

CalPERS **Economic Impacts** in California

July 2015

This study reflects impacts for the Fiscal Year ending June 30, 2014.

CalPERS benefit payments and investments in California are **essential** to the state's economy.

Benefit impacts:

\$1 → \$9.64

every taxpayer dollar contributed to CalPERS returns \$9.64 in economic activity

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Investment impacts:

\$25.7 billion

CalPERS investments in California

page 12

\$30.9 billion

economic activity created by CalPERS benefit payments

page 6

129,000

real estate jobs supported by CalPERS investments

page 14

\$1.6 billion

supports California's health care sector

page 7

59%

Private Equity's California Initiative investments are in high minority areas

page 14

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Introduction

The California Public Employees' Retirement System (CalPERS) plays a vital role in California's economy by providing CalPERS benefits to more than 500,000 retirees and investing \$25.7 billion throughout the state (as of June 30, 2014). This money provides several ancillary benefits as it ripples through the state's economy. In addition, for each taxpayer dollar CalPERS invests, CalPERS benefit payments deliver a return of \$9.64 in economic activity to California.

CalPERS recently conducted analyses using the IMPLAN economic model to estimate the statewide economic impacts of its benefits and investments.¹ This document summarizes findings from the analyses.

Economic structure of California

California was the world's eighth largest economy in 2013,² generating greater than \$2.1 trillion in economic activity and supporting more than 21 million jobs.³

California lost approximately 1.3 million jobs during the Great Recession, with the unemployment rate peaking in 2010 at 12.2 percent.⁴ According to The Kyser Center for Economic Research, the unemployment rate is falling, the housing market is improving and for the first time in years, government budget surpluses are in sight. By the end of 2013, the Golden State recovered approximately 70 percent of job losses.⁵ California's economy is slowly recovering from the recession.

The state continues to experience regional differences in economic recovery. The Bay Area and Silicon Valley experience lower unemployment rates than other California regions. These areas have experienced average job gains of about 3 percent per year since 2011 in comparison to the rest of the state, which experienced approximately 2 percent per year.⁶ The Central Valley, Imperial Valley, and rural Northern counties lag behind the rest of the state while Southern California experienced moderate job growth and declines in unemployment.

The table below provides a snapshot of California's economy in 2013:

Economic Structure of California*

Gross regional product	\$2,119,813,050,621
Total personal income	\$1,817,010,000,000
Population	38,332,520
Employment	21,389,445
Total worker compensation	\$1,166,470,171,071
Average compensation**	\$54,535

* Source: IMPLAN Group, LLC, IMPLAN System

** Total worker compensation divided by employment

\$15.3 billion

CalPERS benefit payments to California residents

Statewide impact of CalPERS benefit payments

CalPERS benefit recipients provide a steady infusion of economic activity in California. Direct benefit payments, economic activity resulting from the multiplier effect, tax revenue, and jobs generated by consumption all stimulate California's economy.

As the California economy becomes more robust and different sectors of the economy prosper, CalPERS benefit payments may have less of an overall impact. A study by the Schwartz Center for Economic Policy Analysis found that guaranteed pension plans act as economic stabilizers in that pension recipient consumption remains consistent regardless of economic conditions.⁷ The economy and benefit payments change at different rates, thus the relationship is dynamic and the economic impact of benefit payments depends on the relative rates of change. Therefore, year-to-year comparisons of CalPERS economic impact studies are inappropriate because the underlying economies differ from year to year.

In Fiscal Year (FY) 2013-14, CalPERS paid \$15.3 billion in pension benefits to 502,772 California residents. IMPLAN estimates these benefits supported 104,974 jobs throughout California and generated more than \$15.6 billion in additional economic output.

The table below summarizes the economic impacts of CalPERS benefits in FY 2013-14:

CalPERS Retirees in California*

Number of retirees	502,772
Average annual allowance per retiree	\$30,342
Annual CalPERS retiree payments	\$15,255,023,395

* Source: my|CalPERS pension data⁸

Estimated Impacts of Benefit Payments in California*

Additional revenue created	\$15,627,813,150
Total economic revenue**	\$30,882,836,545
Economic multiplier	2.02
Sales tax generated	\$387,298,988
Property tax generated	\$328,821,359
Employment supported	104,974

* Source: IMPLAN Group, LLC, IMPLAN System

** Sum of annual CalPERS retiree payments and additional revenue created

\$30.9 billion

economic activity created by
CalPERS benefit payments

Economic multiplier

CalPERS benefit recipients create a chain of economic activity when they consume goods and services. In FY 2013-14, CalPERS benefit payments generated an estimated \$15.6 billion in additional business revenue.

CalPERS benefits generated an estimated \$30.9 billion in total economic revenue or 1.5 percent of California's Gross Regional Product.

The economic multiplier is the ratio of total economic impacts attributable to CalPERS benefits to direct benefit payments. In FY 2013-14, CalPERS benefit payments generated an estimated \$2.02 of economic activity in California for every benefit dollar. CalPERS benefit payments also supported an estimated 105,000 jobs in the state.

Tax revenue

CalPERS benefit recipients generate sales tax revenue when they consume goods and services. CalPERS benefit recipients also provide a steady stream of property tax revenue, which is vital to California's local communities. In FY 2013-14, staff estimate that CalPERS benefit recipients generated more than \$387 million in sales tax revenue and \$329 million in property tax revenue.

CalPERS return on taxpayer contributions

The economic impacts of CalPERS benefits far exceed initial taxpayer contributions. Investment income and contributions from public employers and employees fund CalPERS benefit payments. The proportion of funds that come from each source changes over time. As of June 30, 2014, for every dollar in benefits, 67 cents came from investment earnings, 21 cents from employer contributions and 12 cents from employee contributions.⁹

By applying the 21 cents per employer contribution dollar to total benefits paid in California in FY 2013-14, staff estimate that approximately \$3.2 billion came from employer contributions. CalPERS benefits, therefore, returned \$9.64 in economic activity for each taxpayer dollar contributed toward the system.¹⁰

\$1 → \$9.64

every taxpayer dollar
contributed to CalPERS returns
\$9.64 in economic activity

\$1.6 billion

supports California's
health care sector

Revenues by industry

CalPERS benefit recipients generate business revenue in many industry sectors.¹¹ In FY 2013-14, IMPLAN estimates that CalPERS benefits generated nearly \$1.3 billion in revenues for hospitals and physician offices. CalPERS benefit payments created more than \$332 million in revenues in another health care related sector, pharmaceutical manufacturing.

CalPERS benefit payments generated more than \$730 million in the real estate sector. Benefit payments generated the greatest economic benefit in terms of revenues in the imputed rental activity for owner-occupied dwellings sector. This sector captures the average rental income homeowners would receive if they rented their dwelling.

The table below lists the IMPLAN estimated revenue CalPERS benefit recipients generated for the top 10 industry sectors* in FY 2013-14:

Owner-occupied dwellings	\$2,017,401,442	
Wholesale trade	\$851,050,576	
Hospitals	\$737,831,922	
Real estate	\$730,375,819	
Offices of physicians	\$525,988,528	
Petroleum refineries	\$454,656,878	
Insurance carriers	\$389,498,446	
Limited-service restaurants	\$337,227,926	
Pharmaceutical preparation manufacturing	\$332,613,822	
Full-service restaurants	\$315,230,204	

* With the exception of the Imputed rental activity for owner-occupied dwellings, these sectors are defined by the North American Industry Classification System.





104,974

California jobs supported
by CalPERS benefit
payments

Jobs supported by industry

CalPERS benefits supported an estimated 104,974 jobs throughout the state that spanned many industries. CalPERS benefits supported 11,702 jobs in the top three health care sectors alone. Benefit recipients also supported 11,471 restaurant sector jobs.

The table below lists the IMPLAN estimated number of jobs in the top 10 industry sectors* that CalPERS benefits supported in FY 2013-14:

Full-service restaurants	5,989	
Limited-service restaurants	5,482	
Hospitals	4,725	
Individual and family services	4,383	
Offices of physicians	4,230	
Real estate	3,839	
Wholesale trade	3,529	
Retail - Food and beverage stores	2,850	
Retail - General merchandise stores	2,824	
Nursing and community care facilities	2,747	

* With the exception of the imputed rental activity for owner-occupied dwellings, these sectors are defined by the North American Industry Classification System

Regional impacts

CalPERS benefit payments provide an infusion of economic stimulus throughout California, however, the overall impact of the benefit payments is not geographically uniform. CalPERS benefits provide greater impact in regions with less robust economies. In these regions, CalPERS benefit payments provide a steady source of income that supports economic stability.

There is a negative correlation between a county's gross regional product (GRP) and the economic impact of CalPERS benefit payments.¹² On average, in counties with lower GRP and where CalPERS benefit payments make up a larger proportion of regional income, the benefit payments provide greater stimulus to the economy.

CalPERS benefit payments provide the greatest economic stimulus to Lassen, Amador, Sierra, and Del Norte counties. On average, the CalPERS benefit payments make up a larger proportion of income in these counties and generate a greater level of economic stimulus.

The table below shows each county's CalPERS benefit payments, proportion of benefit payments to personal income, GRP, and the economic impact of benefit payments proportional to county GRP:

County	CalPERS Benefit Payments	Benefit Payments to Income	GRP*	Economic Output to GRP ¹³
Lassen	\$52,845,356	4.7%	\$1,072,138,234	7.1%
Amador	\$67,154,480	4.6%	\$1,376,951,450	7.8%
Sierra	\$5,076,723	4.2%	\$51,418,877	12.9%
Del Norte	\$35,699,318	4.1%	\$782,291,096	6.7%

* Source: IMPLAN Group, LLC, IMPLAN System

CalPERS benefit payments provide the least economic stimulus in San Francisco, Marin, San Mateo, and Santa Clara counties. On average, the CalPERS benefit payments make up a smaller proportion of income in these counties and generate less economic stimulus.

The table below shows each county’s CalPERS benefit payments, proportion of benefit payments to personal income, GRP, and the economic impact of benefit payments proportional to county GRP:

County	CalPERS Benefit Payments	Benefit Payments to Income	GRP*	Economic Output to GRP
San Francisco	\$143,322,670	0.2%	\$107,169,913,638	0.2%
Marin	\$108,597,095	0.4%	\$18,482,864,240	1.0%
San Mateo	\$261,586,427	0.5%	\$76,719,151,422	0.6%
Santa Clara	\$663,981,697	0.5%	\$183,135,530,135	0.6%

*Source: IMPLAN Group, LLC, IMPLAN System

CalPERS benefit recipients generate important economic impacts throughout the state. These benefits are particularly important in regions with less robust economies. Recipients stimulate the economy in these regions by consuming goods and services which otherwise may not have been consumed.

\$25.7 billion

CalPERS investments
in California

Overview of CalPERS investments in California

CalPERS invests in California because of its vibrant, robust and diverse economy. As of June 30, 2014, the CalPERS investment portfolio totaled \$300.3 billion. Investments in California accounted for approximately 8.5 percent, or \$25.7 billion, of CalPERS portfolio.¹⁴

CalPERS investment objective is to achieve an appropriate risk-adjusted return on investment. Investments in California, however, create additional ancillary benefits. These benefits include the support and creation of jobs, and socially beneficial impacts.

The table below lists CalPERS California investments by asset class as of June 30, 2014:

Asset Class ¹⁵	Dollars Invested in CA (in billions)	Percent of Dollars invested in CA	Jobs in California
Public Equities*	\$13.6	53	1,074,000
Fixed Income	\$1.8	7	177,000**
Private Equity	\$3.6	14	190,000
Real Estate	\$6.5	25	129,000
Infrastructure	\$0.1	<1	1,300

* Public companies use all sources of capital to create and sustain jobs, not just CalPERS investment.

** The fixed income employment figure is based on publicly available data for this asset class, which was available for 14 companies that received direct corporate bond investment from CalPERS. These 14 companies are also present in CalPERS public equity portfolio. Job estimates cannot be combined as this would constitute double counting.

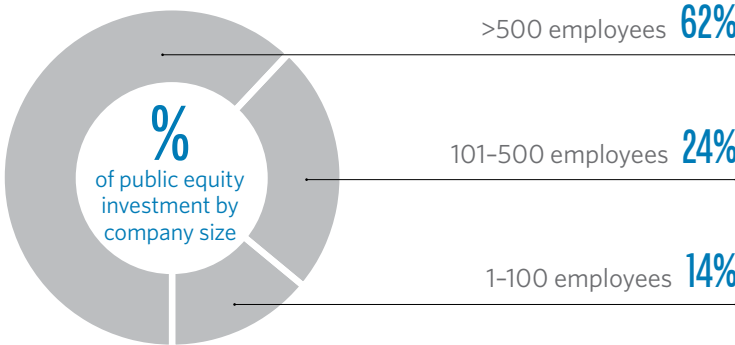
Jobs supported by CalPERS investments

Local job support is an important ancillary benefit of CalPERS California investments. CalPERS invests in California companies, which provides the indirect benefit of supporting California workers who stimulate the economy. These workers create economic activity in their local communities by purchasing goods and services.¹⁶

CalPERS public market investments include public equities and fixed income. CalPERS invests in 615 California-headquartered public companies, which employ more than one million Californians. Twenty-six percent of these companies' facilities are located in California, which is significantly higher than

companies with headquarters outside of California with 4 percent of their facilities located in state. Many of these public companies, such as Google, Apple, and Walt Disney are iconic to California.

The graph below shows the percent of public equity investment by company size:



CalPERS fixed income investments include \$526 million invested directly in 14 California companies without the assistance of external third-party investment managers. These companies are larger in comparison to companies in other asset classes, with a median size of approximately 26,400 employees. Combined, these companies employ an estimated 177,000 workers and operate 2,100 facilities in California.

CalPERS private market investments include private equity, real estate, and infrastructure and can be more directly attributed to job creation and other ancillary benefits than investments in public markets. This is typically the case because CalPERS is a larger investor among a more targeted group of private market investors. CalPERS invests in 1,537 private companies in California that employ a combined 190,000 workers.

Approximately 25 percent of CalPERS total real estate investments are in California. The diverse real estate assets provide additional benefits to the local economy, including:

- Construction job creation
- Construction-related economic activity
- New retail, industrial, and commercial opportunities
- New and significantly rehabilitated buildings improve communities

129,000

California jobs supported by CalPERS real estate portfolio

CalPERS real estate investments support an estimated 129,000 jobs in California, with the development and construction phase accounting for 26,000 of these jobs. The construction phase of CalPERS real estate projects provides the indirect benefit of supporting other California workers. As a result of the economic multiplier effect, construction workers create economic activity and support additional jobs when they consume goods and services where projects are located.

Infrastructure investment supports an estimated 1,300 jobs statewide. CalPERS invests \$107.7 million in infrastructure throughout California. More than 93 percent of this investment is related to projects that provide water to drought-prone areas. Infrastructure investments may serve as a catalyst for further job creation by having the potential to improve the transportation, energy, power, and water sectors.

59%

Private Equity's California Initiative investments are in high minority areas

CalPERS Private Equity California Initiative

In 2001, CalPERS established the California Initiative to invest private equity in traditionally underserved markets, primarily, in California. The objective of the initiative is to generate financial returns that meet or exceed industry benchmarks. The initiative provides an ancillary benefit of providing capital to traditionally underserved markets.

The number of jobs supported and created since California Initiative's inception are summarized below:

Ancillary Benefit ¹⁷	Total Jobs Supported	Jobs Supported in California	Percentage within California
Total Jobs Supported	155,507	36,605	23%
Total Jobs Created Since Investment ¹⁸	27,256	10,433	38%
Percentage Job Growth Since Investment	21%	41%	n/a

Source: CalPERS for California 2014

In addition to providing the ancillary benefit of job creation, the California Initiative generates social benefits by providing capital to areas that have historically had limited access. Private equity investment in California is highly concentrated primarily in 6 percent of California’s ZIP codes. CalPERS’ private equity investments in California are more broadly distributed across the state in high minority, low-to-moderate income (LMI), high unemployment, limited capital access, and rural areas.¹⁹

The chart below lists the percent of California Initiative investment dollars in these areas:

Area	% of Investments	% of \$
High Minority	59	68
LMI	20	19
High Unemployment	15	16
Limited Capital Access	12	21
Rural	4	4

Note: Many of the areas overlap, therefore, the percentages for each column exceed 100 percent.

Summary

CalPERS benefit payments and investments in California are essential to the state’s economy. The stable and steady economic impacts are even more important in areas where the economy is less robust.

CalPERS benefit payments generate economic activity, which supports job creation, increased business revenue and tax generation. CalPERS investments provide capital to many businesses headquartered in California. Additionally, CalPERS investments provide social and other ancillary benefits that are vital to California.

Endnotes

- ¹ IMPLAN, which is an input-output econometric model, calculated the economic activity. Input-output models cannot be used for time series analysis because they provide a “snapshot in time” of how the economy is structured. They do not provide information on why the structure changed and what effect any change may have had on the aggregate economy.

IMPLAN is widely used by governments, universities and public and private sector organizations to assess the economic impact of projects in many industry sectors. IMPLAN compiles data from several federal data sources in order to assess the impact of an infusion of income spread throughout a local economy. IMPLAN uses a Social Accounting Matrix (SAM) to capture all industry transactions in a local economy. The SAM describes a local economy in terms of the flow of dollars within a region while also accounting for non-industry related transactions including tax payments by businesses and households.

Staff used my|CalPERS pension data as in input to measure the economic impact of benefit payments. The pension data included benefit payments to recipients who resided in California in FY 2013-14 (July 1, 2013 through June 30, 2014).
- ² “California Once Again the World’s 8th Largest Economy.” Center for Continuing Study of the California Economy. n.p. July 2014. Web. 5 June 2015.
- ³ IMPLAN Group, LLC, IMPLAN System. Data as of January 2014.
- ⁴ “Unemployment Rates for States Annual Average Rankings Year: 2010.” Bureau of Labor Statistics. 4 March 2015. Web. 17 July 2015.
- ⁵ Kleinhenz, Robert A., Kimberly Ritter-Martinez, Ferdinando Guerra George Entis and Dymphna Menendez. 2014-2015 Economic Forecast and Industry Outlook. The Kyser Center for Economic Research. February 2014. Web. 5 June 2015.
- ⁶ “Monthly Labor Force Data for California Counties and Metropolitan Statistical Areas.” Employment Development Department, Labor Market Information Division, 25 February 2014. Web. 30 June 2015.
- ⁷ Teresa Ghilarducci, Joelle Saad-Lessler and Eloy Fisher. The Automatic Stabilizing Effects of Social Security and 401(k) Plans. Schwartz Center for Economic Policy Analysis. December 2011. Web. 10 June 2015.

Endnotes (continued)

⁸ my|CalPERS. Data includes only benefit recipients who resided in California between July 1, 2013 and June 30, 2014. The pension data includes gross payments to benefit recipients.

⁹ "CalPERS Pension Buck." CalPERS. CalPERS, 15 October 2014. Print. 3 June 2015.

¹⁰ Staff used the following formula to estimate the \$9.64 return in economic activity for each taxpayer dollar contributed to the system: \$30,882,836,545 (total economic revenue) / (\$15,255,023,395 (total benefits paid) * 21% (employer contribution)).

¹¹ Benefit recipient consumption is assumed to be consistent with the state's general population.

¹² Researchers computed the correlation coefficient to assess the relationship between county GRP and the economic impact of CalPERS benefit payments ($r = -0.54$, $p < .0001$).

¹³ Economic output to GRP is calculated as follows: total economic revenues as a function of benefit payments / GRP.

¹⁴ "CalPERS for California 2014" CalPERS. Sacramento, CA. June 2015. Print. 17 June 2015.

¹⁵ Definitions of the asset classes are listed below:

Public Equities — Investments in public companies domestically and internationally, for example through the New York Stock Exchange.

Private Equity — Investments in private companies that are not publically traded.

Real Estate — Investments in commercial, residential and industrial property.

Fixed Income — Investments in loans provided to governments, companies and other borrowers.

Infrastructure — Investments in real assets including bridges, toll roads, utilities and airports.

¹⁶ All CalPERS investments in California support local businesses and employment. The role that CalPERS investments play in supporting employment in public companies differs substantially from private companies. Specifically, CalPERS is one of thousands of investors in public companies with an indirect connection to the activities of these companies.

¹⁷ 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.

¹⁸ 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.

¹⁹ Definitions of the areas where private market investment may be especially socially beneficial are listed below:

High Unemployment — The State of California Employment Training Panel defines high unemployment areas as being 15 percent more than the California average. As of June 30, 2014, the California average unemployment rate was 7.4 percent; therefore any ZIP code with an unemployment rate above 8.5 percent is considered a High Unemployment Area.

Rural — Rural areas are ZIP codes in which the percent of the rural population is more than the median percent of the rural population in all California ZIP codes (above 3.67 percent). See 'Advancing Rural America', U.S. Small Business Administration (SBA) Office of Advocacy, available at www.sba.gov/advo/research/rural_sb.html for more information on access to capital in rural areas. According to the SBA, rural business 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.

High Minority — High Minority Areas are ZIP codes in which the percent of the minority population is more than the median percent 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. U.S. Department of Commerce Minority Business Development Agency, January 29, 2010, available at <http://www.mbdba.gov/pressroom/press-releases/mbda-study-finds-capital>

LMI — Low- to Moderate-Income (LMI) Areas are predominantly (50 percent or more) composed of LMI residents (38 percent of U.S. ZIP codes fall into this category). A census tract is determined to be LMI when:

- Median income of the tract is at or less than 80 percent of the metropolitan statistical area median or less than 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).

Limited Capital Access — 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.

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For more information on the study "CalPERS for California 2014" visit www.calpers.ca.gov

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