

UCTC Semi-Annual Report - 2000

Year 12 (1999-2000)
Semi-Annual Progress Report
For the
University of California Transportation Center

May 15, 2000

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(**Omitted from website version.**)

A. Success Stories

The University of California Transportation Center (UCTC) has specified in its Strategic Plan a number of actions that we plan to undertake over the next five years; these actions encompass research, policy, undergraduate student training, coordination with other transportation research groups within the University, recruitment of a diverse student body in transportation education programs, strengthening continuing education for transportation professionals, expanding outreach to elected officials and agency staff about our supported research, increasing the number of conferences and symposia, and events for the general public, and building a database of information from our graduates that can help them to tap into a national network of transportation professionals.

In this first year of our five-year plan we have substantially increased the number of conferences and symposia supported with funding from and with the leadership and participation of UCTC-affiliates that speak to transportation topics of national concern. UCTC-affiliate programs on four campuses have implemented new courses in transportation, and established new programs that bring to students new ideas in transportation theory and practice, and offer them more opportunities to pursue a career in ever-expanding transportation specialties.

The following success stories from the last nine months coincide with the academic year at all our affiliate campuses; as classes end and summer recess begins, the focus of professors

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and students supported by UCTC program funds will be on intensive research and project activities.

CONFERENCES & SYMPOSIA:

The Journey to Work: UCLA Symposium on Welfare Reform and Transportation

Brian D. Taylor, Associate Director

Institute of Transportation Studies

UCLA School of Public Policy and Social Research

3250 Public Policy Building

Los Angeles, CA 90095-1656

btaylor@ucla.edu

310-825-7442

Leading scholars from across the country met at UCLA in April 2000 to present the latest research on the relationship between transportation and welfare reform. The Conference brought together experts in welfare reform and transportation to examine how welfare recipients' access to transportation affects their ability to find and keep jobs. Over 100 participants attending the two-day conference which included presentations on the travel behavior of welfare recipients, their access to jobs and public transportation, and the relationship between auto ownership and

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recipients' ability to find a job.

Presenters at the 2000 conference included Scott Allard (University of Michigan), Neil Bania (Case Western University), Evelyn Blumenberg (UCLA), Randall Crane (UCLA), Elizabeth Deakin (UC Berkeley), John Horton (UCLA), Dr. Manuel Moreno (Los Angeles County), Paul Ong (UCLA), Steve Raphael (UC Berkeley), Sandra Rosenbloom (University of Arizona), Phyllis Scheinberg (U.S. General Accounting Office), Brian Taylor (UCLA), Margy Waller (Progressive Policy Institute), and Michael Wiseman (University of Wisconsin).

The UC Davis Sustainable Communities Consortium

March 12, 2000

Professor Robert A. Johnston

Institute of Transportation Studies

One Shields Ave.

University of California

Davis, California 95616

rajohnston@ucdavis.edu

530-752-3015

530-582-0700

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This was a one-day workshop for California State agency leaders on Projecting Urban Growth and Its Impacts. We produced a paper outlining data needs and modeling capabilities. We are now working with Legislative committees on bills to fund these efforts. Professor Robert Johnston was an organizer of this workshop. He is also helping to shape a bill in the Legislature to require MPOs to design and analyze at least one alternative growth scenario featuring non-auto modes and compact growth.

Consensus Building: Absence of Leadership or New Paradigm?

March 9, 2000

David Booher, AICP

Visiting Scholar & Policy Consultant

Institute of Urban & Regional Development

104 Wheeler Hall

University of California

Berkeley, California 94720

510-642-4874

All over California consensus building is emerging as a more prevalent policy process to address vexing issues in housing, transportation, land use, environmental protection, water, public finance.

This seminar invited attendees to hear David Booher share his experiences and explore the meaning of this new dynamic in planning.

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2000 UCTC Student Conference

February 11 & 12, 2000

Michelle D. McGuire

Institute of Transportation Studies

One Shields Ave.

University of California

Davis, California 95616

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530-752-4909

The annual conference brings together students from all four of the University of California campus Institutes of Transportation Studies to meet and share their work, participate in presentations with their peers and with academics and professionals from the broader transportation community. This year the conference was held on the UC Davis campus and was attended by 75 students. Other participants included The Surface Transportation Policy Project, The Union of Concerned Scientists, Chevron Corporation's Long Range Research Program, the California Air Resources Board, and the San Joaquin Valley Council of Governments.

Telecommunities: Planning and Design Challenges

November 11, 1999

Professor Elizabeth Deakin

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This event focused on the broader urbanization, mobility, environmental, and urban design challenges posed by emerging information technologies and telematics. A new form of community is taking place throughout the world -- places designed and marketed explicitly for telecommuters. Some telecommunities lie near transit stops, others on the suburban fringe, and others in far-flung, largely rural settings. An international panel discussed, debated, and shared research results on the community design, zoning, infrastructure, and land-use planning challenges posed by emerging telecommunities. Panel participants were: Phil Burgess (Center for the New West); Wallace Siembab (Televillage Project); Pamela Blais (Metropole Consultants); and Patricia Mohktarian (UC Davis).

Arrowhead Transportation/Land Use/Air Quality Symposium

October 24-26, 1999

Joanne Freilich, Program Director

UCLA Extension Public Policy Program

10995 Le Conte Avenue, #613

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Los Angeles, CA 90024

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The Lake Arrowhead Transportation/Land Use/Air Quality Symposium, convened by the ULCA Extension Public Policy Program in association with UCTC, focused on the growth of interregional travel between metropolitan areas, the nation, and internationally, and examined the consequent need for new or expanded facilities. It looked at air travel, highways, high-speed rail, and ports. A critical component of the discussions was the balance policymakers and practitioners must strike between the benefits of increased passenger and goods movements, and the more local and regional land use, air quality, energy and congestion problems arising from these increased movements.

The invitational retreat had 120 participants, including 20 academics/researchers of national prominence; policymakers and advisors from different levels of government; public agencies in the transportation and air quality realms; environmental organizations; and private industry (e.g. developers, utilities, and other industry groups). Especially unique and valuable about this symposium series is that it allows people in the policy and practitioner realms to engage the research community in an interactive mode by probing, asking for explanations, and learning what is genuinely relevant. Additionally, they have an opportunity to introduce researchers to the constraints and opportunities that exist in the policy world, and to share their own policy

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challenges. Alternatively, members of the research community are afforded direct channels for sharing the results of their research and learning more about how to enhance the relevance of their work. The program emphasized in-depth dialogue, exchange of information, and opportunity to examine new strategies and options for policy deliberation. This symposium, and prior ones in the annual symposia, have served as the "fermenting ground" and springboard for a number of other activities: legislative bills, policy initiatives and implementation measures have evolved from analysis and contacts shared at these programs. Also, the series has been successful in engaging people who might not otherwise have opportunity to interact, and through networking has led to agreements and new working relationships being established.

Transportation Energy & Environmental Policy for the 21st Century

August 24-27, 1999

Michelle D. McGuire

Institute of Transportation Studies

One Shields Ave.

University of California

Davis, California 95616

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The week-long conference, held at the Asilomar Conference Center in Monterey, California, was

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organized under the auspices of the National Research Council, transportation Research Board, and the Committee on Energy and Committee on Alternative Fuels. Conference agenda included remarks by Phil Patterson of the U.S. Department of Energy, and Mike Walsh, editor of "Car Lines." Panels included 1)"Lessons From 30 Years of Automotive Energy & Air Policy," Jeff Alson, US EPA; Linda Lance, White House Council on Environmental Quality; Kelly Brown, Ford Motor Co.; David Hawkins, NRDC; Greg Dana, Assoc. of Internatl. Auto. Mfgs. 2) "Technology Choices for the Next Century," Alan Lloyd, CARB; Ferdinand Panik, Daimler-Chrysler; Jim Patten, Cummins Diesel; Andrew Burke, UC Davis 3) "Policy Implications of Transportation Fuel Pathways," Steve Gougen, DOE; Jason Mark, Union of Concerned Scientists; Lew Fulton, Energy & Environmental Analysis, Inc. 4) "Environmental Policy & Technological Change," Steve Plotkin, Argonne Natl. Lab.; Craig Marks, Univ. of Michigan; Tom Wenzel, Lawrence Berkeley Natl. Lab.; Paul Leiby, Oak Ridge Natl. Lab.; Alex Farrell, Carnegie Mellon, 5) "How to Market Clean & Efficient Vehicles," Ben Knight, Honda Motor Co.; Kenneth Kurani, UC Davis, 6) "Toward a Sustainable Transportation Future," Chris Grundler, US EPA; Michael Love, Toyota Motor Sales, USA, Inc.; David Hawkins, NRDC; David Rodgers, DOE.

Transportation and the Environment: the 1999 Seaborg Symposium

Brian D. Taylor, Associate Director

Institute of Transportation Studies

UCLA School of Public Policy and Social Research

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3250 Public Policy Building

Los Angeles, CA 90095-1656

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The Institute of Transportation Studies co-sponsored the 1999 Seaborg Symposium on Transportation and the Environment with the Departments of Chemistry and Biochemistry and the Institute of the Environment. The symposium, named in honor of a Nobel prize-winning UCLA professor, featured five speakers who gave presentations on transportation and the environment including Jesse Ausubel, Director for the Program for Human Environment at Rockefeller University and John Gibbons, the former director of the White House Office of Science and Technology Policy.

RESEARCH INTO PRACTICE:

"Unlimited Access" Project. Research at UCLA is helping universities and public transit agencies provide fare-free transit service to students. Doctoral students Jeffrey Brown and Daniel Hess, and faculty-member Donald Shoup, with project funding from UCTC, have studied Unlimited Access programs that transform student identification cards into public transit passes. Universities typically pay the transit agency an annual lump sum based on expected student ridership, and students simply show their university identification to board the bus.

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Brown, Hess, and Shoup surveyed Unlimited Access programs at 31 universities. University officials report that Unlimited Access reduces parking demand, increases students' access to the campus, helps to recruit and retain students, reduces the cost of attending college, and increases transportation equity. Transit agencies report that Unlimited Access increases ridership, fills empty seats, improves transit service, and reduces the operating cost per rider. The universities' average cost for Unlimited Access is \$32 per student per year.

Brown, Hess, and Shoup have presented the results of their research at conferences sponsored by the Transportation Research Board, the Association of Collegiate Schools of Planning, the Regional Science Association, and the University and Community Transportation Association. Their research has helped to start Unlimited Access programs at several universities including UCLA.

"Uplan" Urban Growth Model. This model, developed by UC Davis professor, Robert A. Johnston, with project funding by UCTC, is being implemented in several regional projects within California. The Sierra Economic Development District is applying it to their four-county region (El Dorado, Placer, Nevada, Sierra) with him. SACOG, the Sacramento region MPO, is implementing the model themselves, in studies of compact growth and transit. Johnston is using the model, along with an urban economic model, Meplan, with two citizens groups in the Sacramento region. CalFed is considering using the Uplan model for projecting urban growth in

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California's Great Central Valley and in the San Francisco Bay Area.

NEW ACADEMIC COURSES:

On the UC Berkeley Campus:

Intelligent Transportation Systems

Comparative International Topics in Transportation

On the UC Davis Campus:

World Class Transit for the Bay Area

Future of Mobility Workshop

Electrical Energy Storage & Conversion Technology

Basic Principles of Transportation, Energy and Environmental Systems

Transportation Economics

On the UC Irvine Campus:

Transportation Logistics III

Transportation Networks II

Infrastructure Planning

Advanced Research Methods for Planning

Advanced Geographic Information Systems

On the UC Los Angeles Campus:

Transportation, Technology, and Urban Planning

NEW ACADEMIC PROGRAMS:

Certificate in Intelligent Transportation Systems (offered jointly by the department of Civil & Environmental Engineering, Electrical Engineering & Computer Science, and Mechanical Engineering on the Berkeley campus).

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Master of Public Policy (MPP) degree with a specialization in transportation policy inaugurated by the Department of Policy Studies.

1999-2000 AWARDS TO TRANSPORTATION STUDENTS:

APA Best Student U.S. Paper in Transportation Planning — Gian-Claudia Sciara (UCLA)

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B. Research Project Status

The following are all NEW PROJECTS:

	P.I.		Project Title
1	Blumenberg	Evelyn	The Transportation Behavior and Needs of Welfare Recipients in Los Angeles
2	Boarnet	Marlon G.	New Highways & Urban Growth Patterns: Using Locally Weighted Regression to Analyze the Development Impact of the Orange County Toll Roads
3	Cervero	Robert	Induced Travel Demand: A Systems Analysis of Longer Term Impacts of Road Expansion
4	Daganzo	Carlos	Measuring the Impact of the Internet on the Trucking Industry
5	Golob	Thomas F.	Impacts of Shipping Changes on the Efficiency of the Freight Transportation Network
6	Golledge	Reginald G.	GIS-Based Data Handling for Activity-Based Modeling
7	Harley	Robert	Roadway Tunnel Measurements of Carbon & Nitrogen-Containing Air Pollutants in Motor Vehicle Exhaust
8	Landis	John D.	The Effects of Urban Land Use Patterns on Household Trip-Making Behavior: An Empirical Analysis
9	Loukaitou-Sideris	Anastasia	Journeys to Crime: Documentation & Evaluation of Crime Incidence on & Around Railway Stations in Los Angeles
10	Madanat	Samer	Estimation of Latent Pavement Properties Using Condition Survey Data
11	McNally	Michael	Putting Behavior in Household Travel Behavior Data: An Interactive GIS-based Survey Via the Internet
12	Ong	Paul	Measuring the Role of Transportation in Facilitating the Welfare-to-Work Transition (Yr. 2)
13	Recker	Will	Development of Estimation Procedures for Activity-Based Model Forecasting

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14	Regan	Amelia	Online Versus Rolling Horizon Algorithms for Dynamic Service Fleet Operations
15	Shoup	Donald	Evaluating University Transit Pass Programs
16	Small	Kenneth A.	The Viability of Value Pricing Demonstrations
17	Sperling	Daniel	Greenhouse Gas Emissions Trading and the Transport Sector
18	Taylor	Brian	Driving for Dollars: How the Politics of Finance Has Shaped the California Highway System
19	Wachs	Martin	Regional Transportation Infrastructure Finance in the United States: Influences & Trends
20	Zhang	Dr. H. Michael	Estimating Freeway Traffic Stream Modal Activities for Air Quality Modeling

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C. Program Financial Status

****Omitted from website version.****