IMPACT is a series of publications highlighting how UC Davis’ College of Agricultural and Environmental Sciences makes a difference in the lives of Californians. Through research, teaching, and outreach programs, UC Davis research touches almost all aspects of Californian life. Today, millions of people eat safer foods, breathe cleaner air, and drink healthier water with the help of our researchers. We’re making discovery work – for California and the world.

CHANGE IN THE CENTRAL VALLEY

THE ISSUE
Rapid population growth and related economic and cultural dynamism in California’s Central Valley are changing the face of the most productive and diverse farming region in the nation. The Central Valley stretches approximately 400 miles from Bakersfield to Redding. The fastest-growing area of the state, it is home to 6.6 million residents, with a population projected to nearly double by 2040. Most of the growth is due to residents from the coastal areas of California moving to the valley to seek jobs or cheaper housing. The immigrant population is growing as well, increasing ethnic diversity.

Population growth brings new opportunities, along with profound impacts on agriculture and land use, air quality, water supply, wildlife, traffic congestion, and quality of life for residents. The opportunities and challenges of growth are unevenly divided among valley residents, with disparities based on race, ethnicity, and social class. Research is needed to manage growth in a way that protects the resources of the valley and the well-being of all its residents.

WHAT WE’RE DOING
Professor Jonathan London of the UC Davis College of Agricultural and Environmental Sciences advocates a multidisciplinary approach to Central Valley studies, one that relies on collaborative partnerships with community organizations to ensure that research is relevant to people in the region. London is director of the UC Davis Center for Regional Change (CRC), which serves as a link between the university and the Central Valley and Sierra Nevada regions. Through the Center for Regional Change, faculty from various departments—human and community development, environmental design, plant sciences, agricultural and resource economics, sociology, education, medicine, and others—are addressing the challenges faced by the valley.

“The Central Valley is undergoing dramatic change,” said London. “The transformation of the rural and urban landscapes has a significant impact on the environment, on human health, and on the social fabric of valley communities. These problems are so complex that no single group can solve them on their own. We’ve got to bridge political jurisdictions and form regional partnerships to address them.”

See additional IMPACT sheets at http://impact.ucdavis.edu
Youth development: The Center for Regional Change is spearheading a study that engages one of the Central Valley’s most precious resources—its youth. Faculty are conducting a two-year analysis of the relationship between youth success and regional vitality in the Sacramento region. A team led by Professor Chris Benner will measure and map education, health, civic engagement, and employment. Another team, led by environmental design professor Michael Rios and School of Education policy specialist Nancy Erbstein, will interview young people to analyze factors contributing to success or failure.

A team led by Professor Patsy Eubanks Owens of landscape architecture will assist youth in documenting changes in the Sacramento region through photography and place mapping. This project benefits from a wide range of collaborative partnerships with other campus departments, including the School of Education/CRESS Center, Department of Sociology, Cooperative Extension, and the UC Davis Medical Center.

Growth analysis: Professor Stephen Wheeler of landscape architecture is mapping and analyzing the growth of the Sacramento region over 20-year increments. One pattern Wheeler has documented in similar urban regions nationwide is that “rural sprawl,” or low-density housing, is the fastest-growing type of development and has multiple environmental and social impacts. Wheeler hopes his research will be used to plan future growth that incorporates more sustainable forms of development. The CRC is developing a California Community and Regional Mapping Laboratory to support this and other related projects and will be collaborating with the new Urban Land Use and Transportation Center, part of the Institute for Transportation Studies.

Immigration studies: The Gifford Center for Population Studies, located within the Center for Regional Change, supports faculty members investigating immigration, migration, and demographic change. Agricultural and resource economics professors Philip Martin and J. Edward Taylor are tracking the human policy dimensions of the migration of workers from rural Mexico to communities in the Central Valley.

The Sacramento region is home to a diverse group of immigrants, not only from Mexico and Latin America, but also from the Ukraine, Russia, India, Vietnam, Fiji, and many other countries. With support from the Gifford Center, Rios and sociology professor David Kyle are mapping the settlement patterns of new immigrant groups in the Sacramento area and are examining how these patterns impact land use and transportation in the region.

A SHARED VISION

UC Davis faculty are researching dynamic changes in the Central Valley. They are forming regional partnerships to conduct studies that will improve the social, environmental, and economic health of the valley and its residents. They are employing innovative mapping technologies to create a visual representation of demographic and land-use trends.

That's impact—analyzing regional change to help protect the future of California’s Central Valley.