

Sarah A. Low

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My work emphasizes how to support and facilitate rural economic development. I focus on studying entrepreneurship as a strategy to grow economies and understanding and analyzing how farms and rural businesses contribute financially to their regional economies. Through my research, I prioritize policy-relevant issues and add to the dialogue about how to form effective policy for rural America.

Faculty Website: <https://cafnr.missouri.edu/person/sarah-low/>

Personal Website: <https://cafnrfaculty.missouri.edu/sarahlow/>

RaFF Website: <https://raff.missouri.edu>

Exceed Website: tinyurl.com/muexceed

Education

University of Illinois Urbana-Champaign, Dept. of Ag. & Consumer Econ, PhD Oct. 2009

Fields: Regional Economics & Public Policy; Environmental & Natural Resource Economics

Dissertation: *Defining and Measuring Entrepreneurship for Regional Research*

Purdue University, Dept. of Agricultural Economics, MS May 2004

Thesis: *Employment Growth and Fiscal Impact Analysis of a Job Creation Tax Credit for the Indiana Enterprise Zones*

Iowa State University, Dept. of Sociology, BS with Honors & Distinction, May 2002

Major: Public Service and Administration in Agriculture, Minor: Entrepreneurial Studies

Professional Experience

Associate Professor of Regional Economics & Fred V. Heinkel Chair in Agriculture

Division of Applied Social Sciences, College of Agriculture, Food and Natural Resources

University of Missouri, Columbia MO, September 2018-Present

- Inaugural director, RaFF - Rural and Farm Finance Policy Analysis Center (9/30/2021-). This Policy Research Center is developing models for projecting farm finance conditions at the state or regional level, exploring and communicating how farm policies will impact agricultural and rural economies by state and serving as a national resource on rural and farm finance topics. I provide vision, administration, outreach, research and policy analysis for the center and its contributors.
- Director, Extension's Regional, Economic & Entrepreneurship Development (Exceed) program (9/2018 – 9/2021). Exceed's mission is to enhance economic development opportunities by providing high-quality research and insights to our partners. I manage operations, budget and the Exceed team members, provide intellectual leadership and resources to county engagement specialists in community economic development, located throughout Missouri, and provide leadership for Exceed's vision, funded projects and programming. My Extension programming helps rural community leaders build their entrepreneurial ecosystem to foster sustainable and vibrant community economies.
- My Hatch- and multistate-funded research portfolio focuses broadly on rural and regional development using spatial analysis and econometric methods. Specifically, I examine entrepreneurship as a rural economic development strategy; the nexus between broadband internet and rural entrepreneurship; start-up location decisions; business dynamics (start-

up and deaths); value-added agriculture including local/regional foods and food manufacturing and their impact on the rural economy.

- Teaching: introduction to agricultural policy (ABM 1230/H), international comparative rural policy (AAE 8860)
- Doctoral faculty: Agricultural and Applied Economics and Rural Sociology
- Appointment: 50% Extension, 30% research, 20% service/administration
- Multistate research committee member, NE1749: Enhancing Rural Opportunities, Community Economic Resilience and Entrepreneurship

Economist, USDA Economic Research Service, Washington DC, August 2008-August 2018

Farm and Rural Business Branch (2008-13)

Rural Economy Branch (2013-18)

Visiting/Volunteer Scholar (2018-Present)

(GS-11 8/08-7/09; promoted to GS-12, 8/2009; to GS-13, 3/2012; and to GS-14, 10/2016)

- Research on rural economic development strategies and policies, including topics related to rural manufacturing, financial capital availability, ethanol, unconventional oil & gas, innovation and entrepreneurship, rural school finance and broadband internet
- Research on farm-related policies and development strategies related to local/regional food marketing, agritourism and socially-disadvantaged farmers and ranchers
- Wrote numerous (confidential) *staff analyses* requested by policymakers. Some of these are in-depth white papers (e.g., white paper on rural farm and non-farm financial capital availability), while others are more advisory in nature (e.g., contributing to the White House National Science & Technology Council's Advanced Manufacturing Strategy)
- Delivered many oral briefings as requested by policymakers and USDA leaders
- Published 6 peer-reviewed (externally, double-blind) ERS reports and 5 internally-reviewed ERS magazine articles and numerous webinars, tweets, Charts of Note
- ERS Farm Bill Team member (Rural Development title and local/regional food policy)
- Contributed to Agricultural Resource and Management Survey, Rural Establishment Innovation Survey, Local Food Marketing Practice Survey and Census of Ag instruments
- Leadership examples:
 - Led a diverse team of 12 researchers on a congressionally mandated study examining the scope of and trends in local/regional food systems.
 - Co-Led the USDA response to section 10016 of the Agricultural Act of 2014
 - Supervised 11 summer interns, several received ERS Outstanding Intern award

Data & Research Team Lead, Rural Infrastructure Group (On detail from USDA ERS)

U.S. Dept. of Agriculture, Office of the Secretary, Washington DC, Aug. 2017-Feb. 2018

- Led efforts to provide data, literature synthesis, evaluation and analysis to support: 1) Secretary Perdue's e-Connectivity initiative, and 2) the rural title of the President's infrastructure bill (unreleased) and its related principles document (publicly released), including briefing materials, OMB review of the principles document, and developing evaluation metrics and procedures.
- Writing, editing and people/idea coordination within USDA and in several other executive branch agencies for the "Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity."
- Helped stand-up Rural Development mission areas' Data Analytics team, part of the then newly formed Rural Innovation Center, with visioning, mentoring and geospatial analysis

Graduate Research Assistant, Regional Economics and Public Policy Laboratory

University of Illinois Urbana-Champaign, Aug. 2006-Aug. 2008

- Determinants of ethanol plant location and economic impact analyses using IMPLAN

Research Associate II, Center for the Study of Rural America

Federal Reserve Bank of Kansas City, Kansas City, MO, Feb. 2004-Aug. 2006

- Rural economic development research. Agricultural Beige Book calls. Wrote policy briefs, developed the county-level Regional Asset Indicator Series, assisted with public information duties (i.e., speeches), and was responsible for selecting and supervising graduate student summer interns.

Fiscal Analyst (20 hours/week), Office of Fiscal & Management Analysis

Indiana Legislative Services Agency, Indianapolis, IN, Dec. 2002-Dec. 2003

- Research on the fiscal impact of proposed legislation. Estimated impacts of proposed enterprise zone (EZ) program legislation by geocoding ES202 data to develop a business geodatabase and training seven people in the use of GIS to develop the relevant EZ shapefiles. Fiscal impact of Streamlined Sales Tax Project adoption.

Teaching Experience

Division of Applied Social Sciences, University of Missouri

Co-Instructor: *International Comparative Rural Policy Studies*, AAE & PA 8860. With Dr. Willi Meyers, 2019-

Co-Instructor: *Introduction to Agricultural Leadership and Policy*, ABM 1230/H. With Dr. Jarrett Whistance, 2021-; overall instructor rating 4.67/5.0.

Guest Lecturer:

Rural Development Policy module (1-2 lectures per semester) for *Ag & Rural Economic Policy* (ABM 3230), Dr. Julian Binfield & Dr. Pat Westhoff, spring 2019-2021

Rural Economic Development Policy module (1-2 lectures per semester) for *Agricultural and Food Policy* (AAE 8265), Dr. Pat Westhoff, fall 2018-2021

Entrepreneurship & Rural Economic Development, lecture for *Fundamental of Entrepreneurship*, ABM 3283, Ms. Lucy McGowan & Dr. Randy Westgren, fall 2018-20

Leadership in Agriculture, *Preparing Tomorrow's Leaders in Science*, PLNT_SCI 8001, fall '20

Broadband Availability and Policy in Rural America, lecture for ABM & AST 1010, fall 2020

Dept. of Agricultural and Consumer Economics (ACE), University of Illinois

Instructor: ACE 499: *Computer Applications & Data Analysis for Rural Development*, spr. 2006

- Developed curriculum for senior-level undergraduate course in rural development, data analysis (Excel and Access) and GIS after call to foster student data skills
- Taught 25 junior and senior undergraduates from in ACE, ECON and Business
- Instructor of record for 2 credit hour course, overall instructor rank: 4.3/5.0

Co-Instructor: *Building Skills for Outreach Research*, Uni. of Illinois Short Course, May 2008

- Developed ArcGIS curriculum for short course on conducting applied research
- Tutored 14 extension specialists in database management, GIS and regional research

Department of Sociology, Iowa State University

Teaching assistant: SOC 130: *Rural Institutions & Organizations* (August 2000-May 2002, Dr. Steve Padgitt). Developed curriculum for and led several weekly recitation sections.

Teaching assistant: SOC 325: *Agriculture in Transition* (Springs 2001-02, Dr. Paul Lasley).

Wrote, administered and graded exams; took lecture notes and attendance.

Guest lecturer, George Washington University, Food and Cities PSUS 6214

various related to local and regional food systems and policy, for Urban Planning, 2015-16, 2020

Funded Research

- The Growing Rural Health Disadvantage: Causes and Consequences for Rural Labor Markets, \$145,000 (PI). USDA Economic Research Service, non-assistance cooperative agreement. 9/2021 - 9/2023.
- State and Regional Farm Financial Analysis, \$1,425,000 (PI). USDA Office of the Chief Economist, Agricultural and Food Policy Research Centers. 9/2021 – 9/2024.
- Confidential, CoBank, \$104,898, 2021, (Co-PIs with Alan Spell and Keri Jacobs)
- A Systems Approach to Scaling Rural Co-op Efforts to Expand the Fiber Edge, \$300,000 (Casey Canfield MS&T PI, \$9,000 subaward to Mizzou, Low PI). US Ignite, NSF flowthrough Confidential, CoBank, \$65,000, 2020-21 (Co-PI with Alan Spell)
- Support Strategy Development: Entrepreneurial Ecosystem in Northwest Missouri, \$26,500 (PI), Community Foundation of Northwest Missouri. 2020
- Exploring NWMO's Regional Assets Through a Rural Wealth Created Based Survey, \$10,000 (Co-PI with Mallory Rahe). Community Foundation of Northwest Missouri. 2020
- Future of Work in Missouri, \$10,000, Lindenwood University (PI).
- Taking Farm and Forest to the Glass: The Economic Contribution of Missouri's Distilling Industry \$71,581 (Co-PI with Mallory Rahe). Sponsored by the Missouri Craft Distillers Guild. Missouri Small Business Development Authority. 2019-20
- Agricultural Workforce Needs Assessment for Missouri. Sponsored by the Missouri Agricultural Foundation in partnership with Missouri Dept. of Agriculture and Missouri Small Business Development Authority. \$167,200 (PI, Mark White; Low for \$10,000) 2019.
- Homegrown: Entrepreneurship in your Community – An Entrepreneurial Ecosystem Curriculum. \$16,570 (\$6,180 to Mizzou). North Central Regional Center for Rural Development Small Grants program. 2019. (Co-PI with Tessa Conroy, Wisconsin).
- Confidential. Economic impact of solar farms in rural Missouri. (\$25,000, PI).
- Getting Women Connected: Implications of Broadband and Rural Development for Women-Owned Businesses in the U.S. \$5,900 Cooperative Agreement with USDA Economic Research Service. 2018-2019. (With Tessa Conroy, Wisconsin).
- Rural Employment Sustainability and Establishment Dynamics. \$65,000 Cooperative Agreement with USDA Economic Research Service. 2016-18. (With Dawn Thilmany, CSU).
- Evaluating the Rural Economic Impacts of Local Food System Activity. \$30,000 Cooperative Agreement with USDA Economic Research Service. July 2014-June 2016. (With Becca Jablonski, CSU).
- Place Based Innovation: An Integrated Approach to Agritourism Development in the Western U.S. \$495,000 funded proposal to USDA-AFRI Entrepreneurship, Technology and Innovation program. January 2014-December 2017. (Dawn Thilmany, Colorado State & Shermain Hardesty, UC-Davis, co-PDs, Low contributor).

Publications

Google Scholar Citations (Jan 2022): 2901
h-index: 18 i10-index: 27

Academic Publications – Peer-Reviewed, Double-Blind (^ = my advisee or intern)

^Isley, C. & S.A. Low. In-Press. “Impact of broadband availability and adoption on rural employment during COVID-19.” *Telecommunications Policy*.
10.1016/j.telpol.2022.102310

Conroy, T. & S.A. Low. In-Press. “Opportunity, Necessity and No One in the Middle: A Closer Look at Small, Rural and Female-led Entrepreneurship in the U.S.” *Applied Economic Perspectives and Policy*. doi: 10.1002/aepp.13193

- Conroy, T. & S.A. Low. 2022. "Entrepreneurship, Broadband, and Gender: Evidence from Establishment Births in Rural America." *International Regional Science Review*, 45(1), 3-35. doi: 10.1177/01600176211018749
- Low, S.A., ^Bass, M., Thilmany, D., & M. Castillo. 2021. "Local Foods Go Downstream: Exploring the Spatial Factors Driving U.S. Food Manufacturing." *Applied Economic Perspectives and Policy*, 43(3) 896-915. doi: 10.1002/aep.13046
- Thilmany, D., Canales, E., Low, S.A., and K.A. Boys. 2021. "Local Food Supply Chain Dynamics and Resilience During COVID-19." *Applied Economic Perspectives and Policy*, 43(1) 86-104. doi: 10.1002/aep.13121
- O'Hara, J. & S.A. Low. 2020. "Online Sales: A Direct Marketing Opportunity for Rural Farms?" *Journal of Agricultural and Applied Economics*. 52(1), 222-239. doi:10.1017/aae.2019.44
- ^Van Sandt, A., Low, S.A., Jablonski, B. & S. Weiler. 2019. "Place-Based Factors and the Performance of Farm-Level Entrepreneurship: A Spatial Interaction Model of Agritourism in the U.S." *Review of Regional Studies*. 49(3).
- ^Van Sandt, A. Low, S.A. & D. Thilmany. 2018. "Exploring Regional Patterns of Agritourism in the U.S.: What's Driving Clusters of Enterprises?" *Agricultural and Resource Economics Review*. 47(3), 592-609. <https://doi.org/10.1017/age.2017.36>
- Conroy, T., Weiler, S. & S. A. Low. 2017. "Fueling Job Engines: The Impact of Small Business Loans on Establishment Births in Metropolitan and Nonmetro Counties." *Contemporary Economic Policy*. 35(3), 578-595. <http://dx.doi.org/10.1111/coep.12214>
- Low, S.A. & J.P. Brown. 2017. "Manufacturing Plant Survival in a Period of Decline." *Growth & Change*. 48(3): 297-312. <https://doi.org/10.1111/grow.12171>
- O'Hara, J. & S.A. Low. 2016. "The Influence of Metropolitan Statistical Areas on Direct-to-Consumer Agricultural Sales of Local Food in the Northeast." *Agricultural and Resource Economics Review*. 45(3): 539-562. December. <https://doi.org/10.1017/age.2016.7>
- Wojan., T., ^Dotzel, K. & S.A. Low. 2015. "Decomposing Regional Patent Rates: How the Compositional Factor Confounds the Rate Factor." *Regional Studies, Regional Science*. 2(1), pp. 535-551. <https://doi.org/10.1080/21681376.2015.1095112>
- Low, S.A. & Isserman, A.M. 2015. "Where Are the Innovative Entrepreneurs? Identifying Innovative Industries and Measuring Innovative Entrepreneurship." *International Regional Science Review*. 38(2), 171-201. April. <https://doi.org/10.1177/0160017613484926>
- Low, S.A. 2014. Book Chapter, Ch. 13. "Entrepreneurship and Rural Wealth Creation." Rural Wealth Creation edited by John Pender, Bruce Weber, Thomas G. Johnson, and J. Matt Fannin. Routledge. May.
- Weiler, S. & S.A. Low. 2013. "Measurement and Story-Telling in Regional Science: An intergenerational perspective on lessons learned from Andrew Isserman." *International Regional Science Review*. Vol. 36(1), 69-80. <https://doi.org/10.1177/0160017612462720>
- Low, S.A. & S. Weiler. 2012. "Employment Risk, Returns, and Entrepreneurship," *Economic Development Quarterly*. 26(3) 238-251. <https://doi.org/10.1177/0891242412452445>
- Thilmany McFadden, D. & S. Low. 2012. "Will Local Foods Influence American Diets?" *Choices*. First quarter. http://www.choicesmagazine.org/UserFiles/file/cmsarticle_215.pdf
- Markley, D. & S. Low. 2012. "Wealth, Entrepreneurship, and Rural Livelihoods," *Choices*. First quarter. <http://www.choicesmagazine.org/choices-magazine/theme-articles/rural-wealth-creation/wealth-entrepreneurship-and-rural-livelihoods>

- Ahearn, M.C., M. Kilkenny, & S.A. Low. 2009. "Trends and Impacts of Rural School Finance." *American Journal of Agricultural Economics*. Vol. 91(5). <https://doi.org/10.1111/j.1467-8276.2009.01284.x>
- Low, S.A. & A.M. Isserman. 2009. "Ethanol and the Local Economy: Industry Trends, Location Factors, Economic Impacts, and Risks." *Economic Development Quarterly*. February. <https://doi.org/10.1177/0891242408329485>
- Henderson, J., S.A. Low, & S. Weiler. 2007. Book Chapter, Ch. 5. "The Drivers of Regional Entrepreneurship in Rural and Metro Areas." Entrepreneurship and Local Economic Development edited by Norman Walzer. Lexington Books. http://works.bepress.com/sarah_low/2/
- Low, S.A., J. Henderson & S. Weiler. 2005. Gauging a Region's Entrepreneurial Potential. *Economic Review*, Federal Reserve Bank of Kansas City, pp.61-89, Third Quarter. <http://www.kansascityfed.org/Publicat/econrev/PDF/3q05low.pdf>

Policy or Technical Assistance Publications (external peer review, ^ advisee/intern)**

- Low, S.A. 2021. "Collaboration: A Condition for Advancing Federal and State Rural Development Research." Chapter 39, Investing in Rural Prosperity edited by Andrew Dumont and Paul Daniel, Federal Reserve Bank of St. Louis. Available at: <https://www.stlouisfed.org/community-development/publications/invest-in-rural>
- Conroy, T. and S.A. Low. 2021. "Research Report: Broadband Drives Growth in Women-led Rural Entrepreneurship." Daily Yonder blog. Available at: <https://dailyyonder.com/research-report-broadband-drives-growth-in-women-led-rural-entrepreneurship/2021/12/08/>
- McClure, H., ^Van Leuven, A, and S.A. Low. 2021. "Transfer Payments to Individuals." Missouri Economy Indicator, 2(12), available at: https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/ExCEED/Docs/MissouriEconomy_TransferPayments_v2i12_19Jul21.pdf
- Spell, A. and S.A. Low. 2021. "Economic Benefits of Expanding Broadband Internet in Select Missouri Counties." University of Missouri Extension. Available at: <https://extension.missouri.edu/programs/exceed-community-economic-and-entrepreneurial-development/broadband-resources>
- Conroy, T., Kures, M, Deller, S. Low, S. Glazer, J., Huyke, G., and C. Stark. 2021. Broadband and the Wisconsin Economy," The Wisconsin Economy, Study Series 7. Available at: <https://economicdevelopment.extension.wisc.edu/files/2021/01/2021-01-07-Broadband-Report.pdf>
- Low, S. A. 2020. "Rural Development: Perspectives from Federal and State Experiences with a Broadband Example." *Review of Regional Studies*, 50(2020) 311-322.
- Anderson, J., Maples, J. and S. Low. 2020. Post-COVID Outreach Priorities. Chapter in "Economic Impacts of COVID-19 on Food and Agricultural Markets," Anderson, J. & J. Lusk, Eds. CAST Commentary. Council on Agricultural Science and Technology.** Available at: <https://www.cast-science.org/publication/economic-impacts-of-covid-19-on-food-and-agricultural-markets/>
- Thilmany, D. B. Jablonski, D. Tropp, B. Angelo, and S. Low. 2020. "Mitigating Immediate Harmful Impacts of COVID-19 on Farms and Ranches Selling through Local and Regional Food Markets." National Sustainable Agriculture Coalition. March 18. Available at: https://localfoodeconomics.com/wp-content/uploads/2020/03/2020_03_21_EconomicImpactLocalFood-NSAC-SEH.pdf

- Low, S.A., A. ^Sanders, & M.C. White. 2020. "The Future of Work in Missouri: Rural-Urban Differences in Entrepreneurship." *Missouri Policy Journal*, Number 9, Spring/Summer 2020. Available at: <https://www.lindenwood.edu/files/resources/mpj-issue-9-article-2-low-sanders-white.pdf>
- Whitt, C., S.A. Low & A. ^Van Sandt. 2019. "Agritourism Allows Farms To Diversify and Has Potential Benefits for Rural Communities." *Amber Waves*. (USDA Economic Research Service). November 4, 2019. <https://www.ers.usda.gov/amber-waves/2019/november/agritourism-allows-farms-to-diversify-and-has-potential-benefits-for-rural-communities/>
- Thilmany, D., R. Hill, M. Haefele, A. van Sandt, C.C. Thomas, M. Sullins & S.A. Low. 2019. "Agri-tourism and Rural Outdoor Recreation in the US: A Framework for Understanding Economic and Employment Dynamics." Book Chapter for *Rural Policies and Employment*. World Scientific, UK. ** <https://doi.org/10.1142/q0210>
- Low, S.A. 2017. "Rural Manufacturing Survival and its Role in the Rural Economy." *Amber Waves*. (USDA Economic Research Service). October 25, 2017.
- Low, S.A. 2017. "Rural Manufacturing at a Glance, 2017 Edition." Economic Research Service (EIB-177). August. ** <https://www.ers.usda.gov/publications/pub-details/?pubid=84757>
- Low, S.A. 2017. "Rural Manufacturing Resilience: Factors Associated with Plant Survival, 1996-2011." Economic Research Service (ERR-230). May. ** <http://ageconsearch.umn.edu/record/262184/files/err-230.pdf>
- Low, S. A., A. ^Adalja, E. Beaulieu, N. Key, S. Martinez, A. Melton, A. Perez, K. Ralston, H. Stewart, S. Clark Suttles, S. Vogel, & B. B. R. Jablonski. 2015. "Trends in U.S. Local and Regional Food Systems: A Report to Congress." Economic Research Service (AP-068). January. ** <https://www.ers.usda.gov/publications/pub-details/?pubid=42807>
- Vogel, S. & S.A. Low. 2015. "The Size and Scope of Locally Marketed Food Production." *Amber Waves*. January/February. <https://www.ers.usda.gov/amber-waves/2015/januaryfebruary/the-size-and-scope-of-locally-marketed-food-production/>
- Weber, J., S. Low, & N. ^Walsh. 2014. "Onshore Oil and Gas Development in the Lower 48 States: Introducing a County-Level Database of Production for 2000-2011." *Amber Waves*. February. <https://www.ers.usda.gov/amber-waves/2014/januaryfebruary/onshore-oil-and-gas-development-in-the-lower-48-states-introducing-a-county-level-database-of-production-for-2000-2011/>
- Low, S.A. & S. Vogel. 2011. "Direct and Intermediated Marketing of Local Foods in the United States." (ERR-128). November. ** https://www.ers.usda.gov/webdocs/publications/44924/8276_err128_2_.pdf?v=41056
- Low, S.A. & S. Vogel. 2011. "Local Foods Marketing Channels Encompass a Wide Range of Producers." *Amber Waves*. Vol. 9 (4). <http://ageconsearch.umn.edu/record/120794/files/LocalFoodMarketing.pdf>
- Low, S.A. 2010. Book Review of *Hollowing out the Middle: The rural brain drain and what it means for America*. *Review of Regional Studies*. Vol. 39(2).
- Martinez, S., M. Hand, M. Da Pra, S. Pollack, K. Ralston, T. Smith, S. Vogel, S. ^Clark, L. Lohr, S. Low & C. Newman. 2010. "Local Food Systems: Concepts, Impacts, and Issues." Economic Research Report No. (ERR-97) 87 pp, May. ** https://www.ers.usda.gov/webdocs/publications/46393/7054_err97_1_.pdf?v=0
- Vogel, S. & S. Low. 2010. "Urban areas prove profitable for farmers selling directly to consumers." *Amber Waves*. Vol 8(3), p. 8. https://www.ers.usda.gov/webdocs/publications/46393/7054_err97_1_.pdf?v=0

- Low, S. & P. Stenberg. 2009. "Rural Broadband at a Glance." Economic Information Bulletin No. (EIB-47), February. **
https://www.ers.usda.gov/webdocs/publications/44323/10901_eib47.pdf?v=0
- Low, S. & A. Isserman. 2007. Chapter 5. "Ethanol and the Local Economy." Corn-Based Ethanol in Illinois and the U.S.: A Report from the Department of Agricultural and Consumer Economics, University of Illinois. November. <https://doi.org/10.1177/0891242408329485>
- Low, S.A. 2006. Book Review, "Entrepreneurship in the Region," edited by Michael Fritsch and Jürgen Schmude. *Papers in Regional Science*. June, p331-333.
- Henderson, J. & S. Low. 2006. "Obesity: America's Economic Epidemic," Main Street Economist, Federal Reserve Bank of Kansas City, Issue #2.
https://www.kansascityfed.org/publicat/mse/MSE_02_06.pdf
- Low, S. 2005. "Regional Asset Indicators: The Wealth of Regions," Main Street Economist, Federal Reserve Bank of Kansas City, September.
https://www.kansascityfed.org/publicat/mse/MSE_0905.pdf
- Low, S. 2005. "Regional Asset Indicators: Bank Deposit Depth and Evolution," Main Street Economist, Federal Reserve Bank of Kansas City, April.
http://www.kansascityfed.org/Publicat/mse/MSE_0405.pdf
- Low, S. 2005. "New Federalism—Problems or Opportunities for Rural America?" New Issues on the Rural Horizon, Center for the Study of Rural America, Annual Report.
http://www.kansascityfed.org/Publicat/mse/MSE_1205.pdf
- Low, S. 2004 "An Economy of Regions." Building Rural Prosperity in Regions: The Road Less Traveled, Center for the Study of Rural America, Annual Report.
http://www.kansascityfed.org/Publicat/mse/MSE_1204.pdf
- Low, S. 2004. "Regional Asset Indicators: Entrepreneurship Breadth and Depth," Main Street Economist, Federal Reserve Bank of Kansas City, September.
http://www.kansascityfed.org/Publicat/mse/MSE_0904.pdf
- Low, S. & K. McNamara. 2003. "Indiana Food Industry: Size, Income, and Employment Effects," Purdue University, Staff Paper #2003-03, February.
<https://ideas.repec.org/p/ags/puaesp/28649.html>
- Low, S. & K. McNamara. 2003. "Indiana Production Agriculture: Size, Structure, and Income Effects," Purdue University, Staff Paper #2003-04, February.

Research in Progress

- "Building rural entrepreneurial ecosystems: Considering regional economic dependence." with Austin Sanders (USDA ERS) and Mark C. White (Mizzou)
- "Is Access to Financial Capital a Barrier to Survival in the Hinterland?" With Anil Rupasingha (USDA RD) and Daniel Crown (CBO).
- "Insights for rural health care provider retention: A quantitative survey analysis" with Maria Kuhns (Missouri SBDC/Hannibal COG) and John Pender (USDA ERS).

Extension Publications (^ advisee/intern)

- ^Kuhns, M. and S.A. Low. 2021. "Missouri Health Care Availability and Outcomes Differ Regionally." University of Missouri Extension Guide, mx0056. Available at: <https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pub/pdf/miscpubs/mx0056.pdf>
- Low, S.A., ^Isley, C., Spell, A., Kures, M., Conroy, T. 2021. "Broadband Technologies: A Primer on Access and Solutions." University of Missouri Extension Guide, dm601. Available at: <https://extension.missouri.edu/publications/dm601>

- Sanders[^], A., Low, S.A. & M.C. White. 2021. “Entrepreneurial Dynamics in Missouri Counties.” University of Missouri Extension Guide dm302. January. Available at: <https://extension.missouri.edu/publications/dm302>
- Low, S.A. Thilmany, D, Canales E. and K.A. Boys. 2021. “Local and Regional Food System Resilience During COVID-19.” University of Missouri Extension Guide dm301. January. Available at: <https://extension.missouri.edu/publications/dm301>
- Low, S.A. & M. [^]Kuhns. 2020. “Agricultural and Entrepreneurial Factors Driving U.S. Food Manufacturing Startup Locations.” University of Missouri Extension Guide dm103. Available at: <https://extension.missouri.edu/dm103>
- Low, S.A. & K. [^]Thompson. 2020. “Could Online Sales be a Direct Marketing Opportunity for Rural Farms?” University of Missouri Extension Guide g6224. Available at: <https://extension.missouri.edu/publications/g6224>
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Marketing Basics” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_MarketingBasics_6-19-19.pdf
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Hospitality” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_Hospitality_6-19-19.pdf
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Location” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_Location_6-19-19.pdf
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Collaboration” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_Collaboration_6-19-19.pdf
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Your Visitors” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_UnderstandingVisitors_6-19-19.pdf
- Thilmany, D., Hardesty, S., Sullins, M., Hill, R., Sandt, A., Gaede, D., Leff, P & Low, S. 2019. “Agritourism Best Practices Risk Management” https://agritourism.localfoodeconomics.com/wp-content/uploads/2019/07/ABP_RiskManagement_6-19-19.pdf

Invited (Professional) Presentations & Briefings

- Entrepreneurship, Broadband Internet and Gender: Evidence from rural establishment. Gran Sasso Science Institute (L’Aquila Italy) College Seminar (webinar + livestream for all faculty and graduate students). July 7, 2021. Available at: <https://www.youtube.com/watch?v=180PD3Q7dU8>
- Farm Entrepreneurship in Food Marketing and Processing Research. Savannah Institute, Nutshell Seminar Series. April 13, 2021.
- Rural Entrepreneurship and the Internet—Research and Extension Insights. University of Florida, Food and Resource Economics Department seminar (virtual for FRED faculty, grad students and Extension field faculty).
- Shaping Public Policy: An applied economist’s perspectives from federal government and academia. AAEA Organized Symposium, “How can regional and rural development economists be more effective about information public policy? A panel discussion.” September 28, 2020

How CAFNR Research & Outreach Support Rural Economic Development. CAFNR Foundation board of directors. Bradford Farm, Columbia, MO. Sept. 22, 2020

Entrepreneurial Recovery after COVID-19: Knowledge Base and Moving Forward in the United States. Kauffman Foundation. (virtual). June 25, 2020

Food Supply Shift. Panelist. Saint Louis Science Center (recorded). <https://www.slsc.org/virtual-member-event-the-food-supply-shift/> June 11, 2020

Building Entrepreneurship in your Region presentation at Great Northwest Days in Jefferson City, Missouri. February 4, 2020.

Moving the Needle for Value-Added Processing in Missouri: Infrastructure, Finance and Policy. Invited Panelist (with Scott Brown, moderator, Dan Cassidy, Davin Althoff, and Ashley McCarty). 11th Annual Agroforestry Symposium sponsored by The Center for Agroforestry, University of Missouri. January 30, 2020.

State of Rural Missouri: Implications for Food and Agriculture, presentation at the University of Missouri for Missouri Department of Agriculture and the College of Agriculture, Food and Natural Resources, January 16, 2020

Results from Missouri's Inaugural "Beige Book" Missouri Economy presentation, Federal Reserve Bank of Kansas City, Regional Roundtable, Nov. 5, 2019.

Shaping Rural Entrepreneurship: Accounting for Regional Heterogeneity presentation with Austin Sanders at "Building a Better Understanding of the Challenges and Opportunities Facing Rural Economic Development," sponsored by W.E. Upjohn Institute and Federal Reserve Bank of Chicago. October 30, 2019.

Overview of the Rural Economy keynote presentation at the Rural Economic Outlook Conference, Oklahoma State University, Stillwater, Oklahoma, October 8, 2019.

Rural Manufacturing presentation at Policy Academy on Strengthening your State's Manufacturers. Manufacturing Extension Partnership (NIST). August 22, 2019

Manufacturing Resilience and Rural Employment Opportunities. Presentation at the Rural Development Symposium, Iowa State University, Ames, Iowa, August 15, 2019.

Rural Manufacturing Resilience: Key Findings and Future Research seminar for City-Regional Economic Development Institute faculty and post-docs at Ash House, University of Birmingham, United Kingdom. June 12, 2019

Panel Discussion, "Rural Development" at AERUS 2019 Conference, April 13, 2019. University of Illinois Urbana-Champaign, Dept. of Agricultural and Consumer Economics. (Joint with Tom Johnson, Brigitte Waldorf, and Rafael Garduno and moderated by Geoff Hewings)

Rural Development: Perspective from my Federal and State-Local Experiences. Presidential Address to the Southern Regional Science Association, April 6, 2019. Arlington, VA

Presented on Rural Entrepreneurship at National Governor's Association Regional Workforce Development Workshop; 3 governors in attendance and ~70 staffers. Des Moines, IA. March 3-4th, 2019.

Manufacturing Outlook: Manufacturing Plant Resilience, Results of an Empirical Study. Springfield Manufacturing Outlook Meeting. Springfield, MO. December 2018.

Missouri Economic Outlook. Missouri Economic Development Council. Gape Girardeau, MO. October 2018.

Rural Missouri Economic Outlook. Missouri Rural Development Partners. Jefferson City, MO. October 2018.

Rural Manufacturing and Its Role in the Rural Economy. Briefing for National Association of Counties. Washington, DC. May 2018.

Discussant, Rank and Selection of Infrastructure Projects: A State and Local Perspective. USDA ERS and Farm Foundation Workshop: The Economic Returns to Rural Infrastructure Investment. April 2018.

Rural Manufacturing and Its Role in the Rural Economy. DoD, Defense Industry Adjustment grantee conference, “Working in Rural Communities” Learning Community. Arlington, VA. March 2018.

Will Manufacturing Jobs Return to Rural America? Rural Economic Development Implications. 2018 Illinois Institute for Rural Affairs conference. Keynote address. Springfield, IL. March 2018.

New Strategies for Investment in Rural America: Lessons from rural development literature and extension. 2015 Jon Brandt Policy Forum sponsored by AAEA and C-FARE. Economics Keynote Address. Washington, DC. April 2015.

Changing Analytical Possibilities: The Next Generation of Defining Rural. National Academies/CNSTAT & ERS Sponsored Workshop on Defining Rural. Washington, DC. April 2015

Trends in U.S. Local and Regional Food Systems. Briefing for Catherine Woteki, Under Secretary for Research, Education, and Economics (USDA). January 2015.

Why are some rural manufacturers resilient? Briefing for Doug O’Brien, Deputy Under Secretary for Rural Development (USDA). February 2014.

Factors Related to Rural Manufacturing Resilience: A Hazard Function Analysis. Dept. of Economics. Iowa State University. November 2013.

Obesity, Physical Activity, Natural Amenities, and Rural Development: A microdata study. Dept. of Agricultural and Resource Economics. Colorado State University. February 2012.

Direct and Intermediated Marketing of Local Foods. Briefing for Kathleen Merrigan, Deputy Secretary of Agriculture. September 2011.

Innovation and Entrepreneurship: Framing the Question in Rural Space. Frameworks for Entrepreneurship Research in Food, Agriculture and Rural Development Workshop. Kauffman Foundation, Kansas City, MO. October 2007.

Ethanol: Implications for Illinois. United Counties Council of Illinois, Annual Meeting. Galena, IL. July 2007.

Discussant: Immigrants, Farm-Related Industries, and Communities, Immigration Reform: Implications for Farmers, Farm-Workers and US Agriculture, University of California, Washington DC, June 2006.

Gauging a Region’s Entrepreneurial Potential, University of Missouri-Columbia, Contracting and Organization Research Institute (CORI) Seminar, December 2005.

Local Entrepreneurship: One Size Does Not Fit All, Economic Development Administration: University Center Conference, Reno, NV, August 2005.

New Opportunities for Washington’s Agricultural Economy, Washington State Bankers Association, May 2005.

New Economic Opportunities for Northwest Kansas, Northwest Kansas Planning and Development Commission, December 2004.

New Opportunities for Main Street Nebraska, North Platte Rotary Club, June 2004.

Academic Conference Paper Presentations

Sources and Labor Market Consequences of Increases in Rural Prime Age Mortality and Disability, North American Regional Science Council, Denver CO, November 2021.

Living and Working in Rural Regions: Survey Perceptions during the COVID Pandemic, presented by Andrew Van Leuven[^] with Mallory Rahe, North American Regional Science Council, Denver CO, November 2021.

Determinants of Labor Shortages in Missouri’s Food Manufacturing Industry, with Catherine Isley[^], North American Regional Science Council (virtual), November 2021.

Opportunity, Necessity and No One in the Middle: A Look at Small, Rural and Female-led Establishment Births in the U.S., with Dr. Tessa Conroy. Agriculture and Applied Economics Association, Austin, TX hybrid meetings, August 2, 2021 (virtual)

Impact of broadband availability and adoption on rural employment during COVID-19” with Catherine Isley[^]. Southern Regional Science Association (virtual), April 9, 2020.

Examining return migration and community preferences in northwestern Missouri, with Dr. Mallory Rahe. North American meetings of the Regional Science Association International (virtual), November 11, 2020.

Insights for rural health care provider retention: A quantitative survey analysis, with Maria Kuhns and John Pender. North American meetings of the Regional Science Association International (virtual), November 9, 2020.

Community & Regional Economics Extension: Searching for Sustainability. Moderator. Applied and Agricultural Economics Association (AAEA) CRENET track session (virtual). September 15, 2020.

Impacts of Rural Broadband, Broadband Policies and Programs. Moderator. AAEA CRENET track session (virtual), August 18, 2020.

Rural Broadband: The Connection to Entrepreneurship by Business Size and Gender presentation with Tessa Conroy. North American Meetings of the Regional Science Association International, November 16, 2019.

The Future of Work in Missouri: Urban-Rural Differences in Entrepreneurship and Self-Employment presentation, presented by Austin Sanders. North American Meetings of the Regional Science Association International, November 16, 2019.

The Geography of Foodies: Exploring the Influence of Place-Based Factors on the Relocation and Employment Dynamics of Food Manufacturing Establishments presentation with Dawn Thilmany, Marcello Castillo and Martha Bass for the Agricultural & Applied Economics Association Annual Meeting, July 22, 2019.

Entrepreneurs in Economic Development: Opportunity, Necessity, and No One in the Middle presented by Tessa Conroy, 28th Uddevalla Symposium, L’Aquila, Italy, June 28, 2019

Rural Broadband: The Connection to Entrepreneurship by Business Size and Gender, presentation with Tessa Conroy for 2019 Southern Regional Science Association, April 5, 2019.

Has Broadband Availability ‘Flattened’ Direct Marketing Opportunities for Rural Farms? An Examination of Online Marketplaces presented with Jeffrey O’Hara for 2019 Southern Regional Science Association Meeting. April 5, 2019.

The Geography of Foodies: Exploring the Influence of Place-Based Factors on the Relocalization and Employment Dynamics of Food Manufacturing Establishments, presentation with Martha Bass, Dawn Thilmany, and Marcelo Castillo for 2019 Southern Regional Science Association Meeting. April 5, 2019.

The Local Food Scene: How Place-Based Factors Influence the Existence, Location, and Dynamics of Food Manufacturing Establishments and Employment, with Dawn Thilmany, Colorado State University. North American Regional Science Council, San Antonio, TX. November 2018.

Local Foods as a Catalyst of Rural Manufacturing: The Role of New and Small Food Innovators in Employment Dynamics. Poster. Agricultural and Applied Economics Association, Washington, DC. August 2018.

Will Work for Food: The Role of New and Small Food Manufacturing Innovators in Employment Dynamics. Southern Regional Science Association, Philadelphia, PA. March 2018.

Rural Development Implications of Foodie Culture: What factors drive food and beverage manufacturing firm dynamics? North American Regional Science Council. Vancouver, BC. November 2017. (With Dawn Thilmany)

Establishment Survival in Rural America: Is Access to Capital a Barrier? Southern Regional Science Association. Memphis, TN. March 2017.

Is Access to Financial Capital a Barrier to Survival in the Hinterland? North American Regional Science Council. Minneapolis, MN. November 2016.

Rural Business Financial Capital Use and Availability: The Nexus with Innovation. Southern Regional Science Association. Arlington, VA. April 2016.

Defining and Measuring Local Foods for Research: Implications for Local Economic Impact Analysis and FSMA. NARSC annual meetings. Washington, DC. November 2014.

Defining and Measuring Local Foods for Policy and Research: Implications for Local Economic Impact Analysis and the Food Safety Modernization Act. Agriculture, Food, and Human Values Society. Burlington, VT. June 2014.

Why are Some Manufacturers More Resilient During Troubled Times? Plant and Community Characteristics Associated with Plant Survival. Southern Regional Science Association. San Antonio, TX. March 2014.

Factors Related to Rural Manufacturing Resilience: A Hazard Function Analysis. North American Regional Science Council. Atlanta, GA. November 2013.

Can Urban Economics Inform Rural Decision Making? Invention, Inventors, and External Economies (poster, presented jointly with Andy Toole). Applied and Agricultural Economics Association. Washington, DC. August 2013.

Do Regional Conditions Affect Rural Manufacturing Resilience? A Hazard Function Analysis. Southern Regional Science Association. Arlington, VA. April 2013.

Externalities and Rural Plant Survival: Examining Localization, Diversity, Agglomeration Using Survey Data. Southern Regional Science Association. Charlotte, NC. March 2012.

Surviving a Manufacturing Crisis: Plant and local characteristics associated with manufacturing resilience. North American Regional Science Council. November 2011.

Correlates of Adult Obesity across U.S. Counties: Stress, Lifestyle, and Natural Amenities (with others). North American Regional Science Council. November 2010

Spatial and Contextual Factors Driving Farm Participation in Local Foods with Steve Vogel. Agricultural and Applied Economics Association, July 2010.

Another Look at the Determinants of Entrepreneurship" and "Measuring Entrepreneurship for Regional Research: A new approach," North American Regional Science Council. November 2009.

Measuring and Defining Entrepreneurship. North American meetings of the Regional Science Association International. Brooklyn, NY. November 2008.

Risk, Returns, and Entrepreneurship. North American meetings of the Regional Science Association International. Brooklyn, NY. November 2008.

Ethanol: Implications for Communities. Applied and Agricultural Economics Association. Orlando, FL. July 2008.

Measuring and Defining Entrepreneurship in Rural Regions. PREPARE/European Regional Science Association Summer School. University of Pécs, Pécs, Hungary. July 2008.

Regional Employment, Risk, Returns, and Entrepreneurship. Mid-Continent Regional Science Association. Colorado Springs, CO. June 2008.

Obesity in Rural America: Reasons, Impacts, and Solutions for Communities. Southern Regional Science Association. Arlington, VA. March 2008.

Ethanol: Implications for Rural Communities. North American meetings of the Regional Science Association International. Savannah, GA. November 2007.

Ethanol, Economic Growth, and Public Policy: Implications for Rural Regions, Southern Regional Science Association, Charleston, SC. March 2007.

Innovation and Entrepreneurship in Rural America: Empirical Effects on Economic Growth, North American meetings of the Regional Science Association International. Toronto, OT. November 2006.

Measures of Entrepreneurship Breadth and Depth over Space and Time, Western Regional Science Association, Santa Fe, NM, February 2005

Gauging a Region's Entrepreneurial Potential, University of Missouri, Contracting and Organization Research Institute Seminar, December 2005

Economic Growth, Asset Indicators, and Entrepreneurship, North American meetings of the Regional Science Association International., Las Vegas, NV, November 2005

Gauging a Region's Entrepreneurial Potential, American Agricultural Economics Association, Providence, RI, July 2005

Measures of Entrepreneurship Breadth, Income, and Value Added Over Space and Time, Western Economics Association International, San Francisco, CA, July 2005

High Value Entrepreneurship, Banking Deposit Depth and Regional Growth, Southern Regional Science Association, Washington, DC, April 2005

Where are the Entrepreneurs? Examining the Location of Proprietor Breadth and Depth, North American meetings of the Regional Science Association International. Seattle, WA, November 2004

The Indiana Enterprise Zone Program: Fiscal Impact of a Job Creation Tax Credit, American Agricultural Economics Association, Denver, CO, July 2004

State Fiscal Impact of Indiana Enterprise Zone Job Creation Tax Credit, Southern Regional Science Association, New Orleans, LA, March 2004

Utilizing GIS to Analyze Economic Regions, Indiana Geographic Information System Conference, Indianapolis, IN, March 2004

Extension Programs

Creating Entrepreneurial Communities conference. September 29-30, 2021.

Homegrown: Entrepreneurship in your Community, Zoom pilots for Laconia High School, Rosendale Wisconsin. March 2021

Homegrown: Entrepreneurship in your Community, Zoom pilots for Maximize Northwest Missouri, June 2020

Homegrown: Entrepreneurship in your Community, Zoom pilots for Leadership Fond Du Lac, Wisconsin. May 2020

Extension Presentations

Nascent Center for Ag & Rural Finance Policy Research, to the Agricultural Economic and Analytics Group. Nov. 18, 2021 (virtual)

Federal Reserve Bank of Kansas City Regional Roundtable: Missouri's Economy Post COVID, November 9, 2021 (virtual)

Bringing Broadband to Missouri: A Research and Extension Update. Engaging4MO webinar series. Division of Applied Social Sciences, University of Missouri, Nov 3, 2021

Insights for Rural Healthcare Resilience: A Quantitative Survey Analysis. North Central Regional Center for Rural Development webinar series. Purdue University. October 28, 2021

Tailoring Broadband Impact Evaluations Using a Participatory Approach: An Application in Clinton County, Missouri. Presented by Casey Canfield (PI) as part of the Making it Count: Applying Science to Support University Affordable Broadband Adoption conference, sponsored by the Association of Public Land Grant Universities (APLU). October 27, 2021 (virtual).

Business Resilience – Planning for Hardships. Panel moderator. Creating Entrepreneurial Communities, University of Missouri Extension conference. Hannibal, MO. 9/30/21

Broadband availability and adoption. City of Columbia Broadband Business Planning Task Force. Columbia, MO. September 8, 2021

Building an Entrepreneurial Ecosystem. Regional Economic Development Institute webinar. USDA Rural Development Mission Area REDI initiative participants. Webinar. 8.19.21

Digitally Connected Communities Guide, Train-the-trainer, Survey Module. University of Missouri System & MU Extension. Virtual. July 28, 2021.

Online Sales of Local Food & Broadband – Insights from Exceed. Train-the-trainer. University of Missouri Extension and Kansas State Extension. Virtual. June 17, 2021.

What Can Exceed Do For You? with Hannah McClure, CED Webinar Series, Dec. 17, 2020

2021 Agricultural Market and Policy Outlook, Missouri’s Rural Economy, with Alan Spell December 11, 2020.

Organizational Structure of Business & Communities Extension. With Steve Devlin, Senior Program Director, B&C Extension, November 19, 2020

Federal Reserve Bank of Kansas City Regional Roundtable: Missouri’s Economy: COVID-Edition, November 13, 2020

Connect Strategy Reboot, UM Business & Community Extension, Oct. 15, 2020

Exceed Updates for the CED Local Foods Team, October 8, 2020.

Online Sales as a Direct Marketing Opportunity for Rural Farms: Research Results. Engaging4MO webinar series. May 6, 2020.

North Central Region Speed-Dating: Entrepreneurial Ecosystems in Missouri, Entrepreneurship session panelist, North Central Regional Extension Directors. May 1, 2020

Entrepreneurial Ecosystems in Northwest Missouri: A Synthesis Review. April 29, 2020.

COVID-19’s Potential Impacts on Farms and Ranches Selling Food Through Local and Regional Markets. Engaging4MO webinar series. April 1, 2020

Introduction to Building Entrepreneurial Ecosystems, presentation at the Semi-Annual MU Extension Business and Communities professional development conference, Camden, Missouri. January 30, 2020.

Connect Strategy: Results and Next Steps presentation, Extension Summit, October 22, 2019.

Connect Strategy Results presentation for Business and Community Extension Meetings in Columbia, Missouri, July 24, 2019.

Rural Economic Development in Missouri seminar for Mizzou Law One Read (invited), September 4, 2019.

Maximize NWMO-Why Entrepreneurial System Development is Essential in Today’s Economy presentation at North Central Missouri College, September 4, 2019.

Understanding Data at the Local Level, with Pat Curry. Breakout session at University of Missouri Extension Council to Campus event. Columbia, MO. March 29, 2019.

Business & Communities Extension: Addressing the Grand Challenge of Economic Opportunity. “MU for You, plenary session” University of Missouri Extension Council to Campus event. Columbia, MO. March 29, 2019.

Moderated discussion on Rural Broadband and Extension; APLU Rural Economic Development working group, March 19, 2019

Organized Sessions

Regional/Rural Development Sessions (8-10 sessions with 4 papers each for 32-40 paper presentations annually), North American Regional Science Council annual meetings, 2014-present (with Stephan Weiler, Colorado State University)

Entrepreneurship and Innovation virtual session, Organizer & Moderator, Southern Regional Science Association. July 14, 2020

Other Significant Training

LEAD21—Land grant system leadership training, 2021-22
Leadership Skills for Non-Supervisors, Office of Personnel Management Development Center, Shepherdstown, WV. December 10-13, 2012.
Social and Economic Microdata (3 credit hour course), University of Maryland--College Park, Joint Program in Survey Methodology, January-May 2011.
Entrepreneurship Research Boot Camp, National Bureau of Economic Research, Cambridge, MA, July 2009 (4 days).
Spatial Econometrics and Spatial Computable General Equilibrium Modeling Workshop, European Regional Science Association, Pécs, Hungary, July 2008 (one week).
Spatial Econometrics workshop, Spatial Analysis Laboratory, Urbana, IL, June 2006 (one week).
Short courses (1-3 days ea.) R, SAS, STATA, ArcGIS, Geoda, GAMS software, 2002-2022.

Honors & Awards

NACDEP Excellence in Teamwork Award for “Connecting Entrepreneurial Communities-A Multi-State Showcase” (team member), May 2021.
Distinguished Thesis Advisor Award for Austin Sanders’ thesis, "Rural agglomeration: How does the distribution of people across rural America affect entrepreneurship." College of Agriculture, Food and Natural Resources, University of Missouri. November 2020.
Provost’s Award for Creative Extension Programming. University of Missouri. November 2020
Dan Rickman Best Paper Award for 2019. Best paper published in the *Review of Regional Studies* for “Place-Based Factors and the Performance of Farm-Level Entrepreneurship: A Spatial Interaction Model of Agritourism in the U.S.,” by Van Sandt[^], Low, Jablonski, & Weiler. April 2020
Miernyk Medal for Research Excellence for “The Need for Speed” by Conroy & Low. Southern Regional Science Association, April 2020.
Research, Education, and Economics Under-Secretary Award, to the Rural Prosperity Team for major contributions to the Report of the Task Force on Agriculture and Rural Prosperity, which provides the roadmap for the President’s rural economic agenda (team member). September 2018.
Amber Waves (ERS) award, Best Feature (ERS’s highest Amber Waves award) for Rural Manufacturing Survival and Its Role in the Rural Economy. April 2018.
Abraham Lincoln Honor Award (Secretary’s Honor Award, USDA) for developing new and timely data and products that support the USDA effort to strengthen local and regional food systems (team leader). September 2016.
AAEA Quality of Communication Award, honorable mention, for “Trends in Local and Regional Food Systems,” (team leaders) August 1, 2016.
Helios Award for Research, Staff Analysis, and Outlook (ERS’s highest award), for Highlights and Implications of the Agricultural Act of 2014 for Local and Regional Food Systems, (team member) May 21, 2015
Amber Waves (ERS) award, Best Data Feature for Onshore Oil and Gas Development in the Lower 48 States: Introducing a County-Level Database of Production for 2000-11. May 2015
Superior Achievement for Early/Mid-Career Alumni—Awarded by the Dean of the College of Agriculture and Life Sciences, Iowa State University. Award annually honors one distinguished alum that has excelled in her profession and is providing outstanding service, leadership and involvement. Nov. 2013

STATEment Maker—Awarded by Iowa State Alumni Association. An annual honor that recognizes the early professional accomplishments of Iowa State University's young alumni (graduates under 32 years of age). 2012

Amber Waves (ERS) award for Best Finding—Farm, Firms and Households, for Urban Areas Prove Profitable for Farmers Selling Directly to Consumers, 2010

Honorable Mention—Helios Award for Research, Staff Analysis, and Outlook (ERS), for Broadband Internet's Value for Rural America, (team member) 2009/2010

Selected Participant. National Bureau of Economic Research, Entrepreneurship Research Boot Camp. Cambridge, MA. July 2009

Selected Young Researcher Participant. European Regional Science Association, Spatial Econometrics and Spatial Computable General Equilibrium Modeling Workshop. Pécs, Hungary. July 2008.

Springer-Verlag Prize for best paper by an early-career-stage scholar; awarded by the Western Regional Science Association, February 2006

Group Study Exchange Team Member, work with farmers, economists, and Rotarians in New Zealand to learn about New Zealand agricultural and economic development policy and practices, March-April 2006

Wallace E. Barron All-University Senior Leadership Award. Iowa State University Alumni Association. April 2002.

Interns & Students Mentored (– placement)

Postdoctoral fellow:

Andrew Van Leuven, University of Missouri, June 2021-December 2021 – Oklahoma State

Ph.D. students:

Martha Bass, current, University of Missouri, Rural Sociology (Co-chair with Mary Hendrickson)

Steven Hennes, current, University of Missouri, Rural Sociology (committee member)

Damilola Giwa Daramola, current, University of Missouri, Ag & Applied Econ (committee)

Jody Wendt, Kansas State University, Agricultural Economics (committee)

Former PhD students, year graduated & institution/degree and initial placement

Jason Entsminger, 2020, University of Missouri, Ag & Applied Econ (committee)—Penn State

Annette Kendall, 2019, University of Missouri, Ag & Applied Econ (committee)—Mizzou

Anders Van Sandt, 2017, Colorado State University, Ag & Resource Econ (intern)—Wyoming

Tessa Conroy, 2014, Colorado State University, Econ (mentor)—University of Wisconsin

Rebecca Hill, 2012, Colorado State University, Ag & Resource Econ (intern)—Colorado State

M.S. students:

Catherine Isley, current, University of Missouri, Ag & Applied Econ (Chair)

Former students, year graduated & institution/degree and initial placement

Maria Kuhns, 2021, University of Missouri, Ag & Applied Econ (Chair) – Hannibal COG

Austin Sanders, 2020, University of Missouri, Ag & Applied Econ (Chair) - USDA ERS

Interns:

ERS - Eleven with two undergrads (year-round) placed at Deloitte & similar consulting agencies;

Consumer Financial Protection Bureau; Nine PhD students (summer) placed at CBO,

ERS, EPA, FDA, Cornell, Colorado State University and Texas A&M.

FRBKC - Four summer interns, all graduate students.

Faculty Mentoring Committee Member:

Shuangyu Xu, Assistant Professor, School of Natural Resources, University of Missouri

Mentoring:

Sigma Alpha (Mizzou Chapter—Alpha Nu) Alumni Panelist: November 16th, 2020 (Zoom)

Communicating with Policymakers. MOST Policy Fellows inaugural class. September 22, 2020

Sigma Alpha (Iowa State Chapter—Delta) Banquet Speaker, August 24, 2020 (Zoom)

Selected Media Interviews

November 21, 2020. “Missouri Farmer Today, Missouri’s rural communities find ways to thrive.”

Available at: https://www.agupdate.com/missourifarmertoday/news/state-and-regional/missouri-s-rural-communities-find-ways-to-thrive/article_c7a219c6-291d-11eb-ad68-ef24015b4ffd.html

July 23, 2020. “The Check-In: Rural Towns Getting By.” Call-in show, hosted by Janet Saidi, KBIA (Missouri Public Radio). <https://www.kbia.org/post/check-rural-towns-getting#stream/0>

September 22, 2019. “The Lost Disney Park” on Show Me the State podcast, hosted by Kristofer Husted, KBIA. <https://www.kbia.org/post/show-me-state-lost-disney-park>

May 21, 2019: Commented in “Rural Divide: Effects on factory closures continue to linger” by Phillip Jones. Columbia Daily Tribune.

<https://www.columbiatribune.com/news/20190521/rural-divide-effects-of-factory-closures-continue-to-linger>

May 18, 2019: Commented in “Rural Divide: While Boone County booms, neighbors struggle with change” by Rudi Keller. Columbia Daily Tribune.

<https://www.columbiatribune.com/news/20190518/rural-divide-while-boone-county-booms-neighbors-struggle-with-change>

March 8, 2019: Interview with Logan Jackson, reporter for MU CAFNR Communications, published on CAFNR website. Available at <https://cafnr.missouri.edu/2019/03/a-passion-for-rural-communities/>.

February 27, 2019: Commented in Morning Marketplace’s “In a tight labor market, some companies offer student loan repayment help as a perk” by Carrie Jung. Available at <https://www.marketplace.org/shows/marketplace-morning-report/02272019-us-edition/>

January 17, 2019: Television show interview with Kyle Vickers, broadcast on Show-Me Ag, KMOS (Missouri Public Television). Available at: <https://www.kmos.org/ShowMeAg/>

July 10, 2018: Interview with Ellen Rosen, contract reporter for the New York Times regarding differences between rural and urban manufacturing and site selection for U.S. manufacturing. Article published 7/17/18. Available at:

<https://www.nytimes.com/2018/07/17/business/rural-manufacturers-location.html>

April 15, 2015: Interview with *ECT.coop* writer Victoria Rocha regarding rural entrepreneurship and financial capital availability discussed at the Jon Brandt Policy Forum on Capitol Hill, for which I was a keynote speaker. Article published 4/28. No longer online.

February 10, 2015, phone interview & email correspondence regarding calculations with *LA Times* columnist Russ Parsons regarding direct sales of local food in Los Angeles County. Several columns published 2/2015 as a result. No longer available online.

February 6, 2015, interview (by phone) with Harvest Public Media (NPR) reporter Luke Runyon regarding local food report. Article “Have farmers’ markets peaked?” Available at: <http://www.npr.org/sections/thesalt/2015/02/05/384058943/are-farmer-market-salespeaking-that-might-be-good-for-farmers>

November 14, 2011, interview (by phone) with Nancy Schute from Harvest Public Media (NPR) on local foods market size. Available at:

<http://www.npr.org/sections/thesalt/2011/11/14/142306970/local-food-is-no-smallpotatoes-farmers-rake-in-almost-5-billion>

Professional Service Roles

- Visiting Scholar, USDA Economic Research Service (Sept. 2018-present)
- External Research Associate, Regional Economic Development Institute (REDI), Colorado State University (2017-present)
- Book Review Editor, *Growth & Change* (2012-present)
- Editorial Board, *International Regional Science Review* (2020-present)
- North American Regional Science Council (2003-present)
 - Co-organizer, Regional and Rural Development Sessions (2014-present)
 - Council Member, Mid-Continent RSA rep. to NARSC (2019-2021)
 - Founding member, NARSC Diversity, Equity and Inclusion committee (2019-21)
- Southern Regional Science Association (2003-present)
 - Student Award Committee Chair, 2022
 - Nominating Committee Chair, 2019-20
 - President, 2018-19
 - Program Chair, 2018
 - Elected President-Elect, 2017
 - Elected Council Member, 2010-13
- American Agricultural Economics Association (2002-present, some inconsistency in early years)
 - Rural Development Grand Challenge, committee chair, produced one-pager for the Government Relations Committee, 2021-22.
 - Chair rotation, Community and Regional Economics Network, 2019-22
 - Selected Paper Topic Co-Leader, 2014-15
 - Graduate Student Section Officer for Membership. 2007-08

- Regional Research Institute, West Virginia University, advisory board member 2020-
- North Central Regional Center for Rural Development, Board of Directors. 2013-2018

Manuscript Referee (29 different journals – average ~15 per year):

Agribusiness, Agricultural and Resource Economic Review, American Journal of Agricultural Economics, Annals of Regional Science, Applied Economics Policy and Perspectives, Applied Geography, CAB Reviews, CAST Commentary, Choices, Economic Inquiry, Economic Development Quarterly, Economics of Innovation and New Technology, Entrepreneurship and Regional Development, Entrepreneurship Research Journal, Environment and Planning, Food Policy, Growth and Change, International Regional Science Review, Journal of Agriculture and Applied Economics, Journal of Regional Studies, Journal of Urban Management, International Regional Science Review, Papers in Regional Science, Review of Regional Studies, Regional Science Policy and Practice, Regional Studies, Rural Sociology, Telecommunications Policy, Telematics and Informatics

Book Proposal Review: *Oxford University Press*

Government Review: USDA ERS

Special Issue Editor: *Sustainability* – Bridging the Rural-Urban Divide: Towards Universally Sustainable Regional Economic Development (in-progress)

Internal Service Roles

- University/College/Division Committees and Service
 - Chair (AY2020-21), CAFNR Research Council (2019-)
 - DASS Leadership Council (2019-21)
 - DASS diversity, equity and inclusion standards subcommittee
 - B&C Extension Leadership Team (2018-2020)
 - Review Committee for Awarding Adjunct Professorial Titles (2021-)
 - Ad hoc P&T guideline review committee, DASS (2021-22)
 - DASS diversity, equity and inclusion standards subcommittee
- Chaired 3 search committees (CY19), participated in 2 additional committees (CY19, 21-22)
- Resource Center Advisory Committee (internal, ERS), member. 2010-2018. Budget for and choose journal subscriptions, hardware, and other researcher resources.
- Vice-President for Membership, USDA Economists Group (2014-2016).
- RRED Brown Bag Seminar Series (internal, ERS). Co-organizer. January 2013-2016.
- Conference Room Policy/Scheduling Committee, Chair (internal, ERS). 2011. Managed conference room transition to new building, work with stakeholders to identify room needs, work with IT to create automated conference room scheduling system.
- Ambassador Coordinator, United Way Steering Committee, Federal Reserve Bank of Kansas City, 2006
- Chief of Staff, Government of the Student Body, Iowa State University, 2001-02
 - Managed 12-member cabinet and oversaw respective sub-committees
 - Organized student lobbying efforts at Iowa State House
 - Assisted student body president with programming execution
- College of Agriculture Senator (believed to be the first female), Government of the Student Body, Iowa State University, 2000-01

Citizenship

U.S. and U.K.