

Transportation, Sustainability, and Equity Scorecards in the Inland Empire

William and Barbara Leonard Transportation Center

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Introduction

The Inland Empire Transportation, Equity, and Sustainability Scorecards aim to quantify and score local government's efforts on the three aspects of mobility in the region. This work was conducted as part of the LTC's Student Research Challenge, which brings together students and faculty from CSUSB, the University of California, Riverside, and CalPoly Pomona. The expectation set for the Research Challenge program is to provide real-world research experience for multidisciplinary teams of students and faculty on critical issues related to the Inland Empire's transportation system. The LTC aspires to meet our dual goals of quality research and education from this work.

The Student Research Challenge was developed to meet the vision of William E. Leonard in his role as Chairman of the California Transportation Commission. He gave testimony to the Assembly Surface Transportation Committee in Long Beach, California, in 1990, stating: "Through greater public and private investment in research and development lays the key to our future mobility while at the same time enhancing safety, energy conservation, and air quality." We are working to answer this call for research to provide high quality information for decision-making on future development of the region's transportation system.

Research Findings

Methodology of Scoring

Local governments in the IE were scored in four different areas: Transportation, Sustainability, Equity, and Overall Mobility. To see the complete list of indicators used for these scores, please visit: [LTC RESEARCH INITIATIVES' WEBSITE](#)

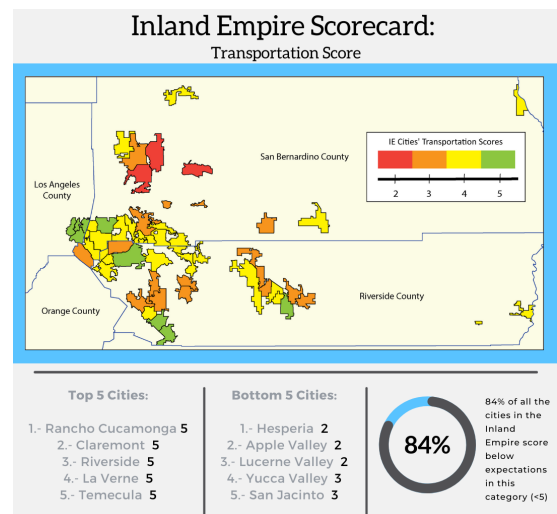
The data for this study were collected in 2020 and are based on pre-Covid factors. Each indicator used for the different criteria was scored between one to ten. Scores less than five were considered below expectation, scores between five and seven were within the expectation, and any index above seven was considered exceeding expectations. The results of these indexes were mapped using ArcGIS and are discussed below.

The Transportation Scorecard

Transportation and mobility impact all components of one's life. A good system facilitates access to education, health care, shopping, work, play, goods movement, public safety, etc. Without an effective transportation system, the economy falters as people cannot arrive at desired locations, and goods do not make it to market.

The transportation scores for this report include safety and mobility modes of travel – active transportation, transit, and personal vehicle usage. As part of these considerations, the existing transportation efforts of the region were assessed based on the following indicators: time-efficient bus routes; active

transportation; percentage of residents who drive alone; travel time to work; vision zero commitments; automated enforcement; rankings from the League of American Bicyclists and People for Bikes; and individuals killed or seriously injured in vehicle crashes. Based on the map, dark red represents areas with low scores, whereas dark green represents areas with high scores. Overall, 84% of the cities ranked for this report scored a four or below.

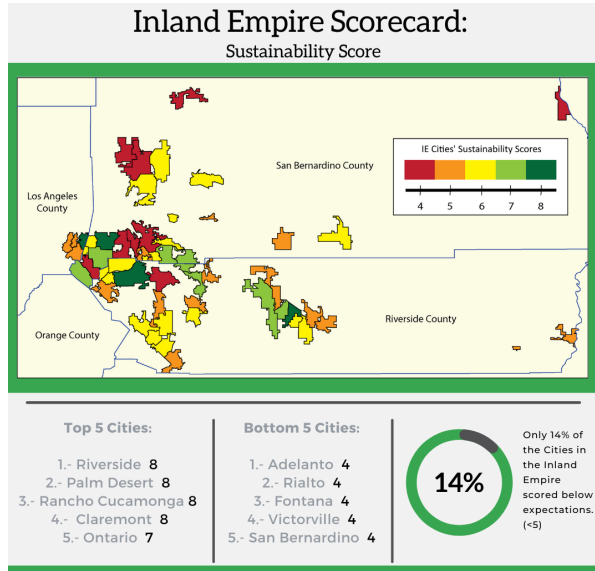


The highest ranked cities at 5 points were Rancho Cucamonga, Claremont, Riverside, La Verne, and Temecula. This category had the lowest score for all areas under consideration in this report. These data show much work needs to be done to improve mobility and safety in the Inland Empire.



The Sustainability Scorecard

Sustainability has three main pillars: economic advancement, socio-cultural progress, and preservation of the environment. In addition to economic growth and efficiency in sustainable transport, stakeholders must also consider resource utilization and preserving the environment. These efforts are assessed by implementing habitat mitigation plans, trip reduction strategies, and zero-emission vehicle sales and ownership. Variables in the sustainability scorecard include parks and open space; walk score; complete streets ordinances; zero emission vehicle (ZEV) sales and ownership, and support plans for ZEVs; habitat mitigation plans; warehouse zoning; bike score; and SB743 trip reduction plans.

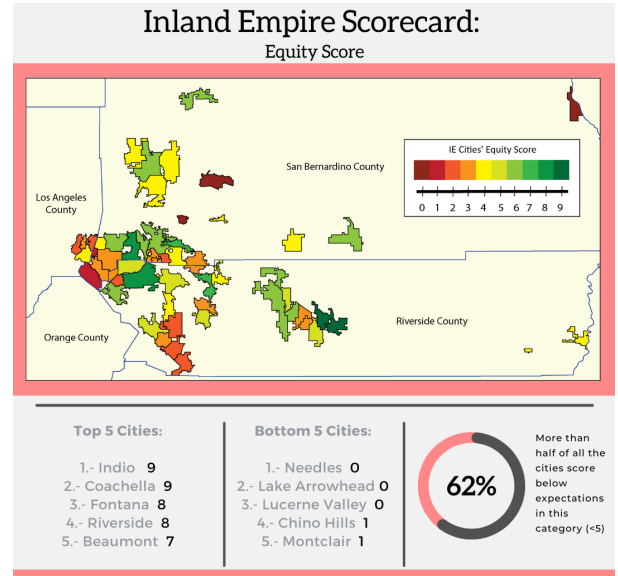


This category was the most robust, with an average score of six. Only 14% of all the cities scored below expectations, with none scoring lower than four. Much work has been done to improve sustainability across the state, and the results are seen here. Even though overall the Inland communities are excelling in sustainability, there is much to be done if specific cities or pockets in the region, as seen in the heat map above.

The Equity Score

Equity in its simplest form is explained as the fairness “of what” is supplied, “for whom” the consumers, and “how much” concerning demand. For an individual’s mobility, it equates to the options available based on their unique circumstances. Relating this simple definition to ethics in the public sector, transportation equity includes a balanced allocation of investments within a region, the local public-private sector balance, and policies to include those marginalized from the system.

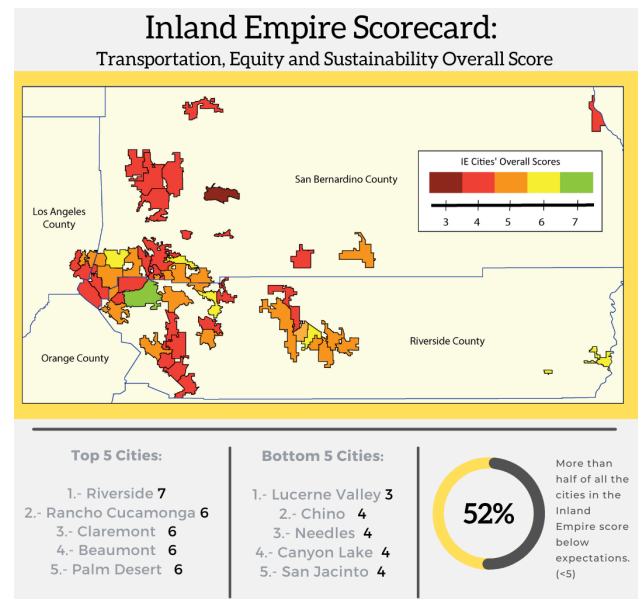
For this scorecard, the research team created the transportation equity map reflecting the factors of poverty; home and rent values; the number of homeowners vs. renters; median income levels; rates of implementation of SB1000 Environmental Justice rules; SB535 Community Designations; Respiratory and Cancer Risks; and Anti-Racism Ordinances. Out of all of the maps provided in this short



brief, the Equity Score for local governments was the most diverse, ranging from 0 to 9. This scoring range reflects a substantial gap in equity levels across the Inland Empire. The highest scoring cities were Indio and Coachella, and the lowest ranked cities were Montclair and Chino Hills. Tellingly, sixty-two percent of the cities scored below expectations, with a score of five or lower.

Overall Mobility Justice Scorecard

The overall mobility justice scorecard reflects the performance of transportation, equity, and sustainability in the Inland Empire. Out of 58 cities, 29 scored below four. However, these results do show promise for the region as nearly 50% of the cities are within the range exceeding expectations of transportation equity and sustainability. It is a half-full/half-empty proposition – depending how you look at the number.



Reflections on the Results and the System

What are our overall takeaways from this work? From the maps provided in this research, we see the impacts of policy mandates and the local vision and work done by administrators. Local governments are working to meet the current set of mandates from the State of California and improve conditions in their jurisdictions.

In each category studied, similar cities came to the top and the bottom of the list. A couple of the standouts were Riverside consistently at the top and Needles consistently near the bottom. From these data, we see the work being done. We also see areas in the Inland Empire in need of assistance. Research studies and analysis that can be shared widely in the community are vital to understanding the differences among the IE's cities. Are there issues with financial resources and local economies? Leadership? How do different geographies and the surrounding natural environment impact the built environment and quality of life? Much of what we know today is supposition, but as cities are the first points of contact for residents, finding ways to help local administrators overcome their challenges will improve the overall quality of life in the region.

This work is also a step forward in defining what transportation equity entails. The three Es – Economy, Environment, and Social Equity have defined sustainability for many years. We are working to pull out social equity as it has generally been an

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afterthought to the economy and the environment. This research, focused on social equity, has brought to the forefront considerations about the options people have in their lives. If an individual or family cannot access programs, goods, or resources developed because they are impoverished, it is generally thought that the public sector will help provide a service to meet the need. The quality and effectiveness of this government service can be compared to what is provided by services paid for directly and based on income factors. The results are fairly obvious with the more resources a person has, the better options they have for travel. Understanding the basis on how our society functions (the relationship between government, business, and community-based organizations), leads to a final question to be explored by this work—what does the role of government look like in the 21st century?

The first quarter of the 21st century is ending, and new innovations and ideas are bringing new challenges. Maintaining competitiveness, effectiveness, and efficiencies are still paramount in American society. There is also a call for change and innovation that includes sustainability, equity, and a well-functioning system as critical components. These make up the basis for economic, environmental, and ethical administration that Bill Leonard spoke about in 1990. The IE needs more research to be completed to provide the data and information for evidence-based decision-making. The LTC is working to fill part of this role, through this new research policy brief series. We look forward to engaging next in the discussion of ideas these briefs bring forward.

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