ITS UCDAVIS e-news

ITS-Davis e-news is the electronic newsletter of the UC Davis Institute of Transportation Studies. Written for alumni and friends, *ITS-Davis e-news* reports information from ITS-Davis and affiliated campus departments that host transportation-related programs. For previous issues, see the ***e-news* archives.**

Issue 32, July 2007

- New Initiatives
  - SPREADING THE WORD: China Center Director Returns from Five Week Tour
- Sustainable Transportation Center Update
  - VISITING PRACTITIONER PROGRAM: Weaving Together Research, Education and Outreach
  - STC FELLOWSHIP: Spring Dissertation Winner
- Research Results
  - IMPLEMENTING CALIFORNIA'S LOW CARBON FUELS STANDARD: UC Researchers Deliver on First Phase of Work
  - AT YOUR FINGERTIPS: ITS-Davis Online Publications Ordering System
- Education Highlights
  - EFFECTING CHANGE: Serving as an Information Conduit
  - OFF THEY GO! Congratulations to Recent Grads
- ITS-Davis and Campus Highlights
  - FUNDING ON THE RISE: Program Success and Growth
  - ITS-DAVIS PEOPLE: Faculty and Student Accomplishments
  - ITS-DAVIS PEOPLE: Goodbyes
  - EXTRA! READ ALL ABOUT IT! ITS-Davis and UC Davis Researchers in the News

New Initiatives

SPREADING THE WORD: China Center Director Returns from Five Week Tour

Yunshi Wang, director of the new ITS-Davis China Center for Energy and Transportation (C-CET), has just returned from a five-week trip to China to introduce the Institute's newest international automotive research program and explore opportunities for collaboration.

Wang visited universities, government officials and industry representatives in seven cities. He presented a paper at the Shanghai Forum hosted by Shanghai Fudan University and visited Shanghai Jiao Tong University. He represented ITS-Davis at the ceremony marking the 100th anniversary of Tongji University, also in Shanghai. UC Davis and Tongji have a reciprocal relationship; two ITS-Davis students, Jonathan Weinert and Jason Ni, have been conducting their PhD research at Tongji for the past two years. In Beijing, he visited Tsinghua University, met with a California government representative stationed in China, and stopped by the Energy Foundation's China office. He also visited General Motors' China headquarters and, accompanied by ITS-Davis alums Ling Li, Ph.D. and Wenlong Jin, Ph.D. (now professors at the University of Science and Technology of China), Chery Automobile, China's largest domestic auto company.

The overarching goal of C-CET is to forge research partnerships with premier Chinese universities to enhance understanding of China's evolving energy and transportation sectors and to provide input to policymaking in the U.S. and China. Nissan has generously provided initial start-up support for C-CET.

C-CET is pursuing five near-term activities. They are:

- Establish collaborative research and information relationships
- Analyze consumer demand for vehicles and fuels
- Analyze fuel distribution and supply
- Develop transport energy models and databases
- Analyze government policy

Wang seeks to make C-CET the leading international center for the study of transportation energy activities in China – one that builds on ITS-Davis's existing network of leading analysts and scholars from around the world. In addition to coordinating research projects by ITS-Davis

students and researchers and collaborating with researchers in China, Wang also will conduct his own research on China's energy supply and demand.

"China has significant energy security issues," he explains. Prior to 1993, China was a large exporter of petroleum products. But now it's the world's third-largest importer and second largest consumer of petroleum, he says. "Close to 50 percent of China's petroleum products are imported -- and it's growing.

"Because of the explosive growth of China's energy use and cars, there are many synergies between China and the U.S. Energy is one of the few issues where there's an opportunity for strategic dialogue between the two countries," says Wang, an economist with a background in international relations.

Wang grew up in Shanghai, and came to the U.S. 18 years ago for grad school. He has worked at the United Nations and World Bank. In addition to his position at ITS-Davis, he is co-authoring a book on China's economy with MIT Dean Emeritus and Professor Lester Thurow.

Sustainable Transportation Center Update

VISITING PRACTITIONER PROGRAM: Weaving Together Research, Education and Outreach

The UC Davis Sustainable Transportation Center is launching its Visiting Practitioner Program with the arrival this month of Ellen Greenberg.

Greenberg has been a city planning and urban design consultant in both large and small firms for 25 years. She currently maintains a specialized consulting practice focusing on implementing the goals of smart growth, sustainability and livable communities through an integrated approach to land use, transportation and urban design.

"Ellen's lifelong work and passion to make communities more livable for people and sustainable for the planet match the mission of STC," said STC Director Susan Handy.

The goal of the Visiting Practitioner Program is to strengthen ties between the research and education elements of the STC and ITS-Davis and transportation practice. Each year, the program will support one visitor who will work on an applied research project, conduct seminars for ITS-Davis students, and organize workshops on selected topics for the transportation planning community.

During her six-month term with STC, Greenberg will launch an effort to document urban planning designs that support transit-oriented development and non-motorized travel modes. Currently, such design measures are not recognized in state and municipal design manuals—even though they are being used. The lack of documentation results in sometimes challenging and lengthy local government reviews. Greenberg proposes to develop a standard format for documenting the design, approval and implementation process for an initial set of projects, and track the communities' experience post-construction. The resulting publication could serve as "Volume I" of a continuing effort and serve as a tool for technology transfer. She plans to engage students in the research and community outreach components of the project.

Established in 2005, the UC Davis STC is funded by the U.S. Department of Transportation, with matching funds from the California Department of Transportation.

STC FELLOWSHIP: Spring Dissertation Winner

The UC Davis Sustainable Transportation Center has awarded its first 2007 dissertation fellowship to **Pengcheng Fu**, a student in the Dept. of Civil and Environmental Engineering. Fu's dissertation title is "Discrete Element Modeling of Foamed Asphalt Treated Recycled Asphalt Pavement Materials." His advisor is Pavement Research Center Director John Harvey.

An external reviewer offered the following comments on Fu's dissertation topic: "Cold Foam In-Place Recycling is an emerging and very promising technology. The use of the Discrete Element Method to gain a fundamental understanding of the performance of this material could result in a much wider application of the technology. The potential for Cold Foam In-Place Recycling to greatly reduce the environmental impact of maintaining the highway infrastructure is very high. It could be a very important contribution to sustainable transportation."

Research Results

IMPLEMENTING CALIFORNIA'S LOW CARBON FUELS STANDARD: UC Researchers Deliver on First Phase of Work


Alex Farrell and Dan Sperling

For the last few months, a team of UC researchers led by ITS-Davis's Dan Sperling and UC Berkeley's Alex Farrell have been working feverishly to develop recommendations for implementing California's much-heralded Low Carbon Fuel Standard. The first phase of their work is completed and next steps are being planned.

In late June, the California Air Resources Board (ARB) adopted the LCFS as one of three "early action measures" for implementation under AB 32, the Global Warming Solutions Act of 2006. As an early action measure, the LCFS must be in place by 2010. Established under executive order by Gov. Arnold Schwarzenegger, the LCFS sets as a goal a minimum 10% reduction in the carbon intensity of California's transportation fuels by 2020.

The UC researchers have almost completed the second of two comprehensive reports that serve as the foundation for the regulatory process that is now getting underway at ARB. The **first study** assesses the low carbon fuels options that might be used to meet the proposed standard and presents a number of scenarios for mixes of fuels that might meet a 5, 10, and 15 percent standard. The second study, now under review by stakeholders and others, examines key policy issues associated with the LCFS.

"One of the wonderful outcomes is that UC Davis and UC Berkeley researchers worked together truly as a team. The other is that economists, engineers, environmental researchers and policy analysts transcended the barriers that sometimes exist between their disciplines to work together effectively," reflects Sperling. The UC Davis team included Mark Delucchi, Anthony Eggert, Jonathan Hughes, Bryan Jenkins, Chris Knittel, Marc Melaina, Joan Ogden, and Chris Yang. In all, 21 UC researchers contributed blood, sweat and tears to the effort.

"It was a very creative process. We were inventing something that no one had ever done before – on an incredibly tight timeframe and with huge implications."

The UC team's work was generously funded by the Energy Foundation. Sperling expects the team to continue working on the project—with continued Energy Foundation support—over the next 18 months of ARB's rulemaking.

The policy report includes 15 initial recommendations, but Sperling notes not all issues are easily resolved. Among the thorny issues are the need for better research on emissions associated with biofuels (especially from conversion of land to biofuel crops), establishing a baseline emission level for all fuels, and determining how to integrate the LCFS with a cap and trade program for refineries and electric utilities.

"Doing this in a way that keeps the policy as simple, transparent, and incentive-based as possible, is critically important and a huge challenge," Sperling adds.

Sperling cites numerous lessons from the experience so far. "Transferring even the most elegant research into regulation and law is tremendously challenging. Accommodating the real world of unique circumstances, data limitations, and demands for equitable treatment is difficult."

He adds that the LCFS is one of those few policies that really can have a transforming effect. In fact, that is the goal – to transform the energy industries into low-carbon fuel suppliers.

AT YOUR FINGERTIPS: ITS-Davis Online Publications Ordering System

Research publications have always been an important product of the Institute's outreach activities. Accessing them is a simple click away. The ITS-Davis online publications database enables online searches by keyword, author, year and title. Each listing includes an abstract of the document; many are fully downloadable.
http://pubs.its.ucdavis.edu

Publications also may be ordered by fax, e-mail or mail.

Fax: (530) 752-6572
e-mail: **itspublications@ucdavis.edu**
Mail: Publications

Institute of Transportation Studies
UC Davis
One Shields Avenue
Davis, CA 95616-8762

Education Highlights

EFFECTING CHANGE: Serving as an Information Conduit


Anthony Eggert, center, with UCDC colleagues David Brown and Carolyn Henrich at the UCDC federal government relations office.

Mid-way through a six-month assignment as an energy policy advisor at the University of California's Washington Center (UCDC), Anthony Eggert, an ITS-Davis doctoral student, is gaining hands-on experience in Washington and playing a critically important and new role fostering information exchange on energy policy.

Eggert's goal is to help the UCDC staff connect the UC system's bioenergy, alternative fuels, climate and innovation expertise with the information needs of members of Congress and their staffs through briefings, seminars and workshops.

"People here need and greatly appreciate good, objective information," Eggert says, adding that he's very excited about his interactions to date with "bright, intelligent Congressional and committee staffers."

Eggert and his colleagues have found their hands full with this summer's focus on energy legislation. In early June, UCDC hosted a briefing on California's proposed Low Carbon Fuel Standard. Approximately 120 people, including members of Congress and their staff, government agency staff, public interest groups, academia, lobbying firms and industry, and international embassies attended the briefing. In the following days, Eggert linked Congressional policymakers with several UC researchers in response to the policymakers' requests for additional information on California's unique and successful efficiency programs.

"To be able to provide some of the world's most up-to-date, relevant and cutting edge research and statistics, and to get this information to the people who needed it on a short timeframe is truly rewarding," Eggert said.

"The pace of activity and the need for information here is immediate. In most cases we have, at most, a day to get information to the person who needs it. Our ability to make an impact is based on how effective we are at making a connection – person-to-person or person-to-information."

The 375,000 students, faculty and staff are generating valuable research findings, much of it potentially valuable to policy makers, Eggert notes. "But it requires an extra step to take that information from its original format, usually a research report, and massage it into an easily digestible form where it can be applied by policymakers to solve real-world problems."

Eggert's assignment continues through October.

OFF THEY GO! Congratulations to Recent Grads


Aybike Ongel, Prof. John Harvey, Jingtao Ma, David Ory, and Song Bai.

ITS-Davis congratulates the following 2006-2007 academic year graduates:

September 2006
Song Bai, Ph.D., Civil and Environmental Engineering
Advisor: Debbie Niemeier
Dissertation: The Impact of Dynamic Assignment Methods and Speed Variability on Regional Vehicle Emissions Inventories
Current Position: Post-doctoral researcher, UC Davis

Gustavo Collantes, Ph.D., Transportation Technology and Policy
Advisors: Dan Sperling, Paul Sabatier
Dissertation: The California Zero-Emission Vehicle Mandate: A Study of the Policy Process, 1990-2004
Current Position: Post-doctoral researcher, Harvard

Shengyi Gao, Ph.D., Transportation Technology and Policy
Advisor: Robert Johnston

Dissertation: Building Causal Connections among Job Accessibility, Employment, Income, and Auto Ownership Using Structural Equation Modeling: A Case Study in Sacramento County
Current Position: Post-doctoral researcher, UC Davis

David Kuperman, M.S., Transportation Technology and Policy
Advisor: Susan Handy
Thesis: Public Transit's Impacts on Land Use: An Analysis of the Transportation-Land Use Connection and the Potential for Bus-Related Land Development
Current Position: Transportation Planner, Caltrans, District 5

Kristin Lovejoy, M.S. Transportation Technology and Policy
Advisor: Susan Handy
Thesis: Do Suburban- and Traditional-Neighborhood Residents Want Different Things? Evidence on Neighborhood Satisfaction and Travel Behavior
Current Position: Ph.D. Student, UC Davis


Prof. YueYue Fan, Raghavender Palavadi, and Prof. Pat Mokhtarian.

Yu Nie, Ph.D., Civil and Environmental Engineering
Advisor: Michael Zhang
Dissertation: A Variational Inequality Approach for Inferring Dynamic Origin-Destination Travel Demands
Current Position: Assistant Professor, Northwestern University

Matthew Solomon, M.S., Transportation Technology and Policy
Advisor: Harry Dwyer
Thesis: Modeling Idling Reduction Options for Heavy-Duty Diesel Trucks: A Comparison of Full Fuel-Cycle Emissions, Energy Use, and Health Costs in Five States
Current Position: Policy Analyst, Northeast States Center for a Clean Air Future (NESCCAF)

David Vernon, M.S., Mechanical and Aeronautical Engineering
Advisor: Paul Erickson
Thesis: Understanding the Effects of Reactor Geometry and Scaling Through Temperature Profiles in Steam-Reforming Hydrogen Production Reactors
Current Position: Ph.D. Student, UC Davis

Zachary Zoller, M.S., Transportation Technology and Policy
Advisor: Paul Erickson
Thesis: Acoustic and Vibration Analysis of Transit Fuel Cell versus Conventional Internal Combustion Engine Transit Buses

December 2006
Justin Regnier, M.S., Transportation Technology and Policy
Advisor: Dan Sperling
Exam

Karl Lund, M.S., Transportation Technology and Policy
Advisor: Yueyue Fan
Exam
Current Position: Transportation Planner, LSA Associates, Inc.

March 2007
Brett Williams, Ph.D., Transportation Technology and Policy
Advisor: Dan Sperling
Dissertation: Commercializing Light-duty Plug-in/Plug-out Hydrogen Fuel Cell Vehicles: Mobile Electricity Technologies and Opportunities

Nathan Parker, M.S., Transportation Technology and Policy
Advisor: Joan Ogden
Thesis: Optimizing the Design of Biomass Hydrogen Supply Chains Using Real-World Spatial Distributions: A Study Using California Rice Straw
Current Position: Ph.D. Student, UC Davis

June 2007
Jason Lepore, Ph.D., Economics

Advisor: Chris Knittel
Dissertation: Essays on Dynamic Oligopoly with Long Run Scale Decisions
Current Position: Assistant Professor, Cal Poly San Luis Obispo, Orfalea, College of Business

David Ory, Ph.D., Civil and Environmental Engineering
Advisor: Pat Mokhtarian
Dissertation: Structural Equation Modeling of Relative Desired Travel

Jeroen Van Houtte, Ph.D., Transportation Technology and Policy
Advisor: Debbie Niemeier
Dissertation: The California Heavy-Duty Vehicle Inspection Program: Non-Fleet Vehicles and Fleet Vehicles
Current Position: BAM, Beheersmaatschappij Antwerpen Mobiel (Antwerp Mobile Management Company)

Reno Giordano, M.S., Transportation Technology and Policy
Advisor: Debbie Niemeier
Thesis: Statutory Policy and Financing from 1977 through 2006: Thirty Years of California Transportation Legislation
Current Position: Planner, Parsons Brinckerhoff

Jing Shi, M.S., Civil and Environmental Engineering
Advisor: John Harvey
Exam

ITS-Davis and Campus Highlights

FUNDING ON THE RISE: Program Success and Growth

In 2006-2007, ITS-Davis and the new UC Davis Energy Efficiency Center (EEC) attracted a record-setting $3.5 million in gift support from individuals, foundations and corporations to support education and research. With those funds and a number of large grants, the following new programs were launched in the past few months.

Sustainable Transportation Energy Pathways off to a Great Start

Kristin Zimmerman, GM, and TTP student Wayne Leighty discuss points of shared interest at the STEPS Symposium.

STEPS Sponsors

Energy	Auto	Government
BP	DaimlerChrysler	Natural Resources Canada
Chevron	Toyota	U.S. DOE
ConocoPhillips	Honda	U.S. EPA
TOTAL	Nissan	U.S. DOT
Shell Hydrogen	Subaru	Caltrans
PG&E	Ford	
	GM	
	BMW	
	Volkswagen	

Launched in January, the Sustainable Transportation Energy Pathways program (STEPS), already has 20 confirmed sponsors including six major energy companies, nine auto companies and five government agencies. STEPS is a four-year research consortium created to compare promising alternative fuel pathways including hydrogen, biofuels, electricity and fossil fuels.

The first UC Davis STEPS Research Symposium drew more than 80 sponsors and invited guests to campus in May. The symposium highlighted the current direction of STEPS research and follow-on projects continued from theInstitute's now completed Hydrogen Pathways Program. The focus was on transitioning to a sustainable transportation solution. This was the first of two annual STEPS gatherings planned for each year.

$5 Million for Plug-in Hybrid Electric Vehicle (PHEV) Research

The State of California is funding the Plug-in Hybrid Electric Vehicle (PHEV) Research Center with almost $5 million announced since December 2006. Launched by a three-year, $3 million grant from the California Energy Commission's Public Interest Energy Research (PIER) Program, the PHEV Center also recently received $1.5 million from the California Air Resources Board Alternative Fuels Incentive Program through a one-time allocation pursuant to AB 1811. These funds will supplement the Center's planned research on consumer response to this new plug-in hybrid technology. Researcher Tom Turrentine Directs the PHEV Center. A second grant under the same CARB program has awarded $350,000 for battery research conducted by Researcher Andy Burke. The PHEV Center will provide technology and policy guidance to the state and to help solve research questions and address commercialization issues.

Energy Efficiency Center to Facilitate Technology Transfer

Susan Kennedy, chief of staff to Gov. Arnold Schwarzenegger with Mike Peevey, chairman, California Clean Energy Fund and president, California Public Utilities Commission.

The UC Davis Energy Efficiency Center (EEC) is off to a great start with a $1 million award from California Clean Energy Fund (CalCEF). California's primary utility companies—Edison International, Pacific Gas & Electric, and Sempra Energy—provided additional leadership support by each granting $500,000 over five years. The utilities are also significant funding partners in specific EEC research projects. The EEC was founded to spur the development of energy efficiency technologies and bring them to market through the creation of viable businesses within established companies and via start-ups.

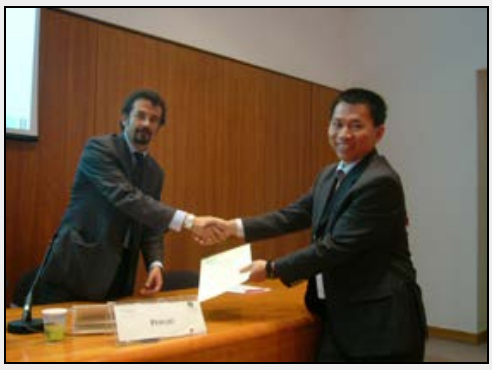
The EEC held its inaugural Board of Advisors meeting in early June on campus. Comprised of experts in energy efficiency and market development from the public, private and nonprofit sectors, the board heard presentations about the Center's first year progress, venture innovation, business development education and market facilitation. Among the highlights was a talk by Gov. Arnold Schwarzenegger's Chief of Staff, Susan Kennedy, at the reception.

Giving to ITS-Davis

Gifts to ITS-Davis are increasing and are always put to good use. "As society increasingly turns its attention to the pressing need for clean transportation solutions, ITS-Davis's programs to evaluate systems now, and train leaders for tomorrow couldn't be more relevant. We are seeing that through increased giving," observed Joe Krovoza, the Institute's director of development.

Individuals may make a gift to *Friends of ITS-Davis* with a few mouse-clicks at **online giving**. Select "Institute of Transportation Studies" from the drop-down menu. *Friends of ITS-Davis* funds are dedicated to graduate student support programs.

ITS-DAVIS PEOPLE: Faculty and Student Accomplishments



Cynthia Lin, an assistant professor in the Agricultural and Resource Economics Department and the Environmental Science and Policy Department has been appointed to a new Controller's Council of Economic Advisors. The seven-member panel will advise the state controller on emerging strengths and vulnerabilities in California's economy, major issues and trends that may affect the state's fiscal health, and how to make the best use of limited government revenues and resources.

Professor **Joan Ogden** and graduate researcher **Nils Johnson** were invited to present their research at the U.S. Department of Energy's 3rd Annual Carbon Capture and Transportation Working Group Workshop in North Dakota in June. Johnson's dissertation will examine strategies for developing a more "greenhouse-friendly" fossil energy system with capture and

David Lin accepts HYSYSDAYS award from Alessandro Battaglino, CEO, Environment Park.

storage of carbon. Ogden and Johnson also toured the Dakota Gasification Plant, one of the few coal plants in the world where CO2 is captured rather than emitted to the atmosphere.

Zhenhong (David) Lin won an award from the Scientific Committee of the 2nd World Congress of Young Scientists on Hydrogen Energy Systems for a paper he co-authored with Chien-Wei Chen, Joan Ogden, and Yueyue Fan. Lin traveled to the "HYSYSDAYS - 2nd World Congress" in Turin, Italy, in June to accept the award. The paper, "Optimized Pathways for Regional H2 Infrastructure Transitions: A Case Study for Southern California" was deemed the best work in the strategic and socio-economic analysis session. Lin is a Ph.D. candidate in Civil and Environmental Engineering.

Tai Stillwater received the 2006-2007 CH2M Hill fellowship, and **David McCollum** received the 2006-2007 fellowship from Chevron. Corporate fellowships recognize outstanding ITS-Davis students and provide funding for their studies. **Stillwater** and **McCollum** also received an award from the 2007-2008 Achievement Rewards for College Scientists (ARCS) Foundation. Stillwater is a master's student and McCollum is a Ph.D. student, both in Transportation Technology and Policy.

Friends of ITS-Davis announces its 2006 Outstanding Dissertation and Thesis Awards. The awards are granted each year for one Ph.D. dissertation and one master's thesis to recognize and promote the highest-quality research conducted by ITS-Davis graduate students in the previous calendar year:


Pat Mokhtarian, Tai Stillwater, with Hans Strandgaard and Elaine Jones of CH2M Hill.

Xinyu Cao was awarded the *Friends* Outstanding Dissertation Award for: "The Causal Relationship between the Built Environment and Personal Travel Choice: Evidence from Northern California." His major professor is Pat Mokhtarian. Professor Susan Handy also lent considerable input.


David McCollum, second right, with Chevron's Jeffrey Jacobs, Jim Uihlein and Harry Sigworth.

David Vernon was awarded the *Friends* Outstanding Thesis Award for: "Understanding the Effects of Reactor Geometry and Scaling trough Temperature Profiles in Steam-Reforming Hydrogen Production Reactors." His major professor is Paul Erickson.

ITS-DAVIS PEOPLE: Goodbyes


Simon Wong, Shiraz Ali, Evan Guze, Ivy Lau, Derek Ellis, and Ryan Bulger.

ITS-Davis bids a fond farewell to **Emily Winston**, who, for the last three years has managed the Toyota Fuel Cell Hybrid Vehicle Program. Winston first came to the Institute in 2002 as a grad student. She received her master's in 2004. She has moved east with family, but she expects to return to her ITS-Davis family in a few years.

The Institute congratulates Researcher **Marc Melaina** on his new position as a senior engineer in the Hydrogen Technologies and Systems Center at NREL. Melaina will continue to his affiliation with ITS-Davis through several ongoing research projects, including the Low Carbon Fuel Standard study, to which he contributed significantly by developing the VISION-CA model. He also has worked closely with Joan Ogden on Hydrogen Pathways and STEPS for the last two years.

ITS-Davis sends a big "Thank You" and wishes of good luck to three undergraduate student assistants who helped keep the office, databases, computers and web page running smoothly over the last year. They all graduated in June. **Shiraz Ali** is working for Kaiser Permanente as a financial coordinator. **Ryan Bulger** is working for Minnick Web Services, LLC, and **Derek Ellis** is now at *The Sacramento Bee* as a website technician.

EXTRA! READ ALL ABOUT IT! ITS-Davis and UC Davis Researchers in the News

Andy Frank, July 20, in *The Christian Science Monitor* and *San Francisco Chronicle*, on plug-in hybrids.

Andy Frank, July 6, in *San Jose Mercury News*, in an article on hybrid vehicle fuel efficiency failing to meet consumer expectations.

Dan Sperling, June 21, in *The Los Angeles Times*, in an op-ed on the Low Carbon Fuel Standard.

Dan Sperling, Marc Melaina, Bryan Jenkins, and Joan Ogden on the Low Carbon Fuel Standard; Andy Frank on Plug-in Hybrids; Zuhair Munir on fuel cells materials science, June 2007, in *UC Davis Magazine*, on the cover story on energy research at UC Davis.

Pat Mokhtarian, June 11, in the *New York Daily News*, on telecommuting and productivity.

Pat Mokhtarian, May 25, in the *Dallas Morning News*, on the effects of rising gas prices on travel behavior.

Joshua Cunningham, May 2007, in *Popular Science*, on the STEPS program, part of a feature on future transportation.

Dan Sperling, May 20, in *The Washington Post*, in an article on vehicle design, fuel efficiency and America's love affair with big trucks.

Dan Sperling, May 12, in the *Wall Street Journal*, in an article on the state's Low Carbon Fuel Standard.

Mark Delucchi, April 18 & 19, in an *Associated Press* article, responding to a new study that finds increased ethanol use may create more air pollution and result in more smog-related deaths.

Dan Sperling, April 18, in *The Sacramento Bee*, on study with Christopher Knittel and Jonathan Hughes on the inelasticity of gasoline demand