CHEIRON

Classic Values, Innovative Advice

Sussex County Employee Pension Plan

Actuarial Valuation Report as of July 1, 2025

Produced by Cheiron

September 2025

www.cheiron.us 1.877.CHEIRON (243.4766)

TABLE OF CONTENTS

Letter Of Transmittal

September 23, 2025

Pension Fund Committee
Sussex County
2 The Circle
P.O. Box 589
Georgetown, Delaware 19947

Dear Members of the Pension Fund Committee:

At your request, we have conducted an actuarial valuation of the Sussex County Employee Pension Plan as of July 1, 2025. The valuation is organized as follows:

- In Section I **Executive Summary,** we describe the purpose of an actuarial valuation and summarize the key results found in this valuation.
- The **Main Body** of the report presents details on the Plan's:
    - Section II - Identification and Assessment of Risk
    - Section III - Assets
    - Section IV - Liabilities
    - Section V - Contributions

In the **Appendices,** we conclude our report with detailed information describing the Plan's membership (Appendix A), actuarial assumptions and methods employed (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of terms (Appendix D).

The results of this report rely on future Plan experience conforming to the underlying assumptions. To the extent that actual Plan experience deviates from the underlying assumptions, the results will vary accordingly.

The purpose of this report is to present the annual actuarial valuation of the Sussex County Employee Pension Plan. This report is for the use of Sussex County and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. The report does not include calculations under GASB Statements No. 67 and No. 68 which are provided in a separate report.

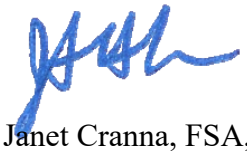
In preparing our report, we relied without audit, on information supplied by the Sussex County staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23, Data Quality.

Pension Fund Committee
Sussex County
September 23, 2025

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

This actuarial report was prepared exclusively for the Sussex County Employee Pension Plan for the purposes described herein. Other users of this 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



Janet Cranna, FSA, EA, FCA, MAAA
Principal Consulting Actuary

Brett Warren, FSA, EA, CERA, MAAA
Consulting Actuary

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe and identify as of the valuation date:

- The financial condition of the Plan,
- Expected trends in the financial progress of the Plan, and
- The County's contributions for Fiscal Year ending 2026.

In the balance of this Executive Summary, we present the basis upon which this year's valuation was completed, the key findings of this valuation including a summary of all key financial results, a review of the historical trends, and the projected financial outlook for the Plan.

Key Findings of this Valuation

The key results of the July 1, 2025 actuarial valuation are as follows:

- The actuarially determined County contribution increased from $4.06 million payable as of July 1, 2024 to $4.70 million payable as of July 1, 2025.
- The unfunded actuarial liability (UAL) increased from $3.48 million on July 1, 2024 to $6.82 million on July 1, 2025.
- The Plan's funding ratio, the ratio of actuarial asset value over liabilities, decreased from 97.9% as of July 1, 2024 to 96.2% as of July 1, 2025.
- The liabilities increased by $5.75 million due to assumption changes as a result of the experience study. The changes are summarized in Appendix B.
- The main factor in the decrease of the Plan's funded status was the increase in liabilities from the experience study as described above. In addition, there was an actuarial experience gain of $1.70 million as described below.
    - During the year ended June 30, 2025, the Plan's assets gained 11.40% (net of investment expenses) on a market value basis, but due to smoothing the prior years' investment gains and losses, the return on the actuarial asset value was 9.37% (as compared to 6.75% assumed for the period). This resulted in an actuarial gain on investments of $4.17 million.
    - On the liability side, the Plan experienced an actuarial experience loss of $2.47 million. This is primarily due to higher salary increases than expected for continuing actives and lower mortality than expected.

SECTION I – EXECUTIVE SUMMARY

Following is Table I-1 which summarizes all the key results of the valuation with respect to the Plan's membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior year.

Table I-1
Sussex County Employee Pension Plan
Summary of Principle Results

Valuation as of:	July 1, 2024	July 1, 2025	% change
Participant Counts			
Actives	523	536	2.49%
Terminated Vested	104	101	(2.88%)
Retirees	278	292	5.04%
Disabled	9	9	0.00%
Beneficiaries	49	50	2.04%
Total	963	988	2.60%
Total Payroll	$ 34,921,960	$ 37,024,408	6.02%
Average Salary	66,772	69,075	3.45%
Total Benefits in Pay Status	$ 6,716,210	$ 7,165,839	6.69%
Average Annual Benefit	19,989	20,415	2.14%
Assets and Liabilities			
Actuarial Liability (AL)	$ 163,249,579	$ 179,583,169	10.01%
Actuarial Value of Assets (AVA)	159,767,302	172,767,923	8.14%
Unfunded Actuarial Liability (UAL)	$ 3,482,277	$ 6,815,246	95.71%
Funded Ratio (AVA basis)	97.9%	96.2%	
Market Value of Assets (MVA)	$ 164,392,505	$ 181,139,931	10.19%
Funded Ratio (MVA basis)	100.7%	100.9%	
Contributions	**Fiscal Year 2025**	**Fiscal Year 2026**	
Employer Normal Cost	$ 3,430,743	$ 3,887,506	13.31%
UAL Amortization Payment	429,621	590,974	37.56%
Administrative Expense	202,475	219,281	8.30%
Total Contribution for County*	$ 4,062,839	$ 4,697,761	15.63%
Actuarially Determined Contribution as a Percentage of Payroll	11.63%	12.69%	

* Contributions are payable at the beginning of the fiscal year.

SECTION I – EXECUTIVE SUMMARY

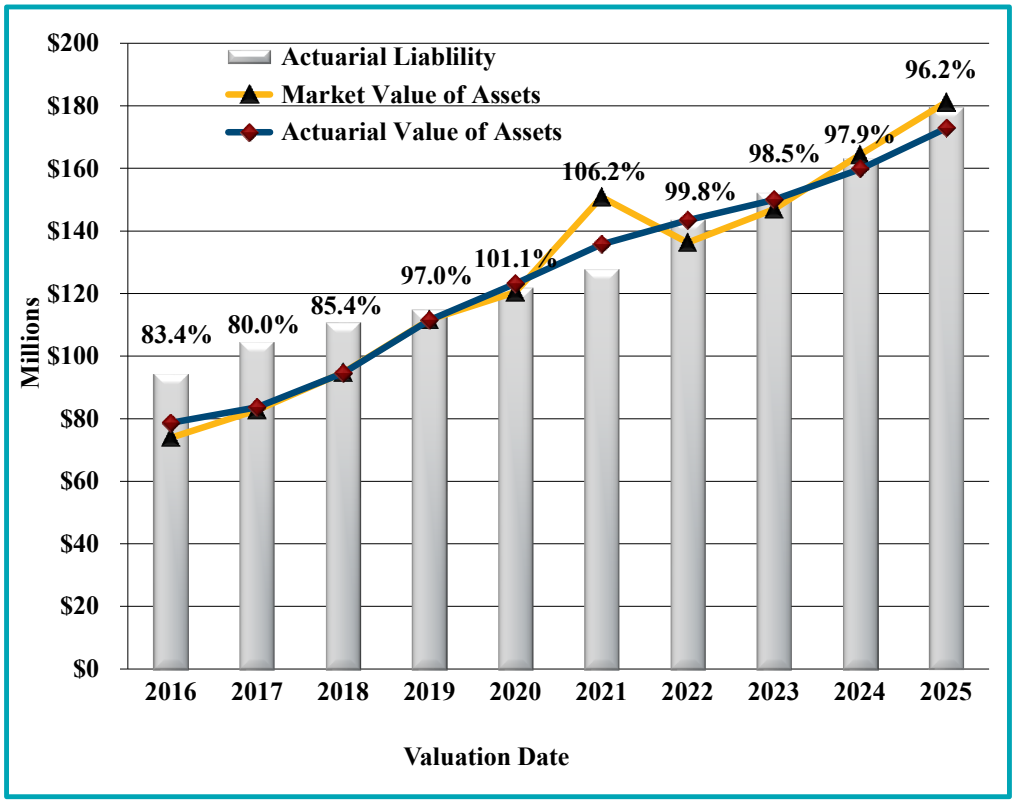
Historical Trends

It is important to take a step back from the latest results and view them in the context of the Plan's recent history. Below we present a series of charts which display key factors in the valuations over the last ten years.

Assets and Liabilities

The gray bars represent the Actuarial Liability (AL). The gold line is the Market Value of Assets (MVA), and the blue line is the Actuarial Value of Assets (AVA). The Plan's funded ratio (ratio of AVA to AL) is shown above the gray bars.

The Plan's funded ratio is currently at 96.2% compared to 83.4% at the beginning of the period, although there have been numerous increases and decreases in the ratio during this time period. In 2017, the funding ratio decreased 3.4% primarily due to a change in actuarial assumptions and plan changes. Since 2017, the funded ratio increased a total of 16.2%, primarily due to County contributions being higher than expected. In addition to the excess County contributions, in 2019, there was a change in actuarial assumptions which resulted in a slight increase in the funded ratio. Finally, in 2022 and 2025, there were changes in actuarial assumptions and demographic losses which resulted in decreases in the funded ratio.

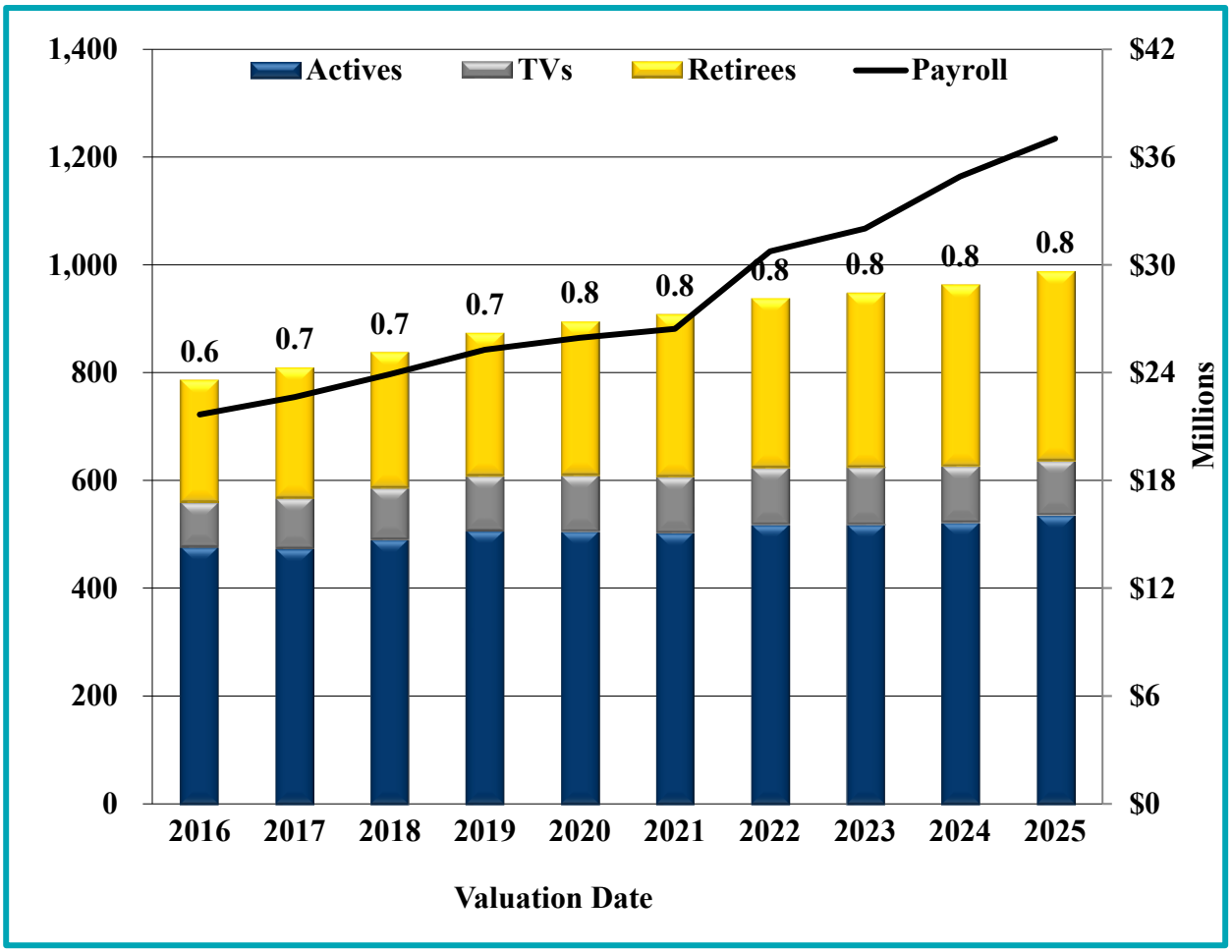


SECTION I – EXECUTIVE SUMMARY

Participant Trends

The chart below shows the membership counts of the Plan at successive valuations. The black line in the chart that shows the payroll over the period is read using the right-hand scale. The numbers which appear above each bar represent the ratio of the number of inactive (retirees and terminated vested) members to active members at each valuation date.

The ratio, also referred to as the support ratio, has been increasing since 2016. An increasing ratio is a sign of plan maturity and should continue to be monitored. As a plan becomes more mature, the assets backing the retiree benefits become large relative to the contribution base, i.e., the active participant payroll. As assets grow relative to the pensionable payroll, any experience gain or loss can have a significant impact, resulting in volatile costs from year-to-year even with the application of smoothing methods.

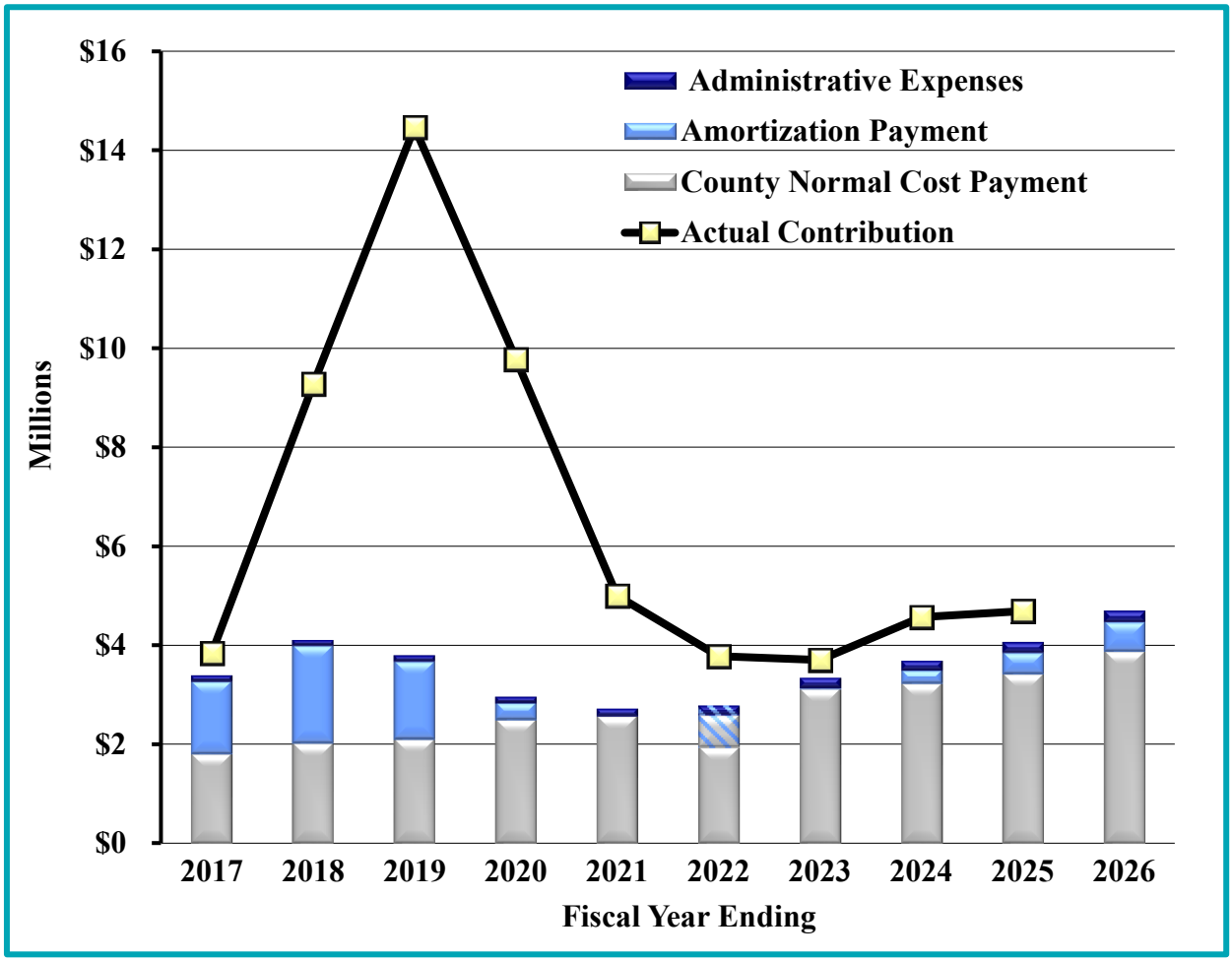


SECTION I – EXECUTIVE SUMMARY

Contributions

The Actuarially Determined Contribution (ADC) (normal cost plus amortization of the Unfunded Actuarial Liability plus administrative expenses) is represented by the gray, light blue, and dark blue bars, respectively. The black line shows the actual contributions paid by the County.

From FY 2018 through FY 2022, the County paid a combined $26.76 million in excess of the ADC, resulting in a decrease in the ADC for FY 2019 through FY 2022. Note the negative amortization payment in FY 2022 is used to reduce the ADC. Since FY 2022, the ADC has generally increased due to changes in actuarial assumptions and demographic losses. It is worth noting that the County has consistently paid more than the ADC.



Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of the valuation. The charts presented in this section show the expected progress of the County's funded status over the next 20 years, measured in terms of the expected employer contribution rates, the total dollar amounts of contributions, and the funded ratio, assuming that the Plan is ongoing.

The baseline projections are based on the July 1, 2025 valuation, which includes the actuarial assumptions adopted by the County Council on March 11, 2025 based on the experience study performed for the period July 1, 2018 through June 30, 2024. It is important to note that the experience will not conform exactly to the assumptions every year. As a result, in addition to the baseline projection of 6.75% investment returns, we provided additional stress testing based on varying returns in the future which are shown in section II.

For these projections, the unfunded actuarial liability (UAL) as of July 1, 2025 is amortized over a 20-year closed period beginning July 1, 2025, using a level dollar amortization approach. Subsequent changes in the UAL due to experience gains and losses, assumption changes, and plan changes are amortized over separate 20-year closed periods using a level dollar approach from the date such changes are recognized in the valuation.

Finally, the projections shown in this report assume there will be no future gains or losses on the liability, and the County pays the actuarially determined contribution each year. These projections also assume that all of the valuation assumptions are exactly met, including the long-term rate of return assumed for each scenario, with covered payroll increasing by the inflation assumption of 2.50% per year in all scenarios.

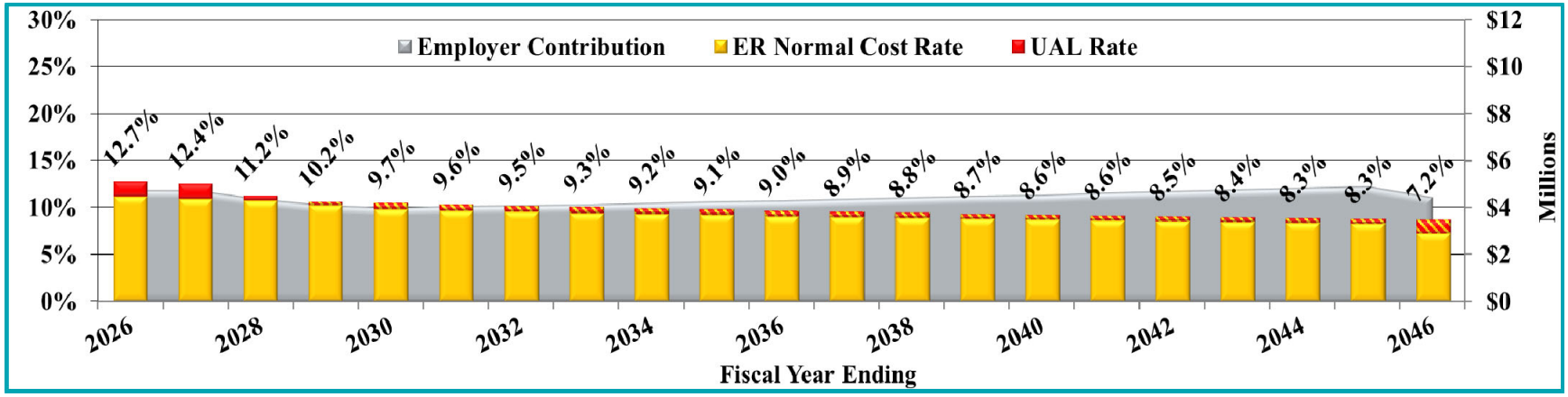
SECTION I – EXECUTIVE SUMMARY

Contribution Rate Projections

The first chart shows the County's projected actuarially determined employer contribution rates (red/gold bars) and the projected dollar amount of employer contributions (the gray shaded area) over the 20-year period shown, based on the investment rate of return and all other valuation assumptions being exactly met. The contribution rates are read using the left-hand axis and the dollars are read using the right-hand axis.

Baseline returns of 6.75% per year

The chart below shows that if all actuarial assumptions, including the investment rate of return assumption, are exactly met, the actuarially determined employer contribution rate will decrease from 12.7% to 9.7% of pay by Fiscal Year Ending (FYE) 2030 as previous deferred asset gains are recognized and then gradually decreases to 8.3% of pay by FYE 2045. The rate will then decrease to 7.2% of pay in FY 2046 when the initial closed layer UAL is fully paid off with the FY 2045 payment. Note the employer normal cost rate is reduced by the UAL rate starting in FYE 2029 since the Plan's funded ratio is over 100%. Finally, the expected decrease in the employer (ER) normal cost rate over the projection period is due to participants hired prior to January 1, 2014 (who contribute 0% of pay) or hired between January 1, 2014 and December 31, 2020 (who contribute 3% of pay in excess of $6,000) being replaced by new participants (who will contribute 5% of pay in excess of $6,000).



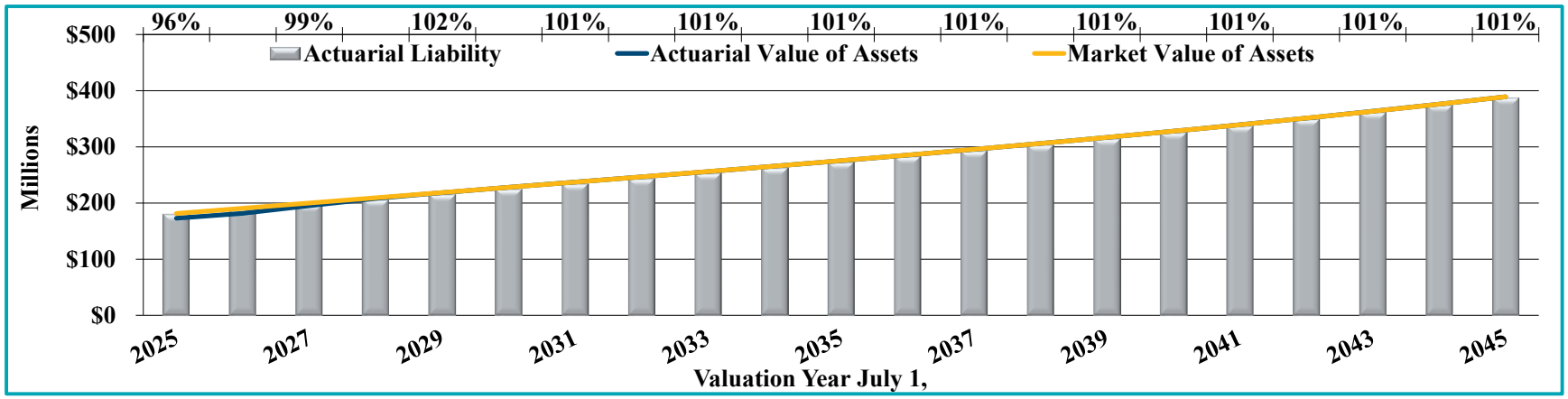
SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections

This next projection chart compares the market value of assets (gold line) and the actuarial or smoothed value of assets (blue line) to the Plan's actuarial liabilities (gray bars). In addition, at the top of the chart, we show the Plan's funded ratio on an actuarial value of assets basis (ratio of actuarial value of assets to actuarial liabilities). The years shown in the chart signify the valuation date as of July 1 of the labelled year.

Baseline returns of 6.75% per year

The chart below shows that if all actuarial assumptions, including the investment rate of return assumption, are exactly met, the Plan's funded ratio on an actuarial value of assets basis, shown along the top of the chart, is projected to reach 100% funded at 2028. Note, after the 5-year asset smoothing period, both asset numbers are the same for the remainder of the projection period as there are no future investment gains or losses in the baseline projection.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the Plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

As we have discussed with the Committee, the fundamental risk to the Plan is that the contributions needed to pay the benefits become unaffordable. While there are a number of factors that could lead to contribution amounts becoming unaffordable, we believe the primary risks are:

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

Other risks that we have not identified may also turn out to be important.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the Plan's asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsor or other contribution base.

Interest rate risk is the potential for interest rates to be different than expected. For public plans, short term fluctuations in interest rates have little or no effect as the plan's liability is usually measured based on the expected return on assets. Longer-term trends in interest rates, however, can have a powerful effect. The chart below shows the yield on a 10-year Treasury security compared to the Plan's assumed rate of return. The difference is a simple measure of the amount of investment risk taken, referred to as the risk premium and shown in the chart's blue bars.

The County has reduced its discount rate (shown by the black diamonds) from 7.50% to 6.75% over the period shown, which has helped contribute to the reduction in the risk premium. The combined effect of the County's assumed discount rate reductions and changes in the 10-year Treasury interest rates (shown by the green bars), represent the County's risk premium. This risk premium has varied over the period shown, ranging from a maximum of 6.34% in 2020 to a minimum of 2.39% in 2024.

Longevity and other demographic risks are the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time and are often dwarfed by other changes, particularly those due to investment returns.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over time due to economic factors may result in a change in the assumed investment rates of return used in the valuations. 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.

The chart below shows the components of changes in the Unfunded Actuarial Liability (UAL) for the Plan over the last ten years, including investment gains and losses on the Actuarial Value of Assets, liability gains and losses, assumption and plan changes, and paying down the UAL. The net UAL change is shown by the dark blue line. Table II-1 below the chart summarizes the changes in the UAL over the last ten years.

Historical Changes in UAL 2016-2025

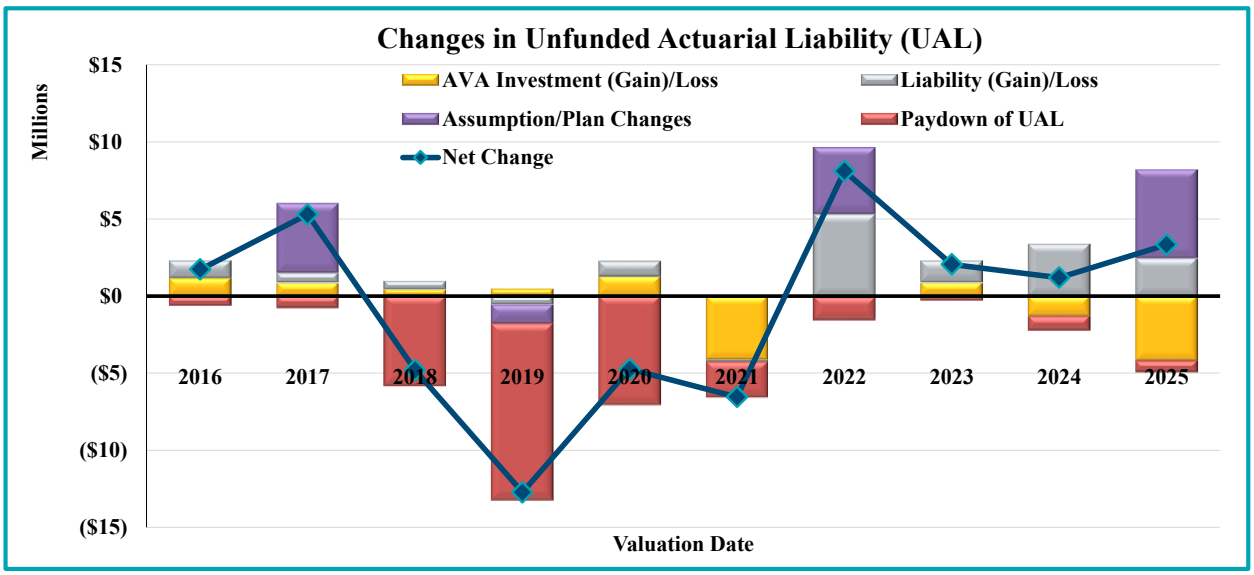


Table II-1
Changes in Unfunded Actuarial Liability (UAL)
($ millions)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Discount Rate	**7.50%**	**7.25%**	**7.25%**	**7.00%**	**7.00%**	**7.00%**	**6.75%**	**6.75%**	**6.75%**	**6.75%**	
Source											
AVA Investment (G)/L	$ 1.18	$ 0.88	$ 0.45	$ 0.46	$ 1.30	$ (4.11)	$ (0.04)	$ 0.90	$ (1.29)	$ (4.17)	**$ (4.44)**
Liability (G)/L	1.14	0.65	0.55	(0.53)	0.99	(0.13)	5.33	1.42	3.39	2.47	**15.28**
Assumptions/Plan Changes[1]	0.00	4.51	0.00	(1.23)	0.00	0.00	4.32	0.00	0.00	5.75	**13.35**
Paydown of UAL[2]	(0.60)	(0.75)	(5.81)	(11.43)	(7.04)	(2.31)	(1.51)	(0.27)	(0.91)	(0.72)	**(31.35)**
Total UAL Change	**1.72**	**5.29**	**(4.81)**	**(12.73)**	**(4.75)**	**(6.55)**	**8.10**	**2.05**	**1.19**	**3.33**	**$ (7.16)**

[1] *Plan changes include $1.26 million increase in 2017.*

[2] *UAL change due to benefit accruals and payments, contributions, timing, and interest.*

On a smoothed asset basis, the investment gains and losses (gold bars) reflect primarily investment losses through 2020 and investment gains thereafter which are spread over the five successive years. Over the 10-year period, investment gains have reduced the UAL by approximately $4.44 million.

On the liability side (gray bars), the Plan has experienced losses in eight of the last ten years, increasing the UAL by approximately $15.28 million over the 10-year period. A majority of the liability losses occurred in 2022 through 2025, primarily due to higher salary increases than expected for continuing actives.

Assumption and plan changes (purple bars) over the last ten years have increased the UAL by approximately $13.35 million. The only plan change during the period occurred in 2017 which increased the UAL by approximately $1.26 million. The significant assumption changes have included reductions in the discount rate from 7.50% to 6.75% over the 10-year period and assumption changes resulting from the experience studies completed in 2019 and 2025. It is important to note that investment return changes reflect a downward revision to the estimate of future investment earnings, and ultimately costs will be determined by actual investment earnings.

Each year the UAL is expected to decrease as the County makes contributions towards the UAL, assuming no future investment and liability gains and losses. Net changes due to paying down the UAL (red bars), which reflect benefit accruals and payments, contributions, and timing, have decreased the UAL by approximately $31.35 million over the last ten years. From 2018 to 2021, the significant decrease in the UAL has been primarily driven by the County making contributions significantly higher than the ADC.

Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of this Plan compared to other plans and how the maturity has changed over time.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic - the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk.

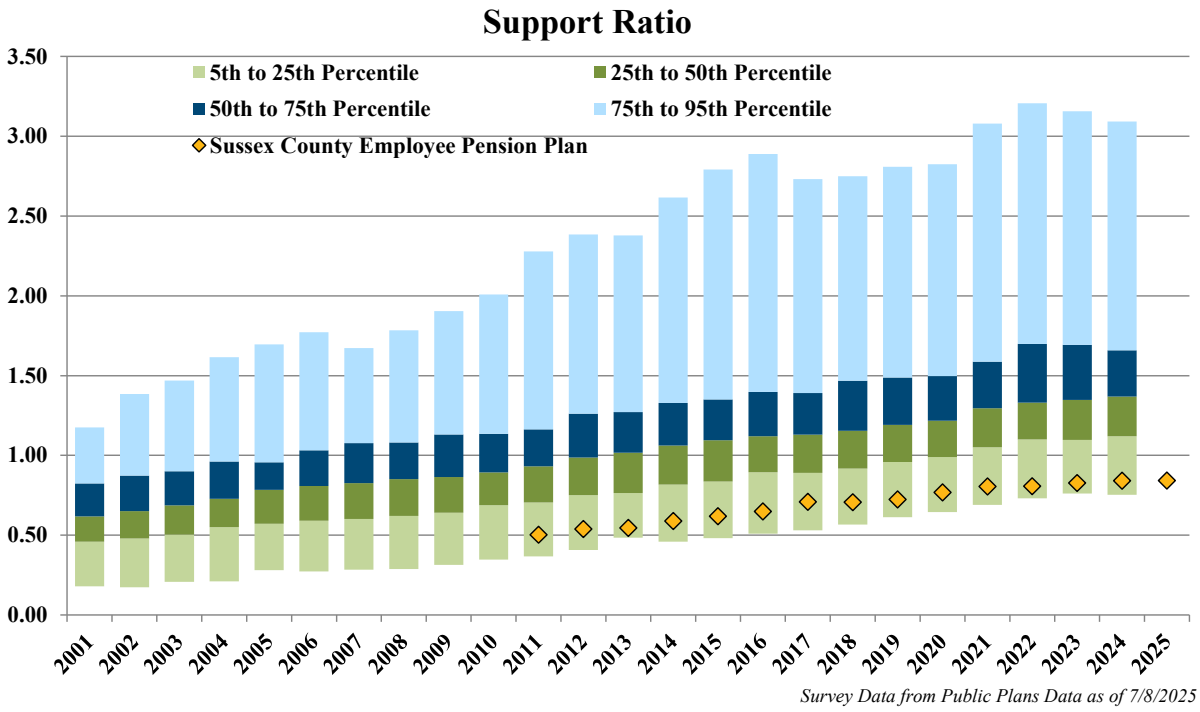
Boston College's Center for Retirement Research, NASRA, and the Center for State and Local Government Excellence maintain the Public Plans Data (PPD), which contains the majority of state plans and many large municipal plans. It covers over 95% of the membership in public plans and over 95% of the assets held by public pension plans.

The measures on the following two pages, which compare this County to the PPD, have been selected as the most important in understanding the primary risks identified for this Plan.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

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, so a relatively high number of inactives compared to actives indicate a larger plan relative to its revenue base as well.

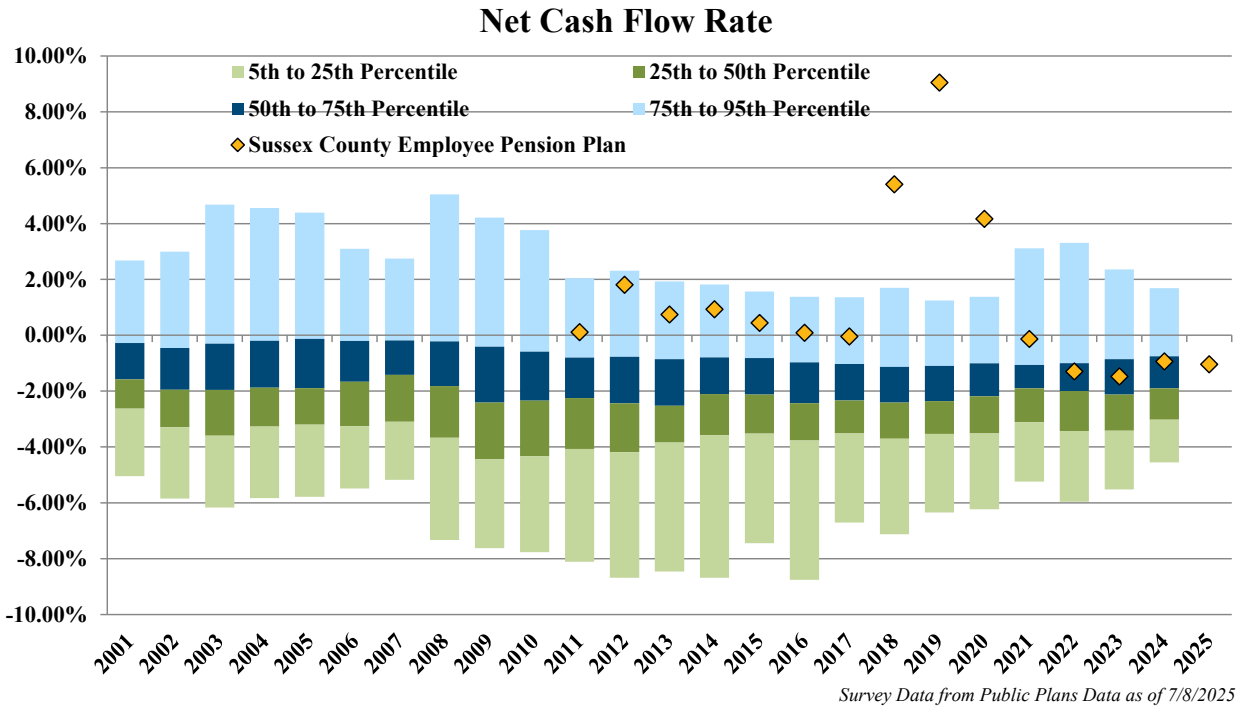


The graph above shows the distribution from the 5th to 95th percentile of support ratios for the plans in the PPD. The gold diamond shows how the Sussex County Employee Pension Plan compares to the other plans. No information was available for years before 2010. While Sussex County's support ratio has increased since 2011, the support ratios for the plans as a whole have also increased over the period as they mature. Sussex County remains in the 5th to 25th percentile.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded. 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.



The graph above shows how Sussex County Employee Pension Plan's net cash flow as a percent of assets has compared to the other public plans in the PPD. The Plan had consistently been amongst the 75th to 95th percentile through 2017 and more recently moved into the 50th to 75th percentile since 2022 as the Plan continues to mature. Due to the Plan's substantial contributions in 2018 to 2020, it ranked amongst the top 5 percentile of other public plans in the PPD over that period.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Deterministic Scenarios/Stress Testing

We developed several hypothetical scenarios to illustrate the impact actual investment returns may have on future funded status and contribution rates. The scenarios are balanced between positive and negative scenarios and are intended to illustrate the importance of both the return itself as well as the timing of such returns.

The graphs on the following pages show the projections under each of these theoretical scenarios: optimistic returns of 8.25% per year and pessimistic returns of 5.25% per year.

The top chart shows the County's projected actuarially determined employer contribution rates (red/gold bars) and the projected dollar amount of employer contributions (the gray shaded area) over the 20-year period shown. The contribution rates are read using the left-hand axis and the dollars are read using the right-hand axis.

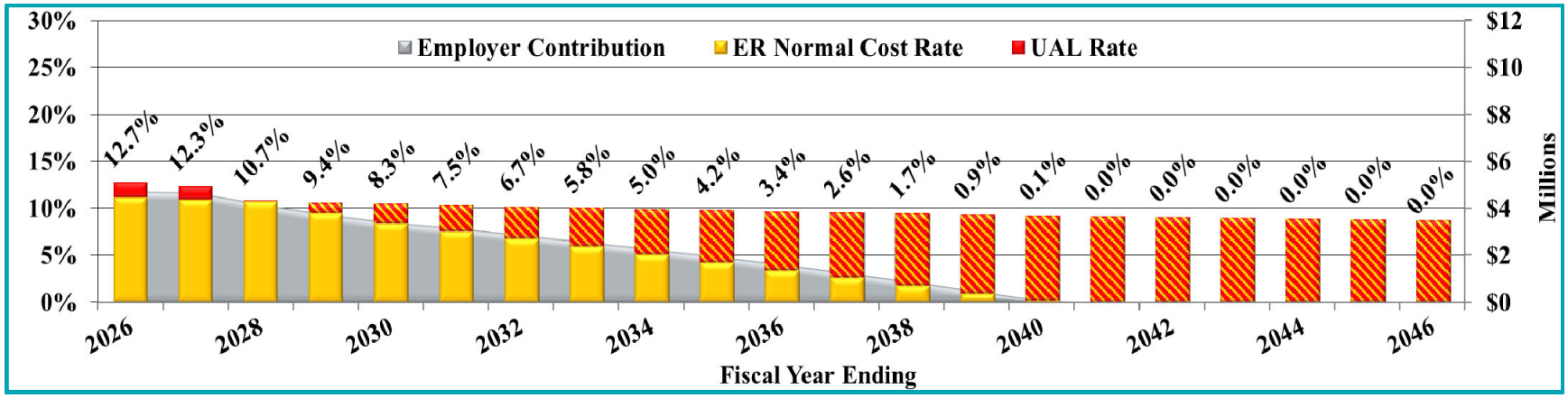
The bottom projection chart compares the market value of assets (gold line) and the actuarial or smoothed value of assets (blue line) to the Plan's actuarial liabilities (gray bars). In addition, at the top of each chart, we show the Plan's funded ratio on an actuarial value of assets basis (ratio of actuarial value of assets to actuarial liabilities).

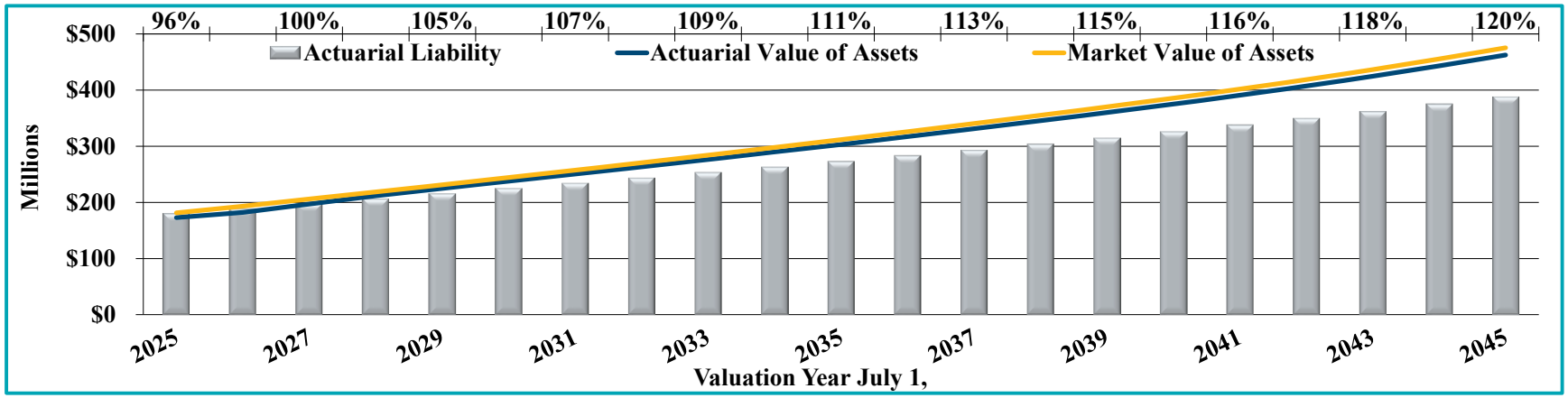
Under the baseline results, we assumed a 6.75% investment return assumption per year. The baseline projections are shown in the Board Summary.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Optimistic returns of 8.25% per year

If the Plan earns 1.50% greater than the assumed investment rate of return in each year of the projection, the ADC rate will rapidly decrease and eventually reach 0.0% in FYE 2041. In FYE 2041, and all future years, the investment gains would cover all of the employer normal cost (including administrative expenses). In addition, the funded ratio is projected to increase to 120% by the end of the projection period.

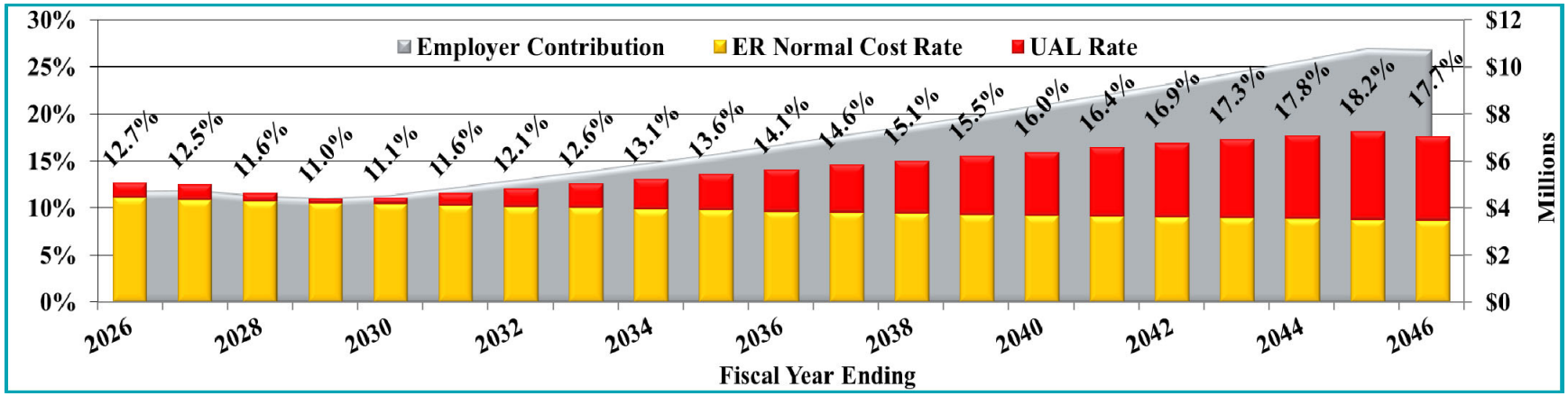


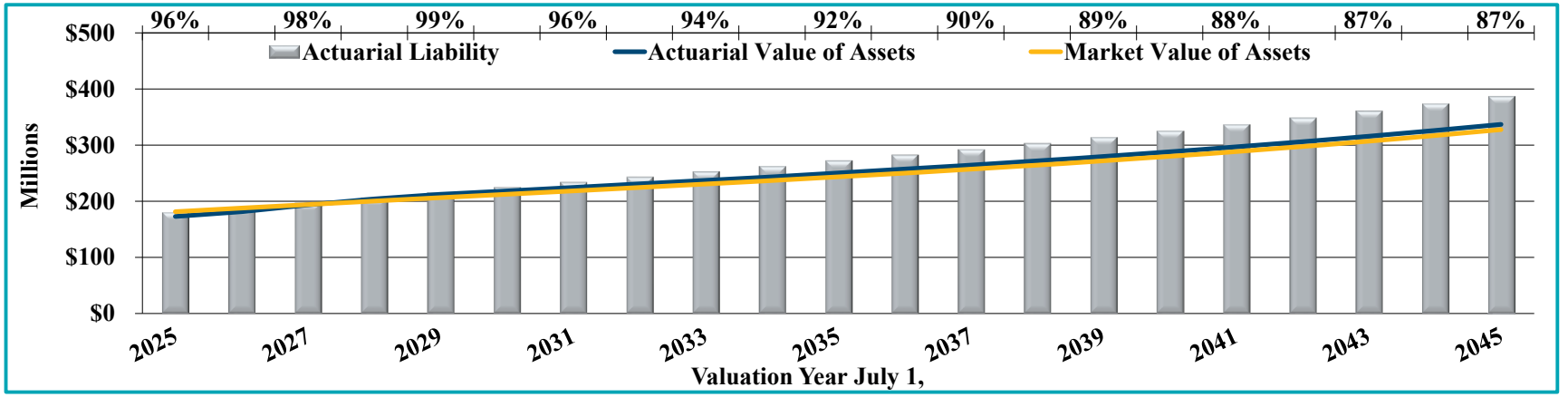


SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Pessimistic returns of 5.25% per year

If the Plan earns 1.50% less than the assumed investment rate of return in each year of the projection, the ADC rate will steadily increase to 18.2% with the total dollar contribution increasing to $10.8 million in FYE 2045 (the final year of the initial 20-year closed period). In FYE 2046, the initial 20-year closed layer UAL is fully paid off, and the entirety of the UAL rate shown is due to the funding of asset losses in previous years. In addition, the funded ratio is projected to decrease to 87% even with substantially higher contribution payments compared to the baseline projections where the funded ratio stays around 100%.





SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

The scenarios shown above represent deterministic projections. These types of projections show the financial impact on the Plan under a set of fixed returns. Alternatively, stochastic projections graph the probability of the key metrics such as funded status based on a large number of scenarios (e.g., 1,000) based on the expected long-term return and risk characteristics of the portfolio. Whereas we have not included a stochastic analysis in this report, we would be happy to share this analysis if requested.

Low-Default-Risk Obligation Measure (LDROM)

The Plan invests in a diversified portfolio to achieve the best possible return at an acceptable level of risk. The lowest investment risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows approximately match the cash flow needs of the Plan. However, such a portfolio would have a lower expected rate of return (5.61% as of June 30, 2025) than the diversified portfolio (6.75%). Low-Default-Risk Obligation Measure (LDROM) represents what the Actuarial Liability would be if the Plan's assets were invested in such a portfolio. As of June 30, 2025, the LDROM is $207.92 million[1] compared to the Actuarial Liability of $179.58 million for the Plan. The $28.34 million difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of eliminating the investment risk of the non-fixed income allocations of the diversified portfolio.

If the Plan were to invest in the LDROM portfolio, the funded ratios would decrease, and contribution requirements would increase for the County. The security of the Plan's pension benefits relies on the current assets, future investment earnings, and the ability and willingness of the County to make future contributions. If the Plan were to invest in the LDROM portfolio, it would not change the current assets, but it would reduce future investment earnings and increase future County contributions. However, the volatility of future investment earnings and future contributions would be significantly reduced.

More Detailed Assessment

A more detailed assessment is always valuable to enhance the understanding of the risks identified above. While more detail would provide some additional value, we do not believe it is necessary to perform an in-depth analysis every year. We recommend the Committee review the analysis provided above annually and consider a more detailed analysis periodically and when there is a substantial change in the financial position or maturity of the Plan.

[1] Based on a discount rate equal to the June 30, 2025 FTSE Pension Liability Yield Curve of 5.61% (determined as the single equivalent rate by matching Plan cashflows to the yield curve), and all other assumptions and methods as used to calculate the Actuarial Liability.

SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the County may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of Participants' benefits.

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

- **Disclosure** of the Plan assets as of July 1, 2024 and July 1, 2025;
- Statement of the **changes** in market values during the year;
- Development of the **Actuarial Value of Assets**; and
- An assessment of **investment performance** to the investment return assumption.

Disclosure

There are two types of asset values disclosed in this valuation, the market value of assets and the actuarial value of assets. The market value represents a "snap-shot" or "cash-out" value which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the actuarial value of assets which reflect smoothing of annual investment returns.

Table III-1 below discloses and compares the market values as of June 30, 2024 and June 30, 2025.

Table III-1
Statement of Assets at Market Value as of June 30,

Assets	**2024**	**2025**	**% Change**
Cash	$ 2,541,368	$ 3,497,997	37.64%
U.S. Treasuries	11,118,080	12,091,688	8.76%
Government Agencies	233,424	199,564	(14.51%)
Corporate Obligations	30,067,890	32,907,310	9.44%
Mutual Funds	100,252,640	110,061,602	9.78%
Real Estate Investment Trusts	5,468,243	4,438,166	(18.84%)
Infrastructure	9,810,599	12,664,741	29.09%
Bank Loan Funds	4,638,124	4,964,860	7.04%
Other Assets	320,867	374,147	16.61%
Total Assets	$ 164,451,235	$ 181,200,075	10.18%
Liabilities			
Accounts Payable	$ 58,730	$ 60,144	2.41%
Market Value of Assets	**$ 164,392,505**	**$ 181,139,931**	**10.19%**

SECTION III – ASSETS

Changes in Market Value

Table III-2 below shows the components of change between the market value of assets as of June 30, 2024 and June 30, 2025.

Table III-2
Changes in Market Values

Value of Assets -- June 30, 2024			**$**	**164,392,505**
Additions				
Payments from Members	$	654,343		
Employer Contributions		4,688,420		
Interest and Dividends		6,780,129		
Investment Return [Gain/(Loss)]		12,133,219		
Total Additions	**$**	**24,256,111**		
Deductions				
Investment Expenses	$	278,813		
Benefit Payments and Refunds		7,015,939		
Administrative Expenses		213,933		
Total Deductions	**$**	**7,508,685**		
Value of Assets -- June 30, 2025			**$**	**181,139,931**

SECTION III – ASSETS

Actuarial Value of Assets

The next table shows how the actuarial value of assets is developed. The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results which could develop from short-term fluctuations in the market value of assets.

The actuarial value of assets is the current market value of assets, adjusted by a five-year smoothing of gains and losses on a market value basis. Additional details regarding this actuarial methodology are included in Appendix C of the report.

Table III-3
Development of Actuarial Value of Assets (AVA)

Market Value of Assets at June 30, 2024		$ 164,392,505
Employer Contributions		4,688,420
Employee Contributions		654,343
Benefit Payments and Refunds		(7,015,939)
Administrative Expenses		(213,933)
Expected Return at 6.75%		11,033,844
Expected Value at June 30, 2025		$ 173,539,240
Actual Value of Assets at June 30, 2025		181,139,931
Investment Gain/(Loss)		$ 7,600,691
	Total Gain/(Loss)	**Excluded Portion**
Exclude 20% of 2022 Gain/(Loss)	$ (23,303,207)	$ (4,660,641)
Exclude 40% of 2023 Gain/(Loss)	3,711,113	1,484,445
Exclude 60% of 2024 Gain/(Loss)	9,112,752	5,467,651
Exclude 80% of 2025 Gain/(Loss)	7,600,691	6,080,553
Total Excluded Gain/(Loss) for AVA Calculation		$ 8,372,008
Market Value of Assets at June 30, 2025		$ 181,139,931
Total Gain/(Loss) Excluded		8,372,008
Actuarial Value of Assets at June 30, 2025		$ 172,767,923

Investment Performance

The market value of assets earned 11.40% during the plan year ending June 30, 2025, which is higher than the assumed 6.75% return for the period ending June 30, 2025. A return of 9.37% was experienced on the actuarial value of assets, resulting in an actuarial gain for the year.

SECTION IV – LIABILITIES

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

- **Disclosure** of the Plan liabilities as of July 1, 2024 and July 1, 2025, and
- Statement of **changes** in these liabilities during the year.

Disclosure

Two types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations, represents the amount of money needed today to fully fund all benefits of the Plan both earned as of the valuation date and those to be earned in the future by current Plan Participants, under the current Plan provisions.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated as of the valuation date as the present value of benefits allocated to service prior to that date using the entry age normal funding method.

These liability amounts are not appropriate for measuring a settlement of the Plan's liabilities either by purchase of annuities or payment of lump sums.

SECTION IV – LIABILITIES

Table IV-1, which follows, discloses each of these liabilities for the current and prior valuations.

Table IV-1
Liabilities/Net (Surplus)/Unfunded

	July 1, 2024	July 1, 2025
Present Value of Future Benefits		
Actives	$ 117,957,383	$ 135,661,243
Terminated Vested	6,821,307	7,171,468
Retirees	68,634,107	74,093,493
Disabled	1,631,188	1,650,280
Beneficiaries	4,104,225	4,462,404
Present Value of Future Benefits (PVB)	**$ 199,148,210**	**$ 223,038,888**
Actuarial Liability		
Actives	$ 82,058,752	$ 92,205,524
Terminated Vested	6,821,307	7,171,468
Retirees	68,634,107	74,093,493
Disabled	1,631,188	1,650,280
Beneficiaries	4,104,225	4,462,404
Actuarial Liability (AL)	**$ 163,249,579**	**$ 179,583,169**
Actuarial Value of Assets (AVA)	$ 159,767,302	$ 172,767,923
Net (Surplus)/Unfunded (AL-AVA)	**$ 3,482,277**	**$ 6,815,246**

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the Liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments changing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

In each valuation, we report on those elements of change which are of particular significance, potentially affecting the long-term financial outlook of the Plan. In the table that follows, we show the components of change in the actuarial liability between July 1, 2024 and July 1, 2025.

Table IV-2
Changes in Actuarial Liability

Liabilities as of July 1, 2024	$	163,249,579
Liabilities as of July 1, 2025	$	179,583,169
Liability Increase (Decrease)	$	16,333,590
Change Due to:		
Assumption Changes	$	5,752,936
Plan Changes		0
Experience (Gain)/Loss		2,466,895
Benefits Accumulated and Other Sources		8,113,759

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

Under the current funding policy, the employer funding requirement contains three components: the employer normal cost, an amortization of the unfunded actuarial liability (UAL), and a provision for anticipated administrative expenses.

For this Plan, the funding method employed is the **Entry Age Normal (EAN) Actuarial Funding Method**. Under this funding method, a normal cost rate is determined as a level percentage of pay for each active Participant. The normal cost rate multiplied by payroll equals the total normal cost for each Participant. The total anticipated member contributions for the year are then subtracted from the sum of the total normal cost to arrive at the employer normal cost. The difference between the Actuarial Liability and the Actuarial Value of Assets is the UAL. The initial UAL base is amortized over a 20-year closed period beginning July 1, 2025, using a level dollar amortization approach. After that date, each year's bases are amortized over separate 20-year closed periods using a level dollar approach from the date such changes are recognized in the valuation. Administrative expenses are assumed to be equal to last year's administrative expenses increased for inflation.

Table V-1 below presents and compares the employer contribution rates and contribution amounts for the Plan for this valuation and the prior one.

Table V-1
Employer Contributions

	Fiscal Year 2025	Fiscal Year 2026
Total Entry Age Normal Cost	$ 4,068,640	$ 4,634,578
Expected Employee Contributions	(637,897)	(747,072)
Employer (Net) Normal Cost	$ 3,430,743	$ 3,887,506
UAL Amortization Payment	$ 429,621	$ 590,974
Administrative Expenses	202,475	219,281
Actuarially Determined Contribution*	$ 4,062,839	$ 4,697,761
Valuation Payroll	$ 34,921,960	$ 37,024,408
Actuarially Determined Contribution as a Percentage of Payroll	11.63%	12.69%

* Contributions are payable at the beginning of the fiscal year.

SECTION V – CONTRIBUTIONS

The actuarially determined contribution (ADC) in Table V-1 on the previous page is a reasonable actuarially determined contribution in accordance with Actuarial Standard of Practice (ASOP) No. 4. The actuarial methods have been selected to balance benefit security, intergenerational equity, and stability of actuarially determined contributions. The selection of the actuarial methods has taken into account the demographics of plan members, the funding goals and objectives of the Committee, and the need to accumulate assets to make benefit payments when due. The actuarial methods and assumptions are shown in Appendix B of this report.

Table V-2 shows the detailed calculation of the current year UAL amortization for the County.

Table V-2
Amortization Schedule as of July 1, 2025

Type of Base	Date Established	Original Amount	Original Period	Remaining Period	Remaining Balance	Annual Payment
Initial UAL	7/1/2025	$ 6,815,246	20	20	$ 6,815,246	$ 590,974
Total		$ 6,815,246			$ 6,815,246	$ 590,974

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by the County. Cheiron did not audit any of the data, but we did perform an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, Data Quality. The data for the active and inactive members is as of July 1, 2025.

The following pages contain a summary of the data provided:

- Reconciliation of active, terminated vested, and in pay members as of July 1, 2025
- Age/service distribution for active members as of July 1, 2025
- Counts and average benefit amount by age for retirees, disabled, beneficiaries, and terminated vested members as of July 1, 2025

APPENDIX A – MEMBERSHIP INFORMATION

Participant Status Reconciliation

	Actives	Terminated Vested	Retired	Disabled	Beneficiaries and QDRO	Total
1. July 1, 2024 valuation	**523**	**104**	**278**	**9**	**49**	**963**
2. Additions						
a. New entrants	54					54
b. Rehires						0
c. New QDROs						0
d. Total	54					54
3. Reductions						
a. Terminated - not vested	(23)					(23)
b. Benefits expired					(1)	(1)
c. Deaths without beneficiary	(1)		(3)		(1)	(5)
d. Total	(24)		(3)		(2)	(29)
4. Changes in status						
a. Terminated Vested	(3)	3				0
b. Retired	(14)	(6)	20			0
c. Died with beneficiary			(3)		3	0
d. Data corrections						0
e. Total	(17)	(3)	17		3	0
5. July 1, 2025 valuation	**536**	**101**	**292**	**9**	**50**	**988**

APPENDIX A – MEMBERSHIP INFORMATION

Age/Service Distribution of Active Members
Active Members as of July 1, 2025

	Completed Years of Credited Service										
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	Total
Under 25	12	10	0	0	0	0	0	0	0	0	22
25-29	6	31	12	0	0	0	0	0	0	0	49
30-34	12	22	27	7	0	0	0	0	0	0	68
35-39	8	19	14	13	5	4	0	0	0	0	63
40-44	4	13	19	10	12	10	0	0	0	0	68
45-49	1	10	11	6	7	10	9	0	0	0	54
50-54	3	13	11	7	8	13	7	6	0	0	68
55-59	2	9	11	5	8	14	9	6	6	0	70
60-64	1	10	8	9	8	10	3	3	1	1	54
65-69	1	1	3	3	2	2	2	0	0	0	14
70 & Up	1	0	3	1	0	1	0	0	0	0	6
Total	**51**	**138**	**119**	**61**	**50**	**64**	**30**	**15**	**7**	**1**	**536**

Average Age = 45.3 Average Service = 11.1

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Benefit Recipients by Age and Status
Pensioners and Beneficiaries Receiving Benefits as of July 1, 2025

Age	Retirees		Disabled		Beneficiaries and QDRO		Total	
	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit
Under 55	3	$ 114,973	0	0	4	$ 38,028	7	$ 153,001
55-59	10	453,586	4	44,900	3	$ 43,382	17	541,867
60-64	45	1,180,938	0	0	6	$ 27,057	51	1,207,996
65-69	59	1,319,322	2	45,513	8	$ 71,885	69	1,436,719
70-74	82	1,792,631	3	41,038	11	$ 137,516	96	1,971,186
75-79	53	1,101,594	0	0	4	$ 30,569	57	1,132,163
80-84	26	433,624	0	0	7	$ 38,889	33	472,513
85 & Up	14	196,289	0	0	7	$ 54,106	21	250,394
Total	**292**	**$ 6,592,956**	**9**	**$ 131,451**	**50**	**$ 441,432**	**351**	**$ 7,165,839**

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Deferred Benefit Recipients by Age
Participants Entitled to Future Benefits as of July 1, 2025

Age	Terminated Vested Number		Terminated Vested Annual Benefit
Under 35	1	$	7,010
35-39	7		57,200
40-44	18		177,141
45-49	18		180,098
50-54	21		218,894
55-59	27		238,339
60 & Up	9		93,010
Total	**101**	**$**	**971,692**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Mortality Rates:

Pub-2010 General (Employee and Healthy Annuitant) Mortality Table projected generationally using Scale MP-2021.

2. Termination Rates:

Service	Termination Rates (%)
0	14.0
1	12.0
2	10.0
3	8.0
4	7.0
5	6.0
6	5.0
7	4.0
8	6.0
9-12	5.0
13	4.0
14	3.0
15	2.0
16-19	1.0
20-29	0.5
30+	0.0

3. Retirement Rates:

The following retirement rates have been used for Non-Elected and Elected Officials.

Age	< 30 Years of Service (%)	30+ Years of Service (%)
<=55	30*	10
56-59	10*	10
60	30	35
61-62	10	35
63-64	20	35
65-69	25	60
70+	100	100

*Rates for Elected Officials only starting at age 55.

The following retirement rates have been used for Paramedics and Dispatchers.

Age	< 30 Years of Service (%)	30+ Years of Service (%)
<=59	20	100
60-64	30	100
65+	100	100

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Disability Rates:

None.

5. Retirement Age for Inactive Vested Participants

Age 62.

6. Percent Married

65% of the population is assumed to be married.

7. Age of Spouse

Females (or males) are three years younger (or older) than their spouses.

8. Net Investment Return

6.75%.

9. Low-Default Risk Obligation Measure (LDROM) Interest Rate

5.61%.

10. Salary Increases

Service	Salary Increase (%)
0 – 4	5.50
5 – 9	5.00
10 – 24	4.50
25+	4.00

11. Inflation Rate

2.5% per year.

12. Cost-of-Living Adjustment

1.00% per year.

13. Plan Administrative Expenses

All administrative expenses are paid from the fund. An amount is added to the actuarially determined contribution equal to the prior year's administrative expenses increased by the assumed inflation rate.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

14. Modeling

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies for the intended purpose of calculating liabilities and projected benefit payments. We have examined the reasonableness of the input data and assumptions, reviewed sample calculations for accuracy, reconciled the actuarial gain loss, and find the aggregate results reasonable and appropriate. We are not aware of any material inconsistencies, unreasonable output resulting from the aggregation of assumptions, material limitations or known weaknesses that would affect this actuarial valuation.

The deterministic projections are based on our propriety model P-Scan developed by our firm that utilize the results shown in this valuation report. The projections assume continuation of the plan provisions and actuarial assumptions in effect as of the valuation date and do not reflect the impact of any changes in benefits or actuarial assumptions that may be adopted after the valuation date. While the assumptions individually are reasonable for the underlying valuation that supports the projections, specifically for projection purposes, they are also considered reasonable in the aggregate.

15. Changes in Actuarial Assumptions since Last Valuation

Demographic assumptions (mortality rates, retirement rates, termination rates, and salary increases) were updated to reflect the most recent experience study.

16. Rationale for Assumptions

The actuarial assumptions were adopted by the County Council on March 11, 2025 based on recommendations from Cheiron following an experience study performed for the period July 1, 2018 through June 30, 2024, and was first effective with the July 1, 2025 valuation. The investment return assumption was changed from 7.00% to 6.75% effective with the July 1, 2022 actuarial valuation based on changes in the asset allocation and advice from the investment consultant.

The LDROM discount rate of 5.61% is the single equivalent rate determined by matching cashflows to the June 30, 2025 FTSE Pension Liability Yield Curve.

The combined effect of the assumptions in aggregate is expected to have no significant bias.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Actuarial Value of Assets

The actuarial value of assets has been calculated by taking the market value of assets less 80% of the investment gain (loss) during the preceding year, less 60% of the investment gain (loss) during the second preceding year, less 40% of the investment gain (loss) during the third preceding year, and less 20% of the investment gain (loss) in the fourth preceding year.

The investment gain (loss) is calculated by taking the difference between the expected market value of assets based on an expected return of 7.50% for periods prior to July 1, 2017, 7.25% for periods from July 1, 2017 to June 30, 2019, 7.00% for periods from July 1, 2019 to June 30, 2022, and 6.75% for periods on or after July 1, 2022, and the actual market value of assets.

2. Actuarial Funding Method

The funding method for the valuation of liabilities used for this valuation is the Entry Age Normal (EAN) method. Under this funding method, a normal cost rate is determined as a level percentage of pay for each active Participant. The normal cost rate multiplied by payroll equals the total normal cost for each Participant. The normal cost contributions (Employer and Participant) will pay for projected benefits at retirement for each active Participant.

The actuarial liability is the difference between the present value of future benefits and the present value of future normal costs. The difference between this actuarial liability and the actuarial value of assets is the unfunded actuarial liability (UAL).

The difference between the actuarial liability and the Plan assets is amortized to develop an additional cost/(savings) that is added to each year's employer normal cost. Under this funding method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. The amortization method is described below.

3. Amortization Method

The UAL as of July 1, 2025 is amortized over a 20-year closed period beginning July 1, 2025, using a level dollar amortization approach. Subsequent changes in the UAL due to experience gains and losses, assumption changes, and plan changes are amortized over separate 20-year closed periods using a level dollar approach from the date such changes are recognized in the valuation.

4. Changes in Actuarial Methods since Last Valuation

The amortization method changed from a single 20-year closed period beginning on July 1, 2015 to a 20-year layered approach with the initial unfunded actuarial liability amortized over a 20-year closed period beginning on July 1, 2025.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Effective Date

June 10, 1975. Last amended effective January 1, 2021.

2. Plan Year

July 1 through June 30.

3. Eligibility

All employees who receive a regular salary from Sussex County are covered from date of hire. Elected officials are also eligible.

4. Continuous Employment

Service without interruption, except allowable interruptions such as short term disability, approved leaves of absence, U.S. military service, involuntary severance not due to the employee's fault, or voluntary severance up to one year.

5. Years of Service for Benefit Accrual

Continuous Service plus leave time in U.S. military service up to four years. If hired prior to September 1, 1998, other State of Delaware service counts towards benefit accrual (but not vesting), but the retirement benefits from this Plan shall be reduced by any amount received from any other State or County Plan. One additional Year of Service for Benefit Accrual is credited to a Participant with two or more years of U.S. military service.

6. Average Monthly Earnings

The wages of the highest paid three years of Sussex County service divided by 36. For Dispatchers and Paramedics, wages for each year shall be computed by multiplying the employee's highest hourly rate for the year by 42 hours and then multiplying the product thereof by 52 weeks.

7. Retirement

Non-Elected and Elected Officials

Eligibility:	Non-Elected - Age 62 with 8 Years of Service, 30 Years of Service, or Age 60 with 15 Years of Service
	Elected Officials – Age 60 with 5 Years of Service or Age 55 with 10 Years of Service

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Monthly Amount: 1.6667% of Average Monthly Earnings multiplied by Years of Service.

For employees hired after July 1, 2000 and who retire before January 1, 2017, Years of Service for this purpose shall not exceed 30 years.

For employees hired after July 1, 2000 and who retire after December 31, 2016, Years of Service for this purpose shall not exceed 35 years.

Dispatchers and Paramedics

Eligibility: Age 62 with 8 Years of Service, 25 Years of Service, or Age 60 with 15 Years of Service

Monthly Amount: 2.0% of Average Monthly Earnings multiplied by Years of Service.

For employees hired after July 1, 2000 and who retire before January 1, 2017, Years of Service for this purpose shall not exceed 25 years.

For employees hired after July 1, 2000 and who retire after December 31, 2016, Years of Service for this purpose shall not exceed 30 years.

8. Disability Retirement

None, effective January 1, 2012.

9. Terminated Vested Pension

Eligibility: 8 Years of Service

Monthly Amount: Same as Retirement benefit. Benefit commences at age 62.

10. Refund of Contributions

Eligibility: Not eligible for Retirement or Terminated Vested Pension

Amount: 100% of accumulated contributions with 2% interest if hired on or after January 1, 2014.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

11. Pre- and Post-Retirement Death Benefit

Eligibility: 8 Years of Service

Monthly Amount: 50% of the Retirement benefit payable immediately to Eligible Survivor upon death of the Participant.

12. Participant Contributions

Employees hired on or after January 1, 2014 and before January 1, 2021 contribute 3.0% of annual base compensation in excess of $6,000.

Employees hired on or after January 1, 2021 contribute 5.0% of annual base compensation in excess of $6,000.

13. Eligible Survivor

The surviving spouse who had been married for at least one year, or if none, any minor child(ren), or if none, any surviving dependent parent(s).

14. Normal Form of Payment

Life Annuity with 50% continuance payable to Eligible Survivor upon death of participant.

15. Cost-of-Living Adjustment (COLA)

Reconsidered annually by the County Council and adopted when considered necessary.

16. Changes since Last Valuation

None.

APPENDIX D – GLOSSARY OF TERMS

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation; inflation; rates of investment earnings, and asset appreciation or depreciation; and other relevant items.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. Actuarial Gain/(Loss)

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. Actuarial Liability

The portion of the Actuarial Present Value of Projected Benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made. As a simple example: assume you owe $100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you won't be obligated to pay him. If the assumed investment return is 10%, the actuarial present value is:

Amount		Probability of Payment		1/(1+Investment Return)		
$100	x	(1 - .01)	x	1/(1+.1)	=	$90

6. Actuarial Valuation

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

APPENDIX D – GLOSSARY OF TERMS

7. Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values. This way long-term costs are not distorted by short-term fluctuations in the market.

8. Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

9. Amortization Payment

The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Percentage

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

12. Investment Return Assumption

The assumed interest rate used for projecting dollar related values in the future.

13. Mortality Table

A set of percentages which estimate the probability of death at a particular point in time. Typically, the rates are annual and based on age and sex.

14. Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses, which is allocated to a valuation year by the Actuarial Cost Method.

APPENDIX D – GLOSSARY OF TERMS

15. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and increases in future compensation and service credits.

16. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.