



UNIVERSITY OF CALIFORNIA, LOS ANGELES

MEASURING THE IMPACTS OF CLIMATE CHANGE ON VULNERABLE COMMUNITIES TO DESIGN AND TARGET PROTECTIVE POLICIES

PRINCIPAL INVESTIGATOR: **George DeShazo**, Director, Luskin Center for Innovation

PROJECT GRANT \$1,451,460.00 Duration: 24 Months	PRIORITY RESEARCH AREAS <input checked="" type="checkbox"/> Supporting and Protecting Vulnerable Communities from the Impacts of Climate Change <input checked="" type="checkbox"/> Increasing Data Accessibility and Planning Support for State, Local, and Regional Climate Change Planning <input checked="" type="checkbox"/> Accelerating and Supporting Transitions to Climate Start Communities
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This research will quantify the financial and health costs of five understudied climate impacts across California. Specifically: 1) increased workplace morbidity and mortality risks in climate-exposed industries; 2) reduced wages and unemployment in climate-exposed industries; 3) increased household energy expenditures on cooling; 4) increased reproductive and prenatal risk associated with direct heat exposures; and; 5) inadequate housing quality and wild fire readiness. The resulting data sets will be overlapped using a diverse set of expected future climate impacts and vulnerability factors with forecasted increases in extreme heat days at a 6-by-6 kilometer resolution out to the year 2050.

PARTNERS:	<ul style="list-style-type: none"> ➤ Coalition for Clean Air ➤ Greenlining Institute ➤ Leadership Counsel for Justice and Accountability ➤ Liberty Hill Foundation ➤ PolicyLink ➤ Public Health Alliance ➤ Santa Clara University ➤ Southern California Association of Governments ➤ Southern California Center for Occupational Safety and Health
RESEARCH ACTIVITIES	<p>Establish enduring partnerships with leading nonprofit and environmental equity organizations and partnerships with state, regional, and local government agencies. Estimate heat-related climate impacts and vulnerability factors. Develop datasets to enable the mapping of impact hotspots. Create a spatial targeting tool that discerns different types and magnitudes of climate vulnerabilities and impacts. Develop and integrate into the spatial tool a place-based, opportunity look-up tool for local governments, nonprofit, and community members.</p>
FACILITATES GREENHOUSE GAS EMISSIONS REDUCTIONS:	<p>The project will re-interpret the potential benefits of over 50 of California's climate mitigation programs in order to understand their relevance to building community resilience against future extreme heat vulnerabilities. It will develop a place-based look-up tool for identifying climate mitigation and adaptation programs. GHG mitigation policies are likely to become more widely adopted once co-benefits, such as financial savings, are better understood and validated</p>
BENEFITS DISADVANTAGED AND LOW INCOME COMMUNITIES:	<p>Produces new knowledge, policy refinements and capacity among the state's leading nonprofits, significantly benefiting disadvantaged communities. Quantifies financial and health costs associated with specific climate impacts by quantifying the impacts borne largely by low-income communities. Two spatial tools will better identify low-income communities that will experience acute increases in extreme heat events, enabling these communities to readily identify state policies/program opportunities to mitigate specific vulnerabilities factors.</p>
ENGAGEMENT ACTIVITIES	<p>Collaborate with integral civic partners during the three stages of the initiative to analyze climate impacts, vulnerabilities, as well as policies and other opportunities to increase climate resiliency, and develop and disseminate the resulting tool to informs climate action.</p>