

NEW Research

Pensionomics 2016: Measuring the Impact of DB Pension Expenditures



Webinar
Sept. 14, 2016



**NATIONAL INSTITUTE ON
Retirement Security**

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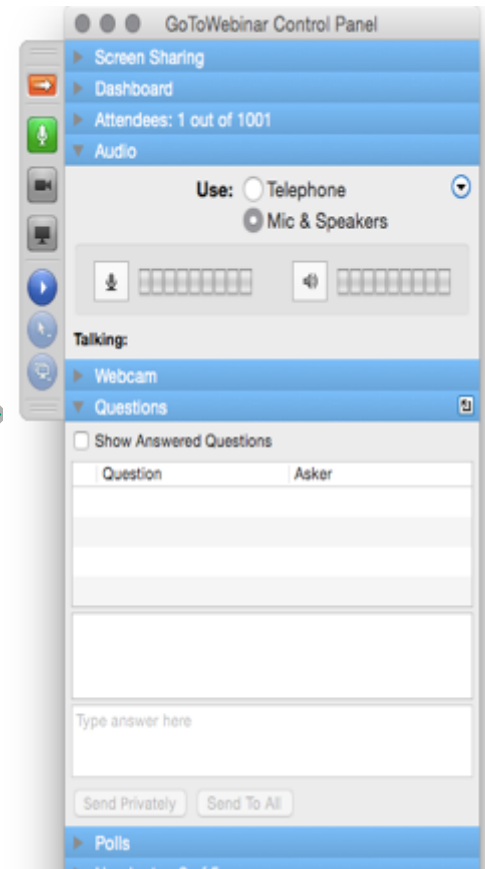
Agenda

- Introductions
- Research Review
- Q&A



Webinar Logistics

- Attendees in listen only mode.
- Questions welcome! Type in using “Question” function on control panel and we will read aloud, respond.
- Audio, technical issues during webinar, call GoToWebinar at 1-800-263-6317.
- Replay will be posted in Members Only section of NIRS web site.



Speakers



Diane Oakley
Executive Director
National Institute on Retirement Security



Jennifer Brown
Report Author & Manager of Research
National Institute on Retirement Security



Why This Study?

- Measure the economic “ripple effect” of defined benefit (DB) pension plans.
- Retirees with a reliable pension can maintain spending throughout their retirement years, regardless of economic ups and downs acting as an economic stabilizer.
- Quantify the economic impact of pension spending on the U.S. economy that will be constrained as the population ages.



Pensionomics 2016: What We Found

- In 2014, expenditures from public and private pension benefits supported:
 - **\$1.2 trillion** in economic output nationwide
 - **7.1 million jobs** that paid **\$354.8 billion** in income
 - **\$627.4 billion** in value added nationally
 - **\$189.7 billion** in federal, state, and local tax revenue



What We Found | Multiplier Effect

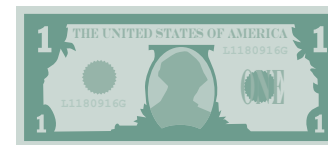
What is the total economic impact of each dollar paid out in pension benefits?

Pension Expenditure Multiplier



\$1.00

pension benefits paid to
retirees with DB pension income



\$2.21

total output



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What We Found | Taxpayer Investment

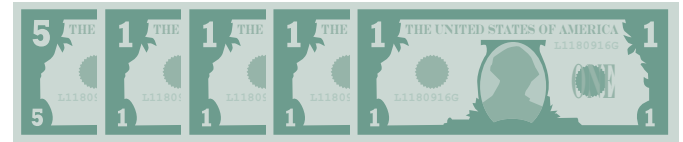
What is the “return” on each dollar taxpayers “invest” in state and local pension plans?

Taxpayer Investment Factor*



\$1.00

contributed by taxpayers to
state and local pensions over 30 years



\$9.19

total output



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Overview of Public and Private Pension Payments in the U.S.

Public and Private Sector Pension Benefits, 2014

	State and Local	Federal	Private Sector	Total*
Beneficiaries	9.6 million	2.6 million	12.1 million	24.3 million
Average Benefit	\$26,455	\$30,302	\$15,520	\$21,413**
Total Benefits	\$253 billion	\$78.8 billion	\$187.9 billion	\$519.7 billion

Note: Author's analysis of the Annual Survey of Public Pensions, Current Population Survey Annual Social and Economic Supplement, and annuity roll data from the U.S. Office of Personnel Management.

*Totals may not add up exactly due to rounding.

** Total average benefit represents a weighted average of public and private sector benefits.



Pension Plans' Economic Impact

- Pension plans can support economic activity through several channels, for example...
 - **Benefit channel** – retirees' expenditures create incomes for others in the economy
 - **Investment channel** – the investment of pension assets provides capital to businesses to develop products, invest in new technologies, create jobs.
- This study focuses on the benefit channel



Methodology

- **Began with benefit payment data** from the Census Bureau on state & local plans, the CPS for private plans, and OPM for federal plans.
- **Estimated taxes paid out of benefits** using data from CBO, BEA, and NCSL.
- **Adjusted benefit payment data** to account for migration of retirees from one state to another.
- **Estimated the economic and tax impacts of retiree expenditures**, using IMPLAN input-output modeling software and data package.



What is IMPLAN?

- Used to estimate impacts on: jobs, income, value added, total output, and tax revenue.
- An input-output modeling software and data package developed for a USDA Forest Service project, now used for many types of analysis.
- Represents relationships among various sectors in the economy as a matrix & estimates how an initial event reverberates through the economy.



Types of Economic Impact

DIRECT

Businesses gain revenue from first round spending.

In this case, consumer spending, e.g., car purchase at auto dealership

INDIRECT

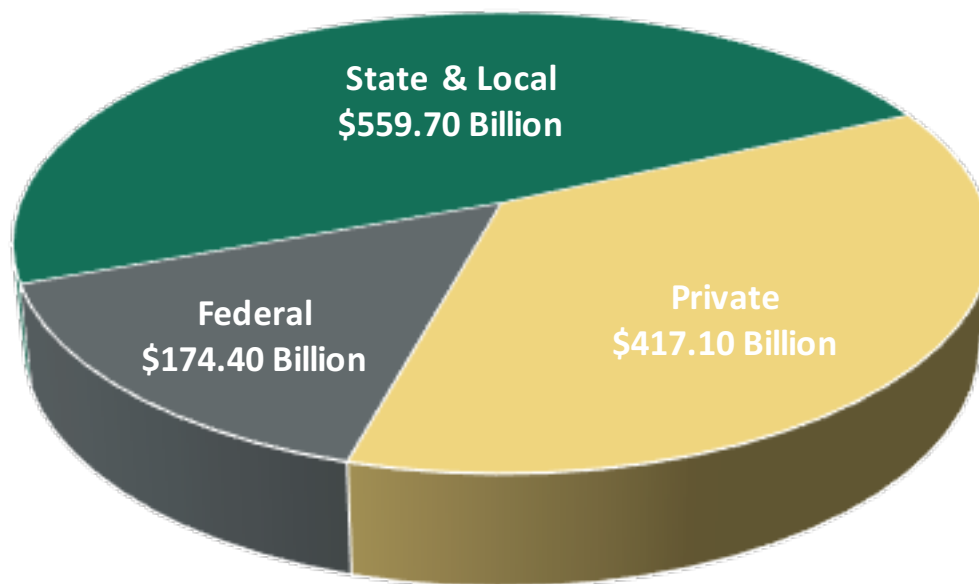
\$ flows up the supply chain, e.g, manufacturers and goods transport

INDUCED

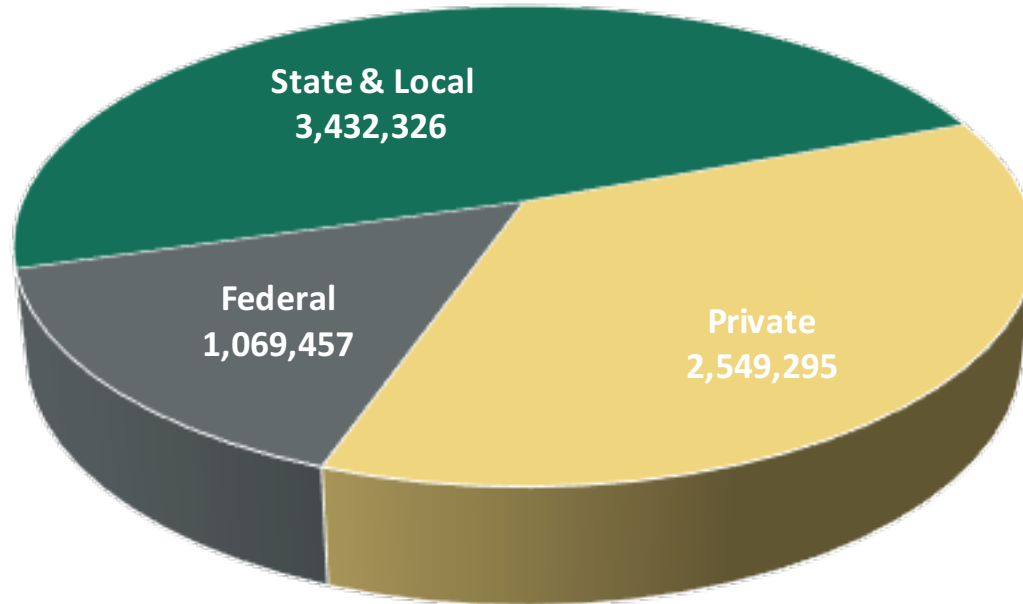
Owners and employees of affected businesses spend their earnings



Results: DB Pensions Support \$1.2 Trillion in Economic Activity



Results: DB Pensions Support 7.1 Million American Jobs



Results: DB Pensions Support \$354.8 Billion in Labor Income

	State and Local Pensions	Federal Pensions	Private Pensions	Total Labor Income Supported*
Direct Impact	\$70.5 billion	\$22.0 billion	\$52.4 billion	\$144.9 billion
Indirect Impact	\$48.5 billion	\$15.1 billion	\$36 billion	\$99.7 billion
Induced Impact	\$53.7 billion	\$16.7 billion	\$39.9 billion	\$110.2 billion
Total Labor Income Impact*	\$172.7 billion	\$53.8 billion	\$128.3 billion	\$354.8 billion

*Totals may not add up exactly due to rounding.



Results: DB Pensions Support \$627.4 Billion in Value Added

	State and Local Pensions	Federal Pensions	Private Pensions	Value Added Supported*
Direct Impact	\$128.5 billion	\$40 billion	\$95.5 billion	\$264 billion
Indirect Impact	\$82.7 billion	\$25.8 billion	\$61.4 billion	\$169.8 billion
Induced Impact	\$94.2 billion	\$29.4 billion	\$70 billion	\$193.6 billion
Total Value Added Impact*	\$305.4 billion	\$95.2 billion	\$226.8 billion	\$627.4 billion

*Totals may not add up exactly due to rounding.



Results: Economic Impacts by Industry

- Industries with most jobs supported:
 - **Real estate** establishments
382,812 jobs
\$75.3 billion in output
 - **Private hospitals**
330,057 jobs
\$49.0 billion in output
 - **Full-service restaurants**
295,539 jobs
\$13.3 billion in output



Results: DB Pensions Support \$189.7 Billion in Tax Revenue

Table 6. **DB Pensions Support \$110.4 Billion in Federal Tax Revenue**

	State and Local Pensions	Federal Pensions	Private Pensions	Federal Tax Revenue*
Taxes Paid by Beneficiaries on Benefits	\$10.6 billion	\$3.3 billion	\$7.9 billion	\$21.8 billion
Tax Revenue Resulting from Retiree Expenditures	\$43.1 billion	\$13.4 billion	\$32 billion	\$88.6 billion
Total Federal Tax Revenue Impact*	\$53.7 billion	\$16.7 billion	\$39.9 billion	\$110.4 billion

*Totals may not add up exactly due to rounding.

Table 7. **DB Pensions Support \$79.3 Billion in State and Local Tax Revenue**

	State and Local Pensions	Federal Pensions	Private Pensions	Total State and Local Tax Revenue*
Taxes Paid by Beneficiaries on Benefits	\$10.3 billion	\$3.2 billion	\$7.7 billion	\$21.1 billion
Tax Revenue Resulting from Retiree Expenditures	\$28.3 billion	\$8.8 billion	\$21 billion	\$58.2 billion
Total State and Local Tax Revenue Impact*	\$38.6 billion	\$12 billion	\$28.7 billion	\$79.3 billion

*Totals may not add up exactly due to rounding.



Results: Pension Expenditure Multiplier

What is the total economic impact of each dollar paid out in pension benefits?

Pension Expenditure Multiplier



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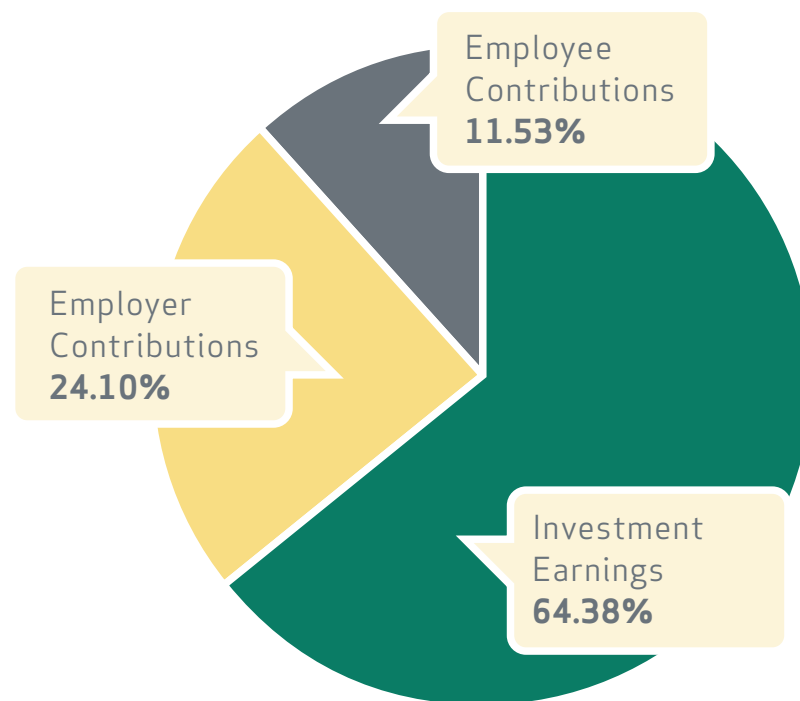
\$2.21

total output



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Financing of State and Local Pension Plans, 1993-2014



Note: Author's analysis of data from U.S. Census Bureau.



Results: Taxpayer Investment Factor

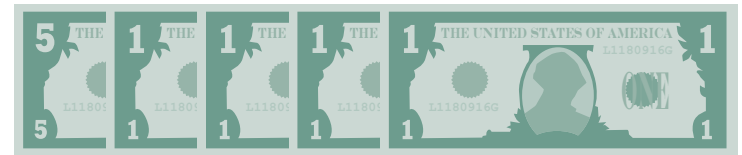
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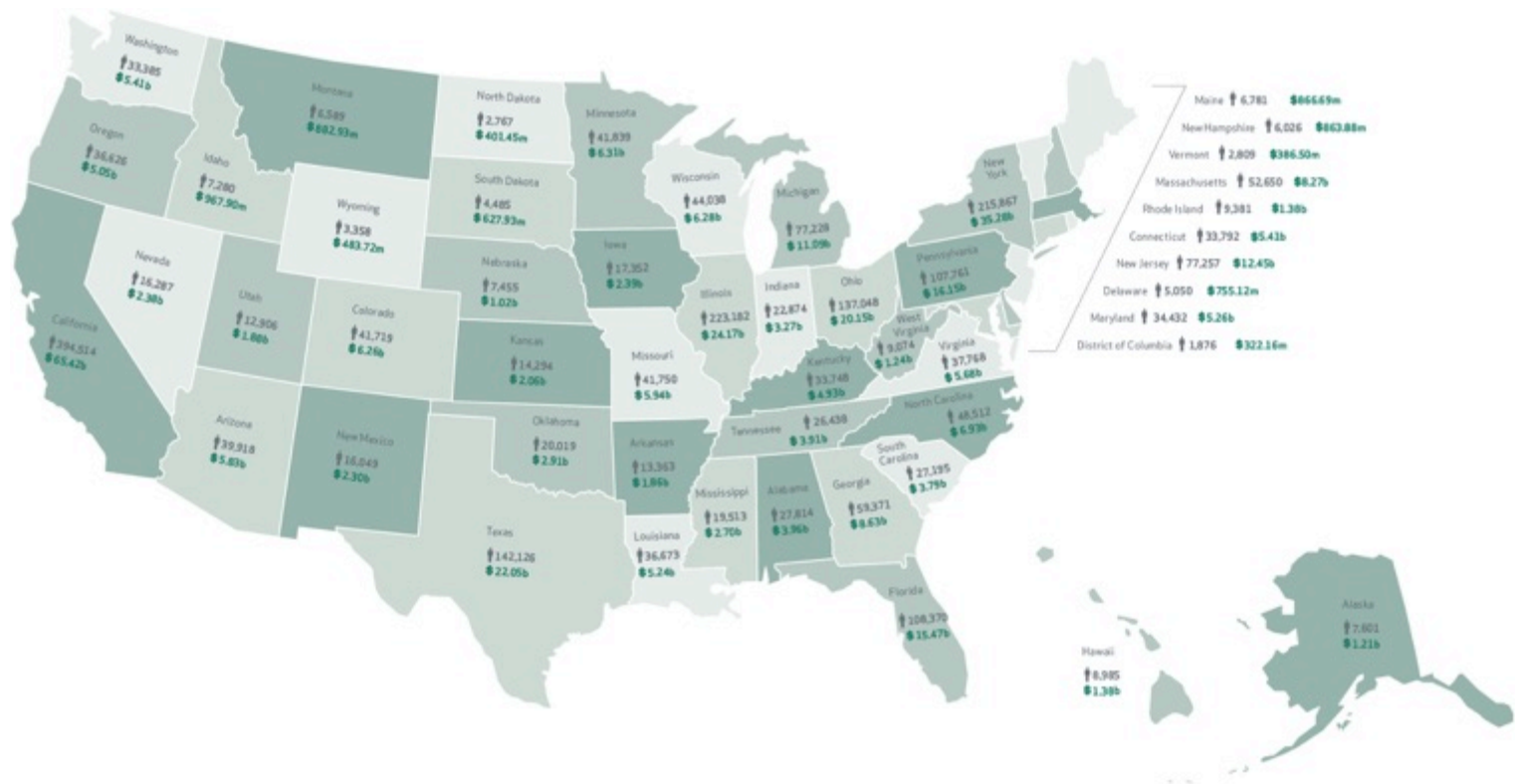
\$9.19

total output



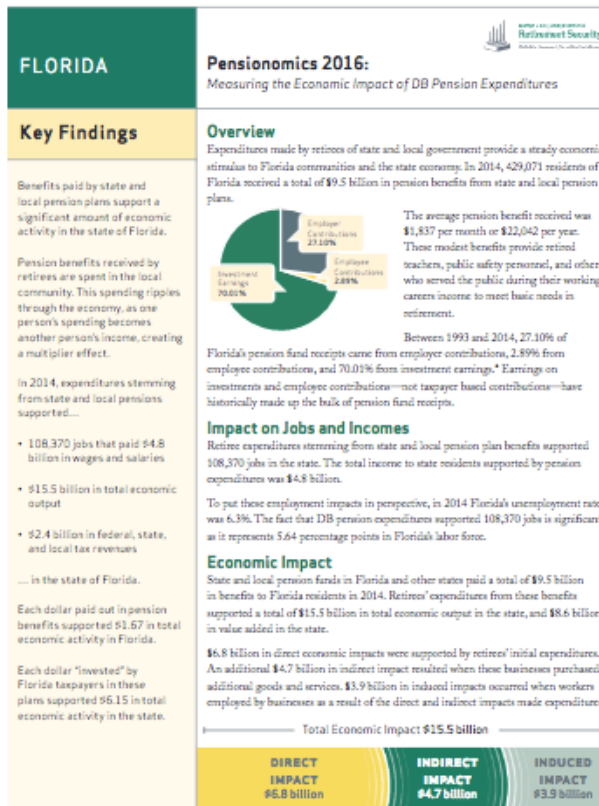
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State-by-State Analysis of Impact from State & Local Pensions



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Results: Economic Impacts by State

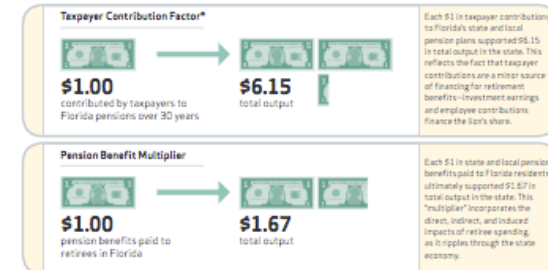


*Total may not add up due to rounding. For data and methodology see Brown, J., 2016, *Pensionomics 2016: Measuring the Economic Impact of DB Pension Expenditures*, National Institute on Retirement Security, Washington, DC, www.nirsinc.org. Results not directly comparable to previous *Pensionomics* due to methodological refinements.

National Institute on Retirement Security
Pensionomics 2016: Measuring the Economic Impact of DB Pension Expenditures

FLORIDA

Economic Multipliers



*Factor should be used in interpreting these numbers. See the Technical Appendix of the full *Pensionomics* report for details.

Impact on Tax Revenues

State and local pension payments made to Florida residents supported a total of \$2.4 billion in revenue to federal, state, and local governments. Taxes paid by retirees and beneficiaries directly out of pension payments totaled \$400.3 million. Taxes attributable to direct, indirect and induced impacts accounted for \$2.0 billion in tax revenue.

Federal Tax	\$1.6 billion
State/Local Tax	\$866.0 million
Total	\$2.4 billion

Economic Impacts by Industry Sector

The economic impact of state and local pension benefits was broadly felt across various industry sectors in Florida. The ten industry sectors with the largest employment impacts are presented in the table below.

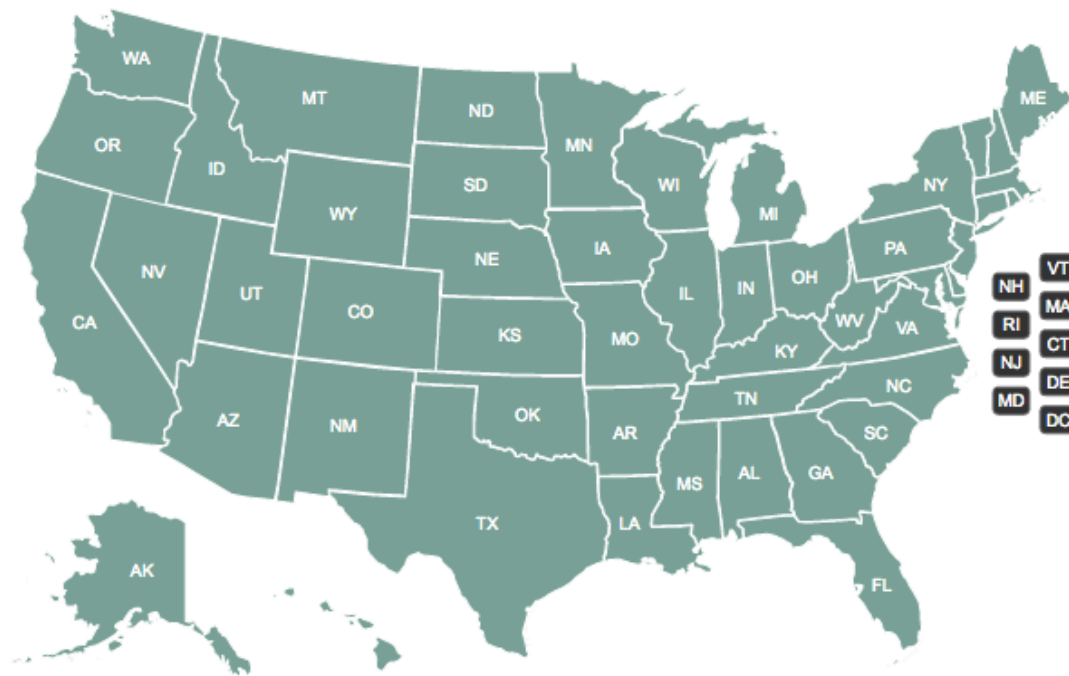
Industry	Employment Impact (# Jobs)	Labor Income Impact	Value Added Impact	Output Impact
Real Estate	7,921	\$117,119,304	\$784,535,277	\$1,203,450,705
Hospitals	4,946	\$332,605,719	\$381,084,185	\$688,598,446
Full-Service Restaurants	4,419	\$107,062,842	\$116,221,146	\$205,412,872
Limited-Service Restaurants	3,974	\$79,938,743	\$195,070,954	\$333,991,715
Offices of Physicians	3,204	\$288,929,417	\$285,392,481	\$434,550,528
Nursing and Community Care Facilities	2,990	\$101,862,535	\$109,124,751	\$185,692,936
Retail - Food and Beverage Stores	2,779	\$77,949,731	\$116,815,767	\$176,508,122
Wholesale Trade	2,601	\$205,079,798	\$400,837,376	\$624,373,067
Retail - General Merchandise Stores	2,585	\$70,032,668	\$114,666,481	\$178,661,201
Other Financial Investment Activities	2,310	\$10,430,322	\$56,963,415	\$294,325,906

Industry totals include the first round of impacts from pension payments to state residents, and do not account for subsequent "leakage" to or from other states.



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State Fact Sheets Downloadable at www.nirsonline.org



Example of a Retiree from California



Illustrating Direct, Indirect, and Induced Impacts

A Retiree's Spending on Housing and Other Daily Needs

Linda is a 62-year old single African American woman living in southern California. She recently retired after working for 30 years. Linda worked in the private sector for a technology company for about five years, then spent the bulk of her legal career working in the public sector.

During her career, she regularly contributed to her retirement plans. Linda now receives defined benefit (DB) pension income of about \$3,300 each month from both her private and public sector jobs. In addition, Linda receives retirement income from Social Security, and she also put away additional savings in her defined contribution (DC) retirement account.

Older Californians face some of the highest housing costs in the nation. In fact, the housing costs for four out of 10 Californians exceeds more than 30 percent of their income. It is not surprising that Linda must dedicate a large portion of her pension income toward her housing costs. She spends upwards of \$3,000 per month to cover principal and interest on her mortgage, maintenance, property taxes, insurance, and utilities.

"Thanks to my stable pension income, I can afford my home in retirement. And that is no easy feat," Linda says. Income from Social Security income pays for her car, food and healthcare. And if there are any remaining funds, Linda plans to take a vacation or two in retirement.

The money Linda pays in interest, maintenance, insurance and utilities creates a **direct economic impact** on the California economy. An **indirect economic impact** would be created, if she had a contractor mow her lawn and the contractor purchases a new mower or other equipment using some of the money Linda paid his business from her pension income. Additionally, from the pension money that Linda spends on her home, contractors as well as utility and insurance companies purchase supplies and services from other businesses, which generate an economic ripple effect. As these companies hire additional workers as business increases, the spending by these new employees from their paychecks further generates an **induced economic impact**.

"I'm so thankful that I have a reliable pension that I spend on my housing needs each month in retirement," Linda says. "I can be self-sufficient in retirement after a lifetime of work."

The aggregate economic impact of the spending on housing by the 24.3 million retired Americans, who like Linda receive a DB pension, plays an important role in supporting jobs in the real estate sector of the economy. Specifically in 2014, those expenditures supported nearly 383,000 jobs in the real estate industry nationwide.

- Linda is newly-retired 62 year old, African American woman with DB pensions from private & public sector jobs.
- Nearly all of her \$3,300/month pension goes to housing costs.



Real Estate Investing: California

PUBLIC PENSION'S REAL ESTATE INVESTMENTS ALSO HAVE AN ECONOMIC IMPACT

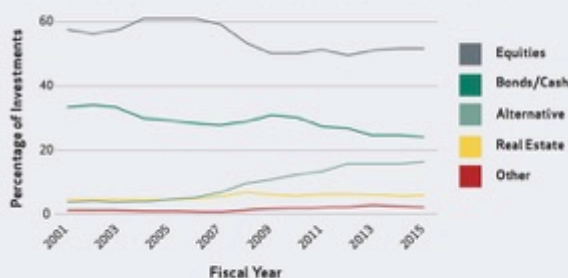
Public pension funds invest in broadly diversified portfolios that help deliver investment returns over the long term within an appropriate level of risk. Real estate investments represent an asset class that helps pension funds balance investment gains and risks.

Public pension funds have maintained modest allocations to real estate investments for many years. The figure below illustrates the asset allocation of state and local pensions to key assets as a percent of total assets from 2001 to 2015. According to the Public Fund Database, state and local pensions invested \$197 billion in real estate related assets, representing nearly six percent of the \$3.4 trillion of actuarial assets in 2015.

In addition to the jobs in the economy supported by retirees' expenditures, such as Liada's for housing related costs, public pensions also support jobs in the economy through their many investments.

For example, real estate portfolios in public pension funds typically are a mix of investments in commercial, residential and industrial properties across geographic areas. Such investments initially generate construction jobs during a property's building phase. And over the long-term, these properties provide critical infrastructure and space for retail and professional service providers to work, which further provides support for jobs and economic expansion.

Asset allocation for State and Local Pensions 2001-2015



Source: Public Plans Database
National data averages are weighted by plan size.

Determining the economic impact of a public pension fund's investments in real estate requires a detailed understanding of each investment. The two largest public pension systems in California asked experts to conduct economic studies of each fund's investments, including the impact of real estate investments in California on jobs in the state.

As of December 31, 2013, the California State Teachers' Retirement System (CalSTRS) had a gross value of \$7.5 billion invested in California real estate. Dr. Ashok Bardhan, former senior economist at the University of California, Berkeley, Haas School of Business, calculated that 79,000 jobs in California were supported by CalSTRS' real estate investments.

Looking at the impact of California Public Employees Retirement System's (CalPERS) investments, Pacific Community Ventures calculated that 170,000 jobs in California were supported by CalPERS' real estate investments, totaling \$7.2 billion in California as of June 30, 2015.

Sources: "Public Plans Database," Boston College, Center for Retirement Research, Chestnut Hill, MA, <http://crr.bc.edu/data/public-plans-database/>; A. Bardhan, 2014, "Impact of CALSTRS Investments on California's Economy," CALSTRS, Sacramento, CA, http://www.calstrs.com/sites/default/files/attachments/impact_of_calstrs_investments_on_california_economy.pdf; and Pacific Community Ventures, 2015, "CalPERS for California Annual Report 2015," CalPERS, Sacramento, CA, <http://www.calpers.ca.gov/docs/forms-publications/calpers-for-ca-2015.pdf>.

- CalSTRS \$7.5 billion invested in California real estate supporting 79,000 CA jobs.
- 170,000 jobs in CA California supported by CalPERS' real estate investments that total \$7.2 billion.



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Infographic

PENSIONS: BENEFITS AND RETIREE SPENDING PROVIDE IMPORTANT ECONOMIC SUPPORT ACROSS AMERICA



PENSION SPENDING RIPPLES ACROSS THE U.S. ECONOMY

Defined benefit (DB) pensions provide a secure source of income for many retired Americans, and they contribute substantially to our local, state and national economies. Spending of pension benefits checks creates economic activity and supports millions of American jobs.

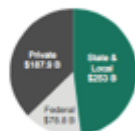


When a retiree receives a pension benefit payment, she spends it on goods and services — housing, food, clothing, medicines, a car or computer. These purchases create an important economic ripple effect.

PENSIONS PROVIDE INCOME THAT RETIREES SPEND, CONTRIBUTING TO ECONOMIC ACTIVITY AND AMERICAN JOBS

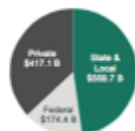
\$519.7 BILLION

The total amount of pension benefits paid to 24 million Americans in 2014.



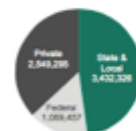
\$1.2 TRILLION

The total economic output attributed to pension benefit expenditures in the United States in 2014. The largest share comes from state and local pension plans.



7.1 MILLION JOBS

The total number of jobs in the United States attributed to pension benefit expenditures in 2014. The largest share of jobs comes from state and local pension plans.



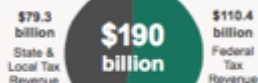
Source: Social Security Administration, Retirement Security

PENSION BENEFITS GENERATE TAX REVENUE

Pensions also generate tax revenue on the state, local and federal levels. This tax revenue comes from two major sources:

- Taxes paid by beneficiaries directly on their pension benefits and;
- Taxes resulting from expenditures made from pension benefits after income taxes are deducted. For example, sales taxes resulting from a retail purchase.

\$190 billion total pension tax revenue in 2014



PUBLIC PENSIONS HAVE A LARGE ECONOMIC IMPACT



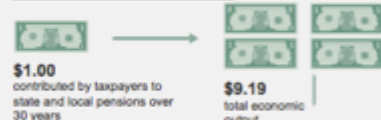
Of the \$253 billion paid out in state and local pension benefits in 2014, only \$61 billion was funded by taxpayer dollars. The total economic impact attributable to state and local pension benefits, however, was \$560 billion. Thus, every taxpayer dollar contributed to state and local pension plans supported \$9.19 in national economic output!

PENSION EXPENDITURE MULTIPLIER



Each \$1 in public and private pension benefits earned by retirees supported \$2.21 in total output in the U.S. This "multiplier" incorporates the impacts of retiree spending, as it ripples through the U.S. economy.

TAXPAYER INVESTMENT FACTOR



Each \$1 in taxpayer contributions to U.S. state and local pension plans supported \$9.19 in total economic output in the U.S. This is because nationally, taxpayers contributions are about 24 percent of pension financing. Most of the funding comes from investment earnings and employee contributions.

Source: PensionPulse 2014, National Institute on Retirement Security

Source: Social Security Administration, Retirement Security



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Questions?



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