Introduction to the Special Issue on Rural Economic Development: New Research Insights and how the COVID-19 Pandemic may Impact Future Investment Strategies

Martin Lavelle

I’ve always had a natural curiosity about small towns and how rural communities function. As a child, my family and I often visited my maternal grandparents’ house in a small town located in a nonmetro county in Southwestern Ohio. As my maternal grandparents and parents dragged me along to seemingly every antique shop on or in the vicinity of the National Road corridor between Southwest Ohio and East Central Indiana, I frequently wondered how these small towns survived. I’m certain others who visit these towns and rural areas share my concern. I figured that the income derived from farming combined with the amount of business conducted by the local Main Street businesses must be enough to support these small towns and the surrounding rural population.

Like me, you may have asked the same questions about small towns and rural communities, but with a greater awareness as to the challenges rural geographies face. Every now and then, I’m fortunate to be invited to speak about the economy at one of northern Michigan’s popular tourist towns or resorts. Trips to these towns and resorts require several hours of driving through the state’s vast tracts of rural land. During the trip, I’ll drive by beautiful parks, thriving diners, and the well-maintained lawns in front of vintage-style homes that show the pride residents have in the town in which they live. Unfortunately, I would also see abandoned warehouses, idled manufacturing facilities, foreclosed homes, blighted apartment buildings, and dilapidated tourist attractions from days gone by. When these conditions are present in a major city, for instance Detroit, they draw regional and national attention that catalyzes coordinated campaigns involving multiple philanthropists, foundations, and government officials to revitalize the city and restore the city’s attractiveness. But rural geographies don’t garner national attention or necessarily have access to a deep base of philanthropies, nonprofit organizations, or even government support they can draw upon to try and execute economic development strategies that would jump-start economic activity in their respective communities.

While researchers have produced an incredible amount of literature on how to promote economic development in rural areas, rural stakeholders and community leaders may not be aware of the body of research that is available or best-promising practices that have been used to improve economic conditions in other rural communities. For example, should a rural community utilize a place-based strategy that looks to improve the quality of life in a location, making it more attractive for people to stay, or a people-based strategy that provides direct assistance to the disaffected population, potentially allowing them to move outside of the challenged area?1

The desire to assist rural communities in their efforts to increase economic activity and promote development led to a partnership between the W.E. Upjohn Institute for Employment Research, Economic Development Quarterly, and the Federal Reserve Bank of Chicago. Our work has resulted in a special issue of academic research papers and will be presented at a conference scheduled in Grand Rapids, Michigan on September 28–29, 2022. The event will involve dialogues between the papers’ authors and practitioners on how efforts from both groups can assist rural economic development.2

This conference was scheduled for May 2020 but was rescheduled due to the COVID-19 pandemic. Arguably, the pandemic magnified the challenges rural communities face and clarified the issues that will be addressed at the September 2022 conference.

Different Economic Recoveries in Urban and Rural Areas

After the Great Recession, economic recovery in urban areas was relatively faster than rural areas. Using the U.S. Bureau of Economic Analysis’ (BEA) delineation of metro versus nonmetro counties, the pace of economic growth was similar for urban and rural areas from 2010 to 2014 before

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noticeably diverging in 2015. Until the COVID-19 pandemic, the pace of growth in metro counties continued its post-Great Recession track, while in rural counties, the pace of growth flattened out in 2016 and only increased slightly through 2020. This metro versus nonmetro divergence in growth can be mostly attributed to the service-providing sectors. After 2014, the diversion of employment growth between metro and nonmetro counties mirrored employment growth in service-providing sectors. The positive pace of growth in goods-producing industries of metro and nonmetro areas was similar because of the fracking boom that boosted economic activity during the mid-2010s in some nonmetro counties. Employment growth was led by the Transportation and Warehousing and Construction industry sectors, respectively, in metro areas.

The U.S. Department of Agriculture’s (USDA) Fact Sheet (updated on February 2022), comparing nonmetro and metro areas, reveals some interesting trends. Between 2010 and 2020, the population in nonmetro areas ticked lower while the population in metro areas increased by almost 9%. However, according to the BEA, per capita income increased at only a slightly faster pace in metro versus nonmetro areas between 2010 and 2020. Leading to the COVID-19 pandemic, nonmetro areas had a relatively slower pace of growth in employment and higher unemployment rate than metro areas. In fact, when looking at the BEA data, nonmetro area employment levels are relatively unchanged since 1988. During the COVID-19 pandemic, the percentage decrease in employment in nonmetro areas was lower; however, the unemployment rate didn’t increase as much as in metro areas.

**Urban and Rural Health Care Differences**

The COVID-19 pandemic has impacted rural, nonmetro health care more so than in urban areas. Data from the Centers for Disease Control and Prevention (CDC) show that since the COVID-19 Delta surge emerged in the United States in the summer of 2021, rural areas have experienced higher hospitalization rates than medium and large metro areas. With the exception of the Omicron surge in January 2022, COVID-19 mortality rates have been higher in micropolitan and nonmetro rural areas without a core city of more than 10,000 in population, than urban areas since the beginning of the pandemic. Fewer people have been vaccinated for COVID-19 in rural areas than in urban areas. With more hospital beds and overall health care capacity occupied by COVID-19 patients, elective procedures and regular health checkups were delayed, decreasing the quality of public health in rural communities.

**Urban and Rural Education Differences**

A 2021 survey of rural superintendents from Michigan school districts identified four areas as “problematic” in rural education: teacher recruitment and retention, mental health services for students, broadband access, and state funding. I’ve experienced some of these issues personally over the course of the pandemic. Family members of high school age have asked for assistance with their schoolwork because of the times needed to attend school virtually and restricted access to teachers. Helping them with their work required strong broadband connections, which weren’t always reliable given their residence in a rural community and relatively weaker broadband network signals. In some rural communities, school districts couldn’t provide students with equipment or the ability to gain Internet access.

**New Research Insights**

The papers in the special issue were completed during the COVID-19 pandemic. The authors will expound on the findings in their papers and relate them to the COVID-19 pandemic at the September 2022 conference. Commentary on the September conference will appear in a later issue. On behalf of the partners, we’d like to thank all involved—authors, editors, invited practitioners, and speakers for the conference, as well as reviewers—for their great work, patience, and perseverance during this unprecedented time.

The research for this special issue discusses a range of challenges facing rural areas. The authors explore migration between urban and rural counties; natural resource dependence and rural economic prosperity; rural infrastructure investments; the viability of the Main Street Program as a means to downtown revitalization in rural towns and cities; various impacts of the Small Business Innovation Research (SBIR) program on rural areas; physicians’ decisions to locate in rural areas; the long-run impact of a coal miners’ association’s 1956 decision to bring health care to Appalachia; approaches to developing typologies for defining and classifying “rural” and the commonalities of rural areas; and propose a place-based approach of regional economic connectivity to spur rural growth. Although the COVID-19 impacts on these issues are not part of the research in this special issue, there are changes resulting from the pandemic that have and will continue to impact rural communities for some time.

One potential structural change that could result from the COVID-19 pandemic is the higher preference of some to live in a more affordable place. With the ability to work remotely, even for companies based in different states, some workers may take advantage of a situation in which they could earn a high wage or salary while living in a relatively affordable place. Xue Zhang explores this in her paper, “Linking People’s Mobility and Place Livability: Implications for Rural Communities,” by studying mobility and livability. Zhang shows that those interested in moving are attracted by a robust labor market although strong, appealing neighborhoods can make up for a relatively weaker labor.
market. Prior to the pandemic, rural communities were more affordable than urban areas, which gave them, at least from a price-point perspective, a competitive advantage. Also attractive is the relatively higher level of civic and social engagement that’s present in rural areas versus urban areas. Zhang writes that civic and social engagement is important to those moving to and living in microcore counties—micropolitan counties with at least one main city—especially to those middle-aged and older. She also writes that neighborhoods and natural amenities attract people to move to and live in remote rural counties.

It’s been suggested that increased investments in amenity-based and real estate or “nonextractive” projects can provide significant boosts to economic activity in rural areas. However, the paper authored by Tom Mueller, “The Impact of Natural Resource Dependence on Rural American Economic Prosperity from 2000 to 2015,” finds that increased nonextractive development in rural counties doesn’t produce positive outcomes and has a limited impact on reducing poverty rates. Also, Mueller finds that as the percentage of employment in nonextractive, amenity-based sectors like tourism, recreation, accommodations, and real estate increased, county residents’ per capita income declined, poverty rates were unchanged or slightly increased, and there was no impact on income inequality. Further, Mueller finds that rural counties that rely on the extraction of natural resources to help drive economic activity do experience relatively greater economic prosperity. However, that prosperity diminishes and eventually turns negative with increased reliance on natural resource extraction. An additional nuance was that economic prosperity was comparatively higher for those natural-resource-dependent rural counties not adjacent to metropolitan areas.

Would investments in infrastructure boost rural economic development? David Albouy and Hyejin Kim examine the value of urban and rural public infrastructure in their paper, “The Value of Rural and Urban Public Infrastructure.” Albouy and Kim show that infrastructure investments net positive returns, though more so in urban counties despite their relatively higher construction costs in urban areas. They also find that, because of public infrastructure investments, urban areas experience higher employment growth while rural areas see higher home values. Further, Albouy and Kim caution readers’ interpretations of their results, warning that the returns on rural or urban infrastructure investments may produce returns to varying degrees dependent on other factors or processes that may be part of the decision-making process, especially if population, income, and home value growth is expected to result from increased investments in rural areas.

When many people think of small towns in predominantly rural counties, they think of the main street that contains the town’s central business district with a row of buildings containing a diversified group of small businesses. Unfortunately, some of those business districts have seen increased vacancies because of disinvestment, leading to commercial blight. The Main Street Program was created to reenergize those disinvested business districts in small towns with new investment. Andrew Van Leuven’s article, “The Impact of Main Street Revitalization on Small-Town Business Districts,” shows that the Main Street Program can increase employment and help to create new retail businesses, if the program is tailored to the needs of the community in which it’s being implemented. However, in his multistate analysis, Van Leuven determines that the Main Street Program has no long-lasting impact on business creation or a small town’s employment level.

If reliance on natural, amenity-based, and real-estate-focused development leads to less prosperous rural communities, should communities place a heavier emphasis on innovation? Shiqin Liu’s paper, “The Urban-Rural Divide: The Effect of Small Business Innovation Research Programs in Small and Nonmetro Counties,” finds that patent activity generated by nonmetro and metro-based small and medium-sized establishments (SMEs) is boosted more when they receive Phase I awards from the SBIR program. Phase I award winners receive up to $150,000 and have 6 to 8 months for innovation development that involves proof-of-concept and feasibility studies. However, Liu concludes that the Phase I winners from the SBIR program positively impact employment and entrepreneurship activity in SMEs based in large metro areas more so than in small metro and nonmetro areas.

In their article titled, “How Targeted Government Investment in Rural Business Innovation Can Induce Schumpeterian Entrepreneurial Activity,” John Mann, Steven Miller, and Trey Malone also examine the SBIR Program and whether Phase II award recipients based in rural areas (up to $1 million for 2 years of innovation development) are as likely to produce innovation and patents as urban-based Phase II award recipients. The Phase II status is important because it can serve as a signal to potential venture capital investors that the innovation may be worth investing in. The authors conclude that even though rural-based applicants for the SBIR program received fewer Phase II awards, which can involve applying for patents, using trade secrets, or producing a new good, they were more active in those activities synonymous with the Phase II designation (e.g., patent applications, trade secrets protecting intellectual property, patent licensing, and research and development) than their urban-based counterparts. Also, rural-based recipients of Phase II awards were more likely than urban-based recipients to complete the innovation process and commercialize their innovation.

Access to quality health care was a challenge before the COVID-19 pandemic, with part of that challenge consisting of recruiting physicians to work in rural communities. The paper, “What Moves Physicians to Work in Rural Areas? An In-Depth Examination of Physician Practice Location
Decisions” by Xiaochu Hu, Michael Dill, and Sarah Conrad, explores what motivates physicians to work in rural areas. Using a survey comprised of a nationally representative sample of physicians, Hu et al. confirm that, during their career, physicians typically remain in the same state where they went to medical school. However, the decline in student enrollment in rural-based medical schools has slowed the inflow of rural physicians into rural practices. They note that the reason most frequently cited by physicians to practice in rural areas was a better living environment and lifestyle. This could be attributed to older physicians being more likely to move to and practice in rural areas because these areas are closer to retirement destinations, which accentuates the need to build a pipeline of younger physicians into rural areas to counter the looming retirements of older physicians. Making rural areas equally as attractive, if not more so, for the spouses of younger physicians would also help attract them to rural areas. Hu et al. show that more appealing rural areas can attract physicians and their families to rural areas. One finding highlighted by the authors is that some rural physicians are motivated to practice in rural areas where the need is greater.

The paper also shows that physicians with previous experience in rural areas are more likely to return to rural areas for their future practice. Better compensation, greater flexibility, and the obligation to practice in rural areas per their medical school programs or by immigration status are other significant reasons that lead physicians to practice in rural areas.

Meanwhile, in “Bringing Health Care to Appalachia: The Long-Run Impact of a Rural Health Care System,” Erin Troland and Theodore Figinski examine a health care system implemented by the United Mine Workers of America (UMWA) in the 1950s and the impact it has had on rural health care. The union’s hospital system addressed some of the variables Hu et al. found to be determinants in attracting physicians to rural communities. The UMWA system offered salaries that attracted and retained higher-skilled physicians, economies of scale and specialization within its facility network, and ways to decrease overhospitalization. Overall, the union’s hospital system, even when controlling for other demand and supply side factors, survived the trend of decreasing hospital bed availability that began in the latter part of the 20th century. The union’s hospital system became the go-to for health care in the counties in which its facilities were located as well as surrounding counties that did not have a union hospital.

What constitutes rural was already confusing before the COVID-19 pandemic, as different government agencies define it in many ways. Those differing definitions of rural are just one of many challenges faced by economic development officials in rural communities. In some cases, rural-area economic development officials are not as formally trained in the practice as those officials in urban areas. Rural economic development officials may be business owners, workers, or volunteers trying to do what’s best for their respective communities. A potentially helpful tool for rural-area economic development officials would be to learn from efforts in communities like theirs, even if that community is hundreds of miles away. Two papers tackle this challenge by proposing more data-driven and reliant approaches to define rural. The paper, “Toward a New Definition of Rural: Mapping Resources, Opportunities, and Challenges,” co-authored by Christelle Khalaf, Gilbert Michaud, and G. Jason Jolley, use unsupervised machine learning to create clusters of counties with similar demographic, economic, and institutional profiles. The cluster groupings can be fine-tuned to focus on specific attributes linking the counties grouped together to help counties identify peers and possibly adopt strategies that would catalyze economic activity.

The paper, “A Data-Driven Algorithm to Redefine the U.S. Rural Landscape: Affinity Propagation as a Mixed-Data/ Mixed-Method Tool,” co-authored by Marcello Graziano, Benjamin Heumann, and Maurizio Fiaschetti, uses a different technique called affinity propagation to group communities with similar economic profiles by zip code. This method enables similar rural communities to assess best practices that promote economic activity. Their paper centers on how the variables they chose as inputs to create the community groups describes changes in per capita income, occupation, and poverty. When the authors’ rural community groups were compared against the USDA’s definition of rural, some discrepancies emerged. For example, Graziano et al.’s paper points out that there are rural areas within some larger metro areas, especially in the Western United States, that can be overlooked when using the USDA’s definition of rural. Further, there are differences that emerge when Graziano et al.’s rural groupings are compared with the typologies formed by the American Communities Project, showing how valuable the choices of inputs are when looking to make community comparisons.

Typologies like the ones created in Graziano et al.’s and Khalaf et al.’s papers could allow rural communities to maximize their regional comparative advantage. Christiana McFarland’s paper, “Local Employment Impacts of Connectivity to Regional Economies: The Role of Industry Clusters in Bridging the Urban-Rural Divide,” explores the role that industry clusters can play in increasing employment and economic growth, and in better connecting urban and rural communities. Overall, the more a region—whether it be a rural community or urban metropolitan area—is familiar with its assets, the more effectively it can utilize those assets to promote economic activity. McFarland finds that there is a significant positive relationship between specialized sectoral employment growth within geographic regions that contain a cluster that specializes in that industry sector cluster. McFarland points out that if a region can identify which industry cluster is the major driver of economic activity, that region
can implement programs like marketing campaigns or work-force development initiatives to further highlight the cluster, which could drive additional business to that region. Of course, these programs will be more effective if the infrastruc-ture and a strong labor market are in place within the region. Regional economic development strategies require cooperation across multiple government jurisdictions, which is not always guaranteed.

Opportunities for Rural Areas as a Result of the Pandemic

The COVID-19 pandemic has created potential opportunities for rural communities to attract people to live and work as part of the “new normal.” With more employers adopting a hybrid work model—only requiring some time physically spent in an office—some employees have chosen to move to communities where the cost of living is appreciably lower. Some of those moves have been to rural areas, if the rural area can accommodate the demands of modern work—specifically, access to broadband and fast broadband network speeds. Purdue University researchers found that around $4 of economic activity is generated for every $1 invested in Indiana rural broadband. However, Purdue’s researchers also found that the costs to install broadband infrastructure in rural communities would outweigh the ben-efits, meaning external public or private assistance would be necessary to justify the costs.

A positive side effect of COVID-19 is that federal and state legislators were able to appropriate funding directed toward economic inequities accentuated by the pandemic. The American Rescue Plan (ARP) contains provisions to help address the challenges posed and potential opportunities created by the COVID-19 pandemic. The ARP allowed bor-rowers with mortgages backed by the USDA, who were impacted by the pandemic, the chance to refinance. Also, the USDA invested $1 billion—half appropriated from the ARP—in the Emergency Food Assistance Program, which supports emergency food access. Separately, the U.S. Department of Education will invest $198 million of the ARP in grants to rural colleges and universities that will permit low-income students to compete for financial aid, thus allowing those institutions to increase enrollment. COVID-19 relief and assistance were also part of the ARP, with $500 million going to the creation of the Emergency Rural Health Care Grant Program, a program that provides access to COVID-19 testing, vaccines, and medical supplies as well as funding for facilities updates that would allow rural health care providers long-run sustainability. There are many other ongoing outreach efforts to rural communities that originated from federal fiscal policy. One is a collaborative effort involving the USDA and U.S. Department of the Interior (DOI) that looks to increase access and seed partnerships that promote outdoor recreational tourism and protects public lands.

President Biden’s infrastructure bill also contains many provisions that would assist in some of the challenges faced by rural communities. The bill would dedicate funding to road, bridge, water line, and sewer line improvements. Separately, $65 billion will be allocated toward greater access to faster, less costly, high-speed Internet and the technical assistance necessary to make that possible. The DOI will restore land areas that once owned operating oil wells and coal mines and repurpose them into newly productive areas that aren’t reliant on fossil fuels. The DOI will also invest in the cleanup of superfund and brownfield sites. The bill additionally includes funding for rail and ferry services along with increasing access to vehicle charg-ing stations. Programs to address climate change and improve the transmission of electricity are also included in the bill.

The papers in this special issue highlight some of the central topics surrounding rural economic development. The COVID-19 pandemic has only further exacerbated the issues challenging rural communities. The September 2022 conference looks to be the start of many conversations that involve sharing best practices and research that could help rural communities find solutions that best fit their needs.

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Notes

1. See pp. 1–2 of 1403_719_lia080702.pdf (lincolninst.edu)

2. An additional, special thanks to Eric Lupher and the Citizens Research Council in Michigan for his work and support.

3. See State Data (usda.gov).

4. Comparing metro and nonmetro per capital personal income data from the U.S. BEA, from 2010 to 2020 metro counties experienced a 46% increase while nonmetro counties experienced a 42% increase.

5. See COVID-19 Hospital Data—COVID-19 hospital encounters by urban–rural location of the hospital by week (cdc.gov).

6. See p. 5 of COVID-19 Longitudinal Data.pdf (uiowa.edu).

7. See Disparities in COVID-19 Vaccination Coverage Between Urban and Rural Counties—United States, December 14, 2020–January 31, 2022 | MMWR (cdc.gov).

8. See p. 10 of Arsen et al., Kappan. December 2021/January 2022. V103 N4.

9. See p. 7 of Analyzing Reentry Services for Formerly Incarcerated Californians (urban.org).

10. See Idaho is fastest growing U.S. state | krem.com.
11. See p. 3 of 006-RPINsights-Indiana-Broadband-Study.pdf (purdu.edu).
12. See FACT SHEET: The Biden Administration’s Historic Investments To Create Opportunity and Build Wealth in Rural America | The White House.
13. Ibid.
14. See Bipartisan Infrastructure Law Rural Playbook | The White House.
15. See p. 5 of BIL-Rural-Playbook-.pdf (whitehouse.gov).
16. See pp. 6–7 of BIL-Rural-Playbook-.pdf (whitehouse.gov).

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