

Summary

UC Institute of Transportation Studies

Request

The University of California proposes an augmentation to the annual appropriation from the Public Transportation Account (PTA) for the Institute of Transportation Studies (ITS). The State of California and the University have partnered since 1947 to lead the world in transportation research through ITS for the benefit of all Californians. Currently, the ITS program receives a \$980,000 annual appropriation from the State PTA. ITS proposes a budget augmentation of \$9 million - phased in over three years - with future inflation adjustments. This request provides funding sufficient to establish permanent, ongoing programmatic infrastructure that will allow ITS to respond to state policy-makers' requests for ad hoc guidance and to engage actively with California governments at all levels to establish a sustainable transportation system that supports a strong economy, a healthy population with access for all, and environmental quality.

The ITS program currently leverages its core funds from the state by over 30 to 1, generating extramural funding of approximately \$30 million per year in sponsored projects. This funding comes from federal, state, and local government sources, as well as private foundations and companies. Major California sponsors are Caltrans, California Air Resources Board, California Energy Commission, and regional governments in the San Francisco and Los Angeles areas.

The additional state funding will allow ITS to take the initiative on key transportation challenges, assist and transfer knowledge to local and state agencies, and seek large center-based funding from private, foundation, and federal sources. It will also enable ITS to train the next generation of experts and leaders to plan, build, manage, and maintain globally competitive and environmentally sustainable transportation systems.

Uses of Funding

This funding will enable ITS experts statewide to bring state of the art science, technology, and policy to bear on problems ranging from chronic traffic congestion to persistent air pollution, increasing climate change, impacts of local and global goods movements, and access for disadvantaged areas and groups. ITS researchers will be able to actively support the state in developing policies, rules, and strategies that are grounded in science, and that help address five critical state goals in priority areas identified by the Legislature and the Governor:

- Climate Change
- Urban Sustainability and Air Quality
- Infrastructure and Energy
- Transportation System Performance
- Taxation and Finance

ITS has developed an ambitious research agenda focused on ten key initiatives that are both well-aligned with the Legislature's and Governor's critical goals and could also potentially provide the greatest impact for each additional dollar spent on transportation research:

- Data-Enabled Decision and Policy Making
- Sustainable Transportation Finance
- Greenhouse Gas and Oil Reduction
- Vehicle Travel and Land Use
- Connected and Automated Transportation
- Public Transit
- Sustainable Goods Movement
- Infrastructure Resilience: Disaster Management and Cybersecurity
- Mobility and the Sharing Economy
- High Speed Rail (HSR)

The ITS appropriation has remained largely unchanged since the program's establishment in 1947 and today is inadequate for core functions and translation of research to practice, which causes ITS to be highly reactive to external funding opportunities. The result is an ITS research program that is not explicitly focused on state transportation priorities and needs, cannot respond rapidly to transportation policy research needs when they arise, and is diminished in its capacity to provide strong technical assistance to local, regional, and state governments. With additional funding for support services and new initiatives, ITS will have the resources and capabilities to attract substantially greater private, federal, and public funds to address the many pressing transportation problems facing California. Recent successes include \$5 million per year for each of two nationally funded centers: the Regional Transportation Center on Economic Competitiveness hosted by ITS-Berkeley and the National Center for Sustainable Transportation hosted by ITS-Davis, with half of the funds coming from the U.S. Department of Transportation. Various other federal and privately-funded centers are located at the ITS branches. But much more is possible.

Currently, ITS is leveraging over \$30 for every state core funding dollar. However, these funds usually cannot be used for building institutional and administrative capacity, seeding important new research and policy initiatives, or packaging the research for use by practitioners and decision makers. Additionally, most of this funding is restricted for specific projects, and cannot be utilized for support of essential core services or communication and transfer of this research to users and decision makers. Dependence on project-specific funding is limiting in three ways. First, ITS does not currently have the administrative and infrastructural bandwidth to take on many of the research projects it is asked to conduct. The result is that needed projects, which ITS has the research expertise to pursue, go unstudied and undeveloped for lack of core capacity. Second, much of the research output cannot be effectively utilized by decision makers and policymakers because resources are not available to translate and communicate it via briefings, policy briefs, workshops, presentations at practitioner conferences, white papers, and webinars. This means that in an increasing number of cases, cutting-edge research is not translated into practice for lack of communications and outreach resources. And third, dependence on project-specific funding means researchers lag behind in pursuing new technologies and issues, such as connected and automated vehicles, new mobility services (such as Uber and Lyft), and promising solutions to goods movement challenges.

With additional state funding, ITS will play a much more active role in supporting the development of rules and programs to achieve energy, air quality, GHG, economic, and social equity goals adopted by

California, in bringing larger amounts of outside funding into California, and in greatly increasing the quantity and quality of tomorrow's transportation leaders and experts.

ITS Background

Since its inception in 1947, ITS has continuously provided support to the state. In the present context, it can serve as an invaluable partner in working to achieve the goals of the Legislature and Governor and has the potential to make a much greater contribution to the future of California's transportation policies and infrastructure. With the Legislature's and Governor's priorities foremost in mind, ITS has developed an ambitious research agenda focused on ten key initiatives that would provide the greatest impact for each additional dollar spent on transportation research.

To enable this effort, ITS proposes a budget augmentation of \$9 million phased in over three years with future inflation adjustments. This request reflects the amount necessary to establish permanent, ongoing infrastructure that would allow ITS to partner with the State more effectively; the request aligns with what the present amount would be if the original funding allocation had increased with inflation over the past 68 years (\$9.8M in 2015, or \$38.6M on an inflation-adjusted per capita basis). This budget augmentation would allow ITS to pursue research initiatives in support of the State's agenda, to maintain the resources and capabilities necessary to effectively respond to the state's transportation needs and priorities, and to simultaneously attract substantially greater private, federal, and public funds to address the many pressing transportation problems facing California. With input from the State, ITS can determine how to most effectively: 1) support this research and public engagement agenda; 2) develop the tools and knowledge necessary to execute the missions codified in laws, regulations, and executive orders; and 3) create a more economically, environmentally, and socially sustainable society.

The Institute for Transportation and Traffic Engineering (ITTE) was established at the University of California in 1947 by an act of the California Legislature; it later became known as the Institute of Transportation Studies (ITS). At establishment, the state provided \$920,000 in core, baseline funding for the then new ITS program as a line item in the "State Operations" subcategory of the PTA. The Berkeley ITS branch administered programs at both the Berkeley and UCLA campuses for nearly a quarter of a century and built a library at the Berkeley ITS that is today one of the top two transportation research libraries in the country and one of the best in the world. In 1974, the UCLA branch (and its substantial transportation library collection) relocated to Irvine to take advantage of the space there for research facilities. Several years later, the Irvine branch became an independently administered partner with the Berkeley ITS branch. In 1991, a third branch of the ITS was established at Davis, and a year later a fourth branch was founded at UCLA.

For nearly a quarter century, the four ITS branches have substantially expanded their research, education, and outreach programs to form the preeminent university transportation research center in the world. ITS is a major success story. It annually hosts more than 250 graduate students, with about 100 Masters and Ph.D. students graduating each year. It plays a major role in addressing the state's congestion, land use, energy, air quality, freight, travel behavior, planning, and engineering challenges. ITS has a track record of success.