FELRA and UFCW Pension Fund

Actuarial Valuation Report
as of January 1, 2019

Produced by Cheiron

June 2020

TABLE OF CONTENTS

June 24, 2020

FELRA and UFCW Pension Fund Trustees
c/o Ms. Linda DuVall
Associated Administrators, LLC
4301 Garden City Drive, Suite 201
Landover, Maryland 20785

Dear Trustees:

At your request, we have performed the January 1, 2019 Actuarial Valuation of the FELRA and UFCW Pension Fund (the Fund). This report contains information on the Fund's assets and liabilities and also discloses contribution levels, including the minimum required amount as mandated by Federal law.

In the Foreword, we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. Those comments are the basis for our certification that this report is complete to the best of our knowledge and belief. The results of this report are only applicable to the 2019 Plan Year and rely on future plan experience conforming to the underlying assumptions. Future valuation reports may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

A new Actuarial Standard of Practice (ASOP) No. 51, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*, applies to this and future valuations. The primary risk for this plan is its projected insolvency in the near future. This has been discussed with the Board in detail. Given the anticipated insolvency of the plan, no additional disclosures are called for in our opinion in accordance with ASOP No. 51.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

The purpose of this report is to present the annual actuarial valuation of the FELRA and UFCW Pension Fund. This report is for the use of the Fund and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Other users of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any such other users.

Sincerely,
Cheiron

Gene Kalwarski, FSA, MAAA, EA
Principal Consulting Actuary

Kevin J. Woodrich, FSA, MAAA, EA
Principal Consulting Actuary

cc: Justin Runkel, ASA, MAAA, EA

FOREWORD

Cheiron has performed the actuarial valuation of the FELRA and UFCW Pension Fund as of January 1, 2019. The purpose of this report is to:

1) **Measure and disclose**, as of the valuation date, the financial condition of the Fund; and

2) **Provide specific information** and documentation required by the Federal Government and the auditors of the Fund.

An actuarial valuation establishes and analyzes fund assets, liabilities and contributions on a consistent basis, and traces the progress of both from one year to the next. It includes measurement of the Fund's investment performance, as well as an analysis of actuarial liability gains and losses.

Section I presents a summary of the valuation and compares this year's results to last year's results.

Section II contains exhibits relating to the valuation of assets.

Section III shows the various measures of liabilities.

Section IV shows the development of the minimum and maximum contributions.

Section V provides information required by the Fund's auditor.

The appendices to this report contain a summary of the Fund's membership at the valuation date, a summary of the major provisions of the Fund, and the actuarial methods and assumptions used in the valuation. There have been no changes to the Fund since the prior valuation.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by Associated Administrators LLC, Investment Performance Services, Inc., and Calibre CPA Group, PLLC. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The actuarial assumptions, analyzed individually, represent our best estimates for the future experience of the Fund. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Fund could vary from our results.

SECTION I – SUMMARY

The table below sets out the principal results of this year's valuation and compares them to last year's results.

Table I-1
Summary of Principal Results

	January 1, 2018	January 1, 2019	Change
Participant Counts			
Actives* Tier I	906	806	(11.04%)
Tier II	10,323	9,614	(6.87%)
Total	11,229	10,420	(7.20%)
Terminated Vesteds	14,100	14,335	1.67%
In Pay Status	18,415	18,539	0.67%
Total	43,744	43,294	(1.03%)
Financial Information			
(1) Market Value of Assets (MVA)	$ 341,959,087	$ 235,636,022	(31.09%)
(2) Actuarial Value of Assets (AVA)	351,793,767	253,343,071	(27.99%)
(3) Total Present Value of Future Benefits	$ 1,695,010,781	$ 1,657,857,463	(2.19%)
(4) Actuarial Liability	$ 1,694,245,721	$ 1,657,107,953	(2.19%)
(5) Unfunded Actuarial Liability [(2) - (4)]	(1,342,451,954)	(1,403,764,882)	N/A
(6) Funding Ratio on AVA Basis [(2) ÷ (4)]	20.8%	15.3%	N/A
(7) Accrued Liability / PPA Liability	$ 1,692,540,419	$ 1,655,473,494	(2.19%)
(8) Unfunded Accrued Benefit [(2) - (7)]	(1,340,746,652)	(1,402,130,423)	N/A
(9) Funding Ratio on AVA Basis [(2) ÷ (7)]	20.8%	15.3%	N/A
(10) Funding Ratio on MVA Basis [(1) ÷ (7)]	20.2%	14.2%	N/A
(11) Present Value of Vested Benefits for Withdrawal Liability	$ 1,668,974,285	$ 1,632,551,699	(2.18%)
(12) Market Value of Assets for Withdrawal Liability	317,380,656	213,305,865	(32.79%)
(13) Unfunded Vested Benefits for Withdrawal Liability [(11)-(12)]	$ 1,351,593,629	$ 1,419,245,834	5.01%
Contributions and Cash Flows			
Employer Contributions (Actual / *Estimated*)	$ 45,613,945	*$ 45,000,000*	(1.35%)
ERISA Minimum Required Contribution (before Credit Balance)	173,750,894	170,114,276	(2.09%)
ERISA Maximum Deductible Contribution	3,666,704,010	3,596,535,741	(1.91%)
ERISA Credit Balance at Start of Year	(309,393,361)	(458,790,658)	48.29%
Prior Year Benefit Payouts	$ 146,488,446	$ 144,607,407	(1.28%)
Prior Year Administrative Expenses	5,284,218	5,236,823	(0.90%)
Prior Year Total Investment Income (Net of Investment Expenses)	35,111,194	(2,092,780)	N/A

* Active counts exclude any Giant or Safeway hires after January 1, 2013. There were 5,721 as of January 1, 2018 and 6,420 as of January 1, 2019.

SECTION II – ASSETS

General Comments

- The Market Value of Assets (MVA) returned approximately negative 0.8% (net of investment expenses) compared to the prior year's assumption of 7.0% over 2018.

- The MVA decreased by $106.3 million due to a $2.1 investment loss and a $104.2 million excess of benefits and administrative expenses paid over contributions made.

- The Fund uses an Actuarial Value of Assets (AVA) which smooth annual investment gains or losses over five years. The actuarial value of assets returned 2.1% for the year due primarily to the continued phase in this year's investment loss as well past actuarial investment gains and losses over the prior four years. This resulted in an actuarial investment loss of $14.0 million when compared with the 7.0% expected return.

- The Fund experienced a liability gain of $6.3 million (0.4% of actuarial liability) due primarily to favorable retirement experience by active members who are delaying their retirements.

- Combining the actuarial investment loss and liability gain, the Fund experienced a total net experience loss of $7.7 million. This will increase the annual minimum required contribution by about $0.8 million for the next 15 years.

- The Fund's funding ratio (actuarial value of assets as a percentage of actuarial liability) decreased from 20.8% as of January 1, 2018 to 15.3% as of January 1, 2019. Based on market value of assets, the funding ratio decreased from 20.2% as of January 1, 2018 to 14.2% as of January 1, 2019.

- The Fund's twelfth actuarial certification under the Pension Protection Act (PPA) was filed on March 29, 2019. The Fund was certified to be in Critical and Declining status.

- The Fund's credit balance is negative as of the end of the 2018 Plan Year. However, no excise taxes are applicable due to its certification status as Critical and Declining.

SECTION II – ASSETS

Assets at Market Value

Market values represent "snap-shot" or "cash-out" values which provide the principal basis for measuring financial performance from one year to the next.

Table II-1
Statement of Assets at Market Value as of January 1, 2019

Investments			
U.S. Government and Agencies	$	16,718,891	7.7%
Corporate Obligations		54,298,312	25.1%
Common and Preferred Stocks		27,118,441	12.5%
Common/Collective Trusts		7,242,419	3.3%
Limited Partnerships		28,689,335	13.3%
Mutual Funds		51,897,936	24.0%
Short-Term Investment Funds		6,818,454	3.2%
Subtotal	$	192,783,788	89.1%
Receivables			
Employer Contributions	$	8,347,471	3.9%
Interest and Dividends		709,404	0.3%
Employer Withdrawal Liability		3,037,264	1.4%
Prepaids and other receivables		198,271	0.1%
Subtotal	$	12,292,410	5.7%
Cash		12,291,485	5.7%
Total Assets	$	217,367,683	100.5%
Liabilities			
Accounts Payable	$	(776,679)	-0.4%
Due from Broker for Purchases		(247,875)	-0.1%
Subtotal	$	(1,024,554)	-0.5%
Market Value of Assets - Auditor	**$**	**216,343,129**	100.0%
Expected Withdrawal Liability Payments		(3,037,264)	
Adjusted Market Value - Auditor	**$**	**213,305,865**	
Additional Receivable Contribution		22,330,157	
Market Value of Assets for Funding	**$**	**235,636,022**	

Changes in Market Value

The components of asset change are:

- Contributions
- Benefit payments
- Expenses
- Investment income (realized and unrealized)

The specific changes during 2018 are presented below:

Table II-2
Changes in Market Value

Value of Assets -- January 1, 2018	$	341,959,087
Employer Contributions	$	44,708,698
Withdrawal Liability Payments		905,247
Investment Return (Gross)		(1,646,221)
Benefit Payments		(144,607,407)
Administrative Expenses		(5,236,823)
Investment Expenses		(446,559)
Value of Assets -- January 1, 2019	$	235,636,022

SECTION II – ASSETS

Investment Performance

The following table calculates the actuarial investment gain/loss and the return for the plan year on a market value basis. The return is an appropriate measure for comparing the actual asset performance to the long-term 7% assumption.

Table II-3
Market Value Investment Gains / (Losses)

Item		Market Value
January 1, 2018 Value	$	341,959,087
2018 Employer Contributions		45,613,945
2018 Benefit Payments		(144,607,407)
2018 Administrative Expenses		(5,236,823)
Expected Investment Earnings (7%)		19,178,476
Expected Value December 31, 2018	$	256,907,278
Investment Gain / (Loss)		(21,271,256)
January 1, 2019 Value	$	235,636,022
Return		-0.77%

Assets at Actuarial Value

For funding purposes, the Fund uses an actuarial value of assets which smooth out market asset value fluctuations over five years to provide less volatile cost results. The asset method recognizes the excess of actual asset return over expected at the rate of 20% per year over five years, subject to a minimum of 80% of the market value of assets, and a maximum of 120% of the market value of assets. The asset valuation method is described more fully in Appendix C.

Table II-4
Development of Actuarial Value of Assets as of January 1, 2019

Market Value of Assets as of December 31, 2018					$	235,636,022
Plan Year		Initial Gain/(Loss)	Percent Recognized	Percent Deferred		Amount Deferred
2015	$	(34,673,501)	80%	20%	$	(6,934,700)
2016		(1,326,092)	60%	40%		(530,437)
2017		11,291,821	40%	60%		6,775,093
2018		(21,271,256)	20%	80%		(17,017,005)
Total Gain/(Loss) Excluded					$	(17,707,049)
Preliminary Actuarial Value as of January 1, 2019					$	253,343,071
Corridor for Actuarial Value						
80% of Market Value					$	188,508,818
120% of Market Value					$	282,763,226
Actuarial Value of Assets as of January 1, 2019					$	253,343,071
Actuarial Value as a percent of Market Value of Assets as of January 1, 2019						107.5%

SECTION II – ASSETS

Asset Gains / (Losses) on Actuarial Value Basis

The following table calculates the actuarial investment gain/loss and the return for the plan year on an actuarial value basis. This actuarial gain/loss is one component of the Fund's overall experience gain/loss which is recognized for minimum funding requirements.

Table II-5
Actuarial Value Investment Gains / (Losses)

Item		Actuarial Value
January 1, 2018 Value	$	351,793,767
2018 Employer Contributions		45,613,945
2018 Benefit Payments		(144,607,407)
2018 Assumed Administrative Expenses		(5,327,201)
Expected Investment Earnings (7%)		19,863,794
Expected Value December 31, 2018	$	267,336,898
Investment Gain / (Loss)		(13,993,827)
January 1, 2019 Value	$	253,343,071
Return		2.07%

SECTION III – LIABILITIES

In this section, we present detailed information on fund liabilities including:

- Disclosure of fund liabilities at January 1, 2018, and January 1, 2019; and
- Statement of changes in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which it is being used.

- **Present Value of Future Benefits:** Used for analyzing the financial outlook of the Fund. This represents the amount of money needed today to fully pay off all future benefits of current participants of the Fund, assuming no new participants, the current participants continue to accrue benefits (those that are eligible), and all actuarial assumptions are met.
- **Actuarial Liabilities:** Used in determining minimum funding standards requirements, maximum tax-deductible contributions and long-term funding targets. These amounts are determined using the **Entry Age Normal Cost Method**.
- **Accrued Liabilities:** Used for communicating the current level of liabilities. This liability represents the total amount of money needed to fully pay off all future obligations of the Fund using funding assumptions and assuming no further accrual of benefits. These amounts are determined using the **Unit Credit Cost Method**.

  These liabilities are used for determining the funded status under PPA. The law requires these liabilities be compared to the actuarial value of assets to measure funded status. They can be used to establish comparative benchmarks with other plans.

  The accrued liabilities are also included in the Fund's financial statement for accounting disclosure purposes (FASB ASC Topic No. 960). However, the accounting disclosure must also include the present value of future administrative expenses. This sum is called the Present Value of Accumulated Benefits.
- **Vested Liabilities:** This liability represents that portion of the accrued liabilities which are vested.
- **Current Liabilities:** Used for Federal Government compliance purposes, the calculation of this liability is defined by federal regulations and is used to determine maximum allowable tax deductible contributions.

None of the liabilities shown in this report is appropriate for settlement purposes.

The table on the following page discloses each of these liabilities for the current valuation and the prior one. With respect to each disclosure, a subtraction of the appropriate value of plan assets yields, for each respective type, a net surplus or an unfunded liability.

SECTION III – LIABILITIES

Table III-1
Liabilities/Net Surplus (Unfunded)

	January 1, 2018	January 1, 2019
PRESENT VALUE OF FUTURE BENEFITS		
Active Participant Benefits	$ 256,500,875	$ 239,028,008
Retiree and Inactive Benefits	1,438,509,906	1,418,829,455
Total Present Value of Future Benefits	$ 1,695,010,781	$ 1,657,857,463
ACTUARIAL LIABILITY		
Total Present Value of Future Benefits	$ 1,695,010,781	$ 1,657,857,463
Less Present Value of Future Entry Age Normal Costs	765,060	749,510
Actuarial Liability	$ 1,694,245,721	$ 1,657,107,953
Actuarial Value of Assets	351,793,767	253,343,071
Net Surplus (Unfunded)	**$ (1,342,451,954)**	**$ (1,403,764,882)**
Assets as a Percentage of Actuarial Liability	20.8%	15.3%
ACCRUED LIABILITY / PPA LIABILITY		
Total Present Value of Future Benefits	$ 1,695,010,781	$ 1,657,857,463
Less Present Value of Future Benefit Accruals	2,470,362	2,383,969
Accrued Liability / PPA Liability	$ 1,692,540,419	$ 1,655,473,494
Actuarial Value of Assets	351,793,767	253,343,071
Net Surplus (Unfunded)	**$ (1,340,746,652)**	**$ (1,402,130,423)**
VESTED LIABILITY		
Total Present Value of Vested Benefits for Withdrawal Liability	$ 1,668,974,285	$ 1,632,551,699
Adjusted Market Value - Auditor	317,380,656	213,305,865
Net Surplus (Unfunded)	**$ (1,351,593,629)**	**$ (1,419,245,834)**
Assets as a Percentage of Vested Liability	19.0%	13.1%
CURRENT LIABILITY		
Current Liability	$ 2,840,744,425	$ 2,716,989,443
Market Value of Assets	341,959,087	235,636,022
Net Surplus (Unfunded)	**$ (2,498,785,338)**	**$ (2,481,353,421)**

SECTION III – LIABILITIES

Allocation of Liabilities by Type

The Fund's participants may qualify for a benefit on death, termination, and disability as well as on retirement. The value of the liabilities arising from each of these sources is shown in the following table.

Table III-2
Allocation of Liabilities by Type

Benefit Type	Retirement	Termination	Death	Disability	Total
Entry Age Normal Cost	$ 105,639	$ 54,276	$ 4,455	$ 7,746	$ 172,116
Entry Age Actuarial Liability					
Actives	$ 216,385,960	$ 7,736,150	$ 4,285,363	$ 9,871,025	$ 238,278,498
Terminated Vesteds	0	246,089,529	0	0	246,089,529
Retirees and Beneficiaries	1,084,770,328	0	65,939,311	22,030,287	1,172,739,926
Total	$ 1,301,156,288	$ 253,825,679	$ 70,224,674	$ 31,901,312	$ 1,657,107,953
RPA Current Liability Normal Cost	$ 743,121	$ 169,359	$ 7,017	$ 40,336	$ 959,833
RPA Current Liability					
Actives	$ 328,425,347	$ 111,903,621	$ 20,755,335	$ 3,564,833	$ 464,649,136
Terminated Vesteds	0	482,553,350	0	0	482,553,350
Retirees and Beneficiaries	1,637,097,952	0	95,005,543	37,683,462	1,769,786,957
Total	$ 1,965,523,299	$ 594,456,971	$ 115,760,878	$ 41,248,295	$ 2,716,989,443
Vested RPA Current Liability					
Actives	$ 321,771,495	$ 115,939,410	$ 5,226,056	$ 20,561,617	$ 463,498,578
Terminated Vesteds	0	482,553,350	0	0	482,553,350
Retirees and Beneficiaries	1,637,097,952	0	95,005,543	37,683,462	1,769,786,957
Total	$ 1,958,869,447	$ 598,492,760	$ 100,231,599	$ 58,245,079	$ 2,715,838,885

SECTION III – LIABILITIES

Changes in Liabilities

Each of the liabilities shown in the table below is subject to change at successive valuations as the experience of the Fund varies from that assumed in the valuation. The liabilities may change for any of several reasons, including:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments
- Interest on liabilities
- Benefits paid to retirees
- Participants leaving employment at rates different from expected
- Changes in actuarial assumptions
- Changes in actuarial methods

Table III-3
Change in Liabilities

	Actuarial Liability	Accrued Liability
Liabilities 1/1/2018	$ 1,694,245,721	$ 1,692,540,419
Liabilities 1/1/2019	$ 1,657,107,953	$ 1,655,473,494
Liability Increase (Decrease)	(37,137,768)	(37,066,925)
Change due to:		
Plan Amendments	$ 0	$ 0
Funding Method Change	0	0
Changes in Assumptions	0	0
Benefit Accruals	170,380	449,967
Benefit Payments	(144,607,407)	(144,607,407)
Increase for Interest	113,633,469	113,533,669
Other Sources	0	0
Experience (Gain)/Loss	(6,334,210)	(6,443,154)
Total Changes	$ (37,137,768)	$ (37,066,925)

SECTION IV – CONTRIBUTIONS

In this section, we present detailed information on fund contributions from two perspectives:

- The Minimum Required Contribution; and
- Government Limits which could affect either of the above.

Minimum Required Contribution

The minimum required contribution for this fund is determined using the Entry Age Normal Cost Method. The minimum required contribution is determined in two parts.

The first part is the entry age normal cost. This is the level cost of providing the benefits promised by the Fund to each individual participant in service at the valuation date assuming that contributions are made over the period of the participant's working life.

The second part is a net amortization payment to pay off the unfunded actuarial liability. The unfunded actuarial liability is the difference between the actuarial assets of the Fund at the valuation date and the assets the Fund should hold as determined by the actuarial cost method. The amortization payment is determined by the amortization schedule established by the IRS minimum funding rules. Consequently, the actuarial contribution and the minimum required contribution are the same.

Government Limits

ERISA and the IRS tax code place various limits on the contributions made to qualified pension plans. The limits impact the minimum that must be paid, the maximum that can be deducted and the timing of contributions.

To ensure that minimum contributions are met, pension plans are required to retain an Enrolled Actuary to complete Schedule MB to Form 5500 on an annual basis. Because the bargained contributions have exceeded the minimum required contribution in years past, the Fund has built up a credit balance. The credit balance can be used to make up the difference between the minimum required contribution and the bargained contribution.

The minimum required contribution for 2019 is shown below compared to the Government Limits and the estimated employer contributions.

Table IV-1
Contributions for 2019

Minimum Required Contribution		
Entry Age Normal Cost plus Admin. Expenses	$	5,476,616
Amortization Payment		153,508,689
Interest to End of Year		11,128,971
Total	$	170,114,276
Government Limits		
Maximum Deductible Contribution	$	3,596,535,741
Minimum Contribution (before Credit Balance)	$	170,114,276
Interest Adjusted Credit Balance	$	(490,906,004)
Minimum Contribution (after Credit Balance)	$	661,020,280
Estimated Employer Contributions	*$*	*45,000,000*

The tables on the following pages show the development of the minimum and maximum contributions for 2019.

SECTION IV – CONTRIBUTIONS

Table IV-2
Funding Standard Account for Plan Years Ending

		2018	2019
1.	Charges For Plan Year		
a.	Normal Cost plus Administrative Expenses	$ 5,320,380	$ 5,476,616
b.	Amortization Charges	185,750,505	172,357,727
c.	Interest on a. and b. to Year End	13,374,962	12,448,404
d.	Additional Funding Charge	N/A	N/A
e.	Interest Charge due to Late Quarterly Contributions	N/A	N/A
f.	Total Charges	$ 204,445,847	$ 190,282,747
2.	Credits For Plan Year		
a.	Prior Year Credit Balance	$ (309,393,361)	$ (458,790,658)
b.	Employer Contributions *(estimate for 2019)*	45,613,945	*45,000,000*
c.	Amortization Credits	28,686,872	18,849,038
d.	Interest on a., b., and c. to Year End	(19,252,267)	(30,412,072)
e.	Full Funding Limit Credit	0	0
f.	Total Credits	$ (254,344,811)	$ (425,353,692)
3.	Credit Balance at End of Year [2. - 1.] *(estimate for 2019)*	$ (458,790,658)	*$ (615,636,439)*

SECTION IV – CONTRIBUTIONS

Table IV-3
Calculation of the Maximum Deductible Contribution

1. Regular Maximum Contribution			
a.	Normal Cost plus Administrative Expenses	$	5,476,616
b.	Net Charge to Amortize Unfunded Actuarial Liability over 10 years		186,789,288
c.	Interest on a. and b. to Year End		13,458,613
d.	Total	$	205,724,517
e.	Minimum Required Contribution at Year End		661,020,280
f.	Larger of d. and e.		661,020,280
g.	Full Funding Limit		2,273,724,761
h.	Maximum Deductible Contribution, less of f. and g.	$	661,020,280
2. 140% of Current Liability Calculation			
a.	Current Liability at Start of Year	$	2,716,989,443
b.	Present Value of Benefits Estimated to Accrue during Year		959,833
c.	Expected Current Liability Benefit Payments		153,170,712
d.	Net Interest on a., b. and c. at Current Liability Interest Rate (3.06%)		80,843,395
e.	Expected Current Liability at End of Year, [a. + b. – c. + d.]		2,645,621,959
f.	140% of e.		3,703,870,743
g.	Actuarial Value of Assets		253,343,071
h.	Expected Benefit Payments		152,808,430
i.	Expected Expenses		5,304,500
j.	Net Interest on g., h. and i. at Valuation Interest Rate (7.00%)		12,104,861
k.	Estimated Value of Assets, [g. – h. - i. + j.]		107,335,002
l.	Unfunded Current Liability at Year End, [f. – k.], not less than $0	$	3,596,535,741
3. Maximum Deductible Contribution at Year End, greater of 1f. and 2l.		$	3,596,535,741

SECTION IV – CONTRIBUTIONS

Table IV-4
Development of Actuarial Gain / (Loss)

1. Unfunded Actuarial Liability at Start of Year (not less than zero)	$	1,342,451,954
2. Normal Cost and Administrative Expenses at Start of Year		5,320,380
3. Interest on 1. and 2. to End of Year		94,344,063
4. Employer Contributions for Prior Year		45,613,945
5. Interest on 4. to End of Year		397,187
6. Change in Unfunded Actuarial Liability Due to Changes in Assumptions		0
7. Change in Unfunded Actuarial Liability Due to Changes in Plan Design		0
8. Change in Unfunded Actuarial Liability Due to Funding Method Change		0
9. Expected Unfunded Actuarial Liability at End of Year		
[1. + 2. + 3. – 4. – 5. + 6. + 7. + 8.]	$	1,396,105,265
10. Actual Unfunded Actuarial Liability at End of Year (not less than zero)		1,403,764,882
11. Actuarial Gain / (Loss) [9. – 10.]		
a. Actuarial Liability Gain / (Loss)	$	6,334,210
b. Actuarial Value of Assets Gain / (Loss)	$	(13,993,827)
c. Total Actuarial Gain / (Loss) [9. – 10.]	$	(7,659,617)
12. Amortization Factor for Actuarial Gain / (Loss)		9.7455
13. Amortization Credit / (Charge) for Actuarial Gain / (Loss) [11c ÷ 12]	$	(785,967)

SECTION IV – CONTRIBUTIONS

Table IV-5
Schedule of Amortizations Required for Minimum Required Contribution as of January 1, 2019

Type of Base	Date Established	Initial Amount	Initial Amortization Years	1/1/2019 Outstanding Balance	Remaining Amortization Years	Beginning of Year Amortization Amount
CHARGES						
1. Assumption Change	1/1/1986	$ 12,855,910	30	$ 1,441,433	2	$ 745,090
2. Plan Amendment	1/1/1987	6,109,000	30	1,034,265	3	368,326
3. Plan Amendment	1/1/1988	17,915,000	30	4,043,016	4	1,115,526
4. Plan Amendment	1/1/1989	7,929,000	30	2,224,638	5	507,074
5. Change Method	1/1/1989	133,216,000	29	30,385,562	4	8,383,805
6. Assumption Change	1/1/1990	39,781,000	30	13,268,492	6	2,601,565
7. Plan Amendment	1/1/1990	39,435,000	30	13,153,091	6	2,578,937
8. Plan Amendment	1/1/1991	2,876,000	30	1,105,274	7	191,670
9. Plan Amendment	1/1/1992	6,032,000	30	2,610,193	8	408,526
10. Assumption Change	1/1/1992	52,269,000	30	22,618,087	8	3,540,001
11. Plan Amendment	1/1/1993	94,753,000	30	45,359,234	9	6,506,569
12. Assumption Change	1/1/1994	56,054,000	30	29,224,297	10	3,888,675
13. Assumption Change	1/1/1996	18,104,924	30	10,847,847	12	1,276,417
14. Plan Amendment	7/1/1996	128,160,593	30	82,860,109	13	9,497,475
15. Plan Amendment	1/1/1997	1,109,834	30	704,173	13	78,743
16. Plan Amendment	1/1/1998	563,954	30	376,464	14	40,230
17. Plan Amendment	1/1/1999	62,490,169	30	43,646,616	15	4,478,658
18. Actuarial Loss	1/1/2001	128,020,114	15	19,145,910	2	9,896,678
19. Actuarial Loss	1/1/2002	147,313,065	15	33,191,947	3	11,820,418
20. Actuarial Loss	1/1/2003	234,893,247	15	70,396,245	4	19,423,319
21. Actuarial Loss	1/1/2004	30,409,963	15	11,306,890	5	2,577,239
22. Actuarial Loss	1/1/2005	11,178,830	15	4,931,267	6	966,878
23. Actuarial Loss	1/1/2006	27,723,307	15	15,230,656	7	2,641,213
24. Assumption Change	1/1/2007	39,448,609	30	34,770,881	23	2,882,861

SECTION IV – CONTRIBUTIONS

Table IV-5
Schedule of Amortizations Required for Minimum Required Contribution as of January 1, 2019

Type of Base	Date Established	Initial Amount	Initial Amortization Years	1/1/2019 Outstanding Balance	Remaining Amortization Years	Beginning of Year Amortization Amount
CHARGES (CONTINUED)						
25. Assumption Change	1/1/2008	$ 31,841,997	15	$ 20,048,349	9	$ 2,875,842
26. Actuarial Loss	1/1/2009	189,464,345	20	128,176,077	10	17,055,504
27. Actuarial Loss	1/1/2010	45,333,520	15	24,205,225	6	4,745,939
28. Funding Method Change	1/1/2011	56,656,549	10	14,865,796	2	7,684,251
29. Actuarial Loss	1/1/2011	4,061,037	15	2,442,814	7	423,618
30. Actuarial Loss	1/1/2012	84,695,879	15	56,251,547	8	8,804,038
31. Assumption Change	1/1/2014	49,675,132	15	38,547,902	10	5,129,303
32. Actuarial Loss	1/1/2015	24,122,553	15	19,921,768	11	2,482,902
33. Assumption Change	1/1/2016	141,337,956	15	123,255,780	12	14,502,942
34. Actuarial Loss	1/1/2016	50,974,644	15	44,453,165	12	5,230,600
35. Actuarial Loss	1/1/2017	36,151,899	15	33,173,892	13	3,709,611
36. Actuarial Loss	1/1/2018	24,473,956	15	23,500,024	14	2,511,317
37. Actuarial Loss	1/1/2019	7,659,617	15	7,659,617	15	785,967
TOTAL CHARGES				**$ 1,030,378,543**		**$ 172,357,727**

SECTION IV – CONTRIBUTIONS

Table IV-5
Schedule of Amortizations Required for Minimum Required Contribution as of January 1, 2019

Type of Base	Date Established	Initial Amount	Initial Amortization Years	1/1/2019 Outstanding Balance	Remaining Amortization Years	Beginning of Year Amortization Amount
CREDITS						
1. Actuarial Gain	1/1/2007	$ 14,663,533	15	$ 4,360,307	3	$ 1,552,805
2. Actuarial Gain	1/1/2008	25,687,200	15	9,820,086	4	2,709,500
3. Funding Method Change	1/1/2010	38,172,608	10	5,198,824	1	5,198,822
4. Actuarial Gain	1/1/2013	18,356,328	15	13,257,035	9	1,901,659
5. Plan Amendment	1/1/2013	61,985,205	15	44,766,031	9	6,421,477
6. Actuarial Gain	1/1/2014	10,311,901	15	8,002,036	10	1,064,775
TOTAL CREDITS				**$ 85,404,319**		**$ 18,849,038**

SECTION IV – CONTRIBUTIONS

Table IV-6
Accumulated Reconciliation Account and Balance Test as of January 1, 2019

1. Reconciliation Account at Start of Year	$	0
2. Net Outstanding Amortization Bases	$	944,974,224
3. Credit Balance at Start of Year	$	(458,790,658)
4. Unfunded Actuarial Liability at Start of Year from Funding Equation [2. - 1. - 3.]	$	1,403,764,882
5. Actuarial Liability at Start of Year	$	1,657,107,953
6. Actuarial Value of Assets at Start of Year	$	253,343,071
7. Unfunded Actuarial Liability at Start of Year from Liability Calculation [5. - 6.]	$	1,403,764,882

The Fund passes the Balance Test because line 6. equals line 9.

SECTION IV – CONTRIBUTIONS

Table IV-7
Development of the Full Funding Limitation for the Plan Year Beginning January 1, 2019

		Minimum	Maximum
1.	ERISA Actuarial Liability Calculation		
a.	Actuarial Liability	$ 1,657,107,953	$ 1,657,107,953
b.	Normal Cost plus Administrative Expenses	5,476,616	5,476,616
c.	Lesser of Market Value and Actuarial Value of Assets	235,636,022	235,636,022
d.	Credit Balance at Start of Year	(458,790,658)	N/A
e.	Net Interest on a., b., c., and d. at Funding Interest Rate (7.00%)	67,771,052	99,886,398
f.	Actuarial Liability Full Funding Limit, [a. + b. – c. + d.] x 1.07, limited to zero	$ 1,035,928,941	$ 1,526,834,945
2.	Full Funding Limit Override (RPA 1994)		
a.	RPA 1994 Current Liability at Start of Year	$ 2,716,989,443	$ 2,716,989,443
b.	Present Value of Benefits Estimated to Accrue during Year	959,833	959,833
c.	Expected Current Liability Benefit Payments	153,170,712	153,170,712
d.	Net Interest on a., b. and c. at Current Liability Interest Rate (3.06%)	80,843,395	80,843,395
e.	Expected Current Liability at End of Year, [a. + b. – c. + d.]	2,645,621,959	2,645,621,959
f.	90% of e.	2,381,059,763	2,381,059,763
g.	Actuarial Value of Assets	253,343,071	253,343,071
h.	Expected Benefit Payments	152,808,430	152,808,430
i.	Expected Expenses	5,304,500	5,304,500
j.	Net Interest on g., h. and i. at Valuation Interest Rate (7.00%)	12,104,861	12,104,861
k.	Estimated Value of Assets, [g. – h. - i. + j.]	107,335,002	107,335,002
l.	RPA 1994 Full Funding Limit Override [f. – k.], limited to zero	$ 2,273,724,761	$ 2,273,724,761
3.	Full Funding Limitation at End of Year, greater of 1f. and 2l.	$ 2,273,724,761	$ 2,273,724,761

SECTION V – FASB ASC TOPIC NO. 960 DISCLOSURE

Table V-1
Present Value of Accumulated Benefits as of January 1, 2019
in Accordance with FASB ASC Topic No. 960

		Amounts	Counts
1. Actuarial Present Value of Benefits			
For Retirees and Beneficiaries	$	1,172,739,926	18,539
Terminated Vesteds		246,089,529	14,335
Active Participants		234,612,671	10,030
Vested Benefits	$	1,653,442,126	42,904
2. Non-vested Benefits	$	2,031,368	390
3. Present Value of Expected Administrative Expenses	$	69,817,349	
4. Accumulated Benefits	$	1,725,290,843	43,294
5. Market Value of Assets - Auditor	$	213,305,865	
6. Funded Ratios			
Vested Benefits		13%	
Accumulated Benefits		12%	

Reconciliation of Present Value of Accumulated Benefits

1. Actuarial Present Value at Start of Prior Year (w/o Administrative Expenses)	$	1,692,540,419
2. Increase (Decrease) over Prior Year due to:		
Benefit Accruals	$	449,967
Benefit Payments		(144,607,407)
Increase for Interest		113,533,669
Experience (Gains)/Losses		(6,443,154)
Changes in Assumptions		0
Plan Amendments		0
Total	$	(37,066,925)
3. Actuarial Present Value at End of Prior Year (w/o Administrative Expenses)	$	1,655,473,494
4. Present Value of Expected Administrative Expenses	$	69,817,349
5. Actuarial Present Value at End of Prior Year (w/ Administrative Expenses)	$	1,725,290,843

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by Associated Administrators LLC (AA). Cheiron did not audit any of the data. The data is as of January 1, 2019. Below is a list of assumptions Cheiron made in processing the data this year.

Active Status for Valuation Purposes

Only those participants who had an active status (A or AV) and last month worked after August were considered active employees for valuation purposes. The remaining participants with an A or AV status were valued as terminated vesteds if they had at least five years of vesting service; otherwise non-vested terminations.

Dates of Birth for Terminated Vested Employees

For terminated vested participants with unreasonable or missing dates of birth, we assumed they were the average age of their respective group based on Tier I or Tier II participation.

Accrued Benefits for Terminated Vested Employees

The accrued benefit for each terminated vested was estimated based on the amount of benefit service reported and the monthly accrual levels for Tier I or Tier II participation.

Full-Time/Part-Time Status

Full-time versus part-time status is not included in the data provided to Cheiron. For Tier I participants, this status is determined based on the most recent contribution rate for that participant. Tier II participants are assigned full-time versus part-time status based on the majority of their service for the 2018 Plan Year. If they do not have service in the 2018 Plan Year, earlier years are used.

APPENDIX A – MEMBERSHIP INFORMATION

The following is a list of data charts contained in this section:

- Age/Service Distribution for Active Participants earning future benefit accruals
- Age/Service Distribution for Active Participants not earning future benefit accruals (Giant and Safeway employees)
- Counts and Average Benefit Amount by Age for Retirees, Beneficiaries, and Disabled Participants
- Counts and Average Benefit Amount by Age for Deferred Vested Participants and Surviving Spouses entitled to future benefits

Table A-1
Active Participants as of January 1, 2019 Earning Future Benefit Accruals

	Completed Years of Credited Service as of January 1, 2019										
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	Total
Under 25	21	53	0	0	0	0	0	0	0	0	74
25-29	5	14	12	3	0	0	0	0	0	0	34
30-34	3	8	4	11	1	0	0	0	0	0	27
35-39	4	7	4	5	5	1	0	0	0	0	26
40-44	2	8	3	3	4	4	0	0	0	0	24
45-49	4	15	5	3	1	4	6	2	0	0	40
50-54	5	17	3	2	2	3	4	19	0	0	55
55-59	9	17	6	3	4	5	5	13	16	3	81
60-64	3	20	4	9	3	0	7	6	5	11	68
65-69	1	11	4	1	1	2	1	3	1	0	25
70 & Up	12	18	2	0	1	0	2	1	0	1	37
Total	69	188	47	40	22	19	25	44	22	15	**491**

Average Age = 49.0 Average Service = 11.6

APPENDIX A – MEMBERSHIP INFORMATION

Table A-2
Active Participants as of January 1, 2019 Not Earning Future Benefit Accruals

	Completed Years of Credited Service as of January 1, 2019										
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	Total
Under 25	0	1	10	0	0	0	0	0	0	0	11
25-29	0	2	343	58	0	0	0	0	0	0	403
30-34	1	5	268	340	34	0	0	1	0	0	649
35-39	0	5	155	280	305	16	0	0	0	0	761
40-44	0	5	146	189	272	224	16	0	0	0	852
45-49	0	2	155	219	268	250	277	69	0	0	1,240
50-54	1	5	148	236	281	173	275	413	13	0	1,545
55-59	0	10	186	291	314	201	254	402	205	21	1,884
60-64	0	8	161	213	276	168	204	254	133	126	1,543
65-69	0	4	83	117	128	86	89	89	20	75	691
70 & Up	0	2	42	81	79	26	48	38	6	28	350
Total	2	49	1,697	2,024	1,957	1,144	1,163	1,266	377	250	**9,929**

Average Age = 51.3 Average Service = 19.6

Excludes 6,420 Giant and Safeway employees for whom contributions are made on their behalf but no liability is or will be due.

APPENDIX A – MEMBERSHIP INFORMATION

Table A-3
Inactive Participants as of January 1, 2019

Pensioners and Beneficiaries Receiving Benefits

	Disability Retirements		Normal, Early Deferred Vested Retirements		Surviving Spouses and Beneficiaries Receiving Benefits		Total	
Age	Number	Monthly Benefit	Number	Monthly Benefit	Number	Monthly Benefit	Number	Monthly Benefit
Under 55	68	$ 21,411	46	$ 39,962	45	$ 19,193	159	$ 80,566
55-59	91	46,717	458	460,300	65	27,030	614	534,047
60-64	178	99,666	1,664	1,355,181	143	54,771	1,985	1,509,618
65-69	10	4,088	3,653	2,439,983	277	101,506	3,940	2,545,577
70-74	0	0	3,747	2,480,438	353	146,891	4,100	2,627,329
75-79	0	0	3,159	2,094,934	431	166,811	3,590	2,261,745
80 & Over	0	0	3,517	1,947,292	634	220,574	4,151	2,167,866
Total	**347**	**$ 171,882**	**16,244**	**$ 10,818,090**	**1,948**	**$ 736,776**	**18,539**	**$ 11,726,748**

Deferred Vested Participants and Surviving Spouses Entitled to Future Benefits

Age	Number	Monthly Benefit
Under 45	3,764	$ 443,500
45-49	2,169	405,489
50-54	2,321	565,164
55-59	2,694	843,517
60-64	2,103	677,402
65 & Over	1,284	411,942
Total	**14,335**	**$ 3,347,014**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-4
Participant Status Reconciliation

		Active	Terminated Vested	Retired	Disabled	Beneficiaries	Total
1.	January 1, 2018 valuation	**11,229**	**14,100**	**16,159**	**367**	**1,889**	**43,744**
2.	Additions						
	a. New hires	142					142
	b. New beneficiaries					177	177
	c. Data adjustments	(2)	41	60	2	(3)	98
	d. Total	140	41	60	2	174	417
3.	Reductions						
	a. Terminated - not vested	(142)					(142)
	b. Deaths or no further benefit due		(53)	(548)	(9)	(115)	(725)
	c. Data corrections						0
	d. Total	(142)	(53)	(548)	(9)	(115)	(867)
4.	Changes in status						
	a. Rehired	123	(123)				0
	b. Terminated with vested benefit	(734)	735	(1)			0
	c. Retired	(194)	(349)	575	(32)		0
	d. Disabled	(2)	(16)	(1)	19		0
	e. QDRO						0
	f. Total Changes	(807)	247	573	(13)	0	0
5.	January 1, 2019 valuation	**10,420**	**14,335**	**16,244**	**347**	**1,948**	**43,294**

APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

This summary reflects all amendments made to the Fund up to and including January 2019. In March 2008 and March 2012, the two largest employers entered into new contracts with increased contributions, the contribution rates under the 2008 and 2012 Bargaining Agreements have been reflected in this report. The rates for the majority of participants are set forth in this appendix.

1. Eligibility

Each employee with bargaining units represented by Locals 400, 27 or 1776 (formerly 1357), where the collective Bargaining Agreements call for contributions to this Fund on behalf of such employee, will become a participant upon receipt of the first such contribution on his behalf.

2. Normal Retirement Date

An employee's Normal Retirement Date is the last day of the month in which his 65th birthday occurs.

3. Past Service

Service prior to January 1, 1976 was granted according to the terms of the Fund as in effect from time to time prior to that date.

4. Future Service

On and after January 1, 1976, an employee for whom monthly contributions are made receives future service credit for each month for which a contribution is made on his behalf. An employee for whom hourly contributions are made receives future service credit for each plan year at the rate of one-quarter of a year for each 400 such hours for which contributions are made up to a full year credit for 1,600 or more such hours. In either case, an employee also receives future service benefit credit for any period during which he is reported as being in the military service of the United States and returns to covered employment within the period for protection of his statutory rights to re-employment.

5. Accrued Monthly Pension

An employee's Accrued Monthly Pension is determined according to the contribution rate applicable to him from time to time. The contribution rate for most of the participants in the Fund is set in the Collective Bargaining Agreement between FELRA and the participating unions.

The applicable contribution rates and benefit rates for Tier I and Tier II employees are shown on the next page.

APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

	Tier I		Tier II	
	Full-Time	Part-Time	Full-Time	Part-Time
Contribution Rate[1]	$1,278.37/month	$473.32/month	$1.89/hour	$1.89/hour
Benefit Rate Per Year of Credited Service (Effective April 1, 2000)	$47	$32	$25	$15

[1]Rates for Acme employees as seen in the 4th Quarter 2018 AMR

For Tier I participants, the benefit rate for credited service in excess of 30 years is $54 per month per year of full-time credited service and $37 per month per year of part-time credited service.

Certain other "non-core" bargaining units participate at different contribution/benefit levels. These non-core employers make up a small percentage of Fund liabilities. For FELRA employees hired after the effective date of the applicable Collective Bargaining Agreement, other contribution rates and benefit levels may be applicable.

Participants employed by either Giant or Safeway will not earn any future benefit accrual for service earned on or after January 1, 2013.

6. Normal Retirement Benefit

An employee's Normal Retirement Benefit is his Accrued Monthly Pension determined as of his Normal Retirement Age (65).

7. Employment after Age 65

An employee whose employment continues beyond his Normal Retirement Age will continue to receive additional pension credit for that employment.

8. Early Retirement Benefit

An employee who has both attained age 55 and completed at least 15 years of Credited Service can retire prior to his Normal Retirement Date. Tier II participants are also eligible to retire provided the Participant has both attained age 62 and completed at least 10 years of Credited Service. His early retirement pension is equal to his Accrued Monthly Pension, reduced by one-half of one percent for each month in the period between the date his pension commences and his 60th birthday (65th in the case of employees having an hourly contribution basis). Certain other participants acquired through plan mergers are entitled to early retirement benefits under different age and service requirements.

9. Special Early Retirement

An employee (other than an employee having an hourly contribution basis) who has either (a) attained age 60 and completed at least five years of Credited Service, or (b) has completed at least 30 years of Credited Service regardless of age, may retire and receive his Accrued Monthly Pension without actuarial reduction.

10. Disability Retirement

An employee who becomes totally and permanently disabled (according to Social Security criteria) after he has completed at least ten years of Credited Service, is entitled to a Disability Retirement Pension. His Accrued Pension will be payable without actuarial reduction as soon as his disability is established to the satisfaction of the Trustees and the six-month waiting period is completed.

11. Vesting

If an employee who has completed five or more years of "Vesting Service" terminates covered employment other than by death or disability prior to the time he is eligible for an Early (or Normal) Retirement Benefit, he will be entitled to a Deferred Vested Pension beginning on his 60th birthday (65th in the case of employees having an hourly contribution basis), equal to his Accrued Monthly Pension up to the date his covered employment terminates. A former employee may elect to receive his pension payments on the first day of any month on or after his 55th birthday, in which case his pension amount will be reduced by one-half of one percent for each month in the period between the date his pension begins and his 60th birthday (65th in the case of employees having an hourly contribution basis). For this purpose, Vesting Service is equal to (a) the years of Credited Service granted prior to 1976, and (b) the sum of the years of Credited Service granted after 1975, except that one full year of Vesting Service is granted for each calendar year in which either five or more months of Credited Service were granted or 750 Regular Time Hours were credited; if an employee has less than 750 Regular Time Hours or five months of Credited Service in any plan year and transfers to (or is transferred from) non-covered service with a participating employer, such non-covered service will also be included as Vesting Service.

12. Pre-Retirement Spouse's Pension

Each employee who is vested under the Fund (other than as set out below) is provided with pre-retirement spouse's pension coverage, whereby if his death occurs before actual retirement, his spouse will receive a lifetime pension from the Fund. The spouse's pension will be payable starting with the later of (a) the earliest date the employee could have elected to retire under the plan, or (b) the employee's death. The amount of such pension will be one-half of that which would have been payable to the employee if he had retired early on the date of the start of the spouse's pension and elected a Joint and 50 Percent Survivor option. The coverage is elective for former employees who became entitled to deferred vested pension prior to August 23, 1984 and is paid for by reduction of the pension otherwise payable to him.

APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

13. Normal Form of Pension

The normal form of pension for an unmarried employee (or for a married employee who so elects) will be a lifetime pension. If his pension accrual was greater than $15 per month per year of service (or $10 for part-time employees), the pension is also payable for 60-months certain. The normal form of pension payable to a married employee who does not elect otherwise will be an actuarially reduced pension on the Joint and 50 Percent Survivor basis.

Upon the death of a pensioner, other than pensioners receiving Deferred Vested Pensions, a lump sum death benefit will be paid to the employee's designated beneficiary. The amount is $500, $1,000 or $2,500 depending on the contribution rate applicable to the participant and the full-time/part-time employment status.

14. Reciprocity

An employee covered by this Fund may transfer to (or from) the UFCW and Participating Employers' Pension Fund without loss of pension credits. Upon eventual retirement, each Fund will pay the benefit for service accrued under that Fund, according to the benefit rate in effect under that Fund, at the time of retirement. Reciprocity also has been authorized between this Fund and certain other collectively bargained plans in the retail food industry, under which payment of benefits from each Fund is made according to the benefit rate in effect at the end of his covered employment under each Fund.

Note: This summary is for the sole purpose of stating the principal plan provisions on which the valuation is based. Entitlement to benefits under the Fund is determined under the terms and provisions of the pension plan document.

15. Changes in Plan Provisions

None

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Rates of Investment Return

Funding and disclosure purposes:
7.00% compounded annually

Current Liability under RPA 1994:
3.06% compounded annually

All investment returns are net of investment expenses.

This valuation recognizes the full benefit payment amount assuming the Fund remains solvent and is invested on a long-term basis. However, unless a large amount of cash is contributed, the Fund will likely become insolvent and benefit payments will be reduced at such time to PBGC guaranteed levels.

Given the uncertainties of benefit payment levels in the future, we have used an annual investment return of 7.00% since the liabilities reflect the full benefit payments that would only exist for a solvent ongoing pension plan.

2. Rates of Mortality

Funding and disclosure purposes:

Active: RP-2000 Combined Healthy mortality table for males and females.

Healthy Inactive: RP-2000 Healthy Annuitant mortality table set forward one year for males and no adjustment for females. The mortality table for active lives is used prior to age 49 for males and age 50 for females, but set forward one year for males.

Disabled: RP-2000 Disabled Annuitant for ages prior to 65. The same mortality as Healthy Inactives for ages 65 and older.

Past experience has shown more deaths have occurred than assumed, which has yielded liability gains attributable to this experience. Therefore, the current assumption includes a margin for future mortality improvements. This will continue to be monitored on an annual basis and adjustments will be made when necessary.

Current Liability: The separate 2019 Static Mortality Tables for annuitants and non-annuitants as prescribed under IRS Notice 2018-02 and Regulation §1.431(c)(6)-1.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

3. Rates of Turnover

Terminations of employment for reasons other than death or retirement are assumed to be in accordance with annual rates as shown below.

	Number Expected to Terminate Annually Per 1,000	
Service	Males	Females
0	400	400
1	220	220
2	180	180
3	150	150
4	130	130
5	120	120
6	110	110
7	105	105
8	90	90
9	90	90
10	90	90
11	80	80
12	80	80
13	80	80
14	70	70
15	70	70
16	70	70
17	50	50
18	50	50
19	50	50
20	40	40
21	30	30
22 and over	25	25

4. Rates of Retirement

Tier I rates of retirement depend on whether a participant has fewer than 30 years of service or more than 30 years of service.

	Number Expected to Retire Annually Per 1,000		
Age	Tier 1 Less than 30 years	Tier 1 Over 30 years	Tier 2
50	0	200	0
51	0	200	0
52	0	200	0
53	0	200	0
54	0	200	0
55	85	200	75
56	85	200	75
57	85	200	75
58	85	200	75
59	85	200	75
60	150	200	100
61	150	250	100
62	300	350	150
63	200	400	125
64	200	400	150
65	300	400	200
66	300	400	200
67	200	400	200
68	200	400	200
69	200	400	200
70 and over	1,000	1,000	1,000

Employees who leave employment with entitlement to a deferred vested pension are assumed to commence receipt of their pension when first eligible for unreduced benefits.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

5. Rates of Disability

Terminations of employment for disability are assumed to be equal to 50% of the Group Long-Term Disability Insurance Crude Rates of Disablement for males published in the Transactions of the Society of Actuaries, 1979.

Illustrative rates are shown below.

Number Expected to Become Disabled Annually Per 1,000	
Age	Rate
25	0.3
30	0.3
35	0.4
40	0.7
45	1.4
50	2.7

6. Marital Status and Elections

80% of participants are assumed to be married at death, and eligible for pre-retirement spouse benefits.

56% of participants are assumed to elect the joint and survivor option on retirement. The rest are assumed to elect the single life form.

Husbands are assumed three years older than their wives.

7. Service Accrual

All employees are assumed to earn one year of service credit for each year of future employment.

8. Administrative Expenses

It is assumed that annual administrative expenses including PBGC premiums will be $5,304,500 ($122.52 per participant) payable at the beginning of the year, increasing by 3.0% for each future year.

For determining the Present Value of Accumulated Benefits FASB ASC 960, the mid-year expense assumption, is $126.76 per participant (those receiving a benefit or entitled to a benefit in the future) for the current plan year and increasing at the rate of 3% per year.

9. Rationale for Demographic Assumptions

Assumptions are based on the latest experience study review performed in 2007. The results of that study are incorporated here by reference. The assumptions continue to be closely monitored and Cheiron is proposing that an experience study be performed in the near future.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

10. Changes since the Previous Valuation

As required, the current liability interest rate and mortality tables were updated. The interest rate went from 2.98% to 3.06% and the mortality table was updated to 2019 Static Mortality Tables for annuitants and non-annuitants (per IRS Notice 2018-02).

For financial disclosures under ASC 960, the present value of future expenses was based on the per participant mid-year expense assumption of $126.76 per participant this year versus $121.81 last year.

B. Actuarial Methods

1. Asset Valuation Method

The valuation assets are determined as the market value less (1) 80% of the investment gain/(loss) during the preceding year, less (2) 60% of the investment gain/(loss) during the second preceding year, less (3) 40% of the investment gain/(loss) during the third preceding year, less (4) 20% of the investment gain/(loss) during the fourth preceding year. For the purpose of this calculation, the gain/(loss) are defined as the difference between the actual and the expected return (based on the valuation interest rate) on the market value of assets during the year.

The actuarial value is taken to be the adjusted market value as described above, but subject to a 20 percent corridor limit around the actual market value; that is, the actuarial value is never greater than 120 percent of the market value, nor less than 80 percent of market value.

2. Funding Method: Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the individual Entry Age Normal Cost is determined for each participant by calculating the level annual contribution required to fund that individual's expected benefits based on the current plan provisions over the participant's expected active working lifetime with the Fund at entry.

At the valuation date, the present value of future normal cost is calculated for each individual participant by multiplying the Entry Age Normal Cost by the present value of the participant's expected future active working lifetime with the Fund. The cost for each participant is then summed to yield the present value of future normal costs.

The excess of the present value of future benefits for all individuals at the valuation date over the present value of future normal costs is called the actuarial liability, or past service liability.

The excess, if any, of the actuarial liability over the actuarial value of assets is known as the unfunded accrued liability. If the actuarial value of assets exceeds the actuarial liability, the Fund may have a surplus.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

3. PRA 2010 Funding Relief

The Fund's Board of Trustees elected funding relief under § 431(b)(8) of the Code and § 304(b)(8) of ERISA, specifically:

- The "special asset valuation rule" in determining the actuarial value of Fund assets which allows it to recognize the 2008 loss over 10 years, at 10% per year. Prior to the relief, the 2008 loss would have been recognized over 5 years, or 20% per year. This was first reflected with the January 1, 2010 actuarial value of assets.

- The "special asset valuation rule" in determining the actuarial value of Fund assets which allows the Fund to use 130% of the market value of assets as the ceiling for the 2009 and 2010 actuarial value of assets.

4. Changes in Actuarial Methods since Last Valuation

None

CHEIRON

Classic Values, Innovative Advice