DATE: February 24, 2017

TO: SDCERS Audit Committee

CC: SDCERS Board of Administration
Mark Hovey, SDCERS Chief Executive Officer
Marcelle Rossman, SDCERS Chief Benefits Officer
Johnny Tran, SDCERS Chief Compliance Officer/General Counsel

FROM: Lee Parravano, SDCERS Internal Auditor

SUBJECT: Surviving Spouse (SS) Annuity Audit

Enclosed is the SS Annuity Audit. Overall, SDCERS has procedures in place for the SS Annuity and control strengths were identified during the audit. Opportunities for improvement and consideration were also identified.

Based on this audit, there were ten total recommendations, four of which have already been implemented. The ten original recommendations were directed to the parties as follows:

- Seven recommendations are directed to SDCERS’ Board of Administration.
- One recommendation is directed to the Port, and Airport.
- One recommendation is directed to the Port.
- One recommendation is directed to SDCERS’ management

Details can be found in the Audit Results section of the report. SDCERS’ management comments are attached to this report. The City, Port, and Airport were not asked to formally comment on these recommendations.

I would like to thank SDCERS’ management and staff for all of their assistance and cooperation provided during this audit. Everyone involved was very helpful and willing to provide the information needed. Their valuable time and efforts spent on this audit are greatly appreciated.
Internal Audit Report

Surviving Spouse Annuity

Prepared by:
Lee Parravano, Internal Auditor
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>Priority Rating Process</td>
<td>2</td>
</tr>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>3</td>
</tr>
<tr>
<td>AUDIT OBJECTIVES, SCOPE &amp; METHODOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>Audit Objectives</td>
<td>5</td>
</tr>
<tr>
<td>Audit Scope &amp; Methodology</td>
<td>5</td>
</tr>
<tr>
<td>AUDIT RESULTS</td>
<td>6</td>
</tr>
<tr>
<td>Finding #1: The Plans do not provide specific guidance on how to calculate the SS Annuity</td>
<td>6</td>
</tr>
<tr>
<td>Finding #2: SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 226 SS Annuity retirement benefits incorrectly setup.</td>
<td>18</td>
</tr>
<tr>
<td>Finding #3: The current Plan Document for the Port does not contain Surviving Spouse Contribution amounts.</td>
<td>22</td>
</tr>
<tr>
<td>Finding #4: The Port and Airport Plan Documents state that SDCERS' Board determines the SS contribution rate for non-PEPRA Members. Setting the SS Contribution rate for non-PEPRA Members is the responsibility of the Plan Sponsor not SDCERS.</td>
<td>23</td>
</tr>
<tr>
<td>Finding #5: The amounts allocated to Airport and Port PEPRA Member Surviving Spouse accounts are potentially incorrect</td>
<td>24</td>
</tr>
<tr>
<td>INHERENT LIMITATIONS</td>
<td>26</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>26</td>
</tr>
<tr>
<td>APPENDIX I</td>
<td>28</td>
</tr>
</tbody>
</table>
INTRODUCTION

BACKGROUND

In 1973 SDCERS began collecting Surviving Spouse or Domestic Partner Contributions (SS Contributions) from Members. Members\(^1\) pay SS Contributions in addition to their Normal Contributions and Cost of Living (COL) Annuity Contributions. The components of a Member’s contribution are shown below.

**Member Contribution Components**

\[
\text{Normal Contributions} + \text{COL Annuity Contributions} + \text{SS Contributions} = \text{Total Member Contribution}
\]

At retirement a Member can designate a continuance. A continuance is a lifetime monthly benefit paid to either a Member’s spouse or another individual upon the death of the Member. In general, the continuance benefit is paid as a percentage of the deceased Member’s retirement benefit. A Member, who selects maximum\(^2\) benefit and who does not have a surviving spouse at retirement, can elect to have their SS Contributions refunded, with interest, or use these contributions to provide an additional benefit known as the Surviving Spouse Annuity (SS Annuity) as shown below.

---

\(^1\)Excludes Port non-PEPRA Miscellaneous Members.

\(^2\) Maximum benefit refers to a Member who does not take a modified retirement allowance under Optional Settlements 1, 2, 3, or 4.
A Member receiving the SS Annuity will receive a Service Retirement Benefit comprised of the three components shown below. Approximately 13% of all current retirees receive a SS Annuity.

**Member Service Retirement Benefit Components**

- **Retirement Allowance**
  - Factor x Service Credit x Final Compensation
  - Example: 2.5% x 30 years x $50,000 =

- **COL Annuity**
  - The annuitized portion of a Member’s Accumulated Cost of Living Contributions

- **SS Annuity**
  - The annuitized portion of a Member’s SS Contributions

**Service Retirement Benefit**

In a traditional defined benefit, a Member is guaranteed a benefit based on a formula, generally reflecting the Member’s age, final compensation and years of service at retirement (See Retirement Allowance Above). In a hybrid benefit plan, a Member’s future retirement benefit is determined based on the balance of an account. A Member’s SS Annuity is determined based on a Member’s SS contribution account at retirement. A Member that selects maximum benefit and does not have a surviving spouse at retirement, will receive a Retirement Allowance, a COL Annuity, and a SS Annuity as shown above. The average SS Annuity benefit is $81.41 per month.

**PRIORITY RATING PROCESS**

To assist management and the Board in its evaluation, the findings have been assigned a qualitative assessment of the need for corrective action. Each item is assessed a high, medium, low, or informational priority as follows:

- High - Represents a finding requiring immediate action to mitigate risks associated with the process being audited.
- Medium - Represents a finding requiring timely action to mitigate risks associated with the process being audited.
- Low - Represents a finding for corrective action to mitigate associated risks with the process being audited.
- Informational – Represents a finding to educate the Board or management.
EXECUTIVE SUMMARY

During the course of this audit, preliminary findings were discussed with management. Management and the Board have already addressed some of the findings and recommendations identified in this report. The original findings and recommendations, however, are still included in this report for reference. The actions taken by management and the Board are also incorporated into this report.

****

SDCERS has procedures in place for SS Contributions and the SS Annuity. Control strengths identified during the audit period from January 1, 2015 through December 31, 2015 include:
- SS Contribution offsets are reported to SDCERS consistent with the Plan.
- SDCERS’ management is correctly administering the collection of SS Contribution offsets.
- SDCERS has adopted Board Rules documenting the amount of interest credited annually to Member accounts.

The following issues, however, were identified that should be addressed.

**Appropriateness of the SS Annuity Interest Rate**
For City of San Diego (City) Members, the Plan requires the SS Annuity to be the actuarial equivalent of a Member’s accumulated SS Contribution account. The San Diego Unified Port District (Port) and San Diego County Regional Airport Authority (Airport) Plans state that a Member will receive “a larger Monthly Retirement Allowance.” Prior to January 13, 2017 there was no guidance on how to calculate a larger Monthly Retirement Allowance; however, SDCERS’ practice has been to calculate this benefit the same as the City’s Plan, which requires an actuarial equivalent.

An actuarial equivalent is a benefit of equal value when computed upon the basis of mortality, interest and other tables adopted by the Board.

It is the Internal Auditor’s opinion that the interest rate used to calculate the SS Annuity is too high. SDCERS credits interest to SS Contribution accounts at the assumed rate of return on assets, currently 7.125% and calculates the SS Annuity using an interest rate of 7.125%. The interest rate used to calculate the SS Annuity of 7.125%, while not required, is not consistent with the interest rate used by SDCERS when calculating a Members DROP Annuity (2.8%) or an Active Death Benefit (2.8%) when paid as an annuity. Additionally, using the 7.125% as the interest rate to calculate a Member’s SS Annuity does not recognize: (1) the difference between the fund’s investment duration as a whole and the time period a Member is expected to collect a SS Annuity, (2) the appropriateness of calculating the SS Annuity with an interest rate that includes a risk premium when the Member is not taking the investment risk, and (3) the SS Annuity is eligible for up to a 2% COLA annually.

A reduction in the interest rate used to calculate the SS Annuity by 1% would result in an estimated $3,000,000 fewer SS Annuity payments over a payment period of approximately 23 years. A reduction in the annuity interest rate to the current DROP annuity interest rate would result in an estimated $12,000,000 fewer SS Annuity payments. Increasing or decreasing the interest rate used to calculate the SS Annuity for the sole purpose of increasing or decreasing benefits is improper and the Board has a fiduciary duty to deal fairly and in good faith with its Members.
EXECUTIVE SUMMARY (Continued)

SS Annuity Calculations from July 1, 2015 through August 2016
It is the Internal Auditor’s opinion that SDCERS incorrectly calculated the SS Annuity for the time period July 1, 2014 to August 2016 because an incorrect interest rate was used. It is estimated by the Internal Auditor approximately 226 SS Annuity retirement benefits have been setup incorrectly. The total estimated overpayment to all Members as of October 2016 is $6,000, not including interest, the COLA, or Members that no longer receive a benefit from SDCERS.

On January 13, 2017 SDCERS’ Board determined the calculations made by staff were correct.

SS Contribution Amount
The Port Plan states that Members will make SS Contributions in addition to Normal Contributions. The Plan Documents, however, do not specify how to calculate a Member’s SS Contribution amount.

SS Contribution Percentage
The Plan Documents state that SDCERS’ Board can adjust the SS Contribution percentage for Port and Airport Members. Setting the SS Contribution percentage determines a Member’s benefit. Setting member benefits should be the responsibility of the Plan Sponsor not SDCERS.

SS Contribution Account Allocation
SDCERS allocates Member contributions to three separate accounts: Normal Contributions, COL Annuity Contributions, and SS Contributions. The amount, however, allocated to the SS Contribution account is potentially incorrect for Airport and Port PEPRA Members. SDCERS is allocating 7.56% of an Airport PEPRA Member’s total contribution to their SS Contribution account, when the Plan requires 50% of the cost of the Surviving Spouse benefit be allocated to that account. The Port’s Plan has not been updated to include information related to SS Contribution amounts for PEPRA Members.

As of November 29, 2016 there were 169 PEPRA Member accounts that potentially will require a reallocation. SDCERS has requested Cheiron, the System’s Actuary, to calculate the correct amount required to be allocated to the SS Contribution accounts.

No Airport or Port PEPRA Members are eligible to retire until January 1, 2018, and therefore this required reallocation will not impact any current retiree.

*****

Based on this audit, there were 10 total recommendations. The recommendations are directed to the parties as follows:

- Seven recommendations are directed to SDCERS’ Board of Administration.
- One recommendation is directed to the Port and Airport.
- One recommendation is directed to the Port.
- One recommendation is directed to SDCERS’ management.

Details can be found in the Audit Results section of this report. SDCERS’ management comments are attached to this report. The City, Port, and Airport were not asked to formally comment on these recommendations.

The information in this report is intended solely for the use of the City, Port, Airport, SDCERS’ Audit Committee, Board of Administration, and management and is not intended to be, and should not be, used by anyone other than these specified parties.
AUDIT OBJECTIVES, SCOPE & METHODOLOGY

AUDIT OBJECTIVES

The objectives of the audit were to determine:

1. If the correct interest rate was used to calculate the SS Annuity from Fiscal Year 2009 to August 2016.
2. The appropriateness of the interest rate used when crediting Member interest on SS Contributions and when calculating the SS Annuity.
3. The impact of the California Public Employees’ Pension Reform Act of 2013 (PEPRA) on the SS Annuity.
4. If SDCERS is correctly administering the offset for SS Contributions.

Conclusions to these objectives are listed on page 26-27 of this report.

AUDIT SCOPE & METHODOLOGY

This audit was performed for the period from January 1, 2015 through December 31, 2015 by using the following methods:

- Reviewed the Plan and SDCERS’ Participation and Administration Agreement.
- Reviewed SDCERS’ Charters, Policies, Resolutions and Rules of the Board of Administration.
- Reviewed various documents and statutes related to PEPRA.
- Reviewed policies and procedures utilized by staff to credit interest to Member accounts and to calculate the SS Annuity.
- Interviewed staff responsible for crediting interest to Member accounts and calculating the SS Annuity.
- Requested various Legal Opinions on the SS Annuity.
- Examined SDCERS’ Board and Committee meeting materials related to the SS Annuity.
- Discussed with SDCERS’ Actuary to determine if they have provided a recommendation to SDCERS’ Board regarding the SS Contribution rate.
- Examined interest rates used by public pension systems that offer either a cash balance plan or allow Members to annuitize contributions.
- Selected five Members to determine if SS Contributions are reported to SDCERS consistent with the Plan.

This audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that Internal Audit plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Internal Audit believes the evidence obtained provides a reasonable basis for the findings and recommendations.

Internal Audit would like to thank SDCERS’ management and staff for their assistance and numerous courtesies extended during the completion of this audit.

---

3 The performance period was Fiscal Year 2009 to August 2016 for the determination of the SS Annuity interest rate used.
AUDIT RESULTS

Based on detailed testing, control strengths were identified, as well as issues that should be addressed. Listed below are the control strengths identified:

- SS Contribution offsets are reported to SDCERS consistent with the Plan.
- SDCERS’ management is correctly administering the collection of SS Contributions offsets.
- SDCERS has adopted Board Rules documenting the amount of interest credited annually to Member accounts.

The following issues, however, were identified that should be addressed.

**Finding #1:** The Plans\(^4\) do not provide specific guidance on how to calculate the SS Annuity.

**Priority Rating:** High

**Background**

Beginning on July 1, 1973 all Members\(^5\) make SS Contributions in addition to their Normal Contributions. SS Contributions are calculated as a percentage of Normal Contributions and vary by Plan. The chart below details SS Contributions as a percentage of Normal Contributions for the City, Airport and Port.

<table>
<thead>
<tr>
<th>Plan Sponsor</th>
<th>General</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>9.98%</td>
<td>11.76%</td>
</tr>
<tr>
<td>Airport</td>
<td>7.56%</td>
<td>N/A</td>
</tr>
<tr>
<td>Port(^6)</td>
<td>7.56%</td>
<td>8.77%</td>
</tr>
</tbody>
</table>

---

\(^4\) As written by the City, Port and Airport.

\(^5\) Excludes Port non-PEPRA Miscellaneous Members and Airport Executive Members.

\(^6\) See finding #3 and Finding #5 in this report for additional information on the SS Contribution Rate for Port Employees.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

At retirement a Member can designate a continuance. A continuance is a lifetime monthly benefit paid to either a Member’s spouse or another individual upon the death of the Member. In general, the continuance benefit is paid as a percentage of the deceased Member’s retirement benefit. A Member, who selects maximum\(^7\) benefit and does not have a surviving spouse at retirement, can elect to have their SS Contributions refunded, with interest, or use these contributions to provide an additional benefit known as the Surviving Spouse Annuity (SS Annuity) as shown below.

![Diagram of SS Contributions process]

Approximately 13% of Members receive a SS Annuity. At retirement, these Members will receive a Retirement Allowance, a COL Annuity, and a SS Annuity. The average SS Annuity benefit is $81.41 per month.\(^8\)

---

\(^7\) Maximum benefit refers to a Member who does not take a modified retirement allowance under Optional Settlements 1, 2, 3, or 4.

\(^8\) Prior to any Cost of Living Adjustment.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

Below is the life cycle of a Member’s SS Contributions that ultimately receive the SS Annuity.

The SS Annuity is based on accumulated SS Contributions made.

The SS Annuity is based on accumulated SS Contributions made. This is similar to a hybrid plan that expresses future retirement benefits as account balances. Per the Government Finance Officers Association (GFOA) one of the most common hybrid plans are cash balance plans. The Internal Revenue Service (IRS) classifies cash balance plans as defined benefit plans.

All or part of a non-PEPRA Member’s retirement contribution is subject to possible offset. An offset occurs when the City, Port or Airport pay a Member’s required contribution on a Member’s behalf. Offsets are credited to the Plan Sponsor’s account and not to a Member’s account. Offsets reduce the amounts that would have otherwise been credited to Member SS Contribution accounts. Beginning in 2014 the City no longer offsets Member contributions. Therefore, Member SS Contribution accounts are expected to increase, resulting in a larger SS Annuity benefit for future City retirees.

---

9 See Appendix I for completed definition of the SS Annuity/Larger Retirement Benefit.
10 The SS Annuity is part of each defined benefit plan administered by SDCERS. Therefore, the SS Annuity is not a separate plan. Because the SS Annuity was not setup as a separate plan it is not a cash balance plan; however, the SS Annuity has attributes of a cash balance plan. The SS Annuity defines the promised defined benefit in terms of a stated account balance, similar to a cash balance plan.
11 Port and Airport Plans contain offsets for certain employees.
12 For applicable members.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.
Priority Rating: High

SS Contribution Account Interest Rate
The SS Contribution account interest rate is applicable to Members prior to retirement. A Member’s SS contributions are separately accounted for and interest is credited annually to that account.

Employment
• Member makes SS Contributions to SDCERS
• Member contributions are credited with interest annually

At Retirement
• SS Annuity is calculated based on:
  • Accumulated SS Contributions (Includes Member Contributions and Interest)
  • Interest Rate
  • Mortality Tables

Retirement to Death
• Member Receives SS Annuity
• Member eligible to receive up to a 2% COLA on the SS Annuity.

The interest rate applied to Member accounts is determined by the Board\(^{13}\) in Board Rules 2.40\(^{14}\) and 2.41.\(^{15}\)

In Fiscal Year 2017 SS Contribution accounts will be credited with interest at 7.125%. A comparison of the SS Contribution account interest rate to other SDCERS programs and other Systems can be seen at the table titled Comparison to Other SDCERS Programs and Other Systems on page 13 of this report.

SDCERS is required to credit City Members accounts with an interest rate that relates to the assumed rate of return on Plan assets.\(^{16}\) This provision, however, is not included in the Airport or Port Plans.

In 2009, SDCERS credited interest to Member accounts at the Board approved rate of 7.75%; however, this rate did not match the assumed rate of return on Plan assets of 8.00%.\(^{17}\) Crediting interest at 7.75% instead of 8.00% would reduce the balance of a Member’s SS Annuity Contribution account at retirement, resulting in a lower SS Annuity.\(^{18}\) Based on a legal opinion from SDCERS’ General Counsel, no Member accounts are required to be corrected because the Plan language allows the Board’s actions.

---

\(^{13}\) See Appendix I for complete definition of Crediting of Interest.

\(^{14}\) See Appendix I for more information on Board Rule 2.40

\(^{15}\) See Appendix I for more information on Board Rule 2.41.

\(^{16}\) San Diego Municipal Code§24.0901 states, “From time to time, the Board will also determine by Rule the assumed rate of interest earnings for the Retirement Fund. The Rule adopted for this purpose will be used to determine interest rates for Member contribution accounts and is incorporated into this Article as part of the Plan Document.”

\(^{17}\) Additional information is contained in Appendix I comparing the assumed rate of return on assets from the actuarial valuation, the interest rate Member contributions are based upon, the interest rate in Board Rule 2.41 and the interest rate used by SDCERS to calculate the SS Annuity since Fiscal Year 2007.

\(^{18}\) Any additional impact is outside the scope of this audit.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

SS Annuity Interest Rate

The SS Annuity interest rate is applicable for Members on the date of their retirement.

The City’s Plan requires the SS Annuity to be calculated as the actuarial equivalent of a Member’s SS Contribution account. An actuarial equivalent, as defined in the Plan Documents, is a benefit of equal value when computed upon the basis of mortality, interest and other tables adopted by the Board.

The Port and Airport Plans state that an impacted Member will receive “a larger Monthly Retirement Allowance.” Prior to January 13, 2017 there was no guidance on how to calculate a larger Monthly Retirement Allowance in either a Board Rule or the Plans. It is unknown if the Airport and Port intended these contributions to be paid as: (1) an actuarial equivalent, (2) a fixed amount that does not include an interest rate component, or (3) something else. SDCERS’ practice, however, has been to calculate this benefit the same as the City’s Plan requiring an actuarial equivalent.

SDCERS has adopted Board Rule 2.90 to calculate an actuarial equivalent. Board Rule 2.90 was first introduced in 2008 and only included a mortality assumption. It did not include an interest assumption. As described above, an actuarial equivalent is a benefit of equal value when computed upon the basis of mortality, interest and other tables adopted by the Board. Board Rule 2.90 was revised in Fiscal Year 2013 to include updated mortality assumptions and, for the first time, included an interest assumption to calculate an actuarial equivalent. The interest assumption included in Board Rule 2.90 was now connected to Board Rule 2.41, requiring the SS Annuity, for City Members, to be calculated at the assumed rate of plan assets, currently 7.125%.

---

19 See Appendix I for complete definition of Actuarial Equivalent
20 The San Diego Municipal Code does not capitalize the words first letters in the term “Actuarial Equivalent”, therefore the formal definition in the Plan Document would not necessarily be used. Per Cheiron, there is no uniform definition for the term “actuarial equivalent” in the pension industry but the term generally means the measurement or present value of two benefits is sufficient equal on a given set of actuarial assumptions.
21 On January 13, 2017 staff informed the Board of this issue, based on the Internal Auditor’s preliminary findings. The Board amended Board Rule 2.90 to direct staff to calculate “a larger Monthly Retirement Allowance” as an actuarial equivalent of the Member’s accumulated SS Contributions at retirement.
22 Board Rule 2.90, prior to amendment on January 13, 2017, did not apply to Airport and Port Members because their Plans did not require actuarial equivalence. See footnote 21. Analysis does not include calculating the SS Annuity for Members that have service for the City and either the Port or Airport if the Annuity rate was not consistent.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

The Fiscal Year 2013 staff report which recommended revising Board Rule 2.90 to include an interest assumption mentioned Optional Settlements when discussing an actuarial equivalent, but did not discuss the impact the new interest assumption would have on the SS Annuity. It is unknown if the Board understood the impact Board Rule 2.90 would have on the SS Annuity when it was revised to include the interest assumption in 2013.

A comparison of the interest rate used to calculate the SS Annuity to other SDCERS programs and other Systems can be seen at the table titled Comparison to Other SDCERS Programs and Other Systems on page 13 of this report.

Interest Rate Comparison to SDCERS’ Deferred Retirement Option Plan (DROP)

The interest rate applied to DROP accounts, while the employee is working, is determined by Board Rule 6.10. Since 2009, the DROP contribution interest rate has been less than the assumed rate of return on plan assets. Currently the DROP contribution interest rate is 1.50%.

When an employee exits DROP, the Member is allowed to receive the balance of their DROP account in a variety of ways including an annuity over 20 years. Board Rule 6.40 dictates the interest rate to be used when calculating a Member’s DROP distribution, when taken as an annuity. Since 2009, the DROP annuity interest rate has been less than the assumed rate of return on plan assets. Currently the DROP annuity interest rate is 2.80%.

DROP, when paid as an annuity, is not eligible for a 2% COLA.

A comparison of the DROP interest rate to other SDCERS programs and other Systems can be seen at the table titled Comparison to Other SDCERS Programs and Other Systems on page 13 of this report.

---

23 An Optional Settlement is applicable when a Member selects a benefit option other than “maximum benefit.” In these situations, a Member’s benefit is reduced so that the benefits paid to the Member and the continuance are the actuarial equivalent of what would have been paid to the Member had the Member not selected one of the Optional Settlements.

24 DROP was a voluntary program to provide Members with an alternative way to accrue benefits in SDCERS. Members are eligible to participate in DROP when they are eligible for a service retirement. A DROP participant continues to work, up to a maximum of 5 years, for the plan sponsor and collect a regular paycheck; however, the participant’s retirement allowance is credited to the Member’s DROP account. The program is no longer available to employees hired on or after July 1, 2005 for the City, October 1, 2005 for the Port, and October 3, 2006 for the Airport.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

**Interest Rate Comparison to SDCERS’ Active Death Benefit**

If a Member dies before they are eligible to retire, and the death is not work related, SDCERS pays an Active Death Benefit to the named beneficiary. The Active Death Benefit consists of the Member’s accumulated retirement contributions (which include SS Contributions) plus one month of pay for each year of service credit, not to exceed one-half of a Member’s final compensation.

A Member may elect to have all or part of the Active Death Benefit paid to their beneficiary in a lump sum or in equal monthly installments (i.e., an annuity) for up to 120 months. If the Active Death Benefit is paid out in equal monthly installments, the interest rate used to calculate the annuity is the DROP annuity interest rate, currently at 2.80%.

The Active Death Benefit, when paid as an annuity, is not eligible for a 2% COLA.

A comparison of the Active Death Benefit annuity interest rate to other SDCERS programs and other Systems can be seen at the table titled Comparison to Other SDCERS Programs and Other Systems on page 13 of this report.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.
Priority Rating: High

Comparison to SDCERS Programs and Other Systems

The table compares the interest rates used by SDCERS to other Systems that allow a Member to annuitize contributions and governmental cash balance plans.

<table>
<thead>
<tr>
<th>SDCERS</th>
<th>Contribution Interest Rate</th>
<th>Annuity Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS Annuity</td>
<td>7.125%</td>
<td>7.125%</td>
</tr>
<tr>
<td>DROP</td>
<td>1.50%&lt;sup&gt;25&lt;/sup&gt;</td>
<td>2.80%</td>
</tr>
<tr>
<td>Active Death</td>
<td>N/A</td>
<td>2.80%</td>
</tr>
<tr>
<td>Normal Contributions</td>
<td>7.125%&lt;sup&gt;46&lt;/sup&gt;</td>
<td>7.125%&lt;sup&gt;46&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

SYSTEMS THAT ALLOW A MEMBER TO ANNUITIZE CONTRIBUTIONS

<table>
<thead>
<tr>
<th>Oregon Employees Retirement System&lt;sup&gt;27&lt;/sup&gt;</th>
<th>Market</th>
<th>Calculated as Account Balance / Life Expectancy&lt;sup&gt;28&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>City and County of San Francisco Employees Retirement System&lt;sup&gt;29&lt;/sup&gt;</td>
<td>4.00%&lt;sup&gt;30&lt;/sup&gt;</td>
<td>7.5%</td>
</tr>
<tr>
<td>Wisconsin Department of Employee Trust Funds&lt;sup&gt;31&lt;/sup&gt;</td>
<td>5.00% or Market&lt;sup&gt;32&lt;/sup&gt;</td>
<td>5%&lt;sup&gt;33&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

CASH BALANCE PLANS

<table>
<thead>
<tr>
<th>Nebraska State Employees and County Employees Pension Plan</th>
<th>Greater of 5% or the Fed mid-term rate plus 1.5%</th>
<th>Greater of 5% or the Fed mid-term rate plus 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas County and District Retirement System</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>Texas Municipal Retirement System</td>
<td>Member Contributions -5%</td>
<td>5.00%</td>
</tr>
<tr>
<td></td>
<td>Employer Contributions - Market</td>
<td></td>
</tr>
<tr>
<td>Kansas Public Retirement System</td>
<td>4.00%&lt;sup&gt;34&lt;/sup&gt;</td>
<td>4.00%&lt;sup&gt;34&lt;/sup&gt;</td>
</tr>
<tr>
<td>Kentucky Retirement System</td>
<td>4.00%&lt;sup&gt;35&lt;/sup&gt;</td>
<td>4.00%&lt;sup&gt;35&lt;/sup&gt;</td>
</tr>
<tr>
<td>California State Teachers’ Retirement System</td>
<td>3.00%&lt;sup&gt;36&lt;/sup&gt;</td>
<td>3.00%&lt;sup&gt;36&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

---

<sup>25</sup> Interest is applied quarterly to DROP accounts.
<sup>26</sup> Interest Rate does not impact the retirement benefit a Member will receive. Funds the Retirement Allowance as detailed on page 2 of this report.
<sup>27</sup> As of January 2, 2003 no new Members can participate.
<sup>28</sup> Value of Monthly Annuity Payment varies depending on market returns.
<sup>29</sup> Withdrawal benefit only – Available to Miscellaneous Members with less than 5 or 10 years of service credit. Can elect to take refund of Member Contributions with Interest OR Deferred retirement benefit equal to actuarial equivalent of 150% - 200% of Member Contributions after age 50 or 53.
<sup>30</sup> Minimum of 4%, Maximum of Actuarial Rate depending on Average Yield of 5 year CD.
<sup>31</sup> Member either receives the benefit formula (e.g.2% at 55) or the Money Purchase Method shown (Consists of Member and Employer Contributions, plus interest, converted to an annuity).
<sup>32</sup> 5.00% for Members employed 1981-1984, Market for all others.
<sup>33</sup> Initially calculated at 5% (adjusted based on actual returns)
<sup>34</sup> If the 5-year average of actual returns is greater than 6% employees get 75% of the excess
<sup>35</sup> If the 5-year average of actual returns is greater than 4% employees get 75% of the excess
<sup>36</sup> Interest Rate based on 30-year U.S. Treasury bond rate for the previous year (March to February). Only available to employees that made retirement contributions from 1/1/01 to 12/31/10.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

When compared to SDCERS’ DROP program, SDCERS’ Active Death Benefit, other systems that allow a Member to annuitize contributions, and other governmental cash balance plans, only one of the systems surveyed calculates an annuity at an interest rate that exceeds SDCERS’ SS Annuity interest rate. The interest rate used to credit SS Annuity Contribution accounts exceeds all other non-SDCERS guaranteed rates shown above.

Investment Information

The investment information is presented to illustrate SDCERS’ investment experience and risk premiums compared to the interest rate used to calculate the SS Annuity.

The table below shows the investment results as of June 30, 2016 compared to the Fiscal Year 2017 Board approved interest rate used to calculate the SS Annuity.

<table>
<thead>
<tr>
<th>SDCERS Investment Returns - Net of Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
</tr>
<tr>
<td>1.10%</td>
</tr>
</tbody>
</table>

- FY 2017 SS Annuity Rate 7.125%

Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

The table below shows SDCERS’ assumed rate of return on assets (SS Annuity Rate), yield on the 10-Year Treasury (considered a risk free investment) and the associated Implied Risk Premium.

<table>
<thead>
<tr>
<th>Assumed Rate of Return on Assets (SS Annuity Rate)</th>
<th>1985</th>
<th>1995</th>
<th>2005</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield on 10-Year Treasury</td>
<td>8.00%</td>
<td>8.00%</td>
<td>8.00%</td>
<td>7.125%</td>
</tr>
<tr>
<td>Implied Risk Premium</td>
<td>-2.19%</td>
<td>1.79%</td>
<td>3.94%</td>
<td>5.145%</td>
</tr>
</tbody>
</table>

Source: Cheiron Presentation on the Actuarial and Investment Implications of SDCERS being a partially closed plan February 18, 2016

Additional Analysis

In Fiscal Year 2017 SDCERS’ assets are expected to earn 7.125% net of investment expenses. This assumption is scheduled to change to 7.00% in Fiscal Year 2018.

The value of the SS Annuity is highly sensitive to the interest rate used. As of April 2016 there was approximately $75,000,000 in Member SS Contribution accounts. Based on an estimate by the Internal Auditor, as of June 2016, $39,000,000 in future SS Annuity payments will be made to current Members who have not yet retired for an average payment period of approximately 23 years for each current Member. A reduction in the SS Annuity interest rate by 1% would result in an estimated $3,000,000 fewer SS Annuity payments. A reduction in the SS Annuity interest rate to the current DROP annuity interest rate would result in an estimated $12,000,000 fewer SS Annuity payments. The Internal Auditor’s estimated numbers do not account for future SS Contributions or any changes to the interest rate used to credit SS Contributions.

A reduction in the SS Annuity interest rate to the DROP interest rate would result in $12,000,000 fewer SS Annuity payments.
Finding #1 (Continued): The Plans do not provide specific guidance on how to calculate the SS Annuity.

Priority Rating: High

The Board could consider a variety of options when setting the interest rate used to credit SS Contributions\(^{37}\) and the interest rate used to calculate a Member’s SS Annuity\(^ {38}\) other than the assumed rate of return on plan assets. Using the assumed rate of return on plan assets as the interest rate to calculate a Member’s SS Annuity does not recognize: (1) the difference in investment duration between the fund as a whole and the Member’s SS Annuity, (2) the appropriateness of calculating the SS Annuity with an interest rate that includes a risk premium when the Member is not taking the investment risk, and (3) the SS Annuity is eligible for up to a 2% COLA annually. For example, SDCERS’ assumed rate of return on assets is based on long-term earnings expectations, presumably over 30 years, whereas the duration a Member is expected to collect a SS Annuity is approximately 23 years. The risk premium SDCERS must take to earn the assumed rate of return on assets is shown in the chart above titled Risk Premium.

Interest rate options include but are not limited to: a fixed interest rate, a rate tied to an outside index, or a rate tied to actual investment returns. SDCERS currently uses a weighted composite of the twenty-year treasury, twenty-year HQC Bond Rate and twenty-year PBGC Immediate Annuity Rate to set the DROP Annuity interest rate.

While not required, the interest rate used by SDCERS to calculate a Member’s SS Annuity is not consistent with the interest rate used by SDCERS when calculating a Member’s DROP annuity or an Active Death Benefit. It is unknown if this is the Board’s intent. Establishing a stand-alone Board Rule that details the interest rate to be used for Member SS Contribution accounts and the interest rate to be used when calculating a Member’s SS Annuity will clearly document the Board’s intent.

SDCERS’ actuary, Cheiron, states\(^ {39}\) that they do not believe that the assumptions used for actuarial equivalence necessarily have to be the same as the valuation assumptions. Additionally, they note that a significant number of pension plans, both private and governmental, utilize actuarial equivalence factors that are not based on the actuarial assumptions as used in the actuarial valuations. Cheiron finds that giving a Board some discretion in setting the actuarial equivalence factors is preferable to having an automatic mandate that actuarial equivalence is always based on the actuarial valuation assumptions. Lastly, Cheiron notes that, providing this discretion allows for more flexibility in dealing with unique situations, such as DROP where the Board elected with good reason to credit such accounts with an interest rate more indicative of current interest rates available in the market place.

Non-governmental defined benefit plans that use lump-sum based benefit formulas, including hybrid plans, require that the interest crediting rate must not exceed a market rate of interest. The IRS regulations provide that a fixed interest crediting rate of up to six percent satisfies this requirement. It is important to note that SDCERS is a governmental plan and is not subject to this requirement.

The granting of retirement benefits is a power resting exclusively with the Plan Sponsors whereas it is SDCERS’ Board’s responsibility to administer the benefits set by the Plan Sponsor. As stated above, increasing or decreasing the interest rate used to calculate the SS Annuity would increase or decrease benefits. The Plan, however, recognizes the Board may make decisions to administer the Plan that impact Member benefits.

\(^{37}\) For non-City Members

\(^{38}\) For all Members

\(^{39}\) Based on a December 2016 memo to Mark Hovey
**Finding #1 (Continued):** The Plans do not provide specific guidance on how to calculate the SS Annuity.

**Priority Rating:** High

It is SDCERS’ General Counsel’s opinion that the plan documents do not require the interest rate used to credit SS Annuity Contribution accounts for Port and Airport Members to match the assumed rate of return on plan assets. The interest rate is subject to actuarial and financial soundness and the Board’s fiduciary duties. He notes that increasing or decreasing the interest rate used to credit a Member’s SS Annuity Contribution account for the sole purpose of increasing or decreasing benefits would be improper and that the Board has a fiduciary duty to deal fairly and in good faith with its Members.

It is SDCERS’ General Counsel’s opinion that the plan documents do not require the interest rate used to calculate the SS Annuity to match the assumed rate of return on plan assets. The interest rate is subject to actuarial and financial soundness and the Board’s fiduciary duties. He notes that increasing or decreasing the interest rate used to calculate the SS Annuity for the sole purpose of increasing or decreasing benefits would be improper and that the Board has a fiduciary duty to deal fairly and in good faith with its Members.

**Recommendation #1a:** The Board should consider other interest rate options used to calculate the SS Annuity other than the assumed rate of return on plan assets such as using a fixed interest rate, a rate tied to an outside index, or a rate tied to actual investment returns.

**Recommendation #1b:** SDCERS’ Board should consider changing the interest rate used to credit Member’s SS Annuity Contribution accounts other than the assumed rate of return on plan assets such as using a fixed interest rate, a rate tied to an outside index, or a rate tied to actual investment returns for Port and Airport Members.
Finding #2: SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 226 SS Annuity retirement benefits incorrectly setup.

Priority Rating: High

The SS Annuity is calculated as the actuarial equivalent of a Member’s SS Contribution account\(^{40}\). An actuarial equivalent\(^{41}\), as defined in the Plan Documents, is a benefit of equal value when computed upon the basis of mortality, interest and other tables adopted by the Board.\(^{42}\)

SDCERS has adopted Board Rule 2.90 to calculate an actuarial equivalent. Board Rule 2.90 was first introduced in 2008 and only included a mortality assumption. It did not include an interest assumption. As described above, an actuarial equivalent is a benefit of equal value when computed upon the basis of mortality, interest and other tables adopted by the Board. Board Rule 2.90 was revised in November 2012 (Fiscal Year 2013) to include updated mortality assumptions and, based on the Internal Auditor’s opinion, for the first time, included an interest assumption to calculate an actuarial equivalent.

SDCERS’ actuary provides “factors” that are used by SDCERS to calculate an actuarial equivalent. A factor is the numerical value that is used to determine an actuarial equivalent based on mortality and an interest rate. The factor is multiplied to a Member’s SS Annuity Contribution account balance, at retirement, to determine the Member’s monthly benefit. As shown below, the interest rate used impacts the factor used to determine an actuarial equivalent, which then impacts the monthly benefit a Member receives:

<table>
<thead>
<tr>
<th>SS Contribution Account Balance at Retirement</th>
<th>Age</th>
<th>Class</th>
<th>Interest Rate</th>
<th>Factor</th>
<th>Monthly Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12,970</td>
<td>60</td>
<td>General Healthy</td>
<td>7.5%</td>
<td>.0079342</td>
<td>$102.91</td>
</tr>
<tr>
<td>$12,970</td>
<td>60</td>
<td>General Healthy</td>
<td>7.25%</td>
<td>.0077758</td>
<td>$100.85</td>
</tr>
</tbody>
</table>

\(^{40}\) The Port and Airport Plans state that an impacted Member will receive “a larger Monthly Retirement Allowance” and does not require actuarial equivalence. On January 13, 2017 staff informed the Board of this issue, based on the Internal Auditor’s preliminary findings. The Board amended Board Rule 2.90 to direct staff to calculate “a larger Monthly Retirement Allowance” as an actuarial equivalent of the Members accumulated SS Contributions at retirement. See finding 1 for more information.

\(^{41}\) See Appendix I for complete definition of Actuarial Equivalent.

\(^{42}\) The San Diego Municipal Code does not capitalize the words first letters in the term “Actuarial Equivalent”, therefore the formal definition in the Plan Document would not necessarily be used. Per Cheiron, there is no uniform definition for the term “actuarial equivalent” in the pension industry but the term generally means the measurement or present value of two benefits is sufficiently equal on a given set of actuarial assumptions.
Finding #2 (Continued): SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 226 SS Annuity retirement benefits incorrectly setup.

**Priority Rating:** High

As stated above, prior to November 2012 (Fiscal year 2013), there was no rule stating what interest rate to use when calculating an actuarial equivalent for the SS Annuity. When Board Rule 2.90 was revised in November 2012\(^{43}\) the Board directed staff to use the interest rate in Board Rule 2.41 to calculate an actuarial equivalent for the SS Annuity. The interest crediting rate in Board Rule 2.41 and the interest rate used by SDCERS to calculate the SS Annuity since Fiscal Year 2013 are shown below:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Board Rule 2.41 Interest Rate</th>
<th>SS Annuity Interest Rate Used by SDCERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 - November 2012 and Prior</td>
<td>7.50%</td>
<td>8.00%</td>
</tr>
<tr>
<td>2013 - After November 2012</td>
<td>7.50%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2014</td>
<td>7.50%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2015</td>
<td>7.25%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2016</td>
<td>7.25%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2017 – August 2016 and Prior</td>
<td>7.125%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2017 – After August 2016</td>
<td>7.125%</td>
<td>7.125</td>
</tr>
</tbody>
</table>

It is the Internal Auditor’s opinion that SDCERS incorrectly calculated the SS Annuity, for City retirees, for the time period July 1, 2014 (Fiscal Year 2015) through August 2016 (Fiscal Year 2017) because the interest rate in Board Rule 2.41 and the interest rate used to calculate the SS Annuity did not agree. In August 2016, SDCERS correctly changed the interest rate used to calculate the SS Annuity to match the interest rate in Board Rule 2.41.

Because the Port and Airport Plans do not require an actuarial equivalence when calculating “a larger Monthly Retirement Allowance” it is the Internal Auditor’s opinion that SS Annuity calculation are not incorrect, for the time period above for Port and Airport Members. The Port and Airport Plans, however, need to be clarified so that SDCERS can provide a definitely determinable benefit to its Members.

It is SDCERS’ General Counsel’s opinion that there is ambiguity and confusion in Board Rule 2.90 and that the Board should determine whether or not staff’s calculation of the SS Annuity is correct.

It is also the Internal Auditor’s opinion that SDCERS’ staff did not understand the connection between the interest rate and the calculation of the SS Annuity when Board Rule 2.90 was revised in 2013 to include an interest rate assumption because of the ambiguity and confusion as detailed in SDCERS’ General Counsel’s opinion.

\(^{43}\) For Fiscal Years 2008 to 2012 SDCERS calculated the SS Annuity using an interest rate of 8.00% even though the interest rate used for the assumed rate of return on assets was reduced below 8.00%. Based on a legal opinion from SDCERS’ General Counsel, SDCERS did not incorrectly calculate the SS Annuity for Fiscal Years 2008 to 2012 because the Board did not provide an interest rate required to calculate an actuarial equivalent until Fiscal Year 2013.

\(^{44}\) Additional information is contained in Appendix I comparing the assumed rate of return on assets from the actuarial valuation, the interest rate Member contributions are based upon, the interest rate in Board Rule 2.41 and the interest rate used by SDCERS to calculate the SS Annuity since Fiscal Year 2007.
Finding #2 (Continued):  SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 226 SS Annuity retirement benefits incorrectly setup.

Priority Rating: High

It is estimated by the Internal Auditor approximately 226 City retirement benefits have been setup incorrectly. The average overpayment per Member, as estimated by the Internal Auditor, is between $2.03 and $3.03 per month. The total estimated overpayment to all Members as of October 2016 is approximately $6,000, not including interest, the COLA, or Members that no longer receive a benefit from SDCERS.

The Internal Auditor’s estimate above does not include Fiscal Year 2013 calculations that were performed prior to the Board adopting a specific interest rate used to calculate the SS Annuity (November 2012). It is the Internal Auditor’s opinion that it was staff’s intention to apply the new interest rate assumption prospectively. Board Rule 2.90, which was drafted by staff, however, states the interest rate was effective for all of Fiscal Year 2013.45

It should be noted that in 2012 SDCERS asked Cheiron to determine if staff was appropriately using the Mortality tables described in Board Rule 2.90. Cheiron reviewed the annuity factors in use by Pension Gold, SDCERS’ former pension administration software. Cheiron stated that staff’s calculations were within a 2% margin and “adequately” applied Board Rule 2.90 as it applied to COL Annuity computations. Board Rule 2.90 is used to calculate both the COL Annuity and the SS Annuity; however, Cheiron’s memo did not mention SS Annuity computations.

The factor IRIS uses to calculate a Member’s SS Annuity is based on a Member’s age at retirement broken down into quarter year increments. IRIS rounds a Member’s age down to the nearest quarter year to determine which factor to use. Rounding a Member’s age down to the nearest quarter year is consistent with calculating a Member’s Service Retirement Allowance. SDCERS’ Board Rules, however, are silent on how to round when calculating a Member’s SS Annuity.

On January 13, 2017 SDCERS’ Board determined that SDCERS’ staff calculations of the SS Annuity for the time period July 1, 2014 through August 2016 were correct.

Recommendation #2a:  SDCERS’ Board should determine whether or not staff’s calculation of the SS Annuity is correct for the time period July 1, 2014 through August 2016 for City Members. If the Board determines staff’s calculation of the SS Annuity is incorrect for this time period, SDCERS should recalculate and correct the SS Annuity for all impacted Members.

Recommendation 2a has been completed. On January 13, 2017 SDCERS’ Board determined that SDCERS’ staff calculations of the SS Annuity for the time period July 1, 2014 through August 2016 were correct.

45 SDCERS’ General Counsel’s opinion is that staff’s FY 2013 calculation of the SS Annuity is correct because there is no evidence the Board adopted the specific interest rate assumption retroactively when 2.90 was amended.
Finding #2 (Continued): SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 226 SS Annuity retirement benefits incorrectly setup.

Priority Rating: High

Recommendation #2b: The Airport and Port should amend their plans to provide guidance on how to calculate “a larger Monthly Retirement Allowance” for a Member who has selected the maximum benefit and does not have a spouse at retirement.

**Recommendation 2b has been completed.** On January 13, 2017 SDCERS’ Board amended Board Rule 2.90 to direct staff to calculate “a larger Monthly Retirement Allowance” as an actuarial equivalent of the Members accumulated SS Contributions at retirement.

Recommendation #2c: SDCERS’ Board should consider establishing a stand-alone Board Rule that details the interest rate to be used when calculating a Member’s SS Annuity.

**Recommendation 2c has been completed.** On January 13, 2017 SDCERS’ Board amended Board Rule 2.90. The interest rate used to calculate the SS Annuity is included in Board Rule 2.90.

Recommendation #2d: SDCERS’ Board should clarify in Board Rule 2.90 the interest rate assumption that should be used to calculate the SS Annuity from July 1, 2012 to November 2012.

**Recommendation 2d has been completed.** On January 13, 2017 the Board amended Board Rule 2.90 to include the interest rate that should be used to calculate the SS Annuity during the time period July 1, 2012 to November 2012.

Recommendation #2e: SDCERS’ Board should provide direction on how to round a Member’s age to determine the retirement factor used to calculate the SS Annuity.
Finding #3: The current Plan Document for the Port does not contain Surviving Spouse Contribution amounts.

Priority Rating: Medium

The Amended and Restated San Diego Unified Port District Retirement Plan and Trust effective December 1, 2009 states, “Every Member will make Surviving Spouse/Domestic Partner Contributions in addition to Normal Contributions in accordance with Salary Ordinances adopted by the UPD from time to time.”

The 2014/2015 Salary Ordinance for the San Diego Unified Port District does not contain SS Contribution rates.

The Amended and Restated San Diego Unified Port District Retirement Plan and Trust originally effective January 1, 2003, restated effective July 1, 2007, included a table illustrating both General Member and Safety non-PEPRA Member SS Contribution rates as shown below.

<table>
<thead>
<tr>
<th>Member Classification</th>
<th>Survivor Contributions as a Percentage of Employee Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Members</td>
<td>7.56%</td>
</tr>
<tr>
<td>Safety Members</td>
<td>8.77%</td>
</tr>
</tbody>
</table>

The table above, however, was removed from the Plan effective December 1, 2009. SDCERS is currently using the percentages from The Amended and Restated San Diego Unified Port District Retirement Plan and Trust Originally effective January 1, 2003, restated effective July 1, 2007.

Additionally, the Port Plan does not, and has never, included information related to SS Contribution amounts for PEPRA Members. PEPRA Members must pay at least 50% of the cost of the benefit and therefore the Plan should indicate this rather than listing the SS Contribution as a set percentage of employee contributions similar to what is done for non-PEPRA Members above.

Recommendation #3: The Port should either incorporate into the Plan or annually define in the Salary Ordinance SS Contribution percentage amounts for non-PEPRA Members. If the Port defines SS Contributions in the Salary Ordinance, the Port should provide SDCERS with an annual copy of the Salary Ordinance enacted. Additionally, the Port Plan should be updated to include information related to SS Contribution amounts for PEPRA Members.

46 Including SS Contribution rates into the Salary Ordinance, or any document other than the Plan document, complicates the process determining Member Contribution Rates.
Finding #4: The Port and Airport Plan Documents state that SDCERS’ Board determines the SS contribution rate for non-PEPRA Members. Setting the SS Contribution rate for non-PEPRA Members is the responsibility of the Plan Sponsor not SDCERS.

Priority Rating: Medium

The Plan Documents for the Port and Airport do not require a Member to fund 50% of the cost of the SS Benefit for non-PEPRA Members. The Plan Documents require a Member to pay a fixed percentage of their Member Contributions toward the cost of the SS Benefit\textsuperscript{47}.

The Airport Plan states, “The Plan will calculate the Surviving Spouse or Domestic Partner Contributions as 7.56% of Employee Contributions, or such other percentage as determined by the Administrator.”

The Port Plan states that, “The Plan will calculate the Surviving Spouse/Domestic Partner Contributions as a percentage of Employee Contributions.” Further it states, “The Administrator will adopt the [SS Contribution] percentage rates by Board Rule based upon advice from the Actuary.”

SDCERS’ actuary, Cheiron, has never made a recommendation to SDCERS’ Board to set the SS Contribution percentage rate. Additionally, Cheiron has stated they have no basis to recommend a percentage as the Plan Documents don’t require a specific level of cost-sharing for the Surviving Spouse benefit.

Member SS Contributions either fund/partially fund a Continuance benefit or a SS Annuity. Increasing or decreasing the Member SS Contribution rate directly impacts the benefits 13% of Members will receive. Said another way, 87% of Members will see no increase or decrease in their benefit if Member SS Contribution rates are changed, it will only change the amount paid by the Member.

One of the Board’s principal functions is to determine the proper amount to be contributed by the Plan Sponsors to pay for benefits promised to employees, whereas it is the Plan Sponsors responsibility to set the benefits. Because the Port and Airport Plans do not require non-PEPRA Member’s to pay 50%, or any other set percentage, of the cost of the SS Benefit, the Board is not in a position to recommend any rate.

Recommendation #4: SDCERS’ Board should request the Port and Airport amend their respective Plan Documents to shift the responsibility for setting SS Contribution percentage rates from the Board and its Actuary to the Plan Sponsor.

\textsuperscript{47} See Finding #3 for Port SS Contribution Rates
**Finding #5:** The amounts allocated to Airport and Port PEPRA Member Surviving Spouse accounts are potentially incorrect.

**Priority Rating:** Low

---

**General**
SDCERS allocates Member contributions, as required by the Plan, to three separate accounts as follows; Normal Contributions, COL Annuity Contributions, and SS Contributions.

**San Diego County Regional Airport Authority**
The Airport Plan states, “The Plan will calculate the Surviving Spouse or Domestic Partner Contributions as 50% of the normal cost of Surviving Spouse or Domestic Partner Benefits payable under this §600.”

Airport PEPRA Members are currently contributing 50% of the cost of their Surviving Spouse benefit to SDCERS. The Plan requires SDCERS to allocate these contributions to the Member’s SS Contribution account. SDCERS, however, is allocating 7.56% of a PEPRA Member’s total contribution to their SS Contribution account. See below for a theoretical example of a Member’s contribution and the reallocation that would be required.

<table>
<thead>
<tr>
<th></th>
<th>SDCERS Current $ Allocation</th>
<th>SDCERS Current % Allocation</th>
<th>$ Allocation Should be</th>
<th>Reallocation Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Contribution</td>
<td>$227.32</td>
<td>75.78%</td>
<td>$225.01</td>
<td>$(2.31)</td>
</tr>
<tr>
<td>COL Annuity Contribution</td>
<td>49.99</td>
<td>16.66%</td>
<td>49.99</td>
<td>-</td>
</tr>
<tr>
<td>SS Contribution</td>
<td>22.69</td>
<td>7.56%</td>
<td>25.00</td>
<td>$2.31</td>
</tr>
<tr>
<td>Total Contribution</td>
<td>$300.00</td>
<td>100.00%</td>
<td>$300.00</td>
<td>-</td>
</tr>
</tbody>
</table>

As of November 29, 2016 there were 143 Airport PEPRA Member accounts that potentially will require a reallocation.

SDCERS’ management has requested Cheiron, the System’s actuary, to calculate the amount required to be allocated to the SS Contribution account for Airport PEPRA Members.

No Airport PEPRA Member is eligible to retire until January 1, 2018, and therefore this potential reallocation will not impact any current retiree.
Finding #5 (Continued):  The amounts allocated to Airport and Port PEPRA Member Surviving Spouse accounts are potentially incorrect.
Priority Rating: Low

San Diego Unified Port District
The Port removed the SS Contribution percentage from the Plan effective December 1, 2009\(^{48}\). The Port Plan has not been updated to include information related to SS Contribution amounts for PEPRA Members. SDCERS is currently using the percentages from The Amended and Restated San Diego Unified Port District Retirement Plan and Trust originally effective January 1, 2003, restated effective July 1, 2007 to allocate Port PEPRA Safety Members SS Contributions. It is unknown if this is the Port’s intent.

The first Port PEPRA non-safety Member will begin to make contributions in January 1, 2018. As of November 29, 2016 there were 26 active Port Safety PEPRA Members making contributions. Because the Port Plan does not include guidance on how to allocate SS Contributions for PEPRA Members it is unknown if any reallocations are required.

Recommendation #5: SDCERS should reallocate PEPRA Members contribution accounts, if necessary, after Cheiron has calculated the amount required to be allocated to the SS Contribution accounts.

\(^{48}\) See finding #3, in this report
INHERENT LIMITATIONS

Because of the inherent limitations of internal controls and because samples were selected, errors or irregularities may occur and may not be detected. Also, projections of any evaluation of the internal control structure to future periods are subject to the risk that procedures may become inadequate due to changes in conditions, or that the degree of compliance with the procedures may deteriorate.

CONCLUSION

I have concluded work on the audit objectives of the SS Annuity Audit. Based on the audit work performed, I have determined the following:

**SS Annuity Calculations from Fiscal Year 2009 to August 2016**

City

The accuracy of the calculation of the SS Annuity is broken down into the time periods as follows:

- Prior to November 2012 there was no rule stating what interest rate to use when calculating an actuarial equivalent for the SS Annuity; therefore, staff’s use of an interest rate that exceeded the rate of return on plan assets was not prohibited.
- From November 2012 to June 30, 2014 staff correctly calculated the SS Annuity because the interest rate used matched the Board approved rate.
- From July 1, 2014 through August 2016 staff incorrectly calculated the SS Annuity because the interest rate used did not match the Board approved rate. On January 13, 2017 SDCERS’ Board, however, determined that SDCERS’ staff calculations of the SS Annuity for the time period July 1, 2014 through August 2016 were correct.

Port and Airport

Because the Port and Airport Plans do not provide guidance on how to calculate “a larger Monthly Retirement Allowance” it is the Internal Auditors opinion that SDCERS’ staffs calculations of the SS Annuity calculations are not incorrect from Fiscal Year 2009 to August 2016 for Port and Airport Members. The Port and Airport Plans should be clarified so that SDCERS can provide a definitely determinable benefit to its Members.

**Appropriateness of Interest Rate Used**

The interest rate used to credit SS Contribution accounts exceeds all other guaranteed rates shown in Finding #1; however, the Board is prohibited from changing the interest rate credited to Member accounts to a rate that is more or less than the assumed rate of return on plan assets for City Members. For this reason, it is my opinion that the interest rate used by SDCERS to credit Member SS Contribution accounts is correct for City Members. While not incorrect, the Board should consider changing the interest rate used to credit SS Contribution accounts for Port and Airport Members.

It is the Internal Auditor’s opinion that the interest rate used to calculate the SS Annuity is too high and the Board should consider changing it. When compared against other systems (See Finding #1), only one system calculates an annuity at an interest rate that exceeds SDCERS’ SS Annuity interest rate. SDCERS is currently using the rate of return on plan assets to calculate the SS Annuity.

---

49 On January 13, 2017 staff informed the Board of this issue, based on the Internal Auditor’s preliminary findings. The Board amended Board Rule 2.90 to direct staff to calculate “a larger Monthly Retirement Allowance” as an actuarial equivalent of the Members accumulated SS Contributions at retirement.
While not required, using the assumed rate of return on plan assets as the interest rate to calculate a Member’s SS Annuity is not consistent with the interest rate used by SDCERS when calculating a Members DROP Annuity or an Active Death Benefit when paid as an annuity. Additionally, it does not recognize: (1) the difference in investment duration between the fund as a whole and the Member’s SS Annuity, (2) the appropriateness of calculating the SS Annuity with an interest rate that includes a risk premium when the Member is not taking the investment risk, and (3) the SS Annuity is eligible for up to a 2% COLA annually.

The Board could consider a variety of options when setting the interest rate used to credit SS Contributions and the interest rate used to calculate a Member’s SS Annuity other than the assumed rate of return on plan assets, which is currently used.

**Impact of PEPRA on the SS Annuity**

PEPRA did not eliminate survivor benefits for PEPRA Members. SDCERS’ General Counsel does not believe PEPRA prohibits the SS Annuity for PEPRA Members. The Internal Auditor agrees with this opinion.

**Appropriateness of Funding the SS Annuity for Members with Offsets**

Current Plan documents require the Airport and Port pay SDCERS SS Contribution offsets. Because it is unknown, until retirement, what specific Members will have a continuance and what Members will have a SS Annuity, funding costs of the Surviving Spouse benefit vary. Therefore, it is the Internal Auditor’s opinion the current practice of funding the offset is appropriate and in accordance with the Plan documents. SDCERS is correctly administering the collection of those offsets.

*****

Implementation of the recommendations contained in this Audit Report will provide additional clarity to Members and the Plan Sponsors regarding the SS Annuity.
APPENDIX I

SS Annuity / Larger Retirement Benefit Definitions

City of San Diego
Surviving Spouse Annuity “means the annuity referenced in section 24.0601(e)(2)”

City of San Diego §24.0601(e)
“If at the time of retirement, a Member who has selected the maximum benefit does not have a surviving spouse who is eligible for benefits under this section, the System will either:

(1) pay the Member the Accumulated Contributions including interest he or she made pursuant to this section, in lump sum, or
(2) treat these contributions as voluntary additional contributions made to provide a larger Annuity benefit.”

Annuity per §24.0209
“The actual amount of annuity receivable by a General Member upon retirement shall be the actuarial equivalent of the General Member accumulated contributions.”

Annuity per §24.0309
“The actual amount of annuity receivable by a Safety Member upon retirement shall be the actuarial equivalent of the Safety Member accumulated contributions.”

San Diego County Regional Airport Authority
“If, at the time of retirement, a Member who has selected the maximum benefit does not have a surviving spouse or Domestic Partner who is eligible for benefits under this section, the Plan will either:

(1) pay the Member the Accumulated Surviving Spouse or Domestic Partner Contributions in lump sum, or
(2) use these Surviving Spouse or Domestic Partner Contributions to provide a larger Monthly Retirement Allowance.”

San Diego Unified Port District
“If, at the time of retirement, a Participant who has selected the maximum benefit does not have a spouse or Domestic Partner who is eligible for benefits under this section, the Plan will either:

(1) pay the Participant the Accumulated Contributions, including interest credited to the Participants pursuant to this section, in lump sum, or
(2) use these Contributions to provide a larger Monthly Retirement Allowance.”
Actuarial Equivalent Definitions

City of San Diego
“Actuarial Equivalent means a benefit of equal value when computed upon the basis of mortality, interest, and other tables adopted by the Board by Rule. These Board Rules, as the same may be amended or adopted by the Board from time to time, are incorporated into this Article as part of the Plan document. This definition is effective July 1, 1989.”

San Diego County Regional Airport Authority
“Actuarial Equivalent means a benefit of equal value when computed based on the mortality, interest, and other tables duly adopted by the Administrator by Board Rule, which Board Rule is incorporated by reference into this Plan. This definition is effective January 1, 2003.”

San Diego Unified Port District
“Actuarial Equivalent means a benefit of equal value when computed based on the mortality, interest, and other tables adopted by the Administrator by rule, which rule is incorporated by reference into this Plan. This definition is effective January 1, 2003.”

Interest Crediting Definitions

City of San Diego
“The Board credits interest to the contribution accounts of Members and the City at a rate determined by the Board, compounded each June 30th.”

San Diego County Regional Airport Authority
“The Administrator credits interest to the accounts for Employee Contributions and Employer Contributions at a rate determined by the Administrator, compounded each June 30th.”

San Diego Unified Port District
“The Administrator credits interest to the contribution accounts for Employee Contributions and Employer Contributions at a rate determined by the Administrator, compounded each June 30th.”

Board Rule 2.40

Board Rule 2.40 states, “[T]he Board will credit the contribution accounts of all Members and the employer with interest compounded annually at a rate to be determined by the Board.”

Board Rule 2.41

Board Rule 2.41 states, “The Board has adopted the following actuarially assumed investment returns per annum, compounded annually, for each of the following fiscal years for each of the City, the Unified Port District, and the Airport Authority plans. The Board will credit the contribution accounts of all Members and the employer with interest compounded annually at the rates stated below. SDCERS will continue to use the most recent interest rates specified below [chart omitted] until this rule is amended by further action by the Board.”
Interest Rates

The assumed rate of return on assets from the actuarial valuation, the interest rate Member contributions are based upon, the interest rate in Board Rule 2.41 and the interest rate used by SDCERS to calculate the SS Annuity since Fiscal Year 2007 are shown below:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Assumed Rate of Return on Assets from Actuarial Valuation</th>
<th>Member Contributions Based on Board Rule 2.41 Interest Crediting Rate</th>
<th>SS Annuity Interest Rate Used by SDCERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>8.00%</td>
<td>8.00%</td>
<td>8.00%</td>
</tr>
<tr>
<td>2008</td>
<td>7.75%</td>
<td>8.00%</td>
<td>8.00%</td>
</tr>
<tr>
<td>2009</td>
<td>7.75%</td>
<td>8.00%</td>
<td>7.75%</td>
</tr>
<tr>
<td>2010</td>
<td>7.75%</td>
<td>7.75%</td>
<td>7.75%</td>
</tr>
<tr>
<td>2011</td>
<td>7.50%</td>
<td>7.75%</td>
<td>7.75%</td>
</tr>
<tr>
<td>2012</td>
<td>7.50%</td>
<td>7.75%</td>
<td>7.75%</td>
</tr>
<tr>
<td>2013</td>
<td>7.25%</td>
<td>7.50%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2014</td>
<td>7.25%</td>
<td>7.50%</td>
<td>7.50%</td>
</tr>
<tr>
<td>2015</td>
<td>7.125%</td>
<td>7.25%</td>
<td>7.25%</td>
</tr>
<tr>
<td>2016</td>
<td>7.00%&lt;sup&gt;50&lt;/sup&gt;</td>
<td>7.25%</td>
<td>7.25%</td>
</tr>
<tr>
<td>2017</td>
<td>7.00%&lt;sup&gt;51&lt;/sup&gt;</td>
<td>7.125%</td>
<td>7.125%</td>
</tr>
</tbody>
</table>

<sup>50</sup> Scheduled to change to 7%. Fiscal Year 2016 Actuarial Valuation not received at time of report issuance.

<sup>51</sup> Subject to change.
MEMORANDUM

DATE: February 24, 2017

TO: Lee Parravano, Internal Auditor

FROM: Marcelle Voorhies Rossman, Chief Benefits Officer

SUBJECT: Management’s Responses to the Findings and Recommendations in the Internal Auditor’s Report Regarding the Surviving Spouse Annuity

Management appreciates the opportunity to respond to the Internal Auditor’s audit report regarding the Surviving Spouse Annuity (SS Annuity). Our responses to the Internal Auditor’s findings and recommendations are below.

Finding #1: The Plans do not provide specific guidance on how to calculate the SS annuity.

Recommendation #1a: The Board should consider other interest rate options to calculate the SS Annuity other than the assumed rate of return on plan assets such as using a fixed interest rate, a rate tied to an outside index, or a rate tied to actual investment returns.

Recommendation #1b: SDCERS’ Board should consider changing the interest rate used to credit Member’s SS Annuity Contribution accounts other than the assumed rate of return on plan assets such as using a fixed interest rate, a rate tied to an outside index, or a rate tied to actual investment returns for Port and Airport Members.

Management’s Response: Management agrees with the finding and is supportive of any decision by the Board to review with the plan sponsors, its actuary, fiduciary counsel, and members the interest rates associated with the SS Annuity.

Finding #2: SDCERS has used incorrect interest rates to calculate SS Annuity benefits, for City Members, for the time period July 1, 2014 through August 2016 resulting in approximately 285 SS Annuity retirement benefits incorrectly setup.

Recommendation #2a: SDCERS’ Board should determine whether or not staff’s calculation of the SS Annuity is correct for the time period July 1, 2014 through August 2016. If the Board determines staff’s calculation of the SS Annuity is incorrect, for this time period, SDCERS should recalculate and correct the SS Annuity for all impacted Members.
**Recommendation #2b:** The Airport and Port should amend their plans to provide guidance on how to calculate "a larger Monthly retirement Allowance" for a Member who has selected the maximum benefit and does not have a spouse at retirement.

**Recommendation #2c:** SDCERS’ Board should consider establishing a stand-alone Board Rule that details the interest rate to be used when calculating a Member’s SS Annuity.

**Recommendation #2d:** SDCERS’ Board should clarify in Board Rule 2.90 the interest rate assumption that should be used to calculate the SS Annuity from July 1, 2012 to November 2012.

**Management’s Response #2a, #2b, #2c, #2d:** On January 13, 2017 SDCERS’ Board determined that SDCERS’ staff calculations of the SS Annuity for the time period July 1, 2014 through August 2016 were correct, and provided guidance on the calculation of the SS Annuity.

**Recommendation #2e:** SDCERS’ Board should consider including in either Appendix C, or in a Board Rule, direction on how to round a Member’s age to determine the retirement factor used to calculate the SS Annuity.

**Management’s Response:** The Plan documents provide specific guidance on how to determine a Member’s age when calculating their retirement benefit. The same annuity tables are used in calculating the SS Annuity benefit and staff uses the same age. Management supports the Board informing the Plan Sponsors that the Plans do not provide specific guidance on the determination of a Member’s age in determining the annuity factor used to calculate the SS Annuity.

**Finding #3:** The current Plan Document for the Port does not contain Surviving Spouse Contribution amounts.

**Recommendation #3:** The Port should either incorporate into the Plan or annually define in the Salary Ordinance SS Contribution percentage amounts for non-PEPRA members. If the Port defines SS Contributions in the Salary Ordinance, the Port should provide SDCERS with an annual copy of the Salary Ordinance enacted. Additionally, the Port Plan should be updated to include information related to SS Contribution amounts for PEPRA Members.

**Management’s Response:** Management agrees with the finding and supports the Board informing the Port that their plan does not contain Surviving Spouse Contribution amounts. With that information, the Port can choose to take any action they deem necessary.

**Finding #4:** The Port and Airport Plan Documents state that SDCERS’ Board determines the SS contribution rate for non–PEPRA Members. Setting the SS Contribution rate for non-PEPRA Members is the responsibility of the Plan Sponsor, not SDCERS.
**Recommendation #4:** SDCERS’ Board should request the Port and Airport amend their respective Plan Documents to shift the responsibility for setting SS Contribution percentage rates from the Board and its actuary to the Plan Sponsor.

**Management’s Response:** Management supports the Board informing the Port and Airport that their plans provide SDCERS with the authority to set the SS contribution rate for non-PEPRA Members. With that information, the plan sponsors can choose to take any action they deem necessary.

**Finding #5:** The amounts allocated to Airport and Port PEPRA Member Surviving Spouse accounts are potentially incorrect.

**Recommendation #5:** SDCERS should reallocate PEPRA Members contribution accounts, if necessary, after Cheiron has calculated the amount required to be allocated to the SS Contribution accounts.

**Management’s Response:** SDCERS staff has requested that SDCERS’ actuary, Cheiron, calculate the amount required to be allocated to the SS contribution account for both Airport and Port PEPRA members. Once this is completed staff will determine what reallocations, if any, need to be made.

Marcelle Voorhies Rossman  
Chief Benefits Officer