



# NARSC NEWS



## Words from the Executive Director



This time last year, when I wrote my comments for the NARSC Newsletter, I was still hopeful that the 2020 North American Meetings of RSAI would be able to proceed as a traditional face-to-face meeting. Alas, it was not to be and so we pivoted to what proved to be a very successful virtual meeting. Twelve months on, we have several

COVID-19 vaccines. The successful distribution of these in many countries means that we are planning to have a face-to-face conference in beautiful Denver, Colorado, later this year. The dates are November 10-13. While the conference is still some months away, it is now time to start planning your participation. The deadline for submission of abstracts and organized sessions is July 1. The general call for papers and information about organized sessions can be found [here](#), while information about the abstract submission process can be found [here](#). If you are interested in participating in one of the organized sessions, please contact the session organizers. As usual, we will have two [Student Paper Competitions](#) - Graduate-Student Author Paper Competition and the Graduate-Student-Led Paper Competition. If you are a graduate student, please consider submitting a paper to one of these two competitions.

Back in February, I informed the NARSC Council that this would be my last year as Executive Director of the organization and that I would be stepping down from this position, effective December 31, 2021. After nine years in the position, I felt that it was time for fresh leadership. That fresh leadership will come from John Sporing, who will assume the role of NARSC Executive Director effective January 1, 2022. John was selected by the NARSC Council to fill this position. John currently serves as Co-Executive Director of the Southern Regional Science Association (SRSA), a position he has held since 2005. Many of the skills that he utilized at SRSA will be

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transferrable to NARSC. In addition to his role with SRSA, John has served as Local Organizer for numerous NARSC meetings. In 2020, John was awarded the David Boyce Award for Service to Regional Science. On a personal note, I would like to say that it has been both an honor and a privilege to serve as Executive Director of NARSC.

Once again, thank you to Ran Wei and Isabelle Nilsson for creating another interesting and informative newsletter. I hope that you enjoy reading it.

Neil Reid  
NARSC Executive Director

## Words from the Editors



We are delighted to bring you the latest issue of the North American Regional Science (NARSC) newsletter. This June 2021 edition of the newsletter follows up on the work by NARSC Diversity and Inclusion Committee by featuring researchers from our organization belonging to underrepresented groups and their contributions to the field of regional science. This also marks the beginning of a new section of the June issue of

the NARSC newsletter where we will include member spotlights to showcase the excellent research performed by members from our organization. We would like to thank all of featured members in this issue for taking their time to respond to our questions. We really enjoyed reading their responses and we believe that our readers will as well. We also highlight recent successes by our members including some very impressive grant awards as well as this year's recipient of the Benjamin H. Stevens Graduate Fellowship in Regional Science. Finally, we would like to thank the outgoing executive director, Neil Reid, for all his support and service not only to NARSC as a whole, but to our newsletter. He has helped us with everything from brainstorming ideas for themes to providing us with important announcements. We are looking forward to working with the incoming executive director, John Sporing, as he transitions into this role. An interview with John will be included in the December issue of the newsletter.

If you have ideas or suggestions regarding content or would like to contribute to the newsletter, please do not hesitate to contact us. We hope to see all of you at the NARSC meeting in Denver in November.

[Isabelle Nilsson](#) and [Ran Wei](#)

Newsletter Co-Editors

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## Opening Remarks from the NARSC Diversity and Inclusion Committee

by Yuri Mansury, Carlianne Patrick, Yilan Xu, and Sandy Dall'Erba

The December 2020 edition of the Newsletter introduces the North American audience to the inaugural Diversity and Inclusion (D&I) committee<sup>1</sup>. As stated by the committee, their mission is to “foster an environment that embraces diversity, equity, and inclusion in pursuing excellence in the field of regional science.” The D&I committee was conceived from the desire to weave diversity and inclusion

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<sup>1</sup> Current members are Daoqin Tong (co-chair), Sandy Dall'Erba (co-chair), Yuri Mansury (NARSC representative), Sarah Low, Carlianne Patrick, Eleni Bardaka, Michael Delgado, and Yilan Xu

into the fabric of the NARSC community. This attention to diversity and inclusion offers NARSC the opportunity to grow as an association by embracing newcomers who are not traditionally participants in the North American meetings while continuing to be the premier conference of choice for existing members of the Regional Science Association.

As regions and cities of North America have become increasingly diverse, the context in which exchanges of ideas occur during NARSC meetings will also become increasingly more diverse. The D&I committee fielded a survey in the summer of 2020 to gain insights into the changing demographics of the NARSC community and members' attitude towards diversity and inclusion issues. Of particular interest are responses to the question of "What do you think is the biggest diversity challenge currently faced by NARSC?" As reported in the December Newsletter, the number one diversity challenge according to the respondents is the lack of minority participation in NARSC events, followed by the need to create a more inclusive and welcoming environment during NARSC meetings and the lack of women representation.

Since about 70 percent of respondents who are North American residents identified as white, self-selection bias was potentially a threat to external validity when the participant's racial identity could influence the dependent variable being measured. More specifically, a possibility may exist for participants to identify a problem that matches their own racial identity. Conversely, a tendency may exist to ignore problems that do not match the problems traditionally associated with the participant's racial identity. Despite these concerns, the lack of minority participation was nevertheless identified as the biggest diversity challenge by the survey respondents.

An interesting finding is that gender shares are much more balanced immediately following degree completion than at later career stages and among older cohorts. Half of assistant professors who responded to the survey are women; but the representation of women was substantially smaller at higher ranks. Female share dropped considerably to about a quarter of associate professors or equivalent, and to an even smaller percentage of about one-fifth of full professors. Disaggregation by age further shows that female share declines continuously as we go from the youngest to the oldest age category.

The challenges identified by NARSC members point to the need to create a more welcoming and supportive environment for underrepresented minorities, women, and newcomers. The D&I committee has outlined a number of policy recommendations to support the goals of diversity and inclusion. Chief among them is addressing the lack of mentors, which, as reported by women and people of color, is the single greatest barrier to advancement in North America. More broadly in the context of diversity and inclusion, mentoring supports the career development of newcomers who are not yet linked to more senior scholars. Accordingly, the D&I committee recommends semi-structured events during NARSC meetings that introduce newcomers to researchers further along in career, since collaborations between junior and senior researchers play a crucial role in shaping the protégé's research trajectory. Juniors who publish with senior researchers indeed are more likely to enjoy sustained academic success for the rest of their careers.

The D&I committee's second recommendation is for NARSC to offer workshops that assist graduate students on the job market and early-career regional scientists in the tenure process. The reasoning for this is that in North America, about 50 percent of job seekers find their jobs through personal networks. These social networks provide valuable information about employment opportunities, as well as tips on how to secure a permanent teaching post. As women and people of color have historically had less

access to such social networks, it makes sense for NARSC to offer workshops that improve such access. The proposed workshops will enable those with information to connect with those at a disadvantage and offer them tips and advice to navigate the job market and the tenure process.

These recommendations are the first in an ongoing effort. The D&I committee continues to develop recommendations to increase representation and foster a welcoming environment for a diverse set of scholars. As the committee does so, it is worthwhile to highlight the ways in which researchers with diverse perspectives have contributed to our discipline.

All of the regional scientists featured on this issue came from historically disadvantaged backgrounds. Nevertheless, they persevered until they were able to push the very frontier of regional science. At the same time, those regional scientists paved the way for NARSC to embrace diversity and inclusion. For their unparalleled contributions to “the study of social problems with regional or spatial dimensions,” the D&I committee pays tribute to them in this Newsletter.

## Member Spotlight: Rhea Acuña



*Please tell us about yourself!*

I am currently a PhD student in Public Administration at Syracuse University with a specialization in Social Policy and Public Management. I also hold a BA in Economics from the University of Michigan and an MS in Public Policy & Management from Carnegie Mellon University. Prior to my doctoral study, I worked in various analytical capacities within the government and non-profit sectors. My research interests have been shaped by working on housing and employment issues across revitalizing cities in the Midwest and Northeast.

*How did you find NARSC and to what degree are you currently involved?*

I heard about NARSC through a colleague who described the conference as a great learning opportunity for graduate students and praised it for its welcoming environment. NARSC 2020 was my first annual conference where I presented my current working paper “End of the Line: The Impact of New Suburban Rail Stations on Housing Price.” I learned a lot from the experience, especially serving as a Discussant. I hope to attend in-person this year and interact with academics and practitioners in the field. I look forward to being more involved with NARSC in the future.

*Please tell us about your research.*

Broadly speaking, I am interested in housing and employment insecurities experienced by vulnerable populations and how place has shaped these insecurities. I’m currently working on a study that examines how changes in the state minimum wage impact housing security and stability among the low skilled population. I aim to delve deeper into how this relationship has manifested along the urban and rural continuum. Studying the connection between the minimum wage and housing is particularly pertinent given the challenges brought upon by the pandemic.

*How does your research contribute to the field of Regional Science?*

I hope that my research will be able to contribute to the field of Regional Science by investigating various elements of place as they relate to housing and employment. I intend for my future research to delve deeper into place by evaluating the spatial heterogeneity of employment and housing, place-based policies, and changes in the built environment. There has been an influx of research highlighting that place matters in defining problems and formulating solutions. I hope to contribute to this movement and help inform practitioners, policies, and programs.

*How do you see the field of Regional Science evolving going forward?*

I think that part of the future of Regional Science will be addressing the pandemic in the short term and inequalities in the long-term. The pandemic response, impact, and recovery have not been equal and dramatically differed by geographies. The pandemic has also highlighted that the persistent inequalities that exist in our society are deeply linked to geographies, both at the micro (e.g., neighborhoods in a city) and macro (e.g., regions in the US) levels. I think the Regional Science field can offer unique and critical perspectives and approach as we try to learn from this pandemic and address inequality.

## Member Spotlight: Yong Chen



*Please tell us about yourself!*

My name is Yong Chen, an associate professor in the Department of Applied Economics of Oregon State University. I received my Ph.D. from Agricultural, Environment and Development Economics of the Ohio State University in 2009. My research interest is about spatial/rural economics with a focus on the sustainability of rural economic development from the perspective of coupled human-natural system interactions.

*How did you find NARSC and to what degree are you currently involved?*

My advisor Elena Irwin introduced NARSC to me when I was a graduate student and I have attended most of the conferences since then.

*Please tell us about your research.*

My research interest is about spatial/rural economics with a focus on the sustainability of rural economic development from the perspective of coupled human-natural system interactions. My current research projects focus on how rural economic development is affected by environmental policies and the exposure to natural hazards. My research area also includes spatial simulation of land use change.

*How does your research contribute to the field of Regional Science?*

I believe that my research contributes to the understanding of sustainability and resilience of community development in an era of various social, economic, political and natural shocks. My focus on the rural context helps to serve the rural population and communities who are probably more vulnerable to these various shocks.

*How do you see the field of Regional Science evolving going forward?*

I think this new wave in big data and artificial intelligence offers us an opportunity and new perspective to revisit some long-standing issues in the field. To better embrace this change, we might

consider organizing workshops that introduce these new tools and accesses to new data to the existing members. Within the existing membership, I wonder whether there are existing or potentially new institutional setups that intentionally foster collaborations from different disciplines, especially among the early-carrier researchers and help them build up their social network. The virtual conference/seminar option might provide a low-cost access to a broader audience/membership that is constrained by the high cost of attending the conference in person. A better use of the social media might allow us to attract more members and reach out to a wider audience.

If you want to learn about Dr. Chen's research, please visit his website and check out some of his publications:

Website: <https://agsci.oregonstate.edu/users/yong-chen>

**Chen, Y.,** Lewis, D. J., & Weber, B. (2021). Natural amenities and skill sorting in rural communities: a case study of land conservation policy. *The Annals of Regional Science*, <https://doi.org/10.1007/s00168-021-01060-3>

Zeenat Fouzia, S., Mu, J., & **Chen, Y.** (2020). Local labour market impacts of climate-related disasters: a demand-and-supply analysis. *Spatial Economic Analysis*, 15(3), 336-352.

**Chen, Y.** (2020). Effects of development tax on leapfrog sprawl in a thinly traded land market. *Land Use Policy*, 92: 104420.

**Chen, Y.,** Irwin, E. G., Jayaprakash, C., & Irwin, N. B. (2017). Market thinness, income sorting and leapfrog development across the urban-rural gradient. *Regional Science and Urban Economics*, 66, 213-223.

Wu, J., & **Chen, Y.** (2016). The evolution of municipal structure. *Journal of Economic Geography*, 16(4), 917-940.

## Member Spotlight: Biswa Das



### *Please tell us about yourself!*

My name is Biswa Das. Currently, I am an Associate Professor in the Department of Community and Regional Planning, and Extension Specialist, Iowa State University Extension and Outreach, Community and Economic Development.

I have a PhD in Agricultural Economics, Texas Tech University, Master of Philosophy (MPhil) and MA, Economics, University of Hyderabad, India.

My areas of research, teaching and extension and outreach are in the broad fields of Public Finance, Community and Economic Development, Natural

Resource and Environmental Economics.

I live in Ames, Iowa with my wife Anindita and our two kids, daughter, Ridhima (9) and son, Rayansh (7).

### *How did you find NARSC and to what degree are you currently involved?*

I have been a member of the Mid-Continent Regional Science Association (MCRSA) for about 13 years. I served as the Vice-President, President-Elect, President, and Past-President of MCRSA during 2014-18. It was during this time that I learnt about NARSC. I have attended one NARSC meeting. I am

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familiar with the workings of NARSC due to my close involvement with the MCRSA leadership in organizing NARSC meetings couple of times.

***Please tell us about your research.***

Given the nature of my appointment, I have been mostly involved in research projects that have an extension and outreach aspects built into them. My research is broadly situated in the following areas – public finance, economic development and natural resource economics. I am currently a co-PI in a research project that involves working with small communities in Iowa to help understand the perceptions residents have in small towns that are continuously losing population. Defines as shrink-smart, the study has three key components – curriculum development, utilizing data for a variety of purposes, and create a community of communities that includes mentor and mentee towns. This project is funded through the National Science Foundation for a 3-year period.

Another research project in which I am a co-PI focuses on understanding how the COVID-19 pandemic has impacted residential property owners. Funded through the National Science Foundation, this study utilizes multiple levels of data gathering to understand the impacts of this unique event better. About 2,100 landlords from Minneapolis, MN, Tampa, Florida, Cleveland, Ohio, and Des Moines completed an online survey. Another 50 landlords from these cities participated in direct interviews and local officials will be interviewed soon to expand our understanding as well as generate critical data that could be utilized to create response strategies and policies at the local level.

Collaborating with colleagues from Landscape Architecture, Interior Design Architecture, I am also a co-PI in a study of design modifications necessary for older households to be aging in place. With the proportion of older households proposed to increase to about 20 percent of total population in a community by 2030, aging in place assumes significance across all communities. Letting older households staying in their homes is good for them and their communities. I have been instrumental in building relationships with cities to implement the design related recommendations as well as finding funding for older households that may need financial assistance. This study was funded by the BNIM group in Des Moines.

***How does your research contribute to the field of Regional Science?***

As a social scientist with an emphasis on application oriented research, I view the community system as a complex network that spans economics, sociology, geography, planning, public policy, data science and other related fields. As a very applied field, regional science allows for a data-driven framework to study local and regional issues and problems and create opportunities for solving problems. All of my prior and ongoing research and outreach efforts cuts through multiple disciplines highlighted above. In addition, through the community engagement work that I am involved in, provides my research to tie to real world situations and inputs, which have the potential for real world applications. I believe this elevates the importance of regional science research.

***How do you see the field of Regional Science evolving going forward?***

With access to more and reliable data at various levels, across a broad spectrum of areas, the potential to research, and investigate issues is expanding rapidly. With the growing application of technology and access to micro-level data, I believe, there is a greater need to rethink the conventional ways of understanding issues and relationships between different types of variables. As more data becomes available, it allows to better understand different aspects of the economy, environment and communities and their relationships. This will allow for expanding collaboration beyond the

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disciplines that have been usually associated with regional science. This offers greater potential for regional science research to have influence on public policies geared toward making places economically resilient, environmentally sustainable and improving overall quality of life.

If you want to learn about Dr. Das' research, please visit one of his websites and check out some of his publications:

Websites: <https://www.extension.iastate.edu/igfi/>

<https://www.design.iastate.edu/faculty/bdas/>

<https://ruralshrinksmart.org/>

<https://covidrental.design.iastate.edu/index.html>

Mullenix, E., **B. Das**, and B. Hanson, City General Fund Revenues and Expenditures, 2020 Joint publication with League of Cities, Select Cities, 2020

<https://indicators.extension.iastate.edu/projects/IGFI/reports/budget/budget.php?cityFIPS7=190555>

Das A. and **B. Das**, Economic and Fiscal Impacts of Refugees in Central Iowa, *Journal of Extension*, 2019, Volume 57 (2) <https://joe.org/joe/2019april/rb3.php>.

**Das, B.**, E. Mullenix., B. Hanson, R. Shah and C.J. Seeger and. FYE 2019. Annual Fiscal Conditions Report-Iowa Cities. 942 reports (peer-reviewed), one each for every city in the State of Iowa, 2019.

<http://igfi.extension.iastate.edu/city-reports>

**Das, B.**, L. Eathington, C.J. Seeger, B. Hanson and R. Shah, Annual Fiscal Conditions Report-Iowa Counties. FYE 2019, 99 reports (peer-reviewed), one each for every county in the State of Iowa, 2019.

<https://www.extension.iastate.edu/igfi/county-reports>

**Das, B.**, and M. Skidmore, Asymmetry in Municipal Government Responses in Growing vs. Shrinking Counties with Focus on Capital Spending," *Journal of Regional Analysis and Policy*, 48(4) 62-75. 2018. <https://jrap.scholasticahq.com/article/6766-asymmetry-in-municipal-government-responses-in-growing-versus-shrinking-counties-with-focus-on-capital-spending>

**Das, B.**, C. Kendall, C.J. Seeger and B. Hanson. FYE 2017. Debt Analysis Report, FYE 2017, 942 reports, one each for every city in the State of Iowa, 2017 <https://store.extension.iastate.edu/product/Iowa-Government-Finance-Initiative-IGFI-Debt-Analysis-Report-Fiscal-Year-End>

## Member Spotlight: Rebekka Dudensing



*Please tell us about yourself!*

I am an Associate Professor and Extension Economist in Community Economic Development with the Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research, agencies within the Texas A&M University System. As an extension economist, I work with communities and businesses to evaluate opportunities for local and regional economic development. This includes facilitating strategic or business planning efforts; measuring economic impacts of industries, disasters, and tourism events; and evaluating the socioeconomic outcomes of industry and regional development projects. Local foods projects link farmers to

consumer and wholesale markets; promote equitable food access for consumers, and engage youth in small-scale agriculture ventures. My work often promotes rural-urban interdependence and cooperative regional planning. I am particularly interested in the sustainability of agriculture- and natural resource-dependent rural communities. I earned a B.S. in Agriculture from Kansas State University, an M.S. in Agricultural and Applied Economics from Texas Tech University, and a Ph.D. in Applied Economics at Clemson University.

*How did you find NARSC and to what degree are you currently involved?*

I found NARSC through the Mid-Continent Regional Science Association. My NARSC involvement primarily involves attending and presenting at the annual conference. We are fortunate that regional scientists have such rich and respectful discussions about conference papers.

*Please tell us about your research.*

It is important that my research have direct implications for rural communities and that community leaders can understand my research and apply those principles and tools to their local economies. Much of my research considers the quality-conscious and cost-effective provision of services, including education, healthcare, and transportation, in rural areas. As we think about aging populations in many rural areas, projects studying public transit for older adults and healthcare provision, including telemedicine, have provided timely, actionable information for rural leaders. Projects with multiple partners in the local foods sphere have expanded farmers' opportunities and consumers' food access by identifying farmers' and purchasers' wholesale price points and form preferences, understanding barriers to farm growth, and creating a tiered pricing model for mobile markets. I also do a fair bit of research on the economic impacts of disasters; currently, I am working with a team evaluating the effects of Hurricanes Harvey and Laura and COVID-19 on minority-owned businesses and non-profits.

*How does your research contribute to the field of Regional Science?*

My applied research answers questions raised by extension clientele while simultaneously serving a broader audience and advancing the methods by which economic development questions are answered. For example, a single Texas hospital district is considering the feasibility of telemedicine, and the data, calculations, and conditions we are studying are relevant across the rural U.S. I also strive to advance the methods by which economic development questions are answered, for example, by integrating new data, methods, and outside models into economic impact models.

*How do you see the field of Regional Science evolving going forward?*

Both regional science and economics are thriving on rich data and models. I think our modeling capabilities will continue to advance. At the same time, regional science work remains grounded in theory. I believe we will see some strong advancements in theory supported by data, models, and collaborative, community-engaged work. Regional scientists need to maintain not just policy relevance but practical significance to those who live in and lead communities.

If you want to learn about Dr. Dudensing's research please visit her website and check out some of her publications:

Website: <http://ruralcommunities.tamu.edu>

**Dudensing, Rebekka**, Bridget Guerrero, and Steve Amosson. 2019. Evaluating the Accuracy of Regional Economic Impact Estimates: Considering a 2013 Beef Plant Closure in Texas. *Journal of Regional Analysis & Policy* 49(1):92-107.

Crompton, John L., Ji Youn Jeong, and **Rebekka Dudensing**. 2016. Sources of Variation in Economic Impact Multipliers. *Journal of Travel Research* 55(8): 1051-1064.

Mjelde, James W., Alicia A. Israel Schwarzlose, **Rebekka Dudensing**, Yanhong Jin, Linda K. Cherrington, and Junyi Chen. 2016. Subject Pool Effects between the General Population and Students: A Choice Experiment Example. *Applied Economics Letters* 23(14): 1018-1021.

Van Sandt, Anders, Craig Wesley Carpenter, **Rebekka Dudensing**, and Scott Loveridge. Forthcoming. Demand Threshold Analysis of Health Service Industries. *Health Economics*, published March 21, 2021, <https://doi.org/10.1002/hec.4242>

## Member Spotlight: Elham Erfanian



### *Please tell us about yourself!*

My name is Elham Erfanian, and I am a research assistant professor in the Department of Agricultural Economics at the University of Kentucky. I am closely involved with the Community and Economic Development Initiative of Kentucky (CEDIK). I graduated from West Virginia University, Department of Resource Economics and Management with a Ph.D. in Natural Resource Economics in 2019. I received my M.Sc. in Agricultural Economics from the University of Tehran, IRAN, and my B.Sc. degree is in Agricultural Economics from the University of Kerman, IRAN.

### *How did you find NARSC and to what degree are you currently involved?*

I was fortunate to have had the opportunity to become involved in regional science as a graduate research assistant at the Regional Research Institute (RRI) starting in 2013 during my education at WVU. The first regional conference that I attended was the Southern Regional Science Association (SRSA) in 2015 in Mobile, AL. SRSA 2015 was my first experience for being involved in a regional science association. I had volunteered for this conference, and Dr. Randall Jackson – RRI Director, my supervisor at the time, and my all-time mentors – encouraged me to do so. I have been involved with the regional science association ever since.

In 2016, I presented the first essay of my dissertation at NARSC; I also chaired the session. This session included three other interesting water-related research projects based on regional science. I have served as a presenter, discussant, chair, and administrative support for logistics at NARSC as well as at the SRSA annual conferences. I was always at the registration desk, giving me the opportunity to meet with the majority of attendees during the NARSC/SRSA. I have served as the tech person during the last virtual NARSC, WRSA, SRSA, as well as the RSAI. My next step is to organize sessions both at NARSC and the SRSA conferences, as well as becoming more engaged in administrative activities and committees.

### *Please tell us about your research.*

Currently, I am involved in two United States Department of Agriculture/ Agriculture and Food Research Initiative (USDA/AFRI) projects: one focuses on the healthcare system and economic development, and the other one focuses on water, wastewater, and economic development. I am also working on another project funded by the Robert Wood Johnson Foundation on water quality and

public water systems and their effect on public health in rural and more isolated and sparsely populated regions.

Building upon the three essays of my dissertation in which I applied spatial econometrics in three different areas (including water, health policy, and energy), I am a principal investigator, collaborator, and coauthor for a few projects. As part of this effort, I serve as a PI for a project funded by the Appalachian Regional Commission (ARC) on recovery and treatment facilities in the Appalachian Region. This research investigates the efforts that empower states to set treatment and recovery programs. In another research, I investigate the Prescription Drug Monitoring Program (PDMP) policy, which is aimed mainly at curbing the supply-side of prescription drugs among U.S. states. While research aimed at assessing the effectiveness of PDMPs has begun, few of them have adequately addressed the heterogeneity in the policy, and none have accounted for spatial dependencies and spillovers to and from neighboring states. Another collaboration focuses on investigating the water utilities' ownership and their willingness to carry long-term debt among West Virginia water utilities.

### *How does your research contribute to the field of Regional Science?*

Three of my publications are based on essays from my dissertation in which I applied spatial econometrics as an approach to control for spillover effects. For instance, in the first essay, which is about water rates, the results show that the water rate in one region has local spillover effects (indirect effects) on neighboring regions' water rates and vice versa. In another research that investigates the impact of naloxone access laws on overdose deaths, the results reveal the importance of spillovers in policy analysis; naloxone access laws policy in one state not only impacts the outcome variable (overdose death rate) within that state, it also affects the overdose death rate in surrounding states, stating that the opioid crises in the U.S. extends beyond states' boundaries. The other example of my research in the regional science domain is the health outcome of emission, which is a good example of spillover effects on surrounding regions. Emission in one Pennsylvania county impacts the asthma hospitalization in downwind counties in Pennsylvania as well as contributing to the outcome within the county.

The area of research that I am interested in investigating more is locations' characteristics, clusters, location interactions, and spillover effects. My research accomplishments emphasize the indirect effects of explanatory variables and the cause of biased estimation while omitting the spillover effects when needed. For years to come, I plan to investigate regional science models and toolboxes in the area of public policy analysis as well as economic development.

### *How do you see the field of Regional Science evolving going forward?*

Whether or not we call regional science a stand-alone discipline, the welcoming culture of its conferences is an asset to continued growth by bringing together interdisciplinary scientists who share the same values and interests. Regarding the future of regional science, relevant outreach and extension activities focusing on science-based research in the field seems to be stronger than before and to remain strong, which is an excellent way to share policy-relevant, people-related outcomes of our studies with audiences who can influence the decision-making process, both for the public and outside of academia and to help them tackle complex problems. While we are all looking forward to going back to in-person conferences, I have attended many presentations and webinars during the last year; and now I am more aware of the hard work of our regional scientist colleagues in different states. The University of Wisconsin-Madison, University of Missouri, and the University of Florida are among instances of

highly-engaged regional scientists in diverse settings of community involvement and policy-relevant activities.

Due to the power and capability of regional economic impact analysis tools and methods during the COVID pandemic and more likely post-pandemic, regional impact analysis has gained special consideration. This is true for the importance of spatial dimension theory and application, and spatial interactions to overcome options to public multidisciplinary challenges and problems. Intentional long-term efforts of the regional science community to be, and stay, more diverse and inclusive in several dimensions, including more students' engagement (undergraduate and graduates), building relationships, and providing a healthy collaboration environment are positive and realistic signs of regional science successes within the community and in partnerships with policymakers, local governments, community leaders, and public audiences.

If you want to learn about Dr. Erfanian's research, please visit her website and check out some of her publications:

Website: <https://www.elhamerfanian.com/>

**Erfanian, E., & Collins, A. R. (2018).** Charges for Water and Access: What Explains the Differences Among West Virginian Municipalities?. *Water Economics and Policy*, 4(04), 1850017.

**Erfanian, E., Grossman, D., & Collins, A. R. (2019).** The Impact of Naloxone Access Laws on Opioid Overdose Deaths in the U.S. *Review of Regional Studies*, 49(1), 45-72.

**Erfanian, E., & Collins, A. R. (2020).** Air Quality and Asthma Hospitalization: Evidence of PM2.5 Concentrations in Pennsylvania Counties. *Journal of Regional Analysis & Policy*. 50(1):1-15.

**Cushing, B. J., Erfanian, E., & Peters, D. (2020).** The National Drug Crisis-What Have We Learned from the Regional Science Disciplines? *Review of Regional Studies*, 50(3), 353-382.

**Erfanian, E., & Neto, A. B. F. (2017).** Scientific Output: Labor or Capital Intensive? An Analysis for Selected Countries. *Scientometrics*, 112(1):461-482.

## Member Spotlight: Bridget Guerrero



### *Please tell us about yourself!*

Dr. Bridget Guerrero is an Associate Professor of Agricultural Business and Economics at West Texas A&M University in Canyon, TX. She received a Bachelor of Science in Agribusiness in 2002 and a Master of Business Administration in 2003 from West Texas A&M University. She earned her doctoral degree in Agricultural and Applied Economics from Texas Tech University in 2010. She is originally from Vega, Texas where her family farms. Bridget worked for the Texas A&M AgriLife Extension Service for 10 years prior to joining the faculty at West Texas A&M University where much of her research was focused on water-related issues pertaining to agriculture.

### *How did you find NARSC and to what degree are you currently involved?*

Dr. Guerrero first became a member of NARSC when she also joined the MCRSA in 2012. She has participated in many regional science meetings since then and is the current President of the MCRSA.

She feels these conferences are some of the most beneficial conferences that she attends in terms of networking and professional development. The conference attendees have always made her feel welcome and provide helpful suggestions to increase the quality of her research. She likes the relaxed atmosphere and the way professionals across different disciplines come together to help each other.

*Please tell us about your research.*

Dr. Guerrero's research interests include socioeconomic modeling, water policy, production agriculture, and renewable energy. She has worked extensively with the Ogallala Aquifer Program to develop a series of Extension publications to help communicate the regional economic contribution of different agricultural-related sectors as well as their water use. These sectors include ethanol, beef, swine, dairy, feed grains, small grains, and cotton. Since agriculture uses a large percentage of water across the United States, she feels that her research has been valuable for many different types of stakeholders. She has also incorporated her research into the classroom to help the next generation think about water use in the agricultural production process. Education is extremely important in bringing about change.

*How does your research contribute to the field of Regional Science?*

I think that through this research we can help policymakers identify strategies that will help irrigated producers in the region compensate for limited and declining water availability in their operations. These strategies should be focused on saving water, while at the same time, keeping producer profits and rural economies vital. While not all policymakers understand production agriculture, they can easily identify with the ripple effect of (additional/fewer) dollars flowing through the regional economy. Dr. Guerrero has worked to identify methods that would allow for better estimates of regional economic impacts and/or contributions related to the agricultural sectors of the economy in the southern portion of the Ogallala Aquifer Region in order to enhance the quality of research output.

*How do you see the field of Regional Science evolving going forward?*

Regional Science will continue to be an important part in communicating the impacts and contributions to various stakeholders. I believe our estimations and computing ability will continually evolve to become more sophisticated as well as user-friendly. Importantly, we must continue to support the collection of data across the many sectors of our economy in order to have more precise estimates.

If you want to learn about Dr. Guerrero's research, please visit her website and check out some of her publications:

Website: <https://www.wtamu.edu/academics/college-agriculture-natural-sciences/departments-agricultural-sciences/faculty/bridget-guerrero-bio.html>

Crouch, M., **B. Guerrero**, S. Amosson, T. Marek, and L. Almas. "Analyzing Potential Water Conservation Strategies in the Texas Panhandle." *Irrigation Science*, (July 2020). <https://doi.org/10.1007/s00271-020-00691-2>.

Deines, J., M. Schipanski, B. Golden, S. Zipper, S. Nozari, C. Rottler, **B. Guerrero**, and V. Sharda. "Transitions from irrigated to dryland agriculture in the Ogallala Aquifer: Land use suitability and regional economic impacts." *Agricultural Water Management*, April 2020, 233(106061):1-10.

Reynolds, S., **B. Guerrero**, B. Golden, S. Amosson, T. Marek, and J. Bell. "Economic Feasibility of Conversion to Mobile Drip Irrigation in the Central Ogallala Region." *Irrigation Science* (March 2020). <https://doi.org/10.1007/s00271-020-00667-2>.

Dudensing, R., **B. Guerrero**, and S. Amosson. 2019. "Evaluating the Accuracy of Regional Economic Impact Estimates: Considering a 2013 Beef Plant Closure in Texas." *Journal of Regional Analysis and Policy*, 49(1): 92-107.

**Guerrero, B.**, R. Owens, S. Amosson, K. Sukcharoen, J. Richeson, and L. Almas. 2019. "Assessing Economic Changes due to an Expanding Dairy Industry in the Texas High Plains." *Journal of the American Water Resources Association*, 55(3):670-679.

## Member Spotlight: Sarah Low



### *Please tell us about yourself!*

Since September 2018, I have served as an associate professor of regional economics and held the Fred V. Heinkel Chair in Agriculture within the [Division of Applied Social Sciences](#) at the [University of Missouri](#). I also direct MU Extension's [Exceed – Regional Economic and Entrepreneurial Development program](#). Before beginning my career in academia, I spent 10 years at USDA's Economic Research Service in Washington, D.C. Earlier, I worked at the Center for the Study of Rural America at the Federal Reserve Bank of Kansas City. I hold a PhD in agricultural and consumer economics from the University of Illinois Urbana-Champaign; an MS in agricultural economics from Purdue; and a BS from Iowa State in public service and administration in agriculture, which included exposure to rural sociology,

economics and public policy – essentially an undergraduate degree in regional science!

### *How did you find NARSC and to what degree are you currently involved?*

I found the Southern Regional Science Association (SRSA) before I found NARSC. My unique undergraduate degree led me to my MS thesis supervisor, who was then SRSA's treasurer. I first attended NARSC in 2004 and loved the people, the topics and the discussion. In 2013, I began co-organizing the regional/rural development sessions with Stephan Weiler. I was president of SRSA from 2018-19. Currently, I serve on the NARSC council as the Mid-Continent RSA representative and on the diversity and inclusion committee.

### *Please tell us about your research.*

My passion lies in studying entrepreneurship as a rural development strategy. My research currently focuses on rural entrepreneurship, establishment dynamics and the impact of broadband access on rural economic development. Recently, with Tessa Conroy, I've begun to look at issues facing rural female entrepreneurs. I grew up in a poor, remote rural village in Scotland, and that experience instilled in me a drive to help rural people as the way of life transitioned away from agriculture, fishing and forestry to a more service-based economy. My research is driven by real-world problems and motivated by potential policy solutions.

### *How does your research contribute to the field of Regional Science?*

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My research influences regional science and agricultural economics by considering how space influences rural economic development strategies. Let me share two examples of this:

- Jeff O'Hara and I estimated the income elasticity of farm direct-to-consumer (DTC) sales of food using panel data and found that changes in nearby urban areas' per capita income affected DTC sales in the surrounding rural areas. We found that recessions affect DTC food sales and that local food farmers located closer (<100 miles) to metro areas benefit most from urban area income growth.
- In a subsequent paper, we found that online sales could be a great opportunity for farms located in remote rural areas – a way for rural farms to benefit from urban areas' income growth. Less than two months later, local food markets were disrupted by the stay-at-home orders precipitated by COVID-19, and online sales became a real force.

These two articles helped to estimate COVID-19's impact on local and regional food farmers. Both made a case for including, for the first time, local and regional food producers in a relief bill – the 2020 CARES Act.

### *How do you see the field of Regional Science evolving going forward?*

My graduate students will tell you that I'm a firm believer in understanding the past before charging a path forward. In that regard, I really enjoyed Luc Anselin's NARSC 2020 Online Summer Speakers Series, "[Regional Science Origins and Development: a personal view](#)," and encourage anyone who missed it – particularly scholars new to regional science – to check out it. Going forward, I think regional science will continue to be a "secondary field" for many – albeit an important and policy-relevant field – and we need to recognize how this affects new scholars trying to establish themselves and earn tenure. I think regional science has a reputation for being welcoming and inclusive, and continuing these themes will be essential to our future vitality. You can always look for me at the women in regional science happy hours, for example!

If you want to learn about Dr. Low's research, please visit her website and check out some of her publications:

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

Conroy, T. & S.A. Low. In press. "The Need for Speed: Rural Broadband and Entrepreneurship by Business Size and Gender." *International Regional Science Review*.

Low, S. A. 2020. "Rural Development: Perspectives from Federal and State Experiences with a Broadband Example." *Review of Regional Studies*, (2020)50, 311-322.

Low, S.A., Bass, M., Thilmany, D., & M. Castillo. 2020. "Local Foods Go Downstream: Exploring the Spatial Factors Driving U.S. Food Manufacturing." *Applied Economic Perspectives and Policy*. Forthcoming. doi: 10.1002/aep.13046

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.

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*, (2019)49, 428-453.

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## Member Spotlight: Melody Muldrow

### *Please tell us about yourself!*

Originally from Little Rock, Arkansas, I'm a second-year doctoral student at the University of Missouri obtaining my Ph.D. in Applied Economics. Before moving to Columbia, I had the extreme pleasure of working with Arkansas lawmakers, state agencies, community leaders, and various business leaders, aiding them in finding solutions to improving the economic development of the state and its residents while also working at the University of Arkansas at Little Rock (UA-Little Rock).

### *How did you find NARSC and to what degree are you currently involved?*

I learned about the NARSC while presenting at the Western Regional Science Conference in Tucson, Arizona. I was fortunate to present research at the 63rd NARSC Conference in Minneapolis, MN.

### *Please tell us about your research.*

My research focus is on poverty in the Deep South. Being from Arkansas, I have seen firsthand the devastating effects of poverty on marginalized communities. My home state faces many challenges, like low educational attainment, high levels of unemployment, an economy heavily dependent on low-wage jobs, and counties with a high rate of poverty that exceeds the national poverty rate. With the Covid-19 pandemic, many states in the Deep South such as Arkansas, Mississippi, and Alabama are grappling with the economic consequences of the pandemic- increasing poverty rates and widening of income disparities. Understanding how to alleviate poverty and address income inequality is vital now, more than ever before.

### *How does your research contribute to the field of Regional Science?*

A deeper examination of the dichotomy between people-based and place-based approaches to addressing poverty will facilitate community discussions, public policy decisions, and hopefully create space for a better understanding of the relationship between geographical area and poverty.

### *How do you see the field of Regional Science evolving going forward?*

As regional scientists develop and use new ideas and techniques to find solutions to problems, their efforts will spark innovation and stimulate creativity that will energize the field and ensure Regional Science continues to evolve and address important issues. I am very excited about the future of Regional Science!

If you want to learn about Melody Muldrow's research, please see this recent interview with her in CAFNR News: <https://cafnr.missouri.edu/2020/08/making-a-difference-for-communities-in-need/>

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## Melissa Haller of University of California Los Angeles to Receive the 21st Annual Benjamin H. Stevens Graduate Fellowship in Regional Science

Melissa Haller, a Ph.D. candidate in Geography at the University of California, Los Angeles has been selected as the winner of the 21st Annual Benjamin H. Stevens Graduate Fellowship in Regional

Science. The Fellowship will provide a 2021–2022 Academic Year stipend of \$30,000 to support Ms. Haller’s dissertation research on *“Economic Crises, Knowledge Workers, and the Geography of Economic Recovery.”*

Ms. Haller’s research investigates economic decline in large firms across the United States and the consequences of that decline for workers and cities. The results of this dissertation will be of wide-ranging interest to regional scientists and policymakers, especially in the context of the resilience of cities and regions to the economic disruptions and restructurings brought about by the COVID-19 pandemic and its aftermath. Ms. Haller’s doctoral research is supervised by David Rigby, Professor of Geography at UCLA.

In addition to selecting the Fellowship recipient, the Selection Committee identified two applicants as meriting special recognition as finalists in the 21<sup>st</sup> Annual Competition: Amelia Pludow, University of California, Santa Barbara, advised by Alan Murray; and Hui Shen, University of Illinois at Chicago, advised by Jane Lin. The 21<sup>st</sup> competition winner and finalists will be recognized at the awards luncheon of the 68<sup>th</sup> North American Meetings of the RSAI in Denver.

The Committee thanks the 29 students who entered the competition in 2021, as well as their dissertation supervisors.

**The Benjamin H. Stevens Graduate Fellowship in Regional Science** was established in 1998 in memory of Dr. Benjamin H. Stevens (1929–1997), an intellectual leader whose selfless devotion to graduate students as teacher, advisor, mentor, and friend continues to have a profound impact on the field of Regional Science. Graduate students enrolled in Ph.D. programs in North America are eligible to compete for the Benjamin H. Stevens Graduate Fellowship in support of their dissertation research in Regional Science.

Faculty at all North American Ph.D. programs are asked to encourage their best students to apply for the 22<sup>nd</sup> Stevens Graduate Fellowship, which will support the winning student’s dissertation research in the field of Regional Science with a fellowship of \$30,000 for the 2022–2023 academic year. The application deadline is February 15, 2022. Full submission guidelines may be found at [www.narsc.org/newsite/awards-prizes/applications/](http://www.narsc.org/newsite/awards-prizes/applications/)

The 2021 Stevens Fellowship competition was overseen by a Selection Committee composed of: Daoqin Tong, Arizona State University (Chair); Elizabeth Mack, Michigan State University; Steven Deller, University of Wisconsin, Madison; Nicholas Nagle, University of Tennessee; and Shaoming Cheng, Florida International University. The Stevens Fellowship Committee administrates the Stevens Fellowship Fund on behalf of the North American Regional Science Council; its members are: Tony Smith, University of Pennsylvania, Chair; David Plane, University of Arizona, Secretary; Michael Lahr, Rutgers University, Treasurer; Janet Kohlhasse, University of Houston; and Neil Reid, Executive Director of NARSC.

Fundraising to support the Stevens Fellowship Fund, begun in 1998, is ongoing. Donations may be made either via credit card by accessing the User Area of the NARSC website or by sending a check

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to: The Stevens Fellowship Fund / First Financial Bank, Attn: Danville Trust Department / One Towne Center / Danville, IL 61832 USA.

The Stevens Graduate Fellowship in Regional Science has now been awarded to the following students:

2000 Michael J. Greenwald (University of California, Irvine; Marlon Boarnet, advisor)

2001 Rachel Franklin (University of Arizona; Brigitte Waldorf, advisor)

2002 Jung Won Son (University of California-Los Angeles; Leobardo Estrada, advisor)

2003 Alison Davis Reum (North Carolina State University; V. Kerry Smith, advisor)

2004 Nicholas Nagle (Univ. of California-Santa Barbara; Stuart H. Sweeney, advisor)

2005 Xiaokun Wang (University of Texas at Austin; Kara Kockelman, advisor)

2006 Joshua Drucker (University of North Carolina at Chapel Hill; Harvey Goldstein and Edward Feser, advisors)

2007 Alvin Murphy (Duke University; Patrick Bayer, advisor)

2008 Paavo Monkkonen (University of California, Berkeley; David E. Dowall, advisor)

2009 Elizabeth Mack (Indiana University; Tony H. Grubestic, advisor)

2010 Adam Storeygard (Brown University; J. Vernon Henderson, advisor)

2011 Peter Richards (Michigan State University; Robert Walker, advisor)

2012 Ran Wei (Arizona State University; Alan Murray, advisor)

2013 Zhenhua Chen (George Mason University; Kingsley Haynes, advisor)

2014 (No award made)

2015 Ahmadreza Faghih Imani (McGill University; Naveen Eluru, advisor)

2016 Nick Tsivanidis (University of Chicago; Chang-Tai Hsieh, advisor)

2017 Lindsay E. Relihan (University of Pennsylvania; Gilles Durantou, advisor)

2018 Daniel Crown (The Ohio State University; Mark Partridge, advisor)

2019 Prottoy A. Akbar (University of Pittsburgh; Randall Walsh, advisor)

2020 Margaret Bock (West Virginia University; Joshua Hall, advisor)

2021 Melissa Haller (University of California, Los Angeles; David Rigby, advisor)

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## NARSC Members' Recent Grant Awards

**Funding Agency:** Texas Department of Transportation

**Amount:** \$366,199

**Project Participants:** Kara Kockelman, Ken Perrine, and grad students

**Project summary:** *Understanding the Impact of Autonomous Vehicles on Long-Distance Travel Mode and destination Choice in Texas.* As autonomous vehicles (AVs) become increasingly available over coming years, their travel, trade, emissions, cost, and other implications need to be anticipated across Texas. Prior studies predict AVs dominating U.S. passenger travel between 100 and 500 miles (one-way) and freight ton-miles over 300 miles. With network vehicle-miles travelled (VMT) predicted to rise by over 25% (as many Texas air travelers shift to shared AVs, others extend their current ground-trip distances, and still others begin more trip-making), this work shall gather new data to simulate year by year changes in freight and passenger flows across Texas and the nation for all competing modes, including a close look at airport access costs. Coupled with other trends (like population growth and aging), the Performing Agency shall anticipate impacts on airline ticket sales, railway freight, and traffic volumes by light and heavy-duty vehicles, near and long term, across emerging technologies, policies and cost scenarios. Project deliverables shall enable state and local practitioners to directly extend and update their planning models and predictions, with focus on longer-distance trip-making.

**Funding Agency:** National Science Foundation

**Amount:** \$19,900,512

**Project Participants:** Dr. Amy McGovern (University of Oklahoma) (PI), Dr. Philippe Tissot (TAMUCC) (Co-PI), Dr. Antonio Medrano (TAMUCC) (Senior Personnel), and others.

**Project summary:** *The NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography.* AI2ES is a convergent center that will create trustworthy AI for environmental science, revolutionize prediction and understanding of high-impact weather and ocean hazards, and benefit society by protecting lives and property. Leading experts from AI, atmospheric and ocean science, risk communication, and education, will work synergistically to develop and test trustworthy AI methods that will transform our understanding and prediction of the environment. Trust is a social phenomenon, and our integration of risk communication research across AI2ES activities provides an empirical foundation for developing user-informed, trustworthy AI by engaging and partnering with key environmental decisionmakers from communities that will be using the techniques developed. Our partnership of multiple academic institutions, NCAR, NOAA, and private industry spans the full cycle of fundamental research into trustworthy AI and enables rapid integration of trustworthy AI for increased societal impact. Environmental science provides a perfect testbed to advance trustworthy AI given its grounding in nature's physical laws and conservation principles as well as the broad range of stakeholder feedback and high societal impact. More info here: <https://www.ai2es.org/>

**Funding Agency:** Robert Wood Johnson Foundation (RWJF)

**Amount:** \$540,756

**Project Participants:** The [US COVID Atlas](#) project was developed by a research coalition led by the University of Chicago [Center for Spatial Data Science](#) and [Healthy Regions & Policies Lab](#). The core project team includes: Marynia Kolak, Xun Li, Qinyun Lin, Dylan Halpern, and Susan Paykin.

**Project summary:** The [US COVID Atlas](#) provides highly customizable exploration of up-to-date pandemic data across numerous metrics, representation styles, and data sources. The Atlas utilizes multiple datasets to engage uncertainty in the rapidly changing pandemic landscape. The varied metrics highlight the social determinants of health that shape COVID-19's impact, such as cases and deaths contextualized by measures of poverty and access to health care.

The US COVID Atlas is entirely free and open source, meaning that any users can access the platform or extend the code for future uses. Data are available as totals or population-normalized figures, allowing for historic exploration through the beginning of the pandemic. Area highlights shine a light on communities historically impacted by inequity, racism, and colonialism, such as Southern Black Belt counties and Native American Tribal Reservations. The spatial data science capacities of the project include hotspot analysis to find statistically significant areas of high rates near other high rates, providing a simple but powerful way to identify emerging areas of concern.

Newly-awarded funding will allow the Atlas to expand its impact through refining spatiotemporal exploration, adding community typology measures and a multimedia layer, conducting a community vulnerability assessment, and developing interactive workshops.

**Funding Agency:** US Economic Development Administration – Department of Commerce

**Amount:** \$746,000 project total, with \$596,000 Federal share

**Project Participants:** Dawn Thilmany, Rebecca Hill, and Stephan Weiler – Regional Economic Development Institute, Colorado State University

**Project summary:** *Planning and Technical Support to Diversify Colorado's Regional Economic Opportunities.* See this press release for a summary of their project: [https://eda.gov/news/press-releases/2021/03/04/grand-junction-co.htm?utm\\_content=&utm\\_medium=email&utm\\_name=&utm\\_source=govdelivery&utm\\_term=](https://eda.gov/news/press-releases/2021/03/04/grand-junction-co.htm?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

**Funding Agency:** National Science Foundation

**Amount:** \$460,000

**Project Participants:** Yongwan Chun (University of Texas at Dallas), Daniel A. Griffith (University of Texas at Dallas) and Hyun Kim (University of Tennessee at Knoxville)

**Project summary:** *Integration of spatial autocorrelation into location-allocation problems: Enhancing solving capabilities and heuristics.* This project is about improving the solution quality and speed in solving location-allocation (L-A) problems that are difficult to solve optimally, but still commonly formulated and solved in many cases involving planning networks of facilities. This research will investigate the very common tendency for (dis)similar attribute values related to facility service usage to cluster geographically; that is, spatial autocorrelation (SA). This research will demonstrate how using this SA information can assist in solving these L-A problems. This new approach will permit better and faster computational solutions to large L-A problems. Successful completion of this research will support extending this solution methodology to many additional practical problems, offering savings to society of a great deal of effort and money. The literature describing relationships between SA and locational

solutions to L-A problems is scant. This project will help fill this gap. Revised problem formulations will focus on the reduction of the number of possible locational solutions examined so that solving large-size L-A problems and other related locational problems becomes tractable and efficient. This investigation of the novel interface between spatial statistics (e.g., SA) and spatial optimization (e.g., L-A) will provide new knowledge and convincing proof-of-concept evidence that should spur further academic research.

**Funding Agency:** Maryland Department of Labor, Division of Unemployment Insurance

**Amount:** \$396,409

**Project Participants:** Ting Zhang, (Jacob France Institute, University of Baltimore) (PI), Chris O'Leary (W.E. Upjohn Institute) (Co-PI), and team members Gabrielle Pepin, Ken Kline (W.E. Upjohn Institute Researchers); Conrad Helms, John Janak, Trever Stack, Richard Clinch, Stacey Lee (Jacob France Institute).

**Project summary:** Unemployment insurance (UI) is intended to provide adequate partial income replacement to workers during temporary periods of involuntary unemployment. As an earned entitlement, the eligibility conditions should be objective and fair and benefits should be adequate in amounts and duration without excessively discouraging return to work. To have a UI system that is balanced and sustainable, revenues need to match expenditures on average over business cycles. Recent years have witnessed erosion of benefit adequacy and reciprocity in states with inadequate financing. This project first evaluates Maryland UI Trust Fund usage over the years and raises policy suggestions.

The Reemployment Services and Eligibility Assessments (RESEA) program provides UI eligibility assessments and reemployment services to UI beneficiaries. The most relevant approach to assess RESEA is based on job search theory. In job search theory, the higher the level of UI benefits the higher the reservation wage and the longer the search for work. Job search theory also suggests that a higher intensity of job search will generate more offers in a search period, thereby increasing the chances that a job offer with a wage rate above the reservation wage will arrive. This project further evaluates Maryland RESEA program effectiveness and raise implication for best practice.

**Funding Agency:** US Department of Education (USDE) and Maryland Department of Disability

**Amount:** \$308,679

**Project Participants:** Ting Zhang, (Jacob France Institute, University of Baltimore) (PI), and team members Conrad Helms, John Janak, Sang Truong, Stacey Lee (Jacob France Institute).

**Project summary:** The state of Maryland is one of six grantees receiving funding for five years from the U.S. Department of Education to develop, implement, and evaluate a service model that promotes positive outcomes for children and their families who receive Supplemental Security Income (SSI). The U.S. Department of Education and its federal Maryland Promoting Readiness of Minors in Supplemental Security Income (PROMISE) partners intend to use the findings and results from Maryland and the other grantees to inform public policy and to build an evidence base for improving postsecondary education and employment outcomes of child SSI recipients and their families. The intervention components of the Maryland PROMISE target to youth and their families services such as Career and work-based learning experiences and Family training and information. The objectives of the Maryland PROMISE include increase in employment of youth and adults with disabilities, increase in individual and family income, and decrease in public income support. This project analyzes the labor

market outcomes and trends, as well as social service participation, for those youth and their family members.

**Funding Agency:** United States Department of Agriculture – Hispanic Serving Institution

**Amount:** \$250,000

**Project Participants:** Project Director: Dr. Nyakundi Michieka – California State University, Bakersfield (Economics - CSUB), Co-Project Director(s): Dr. Saeed Jafarzadeh (Electrical Engineering – CSUB), Dr. Jeroen Gillard (Biology – CSUB), Dr. Yiannis Ampatzidis (Precision Engineering – University of Florida).

**Project summary:** *BRIXCAL: Building Research and Internship Experiences for Hispanics in California's Central Valley.* The objective of this project is to provide an underserved student population with the opportunity to (1) experience research in Agricultural Engineering, Biology, and Environmental Resource management through faculty-mentored projects, (2) establish an internship program that provides qualified undergraduate students with paid opportunities for internships with local USDA institutions, (3) Develop and offer a summer workshop series to provide student participants with written and communication skills pertinent to disseminating results in the four fields, and applying to internships, graduate schools, and jobs, and (4) establish an alliance including university professors, scientists, local government officials and education specialists, that will help recruit and retain outstanding students in a largely Hispanic population. This project will increase the number of Hispanic students prepared for USDA agricultural- and natural resource-related careers while furnishing them with skills needed to pursue advanced degrees in Agricultural Engineering, Biology, and Environmental Resource management.

**Funding Agency:** U.S. Economic Development Administration

**Amount:** \$2.75 million total: \$2.2 million from EDA. \$550,000 in match support from state of Ohio

**Project Participants:** G. Jason Jolley, Ph.D. (Principal Investigator) Professor of Rural Economic Development, Voinovich School of Leadership and Public Affairs, Ohio University.

**Project summary:** The Resilience Initiative for Southeastern and Eastern Ohio or RISE Ohio is a \$2.75 million, three-year program led by Ohio University's Voinovich School, in partnership with the Buckeye Hills Regional Council (BHRC) and Ohio Mid-Eastern Governments Association (OMEGA), focused on helping communities in an 18-county region make an economic transition to new industries and ensuring continued job creation, as well as economic growth and diversification. The new funding will enable these communities to engage in Opportunity Zone planning, along with assisting them with the impacts of coal-fired power plant closures. RISE Ohio is supported by \$2.2 million is U.S. Economic Development Administration funding under the Assistance to Coal Communities (ACC) program. The project's 20% match requirement was supported by Ohio University's Voinovich School state appropriation Appalachian New Economy Partnership (ANEP) and JobsOhio, the state's private economic development organization.

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[Join us in Denver, CO for the 68th Annual North American Meetings of the Regional Science Association International, November 10-13, 2021](#)

Join us in Denver, Colorado for the 68th North American Meetings of the Regional Science Association International (RSAI) sponsored by the North American Regional Science Council (NARSC) and co-

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hosted by the Mid-Continent Regional Science Association. The deadline for submission of abstracts is July 1. The conference will be held at the beautiful Grand Hyatt Hotel in downtown Denver, November 10-13. The conference hotel is adjacent to Denver's Lower Downtown (LoDo) neighborhood. LoDo, Denver's oldest neighborhood, is home to some of the city's best-known restaurants, galleries, shops, and boutiques. Located in the heart of downtown, businesses ranging from finance and real estate to retail and start-ups can be found here. You can learn more about the conference, submit an abstract, and register for the conference and workshops at the [NARSC Website](#).

We are in the process of organizing several pre-conference workshops, as well as keynote speakers. We are also planning to have numerous organized sessions devoted to specific topics. Do you have an interest in organizing a special session or a series of special sessions? If you do, please contact NARSC Executive Director, Neil Reid ([neil.reid@utoledo.edu](mailto:neil.reid@utoledo.edu)), as soon as possible.

A list of currently organized special sessions are:

1. [Location and Spatial Analysis](#)
2. [Machine Learning in Regional Science: Perspectives, Methods, and Applications](#)
3. [Demographic Transitions: Regions, Cities, and Neighborhoods](#)
4. [Transportation Accessibility, Socioeconomic Impacts, and the COVID-19 Pandemic](#)
5. [Regional Forensic Analysis and the Informal Economy](#)
6. [Diversity, Equity and Inclusion in Regional Development](#)
7. [Population Aging and Regional Science](#)
8. [Regional and Rural Development](#)
9. [Regional Economic Effects of Disasters](#)
10. [Workforce Impact of Autonomous Technologies](#)

If you are interested in participating in one of these special sessions contact the session organizer.

If you have any questions or suggestions, here's who to contact:

- Local arrangements: [John Spring](#)
- Program Chair: [Soomi Lee](#)
- Overall Arrangements: [Neil Reid](#) 419-530-3593, University of Toledo