

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)

RESEARCH SUMMARY

Grants (Total/My Share)	
Grants Awarded	\$2,261,000/\$1,245,000
Pending Grants	\$650,000/\$375,000
Publications	
Peer-Reviewed Articles	11
Book Chapters	4
Peer-Reviewed Research Reports	2
Extension/Outreach Reports	12
Extension/Outreach Articles	15
Total Published	44
In Progress	
Revise and Resubmit in Progress	1
Articles Under Second Review	2
Articles Under Third Review	1
Academic Articles in Progress	3
Books in Progress	1
Other Work in Progress	6
Total Published or In Progress	58

Peer-Reviewed Journal Name	No.	Impact Measure			
		Simple	5-Year	Half-Life	Influence
Candian Journal of Agricultural Economics	1	9.0	5.2	3.4	0.95
IZA Journal of Development and Migration	1	7.0	–	–	–
Food Policy	2	6.5	7.0	7.4	1.89
American Journal of Agricultural Economics	1	4.2	4.7	14.4	1.61
Choices	3	3.3	–	–	–
California Agriculture	3	1.3	1.8	16.2	0.39

Note: Ranking metrics were obtained from Clarivate when available. Data not available on Clarivate were obtained from journal websites or other sources. Missing values indicate data not available.

PUBLICATIONS (44) ([†] indicates current or former student)

PEER-REVIEWED 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 Concentration. *Choices*, 39(1): 1-9. [Link](#)

Brandon Hooker, Philip Martin, **Zachariah Rutledge**, and Marc Stockton. 2024. California Has 882,000 Farmworkers to Fill 413,000 jobs. *California Agriculture*, 87(1): 22-29. [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](#)

Zachariah Rutledge and Philip Martin. 2023. More Jobs and Less Seasonal Employment in California Agriculture Since 1990. *California Agriculture*, 77(2): 49-56. [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): 1-8. [Link](#)

BOOK CHAPTERS (4)

Philp Martin and **Zachariah Rutledge**. 2024. US Farm Employment and Farm Workers. *Oxford Research Encyclopedia of Food*. [Link](#)

Pierre Mérel and **Zachariah Rutledge**. 2024. 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](#)

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/OUTREACH REPORTS (13)

Steven Miller, **Zachariah Rutledge**, and Corey Clark. 2024. Michigan State University 2025 Custom Work Rates. *Michigan State University Extension, Farm Management Report*. [Link](#)

Zachariah Rutledge 2024. Working with Agricultural Stakeholders to Understand and Address Agricultural Labor Challenges. *Michigan State University Extension Impact Report*. [Link](#)

Zachariah Rutledge, Carrie Alexander, and Sana Asghar. 2024. The 2023 California Farmer Employment Survey Report. *AFRE Staff Report*, No. 5. [Link](#)

Zachariah Rutledge, Carrie Alexander, and Sana Asghar. 2024. The 2023 California FLC Employment Survey Report. *AFRE Staff Report*, No. 6. [Link](#)

Zachariah Rutledge, J. Edward Taylor, Edward Whitney, and **Dahye Kim**[†]. 2024. Findings from the National Council of Agricultural Employers Labor Survey. *AFRE Staff Report*, No. 4. [Link](#)

Zachariah Rutledge and J. Edward Taylor. 2024. Adapting to Farm Labor Scarcity Survey UC Davis and California Farm Bureau Federation Summary of Preliminary Findings. *AFRE Staff Report*, No. 2. [Link](#)

Zachariah Rutledge, J. Edward Taylor and Edward Whitney. 2024. Findings from the 2022 California Farm Bureau Federation Labor Survey. *AFRE Staff Report*, No. 3. [Link](#)

Zachariah Rutledge. 2024. Labor Shortages, Their Implications, and Policy Options to Help Promote the Domestic Fresh Produce Industry. *International Fresh Produce Association Research 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 Report*. [Link](#)

Zachariah Rutledge, J. Edward Taylor, Edward Whitney, and **Dahye Kim**[†]. 2022. The 2022 Greenhouse and Nursery Labor Employment Survey: Summary of Preliminary Findings. *Americanhort.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. *California Farm Bureau Research Report*. [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. *Michigan State University 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). [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](#)

ARTICLES UNDER REVIEW (5) († indicates current or former student)

- Zachariah Rutledge**, Timothy Richards, and John Lowrey. 2024. Health Coverage and Farmworker Productivity. *American Journal of Agricultural Economics*. (Under 2nd Review)
- Lauren Chenarides, Timothy Richards, **Zachariah Rutledge**, and John Pender. Dollar Store Impact on Local Economic Activity and Labor Markets. *Food Policy*. (Under 2nd Review)
- Skyler Simnitt, **Zachariah Rutledge**, **Clare McGrady**[†], and Marcelo Castillo. 2024. Proposed Farm Labor Reform and Legalization of U.S. Crop Workers. *USDA-ERS Brief*. (Under 2nd Review)
- Zachariah Rutledge**, Marcelo Castillo, Timothy Richards, and Philip Martin. 2024. Adverse Effect Wage Rates and US Farm Wages. *American Journal of Agricultural Economics*. (Under 2nd Review)
- Myat Win**[†], **Zachariah Rutledge**, and Mywish Maredia. 2024. Farm Labor Shortages and Adaptation Strategies. *Applied Economic Perspectives and Policy*. (Under 1st Review)

WORK IN PROGRESS (8) († indicates current or former student)

Chris Bardenhagen, Steven Miller, Sarah Klammer, **Zachariah Rutledge**, and Florencia Colella. Economic Analysis of Michigan Specialty Crop Loss.

Steven Miller, **Zachariah Rutledge**, and Corey Clark. 2024. Michigan State University 2024 Custom Work Rates Report.

Zachariah Rutledge and **Junjian Zhu**[†]. The Impacts of Rising Farm Wages on Import Dependence in the United States.

Lauren Chenarides, **Zachariah Rutledge**, Timothy Richards, and John Pender. Dollar Store Penetration and Incumbent Store Exit and Sales.

Zachariah Rutledge and **Joaquin Mayorga**[†]. Chinese Competition and 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.

Zachariah Rutledge. 2024. Labor and Personnel Management in the Agri-Food System: A Textbook for AFRE 315.

TEACHING EXPERIENCE

Assistant Professor, Michigan State University: Labor and Personnel Management in the Agri-Food System, 2023 (**2.65** on Scale of 1 to 5: 1=Superior, 3=Average, 5=Inferior)

STUDENTS ADVISED

PhD Dissertation Work

Junjian Zhu (Dissertation Co-Supervisor)

Myat Thida Win (Dissertation Committee)

Other Research Supervision

Yingfei Xie (PhD Student Research Assistant on Grant Project)

Michael Hall (PhD Student Research Assistant on Grant Project)

Clare McGrady (Master's Student Research Assistant on Grant Project)

Samual Rickman (Master's Student Research Assistant on Grant Project)

Anna Hooks (Master's Student Research Assistant on Grant Project)

Corbin Haak (Undergraduate Student on Honors Project)

PROFESSIONAL SERVICE (NUMBER OF REVIEWS)

Academic Journal Articles

Referee, American Journal of Agricultural Economics (4)

Referee, Food Policy (1)

Referee, Applied Economic Perspectives and Policy (2)

Referee, Journal of Population Economics (1)

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, Bi-national Agricultural Research and Development Fund Research Proposal (1)

Discussant, Agricultural and Applied Economics Association Annual Meetings (2)
Discussant, Allied Social Sciences Associations (1)

GRANTS (Total/My Share) – (\$2,261,000/\$1,245,000)

Michigan Department of Labor and Economic Opportunity, 2024: (\$800,000/\$400,000)
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)
USDA-NIFA-AFRI Conference Grant, 2023: (\$25,000/\$25,000)
Michigan Department of Agriculture & Rural Development, 2023: (\$17,000/\$17,000)
Michigan Department of Agriculture & Rural Development, 2023: (\$34,000/\$7,000)
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)

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

SELECTED PRESENTATIONS (44)

Farm Labor Overview. Michigan Orchard and Vineyard Show. Virtual, January 14, 2025.
Farm Labor Outlook. Michigan Agribusiness Association Winter Conference. Lansing, MI, January 8, 2025.
Nonfarm Work and Income Smoothing Among Domestic Farmworkers. Allied Social Science Associations Annual Conference, San Francisco, CA, January 4, 2025.
Farmer Adaptation to Labor Shortages. Great Lakes Ag Expo, Grand Rapids, MI, December 11, 2024.
Michigan Farm Labor Outlook. Michigan State University Farm Labor Conference, Lansing, MI, November 6, 2024.
H-2A Adverse Effect Wage Rates and US Farm Wages. UC Davis Agricultural and Resource Economics Department Seminar, Davis, CA, October 24, 2024.
H-2A Adverse Effect Wage Rates and US Farm Wages. USDA-ERA Farm Labor Conference, Santa Cruz, CA, September 18, 2024.
Will Labor-Saving Automation Save Western Agriculture? Agricultural and Applied Economics Association Annual Meeting, New Orleans, LA, July 30, 2024.
Examination of Agricultural Labor Policy Options. Agricultural and Applied Economics Association Annual Meeting, New Orleans, LA, 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. Great Lakes 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, 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. 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, 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.