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STATE OF WORKING
NORTH CAROLINA

Crucial Connections

How public works can boost
North Carolina's work force
and connect rural N.C.

2018

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Introduction: Public Works are a Public Good for Regional Economies

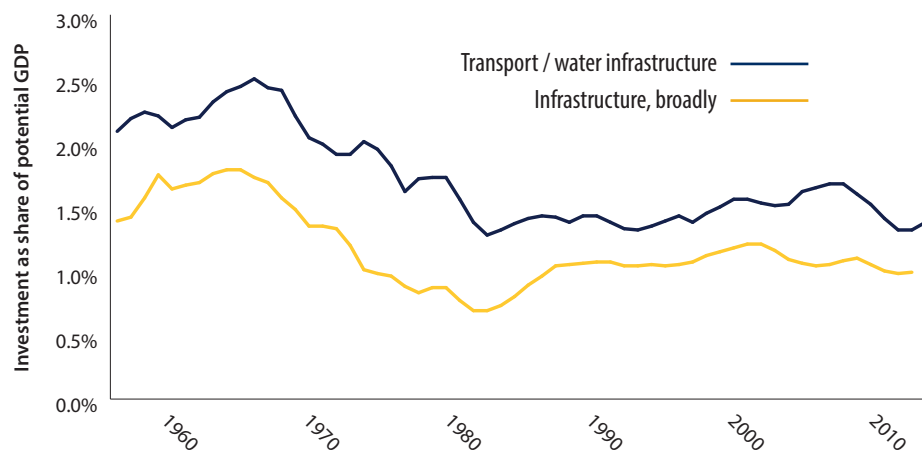


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Across the country and here in North Carolina, concern is rising that our collective negligence in the face of eroding public infrastructure will have ripple effects through our economy — keeping us from reaching our full economic potential and hurting the health and well-being of people and communities.¹ Indeed, across a range of public infrastructure projects that seek to deliver a public good to the broad community, the receding role of government is acute. It is also not an accident.

For decades, the federal government has reduced its commitment to funding public infrastructure projects, such as transportation, water systems, and schools, such that today investments by broad and narrow measures are below 1979 levels.² And while state and local spending on infrastructure has increased as a share of total commitment to public works, it too is in decline, most notably in the post-recovery period. In April 2018, total construction spending on public infrastructure by state and local governments was \$282 billion, down from a peak of \$344 billion in April 2009.³ In North Carolina from 2002 to 2014, the state's spending on capital projects declined by half a percentage point, the 24th highest decline among states.⁴

Figure 1: Public investment in infrastructure has not returned to prior levels



Source: EPI, <https://www.epi.org/publication/the-potential-macroeconomic-benefits-from-increasing-infrastructure-investment>

The declining investment of public dollars in projects for the public good has quickened as prioritization of tax cuts and austerity have superseded the reality of community needs and a more viable path to sustainable and equitable economic growth. As Josh Bivens with Economic Policy

- 1 American Society of Engineers, 2017. Infrastructure Report Card. Accessed at: <https://www.infrastructurereportcard.org>
- 2 Bivens, Josh, July 2017. The potential macroeconomic benefits from increasing infrastructure investment. Economic Policy Institute: Washington, DC.
- 3 Public Infrastructure Spending for State and Local Governments, Governing Magazine, Updated May 2018. Accessed at: <http://www.governing.com/gov-data/state-local-government-construction-spending.html>
- 4 McNichol, Elizabeth, August 2017. It's Time for States to Invest in Infrastructure. Center on Budget & Policy Priorities: Washington, DC. Accessed at: <https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure>

Institute notes:

“Infrastructure investment is routinely estimated to be a more efficient fiscal stimulus than almost any form of a tax cut, and it is significantly more efficient than those tax cuts whose benefits fall mostly on high income households.”⁵

And yet, across the nation and North Carolina, even as communities lift up the need for public works, policymakers have prioritized tax cuts for the wealthy few ahead of these foundational investments for all. Indeed, at the federal level, the recently passed federal tax plan will reduce annual revenue by trillions, while North Carolina will lose an estimated \$3.5 billion annually under the tax code that will go into effect in January 2019, compared to what was in place in 2013.⁶

The lack of revenue and failure to invest in public works is resulting in erosion in many of the quality of life measures in North Carolina. Children are being educated in classrooms and school buildings with leaking roofs and mold.⁷ Roads and bridges are deteriorating, making it more difficult to connect goods to market and workers to jobs, and transportation networks aren’t extending beyond existing roads to reach more places.⁸ Energy grids are failing to keep up with the emerging efficiencies and clean energy technologies that can facilitate cost-effective and sustainable energy use.⁹ Too many households still lack the basic utilities of clean water and wastewater management.¹⁰ Many more can’t connect to the global marketplace through reliable, affordable internet connections.¹¹

Moreover, North Carolina—and the country—is missing out on an opportunity to increase work opportunities for those looking for jobs. A federal jobs guarantee, much in the spotlight now, is one way in which researchers have noted public policies can specifically connect workers to the benefits of public projects to double the return for communities. Just as the Works Progress Administration and New Deal projects built the Blue Ridge Parkway and funded many arts, cultural and public health projects in North Carolina, a federal jobs guarantee today could match workers to the known need for infrastructure and public works.¹²

A public commitment is needed

Current trends point to the need for public sector engagement in infrastructure investments. The reality is that the private markets have not responded to the needs, and, in the meantime, many North Carolinians are not able to connect to key opportunities to enhance their well-being. Many infrastructure investments deliver what is considered a basic right or need, such as access to clean drinking water. This contribution to well-being is significant even as it is most often ignored due to a focus on maximizing profits. As well, a public commitment to fund infrastructure is critical in

5 Bivens, 2017

6 Toledo, Luis and Alexandra Sirota, January 2018. New federal tax law will hurt many, benefit the wealthy few. Budget & Tax Center, NC Justice Center: Raleigh, NC and Toledo, Luis and Alexandra Sirota, August 2018. 2019 Budget Fails to Effectively Address NC’s Existing and Emerging Needs. Budget & Tax Center, NC Justice Center, Raleigh, NC.

7 Ball, Billy. February 14, 2018. NC’s massive school facility needs could overwhelm agreement on “historic” class size reductions. Progressive Pulse Blog, NC Policy Watch. Accessed at: <http://www.ncpolicywatch.com/2018/02/14/ncs-massive-school-facility-needs-overwhelm-agreement-historic-class-size-reductions/>

8 American Society of Engineers, Infrastructure Report Card for North Carolina, Accessed at: <https://www.infrastructurereportcard.org/state-item/north-carolina/>

9 Environmental Defense Fund, 2017. Grid Modernization: The Foundation for Climate Change Progress. Accessed at: [https://www.edf.org/sites/default/files/](https://www.edf.org/sites/default/files/GridModReport.pdf)

10 <https://efc.sog.unc.edu/sites/www.efc.sog.unc.edu/files/2017/Executive%20Summary%20for%20SWIA%20-%20assessing%20infrastructure%20needs%20in%20NC.pdf>

11 Campbell, Colin, April 30, 2018. “How Communities Across NC are trying to bridge the ‘homework gap’” News & Observer, Raleigh NC. Accessed at: <https://www.newsobserver.com/news/politics-government/article210130144.html>

12 Paul, Mark, Sandy Darity Jr. and Darrick Hamilton, March 9, 2018. The Federal Job Guarantee: A Policy to Achieve Full Employment. Center on Budget & Policy Priorities: Washington, DC. Accessed at: <https://www.cbpp.org/research/full-employment/the-federal-job-guarantee-a-policy-to-achieve-permanent-full-employment>

instances where it is difficult to assign a price to a service because the benefits are broadly distributed. In this instance, the role of public funds to ensure the delivery of a service is important to a broader community goal that benefits many, such as access to water for farms, household consumption and commerce, and which otherwise would be difficult to price for different users in the marketplace.

The importance of a public commitment to building out the connections across communities is particularly important for rural places. With more robust infrastructure and capital projects, the opportunities for workers expands in rural communities, additional resources can be attracted to move to rural places, and greater productivity in rural places can be achieved.¹³ By both ensuring that connections between goods and markets and workers and employers are made more quickly, and by providing a foundation from which private capital can invest in productivity-enhancing technologies, public infrastructure serves a role in forging the connections that are fundamental to maximizing the potential of the economy.¹⁴ Across a range of studies, analysts have found that public investments boost private-sector output and employment.¹⁵

Public infrastructure also, again, delivers core services, like education and health care, that boost opportunities for people and the broader economy, enhancing well-being and improving quality of life.

For workers, and for workers in rural places, public works can be a direct point of connection to the labor market and can indirectly improve the quality and availability of jobs over the long-run. When investments are made in infrastructure, the research consistently points to an overall boost to employment through the creation of jobs and stabilization of the labor market. In research on the impact of American Recovery and Reinvestment Act of 2009 highway funds, researchers have found that employment fell less and began growing more quickly where federal investments in building highways was greater.¹⁶ Overall public infrastructure spending in states is correlated with higher employment across a range of studies.¹⁷ In the long-run, public infrastructure can increase the number of firms operating or expanding in a community, improve the quality of jobs both in terms of wages and career progression, and deter the out-migration of workers from rural areas.¹⁸

As North Carolina grapples with the best way to build stronger regional economies, policymakers should consider the central and positive role that public infrastructure can play in deepening the connections for the state's workforce to jobs, the state's businesses to markets and the state's residents to well-being.

This year's State of Working North Carolina report presents the ways in which public infrastructure and local assets — specifically, anchor institutions — can help connect workers in rural areas to jobs, boost rural communities, and contribute to more equitable growth of the state's economy.

As each of the following chapters finds:

13 Fox, William F and Sanela Porca, January 2001. Investing in Rural Infrastructure. *International Regional Science Review*: 24, 1.

14 Agenor, Pierre-Richard and Moreno-Dodson, November 2006. Public Infrastructure and Growth: New Channels and Policy Implications. World Bank Group; Aschauer, David Alan, Why is Infrastructure Important? Federal Reserve Bank of Boston. Puentes, Robert, January 2015. Why Infrastructure Matters. Brookings Institution: Washington, DC. Garcia-Mila, Teresa and Therese J. McGuire, 1992. The contribution of publicly provided inputs to states' economies. *Regional Science and Urban Economics*. 22.

15 Bivens, 2017.

16 Leduc, S. & D. Wilson. 2012. "Highway Grants: Roads to Prosperity?" Federal Reserve Bank of San Francisco Economic Letter. <https://www.frbsf.org/economic-research/publications/economic-letter/2012/november/highway-grants/> and Leduc, S. & D. Wilson. 2012. "Roads to Prosperity or Bridges to Nowhere? Theory and Evidence on the Impact of Public Infrastructure Investment." National Bureau of Economic Research. <http://www.nber.org/chapters/c12750.pdf>

17 Dalenberg et al. 1998. "Public Infrastructure: Pork or Jobs Creator?" *Public Finance Review*. Vol. 26, Issue 1.

18 Stupak, Jeffrey M., January 24, 2018. Economic Impact of Infrastructure Investment. Congressional Research Service: Washington, DC. Accessed at: <https://fas.org/spp/crs/misc/R44896.pdf>

1. **Connections are made possible through the design of systems that connect people to opportunity and communities to each other through public infrastructure.** This research finds that rural places are highly connected to urban areas and that many points of connection are made possible through public investments and infrastructure.
2. **Workers who can't move to opportunity are faced with declining labor markets.** Labor flows throughout North Carolina and beyond to other states and countries are real and deliver benefits to communities. For many, particularly in rural areas, the flow of labor is stymied when a lack of transportation infrastructure, for example, limits affordability and accessibility of opportunity.
3. **Not every worker who wants a job can get one, and the lack of employment equity is holding North Carolina back from its full economic potential.** Research from PolicyLink finds that employment equity would provide an \$11.3 billion boost to the state's economy. Among the best levers to drive employment equity are the design of public investments and policies that reach communities of color, connect communities to work force development and job vacancies, and invest in projects that can increase the number of jobs in a community.
4. **Leveraging anchor institutions, particularly in rural places, has the greatest potential to drive better employment outcomes.** As the role of anchor institutions and their impact is defined and measured, North Carolina institutions, particularly in rural places, have the potential to derive significant value from investing in strategies that specifically engage and train the local workforce, connect with local businesses and businesses owned by people of color, and otherwise ensure that their presence is intentionally driving better outcomes for their communities.
5. **The next phase of public works for North Carolina is needed.** A range of public investments and policies are central to current debates in North Carolina—from whether to welcome immigrants to how to close the coverage gap—and leaders and community members are clear that the public sector and policy choices will make a difference for their well-being. Across a range of opportunities, North Carolina has the potential to set forward a comprehensive view of public works that seeks equitable economic and employment outcomes and drives benefits back to communities that are historically excluded and currently struggling to get a foothold in the economy.

ANCHOR INSTITUTIONS

Anchor institutions are place-based institutions that have the capacity to leverage their assets and resources for jobs, wealth creation, and broader community well-being. These can include hospitals, K-12 schools, universities and more.

PART I: OVERVIEW OF LANDSCAPE AND DATA ANALYSIS

CHAPTER 1: CONNECTIVITY AND THE CHALLENGES FACING RURAL WORKERS



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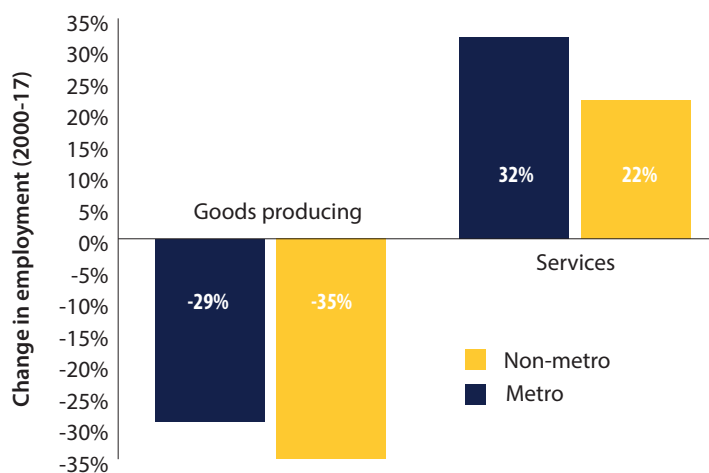
Incomplete replacement for lost manufacturing jobs base

The first brush with globally integrated markets did not go so well for many rural North Carolina workers. As trade agreements shifted, transportation expanded, and global corporations became more adept at moving manufacturing overseas, some of North Carolina's legacy manufacturing communities took it on the chin. This trend dates back to the past century, but rural North Carolina lost almost 100,000 goods-producing jobs in manufacturing and construction just since 2000.¹⁹

Discussions of manufacturing job losses in North Carolina typically focus on rural communities and small towns, but those experiences are part of larger dynamics in the modern economy where employment has shifted from production to services. North Carolina's cities lost more than twice as many production jobs (220,000) than were lost in rural communities between 2000 and 2017, while both rural and urban communities saw a substantial increase in the number of service jobs.

The key difference is that the proportional loss of production jobs in rural communities has been more acute, and many rural communities have not added service jobs as fast as their more urban

Figure 2: Rural areas aren't adding service jobs as fast as metro areas to make up for lost manufacturing jobs



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2000 and 2017

neighbors. Production jobs fell by 35 percent in non-metro communities between 2000 and 2017, compared to a 29 percent decline in urban parts of North Carolina. At the same time, service jobs in urban communities expanded by 32 percent, while rural service positions grew by a more modest 22 percent.

The increasing prevalence of service positions creates hardship for working North Carolinians in communities of all sizes. Service positions typically pay much less than jobs in manufacturing and construction, and more working North Carolinians are finding it harder to move up the economic ladder into secure jobs that pay living wages. What were once seen as entry-level jobs for teenagers and young adults are increasingly the only option for many people in communities that have lost many of the jobs that built and supported the middle class in previous decades. While rural

communities have been particularly hard-hit by this transformation, the economic pain is something that both urban and rural working people know all too well.

¹⁹ Analysis of Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2000-2017.

Many workers in both rural and urban communities face similar challenges

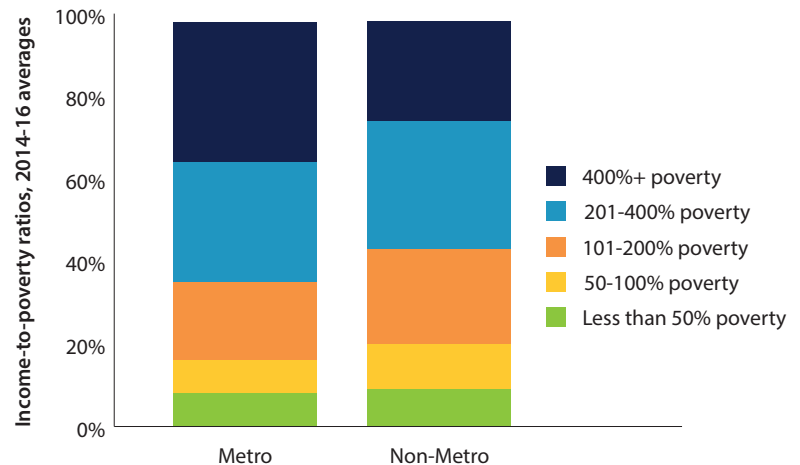
For all the talk about a rural-urban divide, many working people face similar challenges in the current economy, regardless of how large a community they call home. Stagnate wages and limited opportunities for career advancement trap far too many working North Carolinians in jobs that simply don't pay enough to cover the cost of the basics. As discussed above, the rise of service jobs means that more and more working people toil in positions that keep them in or near poverty (\$25,100 for a family of four), a story that transcends the rural-urban divide. In North Carolina, 8 percent of metropolitan residents earn less than half of the federal poverty level, only 1 percentage point lower than the rural rate. The non-metro poverty rate of 20 percent is higher than metro areas, but only by a few percentage points. Similar shares of the workforce in both metro and non-metro areas also earn between 100 and 200 percent of the federal poverty line.

The key difference is at the top of the income ladder, with roughly one-third of metro residents earning more than four times the poverty rate, compared to one-quarter of non-metro residents. The meaningful difference is not the challenges facing people earning low wages in rural vs. urban areas, it is the lack of job prospects in many non-metro communities that pay enough to propel working families out of a daily struggle for subsistence.

Access to high paying jobs a key challenge in rural North Carolina

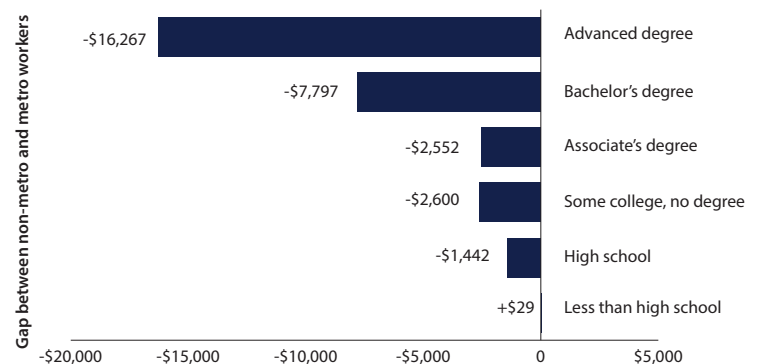
Further evidence that the key difference between urban and rural residents is at the top of the income ladder can be found by examining pay by level of education. Non-metro residents with more limited formal education are paid relatively similarly to their metropolitan peers, but significant wage gaps emerge for workers with Bachelor's and advanced degrees. The median pay for non-metro workers with a high school education is roughly \$1,400 less than metro residents in North Carolina with the same education, but that gap jumps to nearly \$7,800 for people with a Bachelor's degree and to over \$16,000 for working North Carolinians with advanced degrees.

Figure 3: Metro and non-metro residents in N.C. have similar federal poverty level rates, except for those at the top



Source: Economic Policy Institute analysis of *American Community Survey*, pooled sample 2014-2016

Figure 4: Education makes a big difference when it comes to pay gaps for metro and non-metro residents



Source: Economic Policy Institute analysis of *American Community Survey*, pooled sample 2014-2016

Figure 5: North Carolina's rural work force is getting older

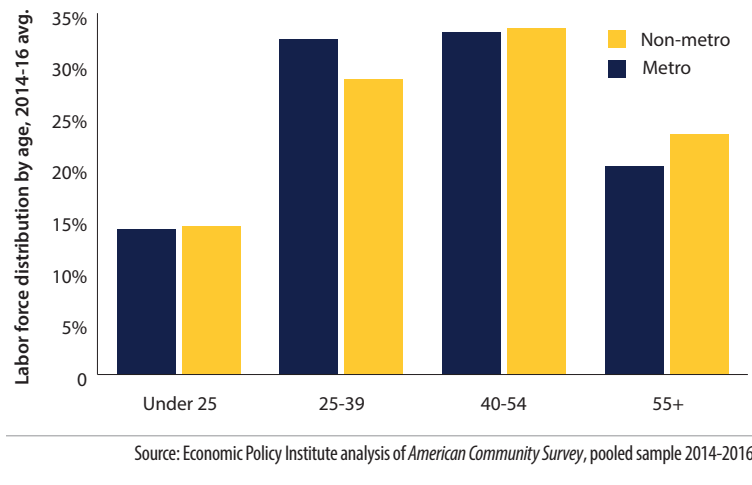


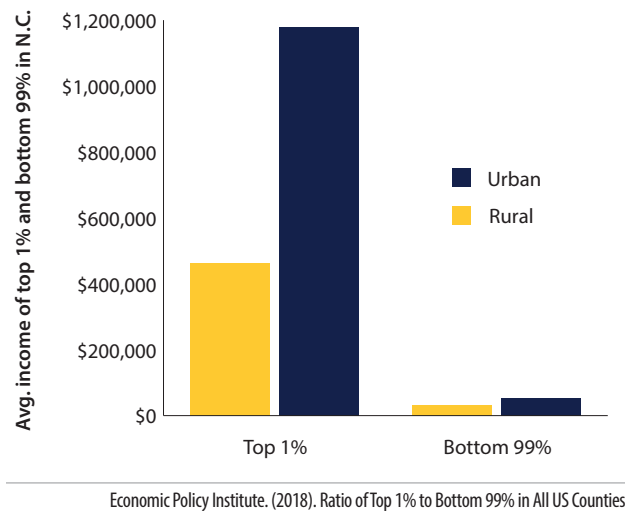
Table 1: Labor force participation rate by age

Age	Metro	Non-Metro
Under 25	56.6%	54.0%
25-39	81.7%	75.0%
40-54	80.6%	74.5%
55+	38.3%	31.6%

Source: Economic Policy Institute analysis of *American Community Survey*, pooled sample 2014-2016

The fact that wage gaps increase with education levels is a key reason that so many college graduates from rural communities never return to their hometowns. The jobs that they can secure in more globally connected urban communities are hard for more isolated towns and communities to match.

Figure 6: Rural-urban income gap in N.C. is largest for top 1%



An aging rural work force struggles to find jobs

As skilled and highly educated young people increasingly cluster in densely connected urban areas, the rural work force is getting older. While roughly the same share of the metro and non-metro labor force in North Carolina is under 25, there is a substantial shift toward urban areas among workers between 25 and 40, leaving rural communities more reliant on workers over 55.

This generational shift is made all the more challenging given the struggles that many older workers find in securing a job in the current labor market. Many older workers face a labor market where their skills and experience are in less demand than in decades past. Innovation makes some skills obsolete, and many of the jobs that used to pay good wages in rural North Carolina have moved to lower-paying countries overseas.

This creates a vicious paradox where rural communities are more reliant on older workers, while those same workers find it harder to land a job than their peers in urban areas. While younger workers participate in the labor force in roughly equal measure in both metro and non-metro communities, labor force participation for non-metro workers between 40 and 54 years of age is 6 percentage points lower than for metro workers in the same age cohort, and the gap increases even more for workers 55 years of age and older.

Concentration of wealth even greater than working income

Wealth is moving into town. Assets and significant wealth are concentrating in urban areas and a few retirement communities, leaving most rural communities without the homegrown capital to invest in new jobs, housing, and business ventures.

As shown already, the wealth and income gaps between rural and urban communities are actually at the very top of the heap, not among working North Carolinians. This trend is on even more profound display when we focus on the top 1 percent. The average annual income for the top 1 percent among North Carolina's urban counties is nearly \$1.2 million, more than 2.5 times higher than the average for rural counties at \$460,000. There is still an income gap for the other 99 percent of residents, but it is only 1.6 times larger.

Isolating the top 1 percent provides further evidence that the wealth and income gap that should concern rural communities the most is the movement of the richest North Carolinians into a handful of urban areas and retirement communities. These data come as no surprise to community leaders and economic developers across much of rural and small town North Carolina who have searched high and low for capital to launch new civic and business ventures, all the while watching major new investments flowing into a handful of communities nearby.

Building connections to prosperity

Contending with the challenges facing working North Carolinians in rural communities often hinges on connecting their hometowns to regional and global economies. Connectivity was once the force undermining manufacturing towns, but it now offers the keys to a reinvented future.

More connected communities usually fare better in the modern economy. Decades after many rural communities across North Carolina learned the hard way that far-flung supply chains and trade patterns could dramatically affect local economic fortunes, it is even less possible today to insulate local economies from the vicissitudes of the global market. Rather than trying to hold back the forces of integration, rural communities need to build global and regional connections if they hope to create new opportunities for their residents.

An analysis of economic outcomes show that North Carolina counties with deeper connections to communities next door — and around the world — tend to fare better than their more isolated peers.²⁰ This result does not capture every nuance of local economic context, but does point to the profound importance of connections in the modern marketplace.

Better economic outcomes tend to occur in rural counties with more of the following types of connectivity:

Deeper human connections to the world. Counties with larger foreign-born populations, and more residents who were born outside of North Carolina, tend to fare better than counties that are comparatively more insular. Larger foreign-born populations tend to support a healthier local economy. A 5 percent increase in the share of residents born in another country is associated with roughly a 0.5 percentage point lower unemployment rate, a 1 percentage point reduction in poverty, and a \$3,900 increase in the county minimum wage. . These findings make good sense when one considers the many ways that immigrant populations support rural economies. In some counties, new Americans have limited or reversed population decline, providing a much needed influx of workers and consumers to offset the trend of native-born residents moving into urban areas. Immigrants also have a long history of entrepreneurship and are responsible for a disproportionate share of new Main

20 Measuring connectivity is a complicated endeavor, and the analysis presented here does not capture how different forms of connectivity directly cause economic outcomes to improve. In some instances, the relationship likely works in both directions, with improved connectivity and improved economic outcomes mutually reinforcing one another. Moreover, this analysis does not statistically control for other factors that shape economic outcomes, so the relationships reported here are not necessarily causal in nature. Finally, because the different variables measuring connectivity differ in the extent of the variation across North Carolina counties, the relative size of the coefficients does not necessarily indicate which types of connectivity are the most important.

Street businesses in many communities.²¹ Foreign-born populations also help to forge international business relationships, both through assisting local companies in developing export markets and as a conduit to foreign direct investment coming from their countries of origin. Rural counties with more people born in different states also tend to do better economically. A 5 percent increase in the share of county residents born outside of North Carolina is associated with a modestly lower unemployment rate, a roughly 1 percentage point reduction in poverty, and a \$1,390 increase in the county minimum wage. In addition to bringing some of the same benefits as new residents born outside the United States, many of North Carolina's more prosperous rural counties benefit from substantial retiree or part-time residents. Particularly in some coastal and mountain counties, wealthy residents from other states boost consumer demand and can augment the pools of capital available for local enterprises.

Access to jobs in other counties. As jobs increasingly cluster in urban and suburban areas, it is more important for rural residents to have access to those opportunities for employment. As a result, rural communities where a larger share of the residents commute outside of the county to work tend to have lower unemployment rates, less poverty, and higher median incomes. Of course, lacking a car can create an enormous barrier to rural residents if there are limited job opportunities in their local community. A 1 percent increase in the share of residents with access to a vehicle is associated with a 0.4 percent reduction in unemployment, a nearly 2 percentage point lower poverty rate, and a \$2,400 increase in county median wage.

More broadband: Access to broadband internet is fast becoming an indispensable economic asset for businesses and workers alike. With so much commerce, educational opportunities, and job listings moving online, it is an increasingly vital to the economic health of rural communities. A 5 percent increase in the share of county households with access to residential broadband is associated with a roughly 0.1 percent reduction in unemployment, almost a 1 percent lower poverty rate, and a \$1,300 increase in median income. While these results speak to the importance of internet access, they likely understate the benefits that reliable high-speed broadband can bring. With many prosperous urban and suburban communities getting access to gigabit-speed internet as fiber networks are built out, it is increasingly important to close the digital divide and ensure that rural communities can share in the benefits of access to the global digital marketplace.

Table 2: Increased connectivity is associated with better economic outcomes

	Change in jobless rate	Change in poverty rate	Change in median income
5% increase in foreign born	-0.47%	-1.08%	\$3,898
5% increase born in different state	-0.09%	-0.98%	\$1,390
5% increase commute	-0.05%	-0.09%	\$418
5% increase vehicle access	-2.04%	-9.1%	\$12,142
5% increase residential broadband	-0.12%	-0.91%	\$1,324

Note: Because of how these variables are measured, and a lack of statistical controls, larger values do not necessarily mean that a specific type of connectivity is more important than the others. Moreover, these estimates do not imply a direct causal relationship, but instead speak to the degree to which each measure of connectivity is associated with improved economic outcomes.

Sources: Analysis of Bureau of Labor Statistics, Local Area Unemployment Statistics. U.S. Census Bureau, American Community Survey and Comparative Social Characteristics in the United States. Federal Communications Commission, Form 477 County Data on Internet Access Services.

21 McHugh, P. (2015). "Smart Choices in an Era of Migration." North Carolina Budget and Tax Center. <http://www.ncjustice.org/?q=budget-and-tax/btc-report-smart-choices-era-migration>

CHAPTER 2: ANCHOR INSTITUTIONS AS CONNECTORS IN RURAL N.C.

Much of the debate about the rural and urban divide in North Carolina has failed to account for the connections across communities and the flows of people and dollars from urban to rural and rural to urban places in the state. These connections and flows are made possible in large part, as noted in the introduction to this report, through the investment of public dollars in systems and physical infrastructure that forge connections over geographic distance.

And yet, across rural North Carolina, much of the public infrastructure that historically reached these communities has deteriorated more quickly and remained outmoded to the demands of current daily life and well-being. One potential way to counteract the erosion of public infrastructure on the ground, beyond committing to state funding to improve the physical connections across communities, is focusing on the role that anchor institutions could play in supporting economic well-being.

Anchor institutions are place-based institutions that have the capacity to leverage their assets and resources for jobs, wealth creation, and broader community well-being.²² These institutions are most often thought of as universities, community colleges, and hospitals — although more expansive consideration of kinds of anchor institutions in communities includes public libraries and public schools. These institutions are able to use their economic and human resources and connections within broader markets and the region to invest in people, business, and infrastructure. Through public commitments to make these anchor institutions accessible and affordable, and through policies that drive their dollars and assets into those communities hardest hit by the uneven recovery, anchor institutions have the potential to drive more equitable and inclusive outcomes.

Over the years, there have been many policy debates centered on the critical role of anchor institutions to support community economic development and connect the workforce to opportunity in our state. In 2011, when the N.C. General Assembly considered consolidation of community colleges, rural communities mobilized to make the case that beyond education and skills training, community colleges served as incubators of businesses, connectors to employers, and sites of community engagement.²³

As state policymakers have chosen not to close the coverage gap, rural hospitals and health care services have reduced or shut down services, creating concern about the loss of a critical human service, jobs, and an anchor institution that supports community well-being more broadly.²⁴

Estimates from the Cone Health Foundation suggest that roughly 30,000 jobs are being lost each year in health care and other industries.²⁵ (See “Protecting anchors’ power by closing the health coverage gap,” pg. 14)

Concern over the loss of these institutions is one way to measure their value to communities. Another is to assess how these anchor institutions effectively deliver on changing the economic outcomes in their surrounding neighborhoods and how institutions can most improve the well-being



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22 Democracy Collaborative, August 2013. The Anchor Dashboard: Aligning Institutional Practice to Meet Low-Income Community Needs. University of Maryland.

23 Letters from NC Community College Presidents to NC General Assembly members, June 28, 2011. Accessed at: https://www.ncleg.net/PED/Reports/documents/CC/CC_Responses.pdf

24 Ku, Leighton, Brian Bruen, Erika Steinmetz and Tyler Bysshe, December 2014. The Economic and Employment Costs of Not Expanding Medicaid in North Carolina: A County-Level Analysis. Accessed at: <https://www.conehealthfoundation.com/app/files/public/4202/The-Economic-and-Employment-Costs-of-Not-Expanding-Medicaid-in-North-Carolina.pdf>

25 Ibid.

Protecting anchors' power by closing the health coverage gap

Since 2013, the N.C. General Assembly's decision to keep in place a gap in health care coverage has not only resulted in denying coverage to more than an estimated 500,000 people who earn low incomes, but it's also had a particularly devastating impact on the financial stability of rural hospitals and rural residents.

Research shows that rural hospitals are 84 percent less likely to close if located in states that expanded Medicaid.¹ Medicaid expansion not only provides health insurance coverage to people who earn low incomes, but it also bolsters the financial health of rural hospitals and strengthens the work force in the communities they serve.

The closure of a community's sole hospital not only affects people's access to care, but it also risks putting the local economy in a downward cycle that is very difficult to recover from.

Rural hospitals tend to be the largest employer in communities, and when they close, it not only affects hundreds of livelihoods, but it also adversely affects that community's ability to grow and attract residents and companies that are often deterred from being somewhere without a hospital.

Unfortunately, since 2013 North Carolina has seen the closure of five rural hospitals,² and some rural hospitals have lost critical services like maternity and labor wards³ since the legislature's decision to reject Medicaid expansion.

Medicaid expansion and closing the coverage gap disproportionately affects the financial stability of rural hospitals because they rely more heavily on Medicaid and Medicare dollars.⁴ Rural hospitals struggle to foot the bill for uninsured people in rural areas who would benefit the most from Medicaid expansion and accessing care, since rural residents generally experience worse health outcomes than their urban counterparts. Rural residents tend to be poorer, older, and sicker than their urban counterparts and have higher rates of chronic diseases, mortality,⁵ and even infant mortality.⁶

Medicaid expansion and closing the coverage gap is the single most effective way to both provide coverage to people living in rural areas and to strengthen rural hospitals as community anchors.



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- 1 Lindrooth, R., Perrailon, M., Hardy, R., Tung G. (2018). Understanding The Relationship Between Medicaid Expansions And Hospital Closures. *Health Affairs* 37(1), doi.org/10.1377/hlthaff.2017.0976
- 2 UNC-Chapel Hill Cecil G. Sheps Center for Health Services Research. 2018. 87 Rural Hospital Closures: January 2010 – Present. Retrieved from <http://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/>
- 3 Pearson C. Taylor F. (2017 September 29.) Mountain Maternity Wards Closing, WNC Women's Lives on the Line. *North Carolina Health News*. Retrieved from www.nchealthnews.org
- 4 Kaufman, B., Reiter, K., Pink, G., Holmes, G. (2016) Medicaid Expansion Affects Rural And Urban Hospitals Differently. *Health Affairs* 35 (9), doi.org/10.1377/hlthaff.2016.0357
- 5 Centers for Disease Control and Prevention. 2017. Rural Americans at higher risk of death from five leading causes. Retrieved from <https://www.cdc.gov/media/releases/2017/p0112-rural-death-risk.html>
- 6 Centers for Disease Control and Prevention. 2017. Infant Mortality Rates in Rural and Urban Areas in the United States, 2014. (Publication No. 285) Retrieved from <https://www.cdc.gov/nchs/data/databriefs/db285.pdf>

of their neighbors. Efforts are underway nationally to develop a dashboard for more rigorous and ongoing monitoring of key indicators that measure the economic benefits of anchors, like percent of procurement dollars directed to local businesses owned by people of color or women (see “Procurement activities of N.C. anchor institutions in rural vs. urban areas,” pg. 16), dollars invested in affordable housing or arts- and culture-based economic development, and percent employed at living wages or above.²⁶

In the meantime, primarily through case studies and theoretical work, an emerging body of literature points to concrete examples of positive benefits that anchor institutions have generated for neighborhood employment, housing affordability, and small business creation.²⁷

Take for instance, community colleges and public universities, which play a significant role not only in educating the state’s workforce but in connecting entrepreneurs to technical assistance, in supporting research and development, and in forging relationships across supply chains to reach beyond neighborhoods into the region.²⁸ These contracting relationships have the potential to drive dollars into new enterprises and expand access to new markets, while also brokering connections across industries to strengthen supply chains that aren’t directly connected to the institution.

Interestingly, in a 2015 study of community colleges in North Carolina, researchers also identified the unique economic contribution of students as consumers in their local economies. Accounting for just those students who travelled out of state to attend N.C. community colleges, the analysts found that student spending on groceries, rent, and other basic necessities generated \$138 million in state income and created more than 2,000 jobs.²⁹ For those rural communities that are able to bring in students from other communities, even within the state, to their community college and university, they stand to benefit from the additional dollars circulating through the local economy.

A preliminary look at North Carolina’s two major types of anchor institutions—hospitals and institutions of post-secondary education—provides deeper insight into the connections to economic well-being that these institutions can drive.

Table 3: Anchor institutions can drive connections to economic well-being through pay, career advancements

Occupation	Estimated hourly wage, entry	Estimated hourly wage, mean	Estimated hourly wage, median	Estimated hourly wage, experience
Total, all occupations	\$9.75	\$22.15	\$16.71	\$28.35
Education, training and library occupations	\$12.32	\$23.76	\$20.83	\$29.47
Healthcare practitioners and technical occupations	\$17.89	\$35.98	\$28.40	\$45.03

Source: Occupational Employment and Wages in North Carolina, 2018, Accessed at: <https://d4.nccommerce.com/OESSelection.aspx>

26 Democracy Collaborative, August 2013. The Anchor Dashboard: Aligning Institutional Practice to Meet Low-Income Community Needs. University of Maryland.

27 Initiative for a Competitive Inner City, 2011. “Anchor Institutions and Urban Economic Development: From Community Benefit to Shared Value. And Howard, T and S. Dubb, 2012. Leveraging Anchor Institutions for Local Job Creation and Wealth Building. Berkeley, CA and Newman, T, K Curtis and J Stephens, 2003. Do community-based arts projects result in social gains? A review of the literature.” Community Development Journal 38 (4). And the Urban Institute, 2007. Making Cities Stronger: Public Library Contributions to Local Economic Development. Evanston, IL.

28 EMSI, February 2015. Demonstrating the Collective Economic Value of North Carolina’s Community Colleges. Accessed at: <https://www.nccommunitycolleges.edu/emsi-study>

29 EMSI, February 2015.

Procurement activities of N.C. anchor institutions in rural vs. urban areas

Anchor institutions in North Carolina cannot miss the opportunity to radically benefit communities of color, particularly their businesses and employees. The potential is real for anchor institutions to drive their budgets—for food sourcing and preparation, janitorial and building maintenance and construction and engineering, for example—to businesses owned by people of color and others historically excluded from opportunity.¹

In 2016-17, North Carolina school systems, public universities, and community colleges spent \$4.49 billion on goods and services contracts alone, representing a significant potential for capital infusion to local businesses and the goal of equity.

Yet out of that \$4.49 billion spent, only \$281 million was spent with Historically Underutilized Businesses (HUBs). Historically Underutilized Businesses are enterprises certified by the state to be “at least 51 percent owned by one or more minority persons or socially and economically disadvantaged individuals,” and eligible firms make up nearly half of the state’s businesses.²

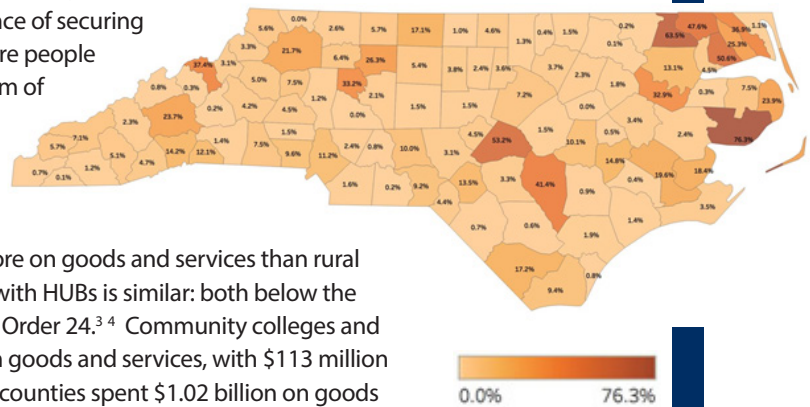
Intentional procurement processes set in place by leadership at anchor institutions is vital to ensuring that HUBs get a fair chance of securing prime contracts, so they can employ and empower more people from their communities. These policies can take the form of setting aspirational goals, strengthening “good faith effort” outreach, and developing networking sessions to build and grow relationships between anchor institutions and HUBs.

While anchor institutions in urban counties spend more on goods and services than rural counties, the rate by which these institutions contract with HUBs is similar: both below the aspirational goal of 10 percent reaffirmed by Executive Order 24.^{3 4} Community colleges and school systems in urban counties spent \$1.79 billion on goods and services, with \$113 million (6.3%) of that being spent with HUBs. Conversely, rural counties spent \$1.02 billion on goods and services, \$78 million (7.6%) of that with HUBs.

Anchor institutions throughout North Carolina have enormous potential to employ more equitable and inclusive policies to drive procurement processes to HUBs. If just community colleges and public schools could increase HUB utilization from 6.7 to 15 percent, it would create \$232 million in new capital for enterprises owned by women and people of color. This would immediately create a thriving environment where HUBs could stabilize and expand their businesses, thus building a business climate better for entrepreneurs and workers all across N.C.



William Munn
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Policy Analyst



Percent of total public schools goods and services dollars spent with HUBs in 2016-17

- 1 Dubb, S., Mckinley, S., & T. Howard. 2013. “The Anchor Dashboard: Aligning Institutional Practice to Meet Low-Income Community Needs.” Democracy Collaborative. <https://democracycollaborative.org/content/anchor-dashboard-aligning-institutional-practice-meet-low-income-community-needs>
- 2 Munn, W. 2017. Historically Underutilized Businesses: Opportunities for Growth in North Carolina. North Carolina Budget and Tax Center. <http://www.ncjustice.org/?q=budget-and-tax/btc-report-historically-underutilized-businesses-opportunities-growth-nc>
- 3 County designations of Core Based Statistical Areas, <https://files.nc.gov/ncdhs/Metro%20Metropolitan%20Counties%20%2812DEC16%29.pdf>
- 4 Governor’s Advisory Council on Small and Historically Underutilized Businesses, <https://ncadmin.nc.gov/businesses/hub/hub-legislation>

First, anchor institutions are often major employers, particularly in rural communities.³⁰ Statewide educational services account for more than 380,000 jobs and \$17 billion in wages, while hospitals employed, on average, 209,000 workers in 2017 and paid \$12.3 billion in total wages.³¹ As major employers, these institutions are often providing stable employment and the potential for career advancement as well.

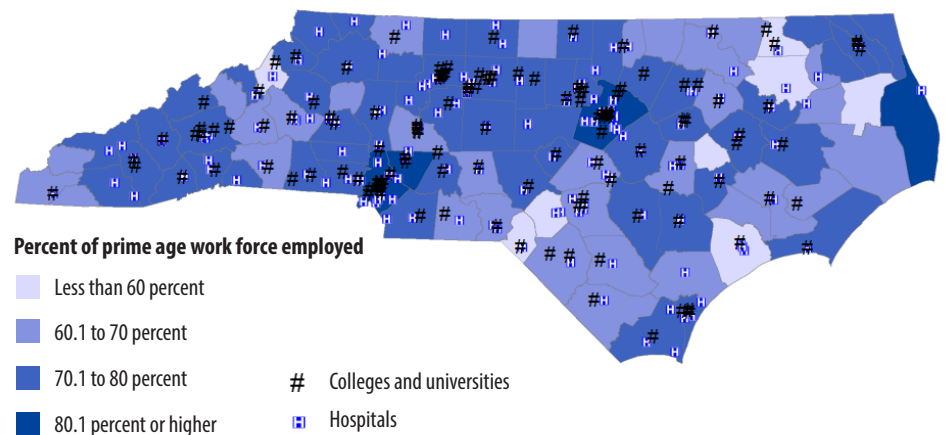
While workers on average have wages that are higher than in other occupations at these institutions, the range of pay for workers varies considerably according to the jobs themselves (Table 3, pg 15). Some institutions have taken this role as employer and catalyst to worker well-being seriously enough to commit to a \$15 minimum wage, as Duke University recently did for all workers, including those in janitorial and service occupations on campus.³²

Preliminary analysis of just the presence of anchor institutions in communities suggest a positive relationship with broader employment levels for the prime-age workforce as well. That is, the more anchor institutions there are in a county, the higher the employment level is of the prime-age workforce aged 25 to 54. In rural communities with no anchor institutions, employment levels are a full 5 percentage points below employment levels in communities that have at least one anchor institution.

Beyond employment, the presence of both institutions of post-secondary education and hospitals is correlated with higher educational attainment. As a key marker that economic developers look to in assessing communities for their ability to thrive, this connection is an important one, which, if leveraged, can further generate economic benefit for existing residents.

And yet as is clear from Figure 8, anchor institutions are more likely to be located in neighborhoods of higher poverty. Universities and community colleges, in particular, are located in neighborhoods with average poverty rates of 27.1 percent compared to neighborhoods without these institutions. This is consistent with other analysis that shows the presence of off-campus student populations contribute to higher poverty rates.³³

Figure 7: More anchor institutions in a county means higher employment levels for ages 25-54.



Source: Author's analysis of LAUS data 2017.

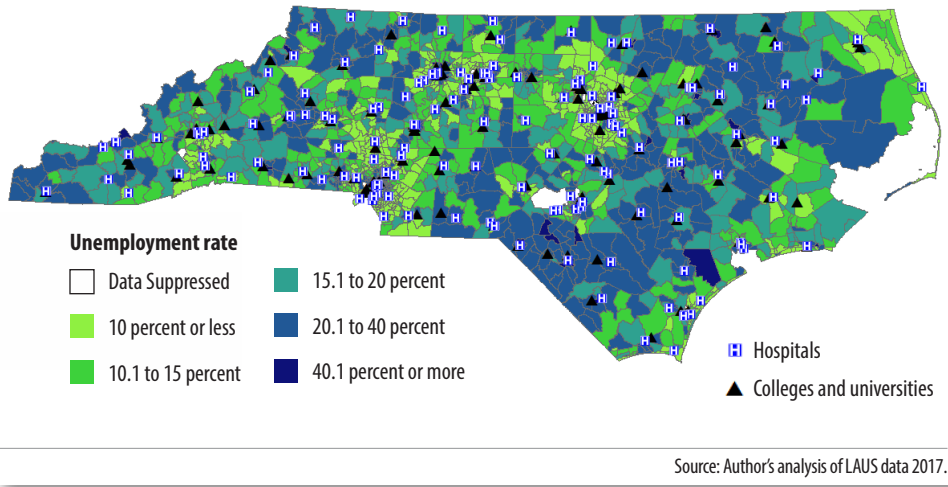
30 Oliver, Zachary, Brian Lim, and Jared Woolcott, May 2017. The Economic Impact of Hospitals and Health Systems in North Carolina. Accessed at: <https://www.ncha.org/wp-content/uploads/2018/03/2017-NC-Hospitals-Economic-Impact-Report-Executive-Summary-FINAL.pdf> and EMSI, February 2015. Demonstrating the Collective Economic Value of the University of North Carolina System. Accessed at: https://www.northcarolina.edu/sites/default/files/documents/unc_aggregate_mainreport_1213_final_formatted2_dated_feb2015.pdf

31 Bureau of Labor Statistics. Quarterly Census of Employment and Wages, Annual Average 2017.

32 Gronberg, Ray. August 25, 2017. "A raise is coming for thousands of Duke University workers." Durham Herald Sun. Accessed at: <https://www.heraldsun.com/news/local/counties/durham-county/article169326552.html>

33 Tippet, Rebecca, December 7, 2017. College Student Impact on Local Poverty Rates, Carolina Demography, UNC Carolina Population Center. Accessed at: <https://demography.cpc.unc.edu/2017/12/07/nc-in-focus-college-student-impact-on-local-poverty-rates/>

Figure 8: Anchor institutions are more likely to be located in neighborhoods of higher poverty.



In North Carolina, like in other Southern states, anchor institutions' proximity to economic hardship may present an opportunity for even greater impact on economic well-being.³⁴ It is, therefore, important to consider the "how" of driving the range of assets of anchor institutions ranges to broader public benefit, as its presence alone does not guarantee lower hardship in the broader community.

As PolicyLink notes,

anchor institutions have many aspects that could allow them to drive more equitable outcomes, most significantly as institutions with a social mission, local leadership, and broader connections to regions that can connect communities to capital and opportunity.³⁵

Such an orientation toward equitable economic outcomes is imperative given the current uneven recovery and persistent barriers to opportunity for communities of color in particular. As anchor institutions orient their policies and practices toward the goal of ensuring that every person has access to opportunity, there is also a role for public policy and public investment to play even if the institutions are not public per se.

Hospitals benefit from higher health insurance coverage; it means less charity care and a healthier population, while also freeing up resources for investments in preventive care and contributing to community efforts to build the infrastructure — greenways, parks, farmers markets, etc. — to support well-being. Colleges and universities benefit when need-based scholarships are available from the state so that their student body can afford to attend and complete a post-secondary education. Public libraries, less discussed in this chapter but a recognized anchor for many communities, benefit when literacy and reading are supported in the public schools with adequate resources and proven practices and each library can access resources to provide timely, relevant materials and programming for their community. To enact these systemic changes, anchor institutions and their communities must often actively engage in the policymaking process to ensure that there is a foundation for driving resources into their communities beyond what is possible with local resources alone. In other cases, local communities have leveraged existing resources and local authority to establish systems that drive local resources toward improving employment and economic outcomes.

In North Carolina, there have been efforts made to drive more equitable outcomes through anchor institutions. First, the University of North Carolina at Chapel Hill is training and supporting the placement of rural health care providers across the state to address the shortage of providers in many communities.³⁶ In years past, state policymakers had provided a boost to federal forgivable

34 Farber, Brandon, Winter 2013-2014. Anchor Institutions in the Mississippi Delta: Mapping Relationships Between Community Anchors and Socioeconomic Indicators. Federal Reserve Bank of St Louis.

35 Schildt, C., & V. Rubin. "Leveraging Anchor Institutions for Economic Inclusion." Policy Link http://www.policylink.org/sites/default/files/pl_brief_anchor_012315_a.pdf

36 Knopf, T. 2018. "No Silver Bullet for Solving Rural Health Care Problems." North Carolina Health News. <https://www.northcarolinahealthnews.org/2018/01/09/no-silver-bullet-solve-rural-health-care/>

loans and grants to those seeking professional preparation in health and education and who commit to serving in rural places. Second, more and more community colleges are establishing additional programs to connect employers to local workers who are trained for their industry. While customized training programs have been a long-standing tool for companies locating to an area that provided skills training for the local workforce, apprenticeship programs in North Carolina are expanding and providing the additional benefit to workers of paying them on the job while they gain valuable skills.³⁷ Finally, the Affordable Care Act is opening up greater potential for hospitals to drive benefits to their communities by establishing clear parameters for reporting and standards of practice, while also reducing demand for the primary way that hospitals have served the community through uncompensated care. While the state standards for community benefit requirements by hospitals are low, one example of how a hospital is pursuing community benefits is Mission Health in Mecklenberg County. Mission Health has funded a nurse care manager to identify frequent users of the emergency room who are homeless and support their connection to community-based options. The hospital has also funded several homeless and housing organizations in the surrounding area to increase access to affordable homes.³⁸

There is still important work to be done to define exactly how anchor institutions can most effectively and inclusively improve economic conditions. Most important in this space is the ongoing work to define processes that consider how the priorities of the community align with institutional practice and how to achieve deeper engagement with the community in defining projects and priorities.

Case studies of practices across the country are clear about the existing levers that have potential:

1. Establishing local hiring programs that engage the local workforce in job opportunities
2. Connecting with job training programs at community colleges to build a pipeline of talent into careers
3. Setting goals and establishing processes to procure goods and services for the operation of anchor institutions from local businesses owned by people of color and women
4. Committing to maintaining the affordability of their neighborhoods by creating affordable housing and working to provide residential and commercial space to existing residents and businesses

In North Carolina, a collective commitment to ensuring the benefits of anchor institutions are broadly delivered in communities can be facilitated by public policy, particularly when anchor institutions are public institutions as well. Here, state and local policy can prioritize equitable outcomes, remove existing barriers to connection across communities, and build systems that connect institutions across sectors and communities for collaboration. At the base, however, the most important lever available to state and local policymakers is to ensure that public institutions are adequately and equitable funded in every community, regional connections are incentivized and supported, and that public infrastructure is evaluated for equitable impact.

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There is still important work to be done to define exactly how anchor institutions can most effectively and inclusively improve economic conditions and their relative power in delivering an impact.

37 Grubb, D. 2018. "SCC's Apprenticeship Program to Fill Needs." The Sampson Independent. <https://www.dintonnc.com/news/32552/sccs-apprenticeship-program-to-fill-needs>

38 National Health Care for the Homeless Council. 2016. "Hospital Community Benefit Funds: Resources for the HCH Community." <https://www.nhchc.org/wp-content/uploads/2016/06/policy-brief-hospital-community-benefit.pdf>

PART II: BUILDING AN INFRASTRUCTURE OF OPPORTUNITY

CHAPTER 3: BUILDING PHYSICAL AND HUMAN CONNECTIONS THAT CREATE PROSPERITY

North Carolina is at a pivotal moment for a next phase of public works that will advance the state forward and closer to a strong, equitable economy. The recent Connect NC bond showed the overwhelming and bipartisan support for public investment in building out the physical connections to opportunity.³⁹ Beyond that, current attention in the public discourse to the fallout from cuts to public schools and the missed opportunity to leverage the state's human capital presents an opportunity to consider not just the need for more classrooms and schools that are safe and healthy places, but also the need for high quality teachers and proven investments to advance children's educational attainment and success. Public works is not just about buildings, but about connecting people.

Connections that create prosperous regions with rural and urban communities thriving will require a collective commitment. In several key areas, state and local policymakers have the potential to design and implement public policies that will advance connections, strengthen the power of community anchors, and deliver improved economic opportunities for the state's work force, in particular. In the remainder of this chapter, we break down the importance of and mechanisms by which specific public investments and policies can increase connections and leveraging existing assets in communities across the state to deliver more equitable economic and labor market outcome specifically.



Alexandra Sirota
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Director

1. TRANSPORTATION

Why transportation infrastructure (beyond roads) is important

The mismatch between where jobs are and where workers live is an increasing feature of North Carolina's landscape as housing costs in urban centers have increased and jobs centers have concentrated in urban or adjacent to urban areas.⁴⁰

While roads and bridges have historically served to connect people to opportunity, the high cost of car ownership has been a barrier to ensuring that all communities can enjoy the benefits of road and bridge building alone.⁴¹ Commuting times for North Carolinians have increased since 2000, yet the percent of North Carolinians who don't own a car has remained stable.

For rural communities, the need for transportation infrastructure is particularly acute. National research has found that while public investment in roads and bridges can play an important role in strengthening the economic outcomes of the communities immediately surrounding these sites,

39 McHugh, Patrick, February 2016. Connect NC to Jobs: Infrastructure Investments can Build an Economy that works for All. Budget & Tax Center, NC Justice Center: Raleigh, NC. Accessed at: <http://www.ncjustice.org/?q=budget-and-tax/btc-reports-connect-nc-jobs-infrastructure-investments-can-build-economy-works-all>

40 Kneebone, Elizabeth and Natalie Holmes, March 24, 2015. The growing distance between people and jobs in metropolitan America. Brookings Institution: Washington DC. Accessed at: <https://www.brookings.edu/research/the-growing-distance-between-people-and-jobs-in-metropolitan-america/> and Stradling, Richard, March 27, 2018. How far would you ride the bus? State plan looks beyond county lines. News & Observer: Raleigh, NC. Accessed at: <https://www.newsobserver.com/news/traffic/article206879989.html>

41 Mitchell, Tazra, November 2011. Investments in Public Transit: Why Equity Matters. Budget & Tax Center, NC Justice Center: Raleigh, NC.

adjacent communities don't often see the full benefit.⁴² For more rural places, further from urban centers or major highways, there is an important role for public transit infrastructure. Indeed, national data finds that “nearly 40 percent of transit-dependent populations reside in rural areas.”⁴³ In North Carolina, rural residents are more likely to work in a different county and less likely than urban and suburban residents to own a car.

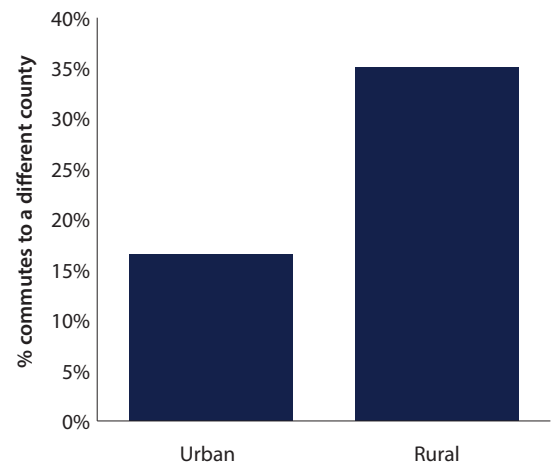
The return on public investments in rural transit is well-documented. Research has found a strong link between transportation infrastructure and network access and economic growth via the reduction in the cost of transferring goods and products along a supply chain, the lowering of vehicle costs and travel time, and rising property values, as well as the ability to attract more diverse workforce.⁴⁴

How public transportation infrastructure connects communities, workers to opportunity

Due to the spatial dispersion of people and the ongoing operating costs relative to ridership levels, the development of rural transportation is necessarily dependent on public investment.⁴⁵ North Carolina was an early leader in recognizing the importance of transit options in rural places — designing the first community transportation programs that sought to coordinate resources and build shared services across the Department of Transportation and Department of Health and Human Services.⁴⁶

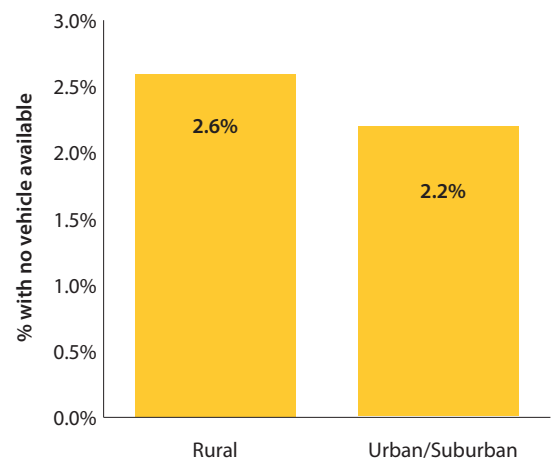
Moreover, because rural communities have lower levels of car ownership and longer commuting times, the role of public transit in connecting workers to employment is important. Researchers from Policy Link recently found in focus groups that transportation from temporary agencies represents significant shares of work paychecks each week. It is also the case that transit operations are themselves a significant source of employment for urban and rural places. As the Department of Commerce notes: “More than \$125 million in state and federal funds supported transit operations in all 100 counties. This funding supported 11,000 transit-related jobs, resulting in \$556 million in wages.”⁴⁷

Figure 9: Rural workers are more likely to work in a different county



Source: Analysis of U.S. Census Bureau, American Community Survey.

Figure 10: Rural workers are less likely to have access to a car.



Source: Analysis of U.S. Census Bureau, American Community Survey.

42 <http://microeconomicinsights.org/economic-benefits-transportation-infrastructure/>; <https://www.sciencedirect.com/science/article/pii/S0094119003001347>

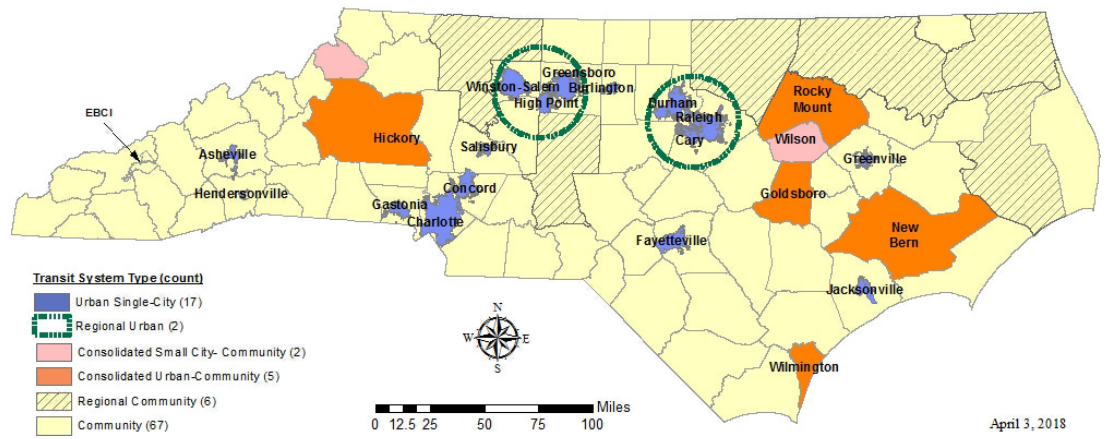
43 Rural Transportation, Connect Our Future.

44 US Department of Transportation, Federal Highway Administration. Role of Regional Planning Organizations in Transportation Planning Across Boundaries Accessed at: https://www.fhwa.dot.gov/planning/megaregions/reports/regional_planning_organizations/page04.cfm and Lockwood, Steve, Transportation in Rural America: Challenges and Opportunities. Accessed at: <http://www.cts.umn.edu/sites/default/files/files/events/oberstar/2004/2004lockwoodpaper.pdf>

45 Hauser, Edwin W., J. Dennis Rash, Sherry M. Elmes, and Nicholas J. Swartz, 2005 Transportation, NCPedia. Accessed at: <https://www.ncpedia.org/transportation/public-transportation>

46 NC Public Transit Association, May 2015. An Overview of North Carolina's Community Transportation Program. Accessed at: <https://www.nctransit.org/wp-content/uploads/2015/10/An-Overview-of-North-Carolina's-Community-Transportation-System-Full-Report.pdf>

47 North Carolina Department of Transportation, Benefits of Public Transit, Accessed at: <https://www.ncdot.gov/divisions/public-transit/Pages/transit-benefits.aspx>

Figure 11: Public transportation systems in North Carolina

Source: N.C. Department of Transportation

Specific strategies for improving the role of public investments

Across the country, rural communities are considering innovative strategies to meet the growing rural demand for public transit infrastructure and secure the potential broader returns for their communities.⁴⁸ Key to the establishment of rural transit programs are public funding sources — primarily Federal Transportation Administrations Section 5311 formula funding and Medicaid's non-emergency transportation program.⁴⁹

- **Ridesharing** refers to programs that allow for vehicle sharing across organizations or to models that allow passenger trips to be combined when seeking to get to a common destination. Emerging models exist to implement real-time ridesharing that allows people to connect with publicly funded transportation options through mobile apps.
- **Vanpools** are another common feature of rural transit and are mostly oriented around employment. These vanpools are set up for long-distance travel and, when organized by transit agencies, can be supported by employers, funded through economic development dollars, or offered at a discount to employees.
- **Mobility Management and Mobility on Demand Models** seek to coordinate and make more accessible the coordination of transportation schedules and programming. These entities typically use smartphone technology and coordination agreements across agencies to ensure access to transportation services.

Examples of Building Opportunity

Piedmont Authority for Regional Transportation is often lifted up as a model transportation infrastructure that extends into rural parts of the region surrounding Greensboro, High Point, and

48 American Public Transportation Association, October 5, 2017. Public Transits Impact on Rural and Small Towns, Accessed at: <https://www.apta.com/mediacenter/pressreleases/2017/Pages/Public-Transit-Impact-on-Rural-and-Small-Towns.aspx> and American Public Transportation Association, Rural Communities, Expanding Horizons: The Benefits of Public Transit. Accessed at: <https://www.apta.com/resources/reportsandpublications/Documents/Rural-Communities-APTA-White-Paper.pdf>

49 A Platform for Rural Transportation, Accessed at: http://web1.ctaa.org/webmodules/webartides/articlefiles/Platform_for_Rural_Transportation.pdf

Winston-Salem to provide bus, vanpool and ridesharing services to rural and urban residents alike. One component of the Authority's work is to create customizable transportation services for major employers in order to provide no-cost transportation to workers in more rural parts of the region.⁵⁰

For more information, see these resources:

- **Rural Transportation, Connect Our Future:** <http://www.connectourfuture.org/tools/rural-transportation/>
- **Models that Increase Access to Transportation, Rural Health Information Hub:** <https://www.ruralhealthinfo.org/toolkits/transportation/2/models-to-improve-safety-or-infrastructure/increase-access-to-public-transportation>
- **Putting Transit to Work in Main Street America: How Smaller Cities and Rural Places are Using Transit and Mobility Investments to Strengthen their Economies and Communities:** <http://www.reconnectingamerica.org/resource-center/books-and-reports/2012/putting-transit-to-work-in-main-street-america-how-smaller-cities-and-rural-places-are-using-transit-and-mobility-investments-to-strengthen-their-economies-and-communities/>

2. BROADBAND

Why Broadband Matters

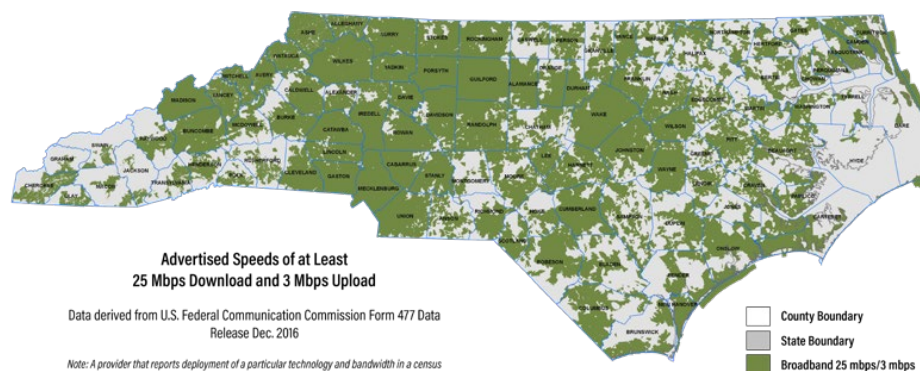
Every year, it gets harder to survive in the modern economy without high-speed internet. Just like electricity a century ago, broadband has steadily evolved from a novel luxury into an economic must-have.

Residents of affluent neighborhoods in the Research Triangle, Charlotte, and a handful of other metropolitan areas in North Carolina have likely seen crews working roadsides over the past year installing fiber optic cable. On the other hand, many communities still lack broadband access of any kind, let alone the super-fast service offered by fiber.



Patrick McHugh
Budget & Tax Center
Senior Economic
Analyst

Figure 12: Many communities still lack broadband access of any kind.



Source: NC Broadband Infrastructure Office. "NC Broadband Map." Accessed at: <https://www.ncbroadband.gov/map/>

50 Piedmont Authority for Regional Transportation, 2018 Annual Report, Accessed at: http://www.partnc.org/wp-content/uploads/2018/08/PART_Annual_Report_2018.pdf

The official maps provided by the Federal Communication Commission (FCC) actually understate the depth of the digital divide in North Carolina. First, the FCC defines broadband as 25 megabits (mbs) per second of download speed,⁵¹ much slower than most fiber networks, which deliver download speeds 10 to 40 times faster than the FCC standard.⁵² Second, the FCC aggregates data at the census bloc level, which can span neighborhoods with very different levels of internet service.⁵³ All of this adds up to a larger digital divide in North Carolina than is often acknowledged, and a gulf that is growing wider as fiber networks come to urban areas with higher incomes.

How broadband connects communities

Broadband can overcome the tyranny of geography, connecting companies to global markets, maintaining ties of friendship and family, and forging wider networks of neighbors within communities. A few of the key benefits for communities and workers include:

- Connects workers to the tools they need to thrive, such as online educational offerings and job listings.
- Connects businesses to customers, suppliers, and potential employees
- Connects residents to telehealth services that can augment limited healthcare options in their local community
- Connects networks of friends and families within a community and across space.

Role of public investments

The digital divide in North Carolina is a classic market failure. While private internet service providers rush to capture lucrative urban markets, they have much less incentive to invest in many small towns and rural communities. Even based on the FCC's modest definition of broadband, over 630,000 North Carolinians currently lack access.⁵⁴ This is precisely the kind of situation that requires public investment and public-private partnerships to overcome the failure of the open market to deliver a necessary public good; it is why North Carolina has a long history of investing in public education, roads, airports, parks, and other vital public needs that are often underprovided by the private market.

Permit Local Networks: As part of a campaign in statehouses across the country,⁵⁵ several large internet service providers lobbied hard in North Carolina to pass legislation that would severely limit local governments' ability to build fiber-to-the-home networks. After several failed attempts, HB 129 passed the General Assembly, severely hamstringing local governments' ability to fund and build broadband networks to serve their residents and businesses. The limitations imposed by HB 129 also remove a range of public offering and public-private partnerships⁵⁶ that local governments could otherwise explore.

Competitive Grants to for Rural Broadband: The N.C. General Assembly appropriated \$10 million for

51 Federal Communications Commission. "Household Broadband Guide." <https://www.fcc.gov/research-reports/guides/household-broadband-guide>

52 Broadband Now. (2018). "DSL vs Cable vs Fiber: Comparing Internet Options." <https://broadbandnow.com/guides/dsl-vs-cable-vs-fiber>

53 Pegoraro, R. (2018). "The Problem with America's New National Broadband Map." CityLab. <https://www.citylab.com/life/2018/02/fcc-high-speed-broadband-internet-access-map/554516/>

54 Wynia, E. & J. Hovis. (2018). "Leaping the Digital Divide: Encouraging Policies and Partnerships to Improve Broadband Access Across North Carolina." *NC League of Municipalities*. <https://www.ncim.org/broadband>

55 O'Boyle, T. & C. Mitchell. (2013). "The Empire Lobbies Back: How National Cable and DSL Companies Banned the Competition in North Carolina." <https://ilsr.org/wp-content/uploads/2013/01/nc-killing-competition.pdf>

56 Community Networks. "Muni Fiber Models." <https://muninetworks.org/sites/www.muninetworks.org/files/2017-07-Muni-Fiber-Models-Fact-Sheet-FINAL.pdf>

matching grants to extend broadband in the 2018-19 fiscal year. Legislative leaders indicated that this good start toward bridging the digital divide would expand in future years,⁵⁷ which it needed to connect more North Carolinians to the global market.

Map broadband assets and needs: Data provided by the FCC often does not match the reality on the ground. As such, the N.C. Broadband Infrastructure Office operates a portal where North Carolina residents can identify areas that lack broadband that are not captured in data provided by federal authorities. Local governments are also stepping up to map broadband assets on the ground so that investments can have the greatest impact on expanding access. For example, Wake County government is partnering with public and private entities to map the fiber resources in the county and identify where investments are needed to expand broadband access.

Make public assets available for broadband infrastructure: Governments are increasingly forming partnerships that allow private internet providers to piggyback off of public infrastructure assets. This can include opening publically-owned buildings or towers to wi-fi hubs, permitting fiber installers to install fiber conduit when road or sidewalk improvements are made, or leasing publically-funded fiber networks to private internet service providers.

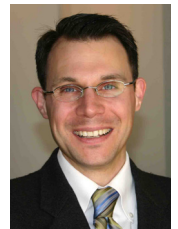
3. SECTOR STRATEGIES AS CONNECTORS

Why sector strategies are important

Sector strategies focus on nurturing entire industry clusters by bringing a variety of economic development efforts to bear. These include “high-road” development strategies such as higher education-related R&D and technology transfer and entrepreneurship support for starting new businesses and scaling up to mid-sized businesses, alongside traditional approaches like business attraction and expansion. Perhaps the most critical aspect of sector strategies involves partnering with existing businesses in these sectors to provide job training services customized to the specific needs of the businesses in those specific sectors. Taken together, sector strategies bundle together all these different investments and institutions around the focused goal of building out an entire industry cluster.⁵⁸

North Carolina has a long history of investing in sector strategies. In particular, the state’s efforts to develop biotechnology, textiles, and aerospace have proven successful. In the case of biotech, the state-charted N.C. Biotechnology Center has been long recognized as a national model for leveraging Triangle-area research university assets, coordinating job training, and recruiting mid-stage firms to successfully build out multiple supply chains centered around life science manufacturing and related technical services. Recent studies have highlighted the positive economic impacts of the biotech sector strategy, including the creation of high-wage jobs for workers without a college degree and the higher success rate in job creation of economic development incentive projects in this sector — not to mention the broadly transformative impact biotech has had on the Triangle region in terms of population growth and its ability to attract high-skill workers from across the country.

Although the biotechnology sector strategy is widely considered a success, most of its focus and benefits have been concentrated in the state’s urban centers, particularly the Research Triangle and the Piedmont Triad. But the state has also pursued sector-based development efforts in rural places — notably in aerospace and in advanced textiles.



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57 Fain, T. (2018). “Budget Earmarks \$10 Million to Expand Rural Broadband.” WRAL. <https://www.wral.com/budget-earmarks-10m-to-expand-rural-broadband/17578530/>

58 Conway, M. and Giloth, R. (eds). (2014). *Connecting People to Work: Workforce Intermediaries and sector strategies*. The American Assembly, Columbia University: New York, NY.

How sector strategies connect communities

Sector strategies play two main roles in connecting rural communities. First, they focus on nurturing businesses that connect to each other through buyer/supplier relationships and shared pools of skilled labor. In turn, these supply chains connect North Carolina's businesses to buyers and sellers across the world. As a result, sector strategies play an effective role in positioning North Carolina — including its rural communities — as a key supplier and producer across targeted industries in the global economy. For example, policymakers have deliberately developed the state's biotech cluster to position North Carolina as a globally recognized hub for life sciences production, pharma manufacturing, and other biotech-related professional services.

Secondly, sector approaches explicitly seek to expand the connections between businesses, skilled labor, and regional innovation. Because they focus on designing and delivering skills training customized to the need of a specific industry, sector strategies play an important role in connecting workers to high-demand skills and job placement opportunities, while simultaneously connecting businesses to workers with the precise set of skills they need. This connectivity has the added benefit of generating what economists call “knowledge spill-overs”: the knowledge, experience, and human capital that firms build up and share with each other through formal business partnerships and informal personal interactions. In particular, businesses benefit from the knowledge shared by skilled workers in a sector — everything from making it easier to hire an employee with the right skills to generating innovative ideas based on interpersonal relationships among similarly skilled workers.

These connections do not happen by themselves. Instead, they rely on key public investments that deliver the services and benefits central to the sector approach.

Role of public investments

Most importantly, sector strategies leverage long-term public investments in key policy assets like job training, higher education, and targeted supply chains to boost business productivity and raise wages. These public investments provide firms with highly skilled labor, access to new production and communication technologies, industry-specific business management techniques, and support for business development from start-up through the entire business life cycle — all of which have long been identified by economists as increasing business productivity.⁵⁹ And the more productive the firm, the lower its costs for producing each new unit of goods and services, and the more competitive it becomes in the global economy.⁶⁰

In effect, sector strategies wrap businesses in productivity-enhancing investments that support every aspect of business operations specific to that sector. According to a number of studies, these assets tend to improve business earnings and hiring compared to firms in non-sector-supported industries.⁶¹

But delivering these benefits in an effective way requires significant coordination between businesses, workers, and the public institutions that foster these connections — which often doesn't happen by itself either. Instead, most sector strategies rely on public investments in a key anchor institution that manages all the different moving pieces of a sector portfolio — getting business input on training, identifying prospective companies and training programs to develop in the sector, connecting companies to university-based research, and more. The N.C. Biotechnology Center plays this role for life sciences, the Piedmont Triad Partnership plays this role for aerospace in the Triad, and the N.C.

59 See for example Lowe, N.J. (2014). Using Industrial Recruitment as a Strategic Tool for Manufacturing Development. *Economic Development Quarterly*, January 2014, Vol 28, Issue 4.

60 Porter, M, Ketels, C, and Delgado, M. (2008). The Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness. Chapter 12 in *The Global Competitiveness Report 2007-2008*. World Economic Forum: Washington, DC.

61 Lester, T, Lowe, N, and Freyer, A. (2014). Mediating Incentive Use: A Time-Series Assessment of Economic Development Deals in North Carolina. *Economic Development Quarterly*, May 2014; vol. 28, 2: pp. 132-146.

Military Foundation plays this role for business development in the defense sector.

Examples of building opportunity

Rural North Carolina is home to a number of sector strategies that have enhanced connectivity and built economic opportunity for workers in their communities. For example, a strong sector-specific commitment to supporting the local textile industry helped save hundreds of middle-wage apparel jobs in Sampson County. After decades of mounting cost pressures, the clothing company Brooks Brothers began looking in 2014 at closing its facility in Garland (one of only two such left in North America), and relocating outside the state. But thanks to aggressive investments in the textile management college at N.C. State University and timely intervention by both the Community College System and the textiles team at the N.C. Department of Commerce, the state was able to provide Brooks Brothers with new management techniques and assembly technologies that lowered costs without resulting in layoffs. Moreover, Sampson Community College worked with the company to develop a customized training curriculum that retrained Brooks Brothers workers to adapt to the new systems. As a result, the state's sector strategy in textiles helped save 250 quality jobs that would otherwise have vanished.

4. HEALTH WORK FORCE CONNECTS COMMUNITIES

Why the health work force is important

Health workers are essential stakeholders for our health systems and serve as an integral component of the delivery of health services. They are responsible for administering public health interventions that save lives and improve quality of life, they often interface directly with the public, and they are the face of the health system for many individuals and families with whom they interact. Investments in human capital through recruitment, training, and support of the health workforce benefits society as a whole because they improve the capacity of our health systems, which in turn helps us all.

The types of health professionals supplied at different levels of the health system – from local health departments to hospitals to nursing homes – affect the cost of health care. This, in addition to other factors, affects access to health services for many. It is in the best interest of the public to ensure that appropriate types of health professionals are in place at appropriate agencies and sites where health services are provided. For example, filling every role in the health system with a trained physician would not be in the public's best interest; rather, we should align health system roles with necessary skills and training to fulfill those roles.

In addition to the types of providers, diversity of the health workforce is an increasingly important issue. Research demonstrates that diversity within the health workforce leads to greater culturally competent care, increased access to high quality services for the underserved, strengthened medical research scope, and greater diversity in related workforces such as medical executives and policymakers.⁶² Currently the makeup of the North Carolina health workforce does not reflect the diverse makeup of the state's population,⁶³ which compromises patient-provider trust, satisfaction, and adherence to medical recommendations.^{64 65}



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62 Cohen, J. J., Gabriel, B. A., & Terrell, C. (2002). The case for diversity in the health care workforce. *Health Affairs*, 21(5): 90-102. doi: 10.1377/hlthaff.21.5.90

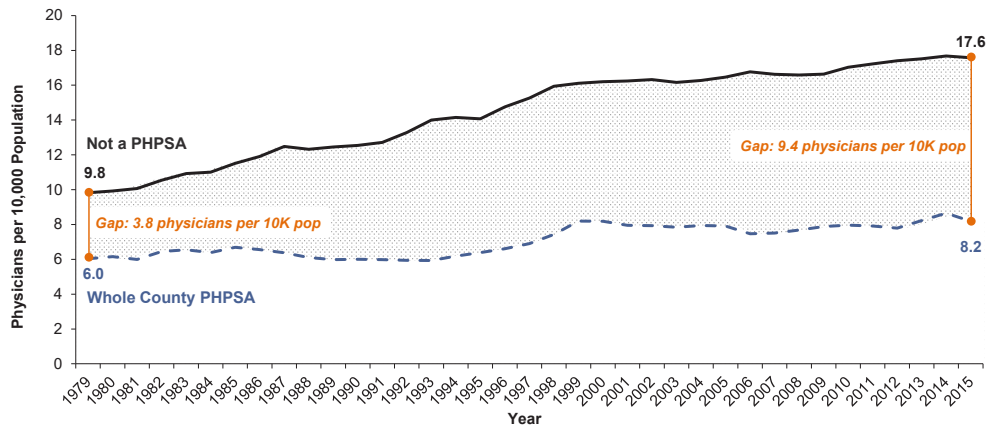
63 McGee, V., Fraher, E. (2012). The diversity of North Carolina's health care workforce. Retrieved from http://www.shepscenter.unc.edu/hp/publications/Diversity_Aug2012.pdf

64 Saha, S., Arbelaez, J. J., & Cooper, L. A. (2003). Patient-physician relationships and racial disparities in the quality of health care. *American Journal of Public Health*, 93(10):1713-1719. doi: 10.2105/AJPH.93.10.1713

65 Street, R. L., O'Malley, K. J., Cooper, L. A., & Haidet, P. (2008). Understanding concordance in patient-physician relationships: Personal and ethnic dimensions of shared identity. *Annals of Family Medicine*, 6(3):198-205. doi: 10.1370/afm.821

Figure 13: Gap in number of physicians between shortage and non-shortage counties in N.C. is growing.

Physicians per 10,000 population by Persistent Health Professional Shortage Area (PHPSA) Status, North Carolina, 1980-2015



Notes: Figures include active, in-state, nonfederal, non-resident-in-training physicians licensed as of October 31st of the respective year. North Carolina population data are smoothed figures based on 1980, 1990, 2000 and 2010 Censuses. Persistent HPSAs are those designated as HPSAs by HRSA in the Area Health Resource File using most recent 7 HPSA designations (2008-2013, 2015). **Sources:** North Carolina Health Professions Data System, 1980 to 2015; North Carolina Office of State Planning; North Carolina State Data Center, Office of State Budget and Management; Area Health Resource File, HRSA, Department of Health and Human Services.

Source: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, UNC-CH.

From 2006 to 2016, the health care sector was the fastest growing major employment industry in the United States.⁶⁶ In North Carolina, the per capita supply of physicians has kept up with the national average, and beginning in 2010, it climbed above the national average.⁶⁷ However, for many years, North Carolina has experienced a shortage of health professionals. The Health Resources and Services Administration (HRSA) defines Health Professional Shortage Areas (HPSAs) as geographic-, population-, or facility-based shortages of primary care, dental health, or mental health providers.⁶⁸ The North Carolina population affected by shortages is significant, as shown in Table 4, affecting as many as one in four North Carolinians. In addition to having a low provider to population ratio, the population being considered must also have a high need in at least one area, including a high poverty rate, depending on the type of HPSA.⁶⁹

Table 4: Number of Health Professional Shortage Areas in N.C. and how many are affected

Type of Health Professional Shortage Area designation	Number of designations	Population affected
Primary Care	160	1,902,580
Dental Health	146	2,367,917
Mental Health Care	153	2,679,240

Source: HRSA Designated Health Professional Shortage Areas Statistics

The Sheps Center goes a step further by defining persistent HPSAs (PHPSAs) as those areas with the HPSA designation for 7 or more consecutive years. As of 2012, 14 counties in North Carolina were classified as PHPSAs based on this definition, while other counties received the classification due to a

shortage for a specific population, such as farmworkers.⁷⁰

66 U.S. Bureau of Labor Statistics (2017). Employment projections program. Retrieved from <https://www.bls.gov/emp/tables/employment-by-major-industry-sector.htm>

67 Fraher EP, Spero JC. The State of the Physician Workforce in North Carolina: Overall Physician Supply Will Likely Be Sufficient but Is Maldistributed by Specialty and Geography. Program on Health Workforce Research and Policy, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill. August 2015. <http://www.shepscenter.unc.edu/wp-content/uploads/2015/08/MedicalEducationBrief-ShepsCenter-August20151.pdf>

68 Health Resources and Services Administration (HRSA), Health Professional Shortage Areas (HPSAs), <https://bhwa.hrsa.gov/shortage-designation/hpsas>

69 Ryan, M. (2016). Health Professional Shortage Areas and Scoring. Retrieved from <https://nhsc.hrsa.gov/corpsexperience/aboutus/nationaladvisorycouncil/meetingsummaries/06-2016-shortage-designation.pdf>

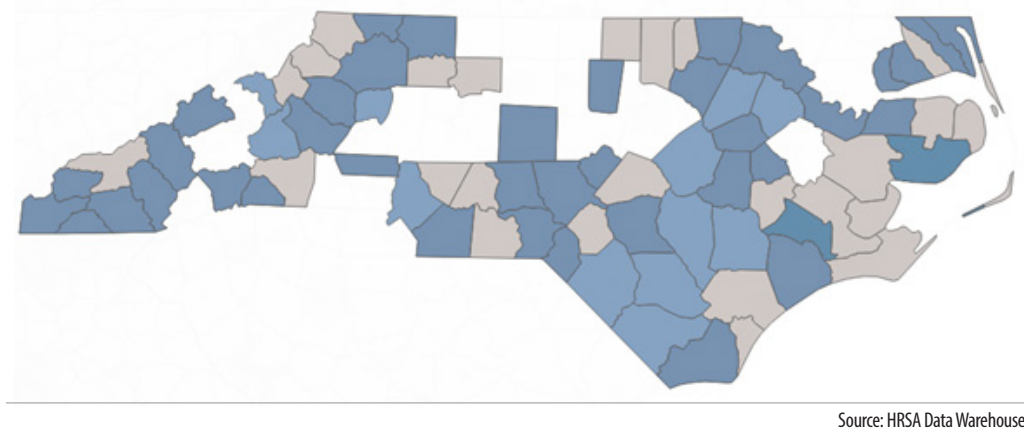
70 Fraher EP, Spero JC. 2015

HPSAs and PHPSAs remain a challenge despite a growing number of health care professionals in North Carolina. Figure 13 shows that while the ratio of physicians per 10,000 population has steadily grown over the past 30 years in counties that have not had a persistent shortage, the ratio has remained largely unchanged in counties with PHPSA status. While HPSA and PHPSA measures are largely restricted to only physician-level professionals and does not include other types of health professionals, these measures can help provide a sense of the human capacity that a given area has to provide health services for its community.

In addition to the quantity and makeup of the health workforce, their distribution across the state plays an equally important role. Much of the health shortages North Carolina faces are symptoms of the maldistribution of physicians and other health professionals. The concentration of health professionals in urban areas typically leaves rural high poverty counties with few health professionals to care for their residents. Figure 14 illustrates counties with geographical designation as HPSAs in mental health, with most counties outside of the Triangle and the Triad lacking an adequate ratio of mental health professionals per population in addition to having a high need.

Figure 14: North Carolina counties designated as mental health HPSAs

Counties in blue represent designated geographic HPSAs while those in grey were withdrawn as mental health HPSAs.



How the health work force connects communities

The number of hospital closures that have occurred in North Carolina, five of which have occurred since 2013, exacerbates the phenomenon of displacing rural health workers.⁷¹ These five hospitals were located in micro and metro areas spanning from Eastern to Western North Carolina. When hospitals close, not only are the health services delivered there no longer available, but also the healthcare jobs that enabled employees to earn a living are eliminated. Job loss can be detrimental to families, and this is particularly true for the rural areas that experience hospital closures and have few other health-related employment options near their residence.

In addition to being major players in the delivery of health services, hospitals function as hubs for delivering a range of services outside of the hospital. 78 percent of hospitals across the United States

71 The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill. (2018). 87 rural hospital closures: January 2010 – present. Retrieved from http://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/#citem_3b75-ca6b

had nonprofit tax-exempt status in 2014, which are required by the Internal Revenue Service (IRS) to provide community benefits to the areas they serve.⁷² Additionally, the Patient Protection and Affordable Care Act, known as the ACA, introduced new guidance for hospitals to meet tax-exempt status, including the requirement of conducting a community health needs assessment at least once every three years. Hospitals are mandated to use the needs identified in the assessments to guide their community benefit work. While the type and scope of the community benefit work varies by hospital,⁷³ their purpose of improving population health demonstrates the impact that hospitals make on the communities they serve. In this way, hospitals serve as centers where health and public health workers alike work to meet the needs of individuals in the community and within the hospital.

Many health services are administered outside of the walls of hospitals and clinics, and this system of decentralized care is becoming increasingly important due to hospital closures. Non-hospital based care includes the utilization of new technologies through mobile care and telemedicine, in addition to community based care and even home health. Comprised of personal care aides, home health aides, and nursing assistants, home health workers provide essential services and supports to people in their homes, including the elderly and people with disabilities.⁷⁴

The role of public investments in the health workforce

With a growing overall population and older adult population, it has become increasingly important to find solutions to address health professional shortages. To date, North Carolina has implemented many models for achieving this through programs aimed at retaining primary care trainees in North Carolina, primarily through public investments in medical schools and Area Health Education Centers (AHECs). Current models aim to improve the distribution of the health workforce through financial support, student recruitment, and programming to improve retention.

The North Carolina AHECs are an example of one such model with multiple programming strategies, including engaging pre-college students, supporting current medical students by ensuring quality clinical practice sites, providing financial support to residency programs that help supply primary and community care to rural and underserved areas, and connect health professionals to continuing education opportunities.⁷⁵

Colleges and universities that offer medical, nurse practitioner, or physician assistant programs are required to submit primary care educational plans every two years to the legislature.⁷⁶ These plans not only outline new strategies but to also report on the outcomes from previous or ongoing strategies. Strategies employed by programs across the state include the creation of new Physician Assistant (PA) programs at High Point University and UNC Chapel Hill, expansion of rural residencies in primary care and some specialties at multiple Universities and AHECs, implementation of longer-term primary care rotations at UNC-Chapel Hill, and training of physicians and PAs at Campbell University School of Medicine to become Primary Care Champions.

Programming aimed at increasing the diversity of students to include more minorities and/or disadvantaged students includes the Medical Education Development (MED) program at UNC-Chapel Hill, as well as the admissions practices at the Brody School of Medicine at East Carolina

72 James, J. (2016). Nonprofit Hospitals' Community Benefit Requirements. Health Affairs Health Policy Brief, February 25, 2016. doi: 10.1377/hpb20160225.954803

73 Rosenbaum, S. (2016). Hospitals as community hubs: Integrating community benefit spending, community health needs assessment, and community health improvement. Retrieved from <https://www.brookings.edu/wp-content/uploads/2016/07/Rosenbaum-PDF-Layout-FINAL-1.pdf>

74 PHI. (n.d.). U.S. Home Care Workers: Key Facts. Retrieved from <https://phinational.org/wp-content/uploads/legacy/phi-home-care-workers-key-facts.pdf>

75 North Carolina AHEC, About Us, <https://www.ncahec.net/about-nc-ahec/about-nc-ahec/>

76 Saha, S., Arbelaez, J. J., & Cooper, L. A. (2003).

University.⁷⁷

Financial assistance for students includes the Primary Care Leadership Track at the Duke University School of Medicine, which awards scholarships in place of need-based loans for fourth-year students.⁷⁸ In addition, Duke University offers scholarships to PA students who do longer-term primary care rotations in rural and underserved counties. Similar programming is in place at UNC-Chapel Hill, which offers scholarship support and mentorship for medical students who are interested in practice primary care in rural areas through its Kenan Primary Care Medical Scholars program, as well as one-time loan repayment for students who commit to serving in a rural area of North Carolina post-residency through the NC Rural Promise Scholarship.⁷⁹

Programs that increase the representation of rural students pursuing health professions are based on findings that show that retention of health professionals in rural areas is increased when the individuals are from rural areas.⁸⁰ Together with financial support, these strategies put health professional training programs within reach for individuals from disadvantaged backgrounds for whom additional training may not otherwise be possible. These and other programs that create equitable opportunities for North Carolinians seeking for workforce opportunities must be part of a multi-faceted approach to the problem of poorly distributed health professionals.

Examples of building opportunity: Allied Health IEI

While these efforts move North Carolina in the right direction toward improving the distribution of health professionals, a more diverse range of strategies is needed to ensure long-term success.

One area of opportunity is to create more pathways for individuals to pursue allied health professions. Currently, allied health professionals make up 60 percent of the health care workforce, and include physical therapists, occupational therapists, audiologist, dental hygienists, dietitians, health educators, home health aides, and physician assistants.^{81 82}

One innovative approach that not only addresses the problem of maldistributed health professionals, but also unemployment in rural areas, is the demonstration model led by the Institute for Emerging Issues (IEI) at North Carolina State University.⁸³ In the model, work force development partners provide training for unemployed workers, 60 percent of whom have been unemployed long-term, to then gain employment at healthcare employer sites. The partnership ensures that all parties are engaged in the process to link trained workers with higher wage jobs in their communities, and includes opportunities for enhancement and multiple entry-points for individuals with various levels of training to get involved.⁸⁴

The allied health model developed by IEI represents one example of an opportunity to solve multiple problems affecting communities across North Carolina. This and other strategies support the equitable investment in human capital that can create meaningful, long-lasting change for individuals while also increasing the capacity of communities.

77 Ibid.

78 Ibid.

79 Ibid.

80 North Carolina Medical Journal. Challenges of recruitment and retention in rural areas. <http://www.ncmedicaljournal.com/content/77/2/99.full>

81 Association of Schools of Allied Health Professionals. What is Allied Health? <http://www.asahp.org/what-is/>

82 North Carolina AHEC. Resources for Allied Health. <https://www.ncahec.net/resource/allied-health/>

83 NC State University. IEI Health: Allied Health Pipeline. <https://iei.ncsu.edu/support/iei-health-allied-health-pipeline-success/>

84 NC State University Institute for Emerging Issues. Transitioning the long-term unemployed in rural North Carolina into allied health careers: a demonstration model and suggestions for implementation. <https://iei.ncsu.edu/wp-content/uploads/2013/01/DemonstrationModelJune2012.pdf>



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5. IMMIGRANT INTEGRATION

How integration connects communities

Today's world is more connected all the time. Communities that turn their back on people born outside the United States are often cut off from the global connections that are needed to succeed in the modern economy. The fastest-growing markets are in developing countries, so isolation deprives communities from access to the biggest growth opportunities in the next few decades. Foreign direct investment is also on the rise, making communities' reputation for openness, or discrimination, central to the attraction of mobile capital.

Role of public investments

Overcome distrust of governmental entities: Many immigrant communities have learned from hard experience that official government entities cannot necessarily be trusted to serve their best interests. As Victor Dau, former Director of Randolph County Community College Small Business Center, observed, *"We must first understand their culture and gain their trust. Most of these people have had to be very entrepreneurial just to get here!"*⁸⁵ Particularly in the current political environment, local governments and business communities have to proactively work to overcome this history of fear and distrust before immigrant communities feel safe using the business support services that are available. This can entail proactive outreach to immigrant communities by existing business service providers, welcoming and business development centers rooted in immigrant communities, language and cultural training for public employees. The task is both vital and challenging in the current context.⁸⁶

Bridge divides between immigrant and native-born business communities: Overcoming language and other barriers that often separate native-born business owners from their immigrant peers can bridge divides that hurt both communities. Business roundtables, networking events, proactively fostering supply chain relationships, and local business welcoming committees are increasingly helping immigrant and native-born entrepreneurs to identify opportunities for business partnerships.

Leverage immigrants as connectors to the global economy: Immigrants can be a vital resource in opening up export markets and attracting foreign direct investment.⁸⁷ First, research indicates that immigrant-owned businesses are 60 percent more likely to export to foreign markets than businesses operated by native-born owners.⁸⁸ Immigrants can also serve as business ambassadors, assisting native-born entrepreneurs in overcoming language, cultural, and regulatory barriers to accessing markets outside the United States.

Offer business services in neutral spaces: In an environment of aggressive federal deportation enforcement, many immigrants are understandably fearful of visiting official government spaces. Offering business services and hosting events in neutral spaces, like churches, can help to overcome these barriers to serving these communities.

Tailored business capital programs: Because many immigrants lack sources of collateral and access to

85 University of Northern Iowa Regional Business Center. (2006). A Rural Service Provider's Guide to Immigrant Entrepreneurship. <https://bcs.uni.edu/icili/pdfs/latinomanual.pdf>

86 Huang, X. & C. Liu. (2016). Welcoming Cities: Immigration Policy at the Local Governmental Level." Georgia State University, Center for State and Local Finance. https://cslf.gsu.edu/files/2016/09/Welcoming-Cities-Immigration-Policy_September-2016.pdf

87 Brown, E. et al. (2013). "The Economic Development Impacts of Immigration." International Economic Development Council. http://www.iedconline.org/clientuploads/Downloads/edrp/IEDC_EDRP_Immigration_Summary.pdf

88 The Partnership for a New American Economy. (2012). "Open for Business: How Immigrants are Driving Small Business Creation in the United States." <http://research.newamericaneconomy.org/wp-content/uploads/2013/07/openforbusiness.pdf>

traditional financial services,⁸⁹ tailored business lending programs are a key ingredient in unlocking their entrepreneurial potential. This often requires the creation of public and private business capital programs tailored to immigrant entrepreneurs' specific needs.

Multi-lingual business resources: Ensuring that non-native communities learn about, and can access, business support resources often requires translating materials into languages prevalent in different immigrant communities.

Identify potential successors for retiring business owners: In many rural communities, it can be challenging to find successors when current business owners want to retire. In these cases, matching immigrants with the entrepreneurial skills to take over can provide a path to keeping these businesses open and viable.⁹⁰

6. BRINGING ANCHORS INTO THE WORKPLACE: THE ROLE OF ORGANIZED LABOR IN BOOSTING COMMUNITY WELL-BEING

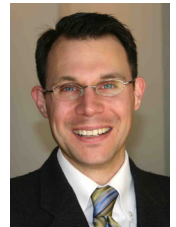
How organized labor connects communities

Organized labor plays a key anchor role in connecting working people in rural North Carolina to better wages, benefits, and working conditions by bringing the collective bargaining into the workplace. Collective bargaining strengthens workers' ability to negotiate with their employers for better wages and safer working conditions. It provides an important vehicle for ensuring that business productivity gains are rewarded with increased earnings rather than siphoned off to stock buybacks, executive compensation, or other investor income. Unsurprisingly, labor organizing has historically played a key role in addressing wage stagnation and income inequality, and as participation has declined, so has broadly-shared prosperity waned.

Thanks to the power of collective bargaining, membership in a labor union secures significantly higher wages. Compared to their private sector counterparts whose median wage was \$16.89 during 2015-2017, union members across North Carolina earned \$19.85 over the same period — a \$3 an hour premium.

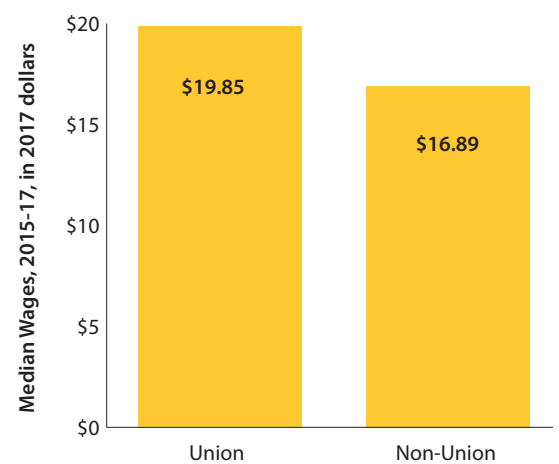
Role of public policy

North Carolina's labor laws clearly and directly affect the ability of collective bargaining to generate benefits for workers across the state. Under the current laws, North Carolina completely bans collective bargaining for public employees, which means municipal, county, and state employees cannot negotiate with their employer for higher wages, better benefits, or safer working conditions. This ban has a disproportionate impact on rural workers because local governments and school systems are



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Figure 15: Union members earn \$3 an hour more than non-union members.



Source: Analysis by Economic Policy Institute

89 Paulson, A. & A. Singer. (2004). "Financial Access for Immigrants: Learning from Diverse Perspectives." Brookings Institution. <https://www.brookings.edu/research/financial-access-for-immigrants-learning-from-diverse-perspectives/>

90 We Global Network. "Call for Ideas for White House Task Force on New Americans for Immigrant Integration Plan." https://www.migrationpolicy.org/sites/default/files/publications/WEGN_TaskForce_Recommendations.pdf

often the largest employer in rural counties. Moreover, this ban also has an especially negative impact on workers of color because aggressive anti-discrimination policies in the public sector have ensured that employees from historically marginalized communities are more highly represented in local government than in the private sector where such policies are less active.

Secondly, state law bars labor unions from collecting dues from everyone in the shop who the union represents. These laws requires the union to collectively bargain on behalf of everyone in the shop, even if they don't pay dues, so the current rule allows employees to receive the benefits and protections of union membership without joining the union and paying dues. This kind of free-riding dramatically reduces the resources available to support organizing, bargaining, and efforts to raise wages for workers in rural and urban areas alike. Rural workers are especially affected, as collective bargaining is one of the only tools available to close the wage gap with urban workers.

Examples

Organized labor is critical for connecting rural workers to these benefits. For example, the International Association of Machinists and Aerospace Workers (IAM) District Lodge 110 represents the civilian workers supporting Camp Lejeune and Cherry Point, military facilities in Onslow County. In 2015, the IAM successfully bargained a three-year contract that secured a \$1 per hour increase in employer-health and welfare benefits during the contract's first year, along with a two-percent raise in the second year, and a three-percent raise in the third year.

Beyond the concrete wages and benefits secured through collective bargaining, this important workplace anchor also connects job training and apprenticeship programs in metro areas to working people in the surrounding rural communities. For example, the International Brotherhood of Electrical Workers (IBEW) Local 238 is located in Asheville. But the local runs an apprenticeship program that trains electricians through a combination of 200 hours of classroom instruction at the local community college and on-the-job training at building sites in rural Buncombe, Avery, Watauga, Yancey, and other nearby counties, alongside opportunities in Asheville. The program lasts for four years and provides yearly opportunities to advance in pay and skill.



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