



San Diego City Employees' Retirement System

City of San Diego

Actuarial Valuation Report as of June 30, 2021

Produced by Cheiron

December 2021

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December 30, 2021

Board of Administration
San Diego City Employees' Retirement System
401 West A Street, Suite 400
San Diego, California 92101

Re: SDCERS-City of San Diego June 30, 2021 Actuarial Valuation

Dear Members of the Board:

We are pleased to submit the June 30, 2021 Actuarial Valuation Report for the City of San Diego (City, the "Plan") of the San Diego City Employees' Retirement System (SDCERS).

The purpose of this report is to present the annual actuarial valuation of the SDCERS-City of San Diego Defined Benefit Plan. This report is for the use of the SDCERS Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

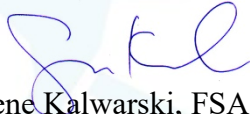
In preparing our report, we relied on information (some oral and some written) supplied by SDCERS' staff. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.


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

This actuarial valuation report was prepared for the San Diego City Employees' Retirement System for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters 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



Gene Kalwarski, FSA, FCA, MAAA, EA
Principal Consulting Actuary



Alice Alsberghe, ASA, MAAA, EA
Consulting Actuary

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION I – BOARD SUMMARY

The primary purpose of the SDCERS-City of San Diego actuarial valuation is to disclose and comment on, as of the valuation date, on the following:

- The financial condition of the SDCERS-City of San Diego Defined Benefit Plan,
- Past and expected trends in the financial condition of SDCERS-City of San Diego,
- Disclosures related to the Plan’s risks of SDCERS-City of San Diego,
- The City’s Actuarially Determined Contribution (ADC) for Fiscal Year 2023,
- Member contribution rates as required under the City’s Charter Section 143, and
- Information required for the Annual Comprehensive Financial Report (ACFR).

In this section, we present a summary of the principal valuation results. This summary includes the basis upon which the June 30, 2021 valuation was completed and an examination of the current financial condition of SDCERS-City of San Diego. In addition, we present a review of the key historical trends followed by the projected financial outlook for SDCERS-City of San Diego.

A. Valuation Basis

It is our understanding that the City of San Diego officially reopened the pension plan to all non-police employees initially hired by the City on or after July 10, 2021, but has not officially reinstated non-police employees who were excluded from the pension plan as a result of Proposition B. As such, the calculations in this valuation report, including the fiscal year ending 2023 (FY 2023) Actuarially Determined Contribution (ADC), do not include any liability or assets related to the non-police employees who have not yet been reinstated to the Plan. The FY 2023 ADC, however, does include an estimate for the normal cost of employees expected to be hired on or after July 10, 2021 through June 30, 2022 to replace current members of the Plan who terminate employment during that same period.

The projections shown in this report also do not include any past liability or assets for the non-police employees who have not yet been reinstated to the Plan, but they do include projected future normal costs and liabilities for these employees as well as all new hires on or after July 10, 2021.

The results of the June 30, 2021 valuation reflect salary increases for FY 2022 and FY 2023 for plan tiers with negotiated general salary increases. General members are assumed to receive a 4.00% increase effective July 1, 2021 as well as a 4.75% increase effective July 1, 2022. Safety Police members are assumed to receive a 3.20% increase effective July 1, 2021. All other members are assumed to receive a 3.05% across the board increase as per the valuation assumptions. Any other general salary increases, new add-on pays, changes to existing add-on pays, or varying special salary adjustments that may have been negotiated were not reflected in this valuation.

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SECTION I – BOARD SUMMARY

There were no changes in assumptions, methods, or plan provisions with this valuation. The assumptions, methods, and plan provisions can be found in Appendix B and Appendix C of this report.

Throughout this report there will be references to “Old Plan,” “2009 Plan,” “2011 Plan,” “2012 Plan,” “2012 No COL Plan,” and “Prop B Plan” which distinguishes each membership category’s various benefit tiers according to their effective dates.

Numbers in the tables of this report may not always add exactly to the dollar due to rounding.

B. Experience between June 30, 2020 and June 30, 2021

The following discussion summarizes the key results of the June 30, 2021 valuation and how they compare to the results from the June 30, 2020 valuation.

1. SDCERS-City of San Diego Assets, Liabilities and Contributions

Table I-1 presents a comparison between the June 30, 2021 and June 30, 2020 SDCERS-City of San Diego assets, liabilities, unfunded actuarial liability, funding ratios and contributions.

The key results shown in Table I-1 show that the funding ratio, measured using an actuarial smoothing method, increased from 70.2% as of June 30, 2020 to 74.3% as of June 30, 2021. This was due to the fact that the actuarial value of assets grew by 8.3% which was more than the liability growth of 2.4%. Measured on a market value of assets basis, the June 30, 2021 funding ratio increased to 82.4% compared to 68.3% in the prior year. Investment returns on a market value basis earned 25.64%, and on an actuarial value basis earned 10.62%. Both measured returns were greater than the Plan’s 6.50% assumed rate of return. Section III of this report provides additional detail on SDCERS’ assets, including an explanation of the development of the actuarial value of assets. More details on the liability growth are presented in Item 2 of this section, and in Section IV of this report.

With respect to the City’s Actuarially Determined Contribution (ADC), there was a decrease from \$414.9 million to \$384.3 million. The components of this change are shown in Table I-3. These ADC figures assume payment at the beginning of the year. Contribution amounts assuming payment throughout the year may be found in Table V-1.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION I – BOARD SUMMARY

Table I-1				
SDCERS - City of San Diego - Assets, Liabilities and Contributions				
		June 30, 2021	June 30, 2020	% Change
Actuarial Liability	\$	11,478,108,909	\$ 11,206,325,937	2.4%
Actuarial Value Assets	\$	8,526,118,443	\$ 7,870,672,157	8.3%
Unfunded Actuarial Liability-Actuarial Value	\$	2,951,990,466	\$ 3,335,653,780	-11.5%
Funding Ratio-Actuarial Value		74.3%	70.2%	4.1%
Market Value Assets	\$	9,457,378,818	\$ 7,648,734,761	23.6%
Unfunded Actuarial Liability-Market Value	\$	2,020,730,091	\$ 3,557,591,176	-43.2%
Funding Ratio-Market Value		82.4%	68.3%	14.1%
Actuarially Determined Contribution (ADC) ¹	\$	384.3	\$ 414.9	-7.4%

¹ADC reported in millions

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION I – BOARD SUMMARY

2. Components of UAL Change between June 30, 2020 and June 30, 2021

The unfunded actuarial liability (UAL) for SDCERS-City of San Diego decreased by \$383.7 million; from \$3,335.7 million to \$2,952.0 million. Table I-2 below presents the specific components of the change in the UAL.

The Plan’s UAL was expected to decrease by \$27.9 million, assuming all assumptions were met. The net asset experience was favorable, decreasing the UAL by \$355.3 million. The Plan experienced a small liability gain of \$0.4 million, due to actual demographic experience deviating from the underlying assumptions. The Plan experienced a large increase in retirements which resulted in liability experience losses, that were largely offset by salary experience gains, among other factors.

Table I-2	
SDCERS - City of San Diego - Change in UAL	
(In Millions)	
1. UAL at June 30, 2020	\$ 3,335.7
2. Expected change in UAL	(27.9)
3. Asset experience	
a. Anticipated investment loss/(gain)	46.9
b. Actual investment loss/(gain) ¹	(309.2)
c. Member contributions paid less than expected	0.8
d. Net asset experience (b - a + c)	(355.3)
4. Liability experience gain ¹	(0.4)
5. Change in assumptions or methods	0
6. Other miscellaneous	(0)
7. Total change in UAL: 2 + 3d + sum of 4 through 6	(383.7)
8. UAL at June 30, 2021: 1 + 7	\$ 2,952.0

¹ Net impact of asset and liability experience is an actuarial gain of \$309.6 million (\$309.2 million actual investment gain plus \$0.4 million liability experience gain).

**SDCERS-CITY OF SAN DIEGO
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SECTION I – BOARD SUMMARY

3. SDCERS-City of San Diego Change in Contributions

The City’s actuarially determined contribution (ADC) for FY 2023 decreased by \$30.6 million; from \$414.9 million to \$384.3 million. The ADC would have been expected to increase by \$8.1 million, assuming continued phase-in of investment experience from prior years.

Net asset experience decreased the ADC by \$35.8 million. The liability experience gain decreased the ADC by \$3.0 million.

Table I-3 below presents the specific components of the change in the ADC. We provide more detail on the development of this contribution in Section V.

Table I-3		
SDCERS - City of San Diego - Change in ADC		
(In Millions)		
1. ADC at June 30, 2020	\$	414.9
2. Expected change in ADC		8.1
3. Asset experience		
a. Anticipated investment loss/(gain)		4.7
b. Actual investment loss/(gain)		(31.1)
c. Member contributions paid less than expected		0.1
d. Net asset experience (b - a + c)		(35.8)
4. Liability experience gain		(3.0)
5. Change in assumptions or methods		0
6. Other miscellaneous		0
7. Total change in ADC: 2 + 3d + sum of 4 through 6		(30.6)
8. ADC at June 30, 2021: 1 + 7	\$	384.3

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SECTION I – BOARD SUMMARY

4. SDCERS-City of San Diego Membership

Table I-4 shows that total membership in SDCERS-City of San Diego remained relatively steady, with a decrease of 0.4% from 2020 to 2021. Active membership continued to decline since the non-police tiers of the Plan had been closed to new hires, with an 8.4% decrease in actives. There was a large increase in retirements during the year, with a 5.4% increase in retiree members.

The payroll figures shown below are based on June 30, 2021 data with expected salary increases for the fiscal year beginning July 1, 2021. Expected total payroll for active members decreased by 6.9%, driven by active members who retired and were not replaced by new hires. The average pay per active member increased by 1.7%. The total benefits in pay status and average benefit increased by 8.1% and 3.6%, respectively.

Table I-4				
SDCERS - City of San Diego - Membership Total				
Valuation as of:	June 30, 2021	June 30, 2020	% Change	
Actives	5,068	5,535	-8.4%	
Terminated	2,847	2,898	-1.8%	
Disabled	1,076	1,100	-2.2%	
Retirees	8,265	7,838	5.4%	
Beneficiaries	1,517	1,471	<u>3.1%</u>	
Total City Members	18,773	18,842	-0.4%	
Active Member Payroll	\$ 466,863,508	\$ 501,203,699	-6.9%	
Average Pay per Active Member	\$ 92,120	\$ 90,552	1.7%	
Benefits in Pay Status	\$ 574,870,826	\$ 531,798,290	8.1%	
Average Benefit	\$ 52,944	\$ 51,090	3.6%	

**SDCERS-CITY OF SAN DIEGO
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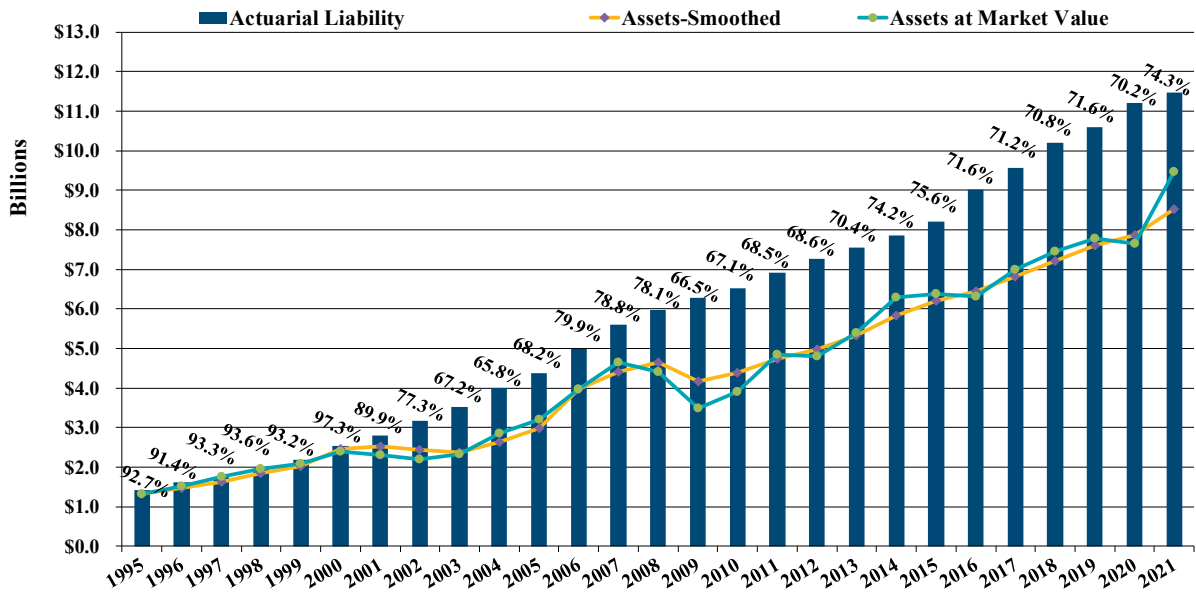
SECTION I – BOARD SUMMARY

C. Historical Trends for SDCERS-City of San Diego

Despite the primary focus given each year on the most recently computed unfunded actuarial liability (UAL), funding ratio, and City contribution (ADC), it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension plan. It is more important to judge a current year’s valuation results relative to historical trends, and trends expected into the future.

In the chart below, we present the historical trends of the market value and smoothed assets compared to actuarial liabilities, with SDCERS-City of San Diego funding ratios since 1995.

SDCERS-City of San Diego Assets and Liabilities 1995-2021



This chart shows two periods of significant declines in SDCERS funded status. The first being the period 2001 to 2003 where the funding ratio declined from being over 90% to as low as 67.2%. This was caused by the “dot com” market decline coupled with the City underfunding the plan while benefits were increased. The second serious decline occurred following the “Great Recession” of 2008/2009 where the funding ratio dropped from just under 80% to as low as 66.5%. Other than those two periods the plan showed steady improvement in its funded status to where it is now 74.3% funded. It’s important to note that this improving funded status over the period since 2003 was achieved while the Board lowered the discount rate from 8.00% to 6.50% and significantly strengthened its demographic assumptions, in particular mortality.

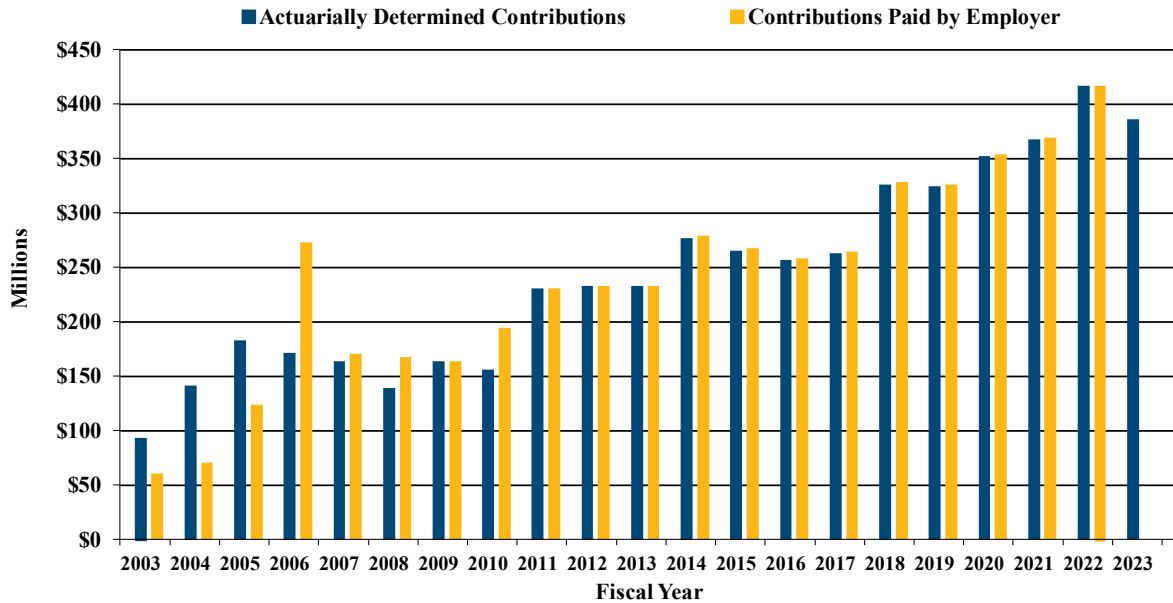
As mentioned earlier, the funding ratios represent the ratio of the smoothed (actuarial) assets over the actuarial liabilities. If the market value of assets were used instead, the funding ratio as of June 30, 2021 would be 82.4%.

SDCERS-CITY OF SAN DIEGO
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SECTION I – BOARD SUMMARY

In the next chart below, we present the historical trends for the SDCERS-City of San Diego contributions: actual contributions paid by the City, and the actuarially determined contributions (ADC).

SDCERS-City of San Diego City Contributions FY 2003-2023



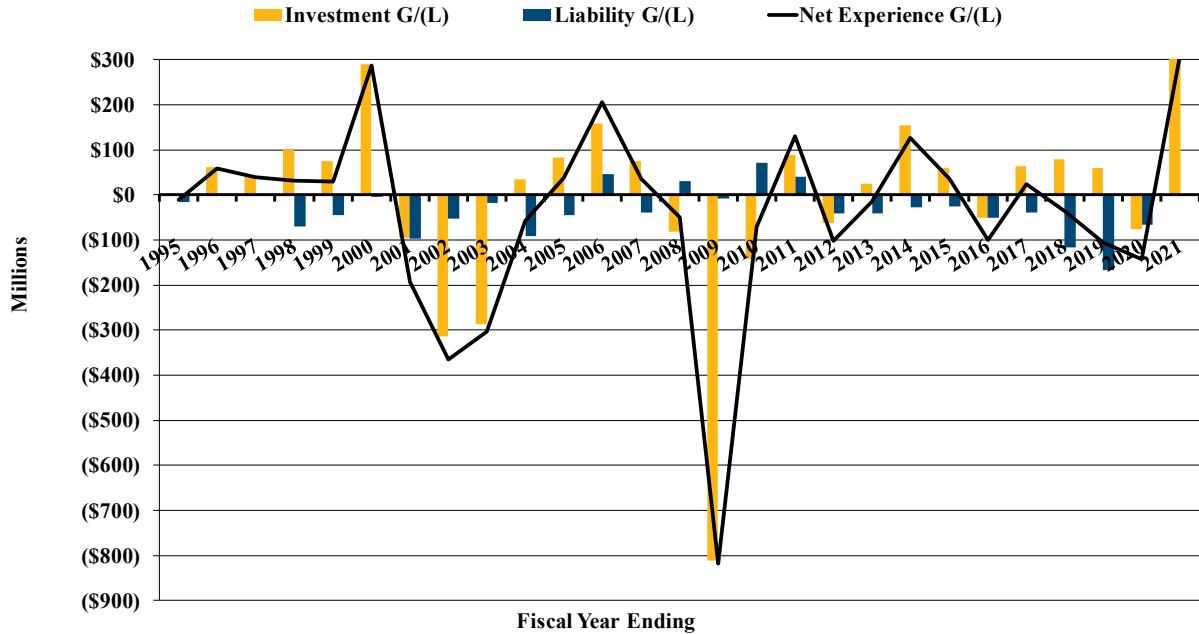
This chart compares the actual contributions made by the City to the actuarially determined contributions (ADC). The contributions paid by the City are based on the Board’s adopted funding practice of normal cost plus amortization of the various UAL components, including the requirement beginning in FY 2009 that there is no negative amortization and the requirement beginning in FY 2016 to fund the expected administrative expenses. The chart indicates that the City has been consistently paying at or above the ADC since FY 2006.

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SECTION I – BOARD SUMMARY

The chart below for SDCERS-City of San Diego presents the pattern of annual experience gains and losses, broken into the investment and liability components. The chart does not include any changes in SDCERS’ assets and liabilities attributable to changes in actuarial methods, procedures, or assumptions, or to changes in plan benefits.

SDCERS-City of San Diego Historical Gain/(Loss) 1995-2021



As seen in the chart (gold bars) the System experienced two periods of significant investment losses in the 2001-2003 period and 2008–2010 period. In most other years there were investment gains with the years ending June 30, 2000 and June 30, 2021 being the largest gains.

Liability experience gains and losses (blue bars) are due to actual demographic experience – rates of retirement, death, disability, and termination, as well as salary increases – deviating from the underlying assumptions. Over the period shown, liability experience has varied between small gains and small losses relative to the total liability of the Plan. In recent years there has been a pattern of liability losses, mostly due to salary increases greater than expected.

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SECTION I – BOARD SUMMARY

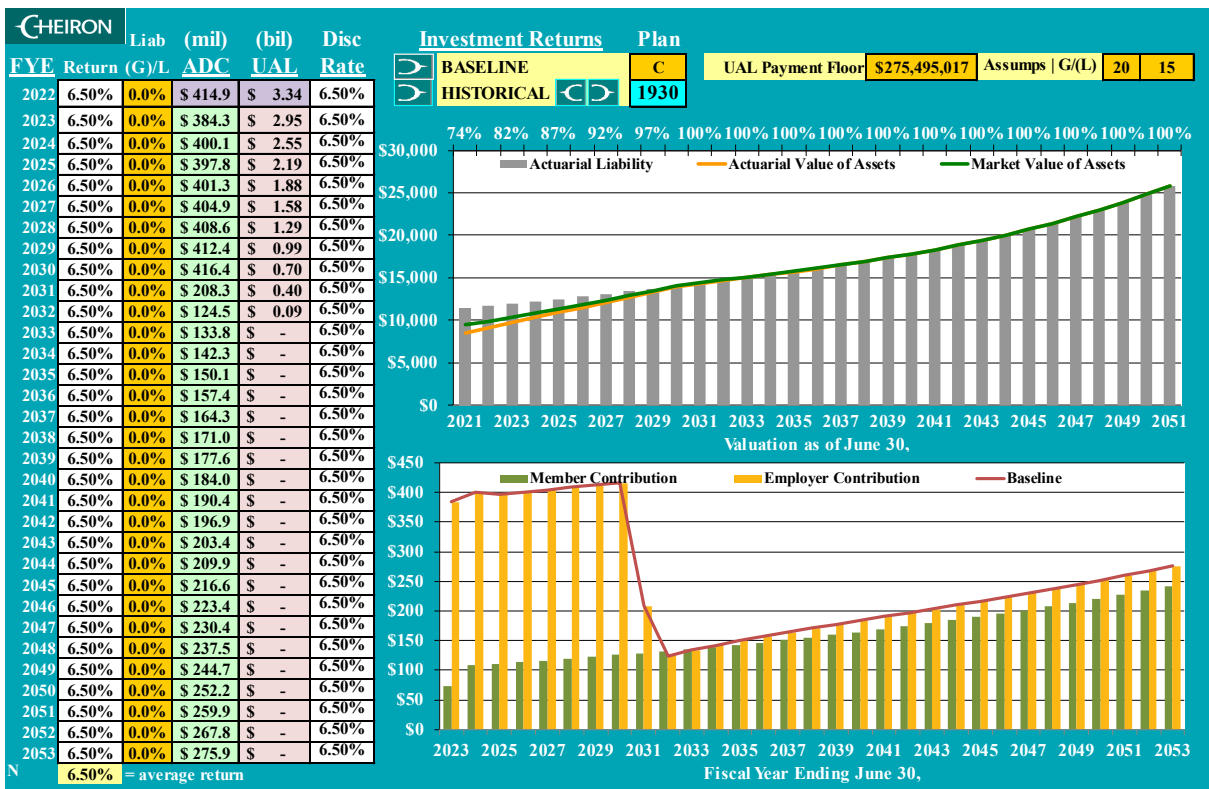
D. Projected Financial Trends

Our analysis of SDCERS-City of San Diego projected financial trends is one of the most important parts of this valuation. These projections based on the June 30, 2021 valuation results are presented in terms of benefit security (assets over liabilities) and the City’s expected cost progression.

In the chart that follows, we project the SDCERS-City of San Diego assets and liabilities and the City’s contributions. The upper chart compares the assets (green and yellow lines) and liabilities (gray bars) and the lower chart shows contributions in dollars (employer contributions in yellow bars and member contributions in green bars). The left side of the exhibit shows the returns assumed each year followed by the annual ADC and UAL in dollar amounts.

These projections assume a 6.50% investment return and discount rate, as well as all experience conforming to the Plan’s assumptions. These projections assume constant active plan membership for the Police members with payroll growing at the assumed payroll growth rate of 3.05%. These projections do not include any past liability or assets for the non-police employees who have not yet been reinstated to the Plan, but they do include projected future normal costs and liabilities for these employees as well as all new hires on or after July 10, 2021.

SDCERS-City of San Diego Projections FY 2022-2053 (earnings as assumed)



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SECTION I – BOARD SUMMARY

Based on the assumed earnings and the UAL contribution floor amortization method, the City's funded status (percentages at the top of the upper graph) is projected to reach 100% by the June 30, 2030 valuation at which time the FY 2032 ADC declines sharply. The City's ADC is then projected to increase steadily with growing normal costs.

However, it is very important to note that these projections, while valid as baseline projections, **are not going to occur** as experience never conforms exactly to assumptions from year to year. As a result, in Section II of this report, *Disclosures Related to Risk*, we present a stress testing projection based on assuming varying returns in the future, which are 6.50% on average.

SECTION II – DISCLOSURES RELATED TO RISK

Actuarial Standard of Practice (ASOP) No. 51 was published by the Actuarial Standards Board to provide guidance to actuaries on the assessment and disclosure of risks related to the possibility that future pension plan experience will deviate from assumptions. This standard does not introduce new concepts to actuarial work; it simply attempts to provide some codification of the practice. Our reports have routinely included stress testing of the valuation results showing the impact of future experience deviating from the underlying assumptions.

The pension plan's actuarial valuation results are dependent on assumptions about future economic and demographic experience. Based on actuarial standards of practice, the assumptions represent a reasonable estimate for future experience. However, actual experience will never conform exactly to the assumptions and may differ significantly from the assumptions. This deviation is the risk that pension plan sponsors undertake in relying on a pension plan's actuarial valuation results.

This section of this report is intended to identify the primary drivers of these risks, provide background information and assessments about these identified risks, and communicate the significance of these risks to this plan.

A. Identification of Risks

For pension plans, the three primary valuation results that can significantly differ from those expected are in the assets, liabilities, and employer contributions. While there are several factors that could lead to these results being different, we believe the primary risks to this plan are:

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

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

Investment Risk is the potential for investment returns to deviate from what is expected. When actual investment returns are lower than the investment assumption used in the actuarial valuation, the unfunded liability will increase and the period of time over which the unfunded liability is expected to be paid will increase. But, when actual returns exceed the assumption, the resulting unfunded liability measurements and resulting amortization period will be lower than anticipated.

Longevity and Other Demographic Risk is the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time as the actual experience deviates from expected. In addition, the extensive number of assumptions related to longevity and demographic experience often

SECTION II – DISCLOSURES RELATED TO RISK

result in offsetting factors contributing to the System’s overall liability experience. As such, these risks are often dwarfed by other risks, particularly those due to the investment returns. The historical gain loss chart on page 8 shows that this has been true for this System, with the magnitude of the gains and losses from liability experience significantly smaller than those from investment experience, assumption changes, and plan changes.

Plan Change Risk is the potential for the provisions of the System to be changed such that the funding or benefits are changed materially. In addition to the actual payments to and from the System being changed, future valuation measurements can also be impacted, with plan changes leading to deviations between actual future measurements and those expected by the current valuation.

Contribution Risk is the potential for actual future contributions to deviate from expected future contributions, or that the anticipated contributions will be inadequate to fund the plan benefits. There are different sources of contribution risk ranging from the sponsor choosing to not make contributions in accordance with the funding policy to material changes in the contribution base (e.g., covered employees, covered payroll, sponsor revenue) that affect the amount of contributions the plan can collect.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. Assumption change risk is an extension of the risks previously identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in the environment when the current assumption is no longer reasonable.

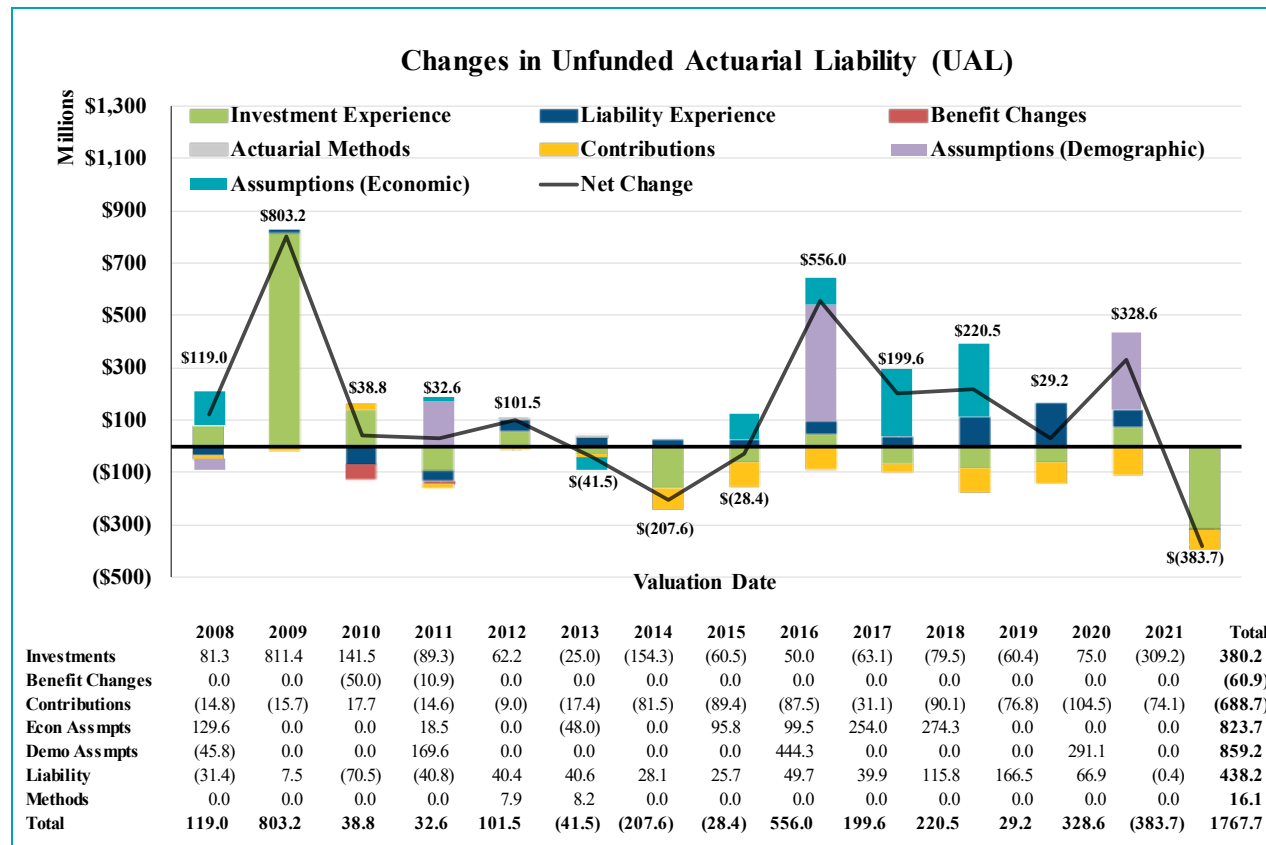
B. Historical Review

In understanding the impact of some of these risks, it is useful to look at what factors contributed to the City’s Unfunded Actuarial Liability (UAL). These factors consist of annual actuarial experience gains and losses, assumption changes, plan changes, and contribution shortfalls or excesses. The following chart shows how these factors have contributed, at each valuation date, to the City’s UAL growth since 2008.

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SECTION II – DISCLOSURES RELATED TO RISK

Factors Contributing to UAL Changes since 2008



As is evident in this chart, assumption changes have been by far the most significant factors contributing to the City’s UAL.

Over this period, net investment and liability experience increased the UAL by \$818 million, while method changes and economic and demographic assumption changes increased the UAL by \$1,699 million. All other sources of change, contributions made and benefit changes, served to decrease the UAL by \$750 million. The net change in the UAL over this period was an increase of \$1,768 million.

SECTION II – DISCLOSURES RELATED TO RISK

C. Plan Maturity Measures

As pension plans become more mature, the identified risks become of more significant concern. As a result, it has become increasingly important to examine measures that indicate a pension plan’s maturity level.

The balance of this section discloses and examines two maturity measures: the asset leverage ratio, and the net cash flow ratio.

Asset Leverage Ratio

Typically, one of the most important pension plan maturity measures is the asset leverage ratio — the Market Value of Assets divided by the Plan’s payroll. The greater the plan’s assets are relative to payroll, the more vulnerable the plan is to investment volatility. The following example demonstrates this.

(\$ in millions)		
	Plan A	Plan B
Plan Assets	\$ 5,000	\$ 5,000
City Revenues	\$ 500	\$ 1,000
Asset Leverage Ratio	10.0	5.0
10% Investment Loss	\$ 500	\$ 500

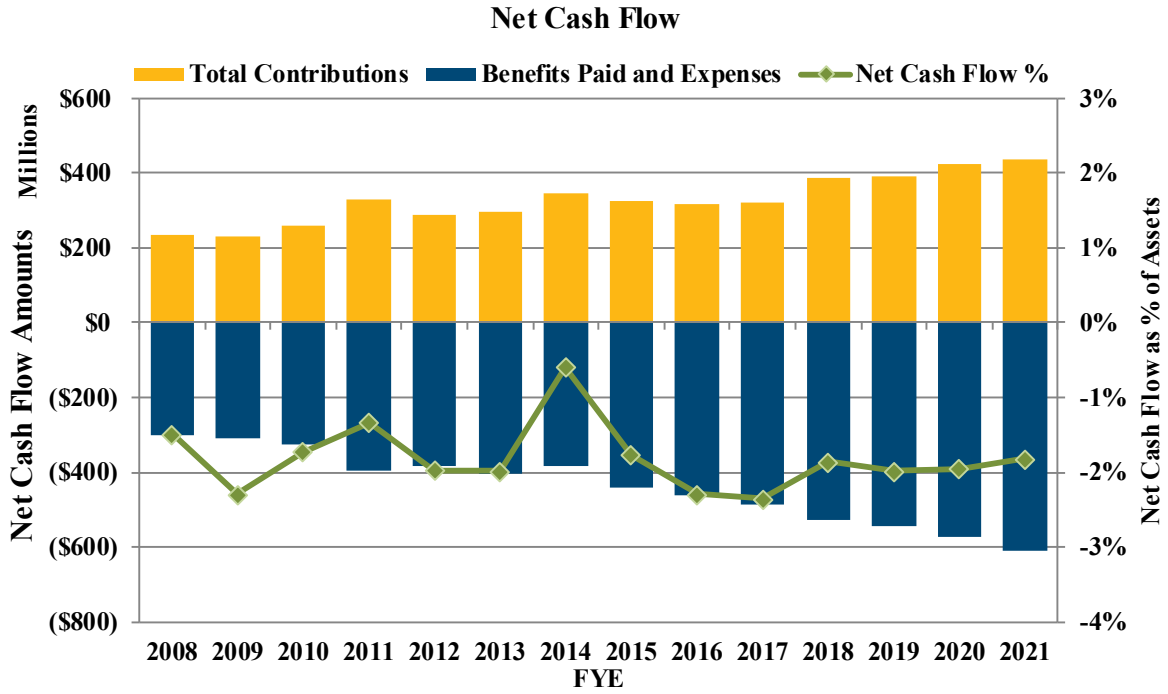
This example shows two plans that both experience a 10% investment loss equaling \$500 million. Although their assets are the same, because of the size of plan sponsor revenues for Plan A is half of that of Plan B, its asset leverage ratio is 10 and Plan B’s ratio is five. This means that the Plan sponsor of Plan A has to make up (i.e. amortize) that loss over a revenue base that is half as large as Plan B’s.

Net Cash Flow Ratio

A very important measure of plan maturity is the ratio of the net cash flow out of the plan benefits and expenses less contributions, divided by the market value of plan assets. Most public sector pension plans are paying out more in benefits than they receive in contributions, leading to negative net cash flows, excluding investment income. This is not an unexpected development. However, when plans with negative net cash flows suffer investment losses, they need to liquidate some assets to be able to pay for benefits in excess of contributions. That means these plans will need to earn higher returns to rebuild their assets to the previous levels. Plans with significant negative cash flows (e.g., in excess of 6% of assets) are more vulnerable to market declines. However, as mentioned earlier, negative cash flows are expected with maturing plans and a plan’s asset allocation may be adjusted to minimize sensitivity to investment risk.

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SECTION II – DISCLOSURES RELATED TO RISK



The City’s net cash flow ratio in the past several years hovered around minus 2%. We expect that this negative cash flow will be increasing in the future and will ultimately lead to consideration of a different asset allocation.

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SECTION II – DISCLOSURES RELATED TO RISK

D. Assessment of Future Risks

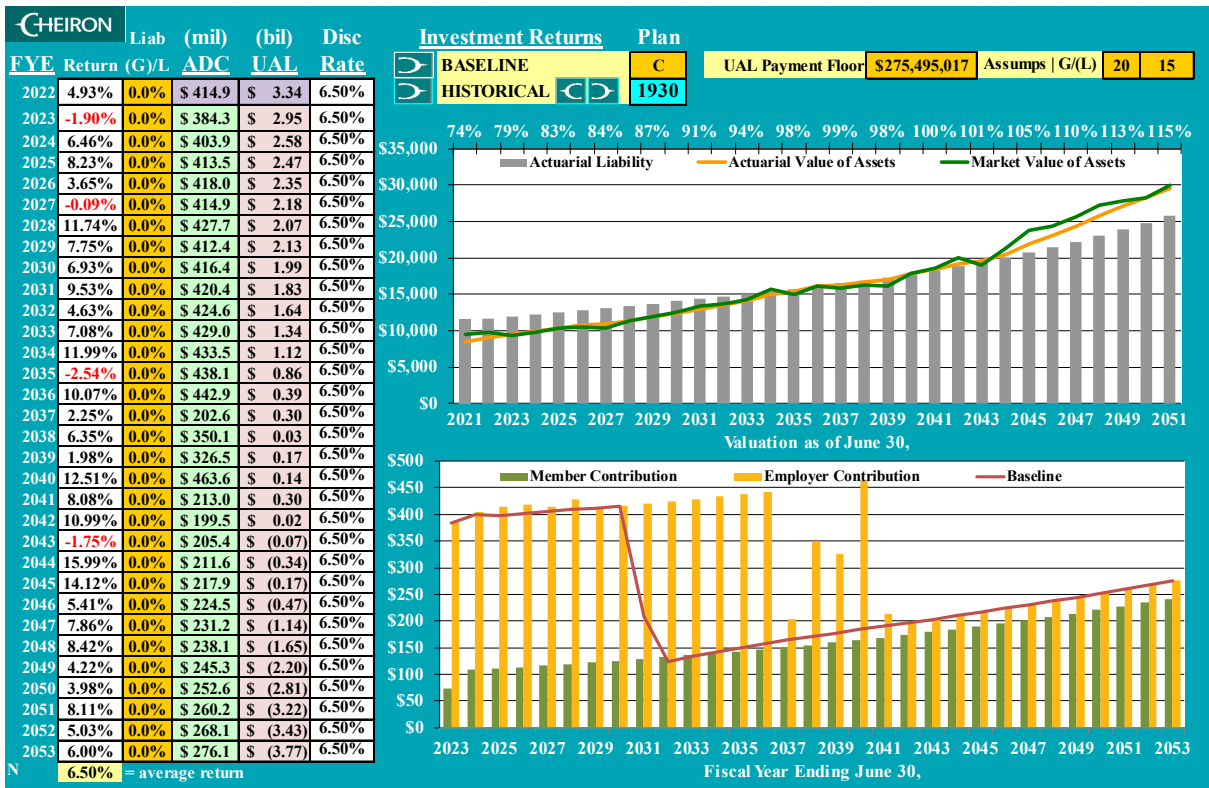
Stress Testing the Plan's Funded Status and Contribution Levels

The fundamental risk to the Plan is that contributions will not adequately fund plan benefits. In assessing this risk, we performed stress tests on the Plan's funded status and contribution level assuming varying returns in the future which over the entire projection period average 6.50%.

With varying annual earnings, the chart that follows shows the volatility in the plan's funded status (top graph) and in the City's contributions (bottom chart). Note that this chart reflects an illustrative scenario and is not intended to reflect future expectations.

What these charts show is that whether the Plan is fully funded or poorly funded, subsequent returns can quickly alter the financial position of the Plan dramatically. It is impossible to judge the financial soundness of a plan with a single year point measurement. What is more important to consider is the plan's level of conservatism in funding the plan, and the discipline and ability of the plan sponsor to consistently contribute the ADC as determined by the plan actuary. In SDCERS' case, the Plan has been conservative relative to most other public pension funds, and since FY 2006 the City has contributed at least as much as the ADC, if not more.

SDCERS-City of San Diego Projections FY 2022-2053 (earnings which vary by year)



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SECTION III – ASSETS

Like most other public pension plans, SDCERS uses two different asset measurements that are presented in this section: the market value and the actuarial value of assets. The market value of assets represents, as of the valuation date, the value of the assets if they were liquidated on that date. The actuarial value of assets is a value that smooths annual investment performance over multiple years to reduce the impact of annual investment volatility on employer contributions. The actuarial value of assets is used in determining SDCERS' contributions for the three participating employer plans.

Each employer receives a separate actuarial valuation report and cost determination. However, the assets of all employer plans are pooled for investment purposes. The apportionment of the assets among the employer plans directly impacts each employer's costs. Therefore, in the interest of ensuring transparency, this section discloses information on the total assets of SDCERS-All Employers. In addition, a brief explanation of how those assets are apportioned to the City of San Diego, the San Diego Unified Port District (Port District), and the San Diego County Regional Airport Authority is included.

On the following pages, detailed information is presented on SDCERS-All Employers assets, including:

- A. Disclosure of the June 30, 2021 total SDCERS market value of assets, by asset class;
- B. Market value of assets by Plan Sponsor;
- C. Development of the actuarial value of assets; and
- D. Disclosure of the investment performance for the year.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION III – ASSETS

A. Disclosure of Market Value of Assets

The market value of assets represents a “snap-shot” value as of June 30, 2021, the last day of the fiscal year, which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with swings in the investment markets. Because these fluctuations would cause volatility in employer contributions, an actuarial value of assets is developed. Table III-1 below discloses the market value by asset class of SDCERS – All Employers’ gross assets on June 30, 2021.

Table III-1 SDCERS – All Employers Summary of Reported Market Value of Total Defined Benefit Plan Assets	
Cash	\$ 436,131,659
US Stocks	2,362,345,967
International Stocks	2,598,842,251
Private Equity	1,493,034,509
Bonds	2,570,744,524
Real Estate	1,040,735,615
Receivables	392,100,569
Miscellaneous	360,149,759
Accounts Payable	<u>(960,463,374)</u>
Market Value of Assets – June 30, 2021	\$ 10,293,621,479

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION III – ASSETS

B. Market Value of Assets by Plan Sponsor

As of July 1, 2007, the City of San Diego, Port District, and Airport Authority plans were separated into independent, qualified, single-employer, governmental defined benefit plans and trusts. The assets of the three separate plans and trusts are pooled in the SDCERS Group Trust, which was established as of July 1, 2007. SDCERS invests and administers the Group Trust as a common investment fund and accounts separately for the proportional interest of each plan and trust that participates in the Group Trust. Cash flow activity for each plan is recorded directly to that plan, with investment activity and other cash flow activity not specific to any one plan being allocated based upon each plan’s respective share of the Group Trust’s total assets, with time-weighted adjustments for the plan-specific cash flows. Administrative expenses are allocated based on the proportion of participants of a participating trust to the number of total participants of all participating trusts on the first day of the plan year. Table III-2 below discloses the market value and actuarial value of assets by Plan.

Table III-2 Summary of Market and Actuarial Assets for Each Employer Group as of June 30, 2021			
	<u>Actuarial Value</u> Total Assets June 30, 2021	<u>Market Value</u> Total Net Assets June 30, 2021	<u>Market Value</u> Total Net Assets June 30, 2020
City of San Diego	\$ 8,526,118,443	\$ 9,457,378,818	\$ 7,648,734,761
Port District	515,649,885	572,703,787	460,728,951
Airport Authority	<u>239,570,733</u>	<u>263,538,875</u>	<u>207,910,613</u>
Total-SDCERS	\$ 9,281,339,061	\$ 10,293,621,479	\$ 8,317,374,326

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION III – ASSETS

C. Actuarial Value of Assets

To determine on-going funding requirements, most pension funds utilize an actuarial value of assets. Unlike the market value of assets, the actuarial value of assets represents an asset value based on averaging or smoothing year-to-year market value returns for purposes of reducing the resulting volatility on contributions.

The actuarial value of assets is equal to 100% of the expected actuarial value of assets as of June 30, 2021 plus 25% of the difference between the current actual market value of assets and the expected actuarial value of assets. (See Appendix B, Section B-2 for further explanation of the asset valuation method.) In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

Table III-3 SDCERS - City of San Diego Development of Actuarial Value of Assets at June 30, 2021 Expected Value of Assets Method	
1. Actuarial Value of Assets at June 30, 2020	\$ 7,870,672,157
2. Amount in (1) with interest at 6.50% to June 30, 2021	8,382,265,847
3. Employer and Member contributions for the Plan Year ended June 30, 2021	436,704,433
4. Disbursements from Trust excluding investment expenses, June 30, 2020 through June 30, 2021	608,348,742
5. Interest on cash flows to June 30, 2021 at 6.50% per year	<u>5,076,780</u>
6. Expected Actuarial Value of Assets at June 30, 2021 = (2) + (3) – (4) + (5)	8,215,698,318
7. Actual Market Value of Assets at June 30, 2021	<u>9,457,378,818</u>
8. Excess of (7) over (6)	1,241,680,499
9. Preliminary Actuarial Value of Assets at June 30, 2021 = (6) + 25% of (8)	\$ 8,526,118,443
10. 80% Minimum Corridor on the Actuarial Value of Assets = 80% of (7)	7,565,903,054
11. 120% Maximum Corridor on the Actuarial Value of Assets = 120% of (7)	11,348,854,581
12. Final Actuarial Value of Assets at June 30, 2021 = (9), but no less than (10) and no more than (11)	\$ 8,526,118,443

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION III – ASSETS

D. Investment Performance

The FY 2021 return on the market value of assets, as reported by SDCERS' investment consultant Aon Hewitt Investment Consulting, was 24.9%. The reported return for FY 2020 was 0.5%.

On an actuarial (smoothed) value of assets basis, the return for FY 2021 was 10.62%. This return produced for SDCERS-All Employers an overall investment gain of \$336.1 million for the year ending June 30, 2021. This reported gain is different than the investment gain of \$309.2 million reported in Table I-2 of this report. The \$309.2 million is the gain only for SDCERS-City of San Diego.

Finally, it should be noted that rates of investment returns disclosed in this actuarial report will often differ slightly from those reported by SDCERS as well as SDCERS' investment consultant. This is because the returns disclosed in this report are dollar weighted returns, whereas returns reported by SDCERS and its consultant are usually time weighted returns.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

In this section, we present detailed information on liabilities for SDCERS-City of San Diego, including:

- Disclosure of liabilities on June 30, 2020 and June 30, 2021, and
- Statement of changes in the unfunded actuarial liabilities during the year.

A. Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used. Note that these liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future SDCERS-City of San Diego obligations, represents the amount of money needed today to fully fund all benefits of SDCERS-City of San Diego, both earned as of the valuation date and those to be earned in the future by current plan members, under the current plan provisions.
- **Actuarial Liability-Entry Age Normal (EAN):** Used for determining employer contributions. This liability is calculated taking the present value of all future benefits and subtracting the present value of future Member contributions and future employer normal costs as determined under the EAN actuarial funding method. It represents the portion of the present value of future benefits attributed to service prior to the valuation date by the Entry Age Normal method.
- **Present Value of Accrued Benefits:** This liability represents the present value of future benefits payable to all plan participants as of the valuation date, if future accruals and contributions stopped.

Table IV-1 on the following page discloses the first two of these liabilities for the current and prior year valuations. Tables IV-2 through IV-4 break down these liabilities by tier. Subtracting the actuarial value of assets from the actuarial liability results in a net surplus or an unfunded actuarial liability (UAL). Table IV-5 discloses the third of these liabilities, present value of accrued benefits, for the current and prior year valuations.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

Table IV-1			
SDCERS - City of San Diego - Total			
Valuation as of:	June 30, 2021	June 30, 2020	
Present Value of Future Benefits			
Actives	\$ 4,072,283,188	\$ 4,463,140,284	
Terminated	359,571,387	344,895,240	
Disabled	523,772,781	533,790,611	
Retirees	7,207,956,137	6,653,047,410	
Beneficiaries	410,075,532	382,244,969	
Total City	\$ 12,573,659,026	\$ 12,377,118,514	
Actuarial Liability - EAN			
Total Present Value of Future Benefits	\$ 12,573,659,026	\$ 12,377,118,514	
Present Value of Future Normal Costs			
Employer Portion	551,243,611	603,272,632	
Employee Portion	544,306,505	567,519,945	
Actuarial Liability - EAN	\$ 11,478,108,909	\$ 11,206,325,937	
Actuarial Value of Assets	\$ 8,526,118,443	\$ 7,870,672,157	
Unfunded EAN Actuarial Liability	\$ 2,951,990,466	\$ 3,335,653,780	

Table IV-2 shows the actuarial liability as of June 30, 2021 for General and Elected Members of SDCERS-City of San Diego.

Table IV-2				
SDCERS - City of San Diego - General & Elected as of June 30, 2021				
	Total	General-Old	General-2009	Elected
Present Value of Future Benefits				
Actives	\$ 1,970,128,241	\$ 1,786,555,026	\$ 178,072,392	\$ 5,500,823
Terminated	283,582,387	277,557,832	5,727,078	297,477
Disabled	108,234,004	107,415,781	818,223	0
Retirees	3,771,378,309	3,757,832,088	2,952,477	10,593,744
Beneficiaries	166,726,746	165,827,756	0	898,990
Total City General & Elected	\$ 6,300,049,687	\$ 6,095,188,483	\$ 187,570,170	\$ 17,291,034
Actuarial Liability - EAN				
Actives	\$ 1,598,436,015	\$ 1,501,692,294	\$ 93,788,934	\$ 2,954,787
Terminated	283,582,387	277,557,832	5,727,078	297,477
Disabled	108,234,004	107,415,781	818,223	0
Retirees	3,771,378,309	3,757,832,088	2,952,477	10,593,744
Beneficiaries	166,726,746	165,827,756	0	898,990
Total City General & Elected	\$ 5,928,357,462	\$ 5,810,325,751	\$ 103,286,712	\$ 14,744,998

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

Table IV-3 shows the actuarial liability as of June 30, 2021, for Police Members of SDCERS-City of San Diego.

Table IV-3						
SDCERS - City of San Diego - Police as of June 30, 2021						
	Total	Police-Old	Police-2009	Police-2012	Police-2012 No COL	Police-Prop B
Present Value of Future Benefits						
Actives	\$ 1,545,703,436	\$ 964,550,838	\$ 84,528,157	\$ 23,833,583	\$ 51,895,346	\$ 420,895,512
Terminated	62,112,695	56,373,083	1,831,630	340,979	667,984	2,899,019
Disabled	297,551,153	296,821,362	729,791	0	0	0
Retirees	2,282,561,667	2,282,561,667	0	0	0	0
Beneficiaries	167,660,608	167,660,608	0	0	0	0
Total City Safety	\$ 4,355,589,559	\$ 3,767,967,558	\$ 87,089,578	\$ 24,174,562	\$ 52,563,330	\$ 423,794,531
Actuarial Liability - EAN						
Actives	\$ 941,930,007	\$ 764,065,524	\$ 48,125,118	\$ 11,710,755	\$ 24,458,549	\$ 93,570,061
Terminated	62,112,695	56,373,083	1,831,630	340,979	667,984	2,899,019
Disabled	297,551,153	296,821,362	729,791	0	0	0
Retirees	2,282,561,667	2,282,561,667	0	0	0	0
Beneficiaries	167,660,608	167,660,608	0	0	0	0
Total City Safety	\$ 3,751,816,129	\$ 3,567,482,243	\$ 50,686,539	\$ 12,051,734	\$ 25,126,533	\$ 96,469,080

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

Table IV-4 shows the actuarial liability as of June 30, 2021, for Fire and Lifeguard Members of SDCERS-City of San Diego.

Table IV-4					
SDCERS - City of San Diego - Fire and Lifeguard as of June 30, 2021					
	Total	Fire-Old	Fire-2012	Lifeguard	Lifeguard-2011
Present Value of Future Benefits					
Actives	\$ 556,451,511	\$ 484,697,746	\$ 5,142,566	\$ 64,453,441	\$ 2,157,757
Terminated	13,876,306	12,259,726	27,700	1,570,127	18,753
Disabled	117,987,624	103,818,569	0	14,169,055	0
Retirees	1,154,016,161	1,059,240,392	0	94,775,769	0
Beneficiaries	75,688,178	72,437,424	0	3,250,754	0
Total City Safety	\$ 1,918,019,780	\$ 1,732,453,857	\$ 5,170,266	\$ 178,219,146	\$ 2,176,510
Actuarial Liability - EAN					
Actives	\$ 436,367,051	\$ 391,006,667	\$ 1,554,356	\$ 43,300,719	\$ 505,308
Terminated	13,876,306	12,259,726	27,700	1,570,127	18,753
Disabled	117,987,624	103,818,569	0	14,169,055	0
Retirees	1,154,016,161	1,059,240,392	0	94,775,769	0
Beneficiaries	75,688,178	72,437,424	0	3,250,754	0
Total City Safety	\$ 1,797,935,319	\$ 1,638,762,778	\$ 1,582,056	\$ 157,066,424	\$ 524,061

Table IV-5 shows the present value of accrued benefits as of June 30, 2021, for all Members of SDCERS-City of San Diego.

Table IV-5				
SDCERS - City of San Diego - Present Value of Accrued Benefits				
	Valuation as of:	June 30, 2021	June 30, 2020	% Change
1. Present Value of Accrued Benefits				
a. Members Currently Receiving Payments		\$ 8,141,804,450	\$ 7,569,082,990	7.6%
b. Terminated and Inactive Members		359,571,387	344,895,240	4.3%
c. Active Members		<u>2,157,830,036</u>	<u>2,462,326,931</u>	<u>-12.4%</u>
d. Total PVAB		\$ 10,659,205,873	\$ 10,376,305,161	2.7%
2. Assets at Market Value		\$ 9,457,378,818	\$ 7,648,734,761	23.6%
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero		\$ 1,201,827,055	\$ 2,727,570,399	
4. Ratio of Assets to Value of Benefits (2)/(1)(d)		88.72%	73.71%	15.0%

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

B. Changes in Unfunded Actuarial Liabilities

The UAL of any retirement plan is expected to change at each subsequent valuation for a variety of reasons. In each valuation, we report on those elements of change in the UAL that have particular significance or could potentially affect the long-term financial outlook of a retirement plan. Below we present key changes in liabilities since the last valuation.

Table IV-6 Development of 2021 Experience Gain/(Loss) SDCERS - City of San Diego (In Millions)		
1. Unfunded Actuarial Liability at June 30, 2020		\$ 3,335.7
2. Beginning of year Unfunded Actuarial Liability payment		(273.9)
3. Interest accrued ((1+2) x 6.50%)		<u>199.0</u>
4. Expected Unfunded Actuarial Liability at June 30, 2021 (1+2+3)		3,260.8
5. Actual Unfunded Liability at June 30, 2021		2,952.0
6. Difference: (4 - 5)		308.8
7. Portion of difference (6) due to actuarial assumption or method changes		0
8. Portion of difference (6) due to plan changes		0
9. Portion of difference (6) due to contributions greater than expected		(0.8)
10. Portion of difference (6) due to net experience Gain/(Loss)		309.6
a) portion of (10) due to investment experience	\$	309.2
b) portion of (10) due to liability experience	\$	0.4
c) portion of (10) due to service purchases	\$	0

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION IV – LIABILITIES

Table IV-7 shows the history of past experience gains and losses.

Table IV-7			
Experience Gain/(Loss) - Historical SDCERS - City of San Diego			
Valuation		Beginning-of-Year	Gain/(Loss)
Date	Gain/(Loss)	Actuarial Liabilities	% of Liability
06/30/1992	\$ 57,952,320	\$ 1,006,299,729	5.8%
06/30/1993	(42,605,778)	1,057,238,917	-4.0%
06/30/1994	(6,744,850)	1,220,830,059	-0.6%
06/30/1995	(11,370,990)	1,338,279,541	-0.8%
06/30/1996	59,592,960	1,476,710,662	4.0%
06/30/1997	38,473,993	1,682,604,532	2.3%
06/30/1998	31,086,010	1,822,432,018	1.7%
06/30/1999 ¹	29,750,299	1,979,668,038	1.5%
06/30/2000	286,639,160	2,181,547,453	13.1%
06/30/2001	(193,168,984)	2,528,773,900	-7.6%
06/30/2002	(364,815,155)	2,809,537,745	-13.0%
06/30/2003	(303,699,305)	3,168,921,175	-9.6%
06/30/2004	(58,123,874)	3,532,625,521	-1.6%
06/30/2005	36,775,882	3,997,328,084	0.9%
6/30/2006	205,249,486	4,377,092,948	4.7%
06/30/2007	35,189,811	4,982,699,455	0.7%
06/30/2008	(49,930,537)	5,597,652,861	-0.9%
06/30/2009	(818,906,079)	5,963,549,545	-13.7%
06/30/2010	(71,030,037)	6,281,636,108	-1.1%
06/30/2011	130,020,025	6,527,223,751	2.0%
06/30/2012	(102,581,872)	6,917,175,002	-1.5%
06/30/2013	(16,759,103)	7,261,730,655	-0.2%
06/30/2014	126,171,209	7,555,526,738	1.7%
06/30/2015	34,597,899	7,858,703,380	0.4%
06/30/2016	(99,718,170)	8,205,952,554	-1.2%
06/30/2017	23,223,195	9,013,130,184	0.3%
06/30/2018	(36,298,951)	9,565,802,458	-0.4%
06/30/2019	(106,047,925)	10,192,808,461	-1.0%
06/30/2020	(141,967,177)	10,602,166,314	-1.3%
06/30/2021	309,606,387	11,206,325,937	2.8%

¹ Beginning with the June 30, 1999 valuation, experience is City only. The prior years include all employers.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

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 achieve and maintain an appropriate funded status of a plan. Typically, the actuarial process will use an actuarial funding method that attempts to create a pattern of contributions that is both stable and predictable.

The actuarial funding methodology employed is the Entry Age Normal (EAN) actuarial funding method. Under the funding method, there are three components to the total contribution: the normal cost, an amortization payment on the unfunded actuarial liability, and the expected administrative expenses. The normal cost for an individual employee is the ratio of their present value of future benefits to present value of future salaries at entry age, multiplied by their valuation salary. The gross normal cost rate for each sub-group is determined by dividing the sum of the individual normal costs by the total valuation salary for that sub-group. The gross normal cost rate is then reduced by the average employee contribution rate to determine the employer normal cost rate. Finally, the employer normal cost rate for each sub-group is multiplied by that group's projected FY 2023 payroll to determine the normal cost component of the FY 2023 ADC.

The EAN actuarial liability is the Plan's total present value of future benefits minus the total present value of future normal costs. The actuarial value of assets is allocated to each sub-group based on the proportion of the EAN actuarial liability for that sub-group. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability. The UAL for FY 2023 is to be amortized over several different periods. Table V-2 shows the outstanding balance, the FY 2023 payment and the remaining amortization period for each of these components. If necessary, there is an additional UAL cost component to ensure that there is no negative amortization in aggregate in any year.

Beginning with the June 30, 2012 valuation, the non-Police portion of the UAL has been amortized in level dollar amounts, due to the closure of that portion of the plan to new hires. The portion of the UAL associated with the open Police Plan continues to be amortized as a level percentage of pay.

In January 2015, the Board voted to account for expected administrative expenses explicitly in the actuarially determined contribution (ADC). The administrative expense component is \$11,582,500 for FY 2023 (assuming payment at the beginning of the year). This amount is assumed to increase by 2.5% per year.

In September 2017, the Board adopted a five-year layering method for the 2009 experience loss and 2012 non-Police UAL amortization bases in order to improve the projected stability of future employer contributions. Details are shown in Table V-2 of this section.

In January 2019, the Board adopted a UAL contribution floor amortization method, setting a minimum of \$275,495,017 on the UAL payment until the Plan achieves a 100% funding ratio. This UAL payment floor was based on the Fiscal Year 2020 amortization payment as determined by the results of the June 30, 2018 actuarial valuation.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION V – CONTRIBUTIONS

Table V-1 shows how the City’s contribution rate for SDCERS for FY 2023 is developed.

Table V-1 SDCERS - City of San Diego Development of the City's Contribution as of June 30, 2021 for FY 2023 (dollars in millions)					
	WEIGHTED	Non-Safety			
	TOTAL CITY	Weighted Total	General Old Plan	General 2009 Plan	Elected
1. Total Normal Cost Rate as of June 30, 2021	29.78%	24.39%	24.90%	21.75%	37.95%
2. Member Contribution Rate as of June 30, 2021	15.01%	12.32%	12.66%	10.78%	9.05%
3. Employer Normal Cost Rate as of June 30, 2021 (1-2)	14.77%	12.07%	12.24%	10.97%	28.90%
4. Actuarial Liability	\$ 11,478.1	\$ 5,928.4	\$ 5,810.3	\$ 103.3	\$ 14.7
5. Actuarial Assets	\$ 8,526.1	\$ 4,462.1	\$ 4,373.2	\$ 77.7	\$ 11.1
6. Total Unfunded Actuarial Liability (UAL) (4-5) ¹	\$ 2,952.0	\$ 1,466.3	\$ 1,437.1	\$ 25.5	\$ 3.6
7. Preliminary FY23 UAL amortization ¹	\$ 302.9	\$ 153.2	\$ 150.2	\$ 2.7	\$ 0.4
8. UAL Payment Floor ²	\$ 275.5	\$ 136.8	\$ 134.1	\$ 2.4	\$ 0.3
9. <u>Negative Amortization Test for FY23</u>					
a. Total UAL on 6/30/21 less FY22 UAL payment	\$ 2,622.9	\$ 1,302.8	\$ 1,276.9	\$ 22.7	\$ 3.2
b. Interest on 9a. To 6/30/22	\$ 170.5	\$ 84.7	\$ 83.0	\$ 1.5	\$ 0.2
c. Preliminary FY23 UAL amortization (line 7)	\$ 302.9	\$ 153.2	\$ 150.2	\$ 2.7	\$ 0.4
d. Negative interest (9b - 9c, not less than zero)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
10. Total FY23 UAL payment on 7/1/22 (9c + 9d, not less than 8)	\$ 302.9	\$ 153.2	\$ 150.2	\$ 2.7	\$ 0.4
11. Total FY23 UAL payment throughout year	\$ 312.6	\$ 158.1	\$ 155.0	\$ 2.8	\$ 0.4
12. Total Expected Payroll for FY23	\$ 492.4	\$ 248.7	\$ 175.0	\$ 73.0	\$ 0.7
13. FY23 Normal Cost paid throughout the year	\$ 72.0	\$ 29.6	\$ 21.4	\$ 8.0	\$ 0.2
14. FY23 Normal Cost paid at start of year	\$ 69.8	\$ 28.7	\$ 20.8	\$ 7.8	\$ 0.2
15. Administrative Expenses paid throughout the year	\$ 12.0	\$ 5.8	\$ 5.5	\$ 0.3	\$ 0.0
16. Determination of FY23 ADC %					
a. Employer Normal Cost Rate (13 divided by 12)	14.63%	11.92%	12.24%	10.97%	28.90%
b. UAL Rate (line 11 divided by line 12)	63.48%	63.58%	88.58%	3.77%	52.65%
c. Admin Expense Rate (line 15 divided by line 12)	2.43%	2.35%	3.13%	0.46%	2.53%
d. Total employer ADC % (16a + 16b + 16c)	80.54%	77.85%	103.96%	15.21%	84.09%
17. Determination of FY23 ADC dollars					
a. FY23 ADC if paid throughout year	\$ 396.6	\$ 193.6	\$ 181.9	\$ 11.1	\$ 0.6
b. FY23 ADC if paid at beginning of year	\$ 384.3	\$ 187.6	\$ 176.2	\$ 10.8	\$ 0.6

¹See Table V-2 for components of these amounts.

²See Appendix B for details on the UAL Payment Floor.

Note: Numbers may not add due to rounding.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION V – CONTRIBUTIONS

Table V-1 (cont.) SDCERS - City of San Diego Development of the City's Contribution as of June 30, 2021 for FY 2023 (dollars in millions)										
	Safety									
	Weighted Total	Police Old	Police 2009	Police 2012	Police 2012 No COL	Police Prop B	Fire Old	Fire 2012	Lifeguard Old	Lifeguard 2011
1. Total Normal Cost Rate as of June 30, 2021	35.09%	37.21%	35.06%	34.92%	31.77%	32.21%	36.66%	35.94%	37.98%	35.43%
2. Member Contribution Rate as of June 30, 2021	17.67%	19.48%	18.38%	18.30%	15.21%	15.14%	18.94%	18.25%	19.48%	17.88%
3. Employer Normal Cost Rate as of June 30, 2021 (1-2)	17.42%	17.73%	16.68%	16.62%	16.56%	17.07%	17.72%	17.69%	18.50%	17.55%
4. Actuarial Liability	\$ 5,549.8	\$ 3,567.5	\$ 50.7	\$ 12.1	\$ 25.1	\$ 96.5	\$ 1,638.8	\$ 1.6	\$ 157.1	\$ 0.5
5. Actuarial Assets	\$ 4,064.1	\$ 2,577.6	\$ 36.6	\$ 8.7	\$ 18.2	\$ 69.7	\$ 1,233.4	\$ 1.2	\$ 118.2	\$ 0.4
6. Total Unfunded Actuarial Liability (UAL) (4-5) ¹	\$ 1,485.7	\$ 989.9	\$ 14.1	\$ 3.3	\$ 7.0	\$ 26.8	\$ 405.3	\$ 0.4	\$ 38.8	\$ 0.1
7. Preliminary FY21 UAL amortization ¹	\$ 149.7	\$ 98.1	\$ 1.4	\$ 0.3	\$ 0.7	\$ 2.7	\$ 42.4	\$ 0.0	\$ 4.1	\$ 0.0
8. UAL Payment Floor ²	\$ 138.7	\$ 92.4	\$ 1.3	\$ 0.3	\$ 0.7	\$ 2.5	\$ 37.8	\$ 0.0	\$ 3.6	\$ 0.0
9. <u>Negative Amortization Test for FY23</u>										
a. Total UAL on 6/30/21 less FY22 UAL payment	\$ 1,320.1	\$ 879.5	\$ 12.5	\$ 3.0	\$ 6.2	\$ 23.8	\$ 360.1	\$ 0.3	\$ 34.5	\$ 0.1
b. Interest on 9a. To 6/30/22	\$ 85.8	\$ 57.2	\$ 0.8	\$ 0.2	\$ 0.4	\$ 1.5	\$ 23.4	\$ 0.0	\$ 2.2	\$ 0.0
c. Preliminary FY23 UAL amortization (line 7)	\$ 149.7	\$ 98.1	\$ 1.4	\$ 0.3	\$ 0.7	\$ 2.7	\$ 42.4	\$ 0.0	\$ 4.1	\$ 0.0
d. Negative interest (9b - 9c, not less than zero)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
10. Total FY23 UAL payment on 7/01/22 (9c + 9d, not less than 8)	\$ 149.7	\$ 98.1	\$ 1.4	\$ 0.3	\$ 0.7	\$ 2.7	\$ 42.4	\$ 0.0	\$ 4.1	\$ 0.0
11. Total FY23 UAL payment throughout year	\$ 154.5	\$ 101.3	\$ 1.4	\$ 0.3	\$ 0.7	\$ 2.7	\$ 43.7	\$ 0.0	\$ 4.2	\$ 0.0
12. Total Expected Payroll for FY23	\$ 243.7	\$ 76.7	\$ 10.4	\$ 3.3	\$ 7.8	\$ 93.7	\$ 38.1	\$ 6.3	\$ 6.3	\$ 1.1
13. FY23 Normal Cost paid throughout the year	\$ 42.4	\$ 13.6	\$ 1.7	\$ 0.5	\$ 1.3	\$ 16.0	\$ 6.7	\$ 1.1	\$ 1.2	\$ 0.2
14. FY23 Normal Cost paid at start of year	\$ 41.1	\$ 13.2	\$ 1.7	\$ 0.5	\$ 1.3	\$ 15.5	\$ 6.5	\$ 1.1	\$ 1.1	\$ 0.2
15. Administrative Expenses paid throughout the year	\$ 6.1	\$ 3.6	\$ 0.1	\$ 0.0	\$ 0.1	\$ 0.6	\$ 1.6	\$ 0.0	\$ 0.2	\$ 0.0
16. Determination of FY23 ADC %										
a. Employer Normal Cost Rate (13 divided by 12)	17.40%	17.73%	16.68%	16.62%	16.56%	17.07%	17.72%	17.69%	18.50%	17.55%
b. UAL Rate (line 11 divided by line 12)	63.38%	132.06%	13.87%	10.45%	9.13%	2.92%	114.82%	0.67%	65.98%	1.24%
c. Admin Expense Rate (line 15 divided by line 12)	2.51%	4.66%	0.95%	0.84%	0.80%	0.62%	4.12%	0.57%	2.63%	0.58%
d. Total employer ADC % (16a + 16b + 16c)	83.29%	154.45%	31.50%	27.91%	26.49%	20.62%	136.66%	18.93%	87.10%	19.37%
17. Determination of FY23 ADC dollars										
a. FY23 ADC if paid throughout year	\$ 203.0	\$ 118.5	\$ 3.3	\$ 0.9	\$ 2.1	\$ 19.3	\$ 52.0	\$ 1.2	\$ 5.5	\$ 0.2
b. FY23 ADC if paid at beginning of year	\$ 196.7	\$ 114.8	\$ 3.2	\$ 0.9	\$ 2.0	\$ 18.7	\$ 50.4	\$ 1.2	\$ 5.4	\$ 0.2

¹ See Table V-2 for components of these amounts.

² See Appendix B for details on the UAL Payment Floor.

Note: Numbers may not add due to rounding.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION V – CONTRIBUTIONS

Table V-2 shows information on each layer of the June 30, 2021 UAL.

Table V-2 SDCERS - City of San Diego Schedule of Amortization Bases as of July 1, 2021 Used in Development of the City's Contribution for FY 2023								
Type of Base	Date Established	Initial Amount	Initial	July 1, 2021	FY 2023	Remaining	FY 2023	
			Amortization	Outstanding	Outstanding	Amortization	Amortization	
			Years	Balance	Balance (BOY) ¹	Years	Payment (BOY) ²	
1. June 30, 2007 UAL	07/01/2007	\$ 1,184,242,049	20	\$ 247,954,330	\$ 222,519,872	6	\$ 40,205,456	
2. Assumption Change	07/01/2008	83,787,434	30	30,266,032	29,898,380	17	2,259,305	
3. Experience Loss	07/01/2008	13,564,981	15	1,664,341	1,162,122	2	590,628	
4. Experience Loss	07/01/2009	810,661,179	15					
- Layer 1				25,064,258	19,686,911	3	6,779,551	
- Layer 2				27,406,252	22,959,472	4	6,026,429	
- Layer 3				29,225,046	25,500,989	5	5,441,510	
- Layer 4				30,677,605	27,530,782	6	4,974,332	
- Layer 5				31,863,815	29,188,419	7	4,592,782	
5. Experience Loss	07/01/2010	25,942,732	15	4,737,837	3,969,103	4	1,041,815	
6. Experience Gain ³	07/01/2010	(50,000,000)	14	(7,194,760)	(5,651,178)	3	(1,946,088)	
7. Experience Gain	07/01/2011	(141,139,563)	15	(29,235,377)	(25,510,003)	5	(5,443,433)	
8. Assumption Change	07/01/2011	188,313,322	30	67,303,349	67,026,674	20	4,500,714	
9. Experience Loss	07/01/2012	36,799,824	15	26,933,795	24,171,002	6	4,367,278	
10. Method Change	07/01/2012	2,465,954	30	2,800,691	2,795,270	21	181,393	
11. Non-Police UAL ⁴	07/01/2012	1,564,122,860	15					
- Layer 1				181,595,794	160,288,911	6	31,089,774	
- Layer 2				188,482,446	169,777,957	7	29,066,523	
- Layer 3				194,179,061	177,627,620	8	27,392,564	
- Layer 4				198,960,624	184,216,709	9	25,987,189	
- Layer 5				203,023,578	189,815,838	10	24,792,745	
12. Experience Loss	07/01/2013	25,877,674	15	18,821,478	17,054,387	7	2,836,096	
13. Salary Freeze	07/01/2013	(194,945,486)	15	(140,860,238)	(127,523,493)	7	(21,299,141)	
14. Assumption Change	07/01/2013	146,882,570	30	149,836,617	147,962,931	22	11,008,181	
15. Experience Gain	07/01/2014	(129,251,561)	15	(102,703,029)	(94,634,521)	8	(14,012,231)	
16. Experience Gain	07/01/2015	(37,814,454)	15	(31,989,955)	(29,814,913)	9	(4,037,389)	
17. Assumption Change	07/01/2015	95,828,141	30	99,172,156	98,199,935	24	7,026,847	
18. Experience Loss	07/01/2016	90,825,538	15	81,394,606	76,592,981	10	9,573,417	
19. Assumption Change	07/01/2016	543,780,953	30	564,620,959	559,323,511	25	39,730,048	
20. Experience Gain	07/01/2017	(8,079,441)	15	(8,255,108)	(8,027,639)	11	(761,844)	
21. Assumption Change	07/01/2017	253,973,564	30	266,192,448	264,201,015	26	18,266,485	
22. Experience Loss	07/01/2018	38,977,116	15	39,435,608	38,116,239	12	3,761,557	
23. Assumption Change	07/01/2018	274,300,207	30	289,264,054	287,441,482	27	19,526,245	
24. Experience Loss	07/01/2019	107,071,265	15	110,863,752	107,256,512	13	10,380,054	
25. Experience Loss	07/01/2020	135,421,404	15	144,223,795	139,063,772	14	13,761,692	
26. Assumption Change	07/01/2020	291,080,547	20	310,000,783	304,029,005	19	24,741,744	
27. Experience Gain	07/01/2021	(293,736,178)	15	(293,736,178)	(312,829,030)	15	(29,498,845)	
TOTAL				\$ 2,951,990,466	\$ 2,793,387,022		\$ 302,903,383	

¹ July 1, 2021 outstanding balance adjusted to the FY2023 beginning of year (BOY), July 1, 2022.

² For bases established 7/1/2013 and after, payment reflects level percent of pay amortization for Police portion and level dollar amortization for non-Police portion.

³ Reduction in UAL from anticipated impact of PSC correction as of the June 30, 2010 valuation.

⁴ Entire non-Police UAL as of June 30, 2012. Other pre-2013 bases reflect amounts attributable to Police portion.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION VI –ANNUAL COMPREHENSIVE FINANCIAL REPORT INFORMATION

Tables VI-1 and VI-2 are exhibits required for the System’s Annual Comprehensive Financial Report (ACFR). The Government Finance Officers Association (GFOA) recommends showing at least six years of experience in each of these exhibits in the ACFR. Table VI-1 presents an analysis of financial experience for the valuation year, and Table VI-2 presents the Schedule of Funded Liabilities by Type which shows the portion of actuarial liability covered by assets.

The disclosures needed to satisfy the requirements of Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 are contained in our separate GASB 67/68 report as of June 30, 2021, issued on October 22, 2021.

Table VI-1 SDCERS - City of San Diego ANALYSIS OF FINANCIAL EXPERIENCE Gain and Loss in Actuarial Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience	
Type of Activity	Gain (or Loss) for Year ending June 30, 2021
Investment Income	\$ 309,169,076
Combined Liability Experience	<u>437,311</u>
Gain (or Loss) During Year from Financial Experience	\$ 309,606,387
Non-Recurring Gain (or Loss) Items (e.g., Contributions, Assumption Changes)	<u>(813,840)</u>
Composite Gain (or Loss) During Year	\$ 308,792,547

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

SECTION VI –ANNUAL COMPREHENSIVE FINANCIAL REPORT INFORMATION

**Table VI-2
SDCERS - City of San Diego**

**Schedule of Funded Liabilities by Type
(\$ in thousands)**

Valuation Date June 30,	(A)	(B)	(C)	Reported Assets ¹	Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)
2021	\$ 879,076	\$ 8,141,804	\$ 2,457,228	\$ 8,526,118	100%	93.92%	0.00%
2020 ⁵	935,128	7,569,083	2,702,115	7,870,672	100	91.63	0.00
2019	891,148	7,238,750	2,472,268	7,595,073	100	92.61	0.00
2018 ⁵	836,454	7,089,658	2,266,697	7,214,925	100	89.97	0.00
2017 ⁵	808,937	6,692,735	2,064,131	6,808,418	100	89.64	0.00
2016 ⁵	798,226	6,221,393	1,993,511	6,455,378	100	90.93	0.00
2015 ⁵	779,487	5,579,503	1,846,962	6,204,244	100	97.23	0.00
2014	741,628	5,304,270	1,812,805	5,828,594	100	95.90	0.00
2013 ⁵	709,796	4,975,550	1,870,181	5,317,778	100	92.61	0.00
2012	662,488	4,625,110	1,974,133	4,982,442	100	93.40	0.00
2011 ⁵	627,447	4,344,218	1,945,510	4,739,399	100	94.65	0.00
2010	584,296	3,912,113	2,030,816	4,382,047	100	97.08	0.00
2009	535,797	3,673,185	2,072,655	4,175,229	100	99.08	0.00
2008 ⁵	522,966	3,286,668	2,153,916	4,662,346	100	100	39.50
2007 ⁴	482,526	3,101,594	2,013,532	4,413,311	100	100	41.19
2006 ³	456,562	2,822,203	1,703,935	3,981,932	100	100	41.27
2005	457,550	2,183,263	1,736,279	2,983,080	100	100	19.71
2004	414,986 ²	1,946,660	1,635,681	2,628,680	100	100	16.33

¹ Actuarial Value of Assets.

² Estimated.

³ Reflects contingent liabilities (Corbett pre-July 1, 2000 and Annual Supplemental Benefit), DROP reserves, supplemental COLA reserves, and IRC section 415 limits.

⁴ The actuarial liability on June 30, 2007 and after is based on the entry age actuarial funding method. All prior years are based on the projected unit credit actuarial funding method.

⁵ Reflects revised actuarial demographic and economic assumptions.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-1
Reconciliation of Member Data
Total - City of San Diego**

	<u>Active</u>	<u>Terminated Vested</u>	<u>Terminated Non-Vested</u>	<u>Disabled</u>	<u>Retired</u>	<u>Beneficiaries</u>	<u>DROP</u>	<u>Totals</u>
Participants as of 7/1/2020	5,535	763	2,135	1,100	6,947	1,471	891	18,842
New Entrants	159	0	0	0	0	0	0	159
Returned to Work	28	(9)	(19)	0	0	0	0	0
Vested Terminations	(79)	79	0	0	0	0	0	0
Non-Vested Terminations	(68)	0	68	0	0	0	0	0
Retirements	(89)	(57)	(19)	0	467	0	(302)	0
DROP	(383)	(1)	0	0	0	0	384	0
Disabilities	(2)	(2)	0	5	(1)	0	0	0
New Continuants	0	0	0	0	0	128	0	128
New Dissolutions ¹	0	0	0	1	1	0	30	32
Benefits Ceased ²	(12)	(2)	(8)	(30)	(150)	(84)	(2)	(288)
Lump Sum Cashout	(21)	(8)	(68)	0	0	0	0	(97)
Transfers In/Out	0	(3)	(2)	0	0	0	0	(5)
Miscellaneous Adjustments	0	0	0	0	0	2	0	2
Participants as of 7/1/2021	5,068	760	2,087	1,076	7,264	1,517	1,001	18,773

¹ Includes participants who may have previously had a frozen benefit and retired from a different plan.

² Includes deaths and benefits that were terminated or suspended.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-2
Reconciliation of Member Data
City General**

	<u>Active</u>	<u>Terminated Vested</u>	<u>Terminated Non-Vested</u>	<u>Disabled</u>	<u>Retired</u>	<u>Beneficiaries</u>	<u>DROP</u>	<u>Totals</u>
Participants as of 7/1/2020	3,319	638	1,581	374	4,718	783	634	12,047
New Entrants	10	0	0	0	0	0	0	10
Returned to Work	21	(9)	(12)	0	0	0	0	0
Vested Terminations	(66)	66	0	0	0	0	0	0
Non-Vested Terminations	(17)	0	17	0	0	0	0	0
Retirements	(74)	(46)	(14)	0	349	0	(215)	0
DROP	(206)	(1)	0	0	0	0	207	0
Disabilities	0	(1)	0	1	0	0	0	0
New Continuants	0	0	0	0	0	75	0	75
New Dissolutions ¹	0	0	0	1	1	0	25	27
Benefits Ceased ²	(6)	(2)	(8)	(9)	(112)	(61)	(2)	(200)
Lump Sum Cashout	(10)	(6)	(48)	0	0	0	0	(64)
Transfers In/Out	0	(2)	(2)	0	0	0	0	(4)
Miscellaneous Adjustments	0	1	(1)	0	0	1	0	1
Participants as of 7/1/2021	2,971	638	1,513	367	4,956	798	649	11,892

¹ Includes participants who may have previously had a frozen benefit and retired from a different plan.

² Includes deaths and benefits that were terminated or suspended.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-3
Reconciliation of Member Data
City Safety**

	<u>Active</u>	<u>Terminated Vested</u>	<u>Terminated Non-Vested</u>	<u>Disabled</u>	<u>Retired</u>	<u>Beneficiaries</u>	<u>DROP</u>	<u>Totals</u>
Participants as of 7/1/2020	2,216	125	554	726	2,229	688	257	6,795
New Entrants	149	0	0	0	0	0	0	149
Returned to Work	7	0	(7)	0	0	0	0	0
Vested Terminations	(13)	13	0	0	0	0	0	0
Non-Vested Terminations	(51)	0	51	0	0	0	0	0
Retirements	(15)	(11)	(5)	0	118	0	(87)	0
DROP	(177)	0	0	0	0	0	177	0
Disabilities	(2)	(1)	0	4	(1)	0	0	0
New Continuants	0	0	0	0	0	53	0	53
New Dissolutions ¹	0	0	0	0	0	0	5	5
Benefits Ceased ²	(6)	0	0	(21)	(38)	(23)	0	(88)
Lump Sum Cashout	(11)	(2)	(20)	0	0	0	0	(33)
Transfers In/Out	0	(1)	0	0	0	0	0	(1)
Miscellaneous Adjustments	0	(1)	1	0	0	1	0	1
Participants as of 7/1/2021	2,097	122	574	709	2,308	719	352	6,881

¹ Includes participants who may have previously had a frozen benefit and retired from a different plan.

² Includes deaths and benefits that were terminated or suspended.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-4				
SDCERS - City of San Diego				
Active Member Data				
	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>% Change</u>	
Total				
Count	5,068	5,535	-8.4%	
Average Current Age	45.4	45.7	-0.8%	
Average Service	14.8	15.1	-1.7%	
Average Pensionable Earnings	\$ 92,120	\$ 90,552	1.7%	
Annual Pensionable Earnings	\$ 466,863,508	\$ 501,203,699	-6.9%	
Average Valuation Compensation ¹	\$ 92,120	\$ 90,552	1.7%	
Annual Valuation Compensation ¹	\$ 466,863,508	\$ 501,203,699	-6.9%	
Average Service Without Purchased Service	14.4	14.6	-1.3%	
Members with Paid Purchased Service	649	814	-20.3%	
Members with Any Purchased Service	659	829	-20.5%	
Years of Paid Purchased Service	2,093	2,679	-21.9%	
Years of Total Purchased Service	2,164	2,777	-22.1%	
General				
Count	2,971	3,319	-10.5%	
Average Current Age	49.9	49.7	0.4%	
Average Service	17.3	17.1	1.2%	
Average Pensionable Earnings	\$ 78,721	\$ 76,753	2.6%	
Annual Pensionable Earnings	\$ 233,880,322	\$ 254,743,394	-8.2%	
Average Valuation Compensation ¹	\$ 78,721	\$ 76,753	2.6%	
Annual Valuation Compensation ¹	\$ 233,880,322	\$ 254,743,394	-8.2%	
Average Service Without Purchased Service	17.0	16.4	3.7%	
Members with Paid Purchased Service	456	577	-21.0%	
Members with Any Purchased Service	460	580	-20.7%	
Years of Paid Purchased Service	1,537	2,001	-23.2%	
Years of Total Purchased Service	1,563	2,026	-22.8%	
Safety				
Count	2,097	2,216	-5.4%	
Average Current Age	38.9	39.7	-2.0%	
Average Service	11.3	12.1	-6.6%	
Average Pensionable Earnings	\$ 111,103	\$ 111,219	-0.1%	
Annual Pensionable Earnings	\$ 232,983,186	\$ 246,460,305	-5.5%	
Average Valuation Compensation ¹	\$ 111,103	\$ 111,219	-0.1%	
Annual Valuation Compensation ¹	\$ 232,983,186	\$ 246,460,305	-5.5%	
Average Service Without Purchased Service	11.0	11.8	-6.8%	
Members with Paid Purchased Service	193	237	-18.6%	
Members with Any Purchased Service	199	249	-20.1%	
Years of Paid Purchased Service	556	678	-17.9%	
Years of Total Purchased Service	600	751	-20.0%	

¹ The definition of valuation compensation differs from the definition of pensionable earnings due to IRS 401(a)(17).

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-5 SDCERS - City of San Diego Non-Active Participant Data						
	Count			Average Age		
	June 30, 2021	June 30, 2020	%Change	June 30, 2021	June 30, 2020	%Change
Total						
Retired ¹	8,265	7,838	5.4%	67.4	67.4	0.0%
Disabled	1,076	1,100	-2.2%	69.2	68.5	1.0%
Beneficiaries	<u>1,517</u>	<u>1,471</u>	3.1%	<u>73.1</u>	<u>73.4</u>	-0.4%
Payee Total	10,858	10,409	4.3%	68.4	68.4	0.0%
DROP Participants	1,001	896	11.7%	58.0	58.7	-1.1%
Terminated ²	2,847	2,898	-1.8%	49.1	48.8	0.8%
Non-Vested < 10 (4) yrs svc	2,087	2,135	-2.2%			
General						
Retired ¹	5,605	5,352	4.7%	68.6	68.5	0.1%
Disabled	367	374	-1.9%	67.8	67.1	1.0%
Beneficiaries	<u>798</u>	<u>783</u>	1.9%	<u>74.6</u>	<u>75.2</u>	-0.8%
Payee Total	6,770	6,509	4.0%	69.3	69.3	0.0%
DROP Participants	649	637	1.9%	59.7	59.9	-0.3%
Terminated ²	2,151	2,219	-3.1%	51.4	50.8	1.2%
Non-Vested < 10 (4) yrs svc	1,513	1,581	-4.3%			
Safety						
Retired ¹	2,660	2,486	7.0%	64.9	65.0	-0.2%
Disabled	709	726	-2.3%	69.9	69.2	1.0%
Beneficiaries	<u>719</u>	<u>688</u>	4.5%	<u>71.5</u>	<u>71.3</u>	0.3%
Payee Total	4,088	3,900	4.8%	66.9	66.9	0.0%
DROP Participants	352	259	35.9%	55.0	55.6	-1.1%
Terminated ²	696	679	2.5%	42.2	42.0	0.5%
Non-Vested < 10 yrs svc	574	554	3.6%			

¹ Includes DROP Participants.

² Includes all Participants having a contribution balance still on account with SDCERS.

³ Four years of service for Elected Officials.

**SDCERS-CITY OF SAN DIEGO
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APPENDIX A – MEMBERSHIP INFORMATION

Table A-6 SDCERS - City of San Diego Non-Active Participant Data						
	Total Annual Benefit			Average Annual Benefit		
	June 30, 2021	June 30, 2020	%Change	June 30, 2021	June 30, 2020	%Change
Total						
Retired ¹	\$ 494,054,114	\$ 453,371,014	9.0%	\$ 59,777	\$ 57,843	3.3%
Disabled	42,984,502	43,142,263	-0.4%	39,948	39,220	1.9%
Beneficiaries	<u>37,832,210</u>	<u>35,285,013</u>	7.2%	<u>24,939</u>	<u>23,987</u>	4.0%
Payee Total	\$ 574,870,826	\$ 531,798,290	8.1%	\$ 52,944	\$ 51,090	3.6%
DROP Participants	\$ 64,756,711	\$ 50,728,489	27.7%	\$ 64,692	\$ 56,617	14.3%
Terminated ²	\$ 193,629,464	\$ 184,982,597	4.7%	\$ 68,012	\$ 63,831	6.5%
General						
Retired ¹	\$ 272,058,320	\$ 253,869,258	7.2%	\$ 48,539	\$ 47,434	2.3%
Disabled	8,537,378	8,480,765	0.7%	23,263	22,676	2.6%
Beneficiaries	<u>16,110,999</u>	<u>15,249,184</u>	5.7%	<u>20,189</u>	<u>19,475</u>	3.7%
Payee Total	\$ 296,706,697	\$ 277,599,207	6.9%	\$ 43,827	\$ 42,649	2.8%
DROP Participants	\$ 30,760,826	\$ 29,059,216	5.9%	\$ 47,397	\$ 45,619	3.9%
Terminated ²	\$ 153,677,440	\$ 148,536,102	3.5%	\$ 71,445	\$ 66,938	6.7%
Safety						
Retired ¹	\$ 221,995,794	\$ 199,501,756	11.3%	\$ 83,457	\$ 80,250	4.0%
Disabled	34,447,124	34,661,498	-0.6%	48,586	47,743	1.8%
Beneficiaries	<u>21,721,211</u>	<u>20,035,829</u>	8.4%	<u>30,210</u>	<u>29,122</u>	3.7%
Payee Total	\$ 278,164,129	\$ 254,199,083	9.4%	\$ 68,044	\$ 65,179	4.4%
DROP Participants	\$ 33,995,886	\$ 21,669,272	56.9%	\$ 96,579	\$ 83,665	15.4%
Terminated ²	\$ 39,952,024	\$ 36,446,495	9.6%	\$ 57,402	\$ 53,677	6.9%

¹ Includes DROP Participants.

² Includes all Participants having a contribution balance still on account with SDCERS. Annual benefit for Terminated Participants is the total contribution balance on account as of the actuarial valuation date.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-7 SDCERS - City of San Diego Distribution of Active Members as of June 30, 2021 Total City											
Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	32	32	-	-	-	-	-	-	-	-	64
25 to 29	51	231	55	-	-	-	-	-	-	-	337
30 to 34	32	160	241	54	-	-	-	-	-	-	487
35 to 39	16	72	217	329	81	4	-	-	-	-	719
40 to 44	6	25	115	271	243	101	4	-	-	-	765
45 to 49	2	17	68	144	243	290	104	3	-	-	871
50 to 54	1	23	75	107	168	302	183	89	5	-	953
55 to 59	2	15	39	92	112	141	76	63	10	-	550
60 to 64	-	6	30	46	54	48	16	18	2	1	221
65 to 69	-	5	14	27	15	7	6	1	2	-	77
70 and up	2	3	5	10	2	-	1	-	1	-	24
Total Count	144	589	859	1,080	918	893	390	174	20	1	5,068

Table A-8 SDCERS - City of San Diego Distribution of Active Members as of June 30, 2021 Total City											
Age	Average Salary Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	\$ 78,848	\$ 84,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,899
25 to 29	81,138	95,000	99,547	-	-	-	-	-	-	-	93,644
30 to 34	78,274	92,241	101,011	100,355	-	-	-	-	-	-	96,563
35 to 39	76,612	87,124	97,186	106,265	94,674	110,804	-	-	-	-	99,668
40 to 44	76,917	80,936	90,152	99,654	101,934	102,180	141,423	-	-	-	98,712
45 to 49	60,074	83,595	82,872	94,123	94,528	105,254	102,951	83,395	-	-	97,797
50 to 54	37,984	48,946	77,079	92,481	83,996	92,866	90,988	88,495	78,466	-	88,055
55 to 59	44,078	53,661	73,620	83,669	70,669	80,317	88,657	79,704	84,510	-	78,738
60 to 64	-	76,596	63,832	76,050	68,765	76,933	76,177	86,931	83,788	137,842	74,063
65 to 69	-	53,114	63,209	70,307	86,830	70,730	79,293	102,337	65,272	-	72,143
70 and up	39,479	39,294	61,416	70,056	78,982	-	88,792	-	84,619	-	63,994
Avg. Salary	\$ 77,628	\$ 88,138	\$ 91,583	\$ 96,880	\$ 89,988	\$ 95,012	\$ 93,448	\$ 85,142	\$ 81,008	\$ 137,842	\$ 92,120

**SDCERS-CITY OF SAN DIEGO
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APPENDIX A – MEMBERSHIP INFORMATION

**Table A-9
SDCERS - City of San Diego
Distribution of Active Members as of June 30, 2021
General**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	-	-	-	-	-	-	-	-	-	-	-	-
25 to 29	-	8	15	-	-	-	-	-	-	-	-	23
30 to 34	3	26	77	22	-	-	-	-	-	-	-	128
35 to 39	3	19	94	128	40	2	-	-	-	-	-	286
40 to 44	1	10	78	152	115	49	4	-	-	-	-	409
45 to 49	1	11	48	97	139	156	62	3	-	-	-	517
50 to 54	1	23	69	83	129	231	153	85	5	-	-	779
55 to 59	2	14	38	87	103	129	67	61	10	-	-	511
60 to 64	-	6	30	46	51	48	16	18	2	1	-	218
65 to 69	-	5	14	26	15	7	6	1	2	-	-	76
70 and up	2	3	5	10	2	-	1	-	1	-	-	24
Total Count	13	125	468	651	594	622	309	168	20	1	2,971	

**Table A-10
SDCERS - City of San Diego
Distribution of Active Members as of June 30, 2021
General**

Age	Average Salary Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	57,628	56,658	-	-	-	-	-	-	-	-	56,996
30 to 34	41,743	55,756	73,718	72,981	-	-	-	-	-	-	-	69,193
35 to 39	42,229	54,320	75,778	88,783	72,144	107,936	-	-	-	-	-	79,538
40 to 44	57,212	56,847	83,460	90,741	78,834	85,690	141,423	-	-	-	-	84,984
45 to 49	39,150	76,421	73,083	84,377	76,713	87,280	86,941	83,395	-	-	-	82,189
50 to 54	37,984	48,946	72,442	86,133	74,370	82,978	81,345	83,638	78,466	-	-	79,615
55 to 59	44,078	46,840	73,667	82,349	67,226	77,106	83,380	78,158	84,510	-	-	75,886
60 to 64	-	76,596	63,832	76,050	65,367	76,933	76,177	86,931	83,788	137,842	-	73,341
65 to 69	-	53,114	63,209	66,759	86,830	70,730	79,293	102,337	65,272	-	-	70,953
70 and up	39,479	39,294	61,416	70,056	78,982	-	88,792	-	84,619	-	-	63,994
Avg. Salary	\$ 42,567	\$ 55,811	\$ 73,872	\$ 84,785	\$ 73,951	\$ 82,529	\$ 83,403	\$ 82,108	\$ 81,008	\$ 137,842	\$ 78,721	



**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-11
SDCERS - City of San Diego
Distribution of Active Members as of June 30, 2021
Safety**

Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	32	32	-	-	-	-	-	-	-	-	64
25 to 29	51	223	40	-	-	-	-	-	-	-	314
30 to 34	29	134	164	32	-	-	-	-	-	-	359
35 to 39	13	53	123	201	41	2	-	-	-	-	433
40 to 44	5	15	37	119	128	52	-	-	-	-	356
45 to 49	1	6	20	47	104	134	42	-	-	-	354
50 to 54	-	-	6	24	39	71	30	4	-	-	174
55 to 59	-	1	1	5	9	12	9	2	-	-	39
60 to 64	-	-	-	-	3	-	-	-	-	-	3
65 to 69	-	-	-	1	-	-	-	-	-	-	1
70 and up	-	-	-	-	-	-	-	-	-	-	-
Total Count	131	464	391	429	324	271	81	6	-	-	2,097

**Table A-12
SDCERS - City of San Diego
Distribution of Active Members as of June 30, 2021
Safety**

Age	Average Salary Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	\$ 78,848	\$ 84,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,899
25 to 29	81,138	96,341	115,630	-	-	-	-	-	-	-	96,329
30 to 34	82,053	99,320	113,825	119,174	-	-	-	-	-	-	106,321
35 to 39	84,546	98,884	113,547	117,398	116,655	113,671	-	-	-	-	112,964
40 to 44	80,858	96,995	104,259	111,038	122,688	117,719	-	-	-	-	114,482
45 to 49	80,998	96,747	106,365	114,238	118,338	126,180	126,584	-	-	-	120,592
50 to 54	-	-	130,407	114,432	115,835	125,038	140,171	191,710	-	-	125,840
55 to 59	-	149,156	71,835	106,637	110,073	114,836	127,944	126,864	-	-	116,105
60 to 64	-	-	-	-	126,520	-	-	-	-	-	126,520
65 to 69	-	-	-	162,550	-	-	-	-	-	-	162,550
70 and up	-	-	-	-	-	-	-	-	-	-	-
Avg. Salary	\$ 81,108	\$ 96,846	\$ 112,783	\$ 115,234	\$ 119,388	\$ 123,663	\$ 131,767	\$ 170,095	\$ -	\$ -	\$ 111,103

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-13
SDCERS - City of San Diego
Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date
Total City**

Plan Year	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
pre-2002	3	19	62	108	117	370	553	416	232	181	2,061
2002	1	-	3	6	20	86	35	20	8	3	182
2003	-	2	3	5	57	197	102	42	10	6	424
2004	2	4	2	8	63	155	58	25	9	5	331
2005	1	1	4	7	101	212	76	25	3	4	434
2006	4	8	3	9	124	183	43	11	6	3	394
2007	-	4	4	65	180	72	55	12	7	9	408
2008	2	5	5	68	179	58	45	10	7	8	387
2009	1	4	10	150	247	72	35	7	4	9	539
2010	1	7	5	119	177	56	10	5	6	6	392
2011	2	3	5	130	225	56	16	4	1	2	444
2012	2	1	82	204	89	64	12	8	4	5	471
2013	5	7	93	182	41	75	6	6	1	6	422
2014	5	2	109	209	94	40	16	12	5	10	502
2015	6	6	111	220	87	32	14	13	6	3	498
2016	5	6	118	248	83	29	11	10	5	4	519
2017	5	71	188	100	91	26	12	9	6	4	512
2018	5	37	191	86	64	20	9	12	4	4	432
2019	11	41	176	74	39	27	24	16	9	1	418
2020	8	106	231	106	49	27	13	12	8	2	562
2021	8	98	234	88	36	26	10	12	8	6	526
Total	77	432	1,639	2,192	2,163	1,883	1,155	687	349	281	10,858

Average Age at Retirement/Disability 55.8
Average Current Age 68.4
Average Annual Pension \$ 52,944

**SDCERS-CITY OF SAN DIEGO
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APPENDIX A – MEMBERSHIP INFORMATION

Table A-14 SDCERS - City of San Diego Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date General											
Plan Year	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
pre-2002	2	11	20	44	44	65	227	227	145	135	920
2002	1	-	1	2	4	34	22	19	8	3	94
2003	-	1	3	2	6	136	86	41	9	5	289
2004	1	1	-	6	10	115	51	19	8	3	214
2005	1	-	2	3	5	174	67	23	3	3	281
2006	3	5	2	4	15	167	42	9	5	2	254
2007	-	2	3	6	139	59	50	8	6	7	280
2008	1	2	3	4	139	53	45	6	5	3	261
2009	-	1	6	16	199	69	30	4	2	6	333
2010	-	3	3	11	157	52	7	4	5	4	246
2011	1	-	1	23	205	50	12	3	-	2	297
2012	1	-	7	148	78	62	8	8	2	3	317
2013	-	6	10	153	33	69	6	4	1	3	285
2014	-	-	9	178	86	30	12	8	2	4	329
2015	4	-	12	189	79	27	9	9	5	2	336
2016	2	2	11	217	77	21	6	6	2	3	347
2017	1	12	130	85	82	17	7	6	4	3	347
2018	2	4	142	77	58	16	8	6	2	3	318
2019	5	8	144	66	32	21	17	11	6	-	310
2020	4	13	171	93	37	17	6	8	4	2	355
2021	4	13	191	80	31	16	7	7	5	3	357
Total	33	84	871	1,407	1,516	1,270	725	436	229	199	6,770

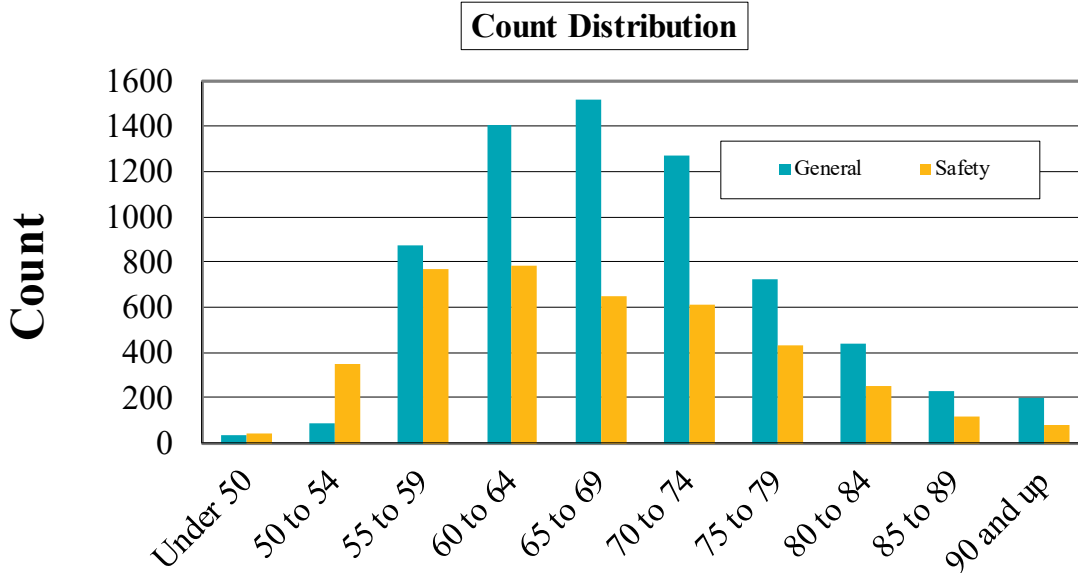
Average Age at Retirement/Disability	57.9
Average Current Age	69.3
Average Annual Pension	\$ 43,827

**SDCERS-CITY OF SAN DIEGO
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APPENDIX A – MEMBERSHIP INFORMATION

**Table A-16
SDCERS - City of San Diego
Distribution of Retirees (Includes DROP Participants),
Disabled, and Beneficiaries
as of June 30, 2021**

<u>Age</u>	<u>Count</u>		
	<u>General</u>	<u>Safety</u>	<u>Total</u>
Under 50	33	44	77
50 to 54	84	348	432
55 to 59	871	768	1,639
60 to 64	1,407	785	2,192
65 to 69	1,516	647	2,163
70 to 74	1,270	613	1,883
75 to 79	725	430	1,155
80 to 84	436	251	687
85 to 89	229	120	349
90 and up	199	82	281
Total	6,770	4,088	10,858



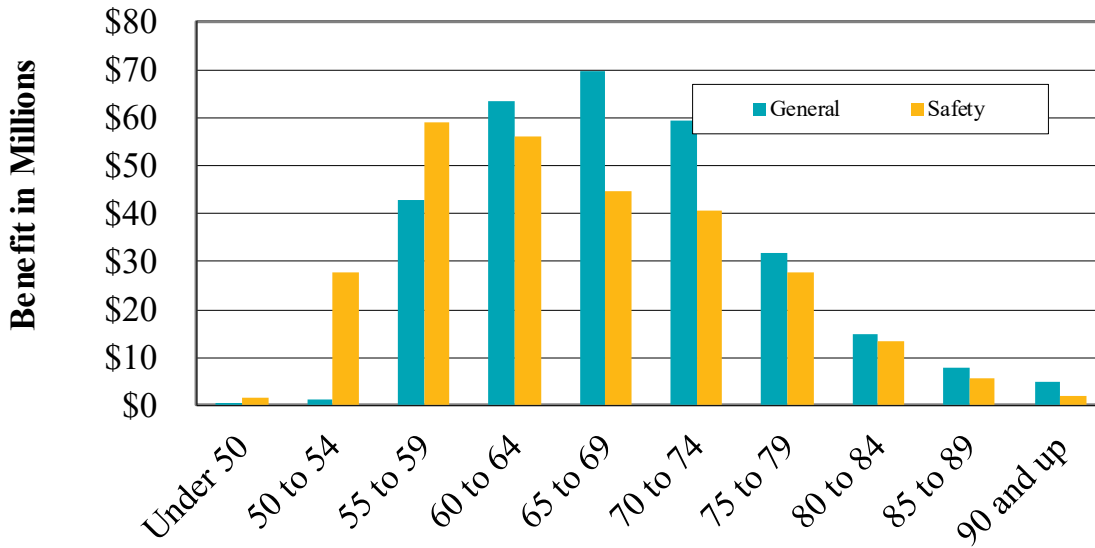
**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

**Table A-17
SDCERS - City of San Diego
Distribution of Retirees (Includes DROP Participants),
Disabled, and Beneficiaries
as of June 30, 2021**

<u>Age</u>	<u>Annual Benefit</u>		
	<u>General</u>	<u>Safety</u>	<u>Total</u>
Under 50	\$ 629,160	\$ 1,464,002	\$ 2,093,162
50 to 54	1,170,926	27,697,657	28,868,583
55 to 59	42,662,905	58,894,270	101,557,175
60 to 64	63,544,855	55,911,711	119,456,566
65 to 69	69,530,493	44,823,593	114,354,086
70 to 74	59,400,549	40,709,018	100,109,567
75 to 79	31,671,788	27,577,345	59,249,133
80 to 84	15,037,743	13,569,228	28,606,971
85 to 89	8,007,507	5,522,131	13,529,638
90 and up	<u>5,050,772</u>	<u>1,995,174</u>	<u>7,045,946</u>
Total	\$ 296,706,697	\$ 278,164,129	\$ 574,870,826

Benefit Distribution



APPENDIX A – MEMBERSHIP INFORMATION

Data Assumptions and Practices

In preparing our data, we relied on information supplied by the SDCERS staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. Terms in quotations below are column headings in the data provided by SDCERS. Our methodology for obtaining the data used for the valuation is based upon the following assumptions and practices:

- Benefit service for Actives and Inactives was calculated using “SDCERS Srv Credit.” An adjusted date of hire is retroactively calculated from the valuation date based on benefit service. Purchased Service that has been paid for is already included in the “SDCERS Srv Credit” field. Purchased Service that has been contracted for, but not paid as of the valuation date, is assumed to be paid in full, and this service will be reflected in the projected benefit.
- Valuation Salary will be the maximum of “Current Fiscal Year Pensionable Salary” and an annualized last pay period “Pensionable Salary,” carried forward with assumed salary increases. Historical salaries, “1 Yr Prior Fiscal Year Pensionable Salary,” “2 Yr Prior Fiscal Year Pensionable Salary,” “3 Yr Prior Fiscal Year Pensionable Salary,” and “4 Yr Prior Fiscal Year Pensionable Salary,” are considered in the calculation of the projected benefit.
- Actives with “Employment Type” equal to “Half Time” or “3/4 Time” are assumed to accrue service based on employment type (i.e., $\frac{1}{2}$ year, $\frac{3}{4}$ year) for each future plan year; therefore, Valuation Salary is adjusted to a full time equivalent.
- “Current Contrib Rate” was updated to reflect the new contribution rates for active employees. If the “Current Contrib Rate” was not provided, the prior year contribution for the member was used to update and reflect the new rate.
- For accounts having duplicate records in the Actives and Inactives by Social Security Number, the information from the latest payroll date is regarded as most up to date. The other record is treated as out of date and invalid.
- Records on the provided “Member” file are considered to be Active if they have no “Death Date,” no “Separation Date,” do not have a “Status” code of “Not Eligible” or “Non Contributing,” do not have a retiree record, and they received pay in the last pay period (Last Pay Period = 26 or 27) of the current FY.
- Records on the “Member” file are considered to be Inactive if they do not have a “Death Date,” do not have a retiree record, and either have a “Separation Date” or a “Last Pay Period” earlier than the last pay period of the current FY. Inactive non-vested Members without an account balance are excluded from the valuation.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2021**

APPENDIX A – MEMBERSHIP INFORMATION

- For Inactives, the “Final Average Salary” as provided in the Member file was used for calculating projected benefits as applicable. If this field was missing a value, the “Highest Pensionable Salary” as provided in the supplemental file was used. If an amount was not available in either of these, the maximum of the annualized pay over the prior year and the last four fiscal years’ pensionable salaries was used.
- We assume that any active member found in the inactive data last year has returned to work and should be valued as active.
- Records on the “Payee” file are considered in pay status if their benefit is not suspended.
- For duplicate records (based on SSN and Benefit Type) in the payee file, records having the same plan and same benefit type but different benefit amounts, we have added those benefit amounts together.
- Pension Benefit for retirees for each plan was calculated by summing “Monthly Pension,” “Monthly Annuity,” “COLA Annuity,” “Surv Spouse Annuity,” and “COLA Pension” and subtracting “DRO Reduction Amt.” The “DRO Reduction Amt” field is mainly for Qualified Domestic Relations Order purposes. The “13th Check Supplement Amount” field is added as an annual benefit and the “Corbett Supplement” is annualized for new retirees. It is assumed the payment is annual for retirees already in pay status prior to this valuation.
- Members retiring since the prior valuation date and not having a “13th Check Supplement Amount” will have their projected “13th Check Supplement Amount” calculated assuming \$30 multiplied by the “13th Check Supplement Years,” provided they are eligible based on “13th Check Supplement Years.”
- Payees’ “Taxable COLA” and “Taxable Star COLA” include COLA effective July 1, 2021.
- Members may retire and receive benefits from multiple Plans (e.g., a City Police Officer could have also worked for the Airport Authority); we will value each Member’s blended benefit individually. This will result in the counts being slightly higher than actual counts due to people having more than one benefit payable from multiple plans.
- We assume any retiree found in last year’s “Payee” file and not in this year’s file has died without a beneficiary and should be removed from the valuation data.
- We assume all deceased retirees with payments continuing to a beneficiary have already been accounted for in the “Payee” file.
- We exclude any payee receiving \$0.00 from a blended benefit plan.
- The Final 415 Regulations were used to calculate the present value of Member benefits over the Internal Revenue Service Code 415 Benefit Limits.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

The SDCERS Board has the authority to select economic and demographic assumptions for the Plan. The assumptions used in this report reflect the results of an experience study performed by Cheiron covering the period July 1, 2015 through June 30, 2019 and adopted by the SDCERS Board in July 2020.

1. Investment Return

SDCERS' assets are assumed to earn 6.50% annually net of investment expenses.

2. Inflation Rate

An inflation assumption of 3.05% compounded annually is used for projecting the total annual payroll growth for amortization of the UAL (except for the City non-Police tiers, which is amortized in level dollar amounts).

3. Administrative Expense

Administrative expenses are assumed to be \$11,582,500 for FY 2023 (assuming payment at the beginning of the year), increasing by 2.50% annually.

4. Interest Credited to Member Contributions

6.50%, compounded annually.

5. Cost-of-Living Increase in Benefits

Assumed to be 1.9% per annum, compounded.

6. COL Annuity Benefit

For both active and terminated vested Members, the actuarial liability for the COL annuity benefit is valued by adding one-sixth of accumulated member contribution accounts. For active Members, the normal cost of the COL annuity benefit is equal to one-sixth of the employee contribution rate.

Members under the Elected, Police 2012 No COL Plan, and Police Prop B Plan do not receive a COL annuity benefit.

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

7. Member Refunds

All, or part, of the employee contribution rate is subject to potential “offset” by the employer. That “offset” and the related accumulated interest are not to be refunded to employees at termination. However, such offsets are not directly reflected in either the employee contributions or related refund calculations.

100% of non-vested and 0% of vested deferred Members are assumed to elect a refund of Member contributions at termination.

8. Salary Increase Rate

Salary inflation and merit increases are compounded rather than additive.

Inflation component: 3.05% (Freezes were assumed for FYs 2013 - 2018).

City Safety Police: Additional 5.00% upon attaining 20 years of service.

The additional merit component:

Table B-1			
Years of Service at Valuation	<u>City</u>	<u>City Safety</u>	<u>City Safety</u>
<u>Date</u>	<u>General</u>	<u>Non-Police</u>	<u>Police</u>
0	7.00%	9.00%	10.00%
1	6.00%	7.00%	9.00%
2	5.00%	6.00%	7.00%
3	4.00%	4.00%	5.00%
4	3.00%	2.00%	3.00%
5	2.00%	1.25%	1.00%
6	2.00%	1.25%	1.00%
7	2.00%	1.25%	1.00%
8	2.00%	1.25%	1.00%
9	2.00%	1.25%	1.00%
10	1.50%	1.25%	1.00%
11	1.50%	1.25%	1.00%
12	1.50%	1.25%	1.00%
13	1.50%	1.25%	1.00%
14	1.50%	1.25%	1.00%
15+	1.00%	0.75%	0.75%

**SDCERS-CITY OF SAN DIEGO
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

9. Rates of Termination

Table B-2 SDCERS - City of San Diego Rates of Termination		
<u>Service</u>	<u>General</u>	<u>Safety</u>
0	10.00%	14.00%
1	9.50	11.00
2	8.50	7.50
3	7.50	6.25
4	7.00	5.75
5	6.50	5.25
6	5.00	2.75
7	5.00	2.50
8	5.00	2.25
9	4.50	2.00
10	4.50	2.00
11	4.50	2.00
12	3.00	1.75
13	3.00	1.75
14	3.00	1.75
15+	2.50	1.00

20% of terminating employees, with 10+ years of service at termination (4+ years of service for Elected), are assumed to subsequently work for a reciprocal employer and receive 3.05% salary inflation increases per year.

No terminations are assumed once retirement eligible.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

10. Rates of Disability

Table B-3		
SDCERS - City of San Diego		
Rates of Disability at Selected Ages		
Age	General	Safety
20	0.01%	0.15%
25	0.02	0.15
30	0.03	0.15
35	0.04	0.15
40	0.05	0.35
45	0.08	0.35
50	0.10	0.65
55	0.20	0.65
60	0.20	--

75% of the General and Elected disabilities and 90% of the Safety disabilities are assumed to be industrial disability retirements. Non-industrial disability retirement is subject to a service requirement.

11. Rates of Mortality for Active Lives

Mortality rates for General active members are based on the sex distinct 2010 SOA Public General Employees Amount-Weighted Mortality Table, without adjustment, with generational mortality improvements projected from 2010 using a variation of Projection Scale MP-2019.

Mortality rates for Safety active members are based on the sex distinct 2010 SOA Public Safety Employees Amount-Weighted Mortality Table, without adjustment, with generational mortality improvements projected from 2010 using a variation of Projection Scale MP-2019.

Projection Scale MP-2019 was modified using the Society of Actuaries’ model improvement tool with rates converging in 2035 to an ultimate rate of improvement of 0.68% up to age 95, instead of 1.00% up to age 85 and 0.85% at age 95.

25% of active member deaths are assumed to be industrial deaths for Safety Members and all active member deaths are assumed to be non-industrial deaths for other Members.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. Rates of Mortality for Retired Healthy Lives & Terminated Vested Members

Mortality rates for General healthy annuitants and beneficiaries are based on the sex distinct 2010 SOA Public General Healthy Retirees Amount-Weighted Mortality Table, without adjustment, with generational mortality improvements projected from 2010 using a variation of Projection Scale MP-2019.

Mortality rates for Safety healthy annuitants and beneficiaries are based on the sex distinct 2010 SOA Public Safety Healthy Retirees Amount-Weighted Mortality Table, adjusted by 90% for males and no adjustment for females, with generational mortality improvements projected from 2010 using a variation of Projection Scale MP-2019.

Projection Scale MP-2019 was modified using the Society of Actuaries' model improvement tool with rates converging in 2035 to an ultimate rate of improvement of 0.68% up to age 95, instead of 1.00% up to age 85 and 0.85% at age 95.

13. Rates of Mortality for Retired Disabled Lives

Mortality rates for General disabled annuitants are based on the sex distinct CalPERS Industrial Related Disability Retirees Mortality Table from the CalPERS December 2017 experience study, without adjustment, with generational mortality improvements projected from 2013 using a variation of Projection Scale MP-2019.

Mortality rates for Safety disabled annuitants are based on the sex distinct 2010 SOA Public Safety Disabled Retirees Amount-Weighted Mortality Table, without adjustment, with generational mortality improvements projected from 2010 using a variation of Projection Scale MP-2019.

Projection Scale MP-2019 was modified using the Society of Actuaries' model improvement tool with rates converging in 2035 to an ultimate rate of improvement of 0.68% up to age 95, instead of 1.00% up to age 85 and 0.85% at age 95.

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

14. Rates of Retirement

Rates of Retirement for City General and City Safety are shown in the table below. Retirement rates include both service retirements and entry into DROP.

Table B-4 SDCERS - City of San Diego Rates of Retirement by Age and Service						
<u>Age</u>	<u>General - Old Plan</u>		<u>General</u>	<u>Elected</u>	<u>Safety - All Plans</u>	
	<u>Service < 20</u>	<u>Service 20+</u>	<u>2009 Plan</u>	<u>Officials</u>	<u>Service < 20</u>	<u>Service 20+</u>
50	--	--	--	--	--	45%
51	--	--	--	--	--	30
52	--	--	--	--	--	24
53	--	--	--	15%	--	35
54	--	--	--	1	--	35
55	--	55%	3%	5	30%	35
56	--	42	3	3	30	35
57	--	32	3	4	30	35
58	--	30	5	5	30	55
59	--	28	5	6	30	55
60	--	35	10	60	60	55
61	--	35	15	25	60	55
62	40%	35	20	37	60	55
63	30	35	30	23	60	55
64	22	30	40	34	60	55
65	27	30	50	68	100	100
66	27	30	50	69	100	100
67	27	30	50	74	100	100
68	27	30	50	80	100	100
69	27	30	50	90	100	100
70+	100	100	100	100	100	100

For terminated vested members, we assume that retirement will occur provided they have at least 10 years of service on the later of attained age or:

General Members: Earlier of age 62 or age 55 and 20+ years of service.

General 2009 Members: Age 65.

Safety Members: Earlier of age 55 or age 50 and 20+ years of service.

For terminated vested City Elected Officials, we assume that retirement will occur provided they have at least four years of service on the later of attained age or the earlier of age 55 or age 53 and at least eight years of service.

If the inactive participant is not vested, the liability is the participant’s contributions with interest.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

15. Family Composition

80% of men and 55% of women were assumed married at retirement. A female spouse is assumed to be three years younger than her male spouse.

16. Member Contributions for Spousal Continuance

All active Members contribute towards a 50% survivor continuance. However, Members who are unmarried at retirement may either be refunded that specific part of their contributions, or they may leave such contributions on account and receive an incremental benefit that is the actuarial equivalent of such contributions.

17. Deferred Member Benefit

The benefit was estimated based on information provided by SDCERS staff. The data used to value the estimated deferred benefit were date of birth, date of hire, date of termination, and last pay. Based on the data provided, service credit, highest average salary, and deferred retirement age were estimated. The estimates were used to compute the retirement benefit, upon which the liabilities are based. For those participants without sufficient data or service, accumulated participant contribution balances, with interest, were used as the actuarial liability.

18. DROP Account Balances

For DROP participants still working, the liability for the account balances in the asset information received from SDCERS staff was adjusted to assume average commencement in 2½ years and an interest crediting rate of 0.8%. Thereafter, it was assumed the account balance would be converted to an annuity at an interest rate of 2.1% over an average period of 10 years. The 10-year period was selected to average among the available DROP payment elections, including a lump sum, life expectancy, and 20 years. The liability for pre-2006 DROP account balances still left on account was valued assuming they would be paid out until age 72, with an interest crediting rate of 0.8%. The liability for the remaining account balances was adjusted based on the DROP annuity rate in effect at the Member's benefit effective date.

These adjustments are applied to the DROP account balance values provided in the financial statements. The account balance liability is allocated to each individual Tier (e.g., General) based on the total amount of the DROP account balances for that Tier in the valuation data.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

19. Other

The contribution requirements and benefit values of a plan are calculated by applying actuarial assumptions to the benefit provisions and Member information furnished, using the actuarial funding methods described in this report.

Actual experience of SDCERS will not coincide exactly with assumed experiences, regardless of the choice of the assumptions, the skill of the actuary, or the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed contribution. From time to time, it becomes appropriate to modify one or more of the assumptions to reflect experience trends, but not random year-to-year fluctuations.

20. Changes Since Last Valuation

Effective January 1, 2022, the DROP interest crediting rate used to value the liability for account balances decreased from 1.0%, to 0.8% reflect the Board's adoption of these rates at the November 2021 meeting.

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal funding method was used for active employees, whereby the normal cost rate is computed as the average level annual percent of pay required to fund the retirement benefits for all Members between their dates of hire and assumed dates of retirement. The EAN actuarial liability is the difference between the Plan's total present value of future benefits and the present value of future normal costs, calculated for each sub-group (e.g., General). The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets and is allocated to each sub-group based on its liability.

The unfunded actuarial liability is amortized by annual payments. For the non-Police portion of the Plan, the UAL payments are determined as level dollar amounts. For the Police portion of the Plan, the payments are determined as a level percentage of pay, assuming payroll increases of 3.05% per year. The UAL is amortized over various closed periods. The UAL as of June 30, 2007 is amortized over 20 years. Subsequent gains and losses are amortized over 15 years. Changes in assumptions and methods were being amortized over 30 years and are being amortized over 20 years as of June 30, 2019. Changes in benefits are amortized over five years. The non-Police portion of the UAL as of June 30, 2012, is amortized over 15 years. Funding surplus, if any, is amortized over 30 years.

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Effective with the June 30, 2017 valuation, the remaining balances of the 2009 experience loss and 2012 non-Police UAL were re-amortized using a 5-year layering approach, in which one-fifth of the remaining balance continues to be amortized over the same period, while each additional one-fifth is amortized over an additional year. For details, see Table V-2.

In January 2019, the Board adopted a UAL contribution floor amortization method, setting a minimum of \$275,495,017 on the UAL payment until the Plan achieves a 100% funding ratio. This UAL payment floor was based on the Fiscal Year 2020 amortization payment as determined by the results of the June 30, 2018 actuarial valuation.

Finally, if necessary, there is an additional UAL cost component to ensure that there is no negative amortization in any year.

Expected administrative expenses are included in the actuarially determined contribution (ADC). The administrative expense component is \$11,582,500 for FY 2023 (assuming payment at the beginning of the year). This amount is assumed to increase by 2.5% per year.

2. Asset Valuation Method

For the purposes of determining the City of San Diego’s actuarially determined contribution to SDCERS, we use a smoothed actuarial value of assets. The asset smoothing method dampens the volatility in asset values that could occur because of the fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process. Assets are assumed to be used exclusively for the provision of retirement benefits and expenses.

The actuarial value of assets is equal to 100% of the *expected actuarial value of assets** plus 25% of the difference between the current market value of assets and the expected actuarial value of assets. In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

3. ASOP 56 – Modeling

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

* *The expected actuarial value of assets is equal to the prior year’s actuarial value of assets increased with actual contributions made, decreased with actual disbursements made, all items (prior assets, contributions, and disbursements) further adjusted with expected investment returns for the year.*

**SDCERS-CITY OF SAN DIEGO
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Deterministic projections in this valuation report were developed using P-Scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. P-Scan uses standard roll-forward techniques that implicitly assume a stable active population. Because P-Scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

4. Changes Since Last Valuation

None.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Membership Requirement

Membership is mandatory from the first day of employment with the City, for all full, three-quarter, and half-time classified employees initially hired before July 20, 2012 and for any unclassified employees initially hired on or after August 11, 1993 and before July 20, 2012 (§24.0104).*

Membership is mandatory from the first day of employment for Police Recruits hired between July 1, 1991 and June 30, 2016, and for all sworn Police Officers initially hired on or after July 1, 1991 (City Charter §140).

As a result of Proposition B, new employees (other than sworn Police) initially hired on or after July 20, 2012, will not participate in SDCERS.

2. Monthly Compensation Base for Benefits

General and Safety Old Plan Members:

Highest consecutive 12-month average in any qualified employment with a California governmental jurisdiction (§24.0103), subject to a 10% increase for those who joined the system before July 1, 2002, if the General or Safety Member elects such increase in lieu of an increased benefit formula (§24.0402 and §24.0403).

General-2009 Plan Members:

Average of highest three years in any qualified employment with a California governmental jurisdiction (§24.0103).

Police-2009 Plan Members:

Highest consecutive 12-month average in any qualified employment with a California governmental jurisdiction (§24.0103).

Lifeguard-2011 Plan, Fire-2012 Plan, Police-2012 Plan, Police-2012 No COL Plan, and Police-Prop B Plan Members:

Average of highest three years in any qualified employment with a California governmental jurisdiction (§24.0103).

Elected Officers:

Final year of compensation (§24.1705).

* All “§” references are to the City of San Diego Municipal Code.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

3. Service Retirement

Eligibility

General Members:

Age 62 with 10 years of service, or age 55 with 20 years of service (§141 of City Charter).

Safety Members (includes Fire, Lifeguard, and Police):

Age 55 with 10 years of service, or age 50 with 20 years of service (§141 of City Charter).

Elected Officers:

Age 55 with 4 years of service. Eligible to retire at any age with 8 years of service, however, benefit is reduced by 2% per year for each year under age 55 (§24.1704).

Benefit

The basic formula used to calculate monthly retirement allowances for all membership categories is Retirement Factor X Final Average Compensation X Years of Service Credit.

General Members:

For General-Old Plan Members, choice of factors in place on June 30, 2000 (Option 1), or factors effective as of July 1, 2000 (Option 2) with a 10% increase to the Member's Final Average Compensation, or factors in effect as of July 1, 2002 (Option 3). Factors for General-Old Plan Members shown in Table C-1.

For General-2009 Plan Members, factors shown in Table C-1 (§24.0402.1).

There is an additional amount equal to the annuitized Member COL Annuity contributions at retirement date.

**SDCERS-CITY OF SAN DIEGO
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

General Member Service Retirement Accrual Factors

Table C-1				
SDCERS - City of San Diego				
General Member Service Retirement Accrual Factors				
Retirement	Hired Before July 1, 2009			Hired on or After
<u>Age</u>	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>	<u>July 1, 2009</u>
55	2.00%	2.25%	2.50%	1.00%
56	2.00%	2.25%	2.50%	1.25%
57	2.00%	2.25%	2.50%	1.65%
58	2.00%	2.25%	2.50%	1.758%
59	2.08%	2.25%	2.50%	1.874%
60	2.16%	2.30%	2.55%	2.00%
61	2.24%	2.35%	2.60%	2.12%
62	2.31%	2.40%	2.65%	2.24%
63	2.39%	2.45%	2.70%	2.36%
64	2.47%	2.50%	2.75%	2.46%
65 and up	2.55%	2.55%	2.80%	2.60%

Elected Officers:

The retirement factor for Elected Officers is 3.5% (§24.1705). A 2% annual reduction factor applies to benefits for Members retiring prior to age 55 (§24.1704).

Safety Members:

For all Safety-Old Plan Members, choice of factors in place on June 30, 2000 (Option 1), or factors effective as of July 1, 2000 (Option 2) (§24.0403).

For Police-2009 Plan, Lifeguard-2011 Plan, Fire-2012 Plan, Police-2012 Plan, Police-2012 No COL Plan, and Police-Prop B Plan Members, formula shown in Table C-2 (§24.0403).

There is an additional amount equal to the annuitized Member COL Annuity contributions at retirement date, with the exception of Police-2012 No COL Plan and Police-Prop B Plan Members.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety Member Service Retirement Accrual Factors

Table C-2				
SDCERS - City of San Diego				
Safety Member Service Retirement Accrual Factors				
	Police Hired Before July 1, 2009 Lifeguard Hired Before July 1, 2011 Fire Hired Before January 1, 2012			Police-2009 Lifeguard-2011 Fire-2012
Retirement	Police & Fire	Lifeguard	Safety	Police-2012
Age	Option 1	Option 1	Option 2	Police Prop B
50	2.50%	2.20%	3.00%	2.50%
51	2.60%	2.32%	3.00%	2.60%
52	2.70%	2.44%	3.00%	2.70%
53	2.80%	2.57%	3.00%	2.80%
54	2.90%	2.72%	3.00%	2.90%
55 and up	2.99%	2.77%	3.00%	3.00%

For vested Members who terminate City employment, different retirement accrual factors may apply depending on which options were available at the time of termination.

For Members of the General-2009 Plan who terminate City employment, the accrual factors are those shown in Tables C-1. For Members of the Police-2009 Plan, Lifeguard-2011 Plan, Fire-2012 Plan, Police-2012 Plan, Police-2012 No COL Plan, and Police-Prop B Plan who terminate City employment, the accrual factors are those shown in Table C-2. For General-Old Plan and Safety-Old Plan Members, the accrual factors are as shown in Tables C-3 and C-4:

GENERAL:

Table C-3	
SDCERS - City of San Diego	
<u>For Vested Members who terminated--</u>	<u>--the accrual factors are--</u>
Prior to January 1, 1997	See Table C-5
January 1, 1997 - June 30, 2000	Option 1 without 10% increase in Final Average Compensation
July 1, 2000 - June 30, 2002	Option 1 with 10% increase in Final Average Compensation; or Option 2
July 1, 2002 - Present	Option 3; or Current Accrual Factors

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

SAFETY:

Table C-4 SDCERS - City of San Diego	
<u>For Vested Members who terminated--</u>	<u>--the accrual factors are--</u>
Prior to January 1, 1997	See Table C-5
January 1, 1997 - June 30, 2000	Option 1 without 10% increase in Final Average Compensation
July 1, 2000 - Present	Option 1 with 10% increase in Final Average Compensation; or Option 2; or Current Accrual Factors

Table C-5 SDCERS - City of San Diego Pre-1997 Member Service Retirement Accrual Factors				
	General	Safety		
Age		Police	Fire	Lifeguard
50	--	2.50%	2.20%	2.00%
51	--	2.54%	2.32%	2.10%
52	--	2.58%	2.44%	2.22%
53	--	2.62%	2.57%	2.34%
54	--	2.66%	2.72%	2.47%
55	1.48%	2.70%	2.77%	2.62%
56	1.55%	2.77%	2.77%	2.62%
57	1.63%	2.77%	2.77%	2.62%
58	1.72%	2.77%	2.77%	2.62%
59	1.81%	2.77%	2.77%	2.62%
60	1.92%	2.77%	2.77%	2.62%
61	1.99%	2.77%	2.77%	2.62%
62	2.09%	2.77%	2.77%	2.62%
63	2.20%	2.77%	2.77%	2.62%
64	2.31%	2.77%	2.77%	2.62%
65 and up	2.43%	2.77%	2.77%	2.62%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Maximum Benefit

General-Old Plan Members: 90% of Final Average compensation if Option 3 is chosen, otherwise an exception to the 90% cap applies.

General-2009 Plan Members: 80% of Final Average compensation.

Safety-Old Plan Members: 90% of Final Average Compensation.

Police-2009 Plan, Lifeguard-2011 Plan, Fire-2012 Plan, Police-2012 Plan and Police-2012 No COL Plan Members: 90% of Final Average compensation.

Police-Prop B Plan Members: 80% of Final Average compensation, with 3% reduction for each year if retiring earlier than age 55.

Elected Officers: 2% reduction for each year if retiring earlier than age 55.

Unmodified Form of Payment

Monthly payments continued for the life of the Member, with 50% continuance to the eligible spouse upon Member's death. If there is no eligible spouse at the time of retirement, the Member may receive either a lump sum payment equal to the accumulated surviving spouse contributions or an actuarially equivalent annuity (§24.0601).

Note: City Non-Safety employees withdrew from Social Security effective January 1, 1982. We assume that all future benefits for active Members will be determined on a non-integrated basis. City Safety employees did not participate in Social Security at any time.

Note: Effective July 1, 1991, service credit earned under the 1981 Pension System will be considered equivalent to SDCERS service for the purpose of benefit calculations (i.e., the above formulas will apply to 1981 Pension System service) (§24.1102, 24.0210, 24.0310).

4. Non-Industrial Disability

Eligibility

10 years of service (Charter §141).

Benefit

General Members:

Greater of 1.5% per year of service, one-third of final compensation, or the earned service retirement benefit (§24.0502, §24.0505).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety Members:

Greater of 1.8% per year of service, one-third of final compensation, or the earned service retirement benefit (§24.0502, §24.0504).

Elected Officers:

Earned service retirement benefit (§24.1706).

5. Industrial Disability

Eligibility

No age or service requirement (§24.0501).

Benefit

General Members:

Greater of one-half of final compensation, or the earned service retirement benefit if eligible. (§24.0502, §24.0505).

Safety Members:

Greater of one-half of final compensation, or the earned service retirement benefit if eligible. (§24.0502, §24.0503).

Elected Officers:

Earned service retirement benefit (§24.1706).

6. Non-Industrial Death Before Eligible to Retire

Refund of employee contributions with interest, plus one month's salary for each completed year of service, to a maximum of six months' salary (§24.0702).

7. Non-Industrial Death After Eligible to Retire for Service

50% of earned benefit payable to surviving eligible spouse, domestic partner, or dependent child under 18 years of age (§24.0704).

8. Industrial Death

50% of the final average compensation preceding death, payable to eligible spouse, domestic partner, or dependent child under 18 years of age (§24.0705).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

9. Death After Retirement

Continuance to surviving beneficiary depending on benefit selection made at retirement (§24.0601).

\$2,000 payable in lump sum to the beneficiary or the estate of the retiree. (§24.0710).

10. Withdrawal Benefits (§24.0206, §24.0306)

Pre-12/8/76 Hires

If contributions left on deposit, entitled to earned benefits, commencing any time after eligible to retire.

Post-12/7/76 Hires

Less than 10 years of service:

Refund of accumulated employee contributions with interest or may keep deposits in the System and earn additional interest and use service with a reciprocal system to establish eligibility for earned benefits upon concurrent retirement from reciprocal system (§24.0206, 24.0306, 24.1005).

10 or more years of service:

If contributions left on deposit, entitled to earned benefits commencing any time after eligible to retire (§24.0206, 24.0306).

11. Post-retirement Cost-of-Living Adjustment Benefit

General and Safety Members:

Based on changes in Consumer Price Index, to a maximum of 2% per year (§24.1505).

12. COL Annuity

Actuarial equivalent of accumulated contributions in cost-of-living annuity account at time of retirement (§24.0103).

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

13. Member Contributions

Member contribution rates vary by age at time of entrance into SDCERS (§24.0201, §24.0301), and were recalculated following the experience study in 2020 based on the most recent changes to the actuarial assumptions as listed in Appendix B of this report, in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions. Table C-6 and Table C-7 contain the contribution rates by Plan.

Table C-6 SDCERS - City of San Diego General Member Contribution Rates					
GENERAL			GENERAL		
Entry Age	Hired Before 7/1/2009	Hired On or After 7/1/2009	Entry Age	Hired Before 7/1/2009	Hired On or After 7/1/2009
20	10.60%	6.47%	40	13.57	12.00
21	10.87	6.73	41	13.62	12.23
22	11.11	7.01	42	13.64	12.46
23	11.35	7.29	43	13.89	12.68
24	11.58	7.57	44	14.07	12.89
25	11.80	7.86	45	14.23	13.10
26	12.03	8.16	46	14.40	13.28
27	12.24	8.46	47	14.55	13.45
28	12.46	8.76	48	14.67	13.61
29	12.66	9.07	49	14.76	13.74
30	12.86	9.37	50	14.82	13.83
31	13.06	9.68	51	14.83	13.92
32	13.25	9.98	52	14.77	13.95
33	13.42	10.27	53	14.52	13.98
34	13.59	10.57	54	14.28	13.96
35	13.74	10.85	55	14.04	13.79
36	13.54	11.13	56	13.80	13.47
37	13.42	11.37	57	13.57	13.16
38	13.42	11.57	58	13.57	13.16
39	13.47	11.79	59	13.57	13.16

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table C-7 SDCERS - City of San Diego Safety Member Contribution Rates									
Entry Age	FIRE		LIFEGUARD		POLICE				
	Hired Before 1/1/2012	Hired On or After 1/1/2012	Hired Before 7/1/2011	Hired On or After 7/1/2011	Hired Before 7/1/2009	Hired On or After 7/1/2009 and Before 1/1/2012	Hired On or After 1/1/2012 and and Before 8/2/2012	Hired On or After 8/2/2012 and and Before 7/1/2013	Hired On or After 7/1/2013
20	16.45%	15.16%	16.59%	15.16%	17.01%	15.92%	15.66%	13.12%	11.57%
21	17.01	15.54	17.17	15.54	17.60	16.33	16.07	13.46	12.11
22	17.42	15.90	17.62	15.90	18.02	16.72	16.45	13.78	12.69
23	17.81	16.27	18.00	16.27	18.43	17.12	16.84	14.11	13.30
24	18.16	16.61	18.33	16.61	18.81	17.48	17.20	14.41	13.95
25	18.52	16.96	18.63	16.96	19.20	17.86	17.57	14.72	14.52
26	18.86	17.28	18.93	17.28	19.56	18.21	17.91	15.01	14.96
27	19.18	17.59	19.21	17.59	19.90	18.54	18.19	15.24	15.30
28	19.47	17.87	19.48	17.87	20.22	18.86	18.37	15.39	15.53
29	19.76	18.15	19.75	18.15	20.35	19.00	18.50	15.50	15.69
30	20.03	18.42	20.00	18.42	20.37	19.04	18.64	15.62	15.84
31	19.98	18.81	19.64	18.81	20.44	19.56	19.11	16.01	16.24
32	20.14	19.11	19.52	19.11	20.62	19.87	19.39	16.25	16.50
33	20.37	19.35	19.53	19.35	20.77	20.05	19.59	16.41	16.68
34	20.48	19.47	19.45	19.47	20.87	20.16	19.70	16.51	16.78
35	20.44	19.44	19.37	19.44	20.82	20.13	19.66	16.47	16.75
36	20.68	19.67	19.60	19.67	20.94	20.24	19.80	16.58	16.87
37	20.95	19.93	19.85	19.93	21.09	20.38	19.97	16.73	17.02
38	21.23	20.19	20.12	20.19	21.26	20.55	20.18	16.90	17.20
39	21.42	20.36	20.30	20.36	21.43	20.71	20.34	17.04	17.34
40	21.62	20.52	20.49	20.52	21.61	20.89	20.51	17.18	17.49
41	21.82	20.70	20.68	20.70	21.80	21.07	20.70	17.34	17.65
42	21.98	20.84	20.83	20.84	21.96	21.23	20.85	17.47	17.78
43	22.08	20.93	20.93	20.93	22.10	21.36	20.98	17.57	17.89
44	22.14	20.97	20.98	20.97	22.18	21.44	21.06	17.64	17.96
45	22.12	20.95	20.96	20.95	22.22	21.47	21.09	17.67	17.98
46	21.78	20.62	20.64	20.62	21.87	21.14	20.76	17.39	17.70
47	21.57	20.43	20.44	20.43	21.68	20.95	20.58	17.24	17.54
48	21.38	20.25	20.26	20.25	21.50	20.78	20.41	17.10	17.40
49	21.22	20.10	20.11	20.10	21.36	20.65	20.28	16.99	17.29

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

The employee contribution rates are the sum of four components, three of which are specified in the Municipal Code: a cost-of-living rate (§24.1506(a)), a surviving spouse rate (§24.0601), and, other than Police hired on or after August 2, 2012, a COL Annuity rate (§24.1506(b)). The fourth component is the “substantially equal” rate as defined in San Diego City Charter Section 143, which is 50% of the normal cost of accrued service retirement allowances, payable either immediately or deferred until a later age, when a member leaves employment via termination, disability, or service retirement. Since the cost-of-living rate funds the Member’s portion of the post-retirement cost-of-living benefit, the surviving spouse rate funds the Member’s portion of surviving spouse allowances, and the COL Annuity rate funds the COL Annuity, these benefits are not included in the calculation of the “substantially equal” rate.

All benefits not included in the components described above are paid for entirely by the City. Those benefits paid for entirely by the City include the refund of Member contributions for non-vested terminations, the portion of the disability allowance in excess of the earned service retirement (if any), the Annual Supplemental Benefit, the pre-retirement death benefit for non-vested Members, the pre-retirement industrial death benefit, and the post-retirement \$2,000 lump sum benefit.

The assumptions used to calculate the employee contribution rates are the same as reported in this June 30, 2021 actuarial valuation report, with the exception of fully generational mortality improvement and any sex distinct assumptions. For the purpose of calculating employee rates for the General membership tiers, mortality tables were blended 60/40 between male and female members and 40/60 for male and female beneficiaries. In addition, a static mortality improvement projection was used to approximate fully generational mortality improvements. A projection to 2043 using the mortality improvement scale described in Appendix B was used. For the purpose of calculating employee rates for the Safety membership tiers, mortality tables were blended 90/10 between male and female members and 10/90 for male and female beneficiaries. In addition, a static mortality improvement projection was used to approximate fully generational mortality improvements. A projection to 2046 using the mortality improvement scale described in Appendix B was used.

Elected Officers (General) contribute 9.05% of total salary, regardless of entry age (§24.1703).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

14. Internal Revenue Code Limitation

Benefits provided by SDCERS' Trust Fund are subject to the limitations set forth in Section 415 of the Internal Revenue Code in accordance with the "grandfather" election in Section 415(b)(10) of the Code (§24.1004).

As of the June 30, 2006 valuation, active participants' benefit payments were limited by Section 415 of the Internal Revenue Code. As of the June 30, 2007 valuation, all benefit payments were limited by Section 415 of the Internal Revenue Code.

15. Deferred Retirement Option Plan

Effective April 1, 1997, a deferred retirement option plan (DROP) was created and offered to Members as an alternative method of benefit accrual. Members eligible for service retirement are eligible to participate in DROP, but only those hired before July 1, 2005, may enter the program (§24.1402.1).

A participant in DROP may leave DROP at any time before the end of his or her designated DROP participation period by voluntarily leaving City employment (§24.1403). The maximum DROP participation period is 60 months, with certain exception for Firefighters (§24.1402).

A DROP participation account is a nominal account established with the Retirement System, which is credited with the following amounts (§24.1404):

- The Member's monthly service retirement allowance, credited monthly, calculated at the date of DROP entry and increased each year by a cost-of-living adjustment.
- The Member's Annual Supplemental Benefit, if applicable, credited annually.
- 3.05% of base compensation, payable by the City and credited bi-weekly.
- 3.05% of base compensation, payable by the Member and credited bi-weekly.
- Interest credited to the DROP account, at the rate determined by the Board.

When a Member leaves DROP and City employment, they begin to collect their monthly service retirement allowance, their Annual Supplemental Benefit (if applicable), and the amounts credited to their DROP participation account, payable as a single lump sum distribution, as a 240-month annuity with equal payments, or any other form approved by the Board and subject to applicable provisions of the Internal Revenue Code (§24.1407).

DROP is not intended to jeopardize the tax-qualified status of the retirement system under the rules and regulations of the Internal Revenue Service. Benefits provided under this division are subject to the limitations of Section 415 of the Internal Revenue Code relating to the amount of benefits that can be paid.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

16. Blended Benefit with Participating Agencies

Members may retire and receive benefits from multiple Plans (e.g., a City Police Officer could have also worked for the Airport Authority).

17. Annual Supplemental Benefit (13th Check)

When the fund's investment earnings are sufficient to qualify in a given year, SDCERS will calculate and pay the Annual Supplemental Benefit, also known as the "13th Check" to all eligible retirees. Survivors of eligible retirees will receive a proportionate share of this benefit.

18. Changes since Last Valuation

None.

Note: The summary of major plan provisions is designed to outline principal plan benefits. If the SDCERS staff should find the plan summary not in accordance with the actual provisions, the actuary should immediately be alerted so the proper provisions are valued.

APPENDIX D – GLOSSARY OF TERMS

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of all future system benefits and the present value of total future normal costs. This is also referred to by some actuaries as the “accrued liability” or “actuarial accrued liability.”

2. Actuarial Assumptions

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

3. Accrued Service

Service credited under the System which was rendered before the date of the actuarial valuation.

4. Actuarial Equivalent

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

5. Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of a retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

6. Actuarial Gain/(Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

7. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

APPENDIX D – GLOSSARY OF TERMS

8. Actuarially Determined Contribution (ADC)

Contribution determined each year based on the SDCERS Board’s adopted funding policy. The term also exists in GASB 67 and 68 as a contribution determined by the actuary in accordance with Actuarial Standards of Practice, but no further guidance is provided.

9. Amortization

Paying off an interest-discounted amount with periodic payments of interest and principal—as opposed to paying off with a lump sum payment.

10. Normal Cost

The actuarial present value of retirement system benefits allocated to the current year by the actuarial funding method.

11. Unfunded Actuarial Liability (UAL)

The difference between actuarial liability and the actuarial value of assets.

Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added and each time an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability, and the trend in its amount (after due allowance for devaluation of the dollar).



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