

Zachariah Rutledge

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Education

Ph.D. in Agricultural and Resource Economics (2020)

University of California, Davis

Dissertation Title: "From the Farm to the City: How the Changing Supply of Immigrant Workers Impacts the United States" [Link](#)

Committee: Pierre Mérel (chair), J. Edward Taylor, and Giovanni Peri

Fields: Labor, Agriculture, Econometrics, Development

M.S. in Agricultural and Resource Economics (2016)

University of California, Davis

A.B. in Economics (with highest honors) (2015)

University of California, Davis

Job Market Paper

"Farm Labor Supply and Food Production," with Pierre Mérel. [Link](#)

This study provides econometric estimates of the effects of shifts in the farm labor supply on hand-harvested fruit and vegetable production. Using crop production and employment data from California counties, we estimate panel regressions linking farm employment to crop production outcomes. Because we exploit variation in equilibrium employment, as opposed to exogenous variation in the labor supply curve, we use an equilibrium displacement model to identify plausible sources of estimation bias; we argue that our regression estimates should be interpreted as upper bounds for the effects of interest. Our results indicate that a ten percent decrease in the farm labor supply (in terms of the number of workers) causes at most a 4.2% reduction in production in the top 10 producing counties. Production effects are channeled primarily through a reduction in harvested acreage, although we also uncover some effects on yield.

Publications

Peer-Reviewed

"Economic Assimilation of Mexicans and Central Americans in the United States," with Giovanni Peri. *IZA Journal of Development and Migration*. (forthcoming). [Link](#)

"The H-2A Program in California," with Philip Martin. *California Agriculture*. (forthcoming). [Link](#)

"Viewpoint: The Future of Work in Agri-Food," with Luc Christiaensen and J. Edward Taylor. *Food Policy*, 99. (2021). [Link](#)

"Can Wages Rise Quickly Enough to Keep Workers in the Fields?" with Diane Charlton, J. Edward Taylor, and Stavros Vougioukas. *Choices*, 34(2). (2019). [Link](#)

"Innovations for a Shrinking Agricultural Workforce," with Diane Charlton, J. Edward Taylor, and Stavros Vougioukas. *Choices*, 34(2). (2019). [Link](#)

Book Chapters

"Evolving Agricultural Labor Markets," with Diane Charlton and J. Edward Taylor in C. Barrett and D. Just (Eds.), *The Handbook of Agricultural Economics*. (forthcoming). [Link](#)

"The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach," with Pierre Mérel. Chapter 6 in R. Sauer (Ed.), *The World Scientific Encyclopedia of Migration*. (forthcoming). [Link](#)

"Economic and Societal Aspects," with J. Edward Taylor. Chapter 10 in S. G. Vougioukas and Q. Zhang (Eds.), *Advanced Automation for Tree Fruit Orchards and Vineyards*. (forthcoming). [Link](#)

Outreach

"Federal Labor Standards Enforcement in Agriculture: Data Reveal the Biggest Violators and Raise New Questions About How to Improve and Target Efforts to Protect Farmworkers," with Daniel Costa and Philip Martin. *Economic Policy Institute Report*. (2020). [Link](#)

"What Is the Future of Work in Agri-Food?" with Luc Christiaensen and J. Edward Taylor. *Brookings Institution*. (2020). [Link](#)

"Revisiting Economic Assimilation of Mexican and Central American Immigrants in the United States," with Giovanni Peri. *Cato Institute Research Briefs in Economic Policy*, No. 220. (2020). [Link](#)

"COVID-19 and Farm Workers: Challenges Facing California Agriculture," with Timothy Beatty, Alexandra Hill, and Philip Martin. *ARE Update*, 23(5). (2020). [Link](#)

"Recent Mexican and Central American Immigrants Have Performed Well in the Labor Market, but There Is Room for Improvement." *U.C. Davis Global Migration Center Immigration Facts Series*. (2020). [Link](#)

"California Farmers Change Production Practices as the Farm Labor Supply Declines," with J. Edward Taylor. *ARE Update*, 22(6). (2019). [Link](#)

Working Papers

- "The H-2A Foreign Worker Program in 2020," with Marcelo Castillo and Philip Martin. (under review).
- "Spillover Effects of Minimum Wages in Agriculture," with Timothy Richards, Marcelo Castillo, and Philip Martin.

Research Experience **Postdoctoral Research Scholar**

Under the Supervision of Timothy Richards, Arizona State University, January 2021 - Current

Graduate Student Researcher

For Professor Pierre Mérel, Intermittently Between July 2016 - December 2020
For Professor J. Edward Taylor, Intermittently Between July 2018 - September 2020
For Professor Giovanni Peri, September 2019 - December 2019

Consulting

California Agricultural Labor Relations Board, March 2021 - Current
National Council of Agricultural Employers, March 2021 - Current
Migration Dialogue, March 2020 - December 2020
World Bank Group, November 2018 - June 2019
Hoover Institution, June 2017 - August 2017

Teaching Experience **Teaching Assistant, University of California, Davis**

Master's: Applied Econometrics 1 (ARE 256A), Fall 2016

Undergraduate: Agricultural Labor Economics (ARE 150), Spring 2016, Spring 2018, Spring 2019
Econometrics (ARE 106), Winter 2018
Operations Research and Management Science (ARE 155), Winter 2017
Investment (ARE 143), Winter 2016

Selected Presentations

- "The Impact of Minimum Wage Shocks on Low-Skilled Workers in the United States: Evidence from the H-2A Visa Agricultural Guestworker Program." Agricultural and Applied Economics Association Annual Meeting. Austin, TX, August 2, 2021.
- "Actions the Biden Administration and Congress Can Take to Better Protect Farmworkers." Economic Policy Institute, Virtual Presentation, February 10, 2021.
- "No Farm Workers, No Food? Evidence From Specialty Crop Production." United States Department of Agriculture Economic Research Service Challenges in Specialty Crop Production Workshop. Virtual Presentation, July 29, 2020.
- "The Effects of a Declining Farm Labor Supply on California Agriculture." University of California, Davis Global Migration Center Affiliate Meeting. Davis, CA, February 5, 2020.
- "The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach." Agricultural and Applied Economics Association Annual Meeting. Atlanta, GA, July 23, 2019.
- "Farmworkers and Nonfarm Work: Evidence from the NAWS." United States Department of Labor National Agricultural Workers Survey at 30 Conference. Davis, CA, April 4, 2019.

Selected Grants

USDA-ERS RRED Grant (with Timothy Richards and Lauren Chenarides), 2021: \$20,000
Giannini Foundation of Agricultural Economics Minigrant (with Pierre Mérel), 2020: \$30,000
Giannini Foundation of Agricultural Economics Minigrant (with J. Edward Taylor), 2020: \$30,000
Giannini Foundation of Agricultural Economics Minigrant (with Pierre Mérel), 2019: \$30,000
Giannini Foundation of Agricultural Economics Minigrant (with J. Edward Taylor), 2019: \$30,000
Giannini Foundation of Agricultural Economics Minigrant (with J. Edward Taylor), 2018: \$27,000

References

- Timothy Richards, Marvin and June Morrison Chair of Agribusiness, Morrison School of Agribusiness, W. P. Carey School of Business, Arizona State University
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Phone: 602-821-2158
- Pierre Mérel, Professor, Agricultural and Resource Economics, University of California, Davis
Email: merel@primal.ucdavis.edu
Phone: 530-752-8276
- J. Edward Taylor, Distinguished Professor, Agricultural and Resource Economics, University of California, Davis
Email: taylor@primal.ucdavis.edu
Phone: 510-388-0773