



**Imperial County Employees’  
Retirement System**  
Governmental Accounting Standards (GAS) 67  
Actuarial Valuation as of June 30, 2018

This report has been prepared at the request of the Board of Retirement to assist ICERS in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.



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*December 7, 2018*

*Board of Retirement  
Imperial County Employees' Retirement System  
1221 West State Street  
El Centro, CA 92243*

*Dear Board Members:*

*We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2018. It contains various information that will need to be disclosed in order to comply with GAS 67.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist ICERS in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based was prepared by ICERS. That assistance is gratefully acknowledged.*


*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.*

*The actuarial calculations were completed under the supervision of Andy Yeung, ASA, EA, MAAA, FCA. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Plan.*

*We look forward to reviewing this report with you and to answering any questions.*

*Sincerely,*

*Segal Consulting, a Member of The Segal Group, Inc.*

By:   
\_\_\_\_\_  
*Andy Yeung, ASA, EA, MAAA, FCA*  
*Vice President and Actuary*

  
\_\_\_\_\_  
*Paul Angelo, FSA, EA, MAAA, FCA*  
*Senior Vice President and Actuary*

*MAM/bbf*

## SECTION 1

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## **SECTION 1: Valuation Summary for the Imperial County Employees' Retirement System**

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### **Purpose**

This report has been prepared by Segal Consulting (“Segal”) to present certain disclosure information required by Governmental Accounting Standards (GAS) 67 as of June 30, 2018. This valuation is based on:

- The benefit provisions of ICERS, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2017, provided by ICERS;
- The assets of the Plan as of June 30, 2018, provided by ICERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2018 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2018 valuation.

### **General Observations on GAS 67 Actuarial Valuation**

The following points should be considered when reviewing this GAS 67 report:

- The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans develop and adopt funding policies under current practices.
- When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as ICERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on generally the same basis as ICERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan Fiduciary Net Position. The Plan Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

## **SECTION 1: Valuation Summary for the Imperial County Employees' Retirement System**

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- For this report, the reporting dates for the Plan are June 30, 2018 and 2017. The NPLs are measured as of June 30, 2018 and 2017, and are determined based upon rolling forward the TPL from the actuarial valuations as of June 30, 2017 and 2016, respectively. The Plan Fiduciary Net Positions (plan assets) are valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.
- Section 3 contains two schedules that the American Institute of Certified Public Accountants (AICPA) recommends be prepared by cost sharing pension plans. These two schedules contain summary information related to GAS 68 and are based on many of the results that will be shown in a separate GAS 68 report. The first schedule shows the method used for allocating the NPL along with the NPL amounts allocated amongst all of the employers in ICERS. The second schedule is a summary that shows the allocated NPL, deferred outflows and inflows of resources and pension expense by employer. Further information regarding GAS 68 including additional information that employers will need to disclose will be provided in a separate report that is anticipated to be completed during the first quarter of 2019.

### **Significant Issues in Valuation Year**

The following key findings were the result of this actuarial valuation:

- The NPL decreased slightly from \$134.1 million as of June 30, 2017 to \$133.1 million as of June 30, 2018 due to the 7.89% return on the market value of assets during 2017/2018 that was more than the assumed return of 7.25% (a gain of \$5.0 million). There were also gains from lower than expected active salary increases, partially offset by more retirements than expected and other actuarial experience losses, during 2016/2017 (because liabilities are rolled forward from June 30, 2017 to June 30, 2018, these gains and losses are not reflected until this valuation as of June 30, 2018). Changes in these values during the last two fiscal years ending June 30, 2018 and June 30, 2017 can be found in Exhibit 5 in Section 2.
- The discount rate used to determine the TPL and NPL as of both June 30, 2018 and 2017 was 7.25%, following the same assumption used by ICERS in the pension funding valuations as of the same dates. The detailed calculations of the discount rate of 7.25% used in the calculation of the TPL and NPL as of June 30, 2018 can be found in Exhibit 7 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 6 in Section 2.

## SECTION 1: Valuation Summary for the Imperial County Employees' Retirement System

### Summary of Key Valuation Results

	2018	2017
<b>Disclosure elements for fiscal year ending June 30:</b>		
1. Service cost <sup>(1)</sup>	\$28,632,241	\$25,909,942
2. Total Pension Liability	964,592,586	913,174,648
3. Plan Fiduciary Net Position	831,483,648	779,074,836
4. Net Pension Liability	133,108,938	134,099,812
<b>Schedule of contributions for fiscal year ending June 30:</b>		
5. Actuarially determined contributions	\$21,014,523	\$21,009,400
6. Actual contributions	21,014,523	21,009,400
7. Contribution deficiency (excess) (5) - (6)	0	0
<b>Demographic data for plan year ending June 30:<sup>(2)</sup></b>		
8. Number of retired members and beneficiaries	1,193	1,121
9. Number of vested terminated members <sup>(3)</sup>	500	451
10. Number of active members	2,161	2,186
<b>Key assumptions as of June 30:</b>		
11. Investment rate of return	7.25%	7.25%
12. Inflation rate	3.00%	3.00%
13. Projected salary increases <sup>(4)</sup>	General: 4.75% to 8.25% and Safety: 4.75% to 11.50%	General: 4.75% to 8.25% and Safety: 4.75% to 11.50%

<sup>(1)</sup> The service cost is based on the previous year's valuation, meaning the 2018 and 2017 values are based on the valuations as of June 30, 2017 and June 30, 2016, respectively. The June 30, 2018 value is based on those assumptions shown as of June 30, 2017, whereas the June 30, 2017 value is based on the June 30, 2016 assumptions shown below:

Investment Rate of Return	7.50%
Inflation rate	3.25%
Projected Salary Increases*	General: 4.75% to 7.75%, and Safety: 4.75% to 11.75%

\* Includes inflation at 3.25% plus real across-the-board salary increases of 0.50% plus merit and promotional increases.

<sup>(2)</sup> Data as of June 30, 2017 is used in the measurement of the TPL as of June 30, 2018.

<sup>(3)</sup> Includes terminated members due a refund of members contributions.

<sup>(4)</sup> Includes inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and promotional increases.

## SECTION 1: Valuation Summary for the Imperial County Employees' Retirement System

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### Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare an actuarial valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan provisions.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by ICERS. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by ICERS.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal’s actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of the Board to assist ICERS in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

## SECTION 1: Valuation Summary for the Imperial County Employees' Retirement System

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- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If ICERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of ICERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to ICERS.



**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

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**EXHIBIT 1**

**General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing Pension Plan**

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**Plan Description**

*Plan administration.* The Imperial County Employees' Retirement Association (ICERS) was established by the County of Imperial in 1951. ICERS is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et seq). ICERS is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the Safety and General members employed by the County of Imperial. ICERS also provides retirement benefits to the employee members of the Imperial County Courts, LAFCO, and ICTC.

The management of ICERS is vested with the Imperial County Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two members are elected by the General membership; one member and one alternate are elected by the Safety membership, one member and one alternate are elected by the retired members of the System. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with her term as County Treasurer.

*Plan membership.* At June 30, 2018, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	1,193
Vested terminated members entitled to, but not yet receiving benefits	500
Active members	<u>2,161</u>
Total	3,854

*Note: Data as of June 30, 2018 is not used in the measurement of the TPL as of June 30, 2018.*

*Benefits provided.* ICERS provides service retirement, disability, death and survivor benefits to eligible employees. All regular full-time employees of the County of Imperial or contracting districts who work a minimum of 30 hours per week become members of ICERS effective on the first day of the first full pay period after employment. There are separate retirement plans for General and Safety member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain probation officers. Any new Safety Member who becomes a member on or after January 1, 2013 is designated as PEPRSA Safety and is subject to the provisions of California Public Employees' Pension Reform Act of 2013

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(PEPRA) and California Government Code 7522 et seq. All other employees are classified as General members. New General Members employed after January 1, 2013 are designated as PEPRA General subject to the provisions of California Government Code 7522 et seq.

General members hired prior to January 1, 2013, are eligible to retire once they attain the age of 70 regardless of service or at age 50 with 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 52, with five years of retirement service credit.

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 60 regardless of service or at age 50 with 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 50, with five years of retirement service credit.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General member benefits are calculated pursuant to the provisions of Sections 31676.11 and 31676.14 for Regular and Regular plus Supplemental Benefits, respectively. The monthly allowance is equal to 1/60th of final compensation for Regular and Regular plus Supplemental Benefits, times years of accrued retirement service credit times age factor from either Section 31676.11 (Regular Benefit) or Section 31676.14 (Regular plus Supplemental Benefit). General member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety member benefits are calculated pursuant to the provisions of California Government Code Sections 31664 and 31664.1 for Regular and Regular plus Supplemental Benefits, respectively. The monthly allowance is equal to 1/50th (or 2%) of final compensation times years of accrued retirement service credit times age factor from Section 31664 (Regular Benefit) or 3% of final compensation times years of accrued retirement service credit times age factor from Section 31664.1 (Regular plus Supplemental Benefit). Safety member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. However, for members with membership dates on or after January 1, 2013 the maximum amount of pensionable compensation that can be taken into account for 2018 is equal to \$145,666 (reference Section 7522.10). This limit is adjusted

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on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap.

Final average compensation consists of the highest 12 consecutive months for a General or Safety member and the highest 36 consecutive months for a PEPRA General or PEPRA Safety member.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

ICERS provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the Western Region, is capped at 2.0%.

The County of Imperial and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from ICERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2018 for 2017-2018 (based on the June 30, 2016 valuation) was 18.60% of compensation.

All members are required to make contributions to ICERS regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2018 for 2017-2018 (based on the June 30, 2016 valuation) was 11.86% of compensation.

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**EXHIBIT 2**

**Net Pension Liability**

The components of the Net Pension Liability as follows:

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
Total Pension Liability	\$964,592,586	\$913,174,648
Plan Fiduciary Net Position	<u>(831,483,648)</u>	<u>(779,074,836)</u>
Net Pension Liability	\$133,108,938	\$134,099,812
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.20%	85.31%

The Net Pension Liability (NPL) was measured as of June 30, 2018 and 2017. The Plan Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2017 and 2016, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of June 30, 2018 and 2017 are the same as those used in the ICERS actuarial valuations as of June 30, 2018 and 2017, respectively.

*Actuarial assumptions.* The TPL as of June 30, 2018 that was measured by the actuarial valuation as of June 30, 2017 used the same actuarial assumptions as the June 30, 2018 funding valuation. The TPL as of June 30, 2017 was remeasured by (1) revaluing the TPL as of June 30, 2016 (before the roll forward) to include the following actuarial assumptions that the Retirement Board had adopted for use in the pension funding valuation as of June 30, 2017 and (2) using this revalued TPL in rolling forward the results from June 30, 2016 to June 30, 2017. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2018 and 2017 measurements.

Inflation	3.00%
Salary increases	General: 4.75% to 8.25% and Safety: 4.75% to 11.50%, vary by service, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Administrative expenses	1.80% of payroll allocated to both the employer and member based on the components of the total contribution rate (before expense) for the employer and member.
Other assumptions	See analysis of actuarial experience during the period July 1, 2013 through June 30, 2016

**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

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**EXHIBIT 3**

**Target Asset Allocation**

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The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses are summarized in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption used for the June 30, 2018 and June 30, 2017 actuarial valuations. This information is subject to change every three years based on the actuarial experience study.

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Arithmetic Real Rate of Return</b>
Large Cap U.S. Equity	23%	5.61%
Small Cap U.S. Equity	6%	6.37%
Developed International Equity	17%	6.96%
Emerging Markets Equity	7%	9.28%
U.S. Core Fixed Income	22%	1.06%
TIPS	5%	0.94%
Real Estate	5%	4.37%
Value Added Real Estate	5%	6.00%
Private Credit	5%	5.10%
Private Equity	<u>5%</u>	8.70%
<b>Total</b>	100%	

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*Discount rate:* The discount rate used to measure the TPL was 7.25% as of both June 30, 2018 and June 30, 2017. For plan member contributions, the projection of cash flows used to determine the discount rate assumed member contributions will be made at the current contribution rate for the Regular and PEPRA benefits and that the contributions will be made at rates equal to the actuarially determined contribution rates for the Supplemental benefits. For employer contributions, the projection of cash flow used to determine the discount rate assumed employer contributions will be made at rates equal to the actuarially determined contribution rates.

For this purpose, only member and employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Based on those assumptions, the Pension Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2018 and June 30, 2017.

**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

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**EXHIBIT 4**

**Discount Rate Sensitivity**

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*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the NPL of ICERS as of June 30, 2018, calculated using the discount rate of 7.25%, as well as what the ICERS' NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	<b>1% Decrease (6.25%)</b>	<b>Current Discount (7.25%)</b>	<b>1% Increase (8.25%)</b>
Net Pension Liability as of June 30, 2018	\$267,812,057	\$133,108,938	\$22,156,152

**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

**EXHIBIT 5**

**Schedules of Changes in Net Pension Liability – Last Two Fiscal Years**

	<b>2018</b>	<b>2017</b>
<b>Total Pension Liability</b>		
1. Service cost	\$28,632,241	\$25,909,942
2. Interest	66,589,540	61,765,040
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	(2,857,091)	(16,844,635)
5. Changes of assumptions	0	46,693,228
6. Benefit payments, including refunds of member contributions	<u>(40,946,752)</u>	<u>(37,634,982)</u>
7. Net change in Total Pension Liability	\$51,417,938	\$79,888,593
8. Total Pension Liability – beginning	<u>913,174,648</u>	<u>833,286,055</u>
9. Total Pension Liability – ending	<u>\$964,592,586</u>	<u>\$913,174,648</u>
<b>Plan Fiduciary Net Position</b>		
10. Contributions – employer	\$21,014,523	\$21,009,400
11. Contributions – employee	13,405,766	13,299,670
12. Net investment income	61,159,489	85,772,873
13. Benefit payments, including refunds of member contributions	(40,946,752)	(37,634,982)
14. Administrative expense	(2,224,214)	(2,441,608)
15. Other	<u>0</u>	<u>0</u>
16. Net change in Plan Fiduciary Net Position	\$52,408,812	\$80,005,353
17. Plan Fiduciary Net Position – beginning	<u>779,074,836</u>	<u>699,069,483</u>
18. Plan Fiduciary Net Position – ending	\$831,483,648	\$779,074,836
19. Net Pension Liability – ending (9) – (18)	<u>\$133,108,938</u>	<u>\$134,099,812</u>
20. Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.20%	85.31%
21. Covered payroll <sup>(1)</sup>	\$112,994,000	\$114,539,000
22. Plan's Net Pension Liability as percentage of covered payroll	117.80%	117.08%

<sup>(1)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

**Notes to Schedule:**

Benefit changes: None



**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

**EXHIBIT 6**

**Schedule of Employer Contributions – Last Ten Fiscal Years (\$ in millions)**

<b>Year Ended June 30</b>	<b>Actuarially Determined Contributions</b>	<b>Contributions in Relation to the Actuarially Determined Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll<sup>(1)</sup></b>	<b>Contributions as a Percentage of Covered Payroll</b>
2009	11	11	0	85 <sup>(2)</sup>	12.88%
2010	12	12	0	88 <sup>(2)</sup>	13.56%
2011	13	13	0	94 <sup>(2)</sup>	13.84%
2012	13	13	0	96 <sup>(2)</sup>	13.60%
2013	16	16	0	92 <sup>(2)</sup>	17.41%
2014	17	17	0	96 <sup>(2)</sup>	17.68%
2015	18	18	0	102	18.06%
2016	21	21	0	107	19.25%
2017	21	21	0	115	18.34%
2018	21	21	0	113	18.60%

<sup>(1)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

<sup>(2)</sup> "Backed into" by dividing the contributions in relation to the actuarially determined contributions by the contributions as a percentage of covered payroll. These amounts may therefore be different from the actual payrolls of the System.

**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

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**Notes to Exhibit 6**

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<b>Valuation date</b>	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
<b>Methods and assumptions used to establish “actuarially determined contribution” rates:</b>	
<b>Actuarial cost method</b>	Entry Age Actuarial Cost Method
<b>Amortization method</b>	Level percent of payroll for total unfunded actuarial accrued liability
<b>Remaining amortization period</b>	UAAL established as of June 30, 2012 is amortized over a declining period (with 15 years remaining as of the June 30, 2016 valuation which set the rates for the 2017/2018 fiscal year). Effective with the June 30, 2013 valuation, any change in UAAL that arises due to actuarial gains or losses will be amortized over a 15-year closed period. Any change in UAAL as a result of a change in actuarial assumptions or methods will be amortized over a 20-year closed period. Any change in UAAL that arises due to plan amendments will be amortized over a 15-year closed period and any change in UAAL due to temporary retirement incentive programs will be amortized over a 5-year closed period. If ICERS becomes overfunded, such surplus and any subsequent surpluses will be amortized over an open amortization period of 30 years.
<b>Asset valuation method</b>	The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over 5 years or 10 six-month interest crediting periods. The Actuarial Value of Assets is further adjusted, if necessary, to be within 30% of the Market Value of Assets. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
<b>Actuarial assumptions:</b>	
June 30, 2016 valuation (for year ended 2018 actuarially determined contributions)	
<i>Investment rate of return</i>	7.50%, net of pension plan investment expense, including inflation
<i>Inflation rate</i>	3.25%
<i>Projected salary increases<sup>(1)</sup></i>	General: 4.75% to 7.75% and Safety: 4.75% to 11.75%, vary by service, including inflation
<i>Cost of living adjustments</i>	2.00% of retirement income
<i>Other assumptions</i>	Same as those used in the June 30, 2016 funding actuarial valuation.

<sup>(1)</sup> Includes inflation at 3.25% plus real across-the-board salary increases of 0.50% plus merit and promotional increases.

**SECTION 2: GAS Information for Imperial County Employees' Retirement System**

**EXHIBIT 7**

**Calculation of Discount Rate as of June 30, 2018  
Projection of Pension Plan Fiduciary Net Position (\$ in millions)**

Year Beginning July 1	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2017	\$779	\$34	\$41	\$2	\$61	\$831
2018	831	40	45	2	60	884
2019	884	40	48	2	64	938
2020	938	41	50	2	67	994
2021	994	40	53	2	71	1,051
2022	1,051	39	55	2	75	1,108
2023	1,108	39	58	2	79	1,167
2024	1,167	39	62	2	83	1,226
2025	1,226	39	65	2	88	1,286
2026	1,286	39	69	2	92	1,346
2027	1,346	38	72	2	96	1,406
2034	1,743	22	102	1	123	1,784
2035	1,784	20	107	1	126	1,823
2036	1,823	21	112	1	128	1,859
2052	1,738	2	165	0 *	119	1,694
2053	1,694	1	165	0 *	116	1,646
2054	1,646	1	164	0 *	113	1,596
2081	447	0	31	0	31	447
2082	447	0	27	0	31	452
2083	452	0	22	0	32	462
2103	1,477	0	0 *	0	107	1,584
2104	1,584	0	0 *	0	115	1,698
2105	1,698	0	0 *	0	123	1,821
2118	4,219	0	0 *	0	306	4,525
2119	4,525					
2119	Discounted Value:	4 **				

\* Less than \$1 million, when rounded.

\*\* \$4,525 million when discounted with interest at the rate of 7.25% per annum has a value of about \$4 million as of June 30, 2017.

## SECTION 2: GAS Information for Imperial County Employees' Retirement System

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### EXHIBIT 7 (Continued)

#### Calculation of Discount Rate as of June 30, 2018 Projection of Pension Plan Fiduciary Net Position (\$ in millions)

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Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning July 1, 2017 row are actual amounts, based on the information provided by ICERS.
- (3) Years 2028-2033, 2037-2051, 2055-2080, 2084-2102, and 2106-2117 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2119, all of the projected beginning Plan Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
- (5) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2017), plus member and employer contributions to the Unfunded Actuarial Accrued Liability; plus employer and member contributions to fund each year's annual administrative expenses. Contributions are assumed to occur halfway through the year, on average.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2017. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2018 valuation report.
- (7) Column (d): Projected administrative expenses are assumed to be 1.80% of closed group projected payroll and are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.
- (9) As illustrated in this Exhibit, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2018 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

**SECTION 3: AICPA Schedules for Imperial County Employees' Retirement System**

**EXHIBIT A**

**Schedule of Employer Allocations as of June 30, 2018**

**Actual Total (Employer and Member) Contributions by Employer and Membership Class**  
**July 1, 2017 to June 30, 2018**

<u>Employer</u>	<u>General</u>	<u>General %</u>	<u>Safety</u>	<u>Safety %</u>	<u>Total Contributions</u>	<u>Total %</u>
COUNTY	\$22,577,520	92.634%	\$10,047,589	100.000%	\$32,625,109	94.784%
COURTS	1,598,667	6.559%	0	0.000%	1,598,667	4.645%
ICTC	158,327	0.650%	0	0.000%	158,327	0.460%
LAFCO	<u>38,186</u>	<u>0.157%</u>	<u>0</u>	<u>0.000%</u>	<u>38,186</u>	<u>0.111%</u>
Total	\$24,372,700	100.000%	\$10,047,589	100.000%	\$34,420,289	100.000%

**Allocation of June 30, 2018 Net Pension Liability (NPL)**

<u>Employer</u>	<u>General</u>	<u>General %</u>	<u>Safety</u>	<u>Safety %</u>	<u>Total NPL</u>	<u>Total %</u>
COUNTY	\$83,946,312	92.634%	\$42,487,901	100.000%	\$126,434,213	94.985%
COURTS	5,944,063	6.559%	0	0.000%	5,944,063	4.466%
ICTC	588,681	0.650%	0	0.000%	588,681	0.442%
LAFCO	<u>141,981</u>	<u>0.157%</u>	<u>0</u>	<u>0.000%</u>	<u>141,981</u>	<u>0.107%</u>
Total	\$90,621,037	100.000%	\$42,487,901	100.000%	\$133,108,938	100.000%

**Notes:**

Based on July 1, 2017 through June 30, 2018 contributions as provided by ICERS.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position. The TPL for each membership class is obtained from internal valuation results. The Plan Fiduciary Net Position for each membership class was estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total ICERS Plan Fiduciary Net Position to total ICERS VVA. Based on this methodology, any non-valuation reserves (such as Reserve for Capital Assets) are allocated amongst the membership classes based on the VVA for each membership class.

The Safety membership class has one employer (County), so all of the NPL for Safety is allocated to the County.

For General, the NPL is allocated based on the actual contributions within the General membership class.

- First calculate ratio of employer's and member's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.
- If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class.
- Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

**SECTION 3: AICPA Schedules for Imperial County Employees' Retirement System**

**EXHIBIT B**

**Schedule of Pension Amounts by Employer as of June 30, 2018**

Deferred Outflows of Resources	COUNTY GENERAL	COUNTY SAFETY	COUNTY Total	COURTS
Differences Between Expected and Actual Experience	\$0	\$329,320	\$329,320	\$0
Net Excess of Projected Over Actual Earnings on Pension Plan Investments (If Any)	2,613,153	1,127,336	3,740,489	185,032
Changes of Assumptions	26,598,748	8,011,946	34,610,694	1,883,402
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>370,594</u>	<u>0</u>	<u>370,594</u>	<u>27,304</u>
<b>Total Deferred Outflows of Resources</b>	\$29,582,495	\$9,468,602	\$39,051,097	\$2,095,738
<b>Deferred Inflows of Resources</b>				
Differences Between Expected and Actual Experience	\$16,424,494	\$4,704,675	\$21,129,169	\$1,162,984
Net Excess of Actual Over Projected Earnings on Pension Plan Investments (If Any)	0	0	0	0
Changes of Assumptions	0	0	0	0
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>23,528</u>	<u>0</u>	<u>23,528</u>	<u>437,235</u>
<b>Total Deferred Inflows of Resources</b>	\$16,448,022	\$4,704,675	\$21,152,697	\$1,600,219
<b>Net Pension Liability as of June 30, 2017</b>	\$84,891,628	\$42,059,311	\$126,950,939	\$6,439,456
<b>Net Pension Liability as of June 30, 2018</b>	\$83,946,312	\$42,487,901	\$126,434,213	\$5,944,063
Proportionate Share of Allocable Plan Pension Expense	\$20,371,557	\$8,740,525	\$29,112,082	\$1,450,437
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>71,848</u>	<u>0</u>	<u>71,848</u>	<u>(88,674)</u>
<b>Total Employer Pension Expense</b>	\$20,443,405	\$8,740,525	\$29,183,930	\$1,361,763

**SECTION 3: AICPA Schedules for Imperial County Employees' Retirement System**

**EXHIBIT B (Continued)**

**Schedule of Pension Amounts by Employer as of June 30, 2018**

<b>Deferred Outflows of Resources</b>	<b>ICTC</b>	<b>LAFCO</b>	<b>Total for All Employers</b>
Differences Between Expected and Actual Experience	\$0	\$0	\$329,320
Net Excess of Projected Over Actual Earnings on Pension Plan Investments (If Any)	18,325	4,420	3,948,266
Changes of Assumptions	186,526	44,987	36,725,609
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>59,387</u>	<u>20,967</u>	<u>478,252</u>
<b>Total Deferred Outflows of Resources</b>	<b>\$264,238</b>	<b>\$70,374</b>	<b>\$41,481,447</b>
<b>Deferred Inflows of Resources</b>			
Differences Between Expected and Actual Experience	\$115,178	\$27,779	\$22,435,110
Net Excess of Actual Over Projected Earnings on Pension Plan Investments (If Any)	0	0	0
Changes of Assumptions	0	0	0
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>1,093</u>	<u>16,396</u>	<u>478,252</u>
<b>Total Deferred Inflows of Resources</b>	<b>\$116,271</b>	<b>\$44,175</b>	<b>\$22,913,362</b>
<b>Net Pension Liability as of June 30, 2017</b>	<b>\$546,878</b>	<b>\$162,539</b>	<b>\$134,099,812</b>
<b>Net Pension Liability as of June 30, 2018</b>	<b>\$588,681</b>	<b>\$141,981</b>	<b>\$133,108,938</b>
<b>Employer Pension Expense</b>			
Proportionate Share of Allocable Plan Pension Expense	\$143,726	\$34,345	\$30,740,590
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>15,715</u>	<u>1,111</u>	<u>0</u>
<b>Total Employer Pension Expense</b>	<b>\$159,441</b>	<b>\$35,456</b>	<b>\$30,740,590</b>

### SECTION 3: AICPA Schedules for Imperial County Employees' Retirement System

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#### EXHIBIT B (Continued)

#### Schedule of Pension Amounts by Employer as of June 30, 2018

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**Notes:**

Amounts shown in this exhibit were allocated by employer based on the Contributions Allocation Percentage calculated in Exhibit A.

Based on our understanding of the requirements under GAS 82, we have treated the employer paid member contributions that are included in item 10 on page 8 as member contributions when we develop the employer pension expense as of June 30, 2018.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Differences between expected and actual experience are recognized over the average of the expected remaining service lives of all members that are provided with pensions through ICERS determined as of June 30, 2017 (the beginning of the measurement period ending June 30, 2018) and is 6.90 years.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired members.
- Dividing the sum of the above amounts by the total number of active employees, nonactive and retired members.