THE FUTURE OF TRANSPORTATION AND URBAN PLANNING

A CALIFORNIA 100 ISSUE ROADMAP FROM RESEARCH TO ACTION

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In March 2020, the world's streets, highways, railroads, ports, and airports grew eerily quiet. In a few short weeks, the global pandemic cast the central role of transportation systems in seemingly every aspect of public and private life. In California, observers initially lauded the declines in traffic congestion and plummeting emissions, but these proved short-lived. While millions of California workers shifted to remote work during the pandemic, millions more still needed to travel to their jobs in health care, food retailing, and other essential sectors. Indeed, working from home simply shifted travel demand from passenger transport to commercial and delivery services.

By Fall 2021, California's roads had filled again with workers, shoppers, and truckers, bringing its many transportation problems back to the fore: chronic traffic congestion, increasing separation of home and work locations, falling transit use, worsening emissions and noise pollution for frontline communities, and heightened vulnerability to climate change.

At the same time, the state is also well underway in its transition to electric vehicles for all new passenger cars by 2035, with a need for charging infrastructure that is widespread and equitably provided. More generally, four simultaneous technological revolutions will likely shape California transportation in the decades ahead: electric vehicles from light-duty cars to heavy-duty trucks, app-based ride sharing, self-driving vehicles, and the growing prevalence of remote work and hybrid work.

FROM RESEARCH TO ACTION

What will these changes mean for current and future generations of Californians, and how can we make sure that California's future in transportation and urban planning remains innovative, resilient, inclusive, sustainable, and equitable?

In March 2022, the California 100 Initiative released a policy and future scenarios report on transportation, with the **UCLA Institute of Transportation Studies** as the research lead. The research team sifted through reams of data and research and spoke with a wide array of experts in the public and private sectors to examine possible scenarios and policy alternatives for the future.

"Our analysis found that California's reliance on low-density, sprawling development, with its wide streets and freeways and ubiquitous free parking, requires most Californians to travel by car for almost all of their trips, whether or not they own a car or want to drive that much," said **Brian D. Taylor, professor and director of the UCLA Institute of Transportation Studies.** "Building primarily around the car consumes a lot of land, costs a lot of money, and generates a lot of emissions. We need to shift this approach by deemphasizing cars by increasing commercial and housing densities, reducing or eliminating government parking mandates, and improving public transit. Driving should become one option among many, as more travelers will be able to easily walk and ride transit to nearby destinations."

FUTURE SCENARIOS

Other key takeaways from the California 100 report include a consideration of policy options that improve transportation under **four future scenarios** that center around the dominant modes of land-use policy (policies favoring high-density versus low-density housing and commercial development) and the dominant modes of transportation (continued predominance of private cars versus the prevalence of multiple modes of transportation such as cars, trains, and buses).

In a context where policies favor private cars, the scenarios range from double-decker freeways and chronic traffic jams under conditions of high-density urban development, to longer commute times despite wider freeways under low-density development. In a context where policies favor multiple modes of transportation, scenarios range from fast-transit services and walkable communities for most Californians under high-density urban development, to fast-transit services only to a minority of California residents living in built-up central cities.

Whatever the scenario, the research commissioned by California 100 indicates that we should refrain from "doing nothing" as a default or fall-back option. In order for California to perform better under these various scenarios, the state will need to investigate, deliberate over, and enact innovative solutions that advance **resilience** (including better emergency and disaster management with high-density land use and multi-modal transport), **inclusion** (building trust and meaningful, respectful, and ongoing engagement in a collaborative manner with stakeholders and communities), **sustainability** (reducing greenhouse gas emissions by using cleaner trucks, optimizing shipment routing, and shifting more freight to rail), and **equity** (implementing grant programs that repair the injustices of past government actions in transportation and land use).

Artist rendering of future scenarios in transportation and urban planning
Source: California 100

THE CALIFORNIA 100 ROADMAP

The California 100 report on policies and future scenarios is the first step in a multi-stage process that is designed to inspire and engage Californians—from a variety of sectors and all walks of life—to build a stronger future for current and future generations. In the summer of 2022, our expert and intergenerational Commission will conduct a series of listening sessions throughout the state, to solicit feedback on the ideas generated by our research and to generate additional big and bold ideas for consideration by public and private agencies, as well as by everyday Californians. We will also be generating insights from our policy innovation projects throughout the state that cover a variety of topics, and our deep engagement on questions of science and technology as they relate to a variety of issues, including transportation and urban planning.

In early 2023, we will take these various policy ideas and scenarios, and engage in a process of deliberative democracy featuring a representative cross-section of California residents. The goal of this deliberative exercise is to understand the conditions under which Californians from various walks of life can come to agreement on the long-term challenges facing the state and, importantly, the kind of bold and visionary solutions we need to put the state on a stronger trajectory for the next century.

California 100 will also be engaging intentionally with young Californians, who have the most to gain or lose in the coming century. Our team members will engage young people throughout the state, including in high school and college settings, and will organize a statewide youth summit that will produce a manifesto for the future of California.

Finally, in Winter and Spring 2023, our intergenerational Commission will draft a vision and strategy document for the future of California, based on briefing materials that build on insights from the various streams of work. California 100 will then launch a culminating event in early summer 2023 that serves as the formal launch of the vision and strategy document and, importantly, also brings together leaders and partners from our various streams of work and prior engagement.

Our culminating event in the summer of 2023 will:

1. Showcase the pressing need for California to prioritize long-term futures,
2. Build an ambitious yet achievable vision and strategy that are grounded in rigorous research and community engagement, and
3. Inspire others to do the same, providing tools that a variety of partners (including policymakers, government agency officials, business leaders, activists, researchers, and next-gen leaders from various sectors) can use to build their own aspirational visions and strategies for California's long-term success.

ABOUT CALIFORNIA 100

The California 100 Initiative envisions a future that is innovative, sustainable, and equitable for all. Our mission is to strengthen California's ability to collectively solve problems and shape our long-term future over the next 100 years. California 100 is organized around 15 policy domains and driven by interrelated stages of work: research, policy innovation and engagement with Californians. California 100's work is guided by an expert and intergenerational Commission. Through various projects and activities, California 100 seeks to move California towards an aspirational vision—changing policies and practices, attitudes and mindsets, to inspire a more vibrant future.

California 100 staff members compiled this roadmap document, drawing on research in two publications—a Policies and Future Scenarios Report and a Facts-Origins-Trends Report—by authors from the UCLA Institute of Transportation Studies. The two transportation-related publications are part of California 100's larger research stream of work, built in partnership with 20 research institutions across the state.

California 100 sponsored grants for data-driven and future-oriented research focused on understanding today and planning for tomorrow. This research, anchored in California 100's 15 core policy domains, forms the foundation for the initiative's subsequent work by considering how California has gotten to where it is and by exploring scenarios and policy alternatives for what California can become over the next 100 years.

The California 100 Initiative is incubated through the University of California and Stanford.

CALIFORNIA 100 RESEARCH TEAM

Henry E. Brady, PhD., Director of Research
Lindsay Maple, M.P.P., Deputy Director of Research
Ava Calanog, M.P.P., Assistant Director of Research

THE CALIFORNIA 100 EXECUTIVE LEADERSHIP TEAM

Allison Berke, Ph.D., Director of Advanced Technology
Henry E. Brady, Ph.D., Director or Research
Amy Lerman, Ph.D., Director of Innovation
Jesse Melgar, M.P.P., Director of Engagement
Karthick Ramakrishnan, Ph.D., Executive Director

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To learn more about the future of transportation and urban planning in California, visit the California 100 website at California100.org, where you will find our detailed reports on the topic, and more information about our research partners.