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UFCW-Giant Variable Annuity Fund

Actuarial Valuation Report as of January 1, 2022

Produced by Cheiron

August 2023

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August 28, 2023

UFCW-Giant Variable Annuity Fund Trustees
c/o Ms. Anne-Marie Sims
Associated Administrators, LLC
911 Ridgebrook Road
Sparks, Maryland 21152-9451

Dear Trustees:

At the Board's request, we have performed the January 1, 2022 Actuarial Valuation of the UFCW-Giant Variable Annuity Fund (the "Plan"). This report is for the use of the Plan Sponsor and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

The purpose of this report is to present the annual actuarial valuation of the Plan. This report contains information on the Plan's assets and liabilities and discloses the minimum required contribution amount as mandated by Federal law.

In the Foreword section, we refer to the general approach employed in the preparation of this report and comment on the sources and reliability of both the data and the actuarial assumptions on which the findings are based. Those comments are the basis for the certification that this report is complete and accurate to the best of our knowledge and belief. The results of this report are only applicable to the Plan Year ending December 31, 2022. Future results 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; changes in plan provisions; changes in applicable law; and regulations made thereunder.

The results shown in this report reflect the Pension Protection Act of 2006 (PPA), including all legislative changes enacted including the most recent legislation signed into law on November 15, 2021, the Infrastructure Investment and Jobs Act of 2021 (IIJA). As outlined in the American Rescue Plan Act of 2021 (ARPA), effective with the 2022 Plan Year, the 15-year shortfall amortization period required under ARPA will apply.

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, applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and 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.

This report was prepared solely for the UFCW-Giant Variable Annuity Fund for the purpose described herein. 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 such other users.

Sincerely,
Cheiron

Kevin J. Woodrich, FSA, EA, MAAA	Heath Merlak, FSA, FCA, EA, MAAA
Principal Consulting Actuary	Principal Consulting Actuary

cc: Gene Kalwarski, Cheiron

FOREWORD

Cheiron has performed the Actuarial Valuation of the UFCW-Giant Variable Annuity Fund (the Plan) as of January 1, 2022. The purpose of this report is to:

1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
2) **Provide specific information** and documentation required by the Federal Government and the auditors of the Plan; and
3) **Determine** the minimum required and maximum deductible contribution under the Internal Revenue Code.

An actuarial valuation establishes and analyzes Plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the Plan's investment performance as well as an analysis of actuarial liability gains and losses. This valuation report is organized as follows:

Section I - presents a summary of the valuation and relevant risk disclosures.

Section II - contains information relating to risk analysis.

Section III - contains exhibits relating to the valuation of assets.

Section IV - shows various measures of liabilities.

Section V - shows the development of the minimum contribution, maximum deductible contribution, and PBGC premiums

Section VI - provides information required by the Plan's auditor

The appendices to this report contain a summary of the Plan's membership at the valuation date, a summary of the major provisions of the Plan, and the actuarial methods and assumptions used in the valuation.

In preparing our report, we relied on information (some oral and some written) supplied by the Plan. 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 reflect our understanding of the likely future experience of the Plan and each of the assumptions, not mandated by regulation, represents our best estimate for the future experience of the Plan. As a result, this report is dependent upon future experience conforming to these assumptions. Future results 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 and applicable law.

SECTION I – SUMMARY

Valuation Highlights

Below are highlights of the valuation.

- The Minimum Required Contribution (MRC) for 2022, after taking into account the prefunding balance, is $12,468,858.
- The funded status of the Plan based upon the Adjusted Funding Target Attainment Percentage (AFTAP) decreased over the year from 100.00% as of January 1, 2021 to 98.59% funded as of January 1, 2022. PPA requires benefit restrictions if a Plan has an AFTAP below 80% and must cease accruals if below 60% but this provision will generally not apply before 2026.
- Since there were no investable assets in the plan during 2021, there was no asset return for 2021.
- The results of this year's funding valuation show that the Plan's Funding Target Liability is $474,901 more than anticipated. This net liability loss was due to the following sources:
    - loss of $457,759 due to actual Plan experience that deviated from actuarial expectations, primarily due to Tier I participants delaying retirement, and
    - loss of $17,142 due to the IRS mandated mortality table update.
- Since the Plan's 2022 funded percentage is less than 100%, quarterly contributions are required for the 2023 plan year.
- The American Rescue Plan Act (ARPA) was signed into law on March 10, 2021. This legislation altered the interest rate basis for minimum funding requirements. A brief summary of the ARPA provisions follows:
    - The three-segment rates used to determine liability must fall within a corridor of the 25-year average of the segment rates. For 2022, the corridor is no less than 95% and no more than 105% of the corresponding 25-year average of the applicable segment rates.
    - Effective for the 2022 plan year, the period used to amortize funding shortfalls is extended from 7 to 15 years.
- Under the segment rates permitted by ARPA, payments made within five years of the valuation date have been discounted at 4.75%, payments made from five years to 20 years of the valuation date have been discounted at 5.18%, and payments made more than 20 years from the valuation date have been discounted at 5.92%. These rates are referred to as the **ARPA segment rates** throughout the report.

SECTION I – SUMMARY

- For various other measurements, liabilities are based on published base segment interest rates as of January 1, 2022 in accordance with the Pension Protection Act of 2006 (PPA). Under these segment rates, expected payments made within five years of the valuation date are discounted at 0.88%, payments made from five to 20 years of the valuation date are discounted at 2.61%, and payments made more than 20 years from the valuation date are discounted at 3.27%. These rates are referred to as the **PPA segment rates** throughout the report.
- The liabilities used to determine the following are based on the PPA segment rates:
  - Maximum deductible contributions; and
  - The funding ratio under Section 4010 of ERISA to determine if additional information needs to be provided to the PBGC.
- The mortality table for healthy and disabled lives is the IRS 2022 Static Mortality table to comply with mandated assumptions prescribed by the regulatory guidance of the Pension Protection Act of 2006 (PPA) regarding plan years beginning on or after January 1, 2022.
- Since the Plan's funded percentage is at least 80% on a PPA basis, this Plan on its own will not trigger a PBGC 4010 filing. However, the PBGC 4010 filing requirement should be reviewed on a controlled group basis in the event other single employer defined benefit pension plans exist in the controlled group which may trigger a filing. Note that a 4010 filing is required if any defined benefit plan in the controlled group has a funded percentage on a PPA basis of less than 80% and neither of the following exemptions apply: fewer than 500 participants in all controlled group pension plans or the unfunded liabilities on a PPA basis for all pension plans in the controlled group is no greater than $15 million.

SECTION I – SUMMARY

Table I-1
Summary of Principal Results

	January 1, 2021	January 1, 2022	Change
Participant Counts			
Actives	10,175	9,713	(4.5%)
Deferred Inactives	0	582	N/A
In Pay Status	0	0	N/A
Total	**10,175**	**10,295**	1.2%
Liabilities			
Funding Target Liability (FTL)	$ 0	$ 11,989,395	N/A
Effective Interest Rate	5.83%	5.62%	
Target Normal Cost	$ 12,114,212	$ 12,453,254	2.8%
PBGC Funding Target (PBGC FT)	$ 0	$ 10,918,247	N/A
Effective Interest Rate for PBGC FT	0.00%	2.91%	
Accrued Liability (ASC Topic 960)	$ 0	$ 11,767,960	N/A
Interest Rate for Accrued Liability	5.50%	5.50%	
Assets			
Market Value of Assets (MVA)			
(Discounted receivables)	$ 0	$ 11,820,543	N/A
(Receivables not discounted)	$ 0	$ 12,309,289	N/A
Actuarial Value of Assets (AVA)	$ 0	$ 11,820,543	N/A
Funding Ratios			
Funding Percentage (AVA/FTL)	100.00%	98.59%	
Adjusted Funding Target Attainment	100.00%	98.59%	
Funding Target Attainment Percentage	100.00%	98.59%	
Accrued Liability Funded Percentage	100.00%	104.60%	
Contributions and Cash Flows			
Carryover Balance (Beginning of Year)	$ 0	$ 0	N/A
Prefunding Balance (Beginning of Year)	$ 0	$ 0	N/A
Minimum Required Contribution (Beginning of Year and before Prefunding Balance)	$ 12,114,212	$ 12,468,858	2.9%
Maximum Deductible Contribution	$ 12,121,644	$ 18,723,673	54.5%
Actual Employer Contribution[1]	$ 12,114,212	$ 17,628,474	45.5%
Prior Year Benefit Payments	$ 0	$ 0	N/A
Prior Year Net Investment Return	$ 0	$ 0	N/A

[1] *Discounted back to valuation date using the Effective Interest Rate.*

SECTION II – RISK ANALYSIS

Historical Summary

It is important to take a step back from the results and view them in the context of the Plan's recent history. However, because 2021 was the first plan year for the Plan, historical results are not applicable. Comparisons between the 2021 and 2022 plan years will be presented throughout the report.

Identification of Risks

The fundamental risk to the Plan is that the contributions required to fund the Plan become unaffordable to the Plan Sponsor, leading to the funded ratio declining. The funded ratio is the assets of the Plan divided by the liabilities of the Plan. It is a measure of how well the obligation for current Accrued Benefits is met by the current plan assets.

We believe the primary risks for this Plan are:

- Investment risk,
- Assumption change risk and
- Longevity and other demographic risks.

Other risks that are not explicitly identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated may decrease the expected future funded ratio and increase the minimum contribution requirement. Since this is a variable plan, unfavorable returns also pose a risk to participants' benefits being decreased. The potential volatility of future investment returns is influenced by the Plan's asset allocation. The impact of investment risk is magnified in periods with negative net cash flows because assets are depleted to pay benefits in down markets, leaving less principal available to be reinvested during favorable return periods. The affordability of investment risk is correlated to the amount of assets invested relative to the size of the contribution base or the revenue base of the Plan Sponsor. Partially offsetting the risk of lower investment returns is the variable annuity aspect of the Plan. Specifically, assets returns less than or greater than the 5.50% hurdle rate will decrease or increase accrued benefits, respectively. Adjustments are limited by the 9.00% cap rate for increases and 2.00% floor rate for decreases. Downward adjustments are also subject to the applicability and availability of the Stabilization Reserve should investment returns fall below 2.00%.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For single employer defined benefit plans, some assumptions are mandated by the IRS, and legislation can require changes in the basis for the assumptions. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

Longevity and Other Demographic Risks are the potential for mortality or other demographic experience to be different than expected. Plan experience relative to the assumptions is reviewed annually to determine if a change in assumptions could further mitigate this risk.

SECTION II – RISK ANALYSIS

Plan Maturity Measures

Mature pension plans are more sensitive to each of the risks identified above than less mature plans. Before assessing each of these risks, it is important to understand the maturity of the Plan and how the maturity has changed over time.

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. The revenue base supporting the Plan is usually proportional to the number of active members. Because the Plan was first established as of January 1, 2021, the Support Ratio is very low at 0.06 as there hasn't been sufficient time for terminations and retirements to occur. Additionally, as accrued benefits remain low and therefore payable as a de minimis lump sum distribution to new retirees, it may be several years before participants receiving monthly benefits materialize and impact the Support Ratio. This would indicate a larger revenue base and less mature plan.

Net Cash Flow

Actuaries often gauge plan maturity by examining the net cash flow – the more negative the net cash flow the more mature the Plan. Net cash flow is equal to contributions less benefit payments and administrative expenses.

When a plan has negative net cash flow, investment losses in the short-term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. Large negative cash flows can also create liquidity issues and sequence of return risk.

Since the plan became effective January 1, 2021, we anticipate the plan will have positive cashflow for several years.

More Detailed Assessment

A more detailed assessment can be valuable to enhance the understanding of the risks identified above. However, given the risk assessment presented in this report, the advantages of a more detailed assessment may not justify its costs. The rate of terminations and retirements can be very volatile and will depend on individual participant situations causing an analysis of this risk to be very complicated. We would be happy to provide the Board with a more detailed assessment.

SECTION III – ASSETS

Assets at Market Value

Market values represent "snap-shot" or "cash-out" values that provide the principal basis for measuring financial performance from one year to the next. The market value provided in this report reflects discounted receivable contributions, as required under PPA.

Table III-1
Statement of Assets at Market Value

	December 31, 2020	December 31, 2021
Assets		
Temporary	$ 0	$ 0
U.S. Government and Agency Notes and Bonds	0	0
Corporate Notes and Bonds	0	0
Common & Preferred Stock	0	0
Limited Partnerships	0	0
Common Collective Trusts	0	0
Interest and Dividends Receivable	0	0
Contributions Receivable	0	13,309,217
Other Receivables	0	0
Securities Sold	0	0
Cash	0	0
Liabilities		
Accounts Payable	0	(999,928)
Securities Purchased	0	0
Total Market Value per Auditor	**$ 0**	**$ 12,309,289**
Discount for receivable contributions	0	(488,746)
Total Market Value	**$ 0**	**$ 11,820,543**

SECTION III – ASSETS

Changes in Market Value

The components of changes in the Market Value are:

- Contributions
- Benefit Payments
- Administrative Expenses
- Net Investment Income (realized and unrealized)

The specific changes since the prior valuation are presented below:

Table III-2
Changes in Market Value

Market Value of Assets – January 1, 2021	**$**	**0**
Employer Contributions		13,309,217
Employee Contributions		0
Benefit Payments		0
Administrative Expenses		(999,928)
Net Investment Income		0
Discount for Receivable Contributions		(488,746)
Market Value of Assets – January 1, 2022	**$**	**11,820,543**

Actuarial Value of Assets

The actuarial value of assets is the same as the Market Value of Assets.

SECTION IV – LIABILITIES

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

- **Development of Funding Target Liability** as of January 1, 2022 based upon the ARPA segment rates;
- **Development of Maximum Deductible Funding Target Liability** as of January 1, 2022 based upon the PPA segment rates;
- **Present Value of Accumulated Benefits** in accordance with the applicable Accounting Standards, along with the corresponding Reconciliation of the changes in the Present Value of Accumulated Benefits over the last plan year, if applicable.

Several different measures of liability are calculated and presented in this report. The different measures are used for different purposes.

- **Funding Target liability (ARPA rates):** Used in determining minimum funding standards requirements, and benefit restriction funding targets. This amount is calculated using prescribed assumptions and the Unit Credit cost method.
- **Maximum Deductible Funding Target (original PPA segment rates):** Used in determining maximum tax-deductible contributions. This amount is calculated using prescribed assumptions and the Unit Credit cost method and the segment rates as in effect under the original PPA rates.
- **Accrued Liabilities:** Used for communicating the current levels of liabilities. This liability represents the total estimated amount of money needed to fully pay off all future obligations of the Plan using funding assumptions and assuming no further accrual of benefits. These liabilities are required for plan accounting standard purposes and are used to establish comparative benchmarks with other plans in plan accounting reports.
- **Vested Liabilities:** Also reported for accounting standard purposes, this liability represents the portion of the accrued liability that is vested.

Funding Target Liability

PPA defines three possible measures for the Funding Target and the Target Normal Cost. The lowest of the targets is the “Not-At-Risk” target which uses the normal decrements for valuing the liabilities. Above this is the “At-Risk” target which modifies the assumption about when participants retire for all participants who can retire within 11 years of the valuation. The “At-Risk” target is used if the Plan’s regular Funding Target Attainment Percentage (FTAP) and modified FTAP (using the at-risk liability assumptions) for the prior year are below levels set out in the law. For 2022, the FTAP hurdle is 80%. The modified FTAP hurdle is 70%. If a plan is “At-Risk” and was also “At-Risk” for two out of the prior four years, the “At-Risk” target is further increased to add expense loads similar to those contained in PBGC’s termination valuation assumptions.

SECTION IV – LIABILITIES

Allocation of Liabilities by Type

The Plan's participants may qualify for a benefit upon death, termination, and disability as well as upon retirement. The value of the liabilities arising from each of these sources is shown in the following table as of January 1, 2022.

Table IV-1
Allocation of Liabilities

Benefit Type	Retirement	Termination	Death	Disability	Total
Not At-Risk Target Normal Cost	$ 8,344,367	$ 1,510,177	$ 65,109	$ 533,601	$ 10,453,254
Not At-Risk Funding Target Liability					
Actives	$ 9,198,376	$ 1,512,920	$ 66,817	$ 546,691	$ 11,324,804
Vested Terms & Inactives	0	664,591	0	0	664,591
Retirees and Beneficiaries	0	0	0	0	0
Total	$ 9,198,376	$ 2,177,511	$ 66,817	$ 546,691	$ 11,989,395
ASC 960 Accrued Liability Normal Cost	$ 8,192,267	$ 1,530,575	$ 73,790	$ 475,891	$ 10,272,523
ASC 960 Vested Liability (at 5.50%)					
Actives	$ 8,593,765	$ 971,362	$ 68,840	$ 432,650	$ 10,066,617
Vested Terms & Inactives	0	653,039	0	0	653,039
Retirees and Beneficiaries	0	0	0	0	0
Total	$ 8,593,765	$ 1,624,401	$ 68,840	$ 432,650	$ 10,719,656
ASC 960 Accrued Liability (at 5.50%)					
Actives	$ 9,019,473	$ 1,532,149	$ 75,992	$ 487,307	$ 11,114,921
Vested Terms & Inactives	0	653,039	0	0	653,039
Retirees and Beneficiaries	0	0	0	0	0
Total	$ 9,019,473	$ 2,185,188	$ 75,992	$ 487,307	$ 11,767,960

SECTION IV – LIABILITIES

Funding Target Liabilities

Table IV-2 Development of Funding Target		
1. More than 500 participants in controlled group in prior year?		Yes
2. Prior year funding target attainment percentage		
(a) Not-at-risk liability		100.00%
(b) At-risk liability		N/A
3. Funding target benchmark percentage		80.00%
4. At-risk status		
(a) Current year: If 1. and 2.(a)< 3. and 2.(b)<70%		No
(b) Year-1		No
(c) Year-2		No
(d) Year-3		No
(e) Year-4		No
(f) At-risk current year and 2 of preceding 4 years? *(If yes, loads apply)*		No
5. Not-at-risk funding liability		
(a) Funding liability		
(i) Retirees and beneficiaries receiving payments	$	0
(ii) Terminated vested participants		664,591
(iii) Active participants, vested liability		10,253,656
(iv) Active participants, total liability		11,324,804
(v) Total liability: (i)+(ii)+(iv)	$	11,989,395
(b) Normal cost before adjustments	$	10,453,254
(c) Expenses included in Normal Cost		2,000,000
(d) Expected employee contributions		0
(e) Normal cost: (b)+(c)-(d)	$	12,453,254
6. At-risk funding liability		N/A
7. Funding target		
(a) Number of consecutive years at-risk (max 5)		0
(b) Transition percentage: 20% of (a)		N/A
(c) Funding target: 5.(a)(v)	$	11,989,395
(d) Target normal cost: 5.(e)	$	12,453,254

SECTION IV – LIABILITIES

Changes in Liabilities

The Funding Target Liability changes at successive valuations as the experience of the Plan emerges. The liability changes for any of several reasons, including:

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

The overall valuation results also change because contributions may differ from those expected and investment returns may not be in line with the actuarial assumptions.

The following table shows the change in Funding Target Liability since the last valuation.

Table IV-3
Change in Funding Target Liability

Not-At-Risk Target Liabilities on January 1, 2021	$	0
Not-At-Risk Target Liabilities on January 1, 2022	$	11,989,395
Liability Increase/(Decrease)	$	11,989,395
Change Due to:		
Plan Amendment	$	0
Mandated Assumption Changes		17,142
Other Sources		0
Accrual of Benefits		10,914,212
Expected Growth		600,282
Benefits Paid		0
Actuarial (Gain)/Loss		457,759
Total	$	11,989,395

SECTION V – CONTRIBUTIONS

In this section, we present detailed information on Plan contributions.

Pension Protection Act of 2006 (PPA) – Key Funding Ratios and Usage

In addition to changing the rules relating to required contributions, PPA added plan benefit restriction rules that may apply to some underfunded plans. We have provided a chart that outlines many of the key funding ratios as defined by PPA and describes their various uses.

Minimum Required Contribution

As required by PPA, the funding method employed is the Unit Credit Cost Method. The Minimum Required Contribution (MRC) is determined in two parts, the first of which is the Funding Target Normal Cost. This is the cost of providing the benefits promised by the Plan over the current year of service. It also includes administrative expenses expected to be paid by the Trust during the current plan year.

The second part is an amortization payment to pay off the Funding Shortfall, called the Shortfall Amortization Charge (SAC). The Funding Shortfall is the difference between the Funding Target and the Actuarial Value of Assets reduced for all credit balances. The Shortfall Amortization Base (SAB) is amortized over 15 years using the segment rates that are used to determine the Funding Target. This payment is called the Shortfall Amortization Installment. Each year the SAB is set equal to the current year's Funding Shortfall less the present value of all remaining Shortfall Amortization Installments. The Shortfall Amortization Charge is the sum of all Shortfall Amortization Installments for the current year.

For plans where the adjusted Actuarial Value of Assets (reduced for all credit balances) exceeds the Funding Target, the MRC is reduced by the value of any excess assets. The Minimum Required Contribution for the 2022 Plan year is $12,468,858 as of January 1, 2022. The plan sponsor must make a contribution to satisfy the 2022 Minimum Required Contribution no later than September 15, 2023. The amount of the contribution must include interest at the rate of 5.62% per year from January 1, 2022 to the date it is actually made.

Government Limitations

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 SB to Form 5500 on an annual basis. If contributions are made in excess of the Minimum Required Contribution, the plan may build up a credit balance. Under PPA, credit balances created prior to the 2008 plan year are designated as Carryover Balances, and those created in 2008 or later are designated as Prefunding Balances. Because this plan was established after 2008, it has no Carryover Balances. For plans that are greater than 80% funded in the prior year, a credit balance may be used to offset the Minimum Required Contribution for the current plan year.

SECTION V – CONTRIBUTIONS

The Funding Target and Funding Target Normal Cost are calculated using mandated interest rates and mortality table. The mortality table for the January 1, 2022 valuation is the IRS 2022 Static Mortality Table. The present value of benefits as determined by IRC 430(h)(2)(B) are determined using the base segment interest rates as of January 1, 2022, after reflecting segment rate stabilization as outlined in IRC 430(h)(2)(C)(iv). Payments made within 5 years of the valuation date have been discounted at 4.75%, from 5 years to 20 years of the valuation date have been discounted at 5.18% and more than 20 years from the valuation date have been discounted at 5.92%.

SECTION V – CONTRIBUTIONS

Table V-1
Summary of PPA Funding Ratios and Usage

	January 1, 2021		January 1, 2022
Funding Target Liability (FT)	0	Funding Target Liability (FT)	11,989,395
Actuarial Value of Assets (AVA)	0	Actuarial Value of Assets (AVA)	11,820,543
Prefunding Balance (PFB)	N/A	Prefunding Balance (PFB)	0

Ratio Application	**Asset Measure**		**Liability Measure**		**Actual Funded %**	**Threshold Funded %**	**Comments**
Exemption from new shortfall amortization base (SAB)	11,820,543	*(AVA – PFB (if PFB used toward MRC), 2022)*	11,989,395	*(FT, 2022)*	98.59%	100%	Ineligible for 2022 SAB exemption.
Quarterly contribution exemption							
- 2022 Plan Year	0	*(AVA – PFB, 2021)*	0	*(FT, 2021)*	100.00%	100%	No Quarterly contributions are required for 2022.
- 2023 Plan Year	11,820,543	*(AVA – PFB, 2022)*	11,989,395	*(FT, 2022)*	98.59%	100%	Quarterly contributions are required for 2023.
Ability to use credit balance to offset contribution requirement							
- 2022 Plan Year	0	*(AVA – PFB, 2021)*	0	*(FT, 2021)*	100.00%	80%	If credit balance exists, then it may be used to offset contributions for 2022.
- 2023 Plan Year	11,820,543	*(AVA – PFB, 2022)*	11,989,395	*(FT, 2022)*	98.59%	80%	If credit balance exists, then it may be used to offset contributions for 2023.
Test if the Plan is At Risk (“FTAP”)	0	*(AVA – PFB, 2021)*	0	*(FT, 2021)*	100.00%	80%	Plan is not at-risk in 2022.
Test if trigger 4010 Filing Required	11,820,543	*(AVA – PFB, 2022)*	12,038,299	*(NAR FT PPA Rates, 2022)*	98.19%	80%	This plan will not trigger 4010 filing requirements.
Benefit restrictions (“AFTAP”)[1]	11,820,543	*(AVA – PFB, 2022)*	11,989,395	*(NAR FT, 2022)*	98.59%	80%/60%	No restrictions in 2022.

[1] *Note that per IRC Section 436, the Plan is automatically exempt from benefit restrictions during the first five plan years.*

SECTION V – CONTRIBUTIONS

Minimum Required Contributions

Table V-2
Summary of Minimum Required Contributions

1. Effective interest rate		5.62%
2. Target normal cost	$	12,453,254
3. Shortfall amortization charge	$	15,604
4. Credit for excess assets		
(a) Adjusted assets	$	11,820,543
(b) Funding target	$	11,989,395
(c) Excess assets [(a) – (b), not less than 0]	$	0
5. Interest penalty for late quarterly contributions	$	0
5. Preliminary minimum required contribution (MRC) [2. + 3. – 4.(c), not less than 0]	$	12,468,858
6. Credit balance available to apply against MRC		
(a) Eligible to apply against MRC? Yes if prior year funded ratio >= 80%		N/A
(b) Funding Standard Carryover Balance (FSCB)	$	0
(c) Elected to apply FSCB against MRC?		N/A
(d) Prefunding Balance (PFB)	$	0
(e) Elected to apply PFB against MRC?		No
(f) Balances eligible to apply against MRC: (b)+(d) if eligible and elected	$	0
7. MRC adjusted for credit balances [5. – 6.(f), not less than 0]	$	12,468,858
8. Required quarterly contributions		
(a) Quarterlies required?: Yes if prior year funding shortfall		No
(b) Prior year applicable MRC	$	12,114,212
(c) Current year MRC: 5.	$	12,468,858
(d) Required annual payment: lesser of (b) and 90% of (c), if applicable	$	0
(e) Required installment: 25% of (d)	$	0
9. Expected contributions		
(a) Actual contributions through September 15, 2023	$	18,723,673
(b) Expected contributions after September 15, 2023		0
(a) Total employer contributions	$	18,723,673
(b) Total contributions discounted to January 1, 2022	$	17,628,474

SECTION V – CONTRIBUTIONS

Shortfall Amortization Charge

Table V-3
Development of Shortfall Amortization Charge

1. Funding Target	$	11,989,395
2. Adjusted plan assets		
(a) Actuarial Assets	$	11,820,543
(b) Funding Standard Carryover Balance (FSCB)		0
(c) Prefunding Balance (PFB)		0
(d) Adjusted assets: (a) - (b) - (c), not less than 0	$	11,820,543
3. Funding Shortfall [1. – 2.(d), not less than 0]	$	168,852
4. Current Shortfall Amortization Installments		None
5. Exemption from New Shortfall Amortization Base		
(a) Target Liability Percentage		100%
(b) Shortfall Funding Target [1. x (a)]	$	11,989,395
(c) Actuarial Value of Assets Less Prefunding Balance if used to reduce the Minimum Required Contribution	$	11,820,543
(d) Exempt? [if (c) >= (b)]		No
6. Shortfall Amortization Base		
(a) Adjusted funding shortfall [5.(b) – 2.(d), not less than 0]	$	168,852
(b) New Current Year Base [(a) – 4., or 0 if exempt]	$	168,852
(c) New 15-Year Installment Amount	$	15,604
7. Shortfall Amortization Charge [4. + 6.(c), not less than 0]	$	15,604

SECTION V – CONTRIBUTIONS

Credit Balances

PPA may require a plan to waive its Prefunding Balance (PFB) if benefit accruals or restrictions could be avoided by so doing. Additionally, a plan sponsor may elect to waive part of the PFB to meet funding requirements if certain conditions are met.

The following tables summarize the development of the credit balance during the plan year, prior to applying investment return.

Table V-4
Reconciliation of Credit Balances

1. Change in credit balances due to minimum funding		
(a) Total contributions discounted to January 1, 2021	$	12,114,212
(b) Preliminary minimum required contribution (MRC)	$	12,114,212
(c) Excess above MRC	$	0
(d) Excess contributions election to create PFB		No
2. Funding Standard Carryover Balance	$	0
3. Prefunding Balance	$	0
(a) PFB at January 1, 2021	$	0
(b) Waived PFB balance	$	0
(c) PFB after Waivers: [(a) - (b)]	$	0
(d) PFB applied to minimum required contributions	$	0
(e) PFB at December 31, 2021 before investment return: [(c) - (d)]	$	0
(f) Return on Plan Assets		0.00%
(g) PFB prior to recognizing excess contributions	$	0
(h) Excess contributions above MRC (Excess), [zero if 1.(d) equals No]	$	0
(i) Effective Rate		5.83%
(j) Interest on Excess before investment return: [3.(h) x 3.(i)]	$	0
(k) PFB at January 1, 2022: [(g) + (h) + (j)]	$	0

SECTION V – CONTRIBUTIONS

Required Quarterly Contribution

In general, the minimum required contribution must be paid within 8½ months of the end of the Plan Year. However, earlier payment is often required, depending on the Plan's funded status as of the prior actuarial valuation. Because the 2022 FTAP is less than 100%, quarterly contributions are required for the 2023 Plan Year. The chart below shows the contribution schedule before reflection of prefunding balances.

Table V-5
Schedule of Required Contributions

Payment Due Date	Plan Year Ending December 31, 2021	Plan Year Ending December 31, 2022	Plan Year Ending December 31, 2023
2/28/2022		$ 6,000,000 [1]	
8/29/2022	$ 13,309,217	$ 33,101	
1/15/2023			
4/14/2023			$ 3,300,000 [2]
7/12/2023			$ 2,934,430 [2]
7/27/2023		$ 12,690,572	$ 869,172
10/13/2023			$ 3,117,215 [2]
1/15/2024			$ 3,117,215 [2]
9/15/2024			TBD
Discount to BOY	$ (1,195,005)	$ (1,095,199)	N/A
Total	$ 12,114,212	$ 17,628,474	TBD

[1] Stabilization Reserve contribution; ignored for funding policy contribution determination.

[2] The final contribution for the 2023 plan year, due no later than September 15, 2024, has not yet been determined.

SECTION V – CONTRIBUTIONS

Maximum Deductible Contribution

PPA also changed the maximum deductible contribution to permit single-employer plans to contribute up to the Target Normal Cost including administrative expenses plus 150% of the Maximum Deductible Funding Target (PPA segment rates). The table below develops the maximum deductible contribution including allowance for future pay increases.

Table V-6
Determination of Maximum Deductible Contribution

1. Funding Target for Plan Year[1]	$	12,038,299
2. Target Normal Cost[1]	$	12,486,767
3. Cushion amount		
(a) 50% of Funding Target	$	6,019,150
(b) Expected Benefit Increases		
(i) Not-at-risk maximum liability	$	N/A
(ii) At-risk maximum liability		N/A
(iii) Per-participant load		N/A
(iv) Liability load: 4% of (i)		N/A
(v) At-risk target: (ii) + (iii) + (iv), not less than (i)		N/A
(vi) Transition percentage		N/A
(vii) Maximum funding target: (i) + [(vi) x ((v) - (i))]	$	N/A
(c) Cushion [(a) + (b)(vii) - 1.]	$	6,019,150
4. Actuarial Value of Assets	$	11,820,543
5. Preliminary limit: 1. + 2. + 3.(c) - 4., not less than 0	$	18,723,673
6. Minimum required contribution	$	12,468,858
7. Maximum Deductible Contribution: greater of (5) and (6)[1]	$	18,723,673

[1] *The liability and normal cost measures shown here are determined using PPA segment rates.*

SECTION V – CONTRIBUTIONS

PBGC Premium Determination

Table V-7
Development of PBGC Premium

1. Flat-rate premium	
(a) Flat-rate	$ 88
(b) Participant count	
Actives	9,561
Deferred Inactives	582
In Pay Status	0
Total	10,143
(c) Flat-rate premium: (a) × (b)	$ 892,584
2. Variable-rate premium	
(a) PBGC funding target	
(i) Not-at-risk PBGC liability	
Actives	10,253,656
Deferred Inactives	664,591
In Pay Status	0
Total	10,918,247
(ii) At-risk PBGC liability	N/A
(iii) Per-participant load	N/A
(iv) Liability load: 4% x (i)	N/A
(v) At-risk PBGC target: (ii)+(iii)+(iv), not less than (i)	N/A
(vi) Transition percentage	N/A
(vii) PBGC funding target: (i)+[(vi)x((v)-(i))]	10,918,247
(b) Market value of Plan assets	11,820,543
(c) Unfunded vested benefits [(a)(vii) – (b), not less than $0, rounded up to next $1,000]	$ 0
(d) Variable-rate applicable dollar amount	$ 48
(e) Variable-rate premium: (c) × (d) × .001	$ 0
(f) MAP-21 cap	
(i) Per-participant cap, not less than prior year	$ 598
(ii) MAP-21 cap: (i) × 1.(b)	$ 6,065,514
(g) Variable-rate premium [Lesser of (e) and (f)(ii), or $0 if exempt]	$ 0
3. Total PBGC premium [1.(c) + 2.(g)]	$ 892,584

SECTION VI – ACCOUNTING DISCLOSURES

Table VI-1
Present Value of Accumulated Benefits as of January 1, 2022
In Accordance with Accounting Standards (ASC 960)

1. Actuarial present value of vested plan benefits		
Retirees and beneficiaries currently receiving benefits	$	0
Inactive participants entitled to deferred benefits		653,039
Active participants		10,066,617
Total vested benefits	$	10,719,656
2. Nonvested benefits	$	1,048,304
3. Present Value of Expected Administrative Expenses	$	34,350,815
4. Actuarial present value of accumulated plan benefits [1. + 2. + 3.]	$	46,118,775
5. Market Value of Assets (includes receivables)	$	12,309,289
6. Unfunded PVAB (Surplus assets)	$	33,809,486
7. Funded ratios		
Vested benefits		27.31%
Accumulated benefits with present value of administrative expenses		26.69%
Accumulated benefits without present value of administrative expenses		104.60%

Table VI-2
Reconciliation of Present Value of Accumulated Benefits

1. Present Value of Accumulated Benefits as of January 1, 2021 (w/o Expenses)	$	0
2. Increase/(Decrease) over prior year due to:		
Decrease in discount period (at 5.50%)	$	600,282
Benefits paid		0
Additional benefits earned		10,914,212
Actuarial (gains)/losses		457,759
Assumption changes		(204,293)
Plan amendments		0
Total change	$	11,767,960
3. Present Value of Accumulated Benefits as of January 1, 2022 (w/o Expenses)	$	11,767,960
4. Present Value of Expected Administrative Expenses	$	34,350,815
5. Present Value of Accumulated Benefits as of January 1, 2022 (w/ Expenses)	$	46,118,775

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by Associated Administrators, LLC. Cheiron reviewed this data for reasonableness but did not audit any of the data.

The following pages contain a summary of the data provided.

- Participant Data Summary.
- Participant reconciliation from the prior year
- Age/Total Pension Service Credit Distribution for Active Participants as of January 1, 2022 by Tier 1, Tier 2, and in total.
- Counts and Average Benefit Amount by Age for Terminated Vested Participants as of January 1, 2022.

Table A-1

Participation Data Summary as of January 1, 2022

Actives	
Vested	5,886
Nonvested	3,827
Total	**9,713**
Average Age	47.55
Average Service	13.30

Inactives	**Count**	**Average Age**	**Average Annual Benefits**
Beneficiaries	0	0.00	$ 0
Disability Retirees	0	0.00	0
Retirees	0	0.00	0
Terminated Vested	566	51.25	154
Deferred Beneficiaries	16	64.25	156
Total	**582**	**51.61**	**$ 154**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-2
Data Reconciliation from January 1, 2021 to January 1, 2022

	Actives	Terminated Vested	Deferred Beneficiaries	Disabled	Retired	Beneficiaries	Total
1. January 1, 2021 valuation	**10,175**	**0**	**0**	**0**	**0**	**0**	**10,175**
2. Additions							
a. New entrants	1,764						1,764
b. Returned to work							
c. QDRO							
Total	**1,764**						**1,764**
3. Reductions							
a. Terminated - not vested	(1,662)						(1,662)
b. Paid Out							
c. Deaths without beneficiary							
Total	**(1,662)**						**(1,662)**
4. Changes in status							
a. Terminated - vested	(548)	548					
b. Returned to work							
c. Retired							
d. Disabled							
e. Died with beneficiary							
f. Died with deferred beneficiary	(16)		16				
g. Data corrections		18					18
Total	**(564)**	**566**	**16**				**18**
5. January 1, 2022 valuation	**9,713**	**566**	**16**	**0**	**0**	**0**	**10,295**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-3
Age/Service Distribution of Tier I Active Participants as of January 1, 2022

	Completed Years of Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	1	1	0	2
55-59	0	0	0	1	2	1	0	3	73	21	101
60-64	0	0	0	1	2	3	0	2	50	122	180
65-69	0	0	0	0	0	1	1	0	6	54	62
70 & Up	0	0	0	0	0	0	0	0	0	11	11
Total	0	0	0	2	4	5	1	6	130	208	356

Past service under the FELRA & UFCW Pension Fund is counted towards benefit eligibility and therefore reflected above.

APPENDIX A – MEMBERSHIP INFORMATION

Table A-4
Age/Service Distribution of Tier II Active Participants as of January 1, 2022

	Completed Years of Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	165	628	39	0	0	0	0	0	0	0	832
25-29	53	338	218	31	0	0	0	0	0	0	640
30-34	382	215	166	182	29	0	0	0	0	0	974
35-39	80	445	88	125	145	14	0	0	0	0	897
40-44	39	159	98	100	125	134	8	0	0	0	663
45-49	45	171	100	100	107	131	137	32	0	0	823
50-54	55	194	102	123	108	138	130	259	35	0	1,144
55-59	51	213	123	134	135	166	89	235	169	0	1,315
60-64	57	202	107	141	116	116	102	197	89	1	1,128
65-69	30	135	59	69	64	57	56	86	43	0	599
70 & Up	13	95	38	40	53	39	19	36	9	0	342
Total	970	2,795	1,138	1,045	882	795	541	845	345	1	9,357

Past service under the FELRA & UFCW Pension Fund is counted towards benefit eligibility and therefore reflected above.

APPENDIX A – MEMBERSHIP INFORMATION

Table A-5
Age/Service Distribution of All Active Participants as of January 1, 2022

	Completed Years of Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	165	628	39	0	0	0	0	0	0	0	832
25-29	53	338	218	31	0	0	0	0	0	0	640
30-34	382	215	166	182	29	0	0	0	0	0	974
35-39	80	445	88	125	145	14	0	0	0	0	897
40-44	39	159	98	100	125	134	8	0	0	0	663
45-49	45	171	100	100	107	131	137	32	0	0	823
50-54	55	194	102	123	108	138	130	260	36	0	1,146
55-59	51	213	123	135	137	167	89	238	242	21	1,416
60-64	57	202	107	142	118	119	102	199	139	123	1,308
65-69	30	135	59	69	64	58	57	86	49	54	661
70 & Up	13	95	38	40	53	39	19	36	9	11	353
Total	970	2,795	1,138	1,047	886	800	542	851	475	209	9,713

Average Age for All Actives = 47.55 Average Service for All Actives = 13.30

Past service under the FELRA & UFCW Pension Fund is counted towards benefit eligibility and therefore reflected above.

APPENDIX A – MEMBERSHIP INFORMATION

Table A-6
Age Distribution of Inactive Participants Entitled to Future Benefits as of January 1, 2022

	Terminated Vested		Deferred Beneficiaries	
Age	Number	Annual Benefit	Number	Annual Benefit
Under 30	56	$ 7,695	0	$ 0
30-34	60	8,115	0	0
35-39	36	4,470	0	0
40-44	37	5,730	0	0
45-49	43	6,270	2	210
50-54	45	7,095	1	135
55-59	71	11,331	2	270
60-64	103	18,638	4	1,065
65 & Over	115	17,938	7	810
Total	**566**	**$ 87,282**	**16**	**$ 2,490**

APPENDIX B – SUMMARY OF PLAN PROVISIONS

1. **Effective Date**

   January 1, 2021

2. **Plan Year**

   January 1 through December.

3. **Eligibility**

   An employee is any person employed by Giant Food LLC. (Giant) and covered by bargaining units represented by either of Locals No. 400 or 27 of the UFCW, AFL-CIO, or their successors.

   Any employee who is eligible to participate as described above in the FELRA & UFCW Pension Fund (Prior Plan) immediately prior to the Effective Date became a Participant as of the Effective Date. Any employee who was not eligible to participate in the FELRA & UFCW Pension Fund immediately prior to the Effective Date shall become a Participant following the completion of twelve months of Covered Employment.

4. **Normal Retirement Age**

   An employee's Normal Retirement Date is the latter of the last day of the month in which his 65th birthday occurs or the fifth anniversary of participation in the Plan.

5. **Future Service Credit**

   On and after January 1, 2021, future service credit earned by a Participant under the Plan is described below. Note Tier 1 participants (those for whom contributions are made at a monthly rate) are defined in the Prior Plan.

   Tier 1 Participants are granted one month of Future Service Credit for each month of employment or during which they are reported as being in the military service of the United States and returns to covered employment within the period for protection of their statutory rights to re-employment.

   Tier 2 Participants (those for whom contributions are made at an hourly rate) are granted Future Service Credit as follows:

Full-Time Service

Hours	Service Credit
1,600 or more	One Year
1,200 – 1,599	3/4 Year
800 – 1,199	1/2 Year
400 – 799	1/4 Year
Under 400	None

Part-Time Service

Hours	Service Credit
800 or more	One Year
600 – 799	3/4 Year
400 – 599	1/2 Year
200 – 399	1/4 Year
Under 200	None

APPENDIX B – SUMMARY OF PLAN PROVISIONS

6. **Accrued Monthly Pension**

An employee's Accrued Monthly Pension is determined as the Variable Income Benefit earned by a Participant. The Variable Income Benefit is computed as follows:

A Participant's Accrued Benefit for the initial Plan Year is equal to the Participant's Annual Credit for that Plan Year (defined below). For the following year, the Participant's Accrued Benefit is equal to the Annual Credits Earned by the Participant in the initial Plan Year, multiplied the Annual Adjustment Rate (defined below) plus the Annual Credit earned in that Plan Year. For each year thereafter, a Participant's Accrued Benefit will consist of the Accrued Benefit earned as of the end of the prior Plan Year multiplied by the Annual Adjustment Rate and then added to the Annual Credit earned in the current Plan Year.

The Annual Credit is defined as follows:

- Tier I Full Time (Monthly): $47.00*
- Tier I Part Time (Monthly): $32.00*
- Tier II (Hourly):
    - Giant: $25.00 FT, $15.00 PT
    - Giant Service Clerks-L.27: $15.00 FT, $10.00 PT

* *An additional accrual of $7 and $5 for years of benefit service in excess of 30 years for Full Time and Part Time, respectively.*

The Annual Adjustment Rate is defined as follows:

- The Hurdle Rate is 5.50%. The Annual Adjustment Rate is defined as: (1+ Actual Investment Return for the Prior Plan Year) divided by (1 + Hurdle Rate). Note the Actual Investment Return has a minimum value in this formula of 2.00% (Floor Rate) assuming the Stabilization Reserve is utilized and a maximum value of 9.00% (Ceiling Rate).

7. **Normal Retirement Benefit**

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

8. **Employment after Age 65**

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

9. **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 as follows:

APPENDIX B – SUMMARY OF PLAN PROVISIONS

- For Tier I Participants, benefits are actuarially reduced to the actual commencement age from age 60.
- For Tier II Participants, benefits are actuarially reduced to the actual commencement age from age 65.

10. Special Early Retirement

Tier 1 participants who have 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.

11. 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.

12. Deferred Vested Pension

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 Tier II), 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 Tier II employees).

For this purpose, Vesting Service is equal to the sum of (a) his Benefit Service under the FELRA & UFCW Pension Fund, and (b) his service under the Plan, which is credited as follows:

- One (1) year of Vesting Service for each Plan Year with five (5) or more months of Future Service Credit, or
- One (1) year of Vesting Service for each Plan Year with at least 750 Regular Time Hours (for a Tier II Participant) or at least 1,000 Hours of Service as a full-time or part-time employee, except that if the number of months of Future Service Credit is less than five (5) and Hours of Service are performed for the Employer during the Plan Year that did not constitute Future Service Credit, then the months shall be multiplied by 190 Hours of Service and such product that shall be added to his Hours of Service to determine whether a year of Vesting Service has been completed.

APPENDIX B – SUMMARY OF PLAN PROVISIONS

13. 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.

14. 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.

15. Death Benefit

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 Accrual Rate (i.e., Annual Credit) applicable to the participant and the full-time/part-time employment status. Administration of this benefit will be coordinated with the FELRA & UFCW Pension Fund and the Giant Excess Benefit Plan. Upon the death of a Pensioner, the Pensioner's beneficiary will receive a Death Benefit from this Plan only if the beneficiary is not eligible to receive a Death Benefit from the FELRA & UFCW Pension Fund or Giant Excess Benefit Plan.

16. Reciprocity

An employee covered by this Fund and the UFCW and Participating Employers' Pension Fund will be permitted to combine Vesting Service and Benefit Service. Annual accruals will be combined up to a maximum of one (1) year for any calendar year. Upon eventual retirement, each Fund will pay the benefit for service accrued under that Fund, according to the benefit provisions in effect under that Fund, at the time of retirement.

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 Plan is determined under the terms and provisions of the pension plan document.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Mortality Rates

Funding
IRS 2022 Static Mortality

ASC 960
Non-Annuitants: Pri-2012 Benefit-Weighted Blue Collar Mortality Table for Employees, mortality improvements projected using MP-2021 on a generational basis.

Healthy Annuitants: Pri-2012 Benefit-Weighted Blue Collar Mortality Table for Healthy Annuitants, mortality improvements projected using MP-2021 on a generational basis.

Disabled Annuitants: Pri-2012 Benefit-Weighted Mortality Table for Disabled Annuitants, mortality improvements projected using MP-2021 on a generational basis.

Contingent Annuitants: Pri-2012 Benefit-Weighted Blue Collar Mortality Table for Contingent Annuitants, mortality improvements projected using MP-2021 on a generational basis.

2. Termination Rates Before Retirement

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

* Withdrawal rates cut out at age 55.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

3. Salary Scale

Not applicable

4. Rate 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

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

5. Rate 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 to be three years older than their wives.

7. Administrative Expenses

$2,000,000 payable as of the beginning of the year.

8. Future Benefit Accruals

One service credit per year per active employee included in the valuation.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

9. Interest Rates

a. ARPA segment rates (Minimum Funding Requirement, AFTAP & at-risk status)	Segment 1: 4.75% Segment 2: 5.18% Segment 3: 5.92% Effective rate: 5.62%
b. PPA segment rates (Maximum Deductible Limit & ERISA 4010 Testing)	Segment 1: 0.88% Segment 2: 2.61% Segment 3: 3.27% Effective rate: 2.97%
c. PBGC Variable Rate Premium (Standard Method)	Segment 1: 1.16% Segment 2: 2.61% Segment 3: 3.27% Effective rate: 2.97%
d. ASC Topic 960	5.50%

10. Rationale for Assumptions

Mortality and interest rates for funding are prescribed by the law. The administrative expense assumption for 2022 is based on anticipated expenses to be paid from the Plan for the 2022 Plan year. All other assumptions are based on the latest experience study review performed in 2007 for the FELRA and UFCW Pension Fund, a multi-employer fund which provides benefits for this population up to 12/31/2020. The results of that study are incorporated here by reference. The assumptions continue to be closely monitored.

11. Assumption Changes

The mortality and interest rates were updated to reflect the requirements of PPA. Assumed administrative expenses were increased from $1,200,000 to $2,000,000 to reflect anticipated PBGC premiums that weren’t applicable for the initial 2021 plan year.

For ASC 960, the mortality assumption was changed from the PPA required mortality to the Pri-2012 mortality tables with mortality improvements projected with MP-2021 on a generational basis.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Asset Valuation Method

The Actuarial Value of Assets equals the Market Value

2. Actuarial Cost Method

The Unit Credit cost method as required under the Pension Protection Act of 2006 and using the "single assumption" approach outlined in the American Academy of Actuaries Variable Annuity Plans Practice Note published November 2019.

Under this approach, benefits paid in the future are adjusted by the Annual Adjustment Rates which assume future investment experience is equal to the segment rates to value the liability divided by the hurdle rate. Per the Plan's provisions, the investment returns used to determine projected Annual Adjustment Rates are adjusted to be no greater than the Ceiling Rate (9.00%) and no less than the Floor Rate (2.00%) assuming the Stabilization Reserve is utilized.

3. Modeling Disclosures

In accordance with Actuarial Standard of Practice No. 56 (Modeling), the following disclosures are made:

Proval

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities, normal costs, and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal as it relates to the Plan and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in the output of ProVal that would affect the contents of this actuarial valuation report.

APPENDIX D – GLOSSARY

Actuarial Assumptions

Assumptions used in the calculation of the present value of benefits. Assumptions include such items as the interest rate used to value liabilities, probability of retirement at each age, probability of death, termination of employment, and occurrence of disability.

Actuarial Funding Method

The method used to allocate costs to various time periods: prior years, the current year, and future years.

Actuarial (Gain)/Loss

The difference between the expected liability and the actual liability based on the prior valuation, according to the prior valuation's actuarial assumptions.

Adjusted Funding Target Attainment Percentage (AFTAP)

This is equal to the FTAP for the Plan because there were no annuity purchases for non-highly compensated employees in the two years prior to the valuation. If the AFTAP is below 80%, the Plan is restricted from paying the full amount of lump sums and from making benefit improvements. If the AFTAP is below 60%, accruals must cease.

Funding Standard Carryover Balance (FSCB)

The present value of contributions made prior to 2008 in excess of the required minimums and not waived by the Plan Sponsor.

Funding Ratios

The ratio of a defined set of assets to a defined set of liabilities.

Funding Target Liability

The present value of benefits accrued as of the valuation date using the funding methods and assumptions mandated by the Pension Protection Act of 2006.

Funding Target Attainment Percentage (FTAP)

This is used in a test to determine if the Plan is "At-Risk" and is to be communicated to Plan participants in an annual notice. Also, if the FTAP (based on PPA liability) is below 80%, a filing with PBGC under ERISA §4010 may be required.

APPENDIX D – GLOSSARY

Minimum Required Contribution

The least amount the Plan Sponsor can contribute and still comply with all regulations. We also refer to this as minimum contribution.

Normal Cost

The amount which represents the cost of the current year's additional accrual of benefits.

Plan Sponsor

The organization responsible for the UFCW-Giant Variable Annuity Fund, which is Giant.

Prefunding Balance (PFB)

The present value of contributions made in 2008 or later in excess of the Minimum Required Contributions for which the Plan Sponsor has elected to create a prefunding balance.

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