COOK COUNTY BOARD OF COMMISSIONERS PENSION COMMITTEE

NOVEMBER 14, 2017

COOK COUNTY FUND | OVERVIEW

The County Employees' and Officers' Annuity and Benefit Fund of Cook County and the Forest Preserve District Employees' Annuity and Benefit Fund of Cook County were established in 1926 and 1931, respectively, by acts of the Illinois legislature. They are administered in accordance with 40 ILCS 5/9-101 and 40 ILCS 5/10-101, et seq.

The funds are defined benefit pension plans that provide retirement, survivor, health, disability, and death benefits to over 40,000 members.

COOK COUNTY FUND | FUND DEMOGRAPHICS

	2015	2016
Active Employees	21,596	20,969
Average Age	47.1	47.4
Average Salary	$72,811	$75,361
Retirees	14,922	15,222
Survivors	2,675	2,687
Average Age	71.6	71.9
Average Annuity	$37,222	$38,817
Benefits Paid	$632.9M	$672.1M

COOK COUNTY PENSION FUND | 2016 SUMMARY RESULTS

On June 15, 2017 the Cook County Pension Fund (CCPF) presented the results from the 2016 actuarial valuation conducted by Conduent (formerly Buck Consultants).

The results of the 2016 valuation reflect both the statutory funding methodology as well as additional contributions provided through the Intergovernmental Agreement to the County Fund supplementing the statutory Employer contribution.

	Cook County Fund
Statutory Multiple	1.54 x Employee Contributions
2016 Statutory	$193.8M
2016 IGA	$270.5M

COOK COUNTY FUND | 2016 FUND RESULTS

Actuarial results for 2016 demonstrated the Cook County Fund's favorable experience due to strong investment performance and additional contributions from the Employer.

	2015	2016	2017 projected*
Employer Contribution	$186.8M	$464.3M	$547.0M*
Employee Contribution	$137.7M	$139.4M	$139.9M*
Investment Income	$0	$629.4M	$700.0M*
Benefit Payments**	$727.3M	$759.1M	$820.0M*
Total Liability	$16.2B	$16.7B	$17.4B*
Actuarial Assets	$9.0B	$9.5B	$10.0B*
Unfunded Liability	$7.2B	$7.2B	$7.4B*
Funded Ratio	55.4%	56.7%	57.3%

Additional contributions and strong investment performance resulted in positive growth in **Assets** and stabilization of the **Unfunded Liability** and the **Funded Ratio.**

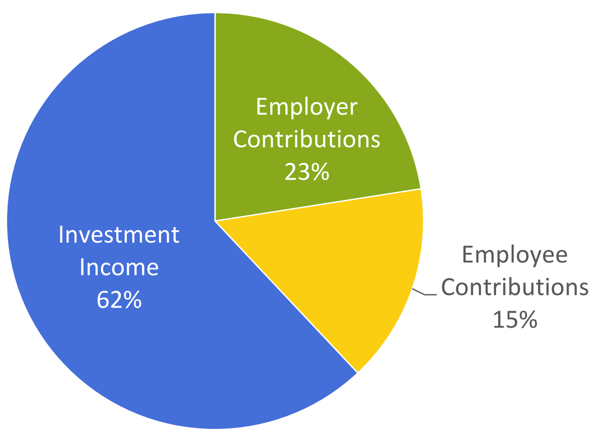
*Based on the actuarial valuation as of 12/31/2016 that includes assumptions of 2017 IGA payouts.

**Benefit payments include the Fund's cost of retiree health benefits coverage.

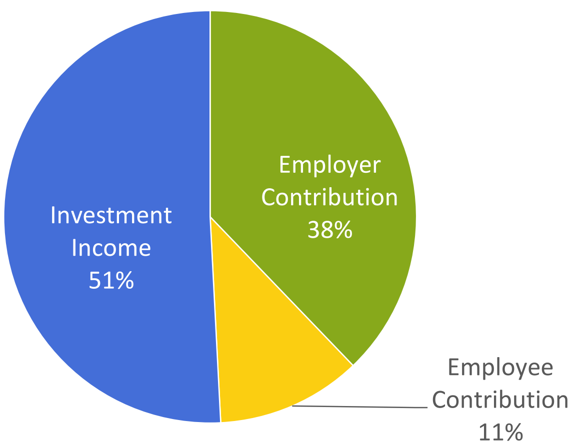
COOK COUNTY FUND | INVESTMENT IMPACT

As background, the Fund disbursed over $3 billion in benefit payments to members between 2011 and 2015. In recent years, Fund investment income has been used to help source those payments.

2011-2015 Fund Income



2016 Fund Income

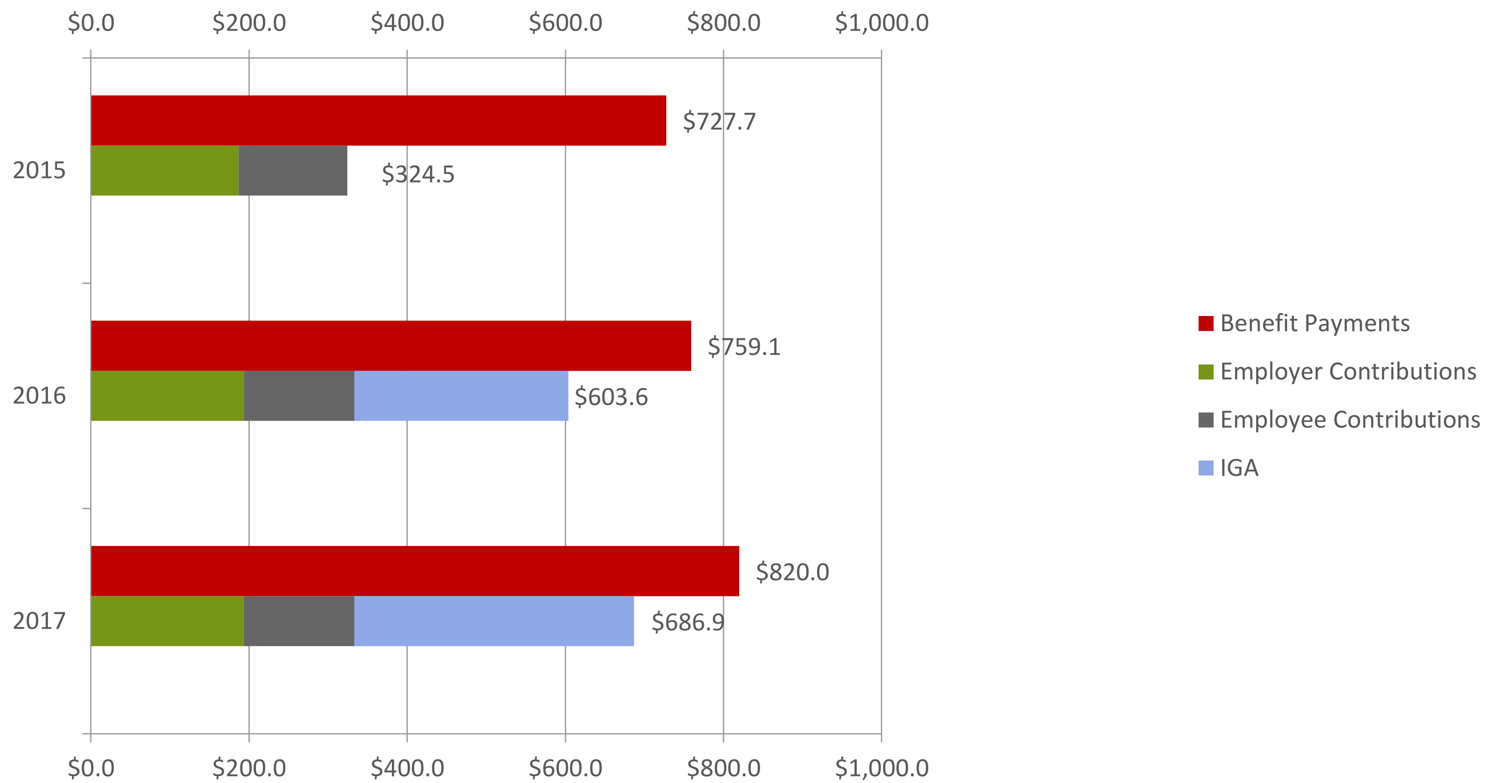


Over the 5 years, for every $1 in income:	$0.62 has come from investments $0.23 has come from the employer $0.15 has come from employees

In 2016, for every $1 in income:	$0.51 came from investments $0.38 came from the employer $0.11 came from employees

COOK COUNTY FUND | BENEFITS GAP

In 2016, additional contributions helped bridge the shortfall in benefit payments.

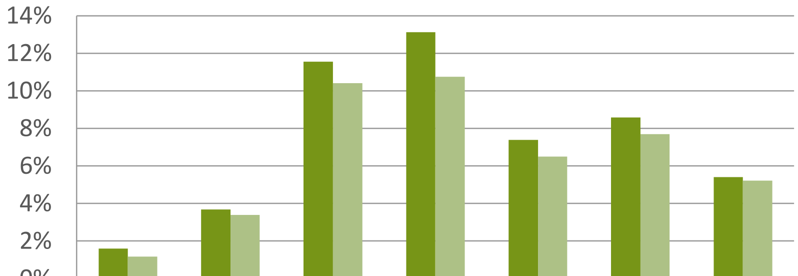


COOK COUNTY FUND | 2016 INVESTMENT PERFORMANCE

As of December 31, 2016, the Fund's investments returned 7.7%.

YTD through September 30, 2017, the estimated return for the Fund is 11.6%.

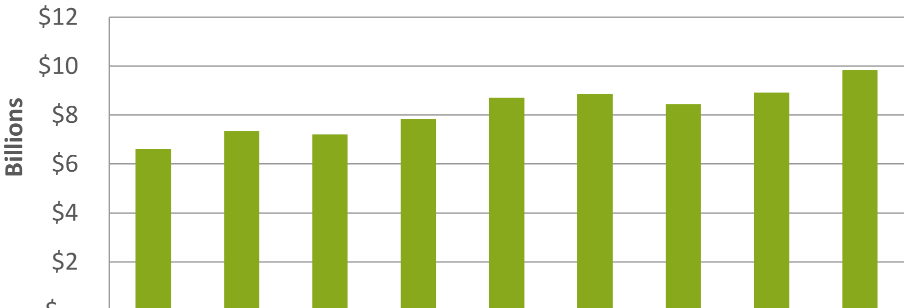
Cook County Returns as of Q3 2017*



	1mo	3mo	YTD	1Yr	3Yr	5Yr	10Yr
Cook	1.60%	3.68%	11.55%	13.12%	7.38%	8.58%	5.40%
Benchmark	1.17%	3.39%	10.41%	10.75%	6.50%	7.69%	5.22%

*Preliminary results as reported by the investment consultant

Cook County AUM



	2009	2010	2011	2012	2013	2014	2015	2016	2017
AUM	$6,61	$7,35	$7,21	$7,84	$8,70	$8,86	$8,44	$8,91	$9,84

The fund's portfolio has consistently outperformed the custom benchmark over various time periods before and after fees.

COOK COUNTY FUND | INTERGOVERNMENTAL AGREEMENT

The employer's funding methodology presented to the Fund in 2015 was basis for the amounts in the Intergovernmental agreements (IGA). The additional amounts have been calculated annually by the independent actuary in accordance with the IGA.

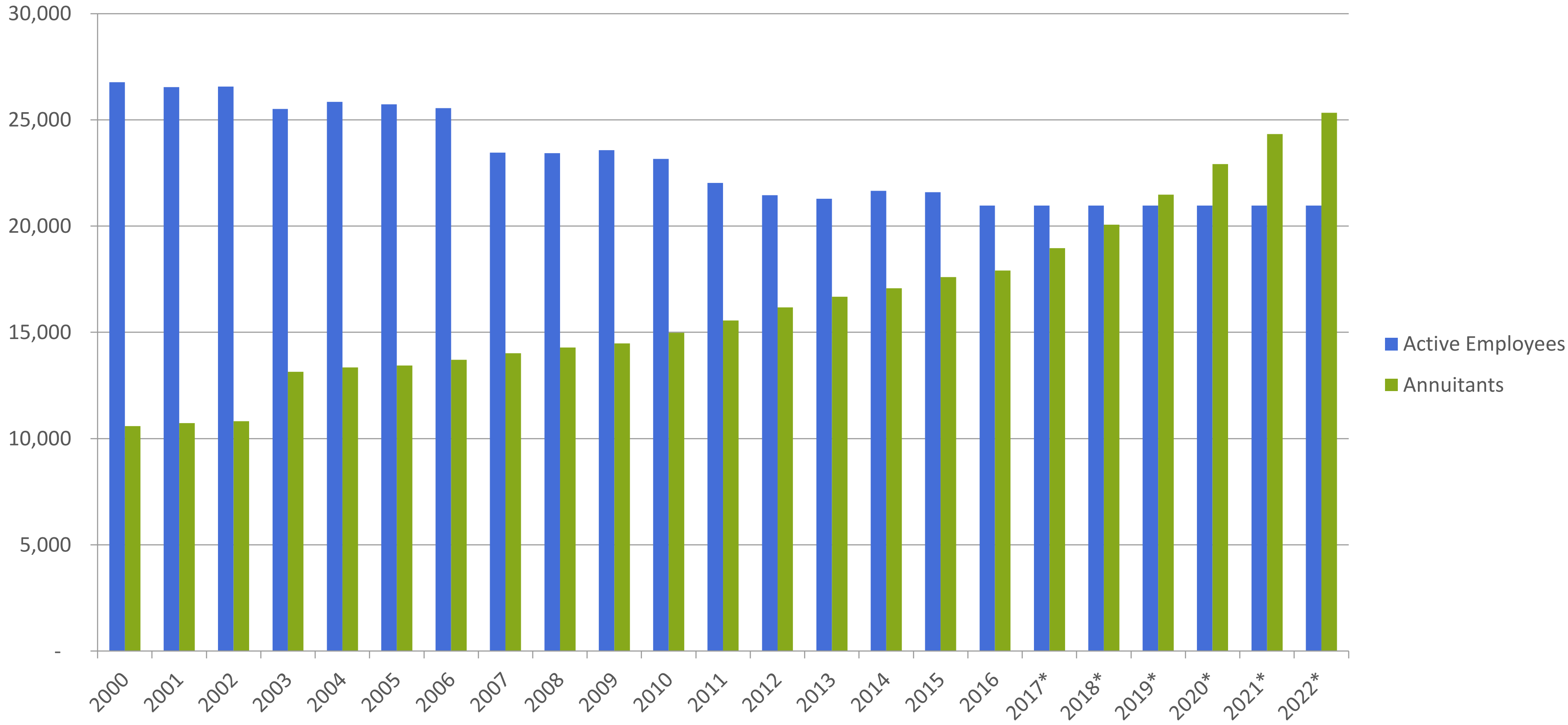
The actuarial calculation of next year's budget amount are based on prior year results. The amount does not take into account any activity or returns from the current year.

Proceeds from the IGA have and continue to reduce the contribution shortfall to make benefit payments, allowing the investment portfolios to remain primarily invested.

Long-term projections assume 2% growth in additional contributions.

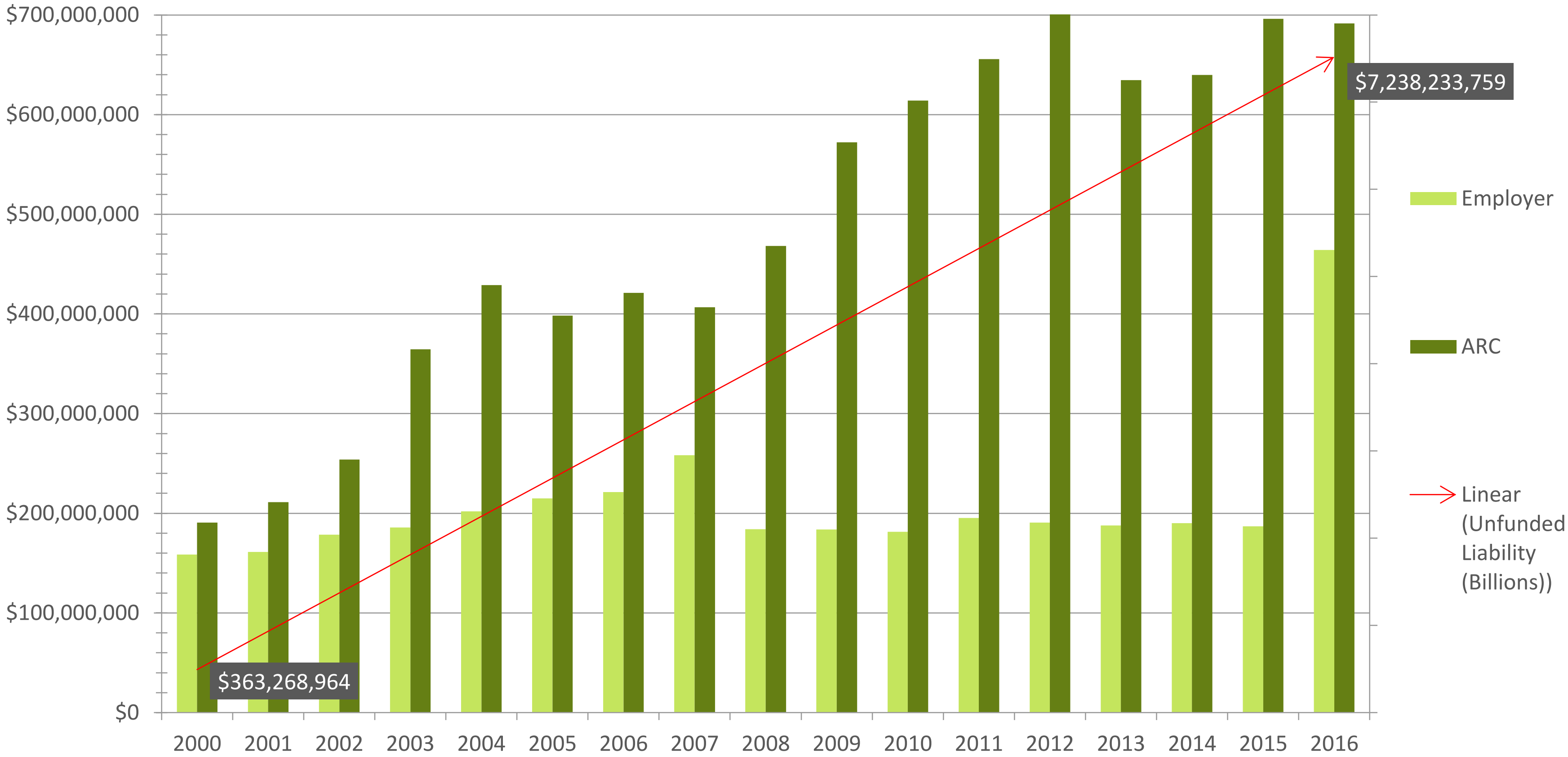
COOK COUNTY FUND | 2016 MEMBERSHIP PROJECTION

The Fund's active employee population continues to and is expected to be outpaced by annuitant growth resulting in reduced contributions and greater benefit payouts.

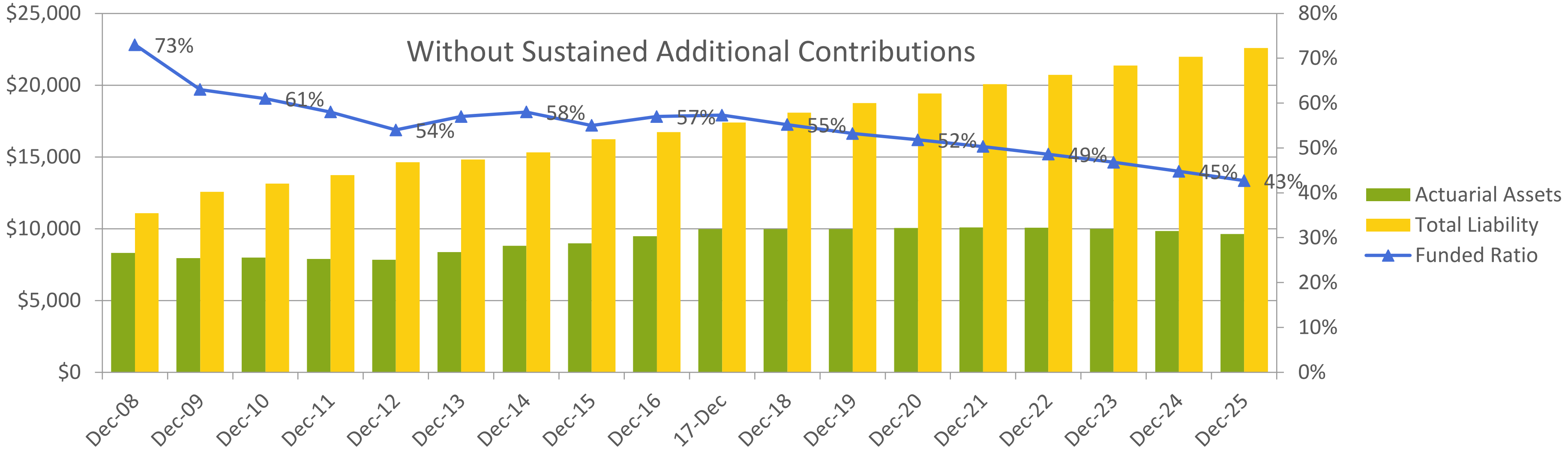


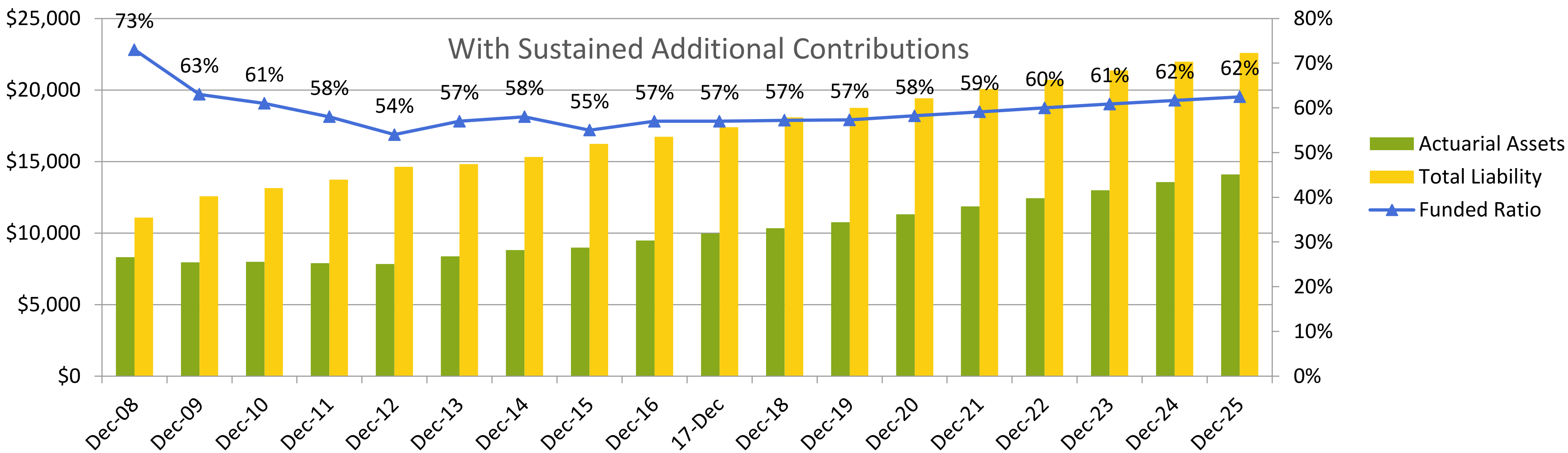
COOK COUNTY FUND | HISTORIC FUNDING TREND

The statutory funding policy on a stand-alone basis has contributed to the growth in unfunded liability against demographic trends. Additional contributions provide a meaningful offset.



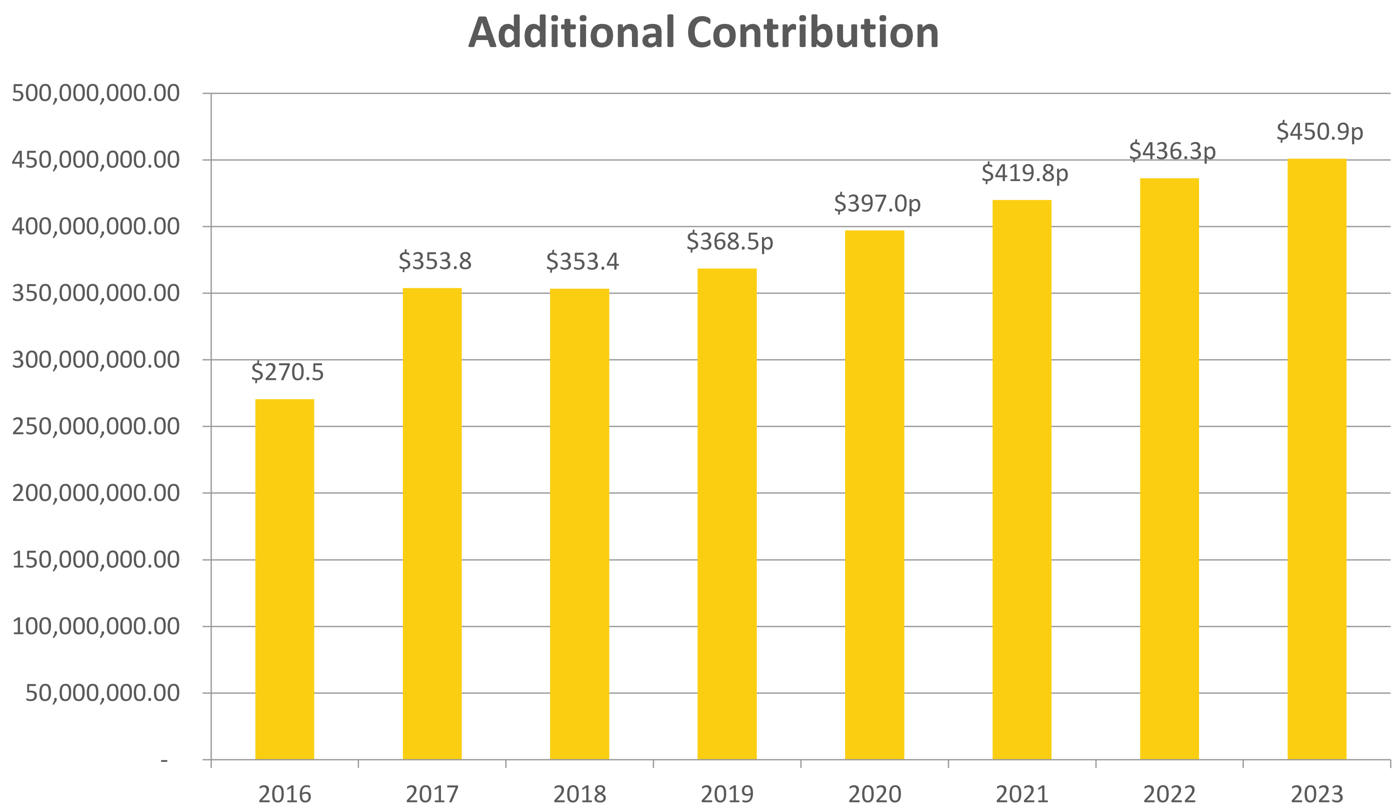
COOK COUNTY FUND | IMPACT OF SUSTAINED CONTRIBUTIONS





FUNDING | IGA PROJECTION

Over time, sustained additional funding through the IGA would bring the Employer contribution closer to the actuarial required amount.



Based on the actuarial assumptions as determined in the IGA, including 2% Employer contribution growth annually.

FUNDING | OUTLOOK

In the short-term, the IGA funding will allow investments to remain at work and ensure annuitants are paid their benefits at less of a detriment to the Fund's investment portfolio.

Since 1984, the Employer's statutory contribution has been determined by fixed multiples and is insufficient to keep the Fund solvent. CCPF is the only system in Illinois without legislated actuarial-based funding.

In the long-term however, one-year funding policy will be inadequate in improving the Fund's financial footing:

- Having little impact reducing the Fund's longer term funded status;
- Creating uncertainty in the Fund's long-term investment strategy; and
- Favoring short-term, liquid, lower return investments to meet benefit needs.

A long-term statutory solution guaranteeing actuarial required contributions by the Employer is crucial to the Fund's future ability to pay out retirement benefits earned through service both now and in the future.

2016 IN REVIEW
FOREST PRESERVE FUND

FOREST PRESERVE FUND | 2016 OVERVIEW

	2016
Active Employees	572
Average Age	45.2
Average Salary	$60,330
Annuitants	530
Average Age	72.0
Average Annuity	$29,694

	2015	2016
Actuarial Assets	$193.7M	$198.2M
Total Liability	$322.8M	$330.2M
Unfunded Liability	$129.0M	$132.0M
Funded Ratio	60.0%	60.0%
Employer Contribution	$3.5 M	$3.4 M
Employee Contribution	$2.8 M	$3.2 M
Benefits Spend	$17.6 M	$17.9 M