

Energy efficiency funding is distributed inequitably across communities in California

Rural and disadvantaged communities have decreased access to energy efficiency funding, limiting their ability to improve energy efficiency and reduce costs.

Based on Michelle Le, Sydney Litvin, Atherv Gole, Audrey Meiman, Austin Covey, Nathaniel Villa, Measrainsey Meng, Tatum Katz, and Ranjit Deshmukh. Energy Research & Social Science. [Inequity in public sector energy efficiency? Explaining disparities in program budgets in California, United States](https://doi.org/10.1016/j.erss.2024.103590). <https://doi.org/10.1016/j.erss.2024.103590> (2024).

The Policy Problem

Rural and disadvantaged communities face inequitable access to energy efficiency funding, which increases their energy burdens. Disparities affect local governments and K-12 schools in these areas, which need more resources to implement energy efficiency programs. K-12 public schools spend \$8 billion annually on energy, yet many schools in disadvantaged communities receive lower funding for energy efficiency programs, contributing to both financial and environmental disparities. Identifying what factors can predict these disparities in energy efficiency program budgets is just the first step in ensuring that investments are equitably distributed across communities.

Key Findings and Proposed Solutions:

- Increase targeted funding for rural and disadvantaged communities in California. These communities receive significantly lower per capita funding for energy efficiency programs, which increases energy costs.
- Prioritize energy efficiency investments in K-12 public schools in low-income areas where schools face inadequate funding for energy efficiency upgrades despite the potential for significant cost savings and improved learning environments.
- Improve access to counties with higher tax revenues per capita. Due to population size disparities, these counties often have lower energy efficiency budgets, particularly in rural areas.

What We Found

We found that both local governments and K-12 public schools in more rural counties have lower total energy efficiency program budgets because of their lower population compared to more urban counties. Furthermore, energy efficiency programs in local governments and K-12 public schools in counties with a higher share of disadvantaged communities have a lower budget per capita. For K-12 public schools, counties with a higher proportion of students from lower income households or disadvantaged communities have both lower program budgets overall and per capita. These results highlight inequities in energy efficiency program budgets for local governments and K-12 public schools.

Disparities in energy efficiency funding must be addressed to ensure equitable access to programs for communities. Prioritizing disadvantaged communities in the state by increasing funding can close the gap in energy efficiency funding to improve living conditions and reduce costs. Increasing funding to areas based on socioeconomic needs will achieve long-term cost savings for residents while promoting environmental sustainability. Our research supports the need for strategic policy changes to improve access to energy efficiency programs.

What We Did

In this study, we examine potential inequities in access to public sector energy efficiency programs designed for California's local governments and K-12 public schools and evaluate the predictors of those inequities. We analyzed energy efficiency budgets in California using data from utility-funded program socio-economic indicators, and demographic variables. We used the Index of Relative Rurality (IRR) and Rural-Urban Commuting Area (RUCA) codes to capture rural-urban differences. We also included disadvantaged communities from CalEPA's CalEnviroScreen to examine equity considerations. For K-12 schools, we assessed Title 1 status, eligibility for free or reduced-priced meals, and Local Control Funding Formula (LCFF) entitlements. Our study employed statistical models, i.e. t-tests and multivariate regressions, to assess disparities in funding for local governments and K-12 schools and identified predictors of inequalities such as rurality, income, and disadvantaged populations.

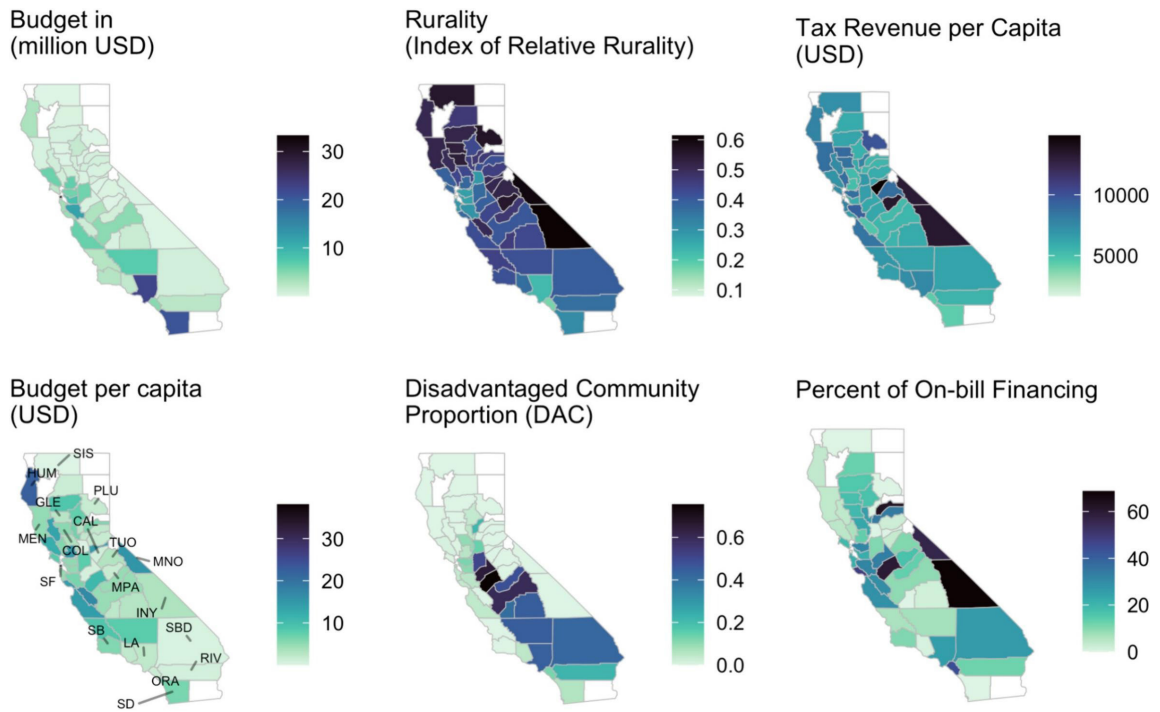


Fig. 1. For local government analysis at county-level, spatial distribution of budget and budget per capita (in US Dollars, USD), and the corresponding two most predictive variables. On-bill financing is a financial mechanism that allows a customer to repay the upfront costs of an energy efficiency project as part of their monthly utility bill.

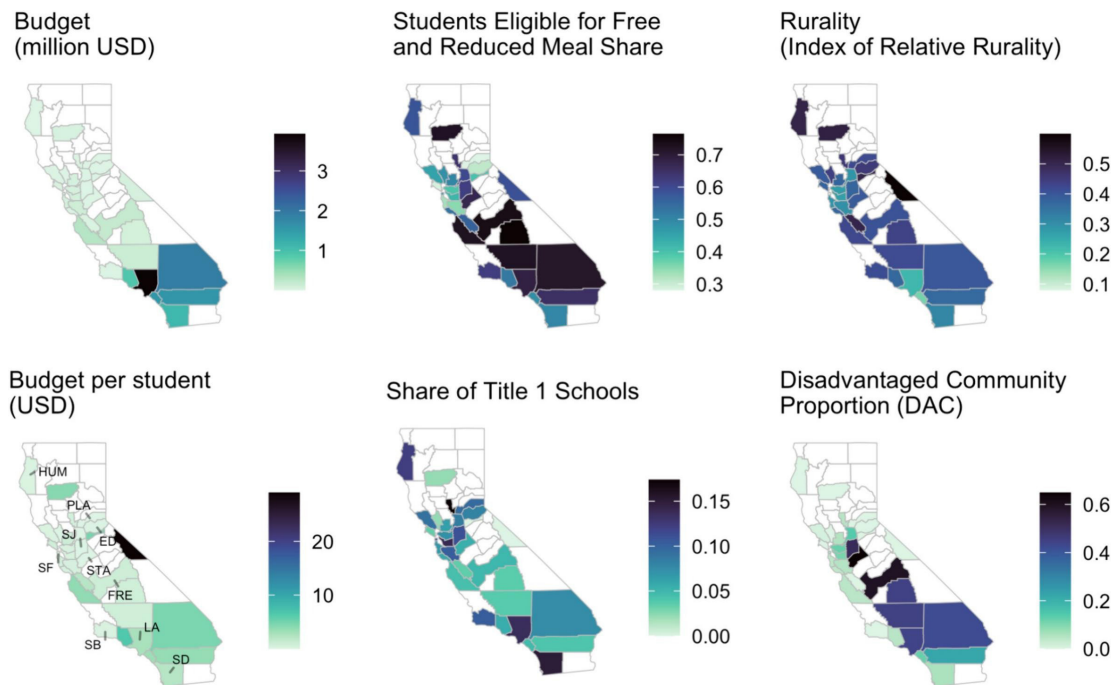


Fig. 2. For K-12 public schools' analysis, spatial distribution of budget and budget per capita (student) in US Dollars (USD), and the corresponding two most predictive variables.