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#### **Title**

Employment Benefits from California Climate Investments and Co-investments

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# Employment Benefits from California Climate Investments and Co-investments

Colleen Callahan, Jason Karpman, Weilong Kong, J.R. DeShazo (2018)

# UNIVERSITY OF CALIFORNIA

## **Research Topic**

Revenues from California's Cap-and-Trade Program flow as transportation investments into communities across California, particularly to disadvantaged communities affected by pollution and poverty. As directed by Assembly Bill (AB) 32 and AB 1532, these investments, collectively known as California Climate Investments (CCI), are designed to reduce greenhouse gases (GHGs) while providing environmental, public health, and economic benefits. Communities where the investments occur could realize a range of benefits including improved mobility, more affordable transportation solutions, affordable housing near transit, cleaner air, and more jobs.

From the launch of California Climate Investments in 2013 through 2016, the state appropriated about \$2.2 billion to 29 programs aimed at reducing GHGs. Of these, 13 were transportation programs that received nearly \$1.8 billion in California Climate Investments, including the High-Speed Rail Project, the Affordable Housing and Sustainable Communities Program, the Transit and Intercity Rail Capital Program, the Clean Vehicle Rebate Project, and other Low Carbon Transportation investments. How do these programs translate into jobs? Researchers at the UCLA Luskin Center for Innovation conducted the state's largest study of the employment impacts of CCI transportation investments.

# **Main Findings**

- The analysis reveals that the nearly \$1.8 billion in transportation-related California Climate Investments support about 15,000 jobs in California.
- An additional 55,000 jobs in California are supported by an estimated \$6.2 billion in "induced co-investment," or matching funds from consumers, businesses, and government entities that would not have occurred if not for the state's investment.
- Consequently, every \$1 of the state's contribution to these transportation programs induced approximately \$3.40 in additional investment. This high level of induced co-investment largely stems from the \$3 billion in federal funding for the High-Speed Rail Project.
- The supported jobs are diverse, cutting across many different industries, although more than half are in the construction sector due to the significant level of investment in building transit systems.

## **KEYTAKEAWAYS**

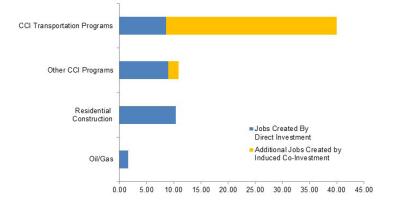
- The 13 CCl transportation programs support about 70,000 jobs in California during the first three years of investment, when including co-investments induced by the state.
- All of these transportation programs support more jobs in California per million dollars of investment than most of the state's largest industries.
- Job numbers can be further enhanced by designing transportation programs to devote a greater share of dollars to services rather than materials, to source from California-based firms, and to induce co-investment.

• Of the nearly \$1.8 billion in spending, 45 percent was spent in disadvantaged communities, supporting about 6,800 jobs (excluding induced co-investments).

## Study

Researchers utilized IMPLAN 3.0, an economic input-output model that tracks the flow of funds in the economy and measures the effects of an investment across all industries and economic sectors in California. Detailed financial information from the agencies administering each of the 13 transportation programs was translated into model inputs that reflect the economic reality of the program, including the industrial sectors involved. The study focused on appropriated funding from 2013 to 2016, and measured jobs as full-time equivalent job years, or one worker working for 2.080 hours.

Figure: Number of Jobs in California Supported per \$1 Million of CCI Appropriations by Transportation Program, Compared to Other Reference Investments



### **Recommendations**

- For every million dollars that the state appropriates to CCI transportation programs, the analysis reveals that nearly nine jobs will be supported, with an additional 31 jobs due to induced co-investment.
- All 13 of the CCI transportation programs support more jobs per million dollars of investment than the largest manufacturing industry in California: computer and electronic products manufacturing.
- Policymakers should note that job numbers are enhanced when a program induces consumers, businesses, or local government to co-invest. Holding the effects of co-investment aside, the CCI transportation programs with the largest employment multipliers devote a greater share of investment dollars to services, rather than to materials, and have a larger share of dollars going to firms based in California.

## For More Information

Karpman, J., Callahan, C., DeShazo, J.R., & Kong, W. (2018). Employment benefits from California climate investments and co-investments. Los Angeles, CA: Luskin Center for Innovation. Retrieved from: <a href="https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Employment\_Benefits\_from\_CA\_Climate\_Investments\_and\_Co-investments.pdf">https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Employment\_Benefits\_from\_CA\_Climate\_Investments\_and\_Co-investments.pdf</a>

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