

# SMART Retiree Health Care Plan

Actuarial Valuation Report

As of December 31, 2018



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May 30, 2019

Mr. David Sabuda  
Director of Finance  
SMART Retiree Health Care Plan  
535 Griswold, Suite 600  
Detroit, MI 48226

Dear Mr. Sabuda:

Submitted in this report are the results of an Actuarial Valuation of the assets and liabilities associated with the employer financed retiree health benefits provided by the Suburban Mobility Authority for Regional Transportation (SMART) Retiree Health Care Plan. The date of the valuation was December 31, 2018.

This report was prepared at the request of SMART and is intended for use by SMART and those designated or approved by SMART. This report may be provided to parties other than SMART only in its entirety and only with the permission of SMART. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the System's funding progress and to determine the Actuarially Determined Contribution for the fiscal years ending June 30, 2020 and June 30, 2021. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. This report does not satisfy Governmental Accounting Standards Board (GASB) Statements No. 74 or No. 75.

The findings in this report are based on data and other information through December 31, 2018. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

The valuation was based upon information furnished by SMART concerning retiree health benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by SMART.

Mr. David Sabuda

May 30, 2019

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This report has been prepared by actuaries who have substantial experience valuing public employee retiree health plans. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the SMART Retiree Health Care Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

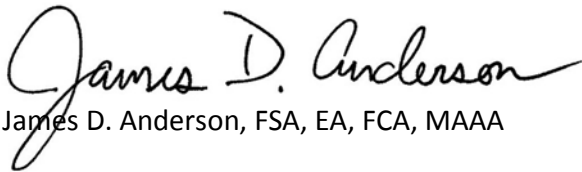
Shana M. Neeson and James D. Anderson are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Shana M. Neeson, ASA, FCA, MAAA



James D. Anderson, FSA, EA, FCA, MAAA

SMN/JDA:ah



# EXECUTIVE SUMMARY

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# Executive Summary

## Actuarially Determined Contribution

Please note that beginning with the fiscal year ending June 30, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending June 30, 2018, GASB Statement No. 45 was replaced by GASB Statement No. 75. Separate GASB reports will be required to comply with the actuarial requirements of GASB Statement No. 74 and GASB Statement No. 75. As such, there will no longer be an “Annual Required Contribution” calculated in the valuation reports. Therefore, we have determined the “Actuarially Determined Contribution.”

We have calculated the Actuarially Determined Contribution for the fiscal years ending June 30, 2020 and June 30, 2021 under the interest rate assumption of 5.50%. Below is a summary of the results.

<b>Fiscal Year Ending</b>	<b>Actuarially Determined Contribution</b>	<b>Estimated Premiums Paid for Retirees</b>
June 30, 2020	\$11,119,377	\$8,408,042
June 30, 2021	10,915,002	9,162,284

For additional details please see the Section titled “Valuation Results.”

## Liabilities and Assets – as of December 31, 2018

1. Present Value of Future Benefit Payments	\$190,282,863
2. Actuarial Accrued Liability	179,306,445
3. Plan Assets	54,607,606
4. Unfunded Actuarial Accrued Liability (2) – (3)	124,698,839
5. Funded Ratio (3)/(2)	30.5%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service to current members. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan’s funding method (see section titled “Actuarial Cost Method and Actuarial Assumptions”).

## **SECTION A**

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### **VALUATION RESULTS**

## SMART – Results by Group as of December 31, 2018

	ATU Drivers	ATU Clerical 1564	UAW 771	Teamsters Local 247	AFSCME 1917	Non-Union	Total
<b>A. Present Value of Future Benefits</b>							
i) Retirees and Beneficiaries	\$60,253,916	\$2,842,119	\$27,460,924	\$15,686,714	\$11,677,342	\$16,201,566	\$134,122,581
ii) Vested Terminated Members	0	0	0	0	0	0	0
iii) Active Members	<u>22,707,802</u>	<u>1,236,760</u>	<u>13,915,687</u>	<u>4,473,489</u>	<u>6,804,206</u>	<u>7,022,338</u>	<u>56,160,282</u>
Total Present Value of Future Benefits	82,961,718	4,078,879	41,376,611	20,160,203	18,481,548	23,223,904	190,282,863
<b>B. Present Value of Future Normal Costs</b>	4,017,259	184,795	3,244,738	896,244	1,486,614	1,146,768	10,976,418
<b>C. Actuarial Accrued Liability (A.-B.)</b>	78,944,459	3,894,084	38,131,873	19,263,959	16,994,934	22,077,136	179,306,445
<b>D. Actuarial Value of Assets</b>	24,042,459	1,185,940	11,613,025	5,866,820	5,175,791	6,723,571	54,607,606
<b>E. Unfunded Actuarial Accrued Liability (C.-D.)</b>	54,902,000	2,708,144	26,518,848	13,397,139	11,819,143	15,353,565	124,698,839
<b>F. Funded Ratio (D./C.)</b>	30.5%	30.5%	30.5%	30.5%	30.5%	30.5%	30.5%
<b>G. Fiscal Year Ending June 30, 2020</b>							
i) Employer Normal Cost	\$ 731,939	\$ 43,102	\$ 478,799	\$ 150,584	\$ 193,085	\$ 226,761	\$ 1,824,270
ii) Amortization of UAAL (25 years)*	<u>4,092,420</u>	<u>201,866</u>	<u>1,976,727</u>	<u>998,629</u>	<u>881,004</u>	<u>1,144,461</u>	<u>9,295,107</u>
Actuarially Determined Contribution	<b>\$ 4,824,359</b>	<b>\$ 244,968</b>	<b>\$ 2,455,526</b>	<b>\$ 1,149,213</b>	<b>\$ 1,074,089</b>	<b>\$ 1,371,222</b>	<b>\$ 11,119,377</b>
<b>H. Fiscal Year Ending June 30, 2021</b>							
Actuarially Determined Contribution	<b>\$ 4,740,697</b>	<b>\$ 235,579</b>	<b>\$ 2,403,414</b>	<b>\$ 1,132,776</b>	<b>\$ 1,061,780</b>	<b>\$ 1,340,756</b>	<b>\$ 10,915,002</b>

\* The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level dollar amount over a closed period of 25 years for the fiscal year ending June 30, 2020 and decreasing by one each year thereafter.

The long-term rate of investment return used in this valuation is 5.50%.



## Comments

**Comment A:** Overall Plan experience was more favorable than expected. Factors contributing to the favorable experience include, but are not limited to:

- More favorable premium experience than projected for both current and future retirees;
- Favorable asset experience since the last valuation;
- Reducing the ultimate health care cost trend assumption from 4.00% to 3.75%; and
- An adjustment to the future retiree health benefit election assumption, in order to better reflect actual Plan experience.

Partially offsetting these factors were losses due to:

- Updating the mortality tables and other demographic assumptions to be consistent with the MERS pension assumptions; and
- Adjusting the beginning health care cost trend rates.

The combination of the assumption changes noted and the adjustment to the retiree health benefit election assumption resulted in an overall liability increase of approximately \$3.5 million.

**Comment B:** This valuation includes life insurance liabilities only for 450 active members hired after the various Plan closure dates who qualify for the Health Care Savings Program through MERS and were reported as not eligible for retiree health care.

**Comment C:** One of the key assumptions used in any valuation of the cost of postemployment benefits is the rate of return on the assets that will be used to pay Plan benefits. Higher assumed investment returns will result in a lower Actuarially Determined Contribution. Lower returns will tend to increase the Actuarially Determined Contribution. We have calculated the liability and the resulting Actuarially Determined Contribution using an assumed annual rate of investment return of 5.50%. This investment return assumption was used at the request of SMART and is classified as a provision for adverse deviation under Section 3.12 of Actuarial Standard of Practice (ASOP) No. 42.

**Comment D:** The plan sponsor is required by GASB to perform actuarial valuations at least biennially or more frequently if significant changes in the OPEB are made in the interim.

**Comment E:** The contributions shown include amortization of the unfunded actuarial accrued liability over a closed 25-year period for the fiscal year ending June 30, 2020 and decreasing by one each year thereafter.

**Comment F:** The plan sponsor has indicated that assets of \$54,607,606 as of December 31, 2018 are available to offset the OPEB liability. For purposes of determining the contribution requirements for each of the groups, the asset amount was allocated between the six groups in proportion to each group's Actuarial Accrued Liability on the valuation date. For future valuations, we suggest that SMART track the asset allocation among the various OPEB groups.

## Comments

**Comment G:** We understand that SMART provides a weekly opt-out stipend to eligible retirees who waive health care coverage. This opt-out benefit is not considered an OPEB and has not been included in the liabilities shown in this report. It was assumed that all retirees currently not enrolled in the health care plan will continue to opt out of the plan indefinitely.

**Comment H:** The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of certain thresholds, effective in 2022. The initial thresholds are \$10,200 for single coverage or \$27,500 for family coverage. Many plans are below the thresholds today, but are likely to exceed them in the next decade. The thresholds will be indexed at CPI-U, which is lower than the medical inflation rates affecting the cost of the plans. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. Combining early retiree and Medicare eligible retiree costs is allowed and can keep plans under the thresholds for a longer period of time. For this valuation, no load was applied to the health care liabilities to approximate the cost for future excise tax, based on the current plan provisions and assumptions. We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will review and monitor the impact.

**Comment I:** The GASB issued Statement Nos. 74 and 75 for OPEB valuations similar to the new pension standards. GASB Statement No. 74 for the plan OPEB disclosures is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures is effective for employer fiscal years beginning after June 15, 2017. The GASB implementation guides for Statement Nos. 74 and 75 provide additional clarification related to the implementation of these Statements. It is our understanding that SMART needs to comply with GASB Statement No. 75 only for each future fiscal year ending on June 30. The basis for the June 30, 2019 accounting information is expected to be this valuation rolled forward to the measurement date. The information necessary for GASB Statement No. 75 will be developed at a later date.

**Comment J:** Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. In order to facilitate compliance, we will need to discuss how to supply the required information. At this time we expect to supply the information as part of SMART’s Annual GASB Statement No. 75 report or as a supplemental report. If you have any questions regarding this information and/or the cost associated with developing the information please contact us.

**Comment K:** Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regards to any funded status measurements presented in this report:

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligations, and
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.

## **SECTION B**

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### **RETIREE PREMIUM RATE DEVELOPMENT**

## Retiree Premium Rate Development

Initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The July 1, 2018 fully-insured rates provided by SMART were utilized to determine the appropriate premium rates. For the pre-65 and post-65 retirees, the fully-insured premium rate is used as the basis of the initial per capita cost without adjustments since the rates are assumed to reflect the demographics of each retiree group and there is assumed to be no implicit subsidy in the rates.


The benefit options available to future retirees are different than current retirees. Future retirees will enter HAP-HMO/1000721/1401, HAP-HMO/1000721/1501, BCBS 007002457/0006, or BCN/00110017/0005/0010. We have developed separate premium rates for future retirees in order to reflect the benefit differences.

Age graded and sex distinct premiums are utilized by this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age. The combined monthly one-person medical and drug premiums at select ages are shown below.

<b>For Those Not Eligible for Medicare (Pre-65)</b>				
<b>Age</b>	<b>Current Retiree</b>		<b>Future Retiree</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
40	\$ 412.99	\$ 671.08	\$ 380.55	\$ 618.37
50	669.46	824.70	616.88	759.93
60	1,137.77	1,120.31	1,048.40	1,032.32
64	1,383.56	1,305.70	1,274.89	1,203.15

<b>For Those Eligible for Medicare (Post-65)</b>				
<b>Age</b>	<b>Current Retiree</b>		<b>Future Retiree</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
65	\$ 766.74	\$ 723.18	\$ 609.81	\$ 575.18
75	897.08	875.35	713.48	696.20
85	948.60	959.78	754.46	763.35

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.

  
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 James E. Pranschke, FSA, MAAA

## SECTION C

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### SUMMARY OF BENEFITS

# SMART Retiree Health Care Plan

## Summary of Benefit Provisions as of December 31, 2018

Group Name All Employees Hired Before 7/1/07

Leaving Employment as a Result of	Eligibility for Benefit	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost	
		Retiree	Spouse			Retiree	Spouse
<b>Normal Retirement</b>	Age 60 with 6 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
	Age 55 with 15 years of service	Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
		Life Insurance	None	Hartford Life	fully-insured	None	
<b>Early Retirement</b>	Age 50 with 25 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
		Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
		Life Insurance	None	Hartford Life	fully-insured	None	
<b>Non-Duty Disability</b>	12 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
		Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
		Life Insurance	None	Hartford Life	fully-insured	None	
<b>Duty Disability</b>	No age or service requirement	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
		Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
		Life Insurance	None	Hartford Life	fully-insured	None	
<b>Non-Duty Death-in-Service (non-union employees only)</b>	6 years of service & age 60		Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
	15 years of service & age 55						
	25 years of service & age 50		Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		See pages C-3 to C-4
<b>Duty Death-in-Service (non-union employees only)</b>	No age or service requirement		Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
			Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		See pages C-3 to C-4

The surviving spouse will continue to receive health care and prescription coverage if the retiree elected a pension option that provides continuing pension payments to his/her spouse.

Retirees who opt-out receive \$115.00 per week for opting-out; they can later opt back in only during open enrollment or if they lose other coverage.

Retirees are not eligible for dental and/or vision benefits.

A select number of retirees pay for their coverage and/or their spouse coverage as defined in their contract at retirement. Retirees pay for dependent coverage.

\$5,000 life insurance benefit for all retiree groups except UAW which is \$6,000.

# SMART Retiree Health Care Plan

## Summary of Benefit Provisions as of December 31, 2018

Group Name

All Employees Hired After 7/1/07\*#

Leaving Employment as a Result of	Eligibility for Benefit	OPEB Eligibility for Benefit	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost	
			Retiree	Spouse			Retiree	Spouse
<b>Normal Retirement</b>	Age 60 with 10 years of service	25 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
	Age 55 with 20 years of service		Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
			Life Insurance	None	Hartford Life	fully-insured		
<b>Early Retirement</b>	Age 55 with 15 years of service	25 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
	Age 50 with 25 years of service		Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
			Life Insurance	None	Hartford Life	fully-insured		
<b>Non-Duty Disability</b>	12 years of service	25 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
			Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
			Life Insurance	None	Hartford Life	fully-insured		
<b>Duty Disability</b>	No age or service requirement	25 years of service	Medical	Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured	See pages C-3 to C-4	
			Prescription drug	Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
			Life Insurance	None	Hartford Life	fully-insured		
<b>Non-Duty Death-in-Service (non-union employees only)</b>	10 years of service	25 years of service & age 50		Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		See pages C-3 to C-4
				Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		
<b>Duty Death-in-Service (non-union employees only)</b>	No age or service requirement	25 years of service & age 50		Medical	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		See pages C-3 to C-4
				Prescription drug	HAP (HMO), BCN (HMO), BCBS (PPO)	fully-insured		

The surviving spouse will continue to receive health care and prescription coverage if the retiree elected a pension option that provides continuing pension payments to his/her spouse.

Retirees who opt-out receive \$115.00 per week for opting-out; they can later opt back in only during open enrollment or if they lose other coverage.

Retirees are not eligible for dental and/or vision benefits.

A select number of retirees pay for their coverage and/or their spouse coverage as defined in their contract at retirement. Retirees pay for dependent coverage.

\$5,000 life insurance benefit for all retiree groups except UAW which is \$6,000.

\* Plan Closures: AFSCME 1917 - 2/9/2015, ATU Clerical 1564 - 7/1/2007, Teamsters Local 247 - 7/1/2007, ATU Drivers - 7/1/2007, Non-Union - 7/1/2007, UAW - 9/10/2017

# Excludes active members who participate in the Health Care Savings Program through MERS for retiree health purposes. These individuals still qualify for retiree life insurance.

# SMART Retiree Health Care Coverage

## Employee Cost Share as of December 31, 2018

- Union Employees:

Employees who retire after January 6, 2012 shall have the same or equivalent health care plans, carriers and prescription drug plans as they had at the time of their retirement. They shall also have the same percentage health care premium contribution, co-pays and deductibles as they had at the time of their retirement. Retirees shall contribute to the health care plan they select as follows:

- Under age 65 and not eligible for Medicare:
  - HAP-HMO Plan #1: 11.5% of monthly health care premium costs.
  - HAP-HMO Plan #2: 7.5% of monthly health care premium costs.
  - BCN-HMO Plan #3: 11.5% of monthly health care premium costs for the HAP-HMO Plan #1 as set forth above plus the monthly premiums difference between the cost of said HAP-HMO and the cost of the BCN plan.
- Age 65 or older or eligible for Medicare:
  - Retirees and/or eligible spouse shall contribute 7.5% of monthly health care premium cost for Medicare supplementary coverage.
- Health Care Waiver Option:
  - Retirees will have the choice of waiving their SMART health care coverage and receiving a maximum payment of \$115 per week or the cost of single coverage for the lowest cost health plan, whichever is less. Retirees selecting this option must sign a waiver and be covered under another group medical plan.



# SMART Retiree Health Care Coverage

## Employee Cost Share as of December 31, 2018

- Non-Union Employees:

Employees who retire after November 1, 2011 shall have the same or equivalent health care plans, carriers and prescription drug plans as they had at the time of their retirement. They shall also have the same co-pays and deductibles as they had at the time of their retirement. Retirees shall contribute to the health care plan they select as follows:

- Under age 65 and not eligible for Medicare:
  - HAP-HMO Plan #1: 11.5% of monthly health care premium costs.
  - HAP-HMO Plan #2: 7.5% of monthly health care premium costs.
  - BCN-HMO Plan #3: 11.5% of monthly health care premium costs for the HAP-HMO Plan #1 as set forth above plus the monthly premium difference between the cost of said HAP-HMO and the cost of the BCN plan.
- Age 65 or older or eligible for Medicare:
  - Retirees and/or eligible spouse shall contribute 7.5% of monthly health care premium cost for Medicare supplementary coverage.
- Health Care Waiver Option
  - Retirees will have the choice of waiving their SMART health care coverage and receiving a maximum payment of \$115 per week or the cost of single coverage for the lowest cost health plan, whichever is less. Retirees selecting this option must sign a waiver and be covered under another group medical plan.

## **SECTION D**

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### **SUMMARY OF VALUATION DATA**

**SMART**  
**Total Eligible Active Members\* as of December 31, 2018**  
**By Age and Years of Service**

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24	2							2
25-29	33	2	1					36
30-34	28	8	3					39
35-39	30	13	7	1	1			52
40-44	48	10	14	12	9			93
45-49	52	18	18	15	19	3		125
50-54	51	27	21	23	26	14	8	170
55-59	45	24	17	21	23	11	6	147
60-64	30	22	15	18	13	4	5	107
65 & Over	9	6	10	4	1	2	2	34
<b>Totals</b>	<b>328</b>	<b>130</b>	<b>106</b>	<b>94</b>	<b>92</b>	<b>34</b>	<b>21</b>	<b>805</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

OPEB Group	Count	Age	Service
ATU Drivers	383	49.5 yrs.	9.5 yrs.
ATU Clerical 1564	21	50.4	10.3
UAW 771	124	50.2	13.4
Teamsters Local 247	126	51.0	6.3
AFSCME 1917	57	50.5	16.4
Non-Union	94	48.7	11.7
<b>Total</b>	<b>805</b>	<b>49.8</b>	<b>10.4</b>

\* Includes 450 members eligible for life insurance benefits only upon retirement.

# SMART

## Total Inactive Members as of December 31, 2018

### Count of Retiree and Beneficiary Contracts

	Opt-Out/ Ineligible	One-Person Coverage <sup>^</sup>	Two-Person Coverage <sup>*</sup>	Total
Male	50	175	133	358
Female	93	251	52	396
<b>Total</b>	<b>143</b>	<b>426</b>	<b>185</b>	<b>754</b>

<sup>\*</sup> Includes family coverage.

<sup>^</sup> Includes 83 retirees with life insurance coverage only.

Age	Current Retirees						
	Number of Those Covered						
	ATU Drivers	ATU Clerical 1564	UAW 771	Teamsters Local 247	AFSCME 1917	Non-Union	Total
0-44	1						1
45-49	4		1	2			7
50-54	10		2	4	1		17
55-59	29	3	24	11	5	11	83
60-64	70	4	25	18	10	10	137
65-69	57	2	21	19	12	30	141
70-74	64	1	12	10	12	11	110
75-79	40	1	6	11	4	8	70
80-84	17	1			2	6	26
85-89	10	3	1	1		1	16
90-94	3						3
95 +							
<b>Totals</b>	<b>305</b>	<b>15</b>	<b>92</b>	<b>76</b>	<b>46</b>	<b>77</b>	<b>611</b>

There are 0 terminated members eligible for deferred Plan benefits.

# SMART

## Reported Financial Information

### (Market Value)

	<b>December 31, 2018</b>
<b>Additions</b>	
Contributions	
Employer	\$ 4,218,400
Nonemployer Contributing Entities	-
Active Employees	-
Other - December 2018 payment actually made in January 2019	500,000
<b>Total Contributions</b>	<b>\$ 4,718,400</b>
Investment Income	
Net Appreciation in Fair Value of Investments	\$ (2,061,287)
Interest and Dividends	-
Less Investment Expense	-
<b>Net Investment Income</b>	<b>\$ (2,061,287)</b>
Other	\$ -
<b>Total Additions</b>	<b>\$ 2,657,113</b>
 <b>Deductions</b>	
Benefit payments, including refunds of employee contributions	\$ -
OPEB Plan Administrative Expense	131,794
Other	-
<b>Total Deductions</b>	<b>\$ 131,794</b>
<b>Net Increase in Net Position</b>	<b>\$ 2,525,319</b>
 <b>Net Position Restricted for OPEB</b>	
Beginning of Year (January 1, 2018)	\$ 52,082,287
End of Year (December 31, 2018)	<b>\$ 54,607,606</b>

## **SECTION E**

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### **ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS**

# Valuation Methods for SMART Retiree Health Care Plan as of December 31, 2018

**Actuarial Cost Method.** Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level dollar amount. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the fiscal year at the assumed rate of investment return.

**Actuarial Value of Assets.** The Actuarial Value of Assets is set equal to the reported market value of assets. The assets were allocated between the six groups in proportion to each group's Actuarial Accrued Liability on the valuation date.

**Amortization Factors:** The following amortization factors were used in developing the Actuarially Determined Contribution for the fiscal years shown:

	Fiscal Year Ending June 30,	
	2020	2021
Level Dollar	13.7795	13.5101

## Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

All assumptions are expectations of future experience, not market measures. The rationale for the rates of merit and longevity salary increase, base wage inflation, rates of mortality, early retirement rates, rates of separation from active membership, and disability rates used in this valuation is included in the MERS 5-year experience study for the period January 1, 2009 to December 31, 2013 performed by the prior MERS pension actuary. We have not performed an independent analysis of plan experience, but we anticipate beginning the next 5-year experience study for the period January 1, 2014 to December 31, 2018 following the completion of the December 31, 2018 pension valuations.

**The rate of investment return** was 5.50% a year, compounded annually net after investment expenses.

**Rates of price inflation** are not specifically used for this valuation. However, a rate of price inflation of 2.50% would be consistent with other assumptions in this report.

**The rates of salary increase** used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

Sample Ages	% Increase in Salary at Sample Ages		
	Merit & Longevity	Base (Wage Inflation)	Total Percentage Increase in Pay
20	11.00 %	3.75 %	14.75 %
25	7.20	3.75	10.95
30	3.10	3.75	6.85
35	1.90	3.75	5.65
40	1.20	3.75	4.95
45	0.81	3.75	4.56
50	0.52	3.75	4.27
55	0.30	3.75	4.05
60	0.00	3.75	3.75



# Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

**The rates of mortality** used for individual members are in accordance with the following tables.

The mortality table used to project the mortality experience of non-disabled plan members is a 50% Male - 50% Female blend of the following tables:

1. The RP-2014 Healthy Annuitant Mortality Tables, with rates multiplied by 105%
2. The RP-2014 Employee Mortality Tables
3. The RP-2014 Juvenile Mortality Tables

For ages 0-17 we use the rates in Table 3; for ages 18-49 we use the rates in Table 2; for ages 70 and older we use the rates in Table 1; and for ages 50-69 we blend Table 2 and Table 1 as follows:

- a. Age 50, use 60% of Table 2 and 40% of Table 1
- b. Age 51, use 57% of Table 2 and 43% of Table 1
- c. Etc. ...
- d. Age 69, use 3% of Table 2 and 97% of Table 1

The mortality table used to project the mortality experience of disabled plan members is a 50% Male - 50% Female blend of the RP-2014 Disabled Retiree Mortality Tables.

Ninety percent (90%) of active member deaths are assumed to be non-duty deaths and 10% of the deaths are assumed to be duty related.

Possible future mortality improvements are reflected in the mortality assumption. The mortality assumptions include a 10% margin for future mortality improvements, relative to the actual mortality experience seen in the 2009-2013 Experience Study, as performed by the prior MERS pension actuary.

## Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

The life expectancies and mortality rates projected for non-disabled members are shown below for selected ages:

Sample Ages	Expected Years of Life Remaining	Mortality Rates
20	63.06	0.03%
25	58.15	0.03
30	53.24	0.03
35	48.33	0.04
40	43.43	0.05
45	38.56	0.08
50	33.74	0.23
55	29.18	0.37
60	24.79	0.58
65	20.59	0.94
70	16.66	1.56
75	13.07	2.51
80	9.85	4.18

The life expectancies and mortality rates projected for disabled members are shown below for selected ages:

Sample Ages	Expected Years of Life Remaining	Mortality Rates
20	46.95	0.47%
25	43.14	0.54
30	39.24	0.55
35	35.33	0.65
40	31.52	0.82
45	27.98	1.30
50	24.87	1.62
55	21.91	1.89
60	18.97	2.18
65	16.04	2.63
70	13.19	3.43
75	10.54	4.77
80	8.18	6.88

# Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

## Retirement Rates

A schedule of retirement rates is used to measure the probability of eligible members retiring during the next year. To reflect the impact plan design may have on retirement experience, separate retirement rates apply to valuation divisions with pension benefit multipliers less than or equal to 2.50% and greater than 2.50%. Certain retirement ages may not apply, depending on the benefit age of first eligibility.

### Normal Retirement - Age Based Benefit Provisions

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year**	
	Less Than or Equal to 2.50%	Greater Than 2.50%
50	20%	23%
51	20	23
52	20	24
53	20	26
54	20	26
55	20	30
56	20	33
57	21	35
58	21	39
59	21	42
60	21	43
61	22	48
62	22	49
63	22	49
64	23	50
65	25	50
66	25	50
67	26	50
68	28	50
69	30	50
70	100	100

\* For those eligible prior to age 50, the retirement rate is 22% per year. Members in a defined contribution plan follow the retirement pattern of those with a defined benefit of less than or equal to 2.50% per year.

# All members who reach eligibility for normal retirement pension benefits before reaching eligibility for retiree health benefits are assumed to retire at the rate of 3% per year during the period when they are not eligible for health.

# Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

## Retirement Rates

Retirement Ages	Percent of Eligible Active Members Retiring within Next Year
50	2.00%
51	2.00
52	3.30
53	3.80
54	5.60
55	4.30
56	4.20
57	4.10
58	5.00
59	6.20

In the case a member's eligibility for early reduced pension retirement precedes eligibility for OPEB retirement, the percent of eligible active members retiring within the next year is as described in the table above or 3%, whichever is smaller.

## Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

**Rates of separation from active membership** are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The rates of separation from active membership do not apply to members eligible to retire, and do not include separation on account of death or disability. The assumed rates of separation applied in the current valuation are based on years of service and scaled up or down according to each group's experience.

<b>Group</b>	<b>Separation Rate Scaling Factor</b>
All Divisions	75%

The base separation rates (see the table below) are multiplied by the scaling factor to obtain the assumed withdrawal rates. Sample rates of separation from active employment, before application of the scaling factor, are shown below.

<b>Samples Years of Service</b>	<b>% of Active Members Separating within the Next Year</b>
0	19.60%
1	16.30
2	13.30
3	10.50
4	8.60
5	6.90
10	4.60
15	3.40
20	2.60
25	2.20
30 and over	2.20

# Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

## Disability Rates

Disability rates are used in the valuation to estimate the incidence of member disability in future years. The assumed rates of disablement at various ages are shown below:

Sample Ages	Percent Becoming Disabled within the Next Year
20	0.02%
25	0.02
30	0.02
35	0.05
40	0.08
45	0.20
50	0.29
55	0.38
60	0.39
65	0.39

80% of the disabilities are assumed to be non-duty and 20% of the disabilities are assumed to be duty related. For those plans which have adopted disability provision D-2, for pension benefit purposes, 40% of the disabilities are assumed to be non-duty and 60% are assumed to be duty related.

# Actuarial Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

*Health care cost trend rates* are displayed in the following table:

Year After Valuation	Health Care Trend Inflation Rates
	Medical/Drug
1	8.25%
2	7.75
3	7.25
4	6.75
5	6.25
6	5.75
7	5.25
8	4.75
9	4.25
10	3.75
11	3.75
12	3.75
13	3.75
14	3.75
15	3.75
16+	3.75

## Miscellaneous and Technical Assumptions for SMART Retiree Health Care Plan as of December 31, 2018

<b>Administrative Expenses</b>	No explicit assumption has been made for administrative expenses.
<b>Decrement Operation</b>	Disability and withdrawal do not operate during retirement eligibility.
<b>Decrement Relativity</b>	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
<b>Decrement Timing</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing</b>	Eligibility for benefits is determined using the age nearest birthday and the service nearest whole year on the date the decrement is assumed to occur.
<b>Future Service</b>	Members are assumed to earn 1.0 years of service in each future year.
<b>Incidence of Contributions</b>	Contributions are assumed to be received continuously throughout the year based upon the computed contribution shown in this report.
<b>Life Insurance</b>	Lump sum benefit valued.
<b>Marriage Assumption</b>	70% of males and 70% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
<b>Medicare Coverage</b>	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.
<b>Opt Outs</b>	Retirees who have opted-out are assumed to not opt back in. No retiree health liability is included for retirees currently opting out of coverage.
<b>Health Care Coverage at Retirement</b>	The table below shows the assumed portion of future retirees electing one-person or two-person/family coverage, or opting-out of coverage entirely.

	One-Person	Two-Person/Family		Opt-Out
		Electing	Continuing	
Male	45%	30%	75%	25%
Female	45%	30%	75%	25%



## **APPENDIX**

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### **GLOSSARY**

## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarially Determined Contribution.** The Actuarially Determined Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Determined Contribution is an amount that is actuarially determined so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded actuarial accrued liability.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Implicit Rate Subsidy.** It is common practice for employers to allow retirees to continue in the employer’s group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.

## Glossary

**Medical Trend Rate (Health Care Inflation).** The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Postemployment Benefits (OPEB).** OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other healthcare benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

**Valuation Assets.** The value of current plan assets recognized for valuation purposes needs of the employer.