

Zachariah Rutledge

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EDUCATION

Ph.D. in Agricultural and Resource Economics, University of California, Davis (2020)

M.S. in Agricultural and Resource Economics, University of California, Davis (2016)

A.B. (with Highest Honors) in Economics, University of California, Davis (2015)

PUBLICATIONS (43) ([†] indicates current or former student)

PEER-REVIEWED JOURNAL ARTICLES (11)

Timothy Richards, **Zachariah Rutledge**, and Marcelo Castillo. 2024. Labor Shortages and Agricultural Trucking Rates. *Canadian Journal of Agricultural Economics*, 72(2): 105–129. [Link](#)

Marcelo Castillo, Philip Martin, and **Zachariah Rutledge**. 2024. Whither the H-2A Visa Program: Expansion and Contraction. *Choices*. [Link](#)

Brandon Hooker, Philip Martin, **Zachariah Rutledge**, and Marc Stockton. 2024. How Many California Farm Workers: 2018-2021. *California Agriculture*., 87(1): 22-29. [Link](#)

Zachariah Rutledge and Philip Martin. 2023. California Ag Employment Rose and Became Less Seasonal Since 1990. *California Agriculture*, 77(2): 49-56 2024. [Link](#)

Timothy Richards and **Zachariah Rutledge**. 2023. Food System Labor and Bargaining Power. *Food Policy*, 119: 102502. [Link](#)

Zachariah Rutledge and Pierre Merel. 2023. Farm Labor Supply and Fruit and Vegetable Production. *American Journal of Agricultural Economics*, 105(2): 644-673. [Link](#)

Giovani Peri and **Zachariah Rutledge**. 2022. Economic Assimilation of Mexicans and Central Americans in the United States, *IZA Journal of Development and Migration*, 13(1): 1-26. [Link](#)

Philip Martin and **Zachariah Rutledge**. 2022. Proposed Changes to the H-2A Program Would Affect Labor Costs in the United States and California. *California Agriculture*, 75(3):135-141. [Link](#)

Luc Chrisitaensen, **Zachariah Rutledge**, and J. Edward Taylor. 2021. Viewpoint: The Future of Work in Agri-Food. *Food Policy*, 99: 101963. [Link](#)

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

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

BOOK CHAPTERS (4)

Philp Martin and **Zachariah Rutledge**. Forthcoming. US Farm Employment and Farm Workers. *Oxford Research Encyclopedia of Food*. [Link](#)

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

Zachariah Rutledge and J. Edward Taylor. 2023. Economic and Societal Aspects. Chapter 10 in S. G. Vougioukas and Q. Zhang (Eds.), *Advanced Automation for Tree Fruit Orchards*

and Vineyards. Springer. [Link](#)

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

TECHNICAL PEER-REVIEWED RESEARCH REPORTS (2)

Marcelo Castillo, Philip Martin, and **Zachariah Rutledge**. 2022. The H-2A Foreign Worker Program in 2020. *USDA-ERS, Economic Information Bulletin*, No. 238. [Link](#).

Daniel Costa, Philip Martin, and **Zachariah Rutledge**. 2020. 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. *Economic Policy Institute Report*. [Link](#)

EXTENSION REPORTS (10)

Zachariah Rutledge, Carrie Alexander, and Sana Asghar. The 2023 California Farmer Employment Survey Report. [Link](#)

Zachariah Rutledge, Carrie Alexander, and Sana Asghar. The 2023 California FLC Employment Survey Report. [Link](#)

Zachariah Rutledge and **Samuel Rickman**[†]. 2024. Understanding and Addressing Agricultural Labor Challenges in the United States Conference Report. *AFRE Agricultural Economics Report No. 149*. [Link](#)

Steven Miller, Corey Clark, **Zachariah Rutledge**, and Florencia Colella. 2023. Michigan State University Custom Work Rates. *Michigan State University Extension, Farm Management Report*. [Link](#)

Jonathan LaPorte, Matthew Gammans, Melissa McKendree, Florencia Colella, Corey Clark, and **Zachariah Rutledge**. 2022. Michigan State University Custom Work Rates. *Michigan State University Extension Farm Management Series*. [Link](#)

Zachariah Rutledge, J. Edward Taylor, Edward Whitney, and **Dahye Kim**[†]. 2022. The 2022 Greenhouse and Nursery Labor Employment Survey Summary of Preliminary Findings. [Link](#)

Zachariah Rutledge, J. Edward Taylor, Edward Whitney, and **Dahye Kim**[†]. 2022. Findings from the National Council of Agricultural Employers Labor Survey. <https://www.zachrutledge.com>. [Link](#)

Zachariah Rutledge, J. Edward Taylor and Edward Whitney 2022. Findings from the 2022 California Farm Bureau Federation Labor Survey. <https://www.zachrutledge.com>. [Link](#)

Zachariah Rutledge and J. Edward Taylor. 2019. Adapting to Labor Scarcity Survey Preliminary Findings. <https://www.zachrutledge.com>. [Link](#)

Zachariah Rutledge, J. Edward Taylor, and the California Farm Bureau Federation. 2019. Still Searching for Solutions: Adapting to Farm Labor Scarcity Survey 2019. <https://www.zachrutledge.com>. [Link](#)

EXTENSION ARTICLES (15)

Zachariah Rutledge and **Clare McGrady**[†]. Forthcoming. How Many Michigan Farmworkers Could Get Regularized Under New Legislation? *Michigan Ag Economist*. [Link](#)

Zachariah Rutledge and **Clare McGrady**[†]. Forthcoming. How Many California Farmworkers Could Get Legalized? *ARE Update*. [Link](#)

- Zachariah Rutledge**, Steven Miller, and Florencia Colella. 2024. The Farm Workforce Modernization Act and the H-2A Visa Program. *MSU Extension Farm Management Series*. [Link](#)
- Zachariah Rutledge**, Steven Miller, and Florencia Colella. 2024. What Are Adverse Effect Wage Rates? *Michigan State University Extension Farm Management Series*. [Link](#)
- Zachariah Rutledge**. 2024. Policy Ideas to Address Agricultural Labor Issues. *Michigan Ag Economist*. [Link](#)
- Zachariah Rutledge** and Phil Durst. 2023. Michigan Dairy Labor Supply Pressures. *Spartan Dairy News*. [Link](#)
- Zachariah Rutledge**. 2023. Farm Employee Heat-Related Illness Prevention and Regulatory Compliance. *Michigan Farm News*. [Link](#)
- Zachariah Rutledge**. 2023. Understanding and Preventing Farm Employee Heat-Related Illness. Michigan State University Extension Farm Management Series. [Link](#)
- Zachariah Rutledge** and Pierre Mérel. 2022. A Declining Farm Labor Supply Could Cost California Farmers Billions. *ARE Update*, 26(2): 1-4. (2022). [Link](#)
- Philip Martin, **Zachariah Rutledge**, Daniel Costa, and Forest Peterson. 2021. Labor Standards Enforcement in California Agriculture. Rural Migration News Blog No. 208. [Link](#)
- Luc Chrisiaensen, **Zachariah Rutledge**, and J. Edward Taylor. 2020. What Is the Future of Work in Agri-Food? *Brookings Institution*. [Link](#)
- Giovanni Peri and **Zachariah Rutledge**. 2020. Revisiting Economic Assimilation of Mexican and Central American Immigrants in the United States. *Cato Institute Research Briefs in Economic Policy*, No. 220. [Link](#)
- Timothy Beatty, Alexandra Hill, Phil Martin, and **Zachariah Rutledge**. 2020. COVID-19 & Farmworkers: Challenges Facing California Agriculture. *ARE Update*, 23(5). (2020). [Link](#)
- Zachariah Rutledge**. 2020. Recent Mexican and Central American Immigrants Have Performed Well in the Labor Market, But There Is Room for Improvement. *UC Davis Global Migration Center Immigration Facts Series*. [Link](#)
- Zachariah Rutledge** and J. Edward Taylor. 2019. California Farmers Change Production Practices as the Farm Labor Supply Declines. *ARE Update*, 22(6). [Link](#)

JOURNAL ARTICLES UNDER REVIEW (4)

- Zachariah Rutledge**, Timothy Richards, and John Lowrey. 2024. Health Coverage and Farmworker Productivity. *American Journal of Agricultural Economics*.
- Zachariah Rutledge**, Marcelo Castillo, Timothy Richards, and Philip Martin. 2024. Adverse Effect Wage Rates and US Farm Wages. *American Journal of Agricultural Economics*.
- Lauren Chenarides, Timothy Richards, **Zachariah Rutledge**, and John Pender. Dollar Store Impact on Local Economic Activity and Labor Markets. *Food Policy*.
- Myat Thida Win[†], **Zachariah Rutledge**, and Mywish Maredia. Farm Labor Shortages and Adaptation Strategies. *Applied Economic Perspectives and Policy*.

OTHER WORK IN PROGRESS (6) ([†] indicates current or former student)

- Zachariah Rutledge**. 2024. Labor and Personnel Management in the Agri-Food System: A Textbook for AFRE 315.
- Lauren Chenarides, **Zachariah Rutledge**, Timothy Richards, and John Pender. Dollar Store Penetration and Incumbent Store Exit and Sales.

Zachariah Rutledge and Joaquin Mayorga[†]. Chinese Trade Competition and Rural Mexican Migration.

Zachariah Rutledge, Clare McGrady[†], and J. Edward Taylor. Farmworkers and Non-Farm Work: Evidence from the NAWS.

Marcelo Castillo, **Zachariah Rutledge**, and **Dahye Kim[†].** Domestic Farm Employment and the H-2A Visa Program.

Skyler Simnitt, **Zachariah Rutledge**, Clare McGrady, and Marcelo Castillo. How Many Crop Farmworkers Could Become Legalized Under the Farm Workforce Modernization Act?

GRANTS (Total/My Share) – (\$1,608,000/\$988,000)

USDA-Office of the Chief Economist, 2024: (\$265,000/\$133,000)

USDA-NIFA-AFRI, 2024: (\$650,000/\$433,000)

Stephen and Karen Harsh Agribusiness Outreach Endowment, 2024: (\$7,000/\$7,000)

USDA-Office of the Chief Economist, 2023: (\$265,000/\$133,000)

Michigan Alliance for Animal Agriculture, 2023: (\$148,000/\$67,000)

Michigan Department of Agriculture & Rural Development, 2023: (\$34,000/\$7,000)

USDA-NIFA-AFRI Conference Grant, 2023: (\$25,000/\$25,000)

Michigan Department of Agriculture & 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, 2022: (\$20,000/\$9,000)

USDA-ERS RRED Co-op, 2021: (\$20,000/\$4,000)

Giannini Foundation of Agricultural Economics, 2020: (\$30,000/Graduated Before Used)

Giannini Foundation of Agricultural Economics, 2020: (\$30,000/Student RA:\$30,000)

Giannini Foundation of Agricultural Economics, 2019: (\$30,000/Student RA:\$30,000)

Giannini Foundation of Agricultural Economics, 2019: (\$30,000/Student RA:\$30,000)

Giannini Foundation of Agricultural Economics, 2018: (\$27,000/Student RA:\$27,000)

PROFESSIONAL SERVICE (NUMBER OF REVIEWS)

Academic Journal Articles

Referee, American Journal of Agricultural Economics (3)

Referee, Food Policy (1)

Referee, Applied Economic Perspectives and Policy (2)

Referee, Agricultural and Resource Economics Review (1)

Referee, Agricultural Finance Review (1)

Referee, Migration Studies (1)

Referee, Michigan Alliance for Animal Agriculture Research Proposal (1)

Referee, Binational Agricultural Research and Development Fund Research Proposal (1)

Discussant, Agricultural and Applied Economics Association Annual Meetings (2)

Discussant, Allied Social Sciences Associations (1)

EXPERT WITNESS EXPERIENCE

Columbia Legal Services, Torres v. US DOL, 2023, 2024

National Council of Agricultural Employers, Florida Growers v. US DOL, 2023

California Agricultural Labor Relations Board, UFW v. Gerawan Farming, Inc., 2022

RESEARCH EXPERIENCE

Assistant Professor, Michigan State University, 2022 - Current

Postdoctoral Research Scholar, Arizona State University, 2021 - 2022

Graduate Student Researcher, For Professor Pierre Mérel, 2016 - 2020

For Professor J. Edward Taylor, 2018 - 2020

For Professor Giovanni Peri, 2019

CONSULTING EXPERIENCE

National Council of Agricultural Employers, 2021 - 2024

International Fresh Produce Association, 2024

Migration Dialogue, 2020

World Bank Group, 2018 - 2019

Hoover Institution, 2017

TEACHING EXPERIENCE

Assistant Professor, Michigan State University: Labor and Personnel Management in the Agri-Food System, 2023

Guest Lecturer, Arizona State University: Food and Agribusiness Policy Issues, 2022

Lecturer, University of California, Davis: Agricultural Labor Economics, 2022

Guest Lecturer, University of California, Merced: Labor, Automation, and Sustainability in Agriculture: A Convergent Study, 2022

Guest Lecturer, University of California, Davis: Japanese Agriculture Trainee Program, 2019

Teaching Assistant, University of California, Davis

Master's Level: Applied Econometrics 1, 2016

Undergraduate Level: Agricultural Labor Economics, 2016, 2018, 2019

Econometrics, 2018

Operations Research and Management, 2017

Investment, 2016

SELECTED PRESENTATIONS (37)

Will Labor-Saving Automation Save Western Agriculture? Agricultural and Applied Economics Association Annual Meeting, New Orleans, July 30, 2024.

Examination of Agricultural Labor Policy Options. Agricultural and Applied Economics Association Annual Meeting, New Orleans, July 29, 2024.

Analysis of the Farm Labor Survey Methodology in the Lake Survey Region.

National Council of Agricultural Employers Stakeholder Meeting, Virtual, June 4, 2024.

Considering Wicked Problems: Agricultural Labor Issues. Agriculture and Agribusiness Institute Spring Meeting, East Lansing, MI, March 20, 2024.

Understanding Labor Scarcity and Getting Started with Labor on the Farm.

Michigan Chestnut Producers Council 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 Meeting, Lansing, MI, February 6, 2024.

Agricultural Labor Policy Outlook. Michigan Agri-Business Association Winter Conference. Lansing, MI, January 10, 2024.

Adverse Effect Wage Rates and US Farm Wages. Allied Social Science Associations Meeting, San Antonio, TX, January 7, 2024.

Agricultural Labor Policy Outlook. GL Ag Expo, Grand Rapids, MI, December 6, 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.

Agricultural Labor Policy Outlook. University and Industry Consortium, Wheeling, IL, October 25, 2023.

Farm Workforce Trends in Michigan and the United States. Michigan Farm Bureau State Policy Development Committee Meeting, Lansing, MI, September 19, 2023.

Health Coverage and Farmworker Productivity. Agricultural and Applied Economics Association Annual Meeting, Washington, DC, July 24, 2023.

Farm Labor. 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. UC Davis Global Migration Center Affiliate Meeting. Davis, CA, February 5, 2020.

The Short-Run Impacts of Immigration on Native Workers: A Sectoral Approach. AAEA 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, University of California, 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.