

# Zachariah Rutledge

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**Current Employment** **Assistant Professor (August 2022 - Current)**  
Department of Agricultural, Food, and Resource Economics, Michigan State University

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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

**A.S. in Natural Science (with honors) (2009)**  
Sierra College

**A.A. in Liberal Arts (with honors) (2009)**  
Sierra College

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**Publications**

**Peer-Reviewed Articles**

"How Many California Farm Workers: 2018-2021," with Brandon Hooker, Philip Martin, and Marc Stockton. *California Agriculture*. (2024). [Link](#)

"California Ag Employment Rose and Became Less Seasonal Since 1990," with Philip Martin. *California Agriculture*. (2023). [Link](#)

"Food System Labor and Bargaining Power," with Timothy Richards. *Food Policy*, 119. (2023). [Link](#)

"Farm Labor Supply and Fruit and Vegetable Production," with Pierre Mérel. *American Journal of Agricultural Economics*, 105(2): 644-673. (2022). [Link](#)

"Economic Assimilation of Mexicans and Central Americans in the United States," with Giovanni Peri. *IZA Journal of Development and Migration*. (2022). [Link](#)

"The H-2A Program in California," with Philip Martin. *California Agriculture*, 75(3):135-141. (2022). [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**

"US Farm Employment and Farm Workers," with Philip Martin. Oxford Research Encyclopedia of Food Studies. (forthcoming). [Link](#)

"The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach," with Pierre Mérel. Chapter 6 in R. Sauer (Ed.), *World Scientific Handbook of Global 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*. (2023). [Link](#)

"Evolving Agricultural Labor Markets," with Diane Charlton and J. Edward Taylor. Chapter 77 in C. Barrett and D. Just (Eds.), *The Handbook of Agricultural Economics*. (2022). [Link](#)

**Technical Reports**

"The 2022 Greenhouse and Nursery Labor Employment Survey Summary of Preliminary Findings," with J. Edward Taylor, Edward Whitney, Dahye Kim, and AmericanHort. (2022). [Link](#)

"The H-2A Foreign Worker Program in 2020," with Philip Martin and Marcelo Castillo. USDA-ERS, Economic Information Bulletin. (2022). [Link](#)

"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](#)

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### Outreach Articles

- "Policy Ideas to Address Agricultural Labor Issues," *Michigan Ag Economist*. (2024). [Link](#)
- "Michigan Dairy Labor Supply Pressures," with Phil Durst, *Spartan Dairy News* (2023). [Link](#)
- "Farm Employee Heat-Related Illness Prevention and Regulatory Compliance," *Michigan Farm News*. (2023). [Link](#)
- "Understanding and Preventing Farm Employee Heat-Related Illness," Michigan State University Extension Farm Management Article. (2023). [Link](#)
- "A Declining Farm Labor Supply Could Cost California Farmers Billions," with Pierre Mérel. *ARE Update*, 26(2): 1-4. (2022). [Link](#)
- "2022 Michigan State University Custom Work Rates," with Jonathan LaPorte, Matthew Gammans, Melissa McKendree, Florencia Colella, and Corey Clark. *Michigan State University Extension, Farm Management Report*. (2022). [Link](#)
- "Labor Standards Enforcement in California Agriculture," with Philip Martin, Daniel Costa, and Forest Peterson. *Rural Migration News Blog* No. 208. (2021). [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](#)
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### Expert Witness Experience

Columbia Legal Services  
National Council of Agricultural Employers  
California Agricultural Labor Relations Board

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### Teaching Experience Assistant Professor, Michigan State University

Undergraduate: Labor and Personnel Management in the Agri-Food System, (AFRE 315), Spring 2023

### Lecturer, University of California, Davis

Undergraduate: Agricultural Labor Economics, (ARE 150), Spring 2022

### Guest Lecturer, Arizona State University

Undergraduate: Food and Agribusiness Policy Issues, Fall 2022

### Guest Lecturer, University of California, Merced

Master's: Labor, Automation, and Sustainability in Agriculture: A Convergent Study, Winter 2022

### 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

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### Research Experience Assistant Professor

Department of Agricultural, Food, and Resource Economics, Michigan State University, Current

### Postdoctoral Research Scholar

Under the Supervision of Timothy Richards, Arizona State University, January 2021 - August 2022

### 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

International Fresh Produce Association, January 2024 - February 2024  
National Council of Agricultural Employers, March 2021 - February 2024  
Migration Dialogue, March 2020 - December 2020  
World Bank Group, November 2018 - June 2019  
Hoover Institution, June 2017 - August 2017

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## Selected Grants (Total/My Share)

Michigan Department of Ag & Rural Development (with Chris Bardenhagen), 2024. (\$34,000/\$6,000)  
USDA-NIFA-AFRI Conference Grant, 2023: (\$25,000/\$25,000)  
USDA-OCE Co-op Grant (with Philip Martin), 2023: (\$265,000/\$133,000)  
M-AAA Grant (with David Ortega, Barry Bradford, and Phil Durst), 2023: (\$148,000/\$60,000)  
Michigan Department of Ag & Rural Development, 2023: (\$17,000/\$17,000)  
Western Michigan Greenhouse Association, 2023: (\$5,000/\$5,000)  
Metro Detroit Flower Growers Association, 2023: (\$5,000/\$5,000)  
USDA-ERS RRED Co-op Grant (with Timothy Richards), 2022: (\$20,000/\$9,000)  
USDA-ERS RRED Co-op Grant (with Timothy Richards and Lauren Chenarides), 2021: (\$20,000/\$4,000)  
Giannini Foundation of Agricultural Economics (with Pierre Mérel), 2020: (\$30,000/\$30,000)  
Giannini Foundation of Agricultural Economics (with J. Edward Taylor), 2020: (\$30,000/\$30,000)  
Giannini Foundation of Agricultural Economics (with Pierre Mérel), 2019: (\$30,000/\$15,000)  
Giannini Foundation of Agricultural Economics (with J. Edward Taylor), 2019: (\$30,000/\$15,000)  
Giannini Foundation of Agricultural Economics (with J. Edward Taylor), 2018: (\$27,000/\$27,000)

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## Selected Presentations

"Understanding Labor Scarcity and Getting Started with Labor on the Farm," Michigan Chestnut Producers Council Annual Meeting, Hickory Corners, MI, March 9, 2024.  
"Understanding and Addressing Labor Scarcity Issues in Animal Agriculture," Michigan Pork Producers Symposium, Grand Rapids, MI, February 28, 2024.  
"Agricultural Labor Policy Outlook," Michigan Farm Bureau Legislative Committee Meetings, Lansing, MI, February 6, 2024.  
"Adverse Effect Wage Rates and US Farm Wages," Allied Social Science Associations Meeting, San Antonio, TX, January 7, 2024.  
"Agricultural Labor Policy Outlook," Great Lakes Ag Expo, Grand Rapids, MI, December 6, 2023. November 2, 2023.  
"Greenhouse Survey Preliminary Findings," Great Lakes Ag Expo, Grand Rapids, MI, December 6, 2023.  
"Agricultural Labor Policy Outlook," Michigan State University Farm Labor Conference, Lansing, MI, November 2, 2023.  
"Farm Workforce Trends in Michigan and the United States," Michigan Farm Bureau State Policy Development Committee Meeting, Lansing, Michigan, September 19, 2023.  
"Health Coverage and Farmworker Productivity," Poster Session, Agricultural and Applied Economics Association Annual Meeting, Washington, DC, July 24, 2023.  
"Farm Labor," Prepared for and Delivered by Florencia Colella, Midwest Chestnut Producers Council Annual Meeting, Clarksville, MI, March 25, 2023.  
"Workers and the Workforce: Essential Contributors to American Agriculture," United States Department of Agriculture's Agricultural Outlook Forum, Plenary Speaker Session Moderated by the United States Secretary of Agriculture, Tom Vilsack, Washington, DC, February 23, 2023.  
"Farm Labor in the United States and Michigan," International Fruit Tree Association Annual Conference, Grand Rapids, MI, February 13, 2023.  
"Agricultural Labor Trends," Michigan Agri-Business Association Conference, Lansing, MI, January 11, 2023.  
"Survey Evidence About Farm Labor Scarcity and Adaptation Strategies," Great Lakes Expo, Grand Rapids, MI, December 7, 2022.  
"NCAE's Labor Availability Survey," National Council of Agricultural Employers Annual Agricultural Labor Forum, Las Vegas, NV, November 30, 2022.  
"Agricultural Labor Outlook." Michigan Agricultural Credit Conference, East Lansing, MI, October 25, 2022.  
"Chinese Trade Competition and Rural Mexican Migration." Agricultural and Applied Economics Association Annual Meeting, Anaheim, CA, August 2, 2022.  
"Dollar Store Entry and Rural Welfare." Agricultural and Applied Economics Association Annual Meeting, Anaheim, CA, August 2, 2022.  
"Agricultural Labor and Bargaining Power." Agricultural and Applied Economics Association Annual Meeting, Anaheim, CA, August 1, 2022.

- "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.
- "Adapting to Labor Scarcity." Infaco Live Webinar Series. July 18, 2019.
- "The Effects of a Declining Farm Labor Supply on California Agriculture." Poster Session, U.C. Davis Economics Department Alumni Conference. Davis, CA, May 10, 2019.
- "Farmworkers and Nonfarm Work: Evidence from the NAWS." Department of Labor's NAWS at 30 Conference. Davis, CA, April 4, 2019.
- "The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach." Gifford Center for Population Studies, Migration Research Cluster Workshop. Davis, CA, December 6, 2018.
- "Evidence of a Changing Farm Labor Supply." University of California Agriculture and Natural Resources Cooperative Extension Annual Vegetable Crops Meeting. Davis, CA, November 27, 2018.
- "Agricultural Labor in the United States." Peruvian Delegation from Universidad Nacional Agraria La Molina. Davis, CA. November 5, 2018.
- "Immigration and Economic Performance Across the Fifty United States from 1980-2015." Poster Session, All-California Economics Labor Conference. Los Angeles, CA, October 4, 2018.
- "Farmworkers and Nonfarm Work: Evidence from the NAWS." Department of Labor's NAWS at 30 Conference. Davis, CA, April 4, 2019.
- "The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach." Gifford Center for Population Studies, Migration Research Cluster Workshop. Davis, CA, December 6, 2018.
- "Evidence of a Changing Farm Labor Supply." University of California Agriculture and Natural Resources Cooperative Extension Annual Vegetable Crops Meeting. Davis, CA, November 27, 2018.
- "Agricultural Labor in the United States." Peruvian Delegation from Universidad Nacional Agraria La Molina. Davis, CA. November 5, 2018.
- "Immigration and Economic Performance Across the Fifty United States from 1980-2015." Poster Session, All-California Economics Labor Conference. Los Angeles, CA, October 4, 2018.
- "Immigration and Economic Performance Across the Fifty United States from 1980-2015." Poster Session, Agricultural and Applied Economics Association Annual Meeting. Washington, D.C., August 7, 2018.
- "The Short-Run Impacts of Immigration on Native Workers: Evidence from the US Construction Sector." Gifford Center for Population Studies, Migration Research Cluster Workshop. Davis, CA, November 9, 2017.

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## Professional Service

- Referee, American Journal of Agricultural Economics
- Referee, Food Policy
- Referee, Migration Studies
- Referee, Applied Economic Perspectives and Policy
- Referee, Agricultural and Resource Economics Review
- Referee, Binational Agricultural Research and Development Fund
- Discussant, Agricultural and Applied Economics Association Annual Meetings
- Discussant, UC Davis Migration Research Cluster Workshop