

ARE Faculty Profile: Dalia Ghanem



Dalia Ghanem
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Dalia Ghanem has recently joined the faculty at the University of California, Davis as an assistant professor in the Department of Agricultural and Resource Economics (ARE). Her fields of interest are econometrics and environmental economics. Her work in econometrics is focused on improving existing methods for using longitudinal or panel data for economic and policy analysis. Her environmental research examines air pollution in China.

Dalia's country of origin is Egypt. She grew up in Alexandria, where she attended the German School in Alexandria. She received her B.A. in Economics and Political Science at the American University in Cairo (AUC). At AUC, Dalia volunteered for an international human rights lawyer and thought that she would pursue a career in that field, until she took her first course of econometrics. She simply got "hooked"

and decided that a Ph.D. in econometrics was the right dream to pursue.

Before embarking on her journey to pursue a career in academia, Dalia first worked as a research analyst at the Egyptian Center for Economic Studies, a think-tank in Egypt. She also worked as a special assistant to Egypt's former minister of trade and industry, Rachid M. Rachid. These experiences still inspire how she sees her role as an academic in the "greater scheme of things."

The Ph.D. journey started with an M.Sc. in Econometrics at London School of Economics, followed by a Ph.D. in Economics at the University of California, San Diego, which she completed in June 2013. Her dissertation examined identification and estimation issues in nonlinear panel data models. Panel data are becoming widely available in many fields, including ARE. They allow empirical researchers to identify the effects of policies or changes in economic conditions on different states, firms, farms, or individuals. Since we usually lack experimental control in many policy settings, we worry about unobservable heterogeneity in our data that may confound our effect of interest. In the main chapter of Dalia's dissertation, she examines this identification question thoroughly and provides the empirical researcher with ways to test for whether his or her data can identify the effect of interest.

In another chapter of her dissertation (co-authored with Junjie Zhang), she applies the tests developed in her main dissertation chapter to examine the manipulation of air pollution data by Chinese cities. The Chinese central government has been monitoring air pollution of over 100 Chinese cities since 2001. Chinese local governments have been required to report their air pollution index (API) on a daily basis.

This self-reported data enters the performance evaluation of local officials. Dalia and her co-author examine the incentive for manipulation in such a policy environment. They find evidence of manipulation for about half of the cities in their sample. Their results indicate that manipulation is more likely to occur on days where visibility is high and wind speed is low. It is intuitive that these conditions would be conducive to manipulation, since it is hard to be suspicious of a good API score when visibility is high. In addition, when wind speed is low, the pollutants are not simply "gone with the wind."

Currently, Dalia is continuing her empirical work on issues related to air pollution in China. She is collaborating with UC Davis professors Colin Carter and Shu Shen. Her current econometrics projects include developing new methods to measure the degree of data manipulation. She is also working on improving existing methods for inference in nonlinear panel data models. Next spring, she will be teaching econometrics to the first-year Ph.D. students, where she hopes to inspire them to learn and use state-of-the-art quantitative methods.

In her free time, she loves spending time with her husband, Sean Rioridan, and their son, Fareed. They love going to the countless Davis parks, the rock-climbing gym, and the Davis Farmer's market, where Fareed rides the bicycle-powered carousel. On weekends, they enjoy exploring Sacramento and the Bay Area. They also love traveling to San Diego and Alexandria to visit family and friends.

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