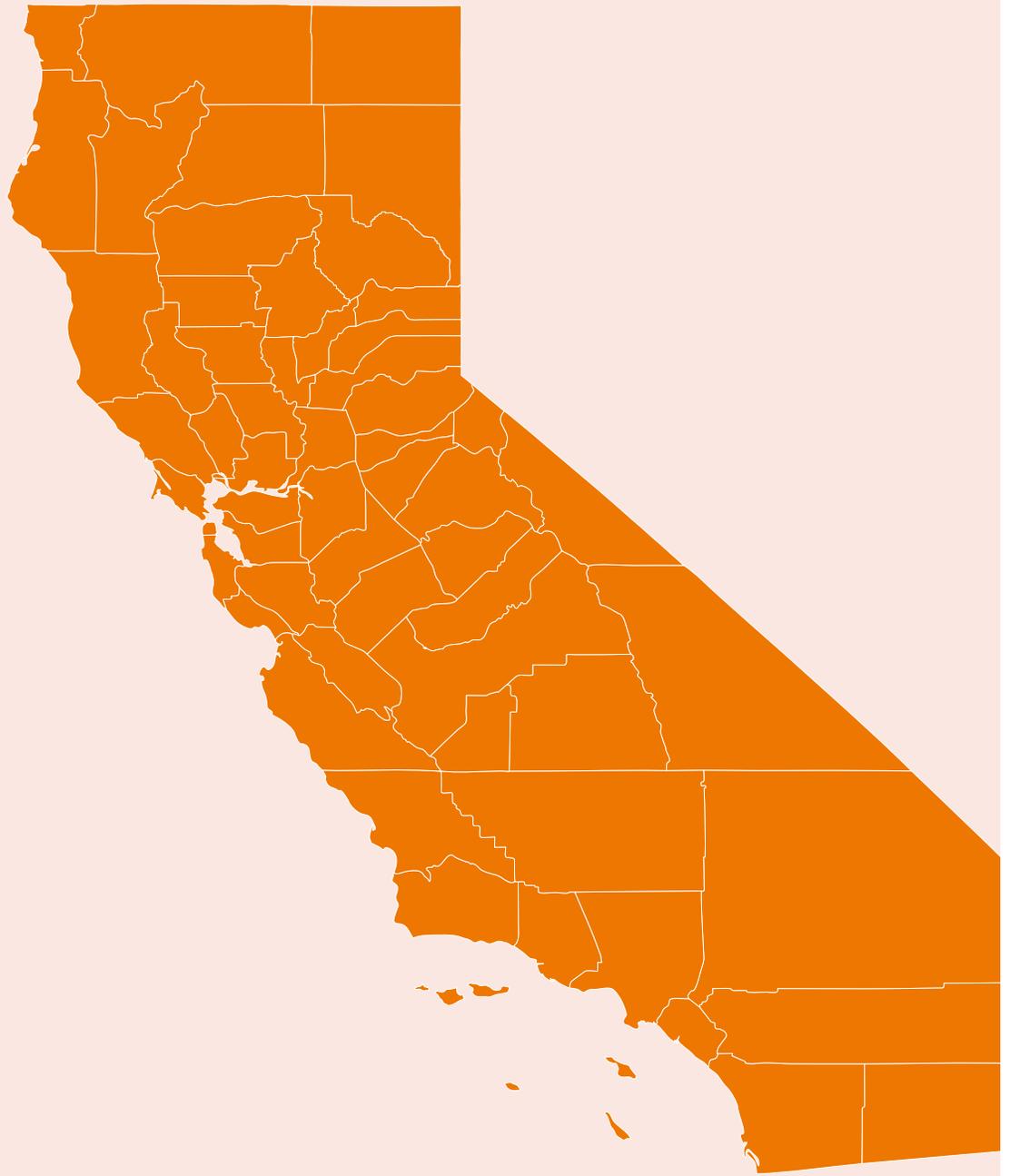




# CalPERS for California 2016

Supporting Economic  
Opportunity in California



## CalPERS for California

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The California Public Employees' Retirement System (CalPERS) is one of the largest investors in the world, with \$295 billion in assets as of June 30, 2016.

Approximately \$27.3 billion (9.3 percent) of these funds are invested in California-based companies and projects.

CalPERS for California highlights some of the broad ancillary benefits of all CalPERS investments in California.



# Table of Contents

- Executive Summary . . . . . 3
- Introduction . . . . . 5
- Public Markets . . . . . 7
  - Global Equities . . . . . 7
  - Global Fixed Income . . . . . 9
- Private Markets . . . . . 11
  - Private Equity . . . . . 13
  - Real Estate . . . . . 17
  - Infrastructure . . . . . 20
  - The Economic Impact of CalPERS
    - Private Markets Investments in California . . . . . 22
- Conclusion . . . . . 23
- Location of CalPERS Investments in California . . . . . 24
- Endnotes . . . . . 28



## Executive Summary

The California Public Employees' Retirement System (CalPERS), the nation's largest public pension fund, plays an important role in California's economy, providing retirement and health benefits to over 1.8 million public employees, retirees, and their families, and 3,000 employers.

As of June 30, 2016, CalPERS' investment portfolio totaled \$295.1 billion, a decrease of 2.3 percent from the previous year.<sup>1</sup> Within the CalPERS investment portfolio, 9.3 percent, or \$27.3 billion, is invested in California, supporting local jobs across the state. The market value of CalPERS' California portfolio decreased 1.8 percent in the 12 months since June 30, 2015.

CalPERS' investments in California are a direct result of the strength and diversity of California's economy and the quality of its companies, properties, and other opportunities. These investments must be consistent with the fiduciary responsibility of the CalPERS Board of Administration and its duty to protect the financial security of CalPERS members, through the activities of the CalPERS Investment Office.

The ancillary benefits of CalPERS' investments in California include the support of local jobs, infrastructure for communities and commerce, and business expansion and

related economic activity. CalPERS' private markets investments in California have resulted in \$25.6 billion in total economic activity across the state, benefiting not only businesses and projects receiving capital from CalPERS, but also suppliers, workers, and - through tax revenues - the public sector broadly.<sup>2</sup>

*CalPERS for California* documents the scale and breadth of CalPERS' investments in California and the resulting ancillary benefits, in alignment with CalPERS' commitment to transparency and accountability.

As of June 30, 2016, CalPERS invested:

- \$13.3 billion in 589 California-headquartered public companies, which employ 1,117,000 people in California.
- \$3.3 billion of fixed income capital in California, \$824 million of which is invested in 49 California-headquartered corporate bond issuers employing 268,000 people in California.
- \$2.3 billion in 711 California-headquartered private companies, which employ 113,000 people in California.
- \$8 billion in 190 California-based real estate projects, which support 145,000 jobs in California.
- \$345.7 million in four California-based infrastructure projects, which support 4,400 jobs in California.

### CalPERS Investments in California by Asset Class: June 30, 2016

	Total Portfolio Value (in billions)	Dollars Invested in California (in billions)	Percentage of Dollars Invested in California	Annual Percentage Change in Dollars Invested in California
Global Equities	\$153.1	\$13.3	8.7%	-5.0%
Global Fixed Income	\$59.9	\$3.3	5.5%	0.0%
Private Equity	\$26.4	\$2.3	9.0%	-28.0%
Real Estate	\$27.3	\$8.0	29.0%	11.1%
Infrastructure	\$2.6	\$0.35	13.3%	250%
Other <sup>1</sup>	\$25.8	—	—	—
<b>All CalPERS Total</b>	<b>\$295.1</b>	<b>\$27.3</b>	<b>9.3%</b>	<b>-1.8%</b>

<sup>1</sup>CalPERS total portfolio value was \$295.1 billion at 6/30/2016. The five asset classes above do not comprise the entire portfolio. "Other" consists primarily of forestland, inflation linked securities, absolute return strategies, cash, and cash-equivalents.

CalPERS' investments in California support local communities, businesses, and workers. However, the role that CalPERS' capital plays in sustaining the activities of a public company differs substantially from a private company or project. Specifically, CalPERS is one of thousands of capital providers to public companies, with an indirect connection to the activities of these businesses.

As such, total jobs figures for CalPERS' public markets and private markets are presented separately below, recognizing the different relationship between the capital CalPERS provides and employment outcomes.

**Jobs by Asset Class:  
June 30, 2016<sup>1</sup>**

Global Equities	1,117,000	
Global Fixed Income	268,000	Note: Jobs already captured within Global Equities <sup>2</sup>
<b>Public Markets Total<sup>3</sup></b>	<b>1,117,000</b>	
Private Equity	113,000	
Real Estate	145,000	
<b>Infrastructure</b>	<b>4,400</b>	
<b>Private Markets Total</b>	<b>262,400</b>	

<sup>1</sup>For methodologies calculating the number of jobs supported in California please refer to individual asset class sections within the report.

<sup>2</sup>The global fixed income employment figure is based on publicly available data for this asset class, which was available for 21 companies that received direct corporate bond investment from CalPERS. These 21 companies are also present in CalPERS public equity portfolio. Job estimates cannot be combined as this would constitute double counting.

<sup>3</sup>It is important to note that the jobs at public companies are created and sustained by all sources of capital utilized by these companies, not just by CalPERS investment. Total jobs supported are calculated for CalPERS public markets investments to illustrate the presence and prominence of these public companies in California's economy and of their relative importance as investments in California by CalPERS.

# Introduction

As of June 30, 2016, CalPERS invested \$27.3 billion in California across five key asset classes including global equities, global fixed income, private equity, real estate, and infrastructure.

The primary objective of CalPERS' investments in California is to achieve appropriate risk-adjusted return on investment. Investment in California by CalPERS and its third-party investment managers is a consequence of the strength and diversity of California's economy and the quality of its companies, properties, and other investment opportunities.<sup>4</sup>

Specifically:

- At \$2.46 trillion,<sup>5</sup> California represents 13.8 percent of U.S. Gross Domestic Product (GDP) and ranks as the world's sixth largest economy.<sup>6</sup>
- California is home to 53 Fortune 500 companies and 32 of the largest 500 corporations in the world.<sup>7</sup>
- California has received \$470.4 billion out of a total of \$4.5 trillion in U.S. private equity investments from 2005-2014.<sup>8</sup>
- California exported \$165 billion of goods in 2015, representing 11 percent of U.S. total exported goods.<sup>9</sup>

CalPERS invests like other large institutions, diversifying its portfolio among categories of investments, called "asset classes", to reduce its exposure to any one market risk and maximize its return on investment.

Asset classes in this report include:

- **Public markets:**
  - Global Equities: Equity in public companies domestically and internationally, for example through the New York Stock Exchange.
  - Global Fixed Income: Loans provided to governments, companies, and other borrowers.
- **Private markets:**
  - Private Equity: Investments in private companies that are not publicly traded.
  - Real Estate: Investments in commercial and residential property.
  - Infrastructure: Investments in real assets including power generation, water storage, and land for renewable resources.

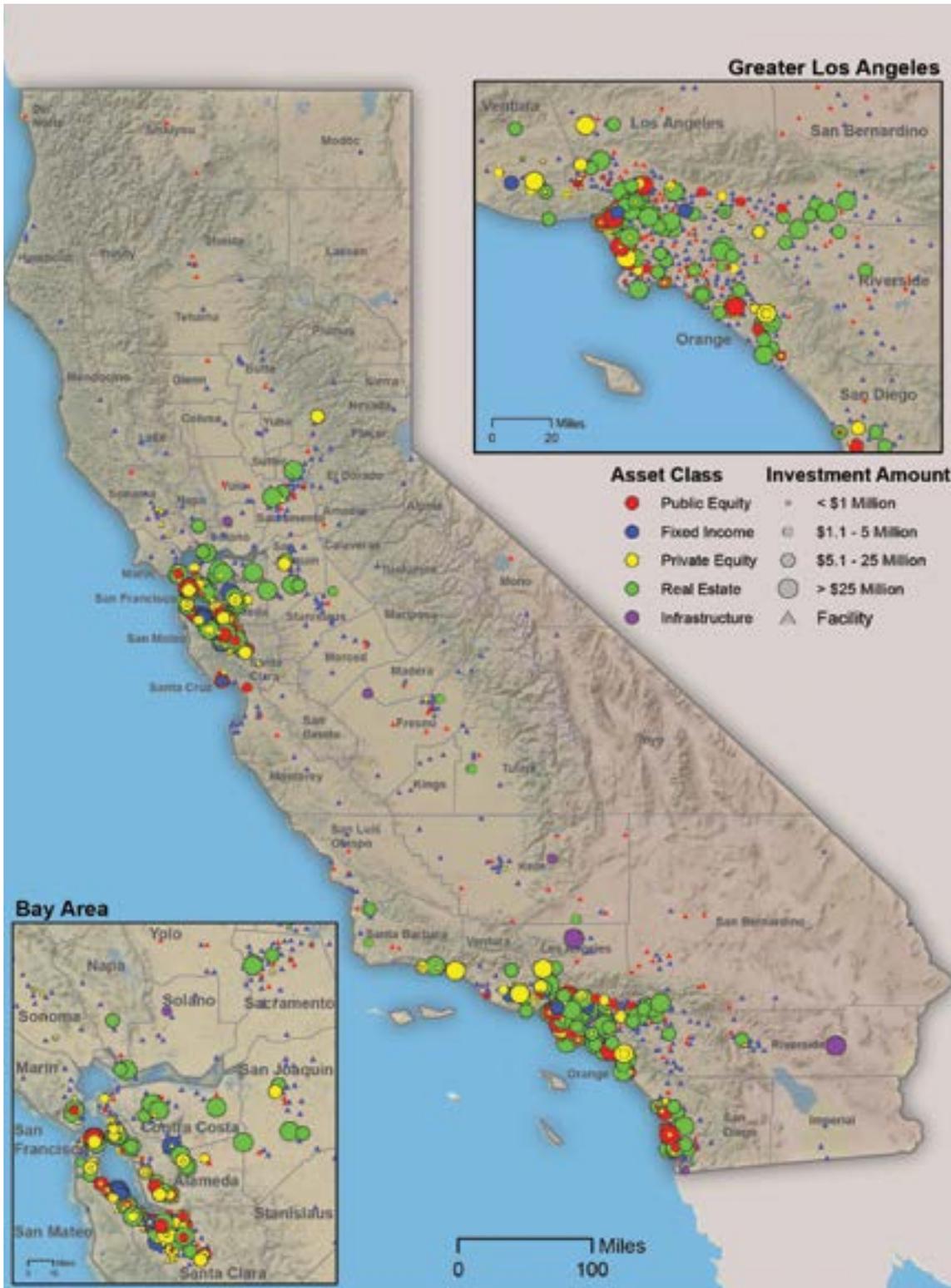
## Proportion of CalPERS California Investments by Asset Class: June 30, 2016

	Dollars invested (in Billions)	Percentage of dollars invested
Global Equities	\$13.3	49%
Global Fixed Income	\$3.3	12%
Private Equity	\$2.3	9%
Real Estate	\$8	29%
Infrastructure	\$0.35	1%
<b>Total</b>	<b>\$27.3</b>	<b>100%</b>

California is home to investment opportunities in each asset class, to which CalPERS deploys capital directly, using an in-house team of 375 full-time investment professionals and staff, or by employing the services of qualified third-party investment management companies.

This report examines CalPERS' investment portfolio as of June 30, 2016 and describes the scale and breadth of CalPERS' exposure to companies, properties and projects in California, and the resulting ancillary benefits from CalPERS' investments.

## CalPERS Investments by Asset Class in California



## Public Markets

CalPERS invests the largest amount of its assets in total, and in California, in the public markets through global equities and global fixed income investments.

The analysis below includes estimates of the number of workers employed in California by the companies in which CalPERS invests. These jobs are not created or sustained only by CalPERS' investments. CalPERS owns approximately 0.3 percent of the largest California-headquartered companies in its portfolio. Nonetheless, CalPERS provides an important source of capital for use in all the activities of the public companies and fixed income opportunities in which it invests.

This research focuses on California-headquartered companies that have received investment from CalPERS. Because of their impact on the California economy, they are more significant than those headquartered elsewhere. Companies headquartered in California have 22 percent of their facilities located in-state compared to companies with headquarters outside of California, which have four percent of their facilities based locally.

### Global Equities

<b>Global Equities</b>	Total Market Value	\$153.1 billion
	Value in CA	\$13.3 billion
	Percentage in CA	8.7%

CalPERS invests in public companies primarily as a long-term investor. The largest allocation of global equities is passively managed by an in-house team of investment professionals. CalPERS also maintains an allocation with external active equity managers where there is potential to add value. CalPERS and its external investment managers also formally engage with companies directly to better align the interests of long-term shareowners and companies in pursuit of sustainable risk-adjusted returns.

The 589 California-headquartered public companies in which CalPERS invests employ an estimated 1,117,000 workers locally. One fifth of all facilities for California-

headquartered companies (22 percent) are located in California. Just under half of CalPERS' global equity investments in California are in companies that manufacture products (44 percent).

### CalPERS Global Equities Portfolio in California: June 30, 2016<sup>1</sup>

Total Companies	589	
Median Company Size (Employees)	707	
Average CalPERS Investment (in millions)	\$16.7	
Company Size (Employees)	1-100 Employees	16%
	101-500 Employees	25%
	> 500 Employees	59%
Company Size (Revenue, in millions)	< \$100	28%
	\$100-\$500	30%
	Over \$500	40%
Median 1-Year Employee Growth <sup>2</sup>	4.87%	
Percentage Manufacturing Companies <sup>3</sup>	44%	
Estimated Number of Jobs in California <sup>4</sup>	1,117,000	
Facilities in California	16,423	
Percentage of Facilities in California	22%	

<sup>1</sup> Analysis based on a 30 percent random sample (n=174). All data was collected from the Hoovers Inc. online database of publicly traded companies. Hoovers Inc. is a Dun & Bradstreet company.

<sup>2</sup> Median employee growth data from Hoovers Inc. is measured as the percentage difference between the most current reported employee numbers, and the numbers reported approximately one year prior.

<sup>3</sup> Percentage of manufacturing companies is from Hoovers Inc. A company is classified as a manufacturer if they produce any kind of physical good.

<sup>4</sup> The number of jobs in California is estimated using the percentage of total company facilities in California. Given that 22 percent of sample facilities are in California, and assuming that employment is spread evenly by facility, 1,117,000 = total jobs at California-headquartered companies x 22 percent.

CalPERS has investments of more than \$100 million in 21 separate companies headquartered in California. These companies account for 67 percent of CalPERS' global equity investments in California and 23 percent of the California workers employed by public companies in CalPERS' portfolio.

### CalPERS +\$100 Million Global Equities Investments in California

Company Name	CalPERS Investment (in millions) <sup>1</sup>	Total Market Capitalization (in millions) <sup>2</sup>	CalPERS % of Market Value	Company Facilities in California <sup>3</sup>
Apple Inc.	\$1,514.3	\$515,587	0.29%	14%
Alphabet Inc.	\$1,159.5	\$958,488	0.12%	22%
Wells Fargo & Co.	\$791.7	\$238,945	0.33%	17%
Facebook Inc.	\$706.6	\$327,984	0.22%	31%
Chevron Corp.	\$611.3	\$197,764	0.31%	24%
Cisco Systems Inc.	\$493.4	\$144,425	0.34%	11%
Intel Corp.	\$488.5	\$155,078	0.32%	18%
Walt Disney Co.	\$464.4	\$166,294	0.28%	28%
Oracle Corp.	\$404.9	\$169,082	0.24%	13%
Visa Inc.	\$397.8	\$175,251	0.23%	18%
Gilead Sciences Inc.	\$336.7	\$111,032	0.30%	26%
Amgen Inc.	\$324.8	\$113,945	0.29%	20%
Qualcomm Inc.	\$246.0	\$78,909	0.31%	27%
Adobe Systems Inc.	\$163.9	\$47,797	0.34%	16%
McKesson Corp.	\$151.3	\$42,183	0.36%	2%
Salesforce.com, Inc.	\$133.9	\$53,800	0.25%	22%
PG&E Corp.	\$122.7	\$31,841	0.39%	97%
Hewlett-Packard Co.	\$121.0	\$31,497	0.38%	6%
Public Storage	\$120.8	\$44,242	0.27%	21%
Edison International	\$120.4	\$25,306	0.48%	95%
Applied Materials	\$101.9	\$26,107	0.39%	29%
<b>Total</b>	<b>\$8,874</b>	<b>\$3,629,450</b>	<b>0.24%</b>	<b>17%<sup>4</sup></b>

<sup>1</sup>CalPERS investment is Market Value at 6/30/2016

<sup>2</sup>Total Market Capitalization at 6/30/2016

<sup>3</sup>The percentage of facilities in California is determined using Hoovers, Inc. data and includes all company facilities with a California address.

<sup>4</sup>Total company facilities in CA is calculated by dividing the total number of CA based facilities for the CalPERS +\$100 million public equity investments by their total number of facilities.

CalPERS invests in approximately 9,600 companies globally that have headquarters outside of California. California operations comprise approximately four percent of the total number of facilities for these companies.<sup>10</sup> While companies headquartered elsewhere likely employ millions of Californians, a precise jobs estimate was unable to be determined with available data.

### Global Equity Companies not Headquartered in California<sup>1</sup>

Total Companies	9,644
Approximate Number of Facilities	2,275,167
Percentage of Facilities in CA	4%

<sup>1</sup>Analysis based on a 3 percent random sample (n=290) of companies not headquartered in California in the CalPERS Global Equities portfolio.

### Global Fixed Income<sup>11</sup>

<b>Global Fixed Income</b>	Total Market Value	\$59.9 billion
	Value in CA	\$3.3 billion
	Percentage in CA	5.5%

CalPERS has global fixed income investments in California, managed in-house and externally, in five areas:

- **Corporate bonds:** Corporate bonds are debt securities issued by private and public corporations. Companies issue corporate bonds to raise money for a variety of purposes, such as building new plants or purchasing equipment.<sup>12</sup>
- **Credit enhancements:** Credit enhancements for state or municipal entities effectively substitute the credit rating and liquidity of the credit enhancement provider for that of the borrower. Credit enhancement thereby lowers the cost of capital for the borrower and provides CalPERS with an incremental earnings stream for this service.
- **Structured securities:** Structured securities are

investments in a diverse group of loans and provide risk and return characteristics contingent on a range of underlying indices, interest rates or cash flows.

- **Short-term investments:** Short-term investments consist of U.S. Treasury and government sponsored securities, money market funds, commercial paper, certificates of deposit, repurchase agreements, asset backed securities, notes and bonds issued by U.S. corporations, and other allowable instruments that meet short-term maturity or average life, diversification, and credit quality restrictions.
- **Whole loans:** Whole loans include remaining California mortgages through the CalPERS Member Home Loan Program.

### CalPERS Global Fixed Income Investment Classes in California: June 30, 2016

	Dollars invested (in millions)	Percentage of dollars invested
Corporate Bonds	\$824	25.3%
Credit Enhancements <sup>1</sup>	\$51	1.6%
Structured Securities	\$2,305	70.6%
Short-term Investments	\$10	0.3%
Whole Loans	\$73	2.2%
<b>Total</b>	<b>\$3,264</b>	<b>100%</b>

<sup>1</sup>Credit Enhancement dollars are "committed" and not invested.

CalPERS' global fixed income portfolio includes corporate bond investments in 49 companies headquartered in California managed by CalPERS and external third-party investment managers. CalPERS invests \$762 million directly in 21 of these companies, without the assistance of external third-party investment managers. The 21 companies in which CalPERS invests directly are larger than companies invested in by other asset classes, with a median size of approximately 23,000 employees. These companies employ approximately 268,000 workers in California and operate 2,400 local facilities.

**CalPERS Global Fixed Income Portfolio - Corporate Bonds in California<sup>1</sup>: June 30, 2016**

Total Companies		21
Median Company Size (Employees)		23,000
Average CalPERS Investment (in millions)		\$36.3
Company Size (Employees)	1-100 Employees	0%
	101-500 Employees	5%
	>500 Employees	95%
Company Size (Revenue, in millions)	<\$100	0%
	\$101 - \$500	0%
	Over \$500	100%
Median 1-Year Employee Growth <sup>2</sup>		0.56%
Percentage Manufacturing Companies <sup>3</sup>		57%
Estimated Number of Jobs in California <sup>4</sup>		268,000
Facilities in California		2,376
Percentage of Facilities in California		17%

<sup>1</sup> Data from corporate bond issuers with headquarters in California as listed in the Hoovers Inc. database. This includes 21 companies and \$762 million of investments. This table does not include California corporate bond issuers receiving investment through external managers. There are 28 California corporate bond issuers receiving a total of \$59.9 million in investment from third-party investment managers with an average of \$2.1 million. Five of these 28 corporate bond issuers receiving investment from third-party investment managers also receive direct investment from CalPERS.

<sup>2</sup> Median employee growth data from Hoovers, Inc. is measured as the percentage difference between the most current reported employee numbers, and the numbers reported approximately one year prior.

<sup>3</sup> Percentage of manufacturing companies data from Hoovers, Inc. A company is classified as a manufacturer if they produce any kind of physical good.

<sup>4</sup> California job data is estimated by multiplying total number of employees by the percentage of facilities in California.

CalPERS also invests in 311 corporate bond issuers that are not headquartered in California, of which 52 percent have facilities in-state and employ local workers. In-state operations comprise seven percent of the total number of facilities globally for these companies.<sup>13</sup> These 311 companies operate approximately 15,000 facilities in California and likely employ hundreds of thousands of Californians when considering that the 21 California-headquartered companies operate approximately 2,400 facilities, with 268,000 local workers. However, a precise jobs estimate was unable to be determined with the available data.

**Global Fixed Income Corporate Bond Issuers not Headquartered in California<sup>1</sup>**

Total Companies	311
Approximate Number of Facilities	218,000
Percentage of Facilities in CA	7%

<sup>1</sup> Analysis based on a 10 percent random sample (n=31) of companies not headquartered in California in the CalPERS Global Fixed Income portfolio.

## Private Markets

CalPERS invests approximately 19 percent of its total assets in private markets inside and outside of California, including in private equity, real estate, and infrastructure. Within California, the proportion of CalPERS' assets in private market strategies is much greater, at 39 percent. Private market strategies encompass investments in companies, properties, and projects that cannot be accessed publicly.

The job creation and other ancillary benefits of private companies, properties and projects that receive investments directly from CalPERS, or through contracted third-party investment managers, can be more directly attributed to CalPERS than investments in public markets.

CalPERS is typically a larger investor among a more targeted group of institutions in any given deal, fund, or partnership. Moreover, in the case of private equity, the investment managers supported by CalPERS (called "General Partners") often join the boards of directors of the companies in which they invest and provide strategic advice, improved operating guidance, and access to broad networks that directly enhance the probability of business success.

At times, the investment managers CalPERS enlists to support its efforts in private markets have also raised additional capital as a result of CalPERS' anchor partnership commitment in their funds. While not all of these "co-investments" in private California-based companies, properties, and projects can be attributed to CalPERS, the opportunity to partner with CalPERS and its investment managers has proven to be attractive to other providers of capital.

The private markets section of *CalPERS for California* highlights four areas in which capital may be especially socially beneficial.<sup>14</sup> This includes:

- Low- to Moderate-Income (LMI) Areas<sup>15</sup>
- High Unemployment Areas<sup>16</sup>
- High Minority Areas<sup>17</sup>
- Rural Areas<sup>18</sup>

Access to capital is an important factor in business and productivity growth, job and wealth creation, innovation, and sustainable community and economic development. The benefits of access to capital accrue to the direct recipients of investments, and to the areas in which they are located.

The proportion of CalPERS' investments in LMI, High Unemployment, High Minority, and Rural Areas reflects the demand for capital in the asset classes in which CalPERS invests. For example, CalPERS invests in companies and properties in central business districts and other economic hubs that offer attractive investment opportunities. These areas tend to be more ethnically and economically diverse, but CalPERS' investment is not a result of these characteristics. As with all of CalPERS' investments, the decision of CalPERS and its third-party investment managers to support a California-based company, property or project is made solely on the basis of the financial merits of the particular investment opportunity.

## Locating Investments in California

The analysis in this section uses the demographic and income characteristics of ZIP codes. If the ZIP code in which an investment is located is determined to be an LMI, High Unemployment, High Minority, or Rural Area, then the investment and the dollars associated with the investment are considered to be in the defined community.

In the case of High Unemployment, Rural, and High Minority Areas, the calculations are relatively straightforward. The data used to determine the appropriate status of relevant populations is available by ZIP code and uses 2010 U.S. Census and 2010 California Employment Development Department data.

Calculating the LMI status of a ZIP code is more complex. The following method is applied using U.S. Census Bureau 2010-2014 American Community Survey data for every tract in the United States:

1. The number of census tracts and percentage of each census tract that geographically overlaps with every ZIP code is determined using geographic information systems (GIS) data.

2. The percentage of land in a ZIP code that overlaps with LMI census tracts is calculated for every ZIP code by combining partial census tracts.

3. The ZIP code is considered to be LMI if more than 50 percent of the total land in a ZIP code overlaps with LMI census tracts.

In the United States 46 percent of all ZIP codes are classified as LMI using this analysis. In California, 65 percent of all ZIP codes are classified as LMI, including 85 percent in the “urban core” comprising the Central Business Districts of San Francisco, Oakland, Los Angeles, and San Diego.<sup>19</sup>

## Private Equity

<b>Private Equity</b>	Total Market Value	\$26.4 billion
	Value in CA	\$2.3 billion <sup>20</sup>
	Percentage in CA	9.0%

CalPERS is a significant investor in privately held California-based companies in a wide range of industries. Private companies are generally smaller than public companies and use capital to support rapid growth, whether by commercializing new technologies, expanding operations, or by realizing efficiencies in readiness for an acquisition or public listing.

CalPERS invests in private companies primarily through Limited Partnerships, or commingled funds. These investments are often structured as 10-year agreements with a professional investment manager. The manager, known as the General Partner, is the intermediary between investors with capital and businesses seeking capital.

### CalPERS Private Equity Portfolio in California: June 30, 2016

Total Companies	711
CalPERS Investments (in billions)	\$2.3
Third-Party Co-Invested Dollars (in billions) <sup>1</sup>	\$34.5
Estimated Jobs in CA <sup>2</sup>	113,000

<sup>1</sup> Includes all other capital invested alongside CalPERS in the same companies in the same private equity fund, not the total market value of the company. Other co-invested dollars are determined only from \$2.1 billion in direct partnership investments.

<sup>2</sup> Estimated jobs in California is determined by applying the total number of California jobs supported by the California Initiative to the entire California Private Equity portfolio.

The companies in CalPERS' private equity portfolio that are headquartered in California are estimated to employ 113,000 workers in the state. An estimated \$34.5 billion has been co-invested alongside CalPERS in the same California-based companies by other Limited Partners.

Of 149 third-party funds investing CalPERS assets in California-headquartered companies, 28 percent are managed by General Partners based in California, demonstrating the strength of the California economy as a place to manage and invest capital. California-based private equity investments are an important component of the state's capital markets and financial infrastructure.

CalPERS' private equity investments provide a unique ancillary benefit by deploying capital to areas that have traditionally had limited access to institutional private equity assets. Private equity investment has historically been clustered within geographic regions such as Silicon Valley. Specifically, nearly 95 percent of private equity capital invested in California has been in just six percent of ZIP codes across the state. As of June 30, 2016, 25 percent of the value of CalPERS' private equity investments in California are directed to ZIP codes outside of the areas receiving the vast majority of investments from all sources of institutional private equity capital.

Sixty percent of the value of CalPERS' private equity investments in California is in High Minority Areas. CalPERS also has private equity investments in High Unemployment, LMI, and Rural Areas.

CalPERS invests in a wide range of companies, with investments in more than nine different industries. The following chart shows the diversity of CalPERS' California private equity portfolio with the distribution of sectors, including the heaviest concentrations in information technology, health care, and consumer discretionary companies.

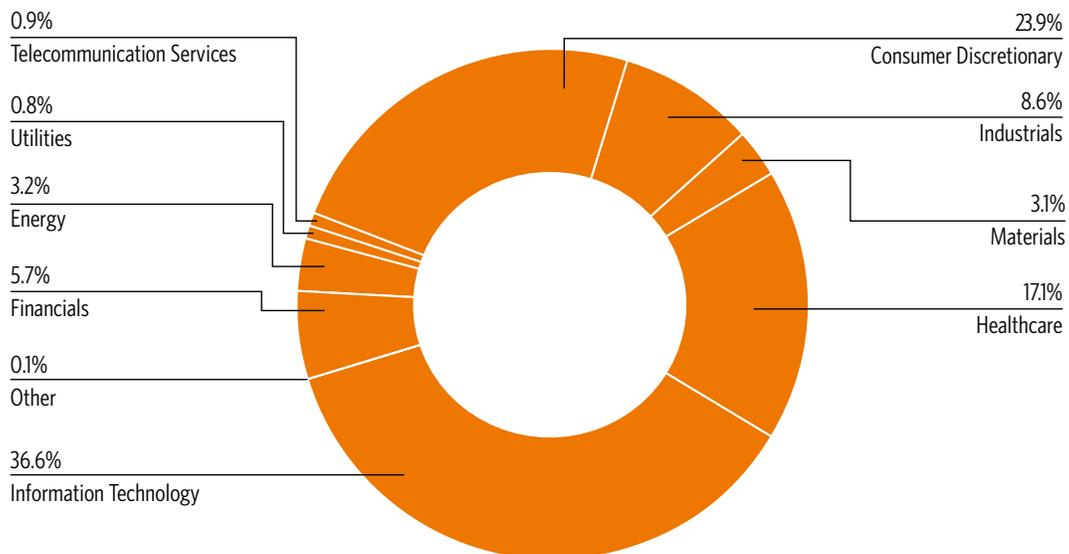
### Private Equity Ancillary Benefits in California<sup>1</sup>

	Percentage of investments	Percentage of dollars
High Unemployment Areas	3%	2%
Rural Areas	4%	8%
High Minority Areas	59%	60%
LMI Areas	29%	23%
Limited Capital Access Areas <sup>2</sup>	14%	25%

<sup>1</sup> Private equity ancillary benefits in California were determined using private equity California investment amounts and ZIP code data from direct partnerships and does not include data from other externally managed investments.

<sup>2</sup> According to data from Thomson Reuters analyzing all private equity transactions between 2002 and 2011, nearly 95 percent of all private equity in California has been committed to 6 percent of California ZIP codes. ZIP codes not included in this 6 percent are considered Limited Capital Access Areas.

### California Private Equity Investments by Industry



Note: "Other" includes unclassified investments.

## Case Study: CalPERS California Initiative

The CalPERS California Initiative (Initiative) is a private equity investment strategy providing capital to companies primarily in California with the goal of generating financial returns that meet or exceed industry benchmarks. As an ancillary objective, the Initiative invests in traditionally underserved areas where capital has not typically been focused, supporting local job creation and opportunities for women and minority entrepreneurs. The Initiative was established in 2001 and has invested \$1 billion since inception, with \$296 million currently invested in 113 active companies reporting data in 2016.

The twelfth annual examination of the ancillary benefits of the Initiative is available in a separate report on CalPERS website at [www.calpers.ca.gov/californiainitiative2016](http://www.calpers.ca.gov/californiainitiative2016).

Highlights at June 30, 2016 include:

- 22,935 total jobs created at 113 active companies, for net employment growth of 54 percent since the time of investment.
- Investment in areas that have not historically received institutional equity capital, with 17 percent of capital invested in companies located in underserved markets.
- Employment opportunities for economically disadvantaged workers, with 44 percent of all reporting company employees classified as low- to moderate-income.

Ancillary benefits for the Initiative are summarized in the following tables:

### Since Inception California Initiative Results: Job Support and Job Creation

Ancillary Benefits <sup>1</sup>	Overall California Initiative	The California Initiative within California	Percentage within California
Total Jobs/ Employees Supported	176,559	40,947	23%
Total Jobs Created Since Investment <sup>2</sup>	36,365	14,175	39%
Percentage Job Growth Since Investment <sup>3</sup>	26%	53%	n/a

<sup>1</sup> Ancillary benefits are derived from data from all companies ever receiving investment under the California Initiative and includes both active and fully realized investments that have reported data. These ancillary benefits capture the entirety of the Initiative's Job Support and Job Creation ancillary benefits since inception.

<sup>2</sup> Total Jobs Created Since Investment represents net jobs created for the entire California Initiative portfolio and aggregates job losses and gains at both active and exited portfolio companies.

<sup>3</sup> From 2001-2016, U.S. private sector employment increased 10 percent and California private sector employment increased fifteen percent.

**California Initiative Ancillary Benefits:  
Active Portfolio Companies as of June 30, 2016<sup>1</sup>**

	Overall California Initiative	The California Initiative within California <sup>2</sup>
Total Companies	113	64
Total Dollars Invested	\$296,000,000	\$162,000,000
Total Jobs / Employees Supported	65,381	18,860
Total Jobs Created Since Investment	22,935	10,616
Percentage Job Growth Since Investment <sup>3</sup>	54%	129%
Percentage of Employees Classified as Low- to Moderate-Income	44%	52%
Percentage of Dollars Invested in Companies Located in Areas Underserved by Institutional Equity Capital	17%	20%
Percentage of Dollars Invested in Companies with at least one Woman Officer	36%	29%
Percentage of Dollars Invested in Companies with at least one Minority Officer	55%	46%

<sup>1</sup>Ancillary benefits are derived from data from active companies reporting as of June 30, 2016. These ancillary benefits capture the Initiative's ancillary benefits for companies currently within the California Initiative portfolio.

<sup>2</sup>The California Initiative invests in companies with operations and employees in and outside of California. This column examines the Initiative's ancillary benefits solely in California.

<sup>3</sup>Percentage Job Growth Since Investment examines job growth only for the active portfolio companies within the California Initiative and does not include exited portfolio companies.

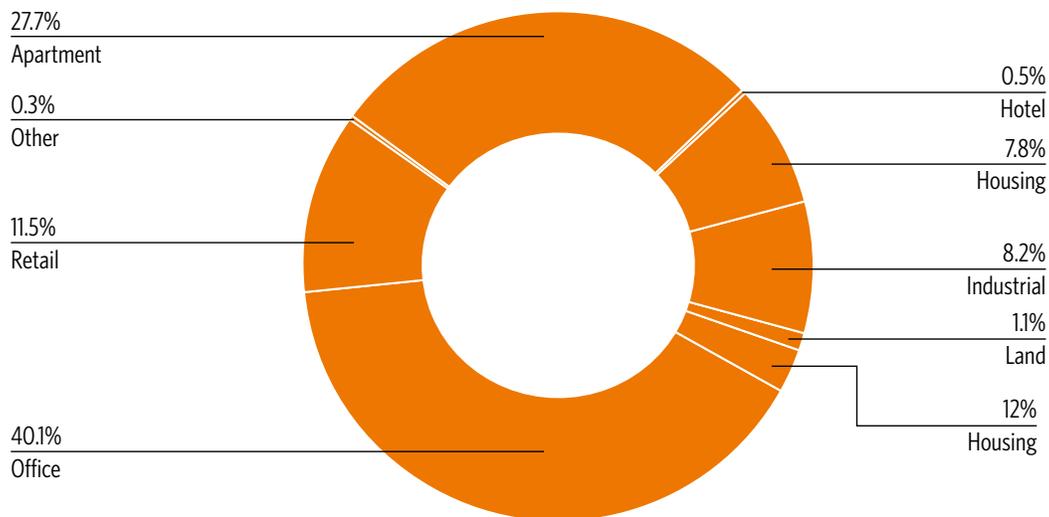
## Real Estate

<b>Real Estate</b>	Total Market Value	\$27.3 billion
	Value in CA	\$8 billion
	Percentage in CA	29%

CalPERS invests in real estate primarily through the funds and separate accounts of third-party investment managers. CalPERS has a “core” portfolio of stabilized income producing real estate diversified by property type and geography. The portfolio also includes housing and international investments.

The real estate asset class is more heavily weighted to California than any other asset class. The portfolio in California includes a diverse group of assets that provide ancillary benefits in the areas in which they are located, including the creation of construction jobs and economic activity connected to construction, the accommodation of new retail, industrial and commercial employers and the anchoring of communities with real assets. The following chart shows the distribution of CalPERS’ California real estate investments, including the heaviest concentrations in office, apartment, retail, and industrial properties.

California Real Estate Investments by Property Type



An estimated \$1.2 billion in capital from other institutions is co-invested alongside CalPERS in California real estate. CalPERS' real estate investments support an estimated 145,000 jobs statewide.<sup>21</sup>

CalPERS' California real estate projects in the development and construction phase support a total of 14,000 jobs. The construction of CalPERS' California real estate projects not only supports workers within the construction industry, but also indirectly supports workers throughout the state.<sup>22</sup>

Additionally, CalPERS' California real estate investment portfolio includes income-generating properties with high occupancy levels such as neighborhood retail centers and office buildings. These properties provide critical infrastructure and operating space to retail and professional service providers supporting a total of 127,000 jobs. CalPERS' properties with high occupancy levels also support workers within property management and other related industries.<sup>23</sup>

#### CalPERS Real Estate Portfolio in California: June 30, 2016

CalPERS CA Portfolio Value (in billions)	\$8
Other Co-Invested Dollars (in billions) <sup>1</sup>	\$1.2
Number of Investments	190
Estimated Jobs in California <sup>2</sup>	145,000

<sup>1</sup> Value includes all other capital invested alongside CalPERS in the same real estate investments in the same third-party funds, partnerships and real estate investment trusts.

<sup>2</sup> See endnotes for estimated jobs in California methodology.

Sixty-four percent of CalPERS' California real estate investments dollars are located in LMI areas. Real estate investments are often in Central Business Districts and concentrated in urban areas, where property investments of all types are more readily available. These urban districts typically include a larger proportion of LMI, High Unemployment, and High Minority Areas.

#### Real Estate Ancillary Benefits in California<sup>1</sup>

	Percentage of investments	Percentage of invested dollars
High Unemployment Areas	34%	24%
Rural Areas	10%	7%
High Minority Areas	77%	83%
LMI Areas	64%	60%

<sup>1</sup> Ancillary benefits are based on the 189 California real estate investments for which valid ZIP code data was available.

## Case Study: Sofi Poway Apartment Community

Sofi Poway is a low-density multifamily apartment community, located in the city of Poway, California in the San Diego metropolitan area. Sofi Poway consists of ten two-story residential buildings and two amenity buildings with a total of 193 apartments. Constructed in 1977, Sofi Poway provides a mix of one-, two-, and three-bedroom apartments. In August 2015, Pacific Urban Residential acquired Sofi Poway for \$41.15 million through its \$1 billion core real estate fund, Pacific Multifamily Investors LLC, managed on behalf of CalPERS.

Sofi Poway provides a high quality living experience for local residents, with amenities that include a pool, spa, dog park, picnic areas, barbecues, fitness center, and business center. Several amenity spaces at Sofi Poway have received upgrades since acquisition, including a newly built business center, new common area washers and dryers, sustainable turf for the dog park, pool area upgrades, new landscaping, pool furniture, and new private patios. Sofi Poway is nearing completion of a renovated outdoor dining area with barbecue grills and a fire pit.

Sofi Poway is a long-term investment for CalPERS that provides a stable and secure income stream for CalPERS. Sofi Poway has operated at approximately 95% occupancy since acquisition, and continues to deliver steady cash flow returns.

Sofi Poway is conveniently located near walking trails, parks, regional employment centers, quality schools, and neighborhood shopping. Sofi Poway is located two miles from Poway Business Park, an 8.5 million-square foot industrial space with over 600 businesses that employ approximately 20,000 employees. The local school district, Poway Unified, which serves grades K-12, is ranked one of the best school districts in California, with high student achievement scores.<sup>24</sup>

CalPERS' investment in Sofi Poway demonstrates its commitment to acquiring high quality real estate assets that provide affordable living experiences for local residents while producing stable, attractive returns to CalPERS' members and beneficiaries.

## Infrastructure

<b>Infrastructure</b>	Total Market Value	\$2.6 billion
	Value in CA	\$345.7 million
	Percentage in CA	13.3%

CalPERS searches for infrastructure opportunities in sectors including transportation, energy, and water, investing both directly, and in partnership with third-party investment managers. CalPERS considers infrastructure investments to have the potential to benefit local economic development and provide essential community services within the state.

CalPERS has \$345.7 million invested through commingled funds in infrastructure assets in California. More than 26 percent (\$91.3 million) of these investments are in projects providing reliable water supplies to drought-prone areas.

Other institutions co-invested an estimated \$52.2 million alongside CalPERS in California infrastructure projects. CalPERS' infrastructure investments support 4,400 jobs statewide.<sup>25</sup>

## CalPERS Infrastructure Portfolio in California: June 30, 2016

CalPERS CA Portfolio Value (in millions)	\$345.7
Other Co-Invested Dollars (in millions) <sup>1</sup>	\$52.2
Number of Investments	4
Estimated Jobs in California <sup>2</sup>	4,400

<sup>1</sup>Value includes all other capital invested alongside CalPERS in the same infrastructure projects.

<sup>2</sup>See endnotes for estimated jobs in California methodology.

## Case Study: Desert Sunlight Solar Farm

Desert Sunlight is a solar farm located 60 miles east of Palm Springs, in eastern Riverside County, California. Desert Sunlight's facilities generate 550 megawatts of renewable energy and together are one of the largest solar photovoltaic (PV) farms in the world. A relatively new farm, Desert Sunlight finished construction and started operations in late 2014. It has long-term contracts with Pacific Gas & Electric and Southern California Edison to sell all of its energy output for several decades, making it a low-risk investment that delivers stable financial returns. Desert Sunlight is located in close proximity to a high-voltage transmission line which serves the Greater Los Angeles area, a major population center with significant energy needs. Desert Sunlight provides enough energy to serve the needs of 160,000 California homes, displacing approximately 300,000 metric tons of carbon dioxide per year—the equivalent of removing 60,000 cars from the road. Furthermore, the solar PV technology used in Desert Sunlight has a lower environmental impact compared to other types of renewable energy.

CalPERS has invested in Desert Sunlight through investment manager Harbert Management Corporation, who manages Gulf Pacific Power, LLC, a fund that makes equity investments in North American power assets. Desert

Sunlight represents an attractive investment for CalPERS given its long-term contracts and the strong, growing demand for renewable energy. Solar farms like Desert Sunlight are expected to play an increasingly important role in helping California move towards its goal of sourcing 33 percent of its energy from renewable sources by 2020 and 50 percent from renewable sources by 2030.

In addition to the attractive financial returns and environmental benefits generated by Desert Sunlight, the solar plant also contributes important economic and educational benefits to the surrounding local community. Desert Sunlight has produced an estimated \$15 million in new sales tax revenues and \$12 million in new property tax revenues for Riverside County and \$336 million of indirect economic benefit to local businesses in the county. More than 630 jobs were created at the peak of construction, and the facility currently employs 13 individuals for daily operations. Additionally, Desert Sunlight supports renewable energy education in local schools and through an on-site Solar Energy Learning Center.

CalPERS' investment in Desert Sunlight demonstrates its commitment to investing in California infrastructure projects that produce stable, attractive returns, and also help California meet its long-term energy goals.

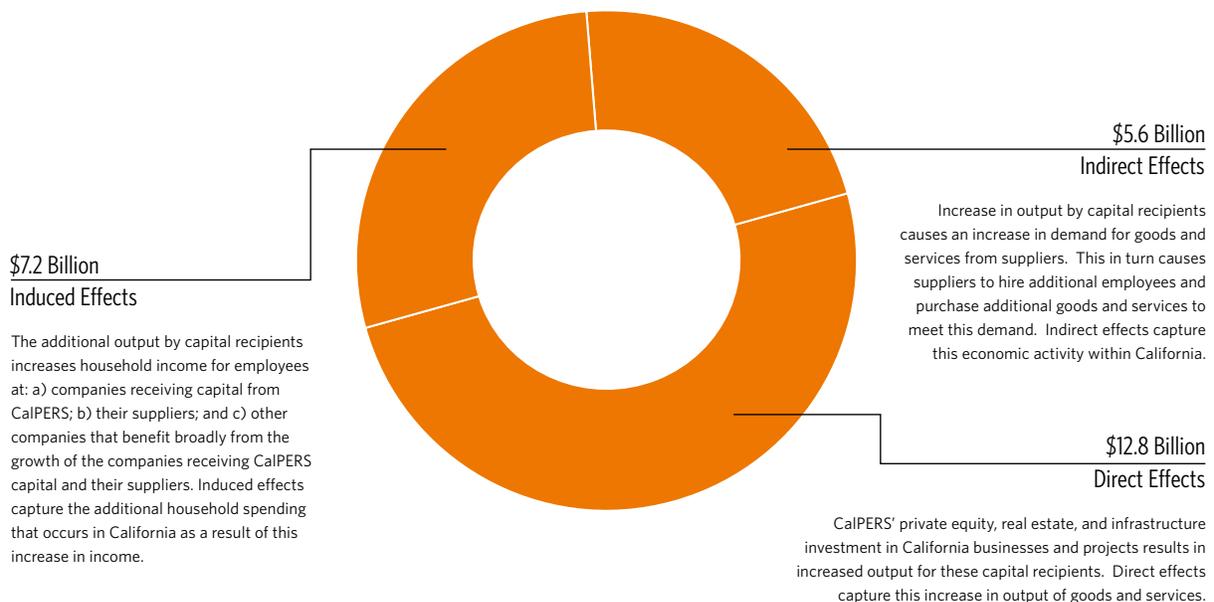
# The Economic Impact of CalPERS Private Markets Investments in California

CalPERS' private markets investments in California generate \$25.6 billion in economic activity across the state through the "multiplier effect", which accounts for the way in which CalPERS' capital reverberates throughout California's economy. CalPERS' investments result in direct effects, indirect effects, and induced effects within the California economy as described in the diagram below.

The total economic impact of CalPERS' private markets investments in California represent the summation of these economic ripple effects (direct effects, indirect effects, and induced effects) and are calculated using the IMPLAN Version 4.0 economic multiplier model software package. IMPLAN utilizes social accounts to analyze the consequences of projected economic transactions in a particular region.<sup>26</sup> Used by over 2,000 public and private institutions, IMPLAN is a widely employed and accepted regional economic analysis tool.

CalPERS' California private markets investments in private equity, real estate, and infrastructure are input separately into the IMPLAN economic multiplier model using the specific industries and sectors receiving investment. CalPERS' public markets investments are intentionally excluded from this analysis due to the more indirect relationship between the investment of capital by CalPERS and the use of this capital by recipient public companies.<sup>27</sup> A more detailed explanation of the methodology employed for estimating the total economic impact of CalPERS' private markets investments in California is included in the report's endnotes.

## CalPERS Total Economic Impact in California: \$25.6 billion<sup>28</sup>



## Conclusion

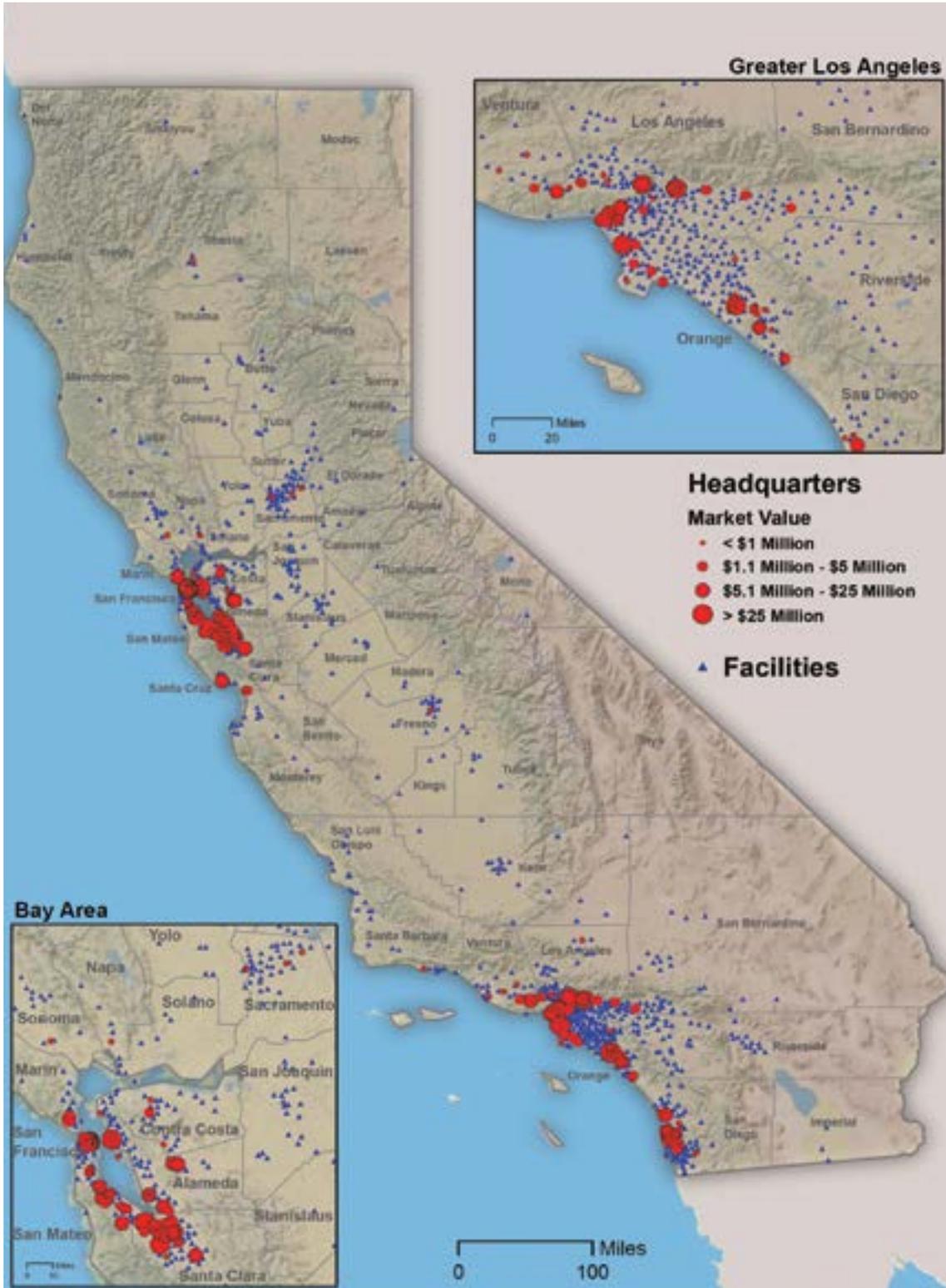
CalPERS is the nation's largest public pension system and, like all institutional investors, plays an important role in sustaining and growing all of the companies, properties and projects in which it invests, not least in California.

CalPERS invests \$27.3 billion (9.3 percent) of its \$295.1 billion in assets in California, including in the state's underserved communities. CalPERS' private markets investments in California generate \$25.6 billion in economic activity and provide significant ancillary benefits resulting from the magnitude and breadth of CalPERS' presence in the state.

CalPERS will continue to pursue California-based investment opportunities grounded in the historic strength of the state economy, seeking attractive risk-adjusted financial returns. *CalPERS for California* demonstrates CalPERS' ongoing commitment to rigorously track and report on these efforts.

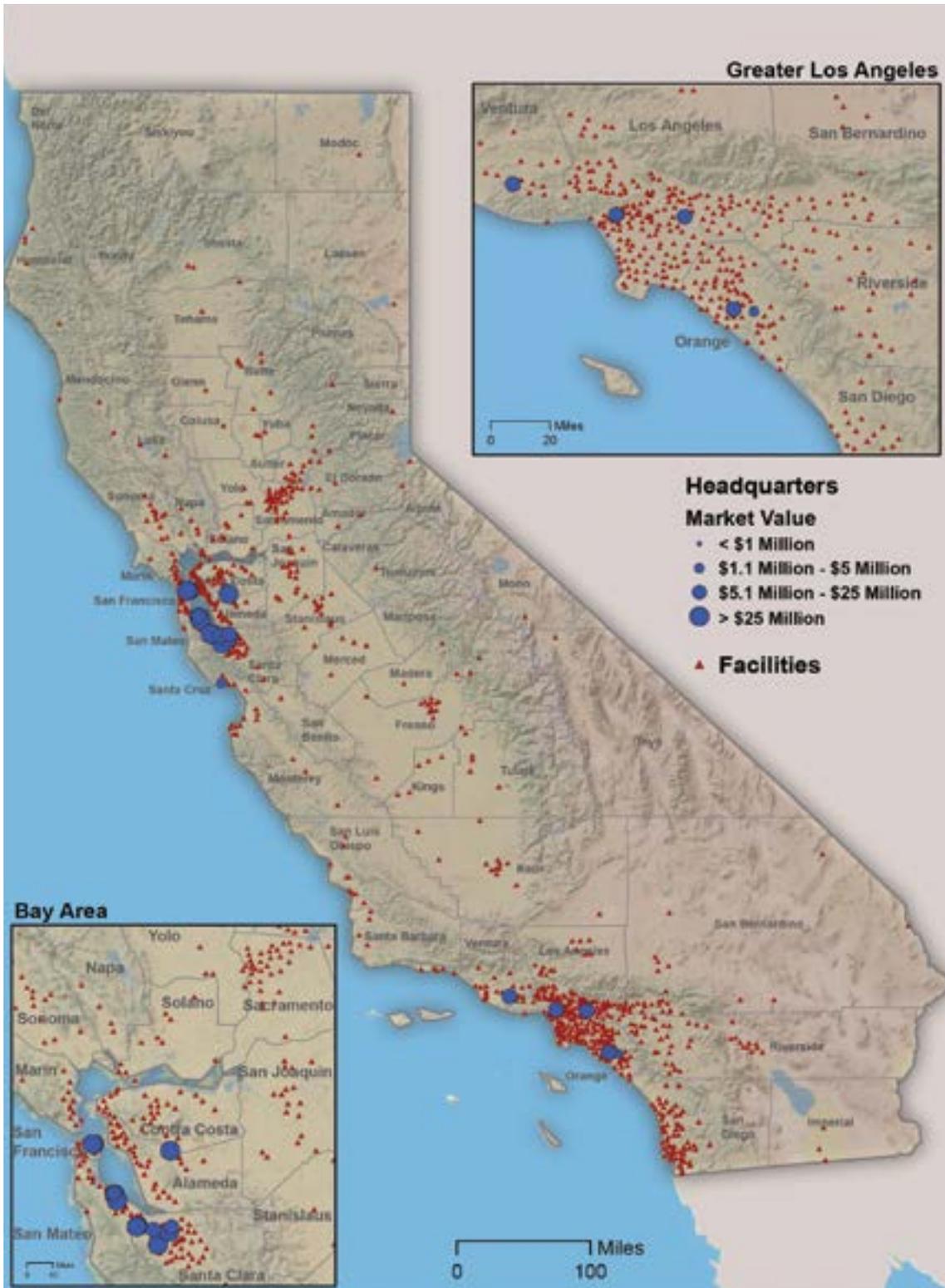
# Location of CalPERS Investments in California\*

## CalPERS Global Equities Investments in California

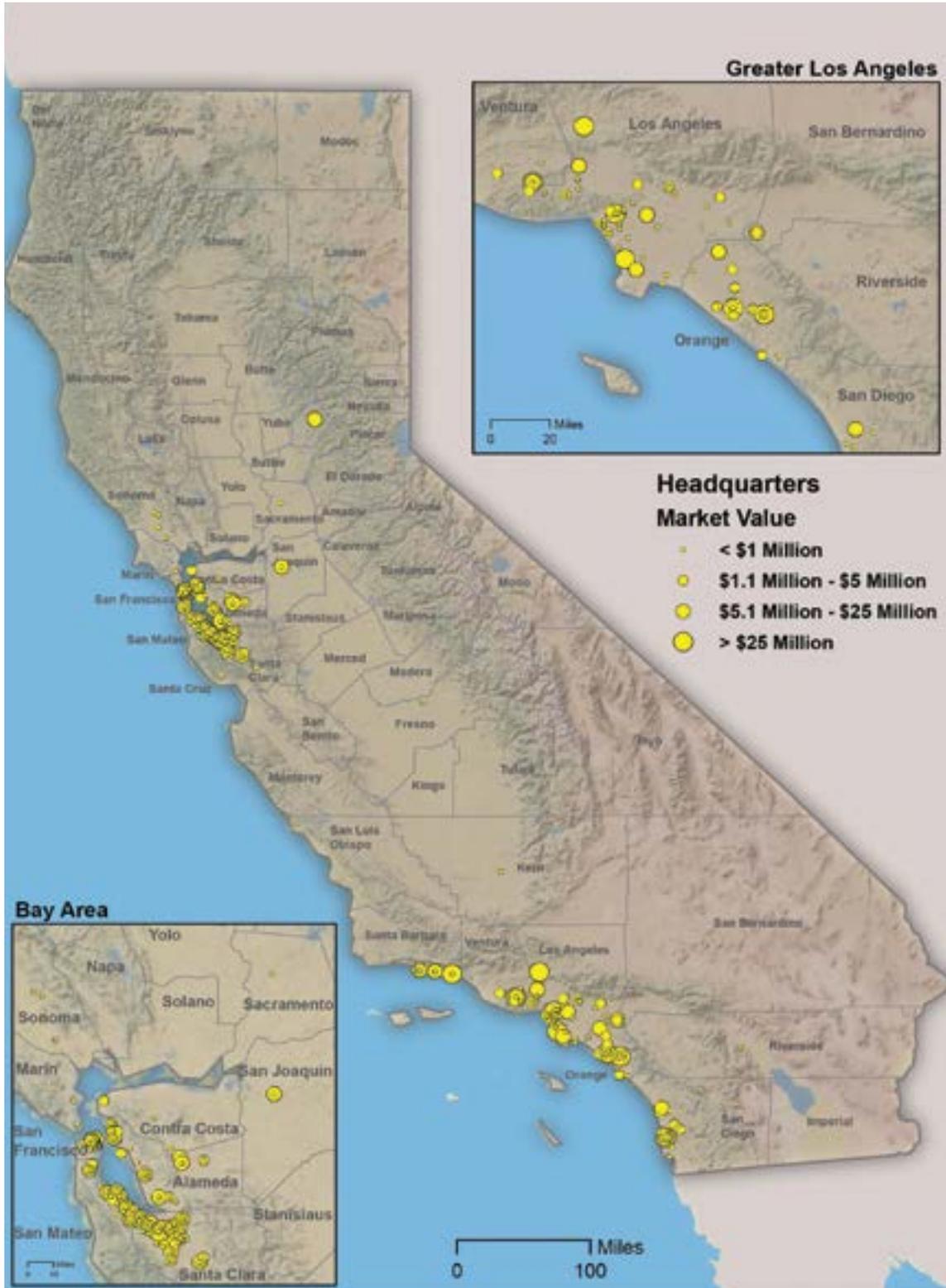


\* These maps only contain information on CalPERS investments headquartered in California.

CalPERS Global Fixed Income Investments in California



## CalPERS Private Equity Investments in California



## CalPERS Real Estate and Infrastructure Investments in California



## Endnotes

<sup>1</sup> CalPERS Total Fund Monthly Update: Month Ending June 30, 2016, available at <https://www.calpers.ca.gov/page/investments/asset-classes/asset-allocation-performance>

<sup>2</sup> Total economic activity in California is calculated as of June 30, 2016 and uses data from CalPERS California private markets investments in private equity, real estate, and infrastructure.

<sup>3</sup> CalPERS has made corporate bond investments in 49 California-headquartered companies. Of the 49 companies, 21 have received direct investments from CalPERS and 28 have received investment indirectly through CalPERS external managers, with five companies receiving investments both directly and indirectly. The jobs estimate for global fixed income is based only on the 21 companies receiving direct investments from CalPERS. The average size of these investments is \$36.3 million. The average size of external manager corporate bond investments in California companies is \$2.1 million.

<sup>4</sup> The capital that CalPERS invests in California is usually not explicitly directed to the state, but is the consequence of a typical institutional investment process weighing the financial merits of particular companies, properties, and projects, regardless of location. The size and dynamism of California's economy are the primary drivers of CalPERS' significant exposure to local communities and the related benefits that this brings, like job creation.

The research methods in this report are fully documented in footnotes. The difficulty of directly attributing ancillary benefits to CalPERS is especially notable and explains why public market and private market investments are discussed separately in CalPERS for California.

The data in this report offers a snapshot of CalPERS' investments and has been analyzed by Pacific Community Ventures (PCV), a third-party research organization.

<sup>5</sup> U.S. Bureau of Economic Analysis, Regional Economic Accounts, available at [www.bea.gov/regional/index.htm](http://www.bea.gov/regional/index.htm)

<sup>6</sup> Center for Continuing Study of the California Economy (July 2016). <http://www.ccsce.com/PDF/Numbers-July-2016-CA-Economy-Rankings-2015.pdf>

<sup>7</sup> Hoovers Inc. online database of publicly traded companies. Hoovers Inc. is a Dun & Bradstreet company.

<sup>8</sup> Private Equity Growth Council, <http://www.privateequityatwork.com/state-by-state/>

<sup>9</sup> U.S. Census Bureau, available at [www.census.gov/foreign-trade/statistics/state/data/ca.html](http://www.census.gov/foreign-trade/statistics/state/data/ca.html)

<sup>10</sup> The analysis is based on a 3% sample of all non-California headquartered companies (n=290). Assumptions about the entire portfolio should therefore be considered illustrative, but not conclusive. The employment assumption for California-headquartered public companies (that employees are spread evenly at all facilities) likely underestimates the actual number of California employees, since more employees are typically located in facilities at, or closer to, a company's headquarters. The same analysis would likely significantly overestimate the number of California employees of companies headquartered elsewhere – a problem compounded by the smaller sample size and larger number of companies.

<sup>11</sup> The global fixed income asset class includes five distinct investment types. Only publicly available data was used to conduct analysis for this asset class, which was available only for companies that issued corporate bonds. According to the state of domicile, 49 corporate bond issuers (and \$824 million in investments) are considered California companies.

<sup>12</sup> CalPERS has made corporate bond investments in 49 California-headquartered companies. Of the 49 companies, 21 have received direct investments from CalPERS and 28 have received investment indirectly through CalPERS external managers, with five companies receiving investments both directly and indirectly. The jobs estimate for global fixed income is based only on the 21 companies receiving direct investments from CalPERS. The average size of these investments is \$36.3 million. The average size of external manager corporate bond investments in California companies is \$2.1 million.

The 21 companies that received direct corporate bond investment from CalPERS are also part of CalPERS' Global Equities portfolio. Job estimates cannot be combined as this would constitute double counting of 21 large companies.

<sup>13</sup> The analysis is based on a 10 percent sample of all non-California headquartered companies (n=31). Assumptions about the entire portfolio should therefore be considered illustrative, but not conclusive. The employment assumption for California-headquartered public companies (that employees are spread evenly at all facilities) likely underestimates the actual number of California employees, since more employees are typically located in facilities at, or closer to, a company's headquarters. The same analysis would likely significantly

overestimate the number of California employees of companies headquartered elsewhere – a problem compounded by the smaller sample size and larger number of companies.

<sup>14</sup> To determine the dollar amounts invested in these areas, the market value of each investment is attributed to the ZIP code provided for a given company, property or project. Dollars invested in all ZIP codes that match the given criteria are summed and reported as a percentage of the total market value for each asset class invested in California.

<sup>15</sup> Low- to Moderate-Income (LMI) Areas are predominantly (50 percent or more) composed of LMI residents (46 percent of U.S. ZIP codes fall into this category). A census tract is determined to be LMI based on the following criteria:

- Median income of the tract is at or below 80 percent of the metropolitan statistical area median or below 80 percent of the statewide, non-metropolitan area median income
- At least 20 percent of the population lives in poverty
- The unemployment rate is at least 1.5 times the national average (based on US Census Bureau and 2006-10 American Community Survey data, consistent with research on the California Initiative. 1.5 times the 2006-10 national average of 6.8 percent is 10.2 percent)

See the Milken Institute Center for Capital Access and Job Formation for extensive literature on the lack of access to capital in LMI communities, at [www.milkeninstitute.org](http://www.milkeninstitute.org).

<sup>16</sup> High Unemployment Areas are defined by the State of California Employment Training Panel as being 15 percent higher than the California average. At June 30, 2016, the California average unemployment rate was 5.7 percent; therefore any ZIP code with an unemployment rate above 6.6 percent is considered a High Unemployment Area.

<sup>17</sup> High Minority Areas are defined as ZIP codes in which the percentage of the minority population is higher than the median percentage of the minority population in all California ZIP codes (above 24 percent). See ‘MBDA Study Finds Capital Access Remains Major Barrier to Success for Minority-Owned Firms’ for more information on access to capital in minority communities. US Department of Commerce Minority Business Development Agency, January 29, 2010, available at [www.mbda.gov/pressroom/press-releases/mbda-study-finds-](http://www.mbda.gov/pressroom/press-releases/mbda-study-finds-)

[capital-access-remains-major-barrier-success-minority-owne](#). According to the MBDA study, minority-owned firms receive fewer loans and smaller equity investments than non-minority owned firms, even when controlling for firm size.

<sup>18</sup> Rural areas are defined as ZIP codes in which the percentage of the rural population is higher than the median percentage of the rural population in all California ZIP codes (above 3.67 percent). See ‘Advancing Rural America’, U.S. Small Business Administration Office of Advocacy, available at [www.sba.gov/advo/research/rural\\_sb.html](http://www.sba.gov/advo/research/rural_sb.html) for more information on access to capital in rural areas. According to the SBA, rural businesses access to capital has historically been limited and may be constrained further as bank mergers replace community banks with larger entities that are less interested in non-credit card small-sized loans.

<sup>19</sup> The boundaries of the Central Business Districts (CBD) of Los Angeles, Oakland, San Diego, and San Francisco were determined using GIS technology. All ZIP codes that overlapped the CBD were included in this analysis. There are a total of 20 ZIP codes that overlap the four CBDs. Seventeen (85 percent) of those ZIP codes are predominantly comprised of LMI census tracts.

<sup>20</sup> This includes CalPERS’ direct private equity partnership investments, direct investments, and externally managed investments. This number may differ from total portfolio numbers in other CalPERS reports due to varying standards for defining a California company.

<sup>21</sup> Estimated jobs supported by CalPERS’ real estate investments in California are determined using the IMPLAN Version 4.0 economic multiplier model software package. IMPLAN is used by hundreds of government agencies, colleges and universities, non-profit organizations, corporations, and business development and community planning organizations for analyzing economic impacts (for more information visit [www.implan.com](http://www.implan.com)).

To determine jobs supported by CalPERS’ California real estate investments, the IMPLAN model examines the State of California as the geographic area of study, capturing and accounting for economic benefits resulting from CalPERS real estate investments statewide. Methodologies specific to property type and development phase were used in determining the input values for the IMPLAN model to best capture the economic impacts resulting from the construction/operation of various property types. The methodologies are described as follows:

### **Construction of Residential and Non-Residential Properties**

Total net asset values for residential and non-residential properties including apartments, single-family housing, senior housing, office, and retail under the predevelopment, development, and redevelopment categories were uploaded directly into the IMPLAN model for analysis where they are matched with construction activities.

### **Sales of Goods and Services at Non-Residential Properties with Current Occupants**

Property square footage data for retail properties with current occupants is multiplied by industry data on retail sales. Property square footage data for other non-residential properties with current occupants including in the office and industrial sectors are multiplied by property-specific industry data on rental income. Total rental income amounts are subsequently divided by a rent-to-revenue ratio to derive total sales of goods/services for each tenant property. Total sales of goods and services at tenant properties are then uploaded into the IMPLAN model for analysis where they match industry activities.

### **Rental/Leasing of Non-Residential Properties with Current Occupants**

Property square footage data for non-residential properties with current occupants including office, industrial, and retail are multiplied by industry data on property-specific rental income. The total rental income amounts are uploaded directly into the IMPLAN model for analysis where they match with rental, leasing, and property management activities.

As with other asset classes, this analysis does not imply that the jobs created and sustained by CalPERS' investments in real estate are directly attributable to the System. Rather, it is an estimate of employment directly related to the properties in question, for which CalPERS' investments play an important enabling role.

#### **Estimated California Jobs from CalPERS California Real Estate Investments**

Construction of Residential and Non-Residential Properties	14,000
Sales of Goods and Services at Non-Residential Properties with Current Occupants	127,000
Rental/Leasing of Non-Residential Properties with Current Occupants	4,000
Total Estimated Jobs in California	145,000

The following table outlines rental income per square foot, retail sales per square foot, rent to revenue ratios, and IMPLAN industry codes used in this analysis.

Industry	Rental Income per Square Foot	Retail Sales per Square Foot	Rent-to-Revenue Ratio	IMPLAN Industry Codes and Descriptions
Retail	\$21.31	\$341.00	—	57: Construction of new commercial structures, including farm structures 405: Retail: General merchandise 440: Real estate
Office	\$29.14	—	4%	57: Construction of new commercial structures, including farm structures 440: Real estate 447-460: Various professional services (legal, accounting, architectural, technical, scientific, etc.)
Apt, Housing	—	—	—	59: Construction of new single-family residential structures 60: Construction of new multifamily residential structures
Industrial	\$8.52	—	2.1%	395: Wholesale trade 440: Real estate

Sources: Cassidy Turley, IBIS World, and RetailSails

<sup>22</sup> CalPERS' California real estate projects in the development and construction phase indirectly support workers across the state through the purchase of goods and services needed for construction of these projects and through the personal consumption by construction workers tasked to these particular projects.

<sup>23</sup> CalPERS' California investments in income generating real estate properties directly support tenant businesses through the provision of critical infrastructure and operating space. Additionally, tenant businesses indirectly support workers across the state through the purchase of goods and services needed for day-to-day business operations and through the personal consumption of workers at their businesses on household purchases.

<sup>24</sup> Poway Unified School district scored 10 out of 10 by GreatSchool's District Rating and three high schools in the district received the Gold Medal Award, the highest education award from US News.

<sup>25</sup> California infrastructure supports an estimated 4,400 jobs statewide. This estimate is derived from the IMPLAN Version 4.0 economic multiplier model software package. Stage of development, land acquisition costs, and development costs were examined for California infrastructure projects. For each project, net asset values less land development costs were inputted directly into the IMPLAN model using IMPLAN Industry Code 58: Construction of other new non-residential structures.

<sup>26</sup> Social accounts describe the structure and function of a specific economy. IMPLAN employs input-output analysis in conjunction with region specific social accounts or Social Accounting Matrices (SAM) and multipliers to analyze economic impacts.

<sup>27</sup> IMPLAN cannot be applied to CalPERS' public markets investments in California, for the following reasons:

1. Attribution: CalPERS cannot directly tie its provision of capital to the operations and economic activity occurring at California headquartered public companies given it is one of many investors in these businesses.
2. Overestimation: Applying the IMPLAN economic multiplier model to CalPERS' public markets investments in California would overstate CalPERS' total economic impact.
3. Area of Study Limitations: IMPLAN is an input-output economic multiplier model that requires a set geographic area of study. As California headquartered public companies have a significant number of facilities and operations in and outside of California it is difficult to specify what proportion of CalPERS' investment in these companies is injected directly into California's economy, limiting the accuracy of the resulting total economic impact figure.

<sup>28</sup> To determine the total economic impact of CalPERS' California private markets investments in private equity, real estate, and infrastructure, the IMPLAN model examines the State of California as the geographic area of study, capturing and accounting for economic benefits resulting from CalPERS' investments statewide. Methodologies specific to each asset class were used in determining the input values for the IMPLAN model to best capture the economic impacts resulting from the CalPERS investments. The methodologies are described below:

### **Private Equity Investments**

CalPERS' private equity investment amounts in California private companies are uploaded directly into the IMPLAN model alongside an industry spending pattern that matches each company's industry or sector. Only CalPERS' direct partnership investments and investments through third party investment managers were included in this analysis. Sector/industry data was available for \$2.1 billion of CalPERS' California private equity investments. The \$2.1 billion CalPERS invests in California private companies is distributed across 62 industries based upon each company's industry and the amount of capital that company has received. For the \$86 million of investments where sector/industry data was not available, our analysis assumes they reflect the same industry/sector distribution as the wider portfolio. Accordingly, the remaining \$86 million has been distributed pro rata amongst the portfolio's 62 sectors.

### **Real Estate Investments**

CalPERS' investment amounts in California real estate projects are uploaded into the IMPLAN model to capture the economic impacts resulting from the construction/operation of various property types. The same methodology that is used to calculate jobs supported by CalPERS' California real estate investments is used to calculate the total economic impact resulting from CalPERS California real estate investments. This methodology is described in greater detail above in endnote 21.

### **Infrastructure Investments**

CalPERS' investment amounts in California infrastructure projects are uploaded into the IMPLAN model to capture the economic impacts resulting from the construction/operation of various projects. The same methodology that is used to calculate jobs supported by CalPERS' California infrastructure investments is used to calculate the total economic impact resulting from CalPERS' California infrastructure investments. This methodology is described in greater detail above in endnote 25.

## CalPERS Profile

The California Public Employees' Retirement System (CalPERS) is the nation's largest public pension fund with assets of approximately \$296 billion as of April 2016.

Headquartered in Sacramento, CalPERS provides retirement and health benefit services to more than 1.8 million members and more than 3,000 school and public employers. The System also operates 8 Regional Offices located in Fresno, Glendale, Orange, Sacramento, San Diego, San Bernardino, San Jose, and Walnut Creek. Led by a 13-member Board of Administration, consisting of member-elected, appointed, and ex officio members, CalPERS membership consists of approximately 1.2 million active and inactive members and more than 600,000 retirees, beneficiaries, and survivors from State, school and public agencies.

Established by legislation in 1931, the System became operational in 1932 for the purpose of providing a secure retirement to State employees who dedicate their careers to public service. In 1939, new legislation allowed public agency and classified school employees to join the System for retirement benefits. CalPERS began administering health benefits for State employees in 1962, and 5 years later, public agencies joined the Health Program on a contract basis.

A defined benefit retirement plan, CalPERS provides benefits based on a member's years of service, age, and highest compensation. In addition, benefits are provided for disability and death.

Today CalPERS offers additional programs, including a deferred compensation retirement savings plan, member education services, and an employer trust for post-retirement benefits. Learn more at our website at [www.calpers.ca.gov](http://www.calpers.ca.gov).



California Public Employees' Retirement System  
400 Q Street | Sacramento, CA 95811

[www.calpers.ca.gov](http://www.calpers.ca.gov)

For more information, please contact:

Pacific Community Ventures | [www.pacificcommunityventures.org](http://www.pacificcommunityventures.org)

