Interest.** 7.25% per annum compounded annually.
- B. **Salary Scale.** 3.0% per annum compounded annually.
- C. **Post-Retirement Adjustments.** None assumed.
- D. **Social Security Benefits.** Not applicable.
- E. **Workmen's Compensation Upon Disablement.** Not applicable.

Actuarial Value of Assets as of the current valuation date is determined in accordance with (1) subject to the limitation described in (2) as follows:

- (1) The Actuarial Value of Assets as of the last valuation date plus non-investment increases less non-investment decreases since the last valuation date plus interest credited at the last valuation's assumed interest rate assuming non-investment increases and decreases occur at the mid-point between the last and current valuation date.
- (2) The Actuarial Value of Assets as determined under (1) will be limited to a maximum of 115% and a minimum of 85% of the fair market value of assets as of the current valuation date.

II. Demographic Actuarial Assumptions

- A. **Mortality.** In accordance with the mortality rates set forth in the PubG-2010 mortality table with MP2019 projection.



IV. Actuarial Exhibits

Exhibit A-7: Summary of Economic and Demographic Actuarial Assumptions and Cost Method (continued)

II. Demographic Actuarial Assumptions (continued)

B. Rate of Termination. All current active members are assumed to continue as such (except for deaths and disablements) until attainment of the assumed normal retirement age.

Service at Beginning of Year	Rate of Termination During Year
0 - .99	5%
1 - 1.99	4
2 - 2.99	3
3 - 3.99	2
4 - 4.99	1
5+	0

C. Rate of Disability. 33 $\frac{1}{3}$ % of 2001 OASDI rates.

D. Retirement Age: It is assumed that members will retire upon attainment of age 62 and completion of 5 years of service. Plan members who have reached the assumed retirement age on 1/1/2019 but who have not retired are assumed to retire on 1/1/2020.

E. Marital Status: 80% of active members are assumed married; husbands are assumed to be 2 years older than their wives; Actual marital status of retirees is taken into account.

III. Cost Method

Liabilities and costs have been determined by the Entry Age Actuarial Cost Method.

Changes Since Last (1/1/2017) Valuation

The mortality rates were changed from the RP2014 mortality table with MP2016 projection to PubG-2010 mortality table with MP2019 projection. Interest rate was decreased from 7.50% to 7.25%. Salary scale was decreased from 3.50% to 3.00%.



IV. Actuarial Exhibits

Exhibit A-8: Summary of Plan Provisions as of January 1, 2019

Membership

All individuals in the employ of the Borough, except police officers, hired on or before December 31, 2009 on a full-time basis (minimum of 35 hours per week) are eligible for membership.

Compensation

Compensation includes regular salary plus overtime and other scheduled compensation.

Normal Retirement

Eligibility: Age 58 and 5 years of service.

Amount of Monthly Pension: 2% multiplied by final 36-month average compensation multiplied by years of service (25-year maximum).

Vesting

Eligibility: 5 or more years of service at termination.

Amount of Deferred Monthly Pension: 2% multiplied by final 36-month average compensation multiplied by years of service (25 year maximum). Benefit commences upon member's attainment of age 58. Member can elect to have a reduced benefit commencing before age 58.

Spouse Benefit

If a member dies after meeting the eligibility requirements for normal retirement but before retirement, spouse receives same benefit that would have been payable had the member retired and elected the Joint and 100% Surviving Spouse Annuity Option.

Pre-Retirement Lump Sum Death Benefit

If a member dies before retirement, a lump sum is payable to the member's designated beneficiary as follows: less than 1 year of service - \$1,000; 1 but less than 2 years of service - \$2,000; 2 or more years of service - \$3,000.

Post-Retirement Lump Sum Death Benefit

Upon the death of a retired member, \$6,000 is payable to the member's designated beneficiary.



V. Actuarial Exhibits

Exhibit A-8: Summary of Plan Provisions as of January 1, 2019 (continued)

Disability Benefits

Effective June 11, 2012, the Plan does not provide for any disability benefits.

Form of Pension Payments

The normal form of payment is a monthly annuity for the member's lifetime only. Members may, however, elect to receive an actuarially reduced pension under a form that provides survivor benefits.

Post-Retirement Benefit Increases

The Plan provides for ad-hoc cost of living increases solely at the discretion of the Borough. The Borough provided ad-hoc cost-of-living increases to retirees and beneficiaries of deceased retirees effective January 1, 2004 and January 1, 2005.

Member Contributions

Members may be required to contribute up to 5% of compensation to assist in the funding of Plan benefits. Member contributions accumulate with interest at 6% per annum and would be payable to a member (or beneficiary, if applicable) who terminates without entitlement to vested benefits. Members are assumed to contribute 5% of compensation.

Changes in Plan Provisions Since Last (1/1/2017) Valuation

None.



V. Financial Exhibits

Exhibit F-1: Pension Plan Assets at Fair Market Value as of January 1, 2019

<u>Asset Description</u>	<u>Fair Market Value</u>
Cash and Cash Equivalents	\$ 26,766
Mutual Funds	2,191,695
Accrued Interest	0
Accrued Dividends	0
Accounts Receivable	4,784
	<u>\$ 2,223,245</u>

Note: Accounting Method is Accrual Basis

Actuarial Value of Assets as of January 1, 2019

1. Actuarial Value of Assets at January 1, 2017	\$ 1,937,420
2. Non-investment increases during 2017 and 2018	175,962
3. Non-investment decreases during 2017 and 2018	(181,986)
4. Credited interest for 2017 and 2018: $.1556 \times (1) + .075 [(2) + (3)]$	<u>301,011</u>
5. Preliminary Actuarial Value of assets as of January 1, 2019	\$ 2,232,407
6. Market Value of Assets at January 1, 2019 x .85	1,889,758
7. Market Value of Assets at January 1, 2019 x 1.15	2,556,732
8. Actuarial Value of Assets at January 1, 2019: (5) but not less than (6) or more than (7)	\$ 2,232,407



V. Financial Exhibits

Exhibit F-2: Asset Reconciliation January 1, 2017 to December 31, 2018

	<u>Year Beginning January 1</u>	
	<u>2017</u>	<u>2018</u>
1. Market Value at January 1	\$ 2,040,367	\$ 2,381,934
2. <u>Revenues During Year</u>		
a) Member Contributions	\$ 19,988	\$ 20,871
b) Municipal Contributions - State Aid Portion	26,250	22,700
c) Municipal Contribution - Local Portion	63,452	22,701
d) Interest	49,725	56,300
e) Dividends	0	0
f) Net Appreciation	273,511	(190,634)
g) Increase in Cash Surrender Values	0	0
h) Donations	0	0
i) Other Revenues	0	0
j) Total Revenues	\$ 432,926	\$ (68,062)
3. <u>Expenses During Year</u>		
a) Total Benefit Payments (Lump Sums)	\$ 0	\$ 0
b) Total Benefit Payments (Monthly)	71,716	71,976
c) Annuity Purchases (Lump Sums)	0	0
d) Refund of member contributions	0	0
e) Insurance Premiums (Life)	0	0
f) Insurance Premiums (Disability)	0	0
g) Administrative Expenses	19,643	18,651
h) Net Depreciation	0	0
i) Net Change in Unrealized Capital Losses	0	0
j) Other Expenses	0	0
k) Total Expenses	\$ 91,359	\$ 90,627
4. Market Value at December 31: (1) + (2.j) - (3.k)	\$ 2,381,934	\$ 2,223,245
• Total Investment Growth During Year	\$ 323,236	\$ (134,334)
• Average Assets on Deposit During Year	2,049,533	2,369,757
• Approximate Annual Rate of Return	15.77%	(5.67)%



V. Financial Exhibits

Exhibit F-3: Administrative Costs Paid From Pension Plan During 2018

<u>Type</u>	<u>Amount</u>
Actuarial	\$ 0
Investment	<u>18,651</u>
	\$ 18,651



VI. Demographic Exhibits

Exhibit D-1: Active Members Demographic Data as of January 1, 2019

	<u>Number</u>	<u>Annual W-2 Wages*</u>
1. Active members @ 1/1/2017	6	\$ 390,582
2. New entrants	0	\$ 0
3. Separations from active service		
a) Refund of contributions	0	\$ 0
b) Separation with deferred benefit	0	0
c) Separation with neither refund or deferred benefit	0	0
d) Disability	0	0
e) Death	0	0
f) Retirement with service retirement benefit	<u>0</u>	<u>0</u>
g) Total separations	0	\$ 0
4. Adjustment for salary changes	<u>-</u>	<u>31,568</u>
5. Active members @ 1/1/2019: (1) + (2) - (3.g) + (4)	6	\$ 422,150

* W-2 Wages for year preceding valuation date



VI. Demographic Exhibits

Exhibit D-2: Benefit Recipients Demographic Data as of January 1, 2019

	<u>Number</u>	<u>Annual Benefit</u>
1. Benefit recipients @ 1/1/2017	6	\$ 71,976
2. New benefit recipients	0	\$ 0
3. Terminations		
a) Death	0	\$ 0
b) Other	0	0
c) Total Terminations	0	\$ 0
4. Cost-of-living adjustments (ad-hoc)	-	0
5. Benefit recipients @ 1/1/2019: (1) + (2) - (3.c) + (4)	6	\$ 71,976

Terminated Vested Members Demographic Data as of January 1, 2019

	<u>Number</u>	<u>Annual Benefit</u>
1. Terminated vested members @ 1/1/2017	0	\$ 0
2. New terminated vested members	0	\$ 0
3. Terminations		
a) Death	0	\$ 0
b) Retired	0	0
c) Other	0	0
c) Total Terminations	0	\$ 0
4. Terminated vested members @ 1/1/2019: (1) + (2) - (3.d)	0	\$ 0



Certification

Assumptions used for the valuation were selected by the Borough with my advice based on the recently completed experience study, and I believe they are reasonable and appropriate for the valuation. The results and exhibits have been prepared in conformance with applicable Actuarial Standards of Practice.

The report was prepared under my supervision. I am an Enrolled Actuary under ERISA and a Member of American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions presented in this report. I also have more than five years of experience with Pennsylvania Act 205 plans and am authorized to submit the results of the report to the State's Department of Auditor General, as required under PA Act 205.

Respectfully submitted,

By:

Jason L. Fine

Enrolled Actuary No.: 17-06680

February 2020