



**U.S. House Select Committee on Economic Disparity and Fairness in Growth
“Building Inclusive Prosperity for Rural America”**

7/14/2022

Written Statement of Matt Dunne
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-Opening Remarks-

Chairman Himes, Ranking Member Steil, Congresswoman Craig, and Members of the Select Committee, thank you for this opportunity to join you today. My name is Matt Dunne and I am the founder and executive director of the Center on Rural Innovation, a nonprofit action tank that was founded in 2017 to close the rural opportunity gap. Today, we are working with a network of 35 small communities across the country — places like Red Wing, MN, Torrington, CT, Platteville, WI, and Portsmouth, OH— to help them build inclusive tech ecosystems so they can participate in our nation's growing innovation economy.

The economic prospects for those living in rural America have been on the decline for 15 years. Since 2007, rural America has had a million fewer jobs than there were before the Great Recession. As a result, a rural-urban divide has emerged, in large part because high-paying, resilient, tech economy jobs that are resistant to automation — like computer programmers, cybersecurity analysts, IT specialists, and others — and the companies based on innovation technology are not distributed equally across the country. While Rural America today accounts for 13% of the nation's workforce, it is home to only 5% of all U.S. tech workers. These kinds of jobs have been proven to provide the greatest opportunity for economic mobility, even for individuals without a traditional educational background, and are resilient in the face of automation. Given the continued acceleration of automation in manufacturing, agriculture, and service industries, we believe geographic equity will only be restored if we can bring the number of computer and math jobs in rural America up to 13%.

We must also be clear that rural America is not white America. Nearly 50% of the rural Black population live in persistent poverty areas compared to 12% of the rural white population and 9% of the metro Black population. Rural BIPOC communities face even greater barriers to participating in the tech economy. Black workers in rural zip codes are employed in computer & math and management, business, and financial occupations at less than half the expected rate given their share of the population.

The good news is that Congress can make a difference. The unprecedented \$43 billion investment in broadband expansion through the Infrastructure Investment and Jobs Act (IIJA) has the potential to ensure that connectivity will not be a barrier for any rural person or community to participate in technology jobs or innovation entrepreneurship. There are, however, additional steps policymakers need to take to ensure this opportunity can become a reality.

1. Invest in Rural Tech Workforce Development

The need and opportunity for federal investment in rural tech skilling programs has never been stronger. The pandemic brought many coding and IT boot camps online, providing an incredible spectrum of training providers that can deliver directly to rural learners or in partnership with existing educational institutions like community colleges. And the demand clearly should be there. In our recent report, we estimate that there are more than 80,000 missing tech jobs in rural America. These are jobs that manufacturers, banks, governments, and schools — non-tech industries at the core of most rural economies — are outsourcing to cities or contractors overseas because they don't believe they can find the local talent they need.

2. Support Tech Entrepreneurship Ecosystem Development

Tech employment, however, is only part of closing the tech economy gap. To achieve long-term change, we need to build opportunities for rural entrepreneurs to build new innovation tools and bring those products to market. It is these kinds of homegrown, venture-backed companies that can build wealth in smaller population centers as long as they do not feel forced to move to major cities to achieve their vision. Make no mistake. We do not believe rural communities (or frankly other cities) will become the next Silicon Valley or Kendall Square, but tech can be a part of every micropolitan economy. Rural entrepreneurs are already tapping into the power of cloud computing, AI, and open-source software to build innovative solutions for everything from space junk collection to auto repair customer experience, brand research, and reducing suicide in institutional settings. Key programs like the Economic Development Administration's Build to Scale Challenge and the U.S. Department of Agriculture's Rural Innovation Stronger Economy grants can provide operational support to these startup programs, but only when properly funded.

Closing

Necessity has always been the mother of invention and automation is creating that necessity across rural America today. Local leaders across the country are working hard to ensure their community has a pathway to new economy jobs for their increasingly diverse, creative, and innovative citizens. However, that necessity must be met with strategic public resources to ensure the great work Congress has done to expand access to connectivity will translate to restoring an economic equilibrium across our nation.

-Written Comment-

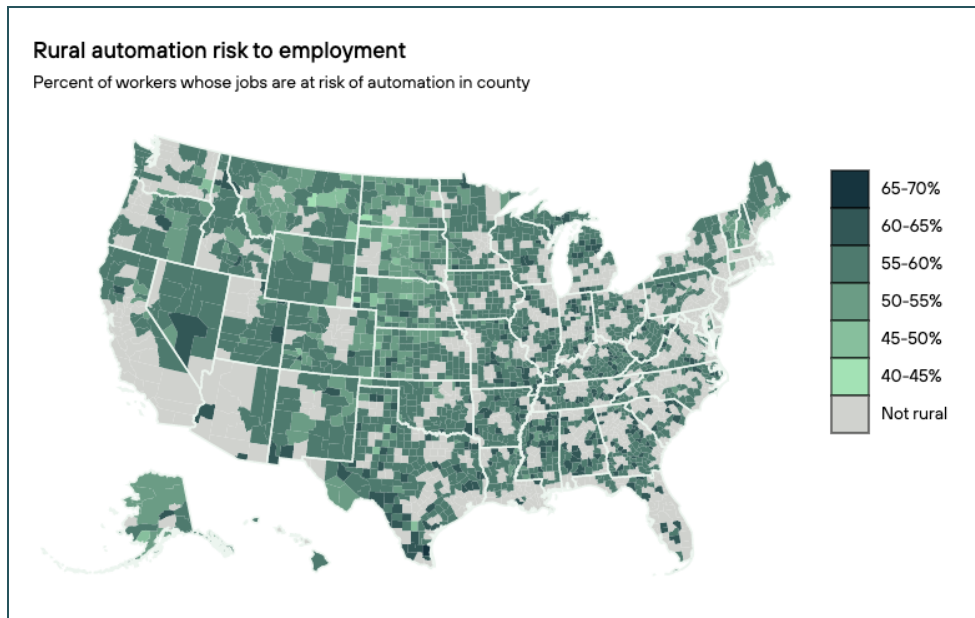
Why Tech in Rural?

Between 2014 and 2019, 96% of new tech jobs were created in metropolitan areas. **Despite roughly 13% of the current American workforce living in rural areas, these rural areas are home to only 5% of U.S. tech workers.**¹

This disparity has lasting implications for rural economic mobility, as employment in tech jobs is a pathway to higher earnings and stronger employment prospects over time. The median earnings for tech jobs are more than double the national median earnings of all jobs, and rural workers that use a greater degree of technology to perform their work earn wages that are more than double that of workers in jobs that use less technology (low-digital jobs).

Rural America is disproportionately vulnerable to automation

Furthermore, rural counties are disproportionately vulnerable to automation. This is because of the types of industries typically found in rural places. The top four sectors with the most task-automation potential account for more than 30% of rural employment, and of the 100 counties most likely to be impacted by automation, 83 are rural.



Source: CORI analysis of [Frey and Osborne \(2017\)](#), [Devaraj et. al. \(2017\)](#), BLS, ACS 5-year estimates, and RUCC data

Race also factors into automation risk. Workers who are Black, Latino, and Indigenous face a higher risk of automation than White and Asian workers, with 63% of jobs held by rural Black and Latino workers at risk of potential automation. These differences are driven by occupation.

¹ [Census Bureau Tables](#)

For example, even though Latino workers account for less than 15% of the U.S. workforce, 32.6% of workers in construction and extraction trades are Latino. Jobs in this industry are at risk of losing over half of their current tasks to automation. In rural areas where we see an even higher vulnerability to automation risk, these racial dynamics are only further exacerbated.

Missing Tech Jobs & Opportunities

Rural employers in non-tech industries are hiring fewer highly specialized, high-paid tech workers. [In our recent report](#), we estimate that there are more than **80,000 missing tech jobs in rural America**.² 75% of these “missing tech jobs” in non-tech industries include just a small subset of roles like software developers, computer systems analysts, and cybersecurity and computer systems engineers.

These roles are some of the highest paying in the field. Software developers, for example, earn an average of \$38 per hour, which is more than twice the median hourly wage of \$14.68 for the average rural worker. Yet far more people are employed in more general roles that are tied to maintaining and supporting existing technologies, which fall into lower-paying categories.

Missing tech employment by core non-tech rural industry		
Comparison of the rate of tech employment within core non-tech rural industries to the national rate of tech employment for the same industries		
Industry	Current rural tech employment	Missing rural tech employment
Manufacturing	14,634	42,836
Government	23,971	17,654
Banks	7,547	5,741
All other finance and insurance	3,822	5,172
Mining	2,296	2,336
Colleges, universities, and professional schools	15,940	2,307
Hospitals	3,733	2,185
Insurance carriers	2,496	1,930
Utilities	2,124	1,482
Elementary and secondary schools	579	228
Total	77,143	81,871

(Source: CORI analysis of EMSI BG data)

Barriers to Rural Tech Workforce Development

In our recent national survey, nearly 50% of rural adults reported that instructional costs were the biggest barrier to pursuing tech training. While scholarships can help lower the cost of instruction, learners can still bear costs related to transportation, lost income, and childcare if

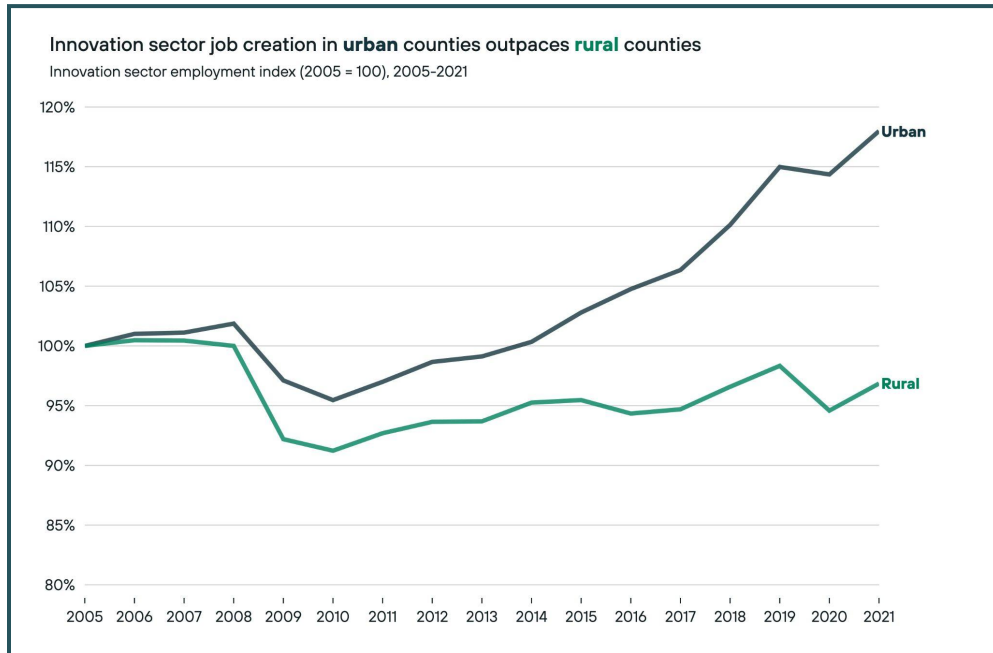
² [Report: Rural America's tech employment landscape](#) | CORI

they are expected to enroll in a program full time or if classes are scheduled during the work day. These costs are particularly impactful for low-income students who may not have the financial resources to take time away from work and pay for childcare to develop new skills.

Tech Entrepreneurship & Innovation

Since 1980, the innovation economy has been a core driver of U.S. economic growth. Innovation has brought benefits to businesses, individuals, and families, and is constantly creating new industries, new businesses, and new jobs.

But the innovation economy has been disproportionately centered around major U.S. cities: From 2005 to 2017, only five metro areas accounted for over 90% of the nation’s innovation-sector growth, and 96% of tech jobs created in the last five years have been in metro areas.



Source: Moody's Analytics, County Detailed Employment Forecast (2005-2021) and RUCC data

This does not mean that there is not potential for innovation in rural areas across the country — technologies are shifting the ways in which knowledge spillovers, talent, and access to capital and customers are possible in rural places.

Resources
<p>EDA-funded Research & Policy Briefs</p> <ul style="list-style-type: none"> ● The Future of Work in Rural America (link) ● The Rise of Remote Work in Rural America (link) ● The Growing Gig Economy in Rural America (link) ● Automation in Rural America (link) ● The Geography of Innovation (link) <p>Report</p> <ul style="list-style-type: none"> ● Rural America’s Tech Employment Landscape (link)

So What Works?

With funding from the [U.S. Economic Development Administration’s Research and National Technical Assistance \(RNTA\)](#) program, the [Center on Rural Innovation](#) (CORI) put together a series of five case studies examining the type of tech-based economic development strategies underway in rural America today.

1. A Diversity of Funding Streams

Portsmouth, a city of over 18,250 in Scioto County, Ohio, [offers insight](#) into how rural communities can harness a varied array of funding sources to facilitate staffing, programming, and physical space needed to foster a digital economy ecosystem. Ecosystem leaders gained financial support from private donations, grants from foundations, the federal government, and regional agencies, as well as ongoing community sponsorship.

2. Cross-sectoral Partnerships

In the southwestern Wisconsin city of Platteville, which has a population of roughly 12,000, partners across sectors and disciplines came together to establish thriving tech-based economic development and a cohesive digital economy ecosystem. In fostering these collaborative relationships — across higher education, local government, and the private and nonprofit sectors — ecosystem leaders in Platteville came up against several major challenges:

- Building trust across the “town-gown” divide
- Combining skill sets across institutions
- Connecting Platteville entrepreneurs and college students with entrepreneurial resources

To address these challenges, the partners strategized to bring all the parties to the table, divide the labor and the knowledge across institutions, and create communal spaces and opportunities for collaborative tech entrepreneurship projects across students and local residents.

3. Regional Cohesion

Red Wing is one of several rural places across southeastern Minnesota that is interconnected by the Entrepreneurs First (E1) Collaborative, which helps connect aspiring entrepreneurs to resources and services that are dispersed throughout the region. Operating on a level that goes beyond town lines has helped to break down silos between organizations, facilitate knowledge sharing, build a broad network of entrepreneurs and supports, and create more tech-centric work opportunities.

In rural southeast Minnesota, ecosystem leader [Red Wing Ignite](#) and its partners encountered four central reasons for why a regional approach to rural tech-based economic development, once it is adopted, can be so effective:

- It can break down the silos between organizations, create greater trust, and facilitate knowledge sharing.
- It builds a broader network of contacts, entrepreneurs, and tech-centric people who can support each other, creating a virtuous cycle.
- It creates a wider array of opportunities for those seeking to pursue a career in the tech space, and supports those in need of digital skills.
- It can influence the way that money flows to entrepreneurs, tech education, and digital skilling programs.

4. Leveraging Higher Education Institutions

As a city of 22,100 in northern Louisiana, Ruston is home to Louisiana Tech University, while Newport is a small city of 8,000 in northeast Arkansas that is home to Arkansas State University-Newport, a local community college. Ruston began receiving grants to support tech-based economic development in the early 2000s, while Newport started its efforts in 2020. In both places, the higher education institutions offer three central types of resources for the digital economy:

- Partnership
- Physical infrastructure
- A talent pipeline

Resources
EDA-funded Case Studies <ul style="list-style-type: none">● Ada, OK - Navigating the Federal Grant Process (link)● Portsmouth, OH - Harnessing Funding (link)● Platteville, WI - Partnering across Sectors (link)● Red Wing, MN - Working throughout a Region (link)● Ruston, LA & Newport, AR - Leveraging Higher Education Institutions (link)

The Role of Federal Government

➤ *Shift the Narrative*

The pervasive narrative that somehow rural people can't code persists both nationally and locally. To overcome this barrier, investments must be made in four areas:

1. Local capacity to proactively build connections between training providers, local employers of technologists, and Workforce Investment Board funding streams
2. Cohort support of students participating in training programs with funding to support project-based learning through paid apprenticeships
3. Funding for inclusive recruitment of underemployed rural individuals
4. Incentives for national employers to employ teams of technologists in rural innovation hubs.

➤ *Invest in Rural Development*

In addition, we recommend the following investments to promote strong rural innovation development:

1. Codify the rural set-aside in the EDA Build to Scale Challenge, fund the RISE program at \$50M, and focus a tranch of National Science Foundation resources on tech transfer from rural institutions of higher education to their local communities;
2. Increase technical assistance support from EDA, USDA, and restored funding from Treasury's SSBCI program at the regional and national levels specifically to help micropolitan communities develop clear tech economy strategies, apply competitively for national innovation support funding, and provide rural founders access to programs like SBIR;
3. Provide a mini-Rural Business Investment program to allow for smaller investment vehicles to leverage farm credit and invest in more early-stage, venture-backed rural tech startups;
4. Create a tax credit, similar to ones in states like Utah and Ohio to encourage the creation of early-stage seed funds dedicated to startups in micropolitan areas;
5. Increase the accessibility of federal funding by expanding navigation and capacity support including the newly-established Rural Partners Network; and
6. Decrease barriers to federal funding by eliminating steep matching requirements that disproportionately present challenges for small communities.

Conclusion

Today, we are facing the largest rural opportunity gap in history. In order for rural America to make significant progress to counter this gap, policymakers and rural practitioners must work to shift the narrative of what is possible in rural communities by investing considerable resources in scalable tech entrepreneurship programs and establishing tech-focused workforce development initiatives. By doing so, rural America can become part of the innovation landscape and build stronger, more resilient economies that can spur economic prosperity in some of our nation's most distressed regions.