PROPOSED

State of California
CALIFORNIA AIR RESOURCES BOARD

Screening Method and Map for Evaluating Transportation Access Disparities and other Built Environment-related Social Determinants of Health

RESEARCH PROPOSAL

Resolution 18-40

October 25, 2018

Agenda Item No.: 18-8-1

WHEREAS, the California Air Resources Board (CARB or Board) has been directed to carry out an effective research program in conjunction with its efforts to combat air pollution, pursuant to Health and Safety Code sections 39700 through 39705;

WHEREAS, a research proposal, number 2819-289, titled "Screening Method and Map for Evaluating Transportation Access Disparities and other Built Environment-related Social Determinants of Health," has been submitted by the University of California, Los Angeles for a total amount not to exceed $349,812;

WHEREAS, the Research Division staff has reviewed Proposal Number 2819-289 and finds that, in accordance with Health and Safety Code section 39701, the results of this study will identify indicators for transportation access disparities and will develop a screening method and visualization tool for analyzing data related to this and other important social determinants of health; and

WHEREAS, in accordance with Health and Safety Code section 39705, the Research Screening Committee has reviewed and recommends funding the Research Proposal.

NOW, THEREFORE BE IT RESOLVED, that CARB, pursuant to the authority granted by Health and Safety Code section 39700 through 39705, hereby accepts the recommendations of the Research Screening Committee and staff and approves the Research Proposal.

BE IT FURTHER RESOLVED, that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and contracts for the Research Proposal as further described in Attachment A, in an amount not to exceed $349,812.

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October 25, 2018

Identification of Attachments to Board Resolution 18-40

Attachment A: "Screening Method and Map for Evaluating Transportation Access Disparities and other Built Environment-related Social Determinants of Health" Summary and Budget Summary

ATTACHMENT A

"Screening Method and Map for Evaluating Transportation Access Disparities and other Built Environment-related Social Determinants of Health"

Background

Transportation access is an important health driver because it facilitates access to jobs, schools, health care, healthy food, and because it contributes to quality of life. Furthermore, access to clean transportation is important because it reduces the likelihood that outcomes of the transportation system—like air pollution—will negatively impact health. Access to clean transportation options, along with other environmental, economic, and social conditions in our daily life, are sometimes referred to as "social determinants of health." Thus, improving access to clean transportation can result in health benefits.

In 2015, California passed Senate Bill (SB) 350—the Clean Energy and Pollution Reduction Act of 2015, and CARB subsequently completed a study to: 1) better understand the barriers low-income residents must overcome to increase access to zero-emission and near zero emission transportation and mobility options; and 2) develop recommendations to increase access. CARB published the "Low Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents" in 2018. The study identified several barriers that CARB and other agencies are now collaborating to overcome, and an interagency Task Force is also in the process of developing "metrics for success" to measure and track progress in increasing access for low-income residents and disadvantaged communities over time. While there are currently a variety of metrics used by different agencies and organizations to measure transportation "access" (in terms of cost, proximity, etc.) and clean transportation adoption and diffusion, these different metrics have not been systematically analyzed, and it is unclear which is best/most appropriate for analyzing statewide progress in increasing clean transportation access. Examples of parameters that this tool might use to evaluate community transportation access include (but are not limited to): commute distance, transportation costs and associated travel time costs, the diversity of transportation options and their associated costs. This research will help stakeholders increase the effectiveness of transportation-related investments, interventions, and other efforts to directly or indirectly improve employment, educational and health outcomes.

Objective

The research objective is to develop a statewide database utilizing real-world data that identifies and characterizes transportation access disparities at the census tract level (or finer geography). The research will also translate this information into a screening method and an information visualization tool, likely a map.

Methods
The proposed project would develop, first, a statewide database of metrics and indicators that characterize transportation access and access disparities and, second, a screening methodology and visualization tool. To accomplish this, the researchers will engage with stakeholders, experts, and others to gather input on potential indicators (new and existing), analytical methods. They will also conduct a literature review and a preliminary review of existing frameworks, tools, and data sources (e.g., CalEnviroScreen, UC Davis's Regional Opportunity Index, the California Healthy Places Index, etc.) to identify potential data and indicators for inclusion in the statewide database. With input from advisors, the researchers will then select data and indicators from existing data information sources, harmonizing existing information and construction of new indicators as needed, and assemble the transportation disparity dataset. This work will inform the development of a guidebook on how to use the transportation-disparity dataset as a screening tool; and finally, the project will culminate in the development of a web-based information portal and visualization tool.

Expected Results
The project will result not only in the identification of data, indicators, and metrics that can be used to assess transportation access throughout the State, but also in the creation of tools (e.g. screening method and map) that can be used by stakeholders to address and ultimately overcome clean transportation access barriers. The desired goal of this project is to improve public health by increasing transportation access, and, in doing so, address other key social determinants of health.

Significance to the Board
Outcomes from this project will inform CARB staffs' ongoing reviews of regional transportation plans/sustainable communities' strategies per SB 375 and support SB 350 efforts to overcome barriers to clean transportation access for disadvantaged and low income communities. This research will also be useful in CARB's and other State agencies' continuing investments via the California Climate Investments programs: For the methodology and tool may help agencies pinpoint areas most in need of clean transportation investments, including investments in transit and active transportation.

Contractor:
University of California, Los Angeles

Contract Period:
30 months

Principal Investigator (PI):
Dr. Paul Ong, Ph.D.

Contract Amount:
$350,000

Basis for Indirect Cost Rate:
The State and the UC system have agreed to a twenty-five percent indirect cost rate.

Past Experience with this Principal Investigator:
Dr. Paul Ong is a professor emeritus of Urban Planning, Social Welfare, and Asian American Studies and the Director of the Center for Neighborhood Knowledge. He has worked with CARB on two prior research contracts: 1) as co-PI for the project titled, "Developing a New Methodology for Analyzing Potential Displacement" (report published in 2017); and 2) as the PI for the project, "Identifying, Evaluating and Selecting Indicators, Indices and Data for Future Monitoring System of the Implementation of Sustainable Communities Strategies." His work on both of these studies makes him uniquely qualified to work on this project, as he is likely to utilize data analysis and the development of metrics and indicators in this research, and is likely to build upon this foundation to create a high-quality final product.

Prior Research Division Funding to the University of California, Los Angeles:

Year	2017	2016	2015
Funding	$ 458,814	$ 0	$ 633,214

B U D G E T S U M M A R Y

Contractor: University of California, Los Angeles

Screening Method and Map for Evaluating Transportation Access Disparities and other Built Environment-related Social Determinants of Health

DIRECT COSTS			
1.	Personnel (Salary and Fringe Benefits)	$ 238,106	
2.	Travel	$ 6,800	
3.	Materials & Supplies	$ 2,680	
4.	Equipment	$ 0	
5.	Electronic Data Processing	$ 0	
6.	Consultant(s)	$ 26,250	
7.	Subrecepient(s)	$ 0	
8.	Other Direct Costs	$ 6,014	
	Total Direct Costs		$ 279,850
INDIRECT COSTS			
1.	Indirect (F&A) Costs	$ 69,962	
	Total Indirect Costs		$ 69,962
TOTAL PROJECT COSTS			**$ 349,812**