

Charlotte in Transition: Building Pathways to Economic Security in a Fast-Growing, Tech-Driven Regional Economy

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Charlotte: A Case Study of a Leading Tech Hub Regional Economy in Transition

Over the past several decades the U.S. economy has undergone tremendous shifts with the precipitous decline of manufacturing, the rapid growth of digital and automation technologies, and the polarization of job growth between high- and low-wage occupations with middle-wage job growth trailing behind. These changes have predominantly benefitted educated workers, fueling widening inequality and calling into question the future of good jobs for the majority of workers who do not have college degrees. To better understand the relationships between these industry-level changes and their implications for building solid pathways into the middle class, PolicyLink and the University of Southern California Program for Environmental and Regional Equity (PERE) examine these economic changes in the nation’s largest metropolitan areas between 2005 and 2015. This analysis is described in [Regional Economies in Transition: Analyzing Trends in Advanced Industries, Manufacturing, and the Service Sector to Inform Inclusive Growth Strategies](#),¹ which presents a typology that classifies the 150 largest metros into seven types based on (1) the growth of advanced industries, such as computer systems design and chemical manufacturing; (2) the decline of traditional manufacturing jobs; and (3) the quality of jobs in service-sector industries that generally do not require a bachelor’s degree and are therefore more accessible to economically insecure workers (defined as those with incomes below 200 percent of the federal poverty level). The table below presents a summary of the seven regional types.

This report presents a case study of the Charlotte region, which is classified as a Leading Tech Hub in our typology. In addition to the data analysis presented in the typology report, this case study includes data illustrating local labor market trends and racial inequities in economic outcomes that are informed by local research and interviews. All data points that are not otherwise cited are based on PolicyLink and USC-PERE analysis of data from the U.S. Census Bureau in the National Equity Atlas.

Charlotte’s classification as a Leading Tech Hub is based on its rapid growth in advanced industries, slow decline in manufacturing, and high-quality service-sector jobs accessible to workers without a bachelor’s degree. This case study considers the broad labor market trends and recommendations put forth in the typology report, with specific consideration of the large share of Charlotte residents who are economically insecure, to understand how these economic changes can inform local and regional strategies to promote inclusive growth and increase economic security for people of color and low-income residents.

Since 2010, the Charlotte metro has grown by an average of 118 residents every day, and it is one of the fastest growing regions in the country. In 2018, *Forbes* named Charlotte #5 on its list of top cities for job seekers.² And, with the November 2018 announcement that Honeywell—a major manufacturer of electronics, aerospace, and electronic equipment—is relocating both its global headquarters and its Safety and Productivity Solutions (SPS) business group to Charlotte,³ the metro is now home to seven Fortune 500 companies.⁴ From 2005 to 2015,

Regional Typology Overview

Region Type	Decline in manufacturing	Rise in advanced industries	Quality of service jobs accessible without a BA degree	Number of metros
Leading Tech Hub	Slow	Most Rapid	High	7
High Prospects	Slow	Rapid	Moderate	24
Steady, Looking Up	Moderate	Above Moderate	High	10
Steady, Average	Moderate	Moderate	Moderate	66
Steady, Struggling	Moderate	Moderate	Low	13
Passed Over	Rapid	Slow	Moderate	24
Hardest Hit	Most Rapid	Slow	Low	6

Note: “Quality of service jobs accessible without a BA degree” refers to an index based on cost-of-living–adjusted average annual wages, wage growth, and employment growth in service industries in which the majority of entry-level jobs require less than a BA degree.

the region saw booming growth in advanced industries employment (29 percent increase) as well as service-sector jobs that do not require a four-year college degree (22 percent), even as it lost 10 percent of manufacturing jobs.

From one perspective, then, Charlotte is a model of regional economic success: since the Great Recession, the Charlotte metro area far outpaced the nation as a whole in terms of job growth (2.9 percent vs. 1.5 percent) and GDP growth (2.9 percent vs. 2.1 percent).⁵ During the same period, the region's population grew to more than 2.5 million, a 14 percent jump, and within two decades the majority of residents will be people of color.

However, from another perspective, Charlotte's economic upsurge is a story of economic exclusion: over the past several decades, income inequality in the region has spiked and the racial wage gap has expanded. As of 2015, one in three residents in the region lived in economically insecure households—those with incomes less than 200 percent of the federal poverty level (about \$38,000 for a family of three). This includes 23 percent of White residents, 49 percent of Black residents, and 63 percent of Latinx residents.⁶ Closing these gaps and supporting economic security for all would have tremendous benefits for the entire metro area. In 2017 alone, the region's economy would have been more than \$28 billion stronger if there had been no racial gaps in wages or employment.⁷

This case study is structured as follows. First, it describes Charlotte's regional profile based on the sectoral employment changes measured in our typological analysis and the broader economic context in which these changes have occurred. Next, it presents data on the economically insecure population in the region and analyzes some of the key barriers to racial economic inclusion. Finally, it presents policy recommendations to advance inclusive growth in Charlotte and other Leading Tech Hub regions:

- Ensure economic development subsidies provide targeted benefits and protections to local workers and neighborhoods.
- Expand pre-apprenticeship, apprenticeship, and other on-the-job training programs.
- Cultivate industry partnerships between start-up businesses and established corporations to help small businesses grow.

The Regional Economic Changes Shaping Charlotte's Future Offer Unique Opportunities to Grow a More Equitable Economy

In our analysis of three key sectoral trends shaping regional economies in the United States, the Charlotte metro area was one of seven regions classified as Leading Tech Hubs—those with the strongest growth among advanced industries, slow decline in manufacturing employment, and the highest job quality among service industries accessible to workers without a bachelor's degree (based on average wages, wage growth, and employment growth). Key trends include the following.

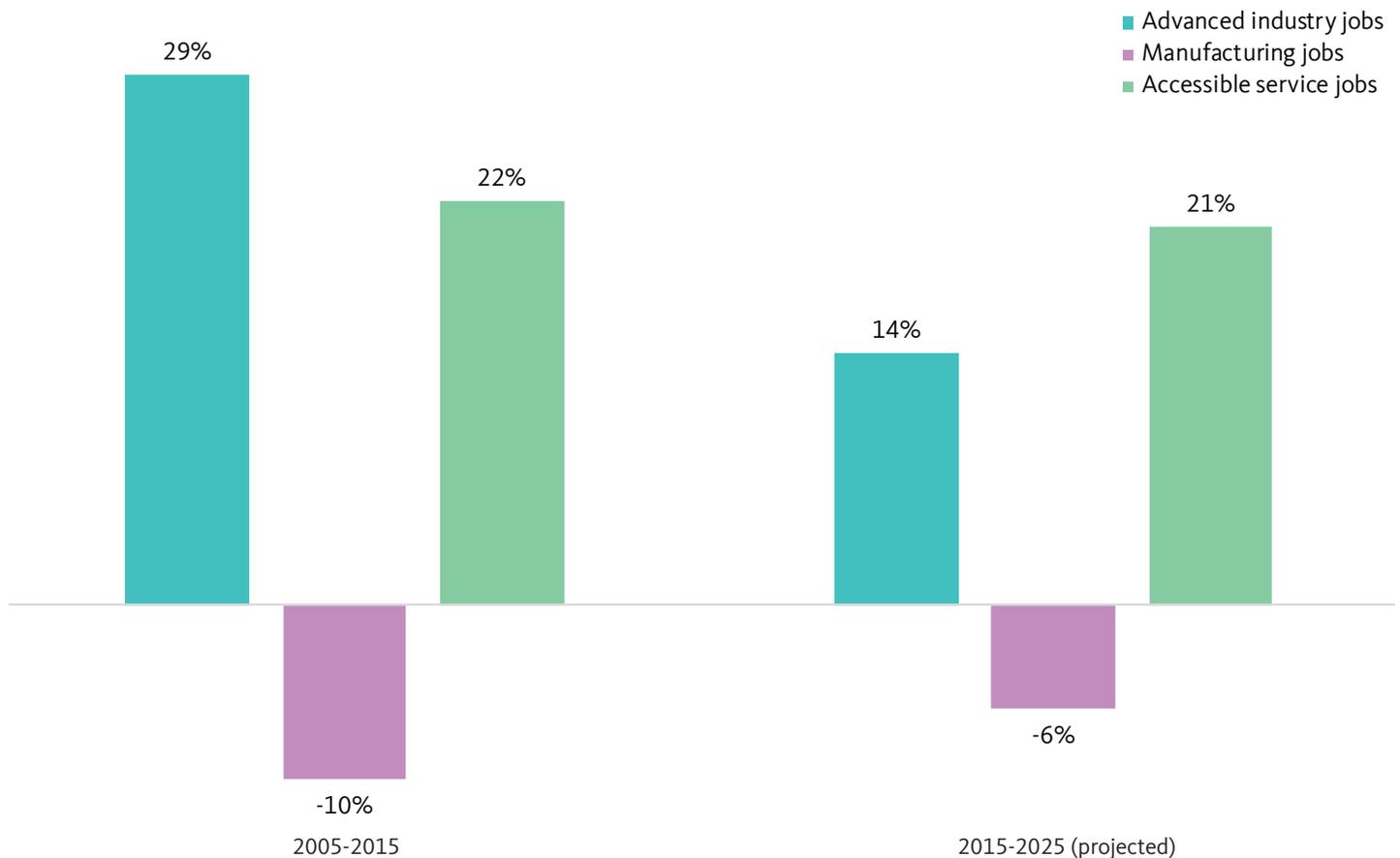
- From 2005 to 2015, manufacturing employment in Charlotte declined by 10 percent. During the same period, employment

in advanced industries (advanced manufacturing, advanced services, and energy and utilities) grew by a remarkable 29 percent. Buoyed by the region's continued growth in advanced manufacturing, the loss of manufacturing jobs is projected to slow to a 6 percent decline over the period 2015–2025, while advanced industries employment will enjoy a 14 percent growth.⁸

- Meanwhile, jobs in service-sector industries accessible to workers without a bachelor's degree (including transportation, hospitality, health, and government sectors) grew in tandem with advanced industries, increasing by 22 percent from 2005 to 2015. This impressive rate of growth is expected to hold throughout the next decade. Median wages for those jobs increased by 3 percent to \$37,500, and are projected to rise another 15 percent by 2025, pushing them almost high enough to lift a family of three out of economic insecurity.

Employment in advanced industries and accessible service-sector jobs increased during the last decade while employment in manufacturing declined.

Change in employment 2005–2015 and 2015–2025 (projected) for advanced industries, manufacturing, and accessible service industries, Charlotte metro area



Source: PolicyLink/PERE analysis of Detailed Estimates of County Employment and Output from Moody's Analytics.

Note: Data in each year are from the month of December.

These dynamics position Charlotte to make great strides toward economic equity by advancing inclusive growth strategies that focus on the economically insecure population in the decade ahead.

Advanced Industries Are Fueling Economic Development Throughout the Region

As the United States continues to grapple with declining employment in traditional manufacturing jobs, the rapid growth of automation, and the expanding importance of the knowledge economy, Charlotte has appeared to many as a beacon of economic vitality, opportunity, and innovation.

As the second-largest banking center in the United States and home to some of the largest companies in the nation, the Charlotte region is an emerging hub of the high-tech economy.⁹ It has seen some of the country's fastest growth in advanced industries, with the largest gains among management, scientific, and technical consulting services; computer systems design; architectural and engineering services; motor vehicle parts manufacturing; and data processing, hosting, and related services.¹⁰

Stemming the Loss of Manufacturing Jobs

Charlotte's manufacturing industry today represents a wide range of traditional and advanced manufacturing firms in diverse fields, from textiles to biotechnology. According to the Charlotte Regional Business Alliance, manufacturing jobs in the region have grown at twice the national average since 2013.¹¹

Strong industry and educational partnerships have supported this growth. Local colleges and universities including the University of North Carolina (UNC)–Charlotte, Johnson C. Smith University, Johnson and Wales, Queens University, and Central Piedmont Community College have developed courses of study related to the region's high-growth industries, including advanced manufacturing and logistics.

Job Quality in Accessible Service Industries Is Improving, Despite Policy Hurdles

Of course, the region is not without its challenges, which include the state policy environment in which it is situated. In 2016, Charlotte was thrust into national headlines when the North Carolina General Assembly passed House Bill 2 (HB2, commonly called the “Bathroom Bill”) in response to a Charlotte city ordinance protecting individuals' rights to use public restrooms that correspond to their gender identity. HB2 preempted municipal governments' ability to extend such protections, mandating that people may only use public restrooms that correspond to the gender listed on their birth certificate. But for all the attention the public restroom provisions garnered in the national press, the bill actually went much further, nullifying other antidiscrimination protections for LGBTQ people and also prohibiting local and county governments from implementing their own minimum wage levels, paid leave requirements, scheduling policies, and standards for public contracting.¹²

“ ”

I relocated to Charlotte [...] because there's a lot of opportunity here. You want to be in a place where there's opportunity and more people are upwardly mobile.

C. (focus group participant)

But there is also good news. In the context of Charlotte's strong labor market, many of the region's largest employers have raised the minimum pay for their workers independently: Atrium Health pays its workers a minimum of \$12.50 per hour, while Bank of America, Wells Fargo, BB&T, and PNC have raised baseline wages to \$15 per hour. North Carolina state employees make a minimum of \$15 per hour, and City of Charlotte employees will reach that threshold by next year.¹³

In the context of Charlotte's housing market, these wage increases are essential for working families. According to the National Low-Income Housing Coalition, a worker earning the minimum wage of \$7.25 an hour in Mecklenburg County would need to work 82 hours per week to afford fair-market rent on a studio apartment or 103 hours per week for a two-bedroom apartment.¹⁴ Our data analysis shows that 359,000 residents are renters in the Charlotte metro area, and 46 percent of them are rent burdened (meaning they spend more than 30 percent of their income on housing costs).¹⁵

Charlotte's Regional Economy Is Among the Strongest in the Nation, But Not Everyone Is Benefitting

Given its impressive job and productivity growth, Charlotte's economy is thriving according to most topline economic indicators. From 2010 to 2017, the Charlotte metro area's gross domestic product (GDP) grew from \$117 billion to \$174 billion.¹⁶ But underneath this aggregate progress lies persistent racial economic inequity.

In 2014, researchers at Harvard University and the University of California–Berkeley released a study that ranked Charlotte 50th out of the 50 largest regions for intergenerational mobility. They calculated just a 4.4 percent probability that a child who grows up in the bottom fifth of the income distribution in Charlotte will eventually reach the top fifth.¹⁷ The following year, a public–private coalition convened the Leading on Opportunity Task Force to coordinate

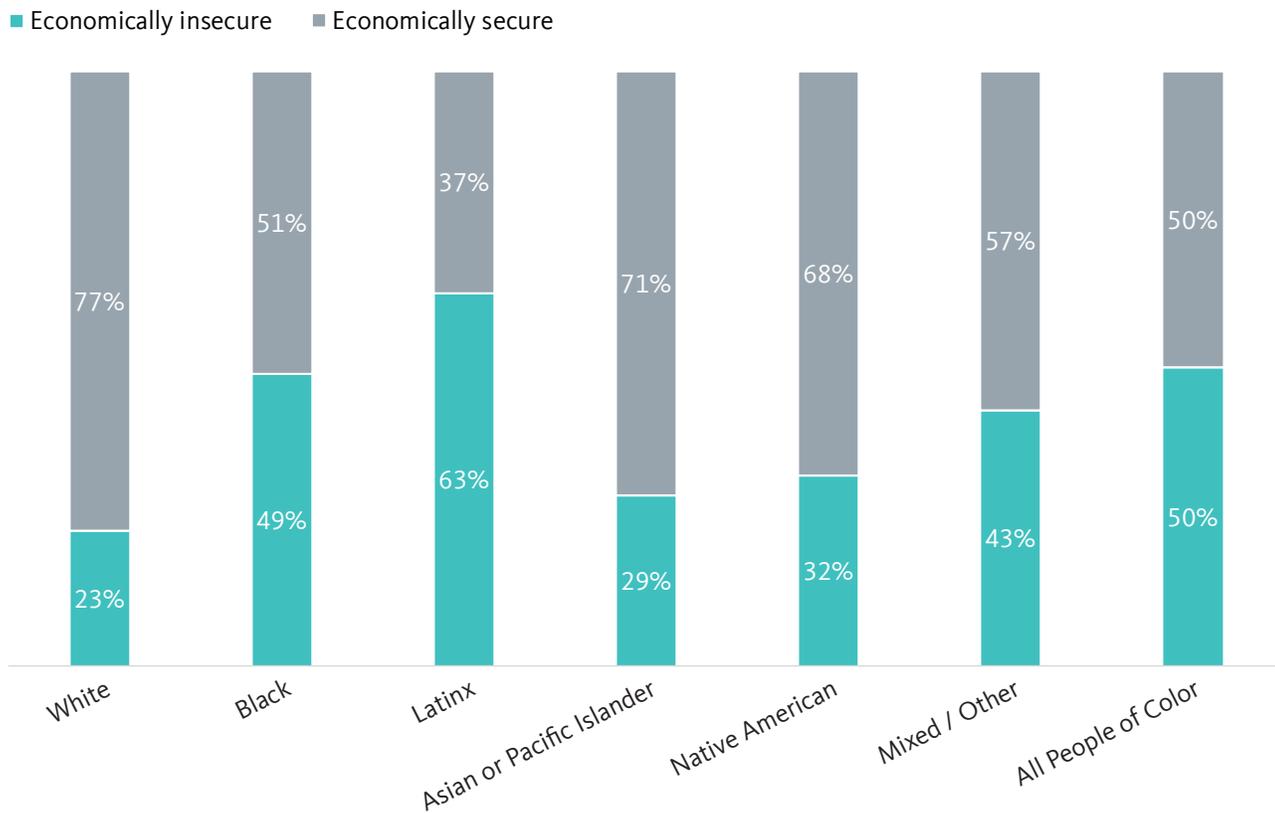
governmental, educational, and business strategies to address economic mobility.¹⁸ “For both the City [of Charlotte] and Mecklenburg County, it was a real call to action,” said Holly Eskridge, the City of Charlotte's entrepreneurship and small business development manager in an interview with PolicyLink.

For government, business, and civic leaders, these findings brought a new sense of urgency to understand the social, environmental, and institutional conditions underlying the region's economic success story, which has emerged alongside growing inequality.

Approximately 625,000 people in the Charlotte metro area (34 percent) are economically insecure, up from 308,000 (24 percent) in 2000. This rate varies significantly by race/ethnicity. More than six in 10 Latinx residents are economically insecure, along with roughly half of all Black residents. Overall, people of color in Charlotte are more than twice as likely as their White counterparts to be economically insecure.

Half of all people of color in Charlotte are economically insecure.

Population by economic security status and race/ethnicity, Charlotte-Gastonia-Concord, NC-SC Metro Area, 2015



Source: Integrated Public Use Microdata Series.

Note: Data for 2015 represent a 2011 through 2015 average.

The region's job growth has brought with it significant increases in per-worker earnings over the past few decades. Yet Charlotte has struggled to grow the middle-wage jobs that can serve as the foundation of economic security and provide workers and families with a pathway to the middle class. From 1990 to 2016, the region's middle-wage job growth of 16 percent has been greatly overshadowed by growth in low- and high-wage sectors (114 percent and 89 percent, respectively). With expansive growth in low-wage jobs and declining incomes for the lowest-paid workers, it is no surprise that about 15 percent of full-time workers are economically insecure.

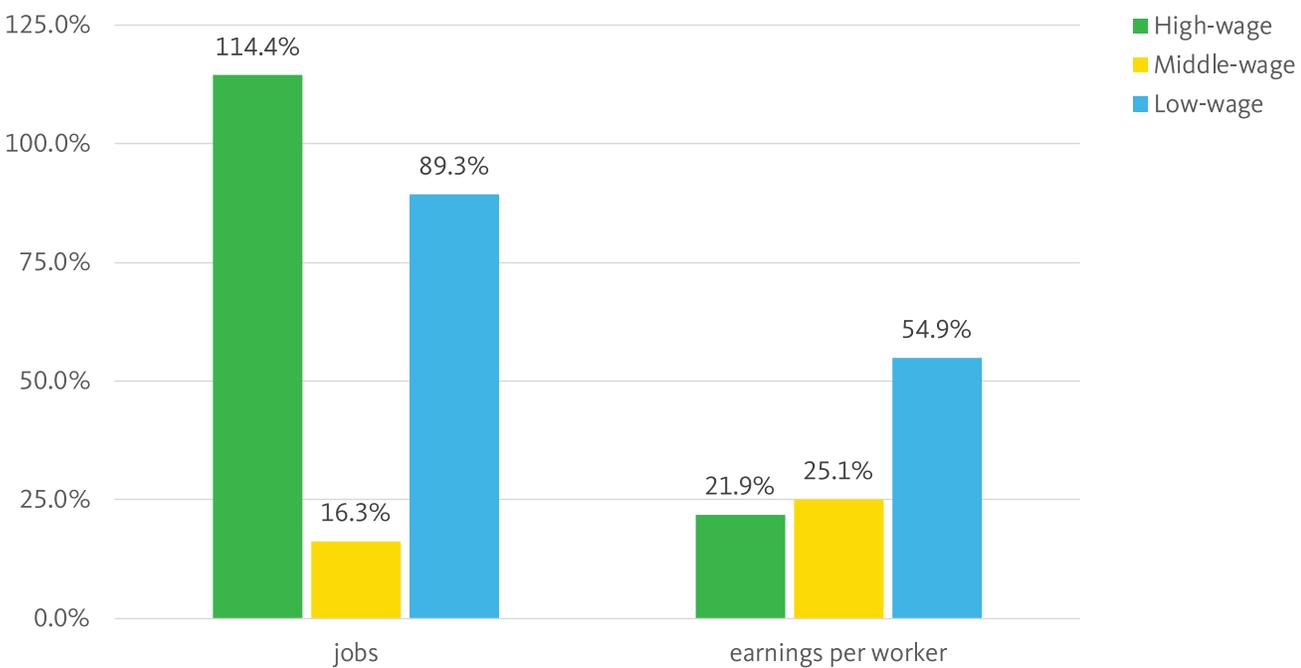
These dynamics are also experienced unevenly across race/ethnicity. Given Charlotte's persistent racial wage gaps—White workers are paid an average of \$5 more per hour than their

Black counterparts, and \$10 per hour more than Latinx workers—less than 9 percent of White full-time workers are economically insecure, compared with nearly 23 percent of Black full-time workers and a staggering 42 percent of their Latinx counterparts.

Our analysis of key trends driving economic change confirms that most advanced industries jobs fall into the high-wage category while most accessible service jobs are clustered in low-wage industries, contributing to the region's increasingly bifurcated economy. Meanwhile, earnings per worker in high-wage jobs have grown more than twice as fast as those in low-wage jobs.

Growth in low-end and high-wage jobs has significantly outpaced middle-wage jobs since 1990.

Growth in jobs and earnings by wage level: Charlotte-Gastonia-Concord, NC-SC Metro Area, 1990–2016



Source: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Note: See the National Equity Atlas for more detail on the analysis of growth in jobs and earnings by wage level, at https://nationalequityatlas.org/indicators/job_and_wage_growth.

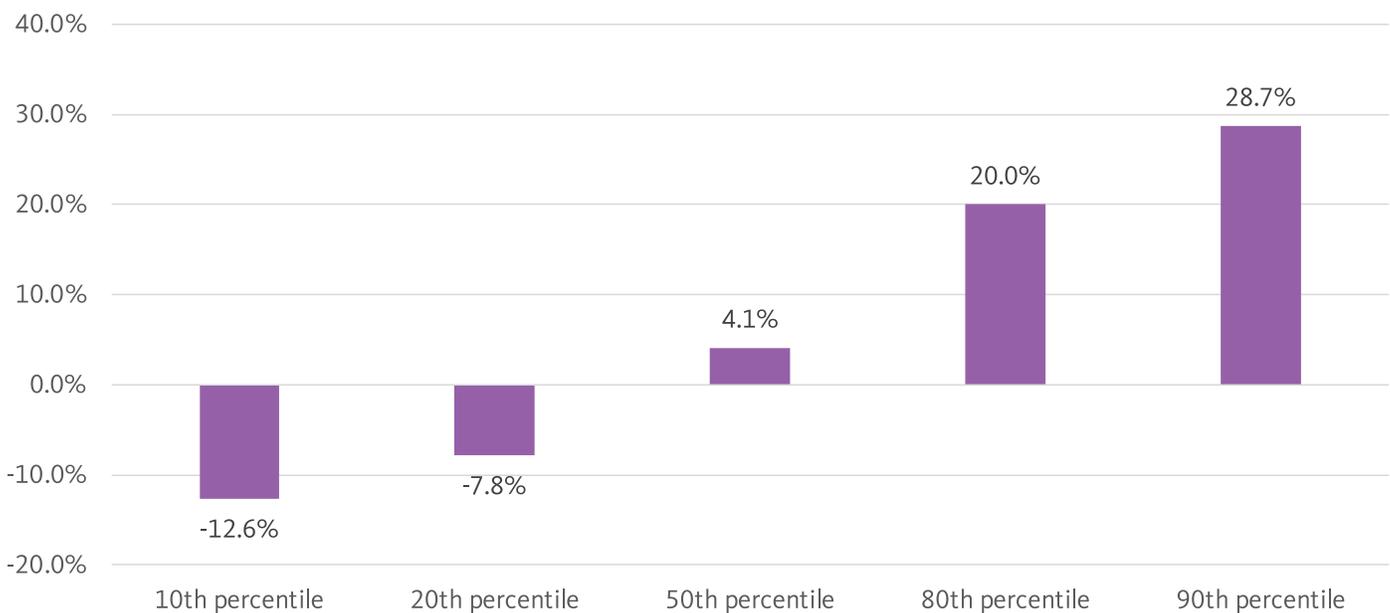
A closer look at worker pay over the same period confirms that not all residents have been able to share in the region's prosperity. Earned income growth strongly favored those at the top of the income distribution: workers at the 90th percentile enjoyed income gains of about 29 percent, while those in the bottom tenth saw their income decline by nearly 13 percent.

As Gene Nichol, director of the Center on Poverty, Work, and Opportunity at University of North Carolina School of Law, explained, "Almost 30 percent of full-time workers in Charlotte make less than \$23,500 a year. They don't typically reflect the profile often urged in political narratives. They aren't fresh-faced teenagers looking for work experience before heading off to Stanford. The majority are over 30. They're disproportionately female, black, Hispanic and Native American."¹⁹

For many of these workers looking to access the higher-paying jobs being created in the region, lack of transportation can present a major barrier. Transportation infrastructure in the sprawling Charlotte metro area is designed for automobile traffic, even in the central city of Charlotte where much of the region's population is concentrated. Roadways have become more and more congested as the population has grown. In 2007, the Charlotte Area Transit System added a light rail line to its 70 bus routes, but many neighborhoods on the outskirts of the urban core have little or no public transit service. For residents of these neighborhoods who do not own a private vehicle, it can be difficult to access employment and education opportunities and essential services. Economically insecure Black households are more than twice as likely as their White counterparts to lack access to a vehicle (22 percent versus 9 percent).

Income growth in the region has been highly polarized, with wages declining at the bottom end of the spectrum.

Growth in jobs and earnings by wage level: Charlotte-Gastonia-Concord, NC-SC Metro Area, 1990–2015



Source: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

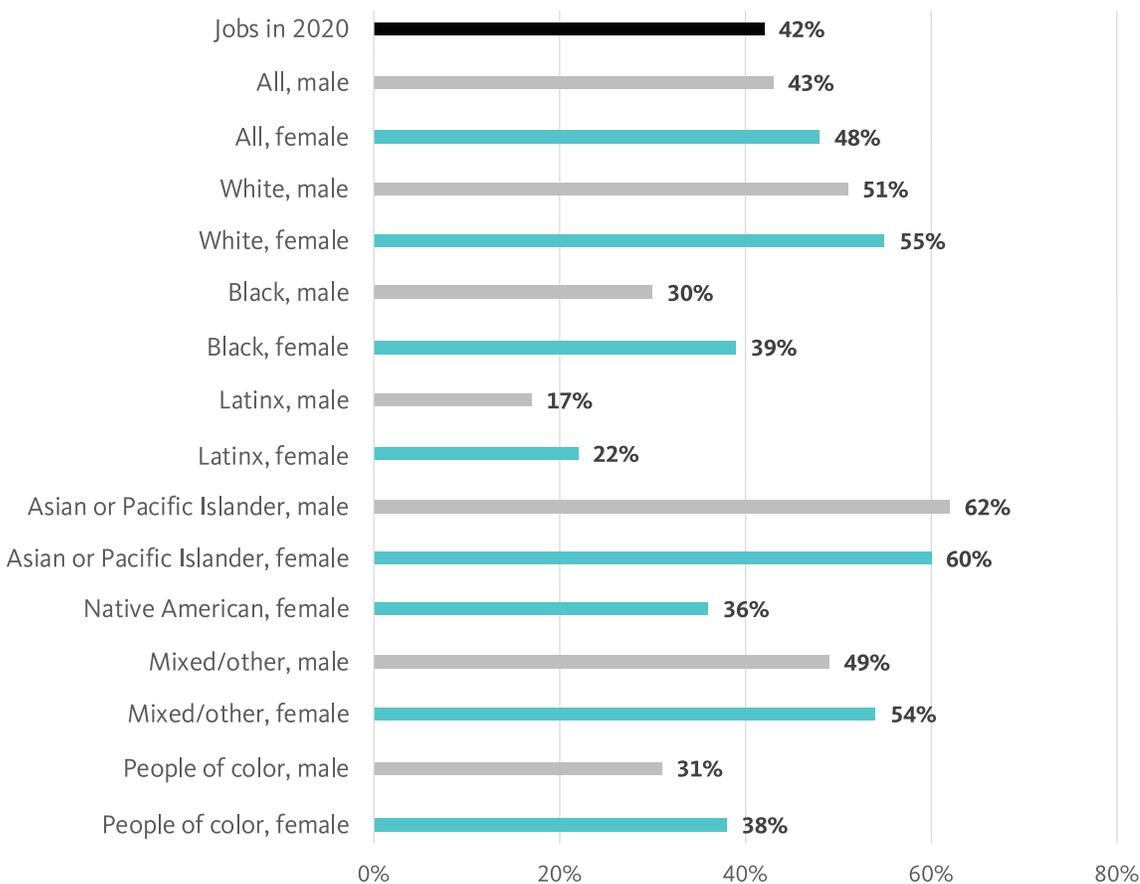
Educational attainment also remains a key challenge for economically insecure workers and people of color. By 2020, about four in 10 jobs in North Carolina will require at least an associate's degree. More than half of White adults and 60 percent of Asian or Pacific Islander adults have attained that level of education, but far fewer Black and Latinx residents have college degrees. Black men and Latinx workers of both genders face particularly steep gaps.

degree programs, many employers rely on educational requirements to narrow the pool of qualified applicants. In some cases, such requirements amount to a bias on the part of employers who are unable or unwilling to invest in direct worker training and skills development. As traditional pathways to the middle class without a college degree decline, post-secondary education remains a powerful proxy for a worker's economic mobility and lifetime earnings potential.²⁰

While the job skills, knowledge, and experience that workers need to succeed are not exclusively gained through college

Educational gaps create a barrier to employment for many people of color.

Current educational attainment and projected state-/national-level job education requirements by race/ethnicity and gender: Charlotte-Gastonia-Concord, NC-SC Metro Area, associate's degree or higher, 2015



Source: Georgetown Center for Education and the Workforce; Integrated Public Use Microdata Series. Universe for education levels of working-age population includes all persons ages 25 through 64.

Note: Data on education levels by race/ethnicity and nativity represent a 2011 through 2015 average for Charlotte Metro Area while data on educational requirements for jobs in 2020 are based on statewide projections for North Carolina.

The Path Forward for Charlotte: Advancing Inclusive Growth in Place

In *Regional Economies in Transition: Analyzing Trends in Advanced Industries, Manufacturing, and the Service Sector to Inform Inclusive Growth Strategies*, we describe priority solutions to advance equitable growth for regions based on where they fall within our typology. The boxed text suggests how the typology can be used to help identify and prioritize strategies to advance inclusive prosperity in Leading Tech Hub regions such as Charlotte. Business leaders and policymakers in Leading Tech Hub regions should pursue strategies to link economic development investments to the growth of quality jobs and community benefits, create pathways into growing middle-wage jobs for economically insecure workers, and support equitable entrepreneurial ecosystems.

To harness the potential of Charlotte's remarkable economic transformation to create a thriving, equitable region that remains competitive in the decades to come, local and regional leaders should take specific actions to create high-quality jobs and build pathways to the middle class for economically insecure residents. Some key strategies to achieve these results are described below.

Expand apprenticeship and pre-apprenticeship programs.

Charlotte is no stranger to successful apprenticeship models. The Carolinas chapter of Associated General Contractors and Central Piedmont Community College offer a pre-apprenticeship program that trains participants in foundational skills and knowledge to prepare them for skilled trades apprenticeships. In 1995, firms in the region launched Apprenticeship 2000,²¹ an innovative four-year training program that puts high school juniors and seniors on career pathways in skilled technical trades, such as electricians and machinists. After four years of paid training and work, apprentices earn a journeyman's certificate from the State of North Carolina as well as an associate's degree, and are guaranteed a job after graduation. Based on this successful model, Central Piedmont Community College launched Apprenticeship Charlotte²² to reach a broader pool of applicants (including military veterans and college students), to connect with more employers, and to expand the training program beyond traditional skilled trades. Business leaders and policymakers can partner with workforce intermediaries to

Key Strategies to Build an Equitable Economy in Leading Tech Hub Regions

To grow good jobs, Leading Tech Hub regions should:

Ensure economic development subsidies provide targeted benefits and protections to local workers and neighborhoods. When public funds are used to incentivize business development, strong standards should be included to ensure strong benefits are delivered to local workers and neighborhoods. Business incentives conditioned on high job-quality standards, local hiring targets, and shared investment in infrastructure can spur the growth of good jobs.

To create accessible career pathways for economically insecure workers, Leading Tech Hub regions should:

Expand pre-apprenticeship, apprenticeship, and other on-the-job training programs. "Earn and learn" apprenticeship programs in skilled trades as well as nontraditional sectors can create strong workforce pipelines for regional employers, while reducing the opportunity gap for workers with college degrees and creating accessible career ladders for people of color and other disadvantaged workers.

To support an equitable entrepreneurial ecosystem, Leading Tech Hub regions should:

Cultivate industry partnerships to help small businesses grow. Partnerships between start-up businesses and established corporations can be mutually beneficial, helping entrepreneurs access mentorship, information, and critical networks and helping larger businesses innovate, adapt, and operate more efficiently.

scale or multiply such programs, integrating an explicit focus on racial equity and mitigating occupational segregation, to create a win-win proposition for regional employers and economically insecure families of color. Apprenticeship models for in-house talent development hold particular promise for strengthening small- and medium-sized manufacturing firms.²³

Improve workforce training pipelines to create career pathways for disadvantaged workers and people of color.

Creating career ladders that connect economically insecure workers to growing middle- and high-wage sectors is an essential strategy for putting the region on the path to equitable growth. The City of Charlotte—one of the largest employers in the region—is developing innovative approaches to talent development. Charlotte Works, the local workforce development board, is spearheading efforts to build strong talent pipelines in health-care pathways. Various agencies are developing internship programs, apprenticeships, and deep partnerships with local workforce intermediaries to increase outreach and training to area residents. Alongside internal efforts to streamline and unify this work, the city is also reaching out to private employers to share models and learnings. By embedding strong racial equity standards in existing and emerging efforts and developing cross-sector partnerships to provide wraparound supports to transitioning workers, public- and private-sector employers can share responsibility for laying the foundation for workforce equity in the Charlotte region. “We’re investing public resources into developing talent that could also be a source of talent for the private sector,” Kevin Dick, the city’s deputy economic development director, explained in an interview with PolicyLink. “The private sector pays attention when the public sector starts investing.”

Ensure economic development subsidies are conditioned on protections and benefits for workers and other residents, neighborhoods, and the environment.

While North Carolina state law constrains some of the regulatory power of Charlotte’s Economic Development Department, the region’s continued growth presents opportunities for embedding equity principles into the city’s business investment grant program, used to incentivize firms to establish businesses in Charlotte or expand their existing footprint in the city. The City of Charlotte is working to develop partnerships with private firms that will allow the local workforce development system not only to recruit job candidates but also to track referrals, interviews, and hires to improve worker training and preparation systems over time. Local governments should prioritize business incentives not only based on the number and diversity of jobs a

firm will bring to the region, but also on the average and minimum pay of those positions. Incentives should also be conditioned on good-faith commitments to mutually agreed local and targeted hiring goals; public-private collaborative workforce development; and contracting and procurement guidelines—and support systems—to connect minority, women, and small business enterprises to new business opportunities, which will mitigate costs and risks for both large and small business partners. Through Amp Up Charlotte, the city helped to connect 15 entrepreneurs of color to the economic opportunities created in Charlotte when it hosted the NBA All-Star Game.²⁴ “We aim to be able to support all entrepreneurs in Charlotte,” explained Eskridge, “but we also want to be intentional in reaching out to where the need is greatest.”

Conclusion

As globalization and technological advancement continue to transform the U.S. economy, accelerating the decline of traditional manufacturing and the growth of service-sector employment, equitable development planning in Charlotte should focus on ensuring that all of the region's residents can access high-quality employment. As the region continues to grow, the focus should be on creating pathways to opportunity in middle- and high-skills occupations and raising the floor on low-wage jobs. In the face of the deep economic shifts and the demographic changes simultaneously transforming the Charlotte metro, advancing racial equity throughout the economy is the surest way to guarantee that the region can remain competitive, prosperous, and sustainable in the decades ahead.

Racial economic inclusion in Charlotte is more than a moral imperative—it is also key to increasing the region's prosperity and sustaining its competitive edge. Our analysis found that if there were no racial gaps in *either* income *or* employment, the region's economy would have been **\$28 billion** stronger in

2017 alone.²⁵ Latinx and Native American residents stand to make the greatest gains in income—102 percent and 76 percent, respectively—with racial equity. On average, incomes for people of color would increase by more than \$20,000 a year to almost \$49,000, enough to provide economic security for a family of four.

Charlotte's rapidly growing advanced industries and increasingly diverse population represent tremendous assets for the regional economy. By implementing strong policy solutions to advance racial equity, Charlotte could emerge in the coming decade as an exemplar of inclusive growth in the South and a model for the nation.

Given the region's ongoing demographic changes, addressing racial inequities in education, housing, employment, and wages is of paramount importance. The particular policy environment of North Carolina underscores the need for coordinated action across public and private policy to address the looming barriers of segregation, income inequality, and economic insecurity in order to ensure that the workforce of tomorrow is prepared to take up the mantle of Charlotte's economy.

Racial equity in income and employment would strengthen the Charlotte regional economy.

Income by race/ethnicity: Charlotte-Gastonia-Concord, NC-SC Metro Area, 2017.



Source: Integrated Public Use Microdata Series.

Note: Data represent a 2013 through 2017 average.

Notes

- 1 Justin Scoggins and Abigail Langston, *Regional Economies in Transition: Analyzing Trends in Advanced Industries, Manufacturing, and the Service Sector to Inform Inclusive Growth Strategies* (Oakland, CA: PolicyLink, 2019). Further details can be found in the methods document, available at <https://www.policylink.org/resources-tools/regional-economies-in-transition-methodology>.
- 2 Joel Kotkin, "The Best Cities For Jobs 2018: Dallas And Austin Lead The Surging South," *Forbes*, May 7, 2018, <https://www.forbes.com/sites/joelkotkin/2018/05/07/best-cities-for-jobs-2018-dallas-austin-nashville/#1a32ba781f0c>.
- 3 Honeywell, "Honeywell Announces Move Of Global Headquarters To Charlotte," Press Release, November 30, 2018, <https://www.honeywell.com/newsroom/pressreleases/2018/11/honeywell-announces-move-of-global-headquarters-to-charlotte>.
- 4 Fortune 500, "Full List," <http://fortune.com/fortune500/list/>. The Fortune 500 companies headquartered in the Charlotte region are Bank of America, Lowe's Cos., Honeywell, Duke Energy, Nucor, Sonic Automotive, and Sealed Air.
- 5 National Equity Atlas, "Actual GDP and Estimated GDP with Racial Equity in Income (Billions): Charlotte-Gastonia-Concord, NC-SC Metro Area, 2015," accessed August 31, 2019, http://nationalequityatlas.org/indicators/GDP_gains_with_racial_equity.
- 6 PolicyLink/PERE analysis of Integrated Public Microdata Series 2015 5-Year American Community Survey data. Universe includes all persons ages 25-64, living below 200 percent of the federal poverty level, in 150 U.S. metro areas.
- 7 PolicyLink/PERE analysis of Integrated Public Microdata Series 2017 5-Year American Community Survey data. Universe includes all persons ages 16 years and over.
- 8 PolicyLink/PERE analysis of Detailed Estimates of County Employment and Output data from Moody's Analytics, entry-level educational requirement data (by four-digit NAICS code) for May 2016 from the U.S. Bureau of Labor Statistics (<https://www.bls.gov/oes/additional.htm>), and Regional Price Parities by State and Metro Area data for 2015 from the U.S. Bureau of Economic Analysis (<https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area>).
- 9 Deon Roberts, "Charlotte Regains Its Place as No. 2 U.S. Banking Center. Will It Keep It?" *The Charlotte Observer*, November 15, 2018, <https://www.charlotteobserver.com/news/business/banking/article221589840.html>.
- 10 Mark Muro, Siddharth Kulkarni, and David M. Hart, *America's Advanced Industries: New Trends* (Washington, DC: The Brookings Institution, 2016), <https://www.brookings.edu/research/americas-advanced-industries-new-trends/>.
- 11 Charlotte Regional Business Alliance, "Advanced Manufacturing" Fact Sheet, 2019, <https://charlottechamber.com/eco-dev/manufacturing-in-the-region/>.
- 12 Will Doran, "Roundup of HB2 Fact Checks: North Carolina's Controversial New LGBT Law," *The Charlotte Observer*, April 22, 2016, <https://www.politifact.com/north-carolina/article/2016/apr/22/roundup-hb2-fact-checks-north-carolinas-controvers/>.
- 13 Andrew Dunn, "Why Charlotte Companies Are Increasing Their Minimum Wage," *Charlotte Agenda*, July 19, 2018, <https://www.charlotteagenda.com/133990/why-charlotte-companies-are-increasing-their-minimum-wage/>.
- 14 National Low-Income Housing Coalition, "Out of Reach 2018: North Carolina," accessed April 1, 2019, <https://reports.nlihc.org/oor/north-carolina>.
- 15 PolicyLink, Carson Watch, and Rise Up for Renter Power, "When Renters Rise, Cities Thrive: Charlotte #RenterWeekofAction," Fact Sheet, 2017, <http://nationalequityatlas.org/sites/default/files/Charlotte-Fact-Sheet.pdf>.
- 16 Bureau of Economic Analysis, "Regional Data," accessed January 10, 2019, <https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=3#reqid=70&step=1&isuri=1&acrdn=3>.
- 17 Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Opportunity: The Geography of Intergenerational Mobility in the United States," *Quarterly Journal of Economics* 129 (2014): 1553-1623, www.equality-of-opportunity.org/assets/documents/mobility_geo.pdf.
- 18 The Charlotte-Mecklenburg Opportunity Task Force, "Leading on Opportunity," 2018, https://www.fft.org/sites/default/files/2018-05/LeadingOnOpportunity_Report.pdf.
- 19 Charlotte Observer, "As Charlotte Grows, So Does Low-Wage Work Problem," *The Charlotte Observer*, <https://www.charlotteobserver.com/opinion/op-ed/article15377534.html#storylink=cpy> (accessed February 15, 2019).
- 20 Christopher Tamborini, ChangHwan Kim, and Arthur Sakamoto, "Education and Lifetime Earnings in the United States," *Demography*, 52 (2015): 1383-1407, <https://www.ncbi.nlm.nih.gov/pubmed/26100983>.
- 21 Apprenticeship 2000, accessed September 4, 2019, <http://apprenticeship2000.com/zwp/>.
- 22 Central Piedmont Community College, "Apprenticeship Charlotte," accessed September 4, 2019, <https://www.cpcc.edu/business-and-industry/workplace-learning/apprenticeship-charlotte>.
- 23 Nichola Lowe, "How Finance Gutted Manufacturing," *Boston Review*, March 6, 2014, <http://bostonreview.net/forum/how-finance-gutted-manufacturing/nichola-lowes-response-finance-and-manufacturing>; Nichola Lowe, "Reskilling Urban Manufacturing: Workforce Solutions from the Inside Out," *Metropolitiques*, December 15, 2015, <https://www.metropolitiques.eu/Reskilling-Urban-Manufacturing.html>.
- 24 AMP Up Charlotte, accessed August 30, 2019, <https://interise.org/amp-up-charlotte>.
- 25 PolicyLink/PERE analysis of Integrated Public Microdata Series 2017 5-Year American Community Survey data. Universe includes all persons ages 16 years and over.

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