

# I.A.M. National Pension Fund

**Actuarial Valuation as of January 1, 2024**



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**Segal**



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March 7, 2025

Board of Trustees  
I.A.M. National Pension Fund  
99 M Street SE  
Washington, DC 20003

Dear Trustees:

We are pleased to submit the actuarial valuation as of January 1, 2024, for the I.A.M. National Pension Fund. It establishes the funding requirements for 2024 and analyzes experience for the preceding plan year. It also summarizes the actuarial information that is required to be filed with Form 5500 to federal government agencies. This report has been prepared for the exclusive use and benefit of the Board of Trustees.

The actuarial valuation results are dependent on a single set of assumptions. There is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions. For this reason, we regularly review projections under various scenarios with the Trustees.

We look forward to reviewing this report with you at your next meeting and to answering any questions you may have.

Sincerely,

Segal

A handwritten signature in black ink that reads "Jason Russell".

Jason Russell, FSA, MAAA, EA  
Senior Vice President and Actuary

A handwritten signature in black ink that reads "Josh Timm".

Josh Timm, CEBS  
Senior Vice President and Benefits Consultant

cc: Yolanda Montgomery  
Denise Clark

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# Section 1: Trustee Summary

This January 1, 2024, actuarial valuation for the I.A.M. National Pension Fund establishes the funding requirements for 2024 and includes the actuarial information that is required to be filed with the Form 5500 for the 2024 plan year. It also establishes the unfunded vested benefits as of December 31, 2023, for withdrawal liability purposes and discusses various concepts related to pension funding and risk factors. This report includes additional disclosures required by applicable Actuarial Standards of Practice.

This actuarial valuation is based on financial and demographic information as of December 31, 2023, which was provided by the Fund Office and the Fund's other professionals. The valuation is also based on actuarial assumptions about future events and does not reflect experience that has emerged since the measurement date. The actuarial calculations were completed under the supervision of Adam Condrick, FCA, MAAA, EA.

It is important to note that the funded status measurements in this report are not necessarily appropriate for assessing the sufficiency of the Plan's assets to cover the estimated cost of settling the Plan's benefit obligations or the need for or the amount of future contributions. Funded percentages differ depending on the purpose of measurement and can vary significantly depending on the liability measure and asset value (e.g., actuarial value of assets or market value of assets).

We will continue to prepare projections to help the Trustees understand how short-term fluctuations in financial markets, employment levels, and other factors can affect long-term funding results. This actuarial valuation will serve as the basis for these projections.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Trustees are encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

This section of the report provides a summary of key valuation results as well as commentary on the results. The remainder of the report includes additional detail on the actuarial calculations, assumptions, methods, models, and plan provisions.

## Section 1: Trustee Summary

### Summary of key valuation results

Valuation Measure	Prior	Current
Plan year beginning	January 1, 2023	January 1, 2024
Certified zone status	<b>Critical</b>	<b>Critical</b>
<b>Demographic data:</b>		
• Number of active participants	85,478	93,188
• Number of inactive participants with vested rights	82,091	81,546
• Number of retired participants and beneficiaries	119,453	120,164
• Total number of participants	287,022	294,898
• Participant ratio: non-active to actives	2.36	2.16
<b>Assets:</b>		
• Market value of assets (MVA)	\$13,374,935,607	\$13,766,461,310
• Actuarial value of assets (AVA)	14,533,279,178	14,890,820,987
• Market value net investment return, prior year	<b>-9.92%</b>	6.49%
• Actuarial value net investment return, prior year	5.13%	5.73%
<b>Cash flow:</b>		
• Plan year	<b>Actual 2023</b>	<b>Projected 2024</b>
• Contributions	\$569,936,876	\$584,185,298
• Withdrawal liability payments	56,286,388	14,438,701
• Benefit payments	<b>-1,029,557,750</b>	<b>-1,099,501,837</b>
• Administrative expenses, including adjustment for other income	<b>-54,587,660</b>	<b>-48,500,000</b>
• Net cash flow	<b>-457,922,146</b>	<b>-549,377,838</b>
• Cash flow as a percentage of MVA	<b>-3.4%</b>	<b>-4.0%</b>

## Section 1: Trustee Summary

### Summary of key valuation results

Valuation Measure	Prior	Current
Plan year beginning	January 1, 2023	January 1, 2024
<b>Actuarial liabilities based on unit credit cost method:</b>		
• Valuation interest rate	6.85%	7.00%
• Normal cost, including administrative expenses	\$414,089,723	\$426,182,651
• Actuarial accrued liability	16,807,351,487	16,919,940,913
• Unfunded actuarial accrued liability	2,274,072,309	2,029,119,926
<b>Funded percentages:</b>		
• Actuarial accrued liabilities under unit credit cost method	\$16,807,351,487	\$16,919,940,913
• MVA funded percentage	79.6%	81.4%
• AVA funded percentage (PPA basis)	86.4%	88.0%
<b>Statutory funding information:</b>		
• Credit balance at the end of prior plan year	\$1,363,841,304	\$1,311,116,383
• Minimum required contribution	0	0
• Maximum deductible contribution	27,962,127,542	23,873,235,911
<b>Scheduled Cost:</b>		
• Interest rate	6.85%	7.00%
• Projected contributions amount <sup>1</sup>	\$554,593,916	\$598,623,999
• Scheduled Cost amount	735,008,011	742,687,376
• Deficit amount	-180,414,095	-144,063,377

<sup>1</sup> Includes projected withdrawal liability payments of \$8,098,870 and \$14,438,701 for 2023 and 2024, respectively.

## Section 1: Trustee Summary

### Commentary

#### Actuarial experience

Experience for the plan year ending December 31, 2023, was somewhat unfavorable. The net investment return on the audited market value of assets was 6.49%, resulting in a loss of \$46.5 million relative to the actuarial assumption for the prior plan year, which was 6.85%. Due to asset smoothing, only one-fifth of this net investment loss will be recognized in the actuarial value of assets as of January 1, 2024; the rest will be recognized over the next four plan years. The net investment loss on the actuarial value of assets was \$159.8 million.

Please note that the investment information described above is based on the Plan's financial audit for the plan year ending December 31, 2023. It is our understanding that the financial audit did not reflect about \$140 million in investment returns due to late reporting of certain alternative investments. It is also our understanding that this issue will be resolved as part of the financial audit for the plan year ending December 31, 2024.

During the plan year ending December 31, 2023, there was also an experience loss of \$5.2 million due to higher administrative expenses than assumed, and an experience gain of \$40.6 million due to a lower actuarial accrued liability than assumed. The gain on the actuarial accrued liability represents 0.2% of the expected amount and was due to favorable demographic trends, more deaths than assumed, and census data adjustments.

#### Actuarial Experience for Plan Year Ending December 31, 2023

Item	Amount
1. Loss from investments	-\$159,811,762
2. Loss from administrative expenses	-5,233,301
3. Net gain from other experience (0.2% of projected actuarial accrued liability)	40,642,659
<b>4. Net experience loss: 1 + 2 + 3</b>	<b>-\$124,402,404</b>

## Section 1: Trustee Summary

### Actuarial assumptions and methods

The actuarial assumptions for the actuarial valuation as of January 1, 2024, have been updated from those used in the actuarial valuation as of January 1, 2023. We changed the actuarial assumptions related to investment return, administrative expenses, and exclusion of deferred beneficiaries over age 80. The net effect of the assumption changes was a decrease in the actuarial accrued liability of \$295.8 million, or 1.7%.

### Plan provisions

This actuarial valuation as of January 1, 2024, reflects the provisions of the Rehabilitation Plan adopted by the Board of Trustees, which took effect on April 17, 2019. This valuation reflects progress by the bargaining parties toward adoption (or imposition) of the schedules under the Rehabilitation Plan during the 2023 plan year. Increases in benefit-bearing contribution rates will result in increases in benefit amounts. The adoption of Rehabilitation schedules during the 2023 plan year decreased the accrued liabilities by less than 0.2%, and the contributions increased the normal cost by 0.5%. There were no other changes in plan provisions versus the actuarial valuation as of January 1, 2023.

### Funded percentages

The net effect of actuarial experience, assumption changes and plan changes were an increase in the funded percentage from 79.6% as of January 1, 2023, to 81.4% as of January 1, 2024, based on the market value of assets. Based on the actuarial value of assets, which smooths investment gains and losses over five years, the funded percentage increased from 86.4% as of January 1, 2023, to 88.0% as of January 1, 2024.

### Actuarially determined contribution

Actuarial Standards of Practice require the calculation and disclosure of a reasonable actuarially determined contribution (ADC) when performing a funding valuation for a pension plan in the United States. The ADC represents an annual contribution amount that will cover the cost of benefit accruals and administrative expenses during the plan year, as well as pay down any unfunded actuarial accrued liability over a reasonable period of time. A reasonable ADC should balance benefit security, intergenerational equity, and stability or predictability of annual costs.

The Scheduled Cost measurement shown later in this report represents a reasonable ADC and amortizes the unfunded actuarial accrued liability as of January 1, 2024, over a period of nine (9) years. There is a shortfall of \$144.1 million between projected contributions for the plan year (\$598.6 million) and the Scheduled Cost for (\$742.7 million). This shortfall indicates that the unfunded

## Section 1: Trustee Summary

liability is not projected to be amortized over a period of 9 years. In fact, as of January 1, 2024, projected contributions are not sufficient to amortize the unfunded liability over the next 30 years.

It is important to keep in mind that Scheduled Cost is a snapshot measurement, and it does not take into account projected changes in employer contributions or plan costs. Scheduled Cost also does not directly address the funding rules and requirements under the Pension Protection Act of 2006 (“PPA”). For example, depending on the circumstances, PPA may permit the Plan to take longer than 9 years to amortize its unfunded liability. We will continue to work with the Trustees to evaluate long-term funding scenarios to determine whether the Plan is projected to meet its requirements under PPA.

### **Pension Protection Act**

The Board of Trustees elected to enter critical status (the “red zone”) under PPA early in the plan year beginning January 1, 2019, and adopted a Rehabilitation Plan. The Plan has remained in critical status since then, including for the 2024 plan year. These actuarial certifications are documented in separate reports.

The original Rehabilitation Plan standard was that the Plan will emerge from critical status by the end of the ten-year Rehabilitation Period, which ends on December 31, 2031. For the past two years, following the investment loss in 2022, the Fund has not been projected to meet this target.

The Board closely reviewed the Rehabilitation Plan with a focus on possible changes that would enable the Fund to once again be projected to emerge from critical status by the end of the Rehabilitation Period. These possible changes included, but were not limited to, further increases in employer contribution rates and reductions to participant benefits – in addition to those that were included in the original Rehabilitation Plan.

Following its review, the Board determined that, based on reasonable actuarial assumptions and upon exhaustion of all reasonable measures, the Fund cannot reasonably be expected to emerge from critical status by the end the Rehabilitation Period, which ends December 31, 2031. Therefore, in December 2024, the Board updated the Rehabilitation Plan standard to be that the Fund will emerge from critical status by January 1, 2045, or remain solvent for at least the next 50 years.

As noted above, we will continue to work with the Trustees to monitor whether the Plan is meeting its requirements under PPA, and we will advise whether changes to the Rehabilitation Plan would be appropriate.

## Section 1: Trustee Summary

### Projections

Most of the results included in this valuation report are snapshot measurements, showing the Plan's status as of the valuation date. In addition to understanding the Plan's current status, it is also important to understand where the Plan is headed through actuarial projections. Projections may evaluate various metrics, such as funded percentage, funding standard account, zone status, cash flows and solvency. We review projections at each Board meeting.

### Withdrawal liability

This actuarial valuation report also includes the calculation of the unfunded vested benefits as of December 31, 2023, which is used to determine withdrawal liability for employer withdrawals during the plan year beginning December 31, 2024. The unfunded vested benefits remained level at \$7.23 billion as of December 31, 2022, and December 31, 2023.

#### Withdrawal Liability for Withdrawals in Plan Year Beginning January 1, 2024

Item	Amount
Measurement date	December 31, 2023
Actuarial interest rate	5.75%
Present value of vested benefits	\$20,995,036,060
Market value of assets	13,766,461,310
Unfunded present value of vested benefits	7,228,574,750

### Risk

Actuarial valuation results are dependent on a single set of assumptions. There is a risk that emerging results may differ significantly if actual experience proves to be different from these current assumptions. The following are risk factors for the Plan that could have an adverse effect on future funding levels.

- **Investment return volatility:** Near-term investment return volatility, as well longer-term underperformance
- **Contributions:** Declining contribution levels due to employer withdrawals or general industry contraction
- **Withdrawal liability:** Withdrawn employers failing to satisfy their full withdrawal liability obligations
- **Longevity:** Participants living longer than assumed

## Section 1: Trustee Summary

- **Population aging:** Participants working longer than expected, increasing the average age of the active population
- **Plan maturity:** Increasing number of non-active participants relative to the number of active participants and increasingly negative cash flows, both of which are indicators of greater sensitivity to investment return volatility

Two measures for plan maturity are the ratio of non-active participants to active participants and net cash flow. For the plan year ending December 31, 2023, the Plan's ratio of non-active participants to its active participants decreased from 2.36 to 2.16. The Plan also had net negative cash flow equal to \$457.9 million for the plan year (equal to 3.4% of assets), down from \$500.4 million in the preceding plan year.

We have reviewed various scenarios with the Trustees to help them evaluate whether the Plan is projected to meet its funding requirements under PPA. Most of these scenarios have focused on investment volatility. A more detailed risk assessment could help the Trustees better understand and manage the non-investment risk factors facing the Plan.

## Section 1: Trustee Summary

### Key Concepts

There are several ways of evaluating funding adequacy for a pension plan. In monitoring the Plan's financial position, the Trustees should keep in mind these concepts.

Concept	Description
Funding standard account	Under ERISA, the funding standard account (FSA) measures the cumulative difference between actual contributions and the minimum required contributions. If actual contributions exceed the minimum required contributions, the excess is called the credit balance. If actual contributions fall short of the minimum required contributions, a funding deficiency occurs.
Zone information	The Pension Protection Act of 2006 (PPA) called on plan sponsors to actively monitor the projected FSA credit balance, the funded percentage (the ratio of the actuarial value of assets to the present value of benefits earned to date) and cash flow sufficiency. Based on these measures, plans are then categorized as critical (red zone), endangered (yellow zone), or neither (green zone). The Multiemployer Pension Reform Act of 2014 (MPRA), among other things, made the zone provisions permanent.
Solvency projections	Pension plan funding anticipates that, over the long term, both contributions and investment earnings will be needed to cover benefit payments and expenses. To the extent that contributions are less than benefit payments, investment earnings and fund assets will be needed to cover the shortfall. In some situations, a plan may be faced with insufficient assets to cover its current obligations and may need assistance from the Pension Benefit Guaranty Corporation (PBGC). MPRA and the Special Financial Assistance (SFA) program under the American Rescue Plan Act of 2021 (ARPA) provide options for some plans facing insolvency.
Scheduled Cost	The Scheduled Cost is an annual amount based on benefit levels and assets that allows a comparison to current contribution levels, given the expectation of a continuing plan. Scheduled Cost represents a reasonable Actuarially Determined Contribution (ADC), as defined in the Actuarial Standards of Practice.
Withdrawal liability	ERISA provides for assessment of withdrawal liability to employers who withdraw from a multiemployer plan based on unfunded vested benefit liabilities.

## Section 1: Trustee Summary

### Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future uncertain obligations of a pension plan. As such, it will never forecast the precise future contribution requirements or the precise future stream of benefit payments. However, the valuation does provide the actuary's best estimate of plan liabilities based on current assumptions, participant population, and plan provisions. Since future experience will not exactly match expectations, the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation. In order to prepare a valuation, Segal relies on a number of input items. These include:

Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important for the Trustees to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. For most plans, it is not possible nor desirable to take a snapshot of the actual workforce on the valuation date. It is not necessary to have perfect data for an actuarial valuation. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. The present value is determined by applying a discount rate to the forecasted benefits. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

## Section 1: Trustee Summary

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Trustees. It includes information for compliance with federal filing requirements and for the Plan's auditor. Segal is not responsible for the use or misuse of its report.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in employment levels and investment losses, not just the current valuation results.
- ERISA requires a plan's enrolled actuary to provide a statement in the plan's annual report disclosing any event or trend that the actuary has not taken into account, if, to the best of the actuary's knowledge, such an event or trend may require a material increase in plan costs or required contribution rates. If the Trustees are aware of any event that was not considered in this valuation and that may materially increase the cost of the Plan, they must advise Segal, so that an appropriate statement can be included.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

# Section 2: Actuarial Valuation Results

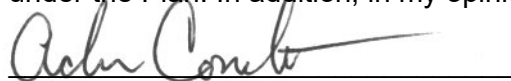
## Certificate of Actuarial Valuation

Segal has prepared this actuarial valuation of the I.A.M. National Pension Fund as of January 1, 2024, in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board of Trustees to assist in administering the Plan and meeting filing requirements of federal government agencies. This report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The results shown in this actuarial valuation may not be applicable for other purposes. Future results may differ significantly from the results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology, such as the end of an amortization period or additional contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law.

The valuation assumes that the Plan is qualified as a multiemployer plan for the plan year. It is based on financial information provided by the Plan's auditor and participant census data provided by Plan Administrator. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this valuation, and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

I am a member of the American Academy of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate, except as noted in this report. Each prescribed assumption for the determination of Current Liability was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (considering the experience of the Plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the Plan. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.



Adam Condrick, FCA, MAAA  
Vice President and Consulting Actuary  
Enrolled Actuary No. 23-06512  
March 7, 2025

## Section 2: Actuarial Valuation Results

### Participant data

Category	December 31, 2022	December 31, 2023	Change from Prior Year
<b>Active participants:</b>			
• Number	85,478	93,188	9.0%
• Average age	46.9	46.0	-0.9
• Average pension credits	9.8	9.2	-0.6
• Average benefit-bearing contribution rate per hour	\$2.7859	\$2.7833	-0.1%
<b>Inactive vested participants:</b>			
• Number <sup>1</sup>	82,091	81,546	-0.7%
• Average monthly benefit	\$476	\$503	5.7%
<b>Pensioners and beneficiaries:</b>			
• Number <sup>2</sup>	119,453	120,164	0.6%
• Average monthly benefit	\$712	\$717	0.7%
<b>Total participants</b>	<b>287,022</b>	<b>294,898</b>	<b>2.7%</b>

<sup>1</sup> Includes surviving spouses with deferred benefits. Excludes 699 inactive vested members over the age of 80 in 2023 (548 in 2022) and 1,966 surviving spouses with deferred benefits over the age of 80 in 2023 (0 in 2022).

<sup>2</sup> Includes those in suspended status

## Section 2: Actuarial Valuation Results

### Actuarial liabilities

Description	January 1, 2023	January 1, 2024
Interest rate assumption	6.85%	7.00%
Actuarial cost method	Unit Credit	Unit Credit
<b>Normal cost:</b>	<b>\$414,089,723</b>	<b>\$426,182,651</b>
• Cost of benefit accruals	369,589,723	377,682,651
• Administrative expense assumption	44,500,000	48,500,000
<b>Actuarial accrued liability:</b>	<b>\$16,807,351,487</b>	<b>\$16,919,940,913</b>
• Pensioners and beneficiaries	10,006,935,404	9,876,264,266
• Inactive vested participants rights <sup>1</sup>	2,723,478,988	2,846,401,183
• Active participants	4,076,937,095	4,197,275,464

<sup>1</sup> Includes liabilities for surviving spouses with deferred benefits

## Section 2: Actuarial Valuation Results

### Market value of assets

Item	Assets for Year Ending December 31, 2022	Assets for Year Ending December 31, 2023
<b>Market value of assets, beginning of the year</b>	\$15,368,797,625	\$13,374,935,607
<b>Contribution income:</b>		
• Employer contributions	\$533,170,453	\$569,936,876
• Withdrawal Liability Payments	24,367,478	56,286,388
<b>Contribution income</b>	<b>\$557,537,931</b>	<b>\$626,223,264</b>
<b>Investment income:</b>		
• Investment income:	-\$1,458,339,460	891,085,268
• Less investment fees	-35,233,944	-41,637,419
<b>Net investment income</b>	<b>-\$1,493,573,404</b>	<b>\$849,447,849</b>
<b>Other income</b>	<b>90,025</b>	<b>-3,394,146</b>
<b>Less benefit payments and expenses:</b>		
• Pension benefits	-\$1,014,521,188	-\$1,029,557,750
• Administrative expenses	-43,395,382	-51,193,514
<b>Total benefit payments and expenses</b>	<b>-\$1,057,916,570</b>	<b>-\$1,080,751,264</b>
<b>Market value of assets, end of the year</b>	<b>\$13,374,935,607</b>	<b>\$13,766,461,310</b>

## Section 2: Actuarial Valuation Results

### Actuarial value of assets

The following exhibit summarizes the development of the actuarial value of assets as of January 1, 2024. The actuarial value of assets recognizes net investment gains and losses over five years, at 20% per year. In addition, the actuarial value of assets is subject to a “20% corridor,” meaning it must not be less than 80% or more than 120% of the market value of assets as of that date.

Step	MVA Rate of Return	Original Amount	Unrecognized Return	Amount
1. Market value of assets, December 31, 2023				\$13,766,461,310
2. Calculation of unrecognized return				
a. Year ended December 31, 2023	6.49%	-\$46,481,334	-\$37,185,067	
b. Year ended December 31, 2022	-9.92%	-2,524,837,838	-1,514,902,703	
c. Year ended December 31, 2021	12.70%	754,529,929	301,811,972	
d. Year ended December 31, 2020	12.50%	629,580,607	125,916,121	
e. Year ended December 31, 2019	14.40%	784,882,499		
<b>f. Total unrecognized return</b>				<b>-\$1,124,359,677</b>
3. Preliminary actuarial value: 1 - 2f				14,890,820,987
4. Adjustment to be within 20% corridor				0
<b>5. Final actuarial value of assets as of December 31, 2023: (3) + (4)</b>				<b>\$14,890,820,987</b>
6. Actuarial value as a percentage of market value: (5) ÷ (1)				108.17%
7. Amount deferred for future recognition: (1) - (5)				-\$1,124,359,677

## Section 2: Actuarial Valuation Results

### Schedule of active participant data

The following exhibit shows the distribution of active participant data by age and pension credits as of December 31, 2023. The exhibit also shows average monthly accrued benefits.

Schedule MB, Line 8b(2)

#### Pension Credits

Age	Total	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 20	181	181	—	—	—	—	—	—	—	—
	\$108	\$108	—	—	—	—	—	—	—	—
20 - 24	4,205	4,139	66	—	—	—	—	—	—	—
	\$200	\$194	\$542	—	—	—	—	—	—	—
25 - 29	8,265	6,624	1,615	26	—	—	—	—	—	—
	\$330	\$243	\$673	\$1,230	—	—	—	—	—	—
30 - 34	10,599	6,442	3,396	740	21	—	—	—	—	—
	\$474	\$261	\$722	\$1,164	\$1,444	—	—	—	—	—
35 - 39	10,284	4,752	3,207	1,564	745	16	—	—	—	—
	\$643	\$264	\$734	\$1,165	\$1,548	—	—	—	—	—
40 - 44	9,835	3,868	2,642	1,616	1,408	288	13	—	—	—
	\$823	\$259	\$733	\$1,175	\$1,710	\$2,847	—	—	—	—
45 - 49	10,125	3,279	2,351	1,685	2,018	587	191	14	—	—
	\$972	\$259	\$721	\$1,150	\$1,548	\$2,831	\$2,780	—	—	—
50 - 54	11,196	2,864	2,347	1,817	2,844	795	383	123	23	—
	\$1,117	\$257	\$704	\$1,126	\$1,498	\$2,739	\$3,185	\$2,893	\$2,303	—
55 - 59	12,712	2,348	2,258	2,030	4,075	1,063	483	313	136	6
	\$1,216	\$262	\$686	\$1,121	\$1,407	\$2,370	\$3,158	\$2,796	\$2,539	—
60 - 64	11,368	1,463	1,788	1,745	4,243	1,227	351	338	129	84
	\$1,275	\$253	\$649	\$1,091	\$1,399	\$2,141	\$2,709	\$2,971	\$2,499	\$2,593
65 - 69	3,698	399	589	582	1,473	354	111	139	10	41
	\$1,231	\$247	\$602	\$1,038	\$1,326	\$2,015	\$2,665	\$2,897	—	\$2,484
70 & over	703	110	136	83	268	59	12	28	3	4
	\$1,099	\$231	\$596	\$855	\$1,321	\$1,867	—	\$3,189	—	—
Unknown	17	9	1	1	5	—	—	—	—	1
	—	—	—	—	—	—	—	—	—	—
<b>Totals</b>	<b>93,188</b>	<b>36,478</b>	<b>20,396</b>	<b>11,889</b>	<b>17,100</b>	<b>4,389</b>	<b>1,544</b>	<b>955</b>	<b>301</b>	<b>136</b>
	<b>\$869</b>	<b>\$248</b>	<b>\$704</b>	<b>\$1,132</b>	<b>\$1,460</b>	<b>\$2,430</b>	<b>\$2,966</b>	<b>\$2,899</b>	<b>\$2,506</b>	<b>\$2,562</b>

## Section 2: Actuarial Valuation Results

### Minimum funding requirements

Under ERISA, minimum funding requirements are determined based on the funding standard account. If accumulated contributions exceed minimum requirements as determined, there will be a credit balance in the funding standard account. If contributions fall short of minimum requirements, there will be an accumulated funding deficiency.

Each year, the funding standard account is charged with the normal cost and amortizations of increases in the unfunded actuarial accrued liability. The funding standard account is credited with employer contributions and withdrawal liability payments, as well as amortizations of decreases in the unfunded actuarial accrued liability. Increases or decreases in the unfunded actuarial accrued liability may be due to plan amendments, experience losses, and changes in actuarial assumptions and methods.

Increases or decreases in the unfunded actuarial accrued liability are amortized over 15 years except that short-term benefits, such as 13th checks, are amortized over the scheduled payout period.

The following exhibit shows the funding standard account for the current plan year, which begins January 1, 2024, and ends December 31, 2024. For reference, the exhibit also shows the funding standard account for the prior plan year.

#### Funding Standard Account

Item	December 31, 2023	December 31, 2024
1. Prior year funding deficiency	\$0	\$0
2. Normal cost, including administrative expenses	414,089,723	426,182,651
3. Amortization charges	1,067,884,654	1,085,548,915
4. Interest on <b>1, 2 and 3</b>	101,515,245	105,821,210
<b>5. Total charges</b>	<b>\$1,583,489,622</b>	<b>\$1,617,552,776</b>
6. Prior year credit balance	\$1,363,841,304	\$1,311,116,383
7. Employer contributions	626,223,264	TBD
8. Amortization credits	740,718,303	739,952,300
9. Interest on <b>6, 7 and 8</b>	163,823,134	143,574,808
10. Full funding limitation credits	0	0
<b>11. Total credits</b>	<b>\$2,894,606,005</b>	<b>\$2,194,643,491</b>
12. Credit balance/(funding deficiency): <b>11 – 5</b>	\$1,311,116,383	TBD
<b>13. Minimum required contribution: 5 – 12 not less than zero</b>	<b>N/A</b>	<b>\$0</b>

## Section 2: Actuarial Valuation Results

Minimum funding requirements also require the calculation of the full funding limitation (FFL) and credits. The full funding limitation is calculated based on the actuarial accrued liability and 90% of the current liability. The full funding limitation and credit for the current plan year, determined as of December 31, 2023, are shown below.

### Full Funding Limitation and Credits

Item	Amount
ERISA FFL (accrued liability FFL)	\$5,233,133,142
RPA'94 override (90% current liability FFL)	10,082,757,729
FFL credit (item 10 on previous exhibit)	0

### Schedule MB, line 8e

The difference between minimum required contribution for the year and the minimum that would have been required without extending the amortization bases is \$10,883,240.

## Section 2: Actuarial Valuation Results

Schedule MB, Line 9c

### Schedule of Funding Standard Account Bases – Charges

Type of Base	Date Established	Outstanding Balance	Years Remaining	Amortization Amount
Benefit Level Increase	01/01/1992	\$2,149,898	3	\$765,628
Plan Amendment	01/01/1993	5,279,527	4	1,456,696
Experience Loss	01/01/1994	88,346,075	5	20,137,183
Benefit Level Increase	01/01/1995	20,574,839	6	4,034,126
Plan Amendment	01/01/1996	83,176,675	7	14,424,019
Plan Amendment	01/01/1997	100,096,112	8	15,666,235
Merger Base	01/01/1998	40,165,450	9	5,761,545
Plan Amendment	01/01/1998	110,648,335	9	15,871,984
Plan Amendment	01/01/1999	37,303,983	10	4,963,783
Plan Amendment	01/01/1999	49,976,825	10	6,650,071
Plan Amendment	01/01/1999	56,626,630	10	7,534,914
Plan Amendment	01/01/2000	76,644,744	11	9,552,435
Plan Amendment	01/01/2001	112,554,921	12	13,243,821
Plan Amendment	01/01/2002	46,748,724	13	5,227,593
Plan Amendment	01/01/2003	46,415,516	14	4,960,168
Plan Amendment	01/01/2004	119,963,649	15	12,309,686
Experience Loss	01/01/2005	6,718,991	1	6,718,991
Plan Amendment	01/01/2005	90,875,737	16	8,990,553
Plan Amendment	01/01/2006	56,248,208	17	5,384,330
Plan Amendment	01/01/2007	218,195,484	18	20,272,318
Change in Assumptions	01/01/2007	244,585,456	18	22,724,184
Plan Amendment	01/01/2008	35,124,554	4	9,691,361
Plan Amendment	01/01/2009	36,418,548	5	8,301,070

## Section 2: Actuarial Valuation Results

Type of Base	Date Established	Outstanding Balance	Years Remaining	Amortization Amount
Investment Loss subject to Relief	01/01/2009	1,474,441,178	14	157,565,314
Plan Amendment	01/01/2010	21,410,842	1	21,410,842
Plan Amendment	01/01/2011	12,587,690	2	6,506,680
Investment Loss subject to Relief	01/01/2011	766,444,717	14	81,905,677
Plan Amendment	01/01/2012	18,753,965	3	6,678,719
Experience Loss	01/01/2012	200,625,747	3	71,447,453
Plan Amendment	01/01/2013	2,176,153	4	600,431
Experience Loss	01/01/2013	4,060,613	4	1,120,380
Plan Amendment	01/01/2013	20,522,743	4	5,662,515
Plan Amendment	01/01/2014	2,431,919	5	554,320
Plan Amendment	01/01/2014	18,586,893	5	4,236,608
Experience Loss	01/01/2014	48,999,246	5	11,168,654
Plan Amendment	01/01/2015	1,621,188	6	317,868
Plan Amendment	01/01/2015	19,376,724	6	3,799,211
Plan Amendment	01/01/2015	32,777,331	6	6,426,679
Experience Loss	01/01/2015	134,889,222	6	26,447,843
Plan Amendment	01/01/2016	2,912,548	7	505,077
Plan Amendment	01/01/2016	32,334,631	7	5,607,285
Change in Assumptions	01/01/2016	90,521,241	7	15,697,671
Experience Loss	01/01/2016	357,038,137	7	61,915,491
Plan Amendment	01/01/2017	803,402	8	125,742
Plan Amendment	01/01/2017	5,339,962	8	835,768
Plan Amendment	01/01/2017	33,386,662	8	5,225,411
Experience Loss	01/01/2017	276,136,767	8	43,218,698
Plan Amendment	01/01/2018	3,190,254	9	457,627
Plan Amendment	01/01/2018	54,032,636	9	7,750,728

## Section 2: Actuarial Valuation Results

Type of Base	Date Established	Outstanding Balance	Years Remaining	Amortization Amount
Experience Loss	01/01/2018	307,159,203	9	44,060,544
Plan Amendment	01/01/2019	2,482,717	10	330,358
Plan Amendment	01/01/2019	38,811,522	10	5,164,381
Experience Loss	01/01/2019	239,531,028	10	31,872,738
Plan Amendment	01/01/2020	2,636,391	11	328,580
Plan Amendment	01/01/2020	41,772,941	11	5,206,271
Plan Amendment	01/01/2020	50,174,741	11	6,253,409
Experience Loss	01/01/2020	220,242,626	11	27,449,416
Plan Amendment	01/01/2021	3,295,270	12	387,739
Plan Amendment	01/01/2021	53,682,271	12	6,316,546
Change in Assumptions	01/01/2021	421,951,527	12	49,649,099
Plan Amendment	01/01/2022	1,992,573	13	222,816
Plan Amendment	01/01/2022	20,372,360	13	2,278,103
Change in Assumptions	01/01/2022	779,577,034	13	87,174,816
Experience Loss	01/01/2023	320,570,277	14	34,257,559
Experience Loss	01/01/2024	124,402,404	1,5	12,765,154
Extended subtotal		\$1,684,838,881		\$224,642,692
Not extended subtotal		6,264,057,296		860,906,321
<b>Total</b>		<b>\$7,948,896,177</b>		<b>\$1,085,548,915</b>

Note: Beginning with the January 1, 2023, valuation, the increase in liability associated with new employer schedules first entering the Fund is captured as part of the experience gain or loss rather than measured separately as a new plan amendment base.

## Section 2: Actuarial Valuation Results

Schedule MB, Line 9h

### Schedule of Funding Standard Account Bases – Credits

Type of Base	Date Established	Outstanding Balance	Years Remaining,	Amortization Amount
Change in Assumptions	01/01/2002	\$5,206,467	8	\$814,874
Change in Asset Method	01/01/2009	454,106,302	15	46,596,664
Experience Gain	01/01/2010	74,636,708	1	74,636,708
Investment Loss subject to Relief	01/01/2010	184,516,062	14	19,718,204
Plan Amendment	01/01/2011	59,750,607	2	30,885,579
Experience Gain	01/01/2011	198,366,479	2	102,537,262
Change in Assumptions	01/01/2012	91,984,333	3	32,757,741
Plan Amendment	01/01/2021	933,870	12	109,884
Experience Gain	01/01/2021	167,645,908	12	19,726,124
Experience Gain	01/01/2022	214,652,918	13	24,003,181
Plan Amendment	01/01/2022	1,371,488,909	13	153,364,310
Plan Amendment	01/01/2023	41,588,977	14	4,444,382
Change in Assumptions	01/01/2023	181,621,497	14	19,408,878
Change in Funding Method	01/01/2023	1,240,461,287	9	177,938,340
Plan Amendment	01/01/2024	25,927,677	15	2,660,486
Change in Assumptions	01/01/2024	295,771,867	15	30,349,683
<b>Total</b>		<b>\$4,608,659,868</b>		<b>\$739,952,300</b>

## Section 2: Actuarial Valuation Results

### Scheduled Cost

The Scheduled Cost is an annual contribution objective, reflecting benefit levels and current assets that is compared to projected contributions to assess the Plan's long-term financial position. The Scheduled Cost uses a single amortization schedule for the total unfunded actuarial accrued liability, rather than the ERISA minimum funding approach.

The Scheduled Cost represents a reasonable actuarially determined contribution (ADC), as defined in the Actuarial Standards of Practice.

The Scheduled Cost amount, if contributed, would result in a predictable level of contributions that amortizes any unfunded actuarial accrued liability over 9 years, providing benefit security to plan participants while balancing the needs of current and future participants.

The Scheduled Cost results reflect projected movement to the Preferred Schedule of the Rehabilitation Plan for all remaining employees not on a schedule.

#### Scheduled Cost

Cost Element	2023	2024
Normal cost <sup>1</sup>	\$382,016,167	\$391,939,540
Administrative expenses <sup>1</sup>	46,117,667	50,300,893
Amortization of the unfunded actuarial accrued liability <sup>1</sup>	306,874,177	300,446,943
Actuarial accrued liability	16,770,985,179	16,910,337,985
Actuarial value of assets	14,533,279,178	14,890,820,987
Unfunded actuarial accrued liability	2,237,706,001	2,019,516,998
Amortization period	10	9
<b>Annual Scheduled Cost, payable monthly</b>	<b>\$735,008,011</b>	<b>\$742,687,376</b>
Projected contributions <sup>2</sup>	554,593,916	598,623,999
Number of active participants	85,478	93,188
Hours assumption	2,000	2,000
Average contribution rate	\$3.20	\$3.13
<b>Margin/(deficit)</b>	<b>-\$180,414,095</b>	<b>-\$144,063,377</b>

<sup>1</sup> Includes adjustment for monthly payments

<sup>2</sup> Includes projected withdrawal liability payments of \$8,098,870 and \$14,438,701 in 2023 and 2024, respectively.

## Section 2: Actuarial Valuation Results

### Low-default-risk obligation measure

The Actuarial Standards of Practice require the calculation and disclosure of a low-default-risk obligation measure (LDROM) when performing a funding valuation. The LDROM represents the Plan's actuarial accrued liability measured using discount rates associated with fixed income securities with a high credit rating that would be expected to provide cash flows with approximately the same timing and magnitude as the Plan's expected future benefit payments.

In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower, and the annual costs would be higher. While investing in a portfolio with low-default-risk securities would likely to reduce investment volatility, it would also result in the need to increase employer contributions or reduce participant benefits.

The "current liability" measurement shown later in this report is a required calculation under IRS rules and is an acceptable LDROM. As of January 1, 2024, the Plan's current liability is \$27.0 billion. This amount is based on a prescribed mortality assumption, as well as a prescribed interest rate of 3.29% that approximates yields on high quality corporate bonds. Based on the market value of assets of January 1, 2024, the Plan's current liability is 51.60% funded. To contrast, the actuarial accrued liability is 88.0% funded.

It is important to keep in mind that market interest rates have increased since January 1, 2024. Reflecting current market interest rates would reduce the amount of the LDROM. In addition, the amount of the LDROM would change if a plan-specific mortality assumption were used instead of prescribed mortality assumptions.

## Section 2: Actuarial Valuation Results

### Current liability

#### Current Liability as of January 1, 2024

Item <sup>1</sup>	Number of Participants	Current Liability
Interest rate assumption		3.29%
Retired participants and beneficiaries receiving payments	120,164	\$13,408,261,331
Inactive vested participants	81,546	5,291,315,854
Active participants		
• Non-vested benefits		532,005,108
• Vested benefits		7,723,770,643
• <b>Total active</b>	<b>93,188</b>	<b>\$8,255,775,751</b>
<b>Total</b>	<b>294,898</b>	<b>\$26,955,352,936</b>

#### Additional Current Liability Information for 2024 Schedule MB

Item	Amount
Expected increase in current liability due to benefits accruing during the plan year	\$830,533,041
Expected release from current liability for the plan year	1,099,491,409
Expected plan disbursements for the plan year <sup>2</sup>	1,147,991,409
Current value of assets <sup>3</sup>	\$13,909,157,829
Percentage funded for Schedule MB	51.60%

<sup>1</sup> The actuarial assumptions used to calculate these values are shown in Appendix A.

<sup>2</sup> Includes administrative expenses of \$48,500,000

<sup>3</sup> Includes withdrawal liability receivables

## Section 2: Actuarial Valuation Results

### Accounting information

#### Present Value of Accumulated Plan Benefits

Item	January 1, 2023	January 1, 2024
Actuarial present value of vested accumulated plan benefits:		
• Participants currently receiving payments	\$10,006,935,404	\$9,876,264,266
• Other vested benefits	6,623,461,592	6,855,630,684
• <b>Total vested benefits</b>	<b>\$16,630,396,996</b>	<b>\$16,731,894,950</b>
Actuarial present value of non-vested accumulated plan benefits	176,954,491	188,045,963
<b>Total actuarial present value of accumulated plan benefits</b>	<b>\$16,807,351,487</b>	<b>\$16,919,940,913</b>

#### Change in Present Value of Accumulated Plan Benefits

Factors	Change from January 1, 2023 to January 1, 2024
Plan amendments	-\$25,927,677
Benefits accumulated, net experience gain or loss, changes in data	350,744,025
Benefits paid	-1,029,557,750
Changes in actuarial assumptions	-295,771,867
Interest	1,113,102,695
<b>Total</b>	<b>\$112,589,426</b>

Note: Present values of accumulated plan benefits do not include the accumulated present value of expenses, which is estimated to be \$649,635,037 as of January 1, 2023 and \$692,857,143 as of January 1, 2024.

## Section 2: Actuarial Valuation Results

### Withdrawal liability

The following exhibit summarizes the valuation of the unfunded vested benefits (UVB) as of December 31, 2023, which is used to calculate withdrawal liability for employer withdrawals during the plan year beginning January 1, 2024, and ending December 31, 2024. For comparison, the exhibit shows the unfunded vested benefits as of the prior year.

Reductions in accrued benefits for a plan in critical status are disregarded in determining an employer's allocation of the UVB through the establishment of an Affected Benefits pool. The pool is calculated using the method based on the PBGC's Technical Update 10-3, which describes how to account for the effect of benefit reductions that are implemented as part of a Rehabilitation Plan ("Affected Benefits") when a pension plan is in critical status.

Item	For Withdrawals in 2023	For Withdrawals in 2024
1. Measurement date	December 31, 2022	December 31, 2023
2. Present value of vested benefits (PVVB) measured for withdrawal purposes	\$19,068,953,376	\$19,259,154,980
3. Unamortized value of Affected Benefits Pools <sup>1</sup>	860,222,947	866,021,797
4. Present value of future administrative expenses	678,260,870	773,913,043
<b>5. Total present value of vested benefits: 1 + 2 + 3</b>	<b>\$20,607,437,193</b>	<b>\$20,995,036,060</b>
6. Market value of assets	13,374,935,607	13,766,461,310
<b>7. Unfunded present value of vested benefits (UVB): 4 – 5, not less than \$0</b>	<b>\$7,232,501,586</b>	<b>\$7,228,574,750</b>

The actuarial assumptions and methods used to determine the unfunded vested benefits as of December 31, 2023 are the same as those used in the actuarial valuation as of January 1, 2023, published on July 17, 2024, except for the following:

- **Interest rate:** 5.75% per annum
- **Future administrative expenses:** Included in the above determination assuming the amount will be paid in perpetuity with no projected increase.
- **Asset method:** Market value of assets

These assumptions are reasonable for determination of the Plan's withdrawal liability.

<sup>1</sup> Initial Affected Benefit amounts are amortized over 15 years, per PBGC Technical Update 10-3.

# Appendix A: Actuarial Assumptions, Methods and Models

*Schedule MB, Line 6*

## Economic Assumptions

### Interest rate

7.00% per annum

The interest rate assumption for funding purposes represents the long-term expected net investment return on Plan assets. This assumption is derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.

### Administrative expenses

\$48,500,000 payable at the beginning of the year for the year beginning January 1, 2024.

The annual administrative expenses were based on historical and current data, adjusted to reflect the budget for the upcoming year, and estimated future experience and professional judgment

## Demographic and noneconomic assumptions

### Rationale

Assumptions for mortality, retirement, termination, and disability were set based on a review of recent experience, reflecting future expectations under the Rehabilitation Plan, and applying professional judgment. Current data is reviewed in conjunction with each annual valuation. Based upon this review and professional judgment, no changes to these assumptions are warranted at this time.

# Appendix A: Actuarial Assumptions, Methods and Models

## Mortality rates

**Healthy:** 90% of PRI-2012 Blue Collar Employee and Healthy Retiree Amount Weighted Mortality Tables, projected generationally from 2012 with SSA 2023 scale.

**Disabled:** 90% of PRI-2012 Disabled Retiree Amount Weighted Mortality Tables, projected generationally from 2012 with SSA 2023 scale.

**Contingent survivor lives:** 90% of PRI-2012 Blue Collar Contingent Survivor Amount Weighted Mortality Tables, projected generationally from 2012 with SSA 2023 scale.

The mortality rates were based on historical and current data, adjusted to reflect health characteristics of the industry and estimated future experience and professional judgment. As part of the analysis, a comparison was made between the amount of liability change due to deaths by age and by benefit amount and the projected liability change based on the prior year's assumption over the most recent two years, taking into consideration the results of Segal's industry mortality study.

## Termination rates

Age	Years of Service					
	Less than 1	1 – 2	2 – 3	3 – 4	4 – 5	5+
20	14.3%	10.1%	11.8%	12.3%	8.5%	5.3%
25	11.6	11.2	10.7	10.3	8.7	8.3
30	10.7	11.5	10.0	9.2	8.7	8.6
35	10.8	11.2	9.5	8.7	8.5	7.2
40	11.1	10.7	9.1	8.6	8.2	5.3
45	11.0	9.9	8.9	8.4	7.6	3.9
50	9.6	9.2	8.7	7.9	6.8	4.0
54	7.2	8.9	8.5	7.0	5.9	3.0

*Withdrawal rates cut out at early retirement age.*

## Disability rates

None assumed.

## Appendix A: Actuarial Assumptions, Methods and Models

### Retirement rates for active participants

Age	Annual Rate
55 – 58	3.0%
59 – 61	4.5
62 – 64	15.0
65 – 69	30.0
70	100.0

### Description of weighted average retirement age

Age 64, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active participants included in the January 1, 2024, actuarial valuation.

### Retirement rates for inactive vested participants

Age	Annual Rate
55	6.45%
56	3.50
57	3.55
58	3.50
59	4.65
60	4.65
61	8.45
62	15.10
63	7.80
64	15.60
65	23.45
66	11.45
67	8.30

## Appendix A: Actuarial Assumptions, Methods and Models

Age	Annual Rate
68	6.00
69	29.55
70	100.00

### Future benefit accruals

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

### Unknown data for participants

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

### Definition of active participants

Active participants are defined as those with at least 450 hours in covered employment during the most recent plan year and had at least one pension credit by the end of the year, excluding those who have retired as of the valuation date.

### Exclusion of inactive vested participants and deferred beneficiaries

Inactive vested participants, including deferred beneficiaries, over age 80 are excluded from the valuation.

### Percent married

70% of males and females.

### Age of spouse

Spouses of male participants are three years younger, and spouses of female participants are three years older.

### Benefit election

85% of married male participants and 65% of married female participants are assumed to elect the 50% joint and survivor annuity. The remaining participants are assumed to elect a life annuity (guarantee period based on applicable Rehabilitation Plan schedule).

## Appendix A: Actuarial Assumptions, Methods and Models

### Delayed retirement factors

Active participants work enough hours each month to not qualify for delayed retirement adjustment. Inactive vested participants who are assumed to commence receipt of benefits after attaining normal retirement age qualify for delayed retirement increases.

### Methods, models, and other information

#### Actuarial value of assets

The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the projected return (at the actuarially assumed rate) on the market value and is recognized over a five-year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.

#### Actuarial cost method

Traditional unit credit method. The normal cost and actuarial accrued liability are calculated on an individual participant basis.

#### Benefits valued

Unless otherwise indicated, includes all benefits summarized in Appendix B.

#### Amortization extension

The IRS granted approval for an automatic five-year amortization extension under IRC Section 431(d) effective January 1, 2009.

#### Current liability assumptions

- **Interest:** 3.29%, within the permissible range prescribed under IRC Section 431(c)(6)(E)
- **Mortality:** Mortality prescribed under IRS Regulations 1.431(c)(6)-1 and 1.430(h)(3)-1(a)(1): Pri-2012 employee and annuitant mortality tables, projected generationally using the Adjusted MP-2021 scale as described in the final IRS mortality regulations released in October 2023.

## Appendix A: Actuarial Assumptions, Methods and Models

### Estimated rate of investment return

- On actuarial value of assets (Schedule MB, line 6g): 5.7%, for the plan year ending December 31, 2023
- On current (market) value of assets (Schedule MB, line 6h): 6.5%, for the plan year ending December 31, 2023

### FSA contribution timing (Schedule MB, line 3a)

Unless otherwise noted, contributions are paid periodically throughout the year pursuant to collective bargaining agreements. The interest credited in the FSA is therefore assumed to be equivalent to a July 15 contribution date.

### Actuarial models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are prepared to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible Enrolled Actuary.

### Justification for change in actuarial assumptions (Schedule MB, line 11)

- For purposes of determining current liability, the current liability interest rate was changed from 2.55% to 3.29% due to a change in the permissible range and recognizing that any rate within the permissible range satisfies the requirements of IRC Section 431(c)(6)(E) and the mortality tables and mortality improvement scales were changed in accordance with IRS Regulations 1.431(c)(6)-1 and 1.430(h)(3)-1.
- Based on past experience and future expectations, the following actuarial assumptions were changed as of January 1, 2024:
  - Net investment return, previously 6.85%
  - Exclusion of deferred beneficiaries, previously all valued
  - Annual administrative expenses, previously \$44,500,000

# Appendix B: Summary of Plan Provisions

*Schedule MB, Line 6*

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

## **Plan year**

January 1 through December 31

## **Pension credit year**

January 1 through December 31

## **Plan status**

Ongoing plan

## **Participation**

On the earliest January 1, or July 1 after completion of 1,000 hours during a 12-month period

## **Vesting service**

One year of Vesting Service is granted for each calendar year in which the employee works at least 600 hours

## Appendix B: Summary of Plan Provisions

### Credited service

Sum of Past Service Credit and Future Service Credit

### Past service credit

One year granted for each Plan year the employee worked at least 135 days under a Collective Bargaining Agreement between a participating Lodge and the employer. Past Service Credit is not available to new groups who joined the Fund on or after April 1, 2003.

### Future service credit

Contribution Hours During Plan Year	Months of Future Service Credit
Less than 600 hours	0 Months
Exactly 600 hours	5
601 – 770	6
771 – 940	7
941 – 1,110	8
1,111 – 1,280	9
1,280 – 1,450	10
1,451 – 1,600	11
1,601 or more	12

### RP schedule effective date

Under the Rehabilitation Plan (“RP”), some benefit changes applied to all participants effective April 26, 2019. The effective date for other benefit changes depends on which schedule under the Rehabilitation Plan applies.

- **Preferred Schedule:** Benefit changes generally took effect January 1, 2022 (or upon adoption of the Preferred Schedule by the bargaining parties, if later) and apply both retroactively and prospectively
- **Default Schedule:** Benefit changes generally took effect on September 1, 2019 (or upon the adoption or imposition of the Default Schedule) and apply prospectively only

## Appendix B: Summary of Plan Provisions

### Normal pension

- **Age Requirement:** 65
- **Service Requirement:** Five years of credited service
- **Amount, Pre-RP:** Monthly accrual rate per year of Future Service Credit based on hourly contribution rate (see table below)
- **Amount, RP Preferred Schedule:** Monthly accrual rate for each year of Future Service Credit based on hourly contribution rate (see table below); future contribution rate increases required under the Rehabilitation Plan are not benefit-bearing
- **Amount, RP Default Schedule:** one percent (1%) of benefit-bearing contributions

Amount: Pre-RP and RP Preferred Schedule

Hourly Contribution Rate	Per Year of Future Service (Schedule B)	Hourly Contribution Rate	Per Year of Future Service (Schedule B)	Hourly Contribution Rate	Per Year of Future Service (Schedule B)
\$0.25	\$13.01	\$4.75	\$170.46	\$9.25	\$276.30
0.50	26.48	5.00	176.79	9.50	282.12
0.75	37.93	5.25	183.11	9.75	287.94
1.00	46.98	5.50	188.95	10.00	293.76
1.25	56.06	5.75	194.77	10.25	299.58
1.50	66.08	6.00	200.61	10.50	305.40
1.75	76.10	6.25	206.44	10.75	311.22
2.00	85.46	6.50	212.27	11.00	317.04
2.25	94.82	6.75	218.09	12.00	340.32
2.50	103.56	7.00	223.92	12.25	346.14
2.75	112.28	7.25	229.74	12.50	351.96
3.00	120.44	7.50	235.56	12.75	357.78
3.25	128.57	7.75	241.38	13.00	363.60
3.50	136.06	8.00	247.20	13.25	369.42
3.75	143.54	8.25	253.02	13.50	375.24
4.00	150.41	8.50	258.84	13.75	381.06
4.25	157.27	8.75	264.66	14.00	386.88
4.50	164.14	9.00	270.48	15.00	410.16

Note: The average benefit rate as of January 1, 2024, is \$108.33.

## Appendix B: Summary of Plan Provisions

### 30 & out unreduced retirement

- **Service Requirement:** 30 years of credited service including 600 contribution hours earned in any plan year 1999 or later
- **Amount, Pre-RP:** Normal Pension amount
- **Amount, RP Preferred Schedule and RP Default Schedule:** Normal Pension reduced actuarially for each month by which the participant is younger than 65

### Early retirement

- **Age Requirement:** 55
- **Service Requirement:** Five years of credited service
- **Amount, Pre-RP:** Normal Pension accrued reduced by 4.8% for each year of age less than 65; if a participant works at least 600 hours in any plan year after 1993 and has 20 years of credited service, the benefit shall be reduced by 4.8% for each year of age less than 62
- **Amount, RP Preferred Schedule and RP Default Schedule:** Normal Pension reduced actuarially for each month by which the participant is younger than 65

### Disability

- **Age Requirement:** None
- **Service Requirement:** 5 years of credited service or 5 years of vesting service
- **Amount, Pre-RP:** Normal Pension accrued payable immediately
- **Amount RP Preferred Schedule and RP Default Schedule:** Normal Pension reduced actuarially for each month by which the participant is younger than 65

## Appendix B: Summary of Plan Provisions

### Vesting

- **Age Requirement:** None
- **Service Requirement:** Five years of Vesting Service or 5 years of future service credit.
- **Amount:** Same as Normal Pension based upon future service credits only. If retiring prior to 65, the benefit is reduced in accordance with an Early Retirement benefit.
- **Normal Retirement Age:** Later of 65 and 5th anniversary of participation
- **Delayed Retirement Amount:** Normal Pension accrued at Normal Retirement Age (NRA), increased by 1.0% for each month greater than NRA, and 1.5% for each month greater than age 70.

### Spouse's pre-retirement death benefit

- **Age Requirement:** None
- **Service Requirement:** Eligible for an immediate or deferred pension.
- **Amount, Pre-RP:** 100% of the benefit employee would have received had they retired the day before they died and elected the joint and survivor option. The spouse's benefit is payable immediately upon the death of an active participant and is deferred, if applicable, to when the participant would have achieved 55 upon the death of an inactive vested participant.
- **Amount, RP Preferred Schedule and RP Default Schedule:** Same as Pre-RP but reduced actuarially for each month by which the participant is younger than 65.

### Pre-retirement contingent annuitant

- **Age Requirement:** None
- **Service Requirement:** 5 years of future service credit if active or 10 years if inactive.
- **Coverage:** Benefit payable to non-spousal beneficiaries. Spouse may elect this benefit if present value is greater than the Spouse Pre-retirement Death benefit.
- **Amount, Pre-RP and RP Preferred Schedule:** 60 months of Normal Pension payable immediately.
- **Amount, RP Default Schedule:** No benefit payable.

## Appendix B: Summary of Plan Provisions

### Husband and wife post-retirement death benefit

- **Amount, Pre-RP:** If married, pension benefits are paid in the form of a joint and survivor annuity unless this form is rejected by the participant and spouse. If not rejected, the benefit amount otherwise payable is reduced to reflect the joint and survivor coverage. In the event the spouse pre-deceases the employee, the benefit will increase to the amount payable had the participant rejected the joint-and-survivor form of benefit. If rejected, or if not married, benefits are payable for five years certain and thereafter during the life of the employee without reduction, or in any other available optional form elected by the employee in an actuarially equivalent amount.
- **Amount, RP Preferred Schedule:** Same as Pre-RP, except the five years certain provision is not applicable.
- **Amount, RP Default Schedule:** Same as Pre-RP, except in the event the spouse pre-deceases the employee, the benefit remains unchanged and will not increase to the amount payable had the participant rejected the joint and survivor form of benefit. In addition, the five years certain provision is not applicable.

### Optional forms of benefits

In general, the currently available optional payment forms of payment are:

#### *Pre-RP, Preferred Schedule*

- 50% Spouse Pension with pop-up, converted from the normal form based on simplified factors
- 75% Spouse Pension with pop-up, converted from the normal form based on simplified factors
- 100% Spouse Pension with pop-up, converted from the normal form based on simplified factors
- 120 Certain Payments option, converted from the normal form based on simplified factors

#### *Default Schedule*

- 50% Spouse Pension without pop-up, converted from the normal form based on simplified factors
- 75% Spouse Pension without pop-up, converted from the normal form based on simplified factors
- 100% Spouse Pension without pop-up, converted from the normal form based on simplified factors
- 120 Certain Payments option, converted from the normal form based on simplified factors

## Appendix B: Summary of Plan Provisions

### Early retirement reduction factors for default and preferred schedules

Commencement Age	Reduction Factor
55	0.366
56	0.401
57	0.441
58	0.485
59	0.534
60	0.590
61	0.653
62	0.723
63	0.804
64	0.895
65	1.000

### Changes in plan provisions

This valuation reflects the continued implementation of the Rehabilitation Plan provisions, which takes effect upon the later of: (i) September 1, 2019, under the Default Schedule or January 1, 2022 under the Preferred Schedule and (ii) incorporation of the Rehabilitation Plan Schedule into a participant's employer's collective bargaining agreement or participation agreement.

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