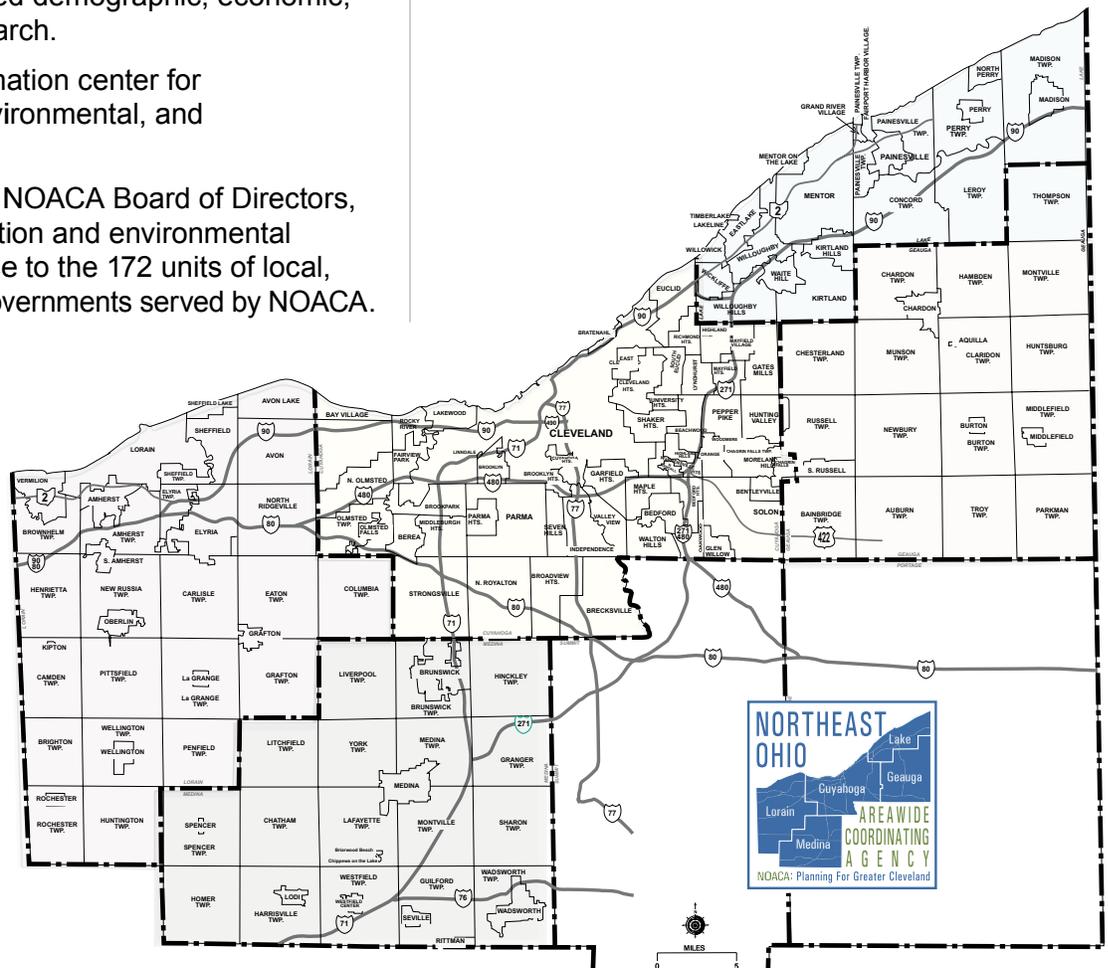


The Northeast Ohio Areawide Coordinating Agency (NOACA) is a public organization serving the counties of, and municipalities and townships within, Cuyahoga, Geauga, Lake, Lorain and Medina (covering an area with 2.1 million people). NOACA is the agency designated or recognized to perform the following functions.

- Serve as the Metropolitan Planning Organization (MPO), with responsibility for comprehensive, cooperative, and continuous planning for highways, public transit, and bikeways, as defined in the current federal transportation law.
- Perform continuous water quality, transportation-related air quality, and other environmental planning functions.
- Administer the area clearinghouse function, which includes providing local governments with the opportunity to review a wide variety of local or state applications for federal funds.
- Conduct transportation and environmental planning and related demographic, economic, and land use research.
- Serve as an information center for transportation, environmental, and related planning.
- As directed by the NOACA Board of Directors, provide transportation and environmental planning assistance to the 172 units of local, general purpose governments served by NOACA.

NOACA's Board of Directors is composed of 48 local public officials. The Board convenes quarterly to provide a forum for members to present, discuss, and develop solutions to local and areawide issues, and make recommendations regarding implementation strategies. As the area clearinghouse for the Region, the Board makes comments and recommendations on applications for state and federal grants, with the purpose of enhancing the Region's social, physical, environmental, and land use/transportation fabric. NOACA invites you to take part in its planning process. Feel free to participate, to ask questions, and to learn more about areawide planning.

For more information, call (216) 241-2414 or log on at noaca.org.



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Contents

Background	6
Opening	10
Current Regional Conditions	14
SWOT Analysis	28
Key Topic Areas	34
Access to Broadband	35
Aerospace / NASA Glenn	39
Agriculture	43
Cultural Amenities	47
Education	51
Equity	55
Healthcare	65
Housing	69
Immigration	75
Innovation & Entrepreneurship	79
Institutions – Regional Collaboration, and Urban and Rural Connectivity	83
Manufacturing	89
Parks and Recreation	93
Tourism	99
Transportation	103
Water Resources	109
Workforce Development	113
Economic Resilience	117
Evaluation Framework and Performance Measurements	135
Conclusion	139
Appendix	140
Public Comments	141
Acronyms	148



Comprehensive Economic Development Strategy



Background



About NOACA

The Northeast Ohio Areawide Coordinating Agency (NOACA) was established in 1968 to administer provisions of federal legislation known as the Demonstration Cities and Metropolitan Development Act of 1966. With the basis of its organizational formation stipulated by the Ohio Revised Code, NOACA's founding document, declares

'an areawide agency be established for the Cleveland metropolitan Area,' and further provides that, 'the Board of County Commissioners of the Counties herein named, may by agreement cooperate with each other and with other agencies or organizations, either private or governmental, and to perform metropolitan or comprehensive regional planning and programming for the areawide herein involved...and the right to review any of such projects which would require Federal Aid, all of which are hereby deemed to be the purposes of the Northeast Ohio Areawide Coordinating Agency herein established.'¹

NOACA currently serves as the federally designated Metropolitan Planning Organization (MPO) and the Areawide water quality planning agency for the Cleveland metropolitan area, which now includes the Northeast Ohio Counties of Cuyahoga, Geauga, Lake, Lorain, and Medina (Region). Over the years, NOACA has been tapped by its members to take on challenges and opportunities created by federal legislation and conditions in the Region.

Of particular note, during its existence NOACA was approved by the U.S. Department of Housing & Urban Development (U.S. HUD) to review local project applications for federal funds to assure soundness and consistency with local and regional needs; it has operated as the Metropolitan Clearinghouse for all federal grants and loans within its planning area in accordance with the Federal Office of Management & Budget; it was authorized by U.S. Department of Transportation (U.S. DOT) to coordinate the

Region's transportation planning and funding as part of the administration of the Federal-Aid Highway Act; its responsibilities were further cultivated when environmental legislation required coordination of planning for water and air pollution projects; and, the agency even created a business segment called "NOACA Data & Consulting Services" for expanded information sharing to businesses and local governments.

As part of its planning processes, NOACA has engaged governmental entities, as well as stakeholders and the public, including the business and non-profit communities, through its Business, Community, and Rural Advisory Councils, among others, further to develop its portfolio of services for the Region. Developing the Region's first *Comprehensive Economic Development Strategy (CEDS)* was the natural next step. With the adoption of this *CEDS*, NOACA will also become a newly designated Economic Development District (EDD). This is in line with the agency's mission to serve its members as a regional planning commission and undertake ANY project or plan its Board approves to enhance the Region's quality of life and serve member jurisdictions.

Markedly, the role of NOACA as an MPO has been guided by mandatory U.S. DOT federal planning factors, which include economic competitiveness as a primary consideration in the agency's plans. This is documented in the vision and mission statement of NOACA's current Code of Regulations,

Section 1.2 Vision.

NOACA will STRENGTHEN regional cohesion, PRESERVE existing infrastructure, and BUILD a sustainable multimodal transportation system to SUPPORT economic development and ENHANCE quality of life in Northeast Ohio.

Section 1.3 Mission.

In pursuing responsibilities for transportation and environmental planning for the Region, NOACA aims to: (1) improve the quality of life of the Region's citizens by enhancing the Region's

long-term economic development potential and by protecting its environmental quality; (2) assist member local governments and agencies in addressing local and regional issues in a cooperative manner; and (3) assure equitable flow and prudent expenditure of public funds.²

In January 2015, NOACA members came together to produce an overarching regional strategic plan covering the primary challenges and opportunities that were developing for the Region. Below are the principal parts of the Region's strategic plan, including economic development.

NOACA works to ensure an orderly growth for the Region based on analysis; state of the art planning; public involvement; environmental review, including air quality analysis; and compliance with multiple federal and state laws concerning civil rights, environmental justice, and consensus among elected officials of the Region.³

With its current and historical roles, successes, and skills, it makes sense for NOACA to take on the role of the Region's EDD. The agency has the potential to help the Region in general and the individual communities in particular. NOACA, with its Board of elected and appointed officials, does this recognizing that each County and jurisdiction within the Region is vitally concerned with economic development and with the recognition that NOACA fully supports those efforts. As the EDD for the Region, NOACA will be in an ideal position to ensure the convergence of its overall purpose and strategies with those of the *CEDS*.

About this Document

This *CEDS* was developed with the assistance of a Steering Committee and Working Group, made of members of the five NOACA Counties, the City of Cleveland, and partners. NOACA thanks each member and partner for their participation and feedback during each step of this process.

CEDS Steering Committee Members

- City of Cleveland – Department of Economic Development, David Ebersole
- City of Cleveland – Planning, Freddy Collier
- Cleveland State University EDA University Center, Iryna Lendel
- Cuyahoga County – Department of Development, Paul Herdeg
- Cuyahoga County – Planning Commission, Mary Cierebiej
- Destination Cleveland, Hannah Belsito and David Gilbert
- Federal Reserve Bank of Cleveland, Emily Garr Pacetti
- Geauga County – Department of Community and Economic Development, Martin Castelletti
- Geauga County – Planning Commission, Linda Crombie
- Greater Cleveland Partnership, Baiju Shah
- Lake County Ohio – Port and Economic Development Authority, Patrick Mohorcic
- Lake County – Planning and Community Development, David Radachy
- Lorain County – Community Development, Robert Duncan
- MAGNET, Ethan Karp
- Medina County – Department of Planning Services & Fair Housing Office, Denise Testa
- Medina County – Economic Development Corporation, Bethany Dentler
- Team NEO, Bill Koehler
- NOACA, Executive Director, Grace Gallucci

CEDS Working Group Members

- City of Cleveland – Department of Economic Development, Cassandra Slansky
- Cleveland State University EDA University Center, Madeline Frantz
- Cuyahoga County – Department of Development, Vaughn P. Johnson
- Cuyahoga County – Planning Commission, Patrick Hewitt
- Destination Cleveland, Ann Marie Powers
- Greater Cleveland Partnership, Courtney Kishbaugh

- Lake County – Planning and Community Development, Joe Rose
- Lorain County – Community Development, Nathasha Cresap
- MAGNET, Tracy Francescone
- Medina County – Economic Development Corporation, Kathy Breitenbucher
- Team NEO, Christine Nelson
- NOACA, Planning Department, Lawrence Hall
- NOACA, Planning Department, Sam Schweikert

Please note: Throughout this *CEDS*, we reference the five-County Region with a capital “Region,” which assists in distinguishing the NOACA Region in this document from other regions across the country.

About the Data

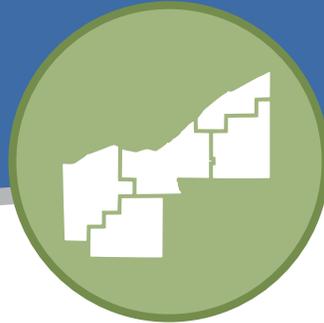
Data for this *CEDS* were gathered and compiled from a variety of public sources. Key datasets include the U.S. Census Bureau’s American Community Survey (ACS), the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW), the Ohio Department of Education, and more. Sources are cited directly throughout the document. The most recent available data, as of the date this document was written, were used. Refer to the individual citations for specific data vintage.

Section Sources

1. Agreement Between The Boards of County Commissioners of Cuyahoga, Lorain, Summit, Medina, Portage, Lake and Geauga Counties Establishing The Seven-County Areawide Agency to Administer the Provisions of Title II of the Demonstration Cities and metropolitan Development Act of 1966, January 8, 1968, Cleveland, Ohio
2. Code of Regulations of the Northeast Ohio Areawide Coordinating Agency, Revised as of January 21, 2022
3. NOACA Strategic Plan Going Forward Together, January 23, 2015



Comprehensive Economic Development Strategy



Opening

Opening

NOACA serves the Greater Cleveland Region, detailed in **Figure 1**, located in the northeastern part of Ohio, with the City of Cleveland as its epicenter and surrounded by Cuyahoga, Geauga, Lake, Lorain, and Medina Counties. Direct access to Lake Erie has historically shaped the regional economy, whose multiple ports support multiple trading clusters in the manufacturing and chemical industries. More recently, economic restructuring has presented challenges as manufacturing employment declined and service industry employment rose. This shift, and the resulting fiscal challenges and the added stress from a global pandemic, have led to a need to reexamine how investment in the regional assets happens across the Region.

Upon adoption of this document by the NOACA Board and the U.S. Economic Development Administration (EDA), NOACA will become the designated EDD for the five Counties of Cuyahoga, Geauga, Lake, Lorain, and Medina, and the City of Cleveland. Following the NOACA Board adoption of the *CEDS*, the organization will form a Strategy Committee, expected to be the Economic Development Subcommittee of the NOACA Board, to represent the main economic development interests of the Region. (This Committee and Subcommittee was confirmed at the June 10, 2022 NOACA Board meeting.)⁴

Other regional planning organizations in Northeast Ohio are designated EDDs for the Akron, Canton, and Youngstown Regions. Greater Cleveland is the only Metropolitan Statistical Area (MSA) currently without an EDD. An EDD for the Cleveland-Elyria MSA (the Region) will help to build responsive capacities, such as ongoing staff to support, monitor, and follow up on the implementation progress of the *CEDS*. NOACA is excited to lead this effort and is hoping to create the atmosphere needed for trust and collaboration among economic development officials throughout the Region.

EDDs are multi-jurisdictional entities, commonly composed of multiple counties and in certain

cases cross-state borders. They help lead the locally-based, regionally driven economic development planning process that leverages the involvement of the public, private, and non-profit sectors to establish a strategic blueprint (i.e., an economic development roadmap) for regional collaboration. EDDs are also required to develop and publish a *CEDS* every five years.⁵

According to the U.S. EDA,

a *CEDS* is a strategy-driven plan for regional economic development. A *CEDS* is the result of a regionally-owned planning process designed to build capacity, and guide the economic prosperity and resiliency of an area or region. It is a key component in establishing and maintaining a robust economic ecosystem by helping to build regional capacity (through hard and soft infrastructure) that contributes to individual, firm, and community success. The *CEDS* provides a vehicle for individuals, organizations, local governments, institutes of learning, and private industry to engage in a meaningful conversation and debate about what capacity-building efforts would best serve economic development in the region.⁶

Preparing the *CEDS* was a year-long process that involved phases, such as an extensive *Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis*, and strategy development. NOACA engaged its stakeholders through a Steering Committee, NOACA standing committees, Working Group, Regional Roundtables, and public comments. NOACA committed its Staff resources to the planning process, and sought EDA's assistance for particular components of the *CEDS* development, including costs associated with stakeholder engagement and staffing; and the role of a consultant for the project. As part of this *CEDS* development process, NOACA engaged stakeholders in the public, private, and non-profit sector in strategic conversations about the regional assets.

The NOACA Region coincides with the Cleveland-Elyria MSA which comprises 2.1 million residents.



Figure 1.

Map of the Greater Cleveland Region, including Cuyahoga, Geauga, Lake, Lorain, and Medina Counties, bordered by Lake Erie.¹¹

The five Counties in the Region are diverse and range from fully urbanized Cuyahoga County, with 1.2 million residents; to rural Geauga County with 93,000 residents. The other three Counties (Lake, Lorain, and Medina) all have a mix of small- to midsize urban areas and large rural spaces. Population growth for the entire Region has been stabilized for several decades. At the same time, the population has shifted outwards from the City of Cleveland. These sprawling

development patterns make it increasingly difficult to fund and provide sufficient public infrastructure and services.⁷ This situation is aggravated by the tax implications of losing highly-skilled workers and jobs in the Region's primary trade clusters. This *CEDS* will enable the five Counties to jointly address these shared concerns and to develop a regional strategy to strengthen the regional assets in a global economy in a way that is both equitable and sustainable.

The U.S. EDA has established investment priorities that include the definition of **equitable** as economic development planning or implementation projects through investments that directly benefit underserved populations or communities. Regarding **sustainability**, environmentally-sustainable development is considered by the U.S. EDA as economic development planning or implementation projects that help address the climate crisis including through the development and implementation of green products, green processes (including green infrastructure), green places, and green buildings.⁸ More generally, the International Economic Development Council (IEDC) has defined sustainable economic development as the investment in business, social, built, and natural environments that creates increasing prosperity for all, now and into the future.⁹

NOACA has developed this *CEDS* in close coordination with the many stakeholders in the public, private, and non-profit sectors. For the Steering Committee and Working Group, NOACA has engaged the City of Cleveland, the five Counties, the Chambers of Commerce, Team NEO, MAGNET (Manufacturing Advocacy and Growth Network), the non-profit sector, and others.¹⁰ (A complete list of Steering Committee and Working Group members is available in the *Background* section.) NOACA engaged local governments, economic development professionals, and workforce development professionals through its Technical Advisory Councils and Stakeholder Groups. Additionally, NOACA engaged the business community, non-profit community, and rural community through advisory councils on transportation issues; each Council was briefed regarding the *CEDS*. Everyone was encouraged to provide comments and suggestions throughout the *CEDS* development process, as well as during the 30-day public comment period.

As the first regional *CEDS* for a newly formed EDD the Strategies, Outcomes, and Potential Partners capture the opportunities of the Region

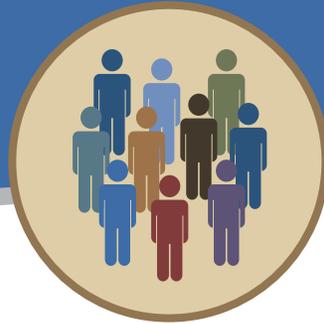
and areas where the EDD and its local partners can utilize future funding, collaboration, tools, and plans to strengthen the regional economy. Some of these strategies are aspirational and goals the EDD can build from over the next few decades; others are immediate and will drive project and funding selections. While not every strategy is an immediate first priority, they capture the work being conducted throughout the Region by the EDD's many partners. The EDD will prioritize Strategies and refine outcomes as future projects are selected from funds that may become available through the U.S. EDA.

Section Sources

4. NOACA Board Resolution 2022-017, *Comprehensive Economic Development Strategy*, From: Grace Gallucci
5. Ibid.
6. <https://www.eda.gov/ceds/>
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8. <https://eda.gov/files/about/investment-priorities/EDA-FY21-Investment-Priorities-Definitions>
9. https://www.iedconline.org/clientuploads/Downloads/edrp/IEDC_Greenmetrics.pdf
10. <https://bit.ly/NOACA-CEDS-Memo>
11. <https://census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>



Comprehensive Economic Development Strategy



Current Regional Conditions

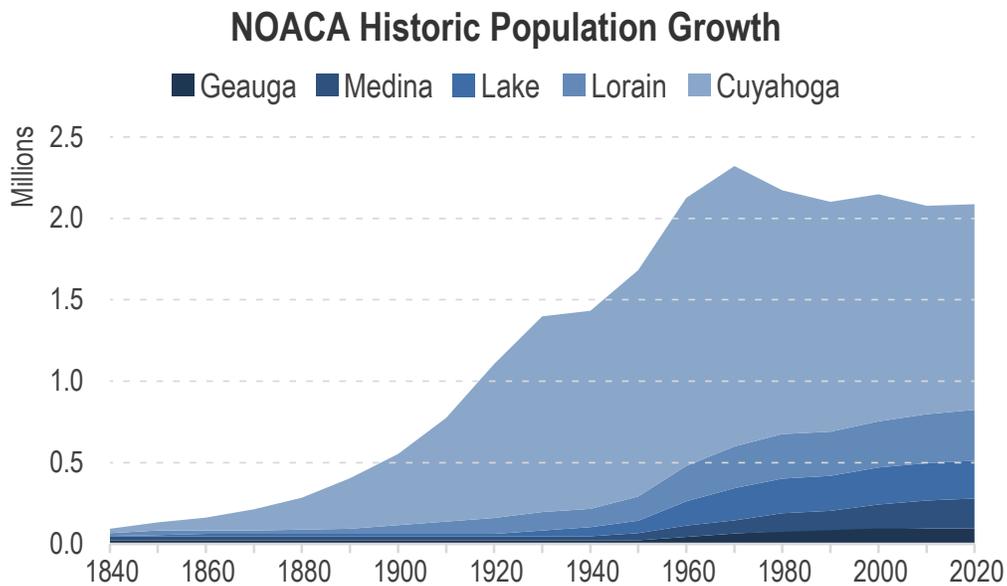


Figure 2.

Population Growth of the Region, with County distribution, from 1840 through 2020.¹²

Source: U.S. Census Bureau, Decennial Census Program



Demographics

The Region's population was 2,088,251 according to the U.S. Census Bureau's 2020 Decennial Census, as seen in **Figure 2**. Since 2010, the State of Ohio grew by 2.3 percent, while the Region grew by just 0.5 percent or 11,000.¹³

Race/Ethnicity

According to the 2020 ACS 5-Year Estimates, 31 percent of the population identify as a minority or a race other than non-Hispanic white, as seen in **Figure 3**. For the State overall, just 22 percent of the population identify as a minority, while across the nation 40 percent of the population are minority. The largest non-white race/ethnicities reported in the Region are non-Hispanic Black or African American (19 percent) and Hispanic (6 percent).¹⁴

Aging

The population in the Region is aging, as noted in **Figure 4**. The median age in 2010 was 40.5; in 2020, it was estimated at 41.4.¹⁵

Households

In 2020 (2016-2020), there were an estimated 871,100 households in the Region. Married-couple households made up 41 percent of all households, while cohabiting households made up 7 percent. Single female households with children under 18 were 6 percent of all households, while 1 percent of households were single males with children under 18.¹⁶ **Figure 5** shows the distribution of households across the Region.

In the Region, 26.5 percent of all households have one or more people under the age of 18, while 31.5 percent of all households have one or more people 65 years or older.¹⁷

In the 2016-2020 period, 87 percent of the people at least one-year-old living in the Region were living in the same house one year prior, while 1.4 percent moved into the Region from another U.S. state.¹⁸

Of the 32,355 grandparents who lived with their grandchildren under 18 years old, 36 percent were responsible for the grandchildren's basic needs.¹⁹

Foreign-Born Population

An estimated 94 percent of the people living in the Region are U.S. natives. Seventy-five percent of the people living in the Region were born in Ohio.²⁰ **Figure 6** details the place of birth for foreign-born residents.

Of the 6 percent foreign-born population (about 122,790 residents), an estimated 62 percent are naturalized citizens and 74 percent entered the U.S. prior to 2010. The majority of foreign-born residents were born in Asia and Europe.²¹

Education

In 2016-2020, 91 percent of people 25 years and over had at least graduated from high school, and 32 percent had a bachelor's degree or higher, as detailed in **Figure 7**. An estimated 9 percent did not complete high school.²²

According to the Ohio Department of Education, as detailed in **Figure 8**, graduation rates increased from 88.6 in 2015 to 91.4 in 2021.²³

Economics

The NOACA *Long-Range Transportation Plan (LRTP)*, *eNEO2050*, contains a detailed overview of the Region's economy, including the relationships among economic anchors, transportation assets, major job hubs, and communities. The plan shows a Region that has been undergoing significant change over time from the dominant manufacturing base to a more diversified economy with strong healthcare and education components. *eNEO2050* also notes that household incomes throughout the Region's Counties are distinctly uneven with Cuyahoga having a 16 percent poverty rate, as compared to the other Counties in 2019. Geauga had a 4.0 percent poverty rate; Lake had an 8.6 percent rate; Lorain had a 14.3 percent rate; and Medina had a 4.9 percent rate.²⁴ The City of Cleveland has been reported among the poorest large cities in the nation with an approximate 31 percent poverty rate.²⁵

Similar to other regions described as Rust Belt cities at one time, the Region has been working to find new ways to build its economy around its current major assets and deal with population changes that result in a need to focus on workforce development and attraction.²⁶

The Region now has a more diverse economy. Progressive Insurance, Sherwin-Williams, Parker Hannifin, Key Corp, and TravelCenters of America are the Region's listed *Fortune 500* companies.²⁷ These companies are all located in Cuyahoga County. Other major employers include First Energy Corporation, Avery Dennison, and the Lubrizol Corporation in Lake County; Westfield Insurance, and MTD Products in Medina County; Kinetico, Masco/Kraftmaid, and the Great Lakes Cheese Company in Geauga County; and Ford Motor Company and Invacare Corporation in Lorain County.

KeyBank employs nearly 5,000 people in the Region. There are also many banks with a presence in the Region, including U.S. Bank, Fifth-Third Bank, Bank of America, PNC Financial Services, Dollar Bank, JP Morgan Chase, and Huntington Bank. Third Federal Savings & Loan is also a major lender in the Region.²⁸ Additionally, the Federal Reserve Bank of Cleveland was built in 1923, a time when Cleveland's population was nearly twice the size of today. The Federal Reserve Banks – 12 in total around the country – serve as the banks for the banks, with the primary functions of storing currency; setting policies for banks; and processing checks and electronic payments on behalf of their banks.²⁹

The Region is home to several higher education institutions. These include Case Western Reserve University, Cleveland State University (CSU), Cuyahoga Community College, Oberlin College, Baldwin Wallace University, Notre Dame College, John Carroll University, Lakeland



Key Tower, Cleveland by Lance Anderson

Community College, Lake Erie College, and Lorain County Community College.³⁰

Northeast Ohio's economy was dominated by manufacturing up until the mid 20th century. Between 1990 and 2012, the area experienced a 41 percent decline in manufacturing jobs. More recently, economic data illustrated in NOACA's *eNEO2050*, shows manufacturing still leads in percent of sales and revenue figures by industry for each County in the Region, except Cuyahoga where the nationally significant health care industry is the strongest. Even in Cuyahoga, manufacturing still produces the largest dollar value of sales and revenue in the Region.³¹

The Region's economy has shifted to an economy strengthened by medicine and health. Two of the largest employers are Cleveland Clinic and University Hospitals, respectively. Both are major factors in the Region's economy. University Hospitals is estimated to have an \$8 billion impact on Ohio's economy,³² and Cleveland Clinic's impact is approximately \$18

billion.³³ The healthcare industry is a major sector of the local economy.³⁴

The technology industry is prominent in the Region, especially health-related technology. According to *Forbes*, the Region could become a major tech hub. Over 200 tech companies have started in the Region. The Region's economy is transitioning from a manufacturing-based economy to a health-tech-based economy.³⁵

The Region's per capita real gross domestic product (GDP) increased from \$49,280 to \$58,010 from 2001 to 2018, now ranking 70th among 384 metros nationally. Cincinnati is 81st and Columbus is 96th.³⁶ Cuyahoga County ranked near the bottom for population change (474th among the 500 largest counties nationally); and ranked 88th for annual GDP growth per capita of 1.92 percent from 2000 to 2018, outperforming many faster growing counties. Challenges remain, however, in fully integrating disadvantaged, dislocated, and rural communities into a more vibrant regional economy.³⁷

Cleveland Clinic in Elyria, courtesy of Cleveland Clinic



The healthcare and social assistance industry was by far the largest industry in the Region in 2017, as per *eNEO2050*. **Figure 9** shows the total sales or revenue by industry as distributed across the Counties. Manufacturing is the second largest industry for the Region.

Similarly, healthcare and manufacturing represent the largest payrolls (and employees) across the Region. **Figure 10** details the payroll by industry for the Region.

The large payroll for these industries is driven by the large number of employees for each of these companies. As such, **Figure 11** shows the number of employees in each industry, as detailed in *eNEO2050*.

The Region's population has stabilized, and indicators of growth have risen. However, population growth and prosperity are not necessarily correlated. "There is no correlation between levels of prosperity and population growth," said Richey Piiparinen, director of urban theory and analytics at CSU's College of Urban Affairs. "You have these fast-growing cities that are just living off their local economy... consumption activity."³⁸

Median household income in the Region is \$57,263; lower than both the State (\$58,116) and the nation (\$64,994). The poverty rate for the Region, 14 percent, is higher than the State (13.6 percent) and the nation (12.8 percent).³⁹

Between 2016 and 2020, an estimated 75 percent of households had earnings, as seen in **Figure 12**. An estimated 32 percent receive Social Security and 23 percent of households receive retirement income other than Social Security. Fourteen and a half percent of households received public assistance income or *Supplemental Nutrition Assistance Program (SNAP)* aid. The average income from Social Security was \$19,398. These income sources are not mutually exclusive; some households received income from more than one source.⁴⁰

As seen in **Figure 13**, seasonally adjusted unemployment rates in December 2021 were nation 3.9 percent, Ohio 4.5 percent, and NOACA 5.3 percent.⁴¹ According to 2020 ACS 5-Year Estimates for the Region, 59.5 percent of the population 16 and over were employed, compared to 59.7 percent for the State and 59.6 percent for the nation. The percent of the working-age population that were not in the labor force was 36.6 percent for the Region and the nation, while slightly higher, 36.8 percent for the State.⁴²

The Region has a higher concentration of jobs in manufacturing than the nation as a whole. In 2020, the BLS annual average from the QCEW reported 3,319 manufacturing businesses in the Region providing 114,600 jobs. Fourteen percent of the workforce work in manufacturing with annual wages per worker of \$66,000, which is 12 percent higher than the annual wages for all workers in the Region (\$58,866).⁴³

According to the U.S. Census Bureau's Foreign Trade Statistics, detailed in **Figure 14**, the Region exported \$43.8 billion worth of commodities in 2021 and recorded a trade surplus of \$5.4 billion. Since 2015, the largest trade surplus was in 2019, when the Region exported \$15.5 billion more in commodities than it imported.⁴⁴

Population by Race and Ethnicity

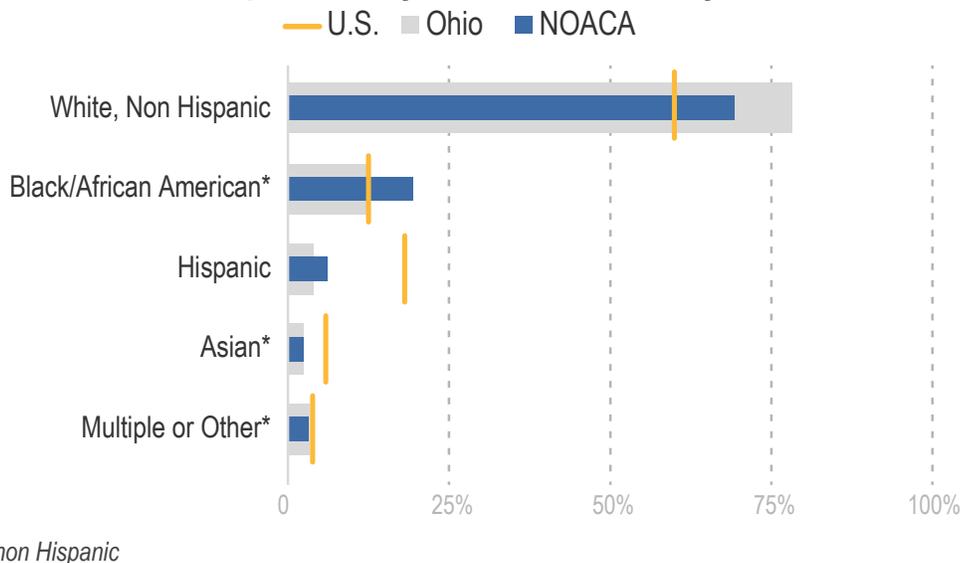


Figure 3.

Population of Region by Race and Ethnicity, compared to the State and Nation.⁴⁵ Note: Black/African American is a U.S. Census designation as per the U.S. Census Bureau.

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

NOACA 2020 Population Distribution

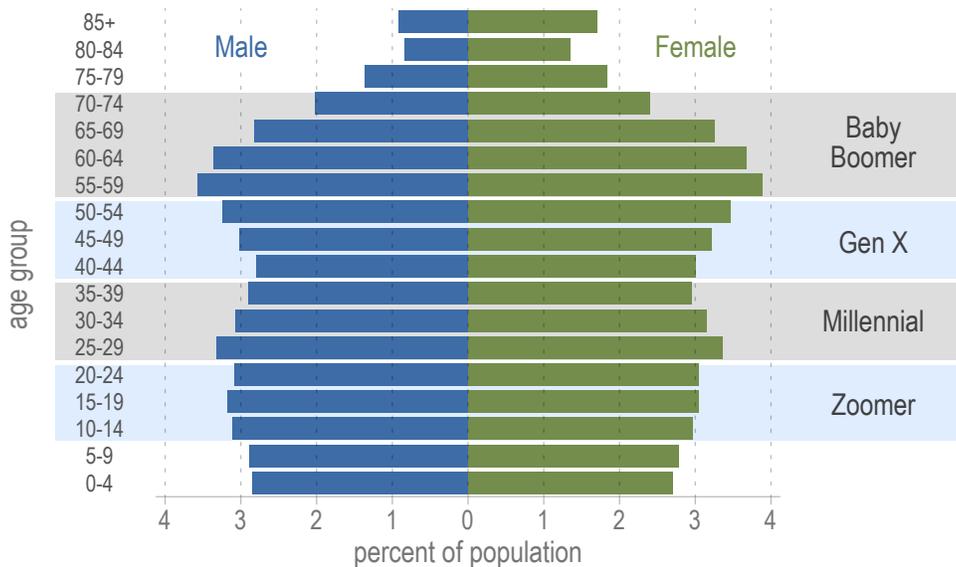


Figure 4.

Region's Population Distribution by Age, Gender, and Generation.⁴⁶

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Households by Type

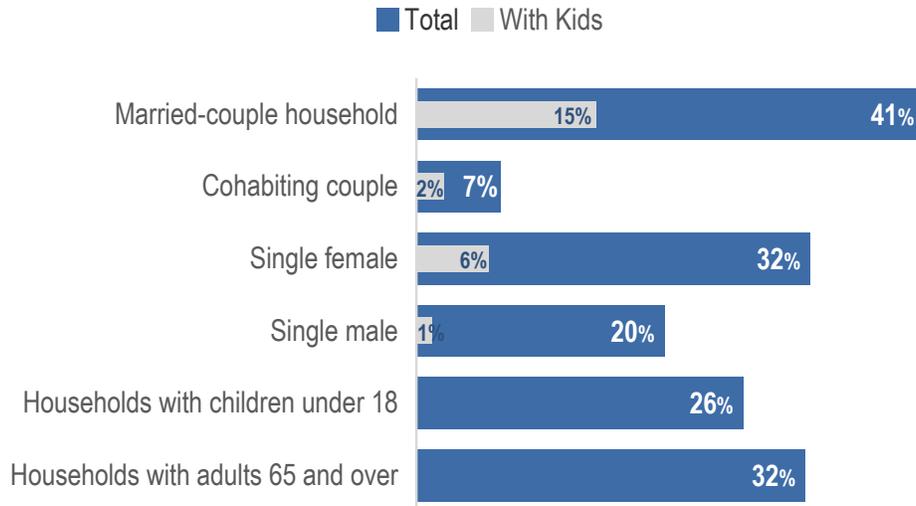


Figure 5.

Region's household distribution by those with children and without, as married, cohabiting, and single.⁴⁷

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Place of Birth for Foreign-Born Residents

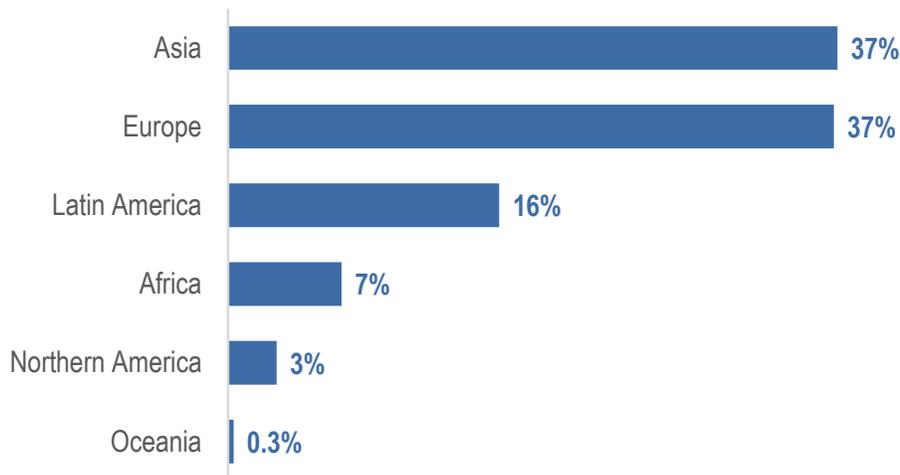


Figure 6.

Region's place of birth for foreign-born residents.⁴⁸

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Educational Attainment for the Population 25 Years and Older

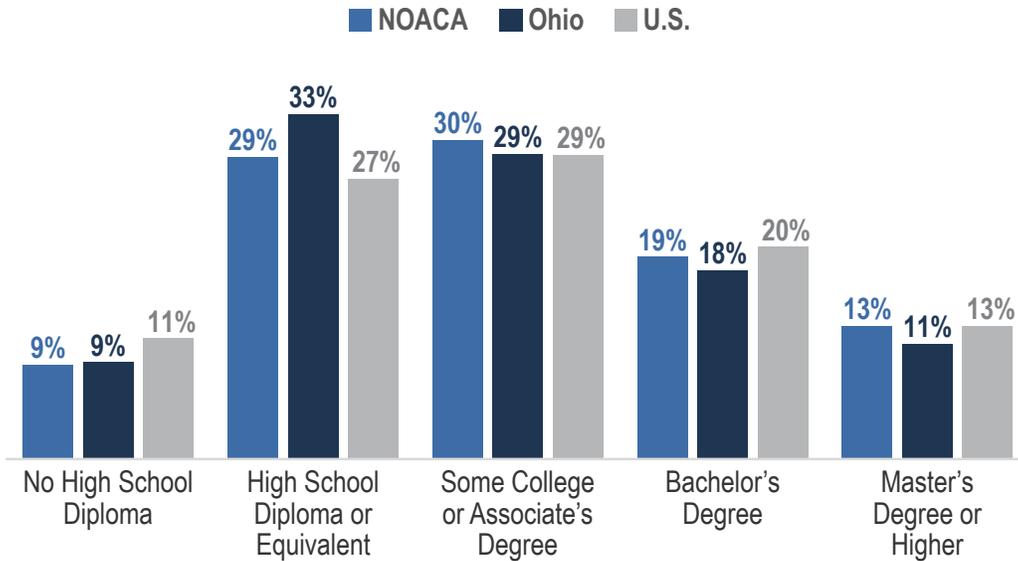


Figure 7.

Region's educational attainment from high school through post-secondary degrees as compared to the State and U.S. rates.⁴⁹ U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

NOACA Graduation Rates, 2015 to 2021



Figure 8.

Region's graduation rates, distributed by County, from 2015 through 2021, shows that high school graduation rates increased.⁵⁰ Source: Ohio Department of Education. Education data compiled from School District level data for 4-year High School graduation rates.

2017 Sales or Revenue by Industry

Industry	Cuyahoga	Geauga	Lake	Lorain	Medina	Total
Utilities	N/A	\$0	\$0	\$0	\$0	\$0
Manufacturing	\$23.2B	\$2.88B	\$6.53B	\$6.06B	\$3.16B	\$38.7B
Wholesale Trade	\$24.9B	\$585M	\$1.28B	\$2.32B	\$2.46B	\$29.0B
Retail Trade	\$16.9B	\$1.50B	\$3.76B	\$3.88B	\$3.12B	\$26.1B
Transportation & Warehousing	\$3.78B	\$149M	\$147M	\$230M	\$235M	\$4.31B
Information	N/A	N/A	N/A	N/A	N/A	\$0
Finance & Insurance	N/A	N/A	N/A	N/A	N/A	\$0
Real Estate & Rental & Leasing	\$4.52B	\$41.0M	\$208M	\$142M	\$117M	\$4.91B
Professional, Scientific, & Technical Services	\$8.49B	\$178M	\$486M	\$338M	\$560M	\$9.49B
Administrative & Support & Waste Mgmt.	\$3.80B	\$207M	\$536M	\$546M	\$461M	\$5.09B
Educational Services	\$406M	\$11.0M	\$33.7M	\$46.9M	\$35.0M	\$498M
Health Care & Social Assistance	\$35.8B	\$991M	\$2.16B	\$3.49B	\$1.35B	\$42.5B
Arts, Entertainment, & Recreation	\$4.36B	\$64.8M	\$179M	\$148M	\$94.4M	\$4.76B
Accommodation & Food Services	\$3.33B	\$127M	\$497M	\$444M	\$276M	\$4.40B
Other Services (except Public Admin)	\$4.31B	\$253M	\$465M	\$479M	\$293M	\$5.51B
Construction	\$7.24B	\$299M	\$1.06B	\$787M	\$1.49B	\$9.39B
Agriculture	\$6.22M	\$36.1M	\$73.6M	\$134M	\$51.5M	\$250M

Figure 9.

2017 Sales or Revenue by Industry in the Region.⁵¹

2017 Payroll by Industry

Industry	Cuyahoga	Geauga	Lake	Lorain	Medina	Total
Utilities	\$161M	\$0	\$0	\$0	\$0	\$161M
Manufacturing	\$3.93B	\$407M	\$1.04B	\$939M	\$488M	\$6.81B
Wholesale Trade	\$2.02B	\$68.9M	\$147M	\$162M	\$148M	\$2.55B
Retail Trade	\$1.58B	\$127M	\$319M	\$330M	\$227M	\$2.59B
Transportation & Warehousing	\$887M	\$28.7M	\$39.7M	\$85.9M	\$85.8M	\$1.13B
Information	\$1.38B	\$11.6M	\$44.2M	\$30.9M	\$20.2M	\$1.49B
Finance & Insurance	\$4.11B	\$40.8M	\$95.6M	\$132M	\$182M	\$4.55B
Real Estate & Rental & Leasing	\$736M	\$9.00M	\$30.2M	\$28.2M	\$18.7M	\$822M
Professional, Scientific, & Technical Services	\$3.39B	\$57.9M	\$204M	\$144M	\$220M	\$4.02B
Administrative & Support & Waste Mgmt.	\$1.75B	\$69.8M	\$299M	\$203M	\$249M	\$2.57B
Educational Services	\$140M	\$6.00M	\$12.6M	\$18.9M	\$14.3M	\$192M
Health Care & Social Assistance	\$15.8B	\$404M	\$926M	\$1.46B	\$567M	\$19.2B
Arts, Entertainment, & Recreation	\$2.03B	\$10.8M	\$54.2M	\$43.6M	\$13.4M	\$2.15B
Accommodation & Food Services	\$955M	\$36.4M	\$135M	\$123M	\$80.7M	\$1.33B
Other Services (except Public Admin)	\$1.23B	\$72.1M	\$136M	\$134M	\$91.8M	\$1.66B
Construction	\$1.41B	\$117M	\$213M	\$186M	\$175M	\$2.10B
Agriculture	N/A	N/A	N/A	N/A	N/A	N/A

Figure 10.

2017 Payroll by Industry as Distributed by County.⁵²

2017 Employees by Industry

Industry	Cuyahoga	Geauga	Lake	Lorain	Medina	Total
Utilities	1,746	0	0	0	0	1,746
Manufacturing	65,044	8,025	18,802	15,443	9,153	116,467
Wholesale Trade	33,298	1,176	2,622	2,599	2,554	42,249
Retail Trade	61,527	4,382	12,390	13,044	8,601	99,944
Transportation & Warehousing	17,082	540	1,163	1,788	2,183	22,756
Information	23,468	195	804	708	46	25,221
Finance & Insurance	44,596	771	1,766	2,071	2,734	51,938
Real Estate & Rental & Leasing	13,273	207	806	787	503	15,576
Professional, Scientific, & Technical Services	42,985	1,103	3,780	3,467	4,320	55,655
Administrative & Support & Waste Mgmt.	53,761	2,038	6,535	5,877	7,011	75,222
Educational Services	6,142	226	624	864	590	8,446
Health Care & Social Assistance	294,208	9,866	23,254	31,284	14,836	373,448
Arts, Entertainment, & Recreation	27,258	719	2,550	2,162	650	33,339
Accommodation & Food Services	56,378	2,710	9,875	8,874	6,106	83,943
Other Services (except Public Admin)	37,140	2,372	5,002	5,192	3,122	52,828
Public Administration	21,537	1,646	4,479	5,452	2,499	35,613
Construction	20,514	1,856	3,546	3,514	2,923	32,353
Agriculture; Forestry; Fishing & Hunting; Mining	1,202	280	392	1,027	1,130	4,031
Farm Producers (primary owner of land)	187	1,816	358	1,688	1,920	5,969

Figure 11.

2017 Number of Employees by Industry, across the Region, as distributed by Counties.⁵³

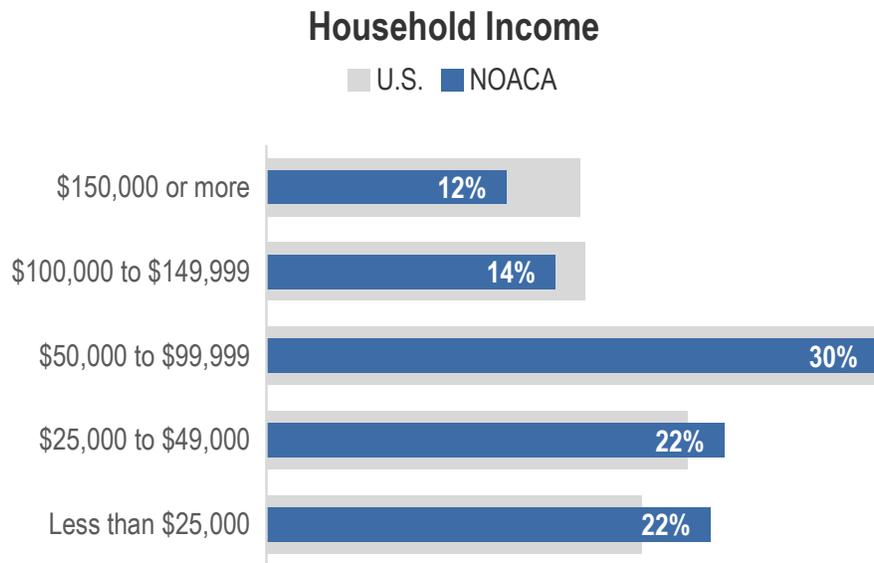


Figure 12.

Region's household income, as compared to the U.S.⁵⁴

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

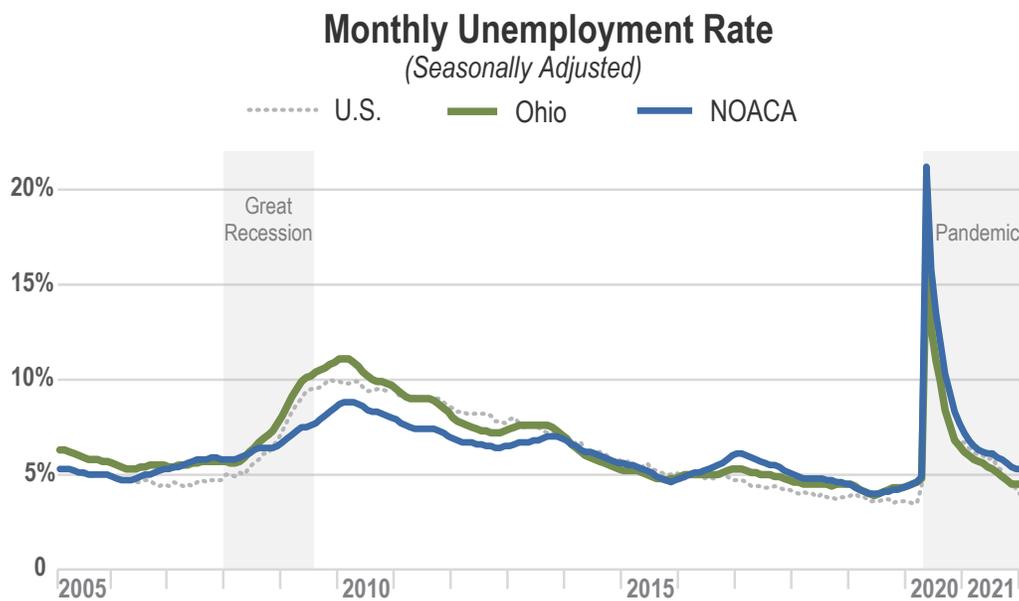


Figure 13.

Region's monthly unemployment rate, as compared to the State and U.S., spiking early 2020, to coincide with the global COVID-19 (Coronavirus 2019) outbreak.⁵⁵ Source: U.S. Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS), and Current Population Survey. Data are through 2021.

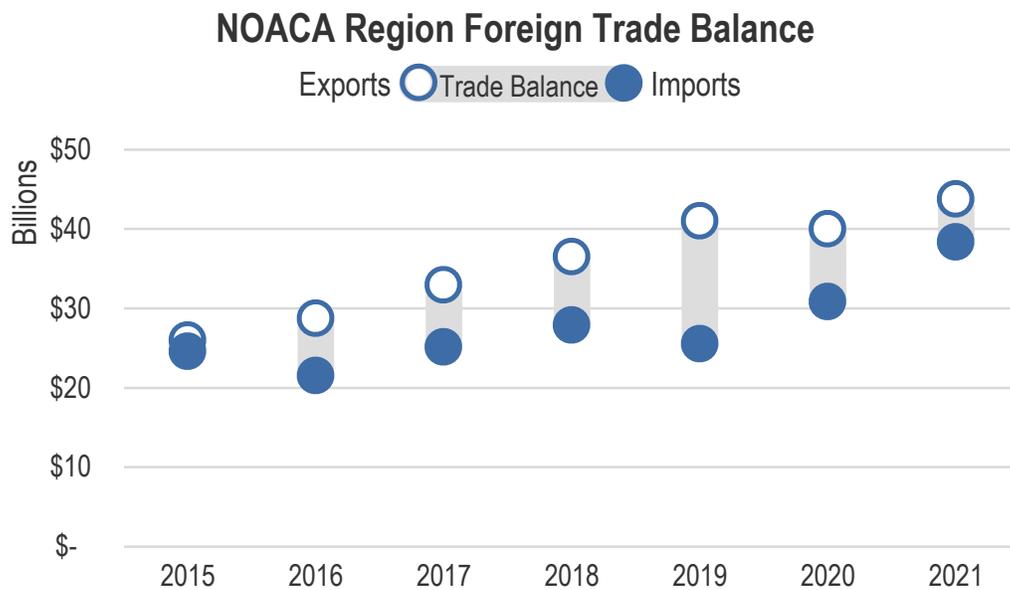
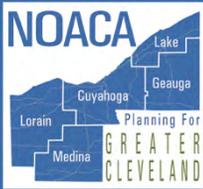


Figure 14.

Region's foreign trade balance of exports and imports from 2015 - 2021 in billions of dollars. Over the past six years, the import and exports of the Region has increased by almost \$20 billion.⁵⁶ Source: U.S. Census Bureau, Foreign Trade Statistics, USA Trade Online. Data for the NOACA Region come from port-level data (Cleveland, Lorain, and Fairport).

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Comprehensive Economic Development Strategy



SWOT Analysis

The ***Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis*** is used to evaluate a competitive position, and to develop strategic planning and tools to address goals. The *SWOT Analysis* assesses internal and external factors, as well as current and future potential. This *SWOT Analysis* was developed through research and literature review of local, regional, and State strategies, documents, and reports; through the comprehensive interview process of 29 key regional and local leaders; and the collection of data from 15 surveys utilizing 34 questions of stakeholders across the Region.

Overall, the *SWOT Analysis* showed adequate sustainable infrastructure; quality jobs; the need to close racial and inequality gaps; and

youth opportunities rose to the top priorities in the Region. Tourism, cultural amenities, and healthcare are seen as current regional economic strengths. Housing, labor shortages, and a lack of skilled labor are top regional weaknesses.

It should be noted that an item can show up as a weakness in a *SWOT Analysis*, but it can also show up as an opportunity in that regional solutions to a weakness may create a competitive advantage for the Region. For example, creation of better rail passenger service may create new opportunities for connections between major markets. Likewise, strong workforce training opportunities can work to relieve issues in workforce availability. Often, the mirror image of a weakness that is addressed is an opportunity.

Strengths

- Community College System
- Cultural Amenities
- Education and Medical Trades
- Foundations / Non-Profit Organizations
- Four Seasons and comparatively moderate climate
- Good Freeway System Between Urban and Rural Sections of Region
- Higher Education
- Lake Erie and its tributaries as fresh water sources
- Manufacturing Legacy
- Medical Opportunities
- People/Place Enthusiasm
- Racial Diversity
- Relatively Affordable Housing
- Removed from Natural Disasters
- K-12 School Systems
- Sports / Entertainment
- Transit
- Strong Financial/Real Estate Structure
- Cleveland Airport – Connected to the Rapid Transit System
- Microgrids

Weaknesses

- Unpredictable Weather Changes
- Aging Infrastructure
 - Opportunity Corridor Brand New; Next to Old Infrastructure
- Aging Population
 - Isolation for those living in suburban and rural areas; especially for the elder and physically disabled
- Limited Amtrak / Passenger Rail
- Brownfields
- High Poverty Rate
- Concentrations of Poverty
- Housing Stock and Age
- Image Problem / Brand
- Lack of Developable Land in the Core
- Lack of Workforce
- Hopkins International Airport needs updating
 - Lost Hub Status
- Population Decline
- Racial Division
- Long-Term Urban Sprawl
- Unequal Tax Structure
- Research Development Sector
- K-12 School Systems

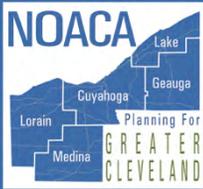
Opportunities

- | Aging Population
- | Amtrak / Passenger Rail
- | Better Rural-Urban Connectivity, i.e., Food
- | Climate Change
- | Greater Regional Collaboration
- | Healthcare
- | Hyperloop
- | Image / Brand
- | Innovation Hubs
- | Opportunity Corridor
- | Professional/White Collar Work
- | Real Estate Collaboration
 - | Builder/Developer/Planning Collaboration
- | Recreation and Parks, Trails (Active Transportation)
- | Regional and Local Workforce Development
 - | Community College
 - | High School and Trade Schools Pipelines
- | Remote Work
- | Repurposing of Historic Buildings
- | Size of the Convention Center
- | Tourism
- | Waterfronts

Threats

- | Climate Change
- | Recruiting Workforce Away from Region
- | Rise of Industry Outside of Region
- | Competitive Regions Keeping Up with Infrastructure
- | Income Inequities Across the Region
- | Increase in Foreclosures Across the Region
- | Racial Segregation (Place-Based)

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Comprehensive Economic Development Strategy



Vision and Goals

Vision Statements define the Region we want to create. Vision Statements are derived from surveys; interviews; meetings with committees and groups; the review of existing plans; an analysis of existing and new *SWOT Analysis*; and other information available throughout the Region. Often a blend of what is already held in high regard and what we seek, a Vision Statement is a written reminder of what we value.

Included with the Vision Statement is a set of overarching goals, which help to articulate the

strategies for achieving the vision and measuring progress across the Region. These goals reflect the top priorities of the Region and incorporate factors emphasized by the regional analysis as important to the Region's success. Goals are listed in no particular order. Each is just as important as the others to the Vision of the Region.

Combining a *SWOT Analysis*; a Vision Statement and goals; and related strategies that are addressed with measurable outcomes make up a *CEDS*.

Vision Statement

We envision a new and vibrant economy that also honors the heritage, history, people, and places that make our Region great.

We envision a Region of thriving; resilient communities; built on racially and socially equitable economic investments; efficient and affordable transportation; reliable energy; advanced technology; and education for a broad range of jobs.

We envision premier healthcare, education, research, philanthropy, cultural amenities, and a ready workforce.

We envision Lake Erie supplying the Region with abundant, clean, fresh water, and commercial navigation.

We envision manufacturers making and moving goods on shorter supply chains.

Overarching Goals for the Region

- Vibrant, innovative economy with new and growing opportunities for people and business;
- Premier partnerships in healthcare, research, manufacturing, education, and culture;
- Growing population and skilled workforce;
- Growing intercity travel and tourism exposing more people to the Region's assets;
- Sustainable, well-maintained infrastructure;
- Resilient communities throughout the Region with equitable investment and affordable housing;
- Efficient, affordable, transportation to job opportunities;
- Reliable, renewable energy;
- Advanced manufacturing clusters with shorter supply chains;
- Reclaimed Brownfields contributing to their settings;
- Abundant water resources from Lake Erie and its tributaries attracting visitors and supporting business; and
- Positive national brand attracting new business.

Cleveland over Lake Erie by DJ Johnson





Comprehensive Economic Development Strategy



Key Topic Areas

Key topic areas emerged from review of existing plans; statistical data; stakeholder input from interviews with leaders from NOACA member jurisdictions; surveys; discussions about a regional economic development vision and goals; and exercises among Steering Committee and Working Group members, including the *SWOT Analysis*. Additional research identified more information on opportunities leading to specific strategies for each key topic, planned outcomes, and implementation partners. The relationship among key topics, strategies, outcomes, and potential partners is expressed in a table accompanying each key topic. These key topic areas, taken together, are an interrelated set of topics to be addressed by the *CEDS*. As such, they are not listed in individual priority order (but rather alphabetical order), and similarly relate to the *CEDS* Overarching Goals they address, which are listed with one or more regional Vision Statements. The research and data presented in the key topic areas support the Vision Statement and Overarching Goals of the *CEDS*.

Access to Broadband	35
Aerospace / NASA Glenn.....	39
Agriculture	43
Cultural Amenities	47
Education	51
Equity.....	55
Healthcare	65
Housing	69
Immigration.....	75
Innovation & Entrepreneurship	79
Institutions – Regional Collaboration, and Urban and Rural Connectivity	83
Manufacturing.....	89
Parks and Recreation.....	93
Tourism.....	99
Transportation	103
Water Resources.....	109
Workforce Development.....	113



Comprehensive Economic Development Strategy



Access to Broadband

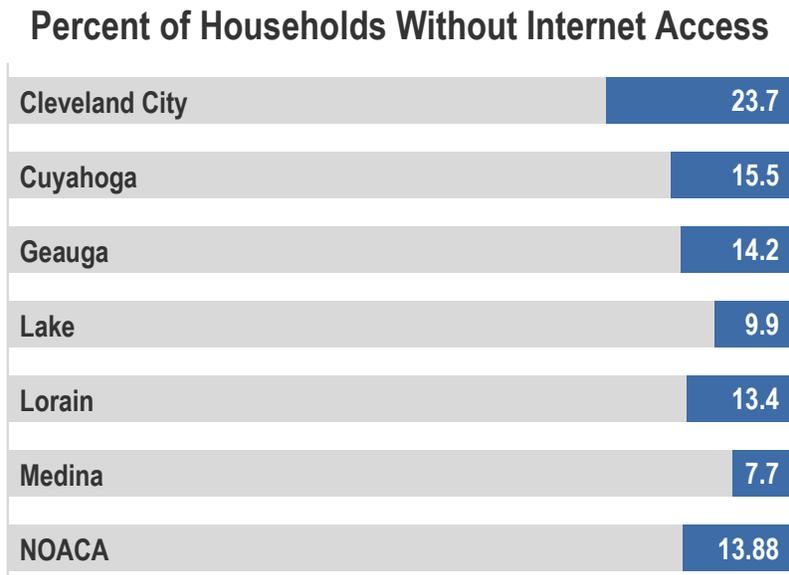


Figure 15.

Percent of households without Internet access across the Region as distributed by Counties; highest percentage of households is in Cuyahoga County (specifically the City of Cleveland); and lowest is in Medina County.⁵⁷ Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates



Access to middle- and last-mile high-speed Internet in the Region is sporadic and unequally distributed. Broadband access and equitable distribution are key to the future of economic development.

More Americans are online than ever before. We use the Internet to access healthcare, education, entertainment, and, increasingly, to do our jobs. Unfortunately, the Internet is not universally accessible to everyone in many regions, including this one. The Region's residents of rural, low wealth, and communities

of color are often excluded from the benefits that the Internet provides.

Getting the Internet to everyone who wants it promotes opportunity, and empowers individuals and communities. Internet access could be as ubiquitous as water, sewer, and electricity. A digital divide can separate those in a region who have reliable high-speed access and devices, and those who do not – poorer and rural communities. Digital equity can be an important tool for growth and stability in communities. Overlooked, marginalized, displaced, or disadvantaged populations and individuals benefit from Internet inclusion. The Region can address the digital divide, which refers to the gap between those who have access to Internet-enabled devices and the Internet, and those who do not.

The Region also can address digital equity, which is achieved when all communities and residents have the information technology (access and Internet-enabled devices) needed to participate entirely in society, economy, and democracy. The Region also can address digital inclusion, which concerns all activities that individuals and communities, including those most disadvantaged, carry out to access, and use Information and Communication Technologies (ICTs).

According to the National Digital Inclusion Alliance (NDIA), digital inclusion entails:

...affordable, robust broadband Internet service; Internet-enabled devices that meet the needs of the user; access to digital literacy training; access to quality technical support; and access to applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration.⁵⁸

The COVID-19 pandemic and the accompanying shutdowns and stay-home directives highlighted the importance of Internet connectivity for education. The disparity of opportunities between students with computers and reliable, high-speed Internet access had been an issue before the pandemic. However, the arrival of the pandemic

exacerbated those disparities, as both teachers and students found themselves thrust into the online education arena. It became abundantly clear that the educational playing field simply is not level for those without the digital tools that both Internet access and digital literacy provide.

COVID-19 showed us the importance of remote work. The pandemic has changed the way and future of how we will work and opened new opportunities for communities like those served by regional entities. Better access to broadband, training for a new workforce, and recognizing how to empower remote workers will assist businesses and be a boon in the Region.

A solid digital infrastructure not only means that residents have high-speed Internet access; those residents would also have adequate Internet-enabled devices to get the best use out of that access.

According to the 2020 ACS 5-Year Estimates, and detailed in **Figure 15**,

9.5 percent of households in the NOACA Region do not have a computer, smartphone, or tablet connected to the Internet; and

83.5 percent of households have an Internet subscription, 2.6 percent have Internet access without a subscription, and 13.9 percent of households have no Internet access at all.⁵⁹

Broadband speeds vary across the Region, although median speeds for each of the five NOACA Counties are above the Federal Communications Commission minimum benchmark of 25Mbps download and 3Mbps upload (25/3). Median speed (in Mbps) by County from Ookla speed tests⁶⁰ are:

- **Cuyahoga County** 81.6/11.8
- **Geauga County** 52.6/10.6
- **Lake County** 70.2/11.5
- **Lorain County** 78/11.5
- **Medina County** 78.5/11

According to the FCC Fourteenth Broadband Report and Microsoft Airband Initiative,⁶¹ the percent of the population using broadband (25/3) by County are estimated to be:

- **Cuyahoga County** 64%
- **Geauga County** 58%
- **Lake County** 58%
- **Lorain County** 66%
- **Medina County** 79%

The Broadband Expansion Authority is a key State entity engaged in broadband expansion funding. Beyond recently announced grants in mostly rural areas throughout the State, Ohio is also expected to receive an additional \$268 million in American Rescue Plan Act funding for broadband expansion, and another \$100 million in Federal funding in May 2022. State officials announced that an estimated 227,000 Ohioans will get access to affordable, high-speed Internet service within the next two years paid for with a combined \$480 million in State and private-sector money. Private Internet Service Providers (ISPs) also committed to completing 71 other broadband expansion projects totaling \$248 million. These grants were part of the Ohio Residential Broadband Expansion Grant Program included in the State budget.⁶²

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Access to Broadband

Goals: Resilient Infrastructure / Vibrant, Innovative Economy

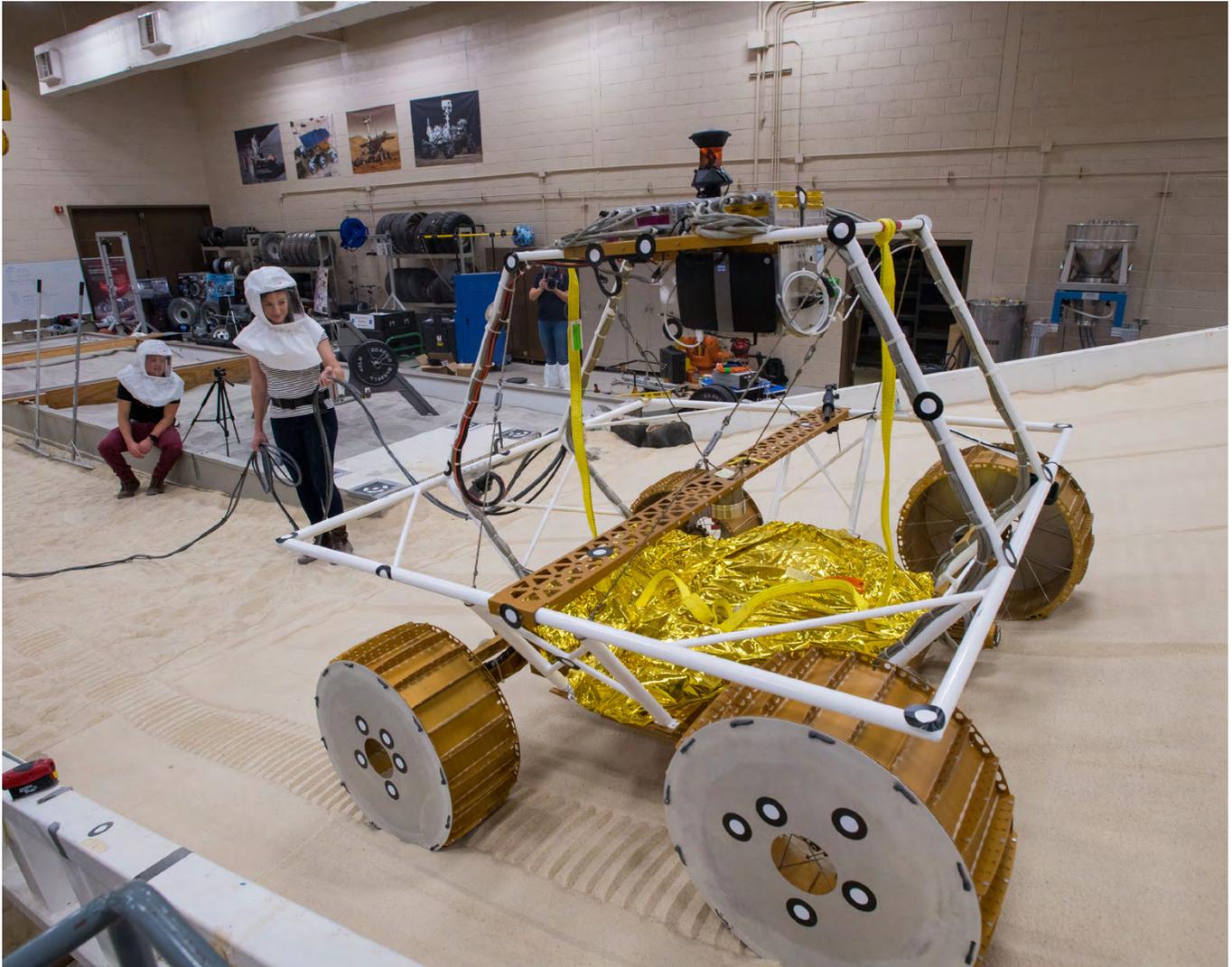
Strategies	Outcomes	Potential Partners
Create a regional broadband implementation plan	Published objectives for funding and implementation	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Create a regional digital equity and inclusion plan	Broadened opportunity for regional residents and businesses	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Support the build-out of middle and last-mile broadband infrastructure	Broadened reach of the network	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Support public investment in broadband infrastructure including municipal/jurisdiction-owned broadband	Ensure middle and last mile connectivity, especially in rural areas.	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Utilize satellite, Wi-Fi nodes in areas where fiber infrastructure is difficult to implement	Advance delivery of service in areas more difficult to serve	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Promote and support public-private partnerships between ISPs, businesses and local governments	Expanded connectivity	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Support community centers, libraries, and other public places throughout the Region, where residents can access the Internet, are accessible and have resources to access the Internet	Quicker access to services and to resources available through the Web	City and County Governments; State of Ohio; Economic Development Organizations; ISPs
Develop resources and materials to aid in mentorship and training via Digital Navigators and Digital Experts located throughout the Region	Increased use of the web for training and job development	City and County Governments; State of Ohio; Economic Development Organizations; ISPs



Comprehensive Economic Development Strategy



Aerospace / NASA Glenn



The aerospace industry in the Region benefits from having the National Aeronautics and Space Administration Glenn Research Center (NASA Glenn) headquartered adjacent to Cleveland Hopkins International Airport. NASA Glenn and aerospace are premier components of the Region's economic development past, present, and future. Aerospace has contributed greatly to the prestige and economic vitality of the Region. Its status must be secured and enhanced.

The Ohio Aerospace Institute (OAI) resides near NASA Glenn and the airport. The OAI encourages cooperation and collaboration among the aerospace industry, the various levels of government, and the academic community. Although supportive of regional efforts, its focus is larger than the Region.

The Aerozone Alliance (Alliance) has recently been established to support the economic development and branding of the aerospace industry in the area surrounding Cleveland Hopkins International Airport and NASA Glenn. The Alliance is supported by OAI, municipalities, Cuyahoga County, NOACA, private enterprise, philanthropy, and non-profit organizations focusing on economic development, such as Team NEO, Greater Cleveland Partnership (GCP), Community Development Corporations, and others. The Alliance's goal is to expand the business opportunities and reputation for such industries involved in aerospace, such as transportation and logistics; manufacturing; and professional scientific and technical services. Another goal of the Alliance is to seek more investment in the area from NASA and the aerospace industry in general.

Per a CSU College of Urban Affairs, Center of Economic Development report, NASA Glenn and associated businesses accounted for more than \$1.7 billion in economic output for northeast Ohio in Fiscal Year (FY) 2020. In that FY, NASA Glenn and associated businesses employed more than 8,500 people in research, engineering, mechanics, administration, legal matters, maintenance, etc. Of these employees, more than 3,300 worked directly for NASA as either civil service employees or contract employees. In addition, many ancillary businesses related to aerospace benefit from the skilled workforce and entrepreneurial abilities found in the NOACA Region. NASA Glenn and the other aerospace businesses and organizations purchase goods and services from local and regional companies, which add to the regional economy. This industry contributed more than \$148 million in local, State, and Federal taxes.⁶³

Additionally, much aerospace research takes place at local and regional universities, with the largest being Case Western Reserve University in Cleveland. Other universities throughout the State benefit as well. This research not only brings forth new knowledge, but results in millions of dollars for the regional economy. With its universities, colleges, and high schools, the NOACA Region is poised to educate future researchers, scientists, engineers, and others in the aerospace industry.

The workforce for this industry generally lives in areas close to the facility. Thus, western Cuyahoga County, as well as parts of Medina and Lorain Counties, benefit from having many aerospace workers as residents. Other Ohio Counties beyond the NOACA Region provide housing for employees, but not in the same numbers. In addition to housing, the workforce purchases transportation, food, and other goods and services, thus adding to the regional economy.⁶⁴

NASA Glenn helps set the NOACA Region apart from many other regions of Ohio, and the nation, as a home for advanced scientific

and engineering research and manufacturing. It provides a regional benefit that must be supported by the community at large, not just for its technical achievements, but also for its unique economic benefit.

A non-quantifiable benefit that the NASA Glenn and aerospace industry bring to the NOACA Region is the prestige and the reputation that the Region supports high tech and innovation. In short, the industry has a unique brand that must be developed and encouraged. One example would be to highlight the 2024 solar eclipse that will pass over Northeast Ohio through a science and technology framework that only NASA Glenn could do.

Section Sources

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Aerospace/NASA Glenn

Goals: Vibrant, Innovative Economy / Premier Partnerships

Strategies	Outcomes	Potential Partners
Support and enhance the mission of NASA Glenn	Continued and enhanced support will add to the regional economy and spin-off new aerospace innovations	The Region's Congressional and Senatorial Delegation; Local Governments; GCP; Team NEO; OAI; Aerozone Alliance; MAGNET; Foundations; Community Colleges and Universities; High Schools; Educational Advocacy Organizations
Support local and regional secondary schools, and universities to look to the future of the aerospace industry	A continuing cadre of educated and trained people to enhance the regional workforce	High schools; Community Colleges and Universities; Educational Advocacy Organizations; OAI; Aerozone Alliance NASA Glenn
Find land and infrastructure opportunities to expand the industry	A centralized location for research and manufacturing	High schools; Community Colleges and Universities; Educational Advocacy Organizations; NASA Glenn; Local Governments; Team NEO; Aerozone Alliance
Support the various components of the industry to collaborate and work together to enhance aerospace and create business, job, and educational opportunities	A vibrant and well-publicized location for this important industry	High schools; Community Colleges and Universities; Educational Advocacy Organizations; OAI; and NASA Glenn
Capitalize on the 2024 Solar Eclipse, when Ohio is one of 13 states in the Path of Totality	Increased recognition for the Region as an aerospace center	Destination Cleveland; NASA Glenn; Great Lakes Science Center; Cleveland Metroparks; Downtown Cleveland Alliance



Comprehensive Economic Development Strategy



Agriculture



Northeast Ohio is well-known for healthcare, manufacturing, and other industries; however, its relation to agriculture deserves a prominent place in this *CEDS*. The Region has a vibrant agricultural heritage, an important present, and a future filled with possibilities. Historically, agriculture was a prime industry for the Region with diversified farming throughout the Region and unique farming taking place in each of the five Counties. As urbanization expanded, agricultural lands in each of the Counties diminished.

Today, while truck farming (farms that produce vegetables for sale) is present in all parts of the Region, Lake County is known for nurseries, vineyards, and wine production, and Geauga County is known for cheese production, apple orchards, and maple syrup production. The Region's Amish population is centered in Geauga County and their economy is focused on farming, woodcraft, and carpentry. (Lorain and Medina Counties also have significant Amish populations.) Lorain County is known for nurseries and greenhouses, and Medina County

is known for its diversified farm products. While Cuyahoga County is the most urbanized of the Counties, it still has agriculture in the form of greenhouses and farms in the Cuyahoga Valley National Park.

Across the Region, a significant amount of land is dedicated for agricultural purposes. For example, in Medina County nearly half of the land (44.33 percent) is used for agricultural purposes, 42.91 percent in Lorain County, and 24.86 percent in Geauga. Small and medium-sized farms are important to a regional economy as are mid-size processing facilities.⁶⁵ Combined, these assets form a resilient and interconnected food production and distribution supply chain. Often, within the Region, mid-sized processors were lost to the expansion of large-scale agri-farming and processing hubs, which can distribute food nationally and internationally. Small- and mid-sized farms can address food insecurity and the growing presence of food deserts, which can occur in both urban and rural communities.

Helping support local food networks, which link farm-to-market and farm-to-table agriculture in the Region promote the farmer, the farms, the processors, and the end users. Farms can form cooperatives, work with neighborhood redevelopment corporations, and civic organizations to create a robust food network. Year-round farmers markets and market halls, like the acclaimed West Side Market in Cleveland are prime examples of how to support local food. Additionally, ensuring that small farms can advertise their crops on a daily basis can help restaurants and markets gain accessibility to the freshest products and help farmers sell their supplies. For example, online web fronts or mobile applications that help farmers link to the market can be vital to ensuring small farm success.

The Region benefits from having educational and business organizations that support and encourage agriculture, including clubs and organizations for the Region's youth. Each of these organizations helps ensure a workforce for future agricultural enterprises.

The Region's farms offer products that help sustain the Region's health and prosperity. As agriculture education expands, the opportunities for increased productivity and sustainability grow, as well.

According to the 2017 U.S. Department of Agriculture (USDA) Agriculture Census, there are 3,524 farms in the NOACA Region. Detailed in **Figure 16**, the median farm size is 33 acres, with 68 percent of farms having less than 50 acres. The total asset value of farms in the Region, including land and buildings, is \$2.4 billion, with a median value of approximately \$350,000.⁶⁶

Section Sources

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NOACA Region Farm Size

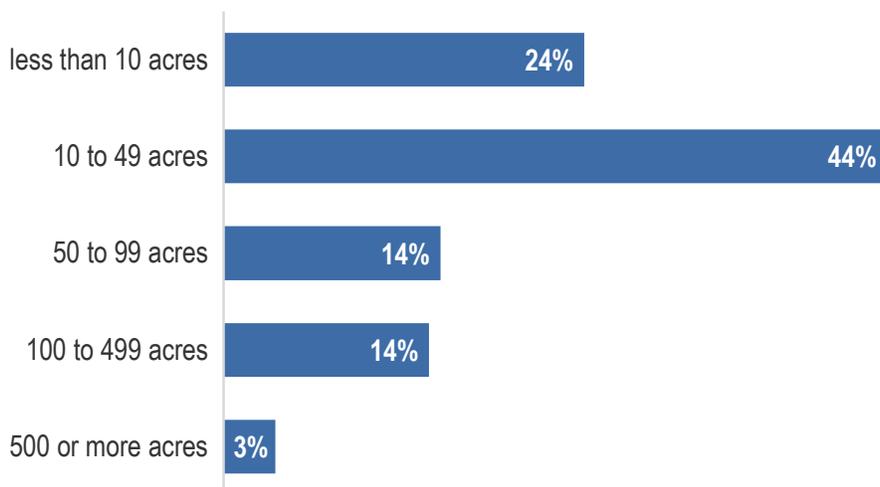


Figure 16.

The size of farms across the Region, 68 percent of which are less than 50 acres.⁶⁷

Source: U.S. Department of Agriculture, 2017 Agriculture Census

Agriculture

Goals: Resilient Communities / Vibrant, Innovative Economy / Positive National Brand

Strategies	Outcomes	Potential Partners
Support and enhance all forms of agriculture in the five Counties of the Region, and the communities that are engaged in it	Continued and enhanced support will add to the regional economy, create more opportunities to export agricultural products, provide locally grown farm products throughout the Region, and shorten food supply chains	Business and Economic Development Agencies; County Farm Bureaus; the Ohio State University (OSU) Agriculture and Natural Resources (ANR) Extension Program; Soil and Water Conservation Districts; County Fair Boards; and related organizations
Support local and regional secondary schools and universities to advance the future of the Region's agriculture	A continuing cadre of educated and trained people in agriculture to enhance the workforce	High Schools; Community Colleges and Universities; Educational Advocacy Organizations; County Farm Bureaus; OSU ANR Extension Programs; 4H; Future Farmers of America; County Fair Boards; and related organizations
Find land and infrastructure opportunities to expand industry across the Region	Land, water supply, wastewater treatment, and good roads serving the Region's agricultural industry	Business and Economic Development Agencies; High Schools; Community Colleges and Universities; Educational Advocacy Organizations; County Farm Bureaus; OSU ANR Extension Programs; 4H; Future Farmers of America; Local Governments; and related organizations
Support non-farm agricultural export businesses, such as nurseries and tree farms	Growth of related businesses, business start-ups, and workforce participation	Business and Economic Development Agencies; High Schools; Community Colleges and Universities; Educational Advocacy Organizations; OSU ANR Extension Programs; 4H; Future Farmers of America; County Farm Bureaus; Local Governments; County Fair Boards; and related organizations
Support the Region's agritourism industry through marketing, wayfinding, and other tools	Expanded sales and business opportunities	Business and Economic Development Agencies; County Farm Bureaus; County Fair Boards



Comprehensive Economic Development Strategy



Cultural Amenities



Cultural amenities are a powerful tool for economic development. Theaters, performing arts centers, and playhouses, for example, contribute to job creation, economic entrepreneurship, and tourism. The Region has and will continue to be a cultural powerhouse. Many of the Region's most significant cultural institutions were established a full century ago. It is not surprising, therefore, that the Region's museums, theaters, and performing arts centers are among the top-ranked in the nation.

According to the 2020 ACS Five Year-Estimates, 2.1 percent of the employed residents (96,175) are employed in the arts, entertainment, and recreation industry, with median earnings of \$20,938. This compares to the median earnings of \$40,118 for the total civilian employed population age 16 and over.⁶⁸

According to the American Planning Association (APA),

[t]he activities of the arts and culture sector and local economic vitality are connected in

many ways. Arts, culture, and creativity can improve a community's competitive edge, create a foundation for defining a sense of place, attract new and visiting populations, integrate the visions of community and business leaders, and contribute to the development of a skilled workforce.⁶⁹

The APA, in their publication, *How the Arts and Culture Sector Catalyzes Economic Vitality*, provides recommendations for tying economic development with arts, culture, and entertainment.

Economic development is enhanced by concentrating creativity through both physical density and human capital. By locating firms, artists, and cultural facilities together, a multiplier effect can result.

The recognition of a community's arts and culture assets (and the marketing of them) is an important element of economic development. Creatively acknowledging and marketing community assets can attract a strong workforce and successful firms, as well as help sustain a positive quality of life.

Arts and cultural activities can draw crowds from within and around the community. Increasing the number of visitors as well as enhancing resident participation helps build economic and social capital.

Planners can make deliberate connections between the arts and culture sector and other sectors, such as tourism and manufacturing, to improve economic outcomes by capitalizing on local assets.⁷⁰

Libraries

The public library system in the Region represents one of the premier public library systems in the nation. Cleveland Public Library is one of the top five library systems in the country, according to the Library Journal's Index of Public Library Service. Based on libraries of similar size, expenditures and star ranking, the Cleveland Public Library recently netted another five-star rating for the eighth year, and topped the competition for public Internet computer use, Wi-Fi sessions, and program attendance.

The Region's landmark main Library remains in downtown Cleveland, and has been joined by 27 neighborhood library branches. Cuyahoga County Public Library operates branches in 28 suburbs. In addition, there are 17 public library branches in Lorain County, six in Lake County, nine in Medina County, and seven in Geauga County.

Theaters

Overall, the Region's theater sector is an important part of the economy. In total, it represented 5,065 jobs, labor income of \$234.8 million, value added of \$377.9 million, output of \$903.2 million, and \$67.9 million in taxes.⁷¹

Creative Industries

The creative industries, including museums and collections; performing arts; visual arts/ photography; film, radio, and television; design and publishing; schools and educational services, are distributed across the Ohio economy. A vibrant

creative economy attracts not only those who work in the creative economy, but an educated, highly-skilled labor pool working in a broad cross-section of industries who want to embrace a creative lifestyle when not on the clock.

The creative industries are much more than a regional amenity; they have become significant economic engines. As technology and outsourcing continues to displace manufacturing workers, the technology, service, and creative sectors have emerged as drivers of regional economies. The educated, highly-skilled workforce propelling these emerging sectors has become an increasingly important factor in regional economic development strategies. Creativity, innovation, and knowledge creation are now central to economic prosperity.

The creative economy generates \$9.1 billion in the Region. It supports 62,499 jobs, and supplies more than \$3.3 billion in wages and proprietor income. Advertising and public relations lead the creative industries. The sector is responsible for \$1.0 billion dollars, and supports 4,716 jobs in the Region.⁷²

Concentrations of arts, cultural, education, and medical institutions often become regional centers for research and innovation. They employ large numbers of people at many levels of education and often serve as regional economic generators – these centers in the Region are no different.

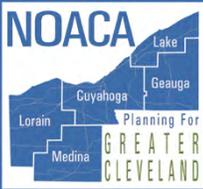
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Cultural Amenities

Goals: Vibrant, Innovative Economy / Premier Partnerships / Growing Intercity Travel and Tourism

Strategies	Outcomes	Potential Partners
Support creative culture relationship with the community and economic development	Regional assets that provide entrepreneurship opportunities, attract & retain talent, and create a sense of place	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Historic Societies; Local Non-Profit Organizations
Support libraries as community and economic focal points	Higher literacy and community anchors	Ohio State Library Board; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Local Library Boards
Support arts facilities and events	Increased attendance at events and visitor business in related industries	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Historic Societies; Local Non-Profit Organizations
Support creative culture facilities development in proximity to other economic development assets, as economic and neighborhood anchors	Increased attendance at events and visitor business in related industries	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Historic Societies; Local Non-Profit Organizations; Local Library Boards
Foster cultural competitions, festivals, trade shows, and events, bringing disparate groups together for participation in the arts	Increase in tourism and tourism dollars	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Historic Societies; County Fair Boards; Local Library Boards
Connect with universities and educational facilities to expand curricula and link students with potential employers and resources for entrepreneurship	Increase in trained workers	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Historic Societies; Local Library Boards
Promote healthy living and active lifestyles by creating walkable environments, multimodal streetscapes, and integrated public and park spaces	Increase in positive social indicators of health	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; City and County Public Works Departments; Ohio Department of Transportation
Create wayfinding opportunities that link amenities across the Region to offer tours, visits, and attendance	Increase in tourism and tourism dollars	Assembly for the Arts; Chambers of Commerce; Philanthropic Organizations; Economic Development Organizations; Local Non-Profit Organizations; County Fair Boards



Comprehensive Economic Development Strategy



Education

The Region has significant assets in education, and organizations are working to align education with developing industry needs and opportunities.

Higher-education degree-granting institutions award thousands of degrees annually in the NOACA Region, including:

- Cleveland State University
Approximately 4,300 degrees
- Case Western Reserve University
Approximately 3,800 degrees
- Baldwin Wallace University
Approximately 1,200 degrees
- John Carroll University
Approximately 1,000 degrees
- Oberlin College
Approximately 900 degrees
- Ursuline College
Approximately 400 degrees⁷³

Additional four-year degree assets include Lake Erie College, Cleveland Institute of Art, Cleveland Institute of Music, and Notre Dame College.

Among the larger community colleges are:

- Cuyahoga Community College District
Approximately 4,300 degrees
- Lorain County Community College
Approximately 2,300 degrees
- Lakeland Community College
Approximately 1,300 degrees⁷⁴

Concerning secondary education, a mid-decade analysis for the Northeast Ohio Sustainable Communities Consortium concluded that the larger 12-County Region had secondary school graduation rates that were higher than the national average. However, higher education rates in the adult population were lower than national average, and central cities literacy and numeracy were very low. While immediate workforce issues were considered high priority, it was also recommended that education systems producing the next generation of workers needed attention.⁷⁵

The Region's population of 18 and under is approximately half a million people. This very large asset is continuously moving upward into the potential workforce. Young people are being offered more help in education, with both national and regional attention.⁷⁶

As an example of specific help, The Cleveland Foundation assisted the creation of the Higher Education Compact, a group of over 70 organizations focused on getting Cleveland Municipal School District (CMSD) students to and through college, and reporting on progress through an annual dashboard. The Foundation has also helped support the *Cleveland Plan*, which negotiated approaches, such as more accountability and responsibility for schools performance to grow new schools and address failing schools; more focus on workforce readiness; talent recruitment; and technology resources. A student workforce advancement group program was formed to help with career exploration and job placement for high school seniors.⁷⁷

National assistance was also engaged with the "Say Yes Cleveland" program as an integrated service, family support, tutoring, and scholarships approach to help guide students through their education. The 2021 annual report shows progress in a number of areas including a tripling of enrollments in high-performing schools. The CSMD shows a graduation rate that now ranks among the fastest growing in the State, having increased nearly 28 points from a 52.2 percent graduation rate in 2011 to 80.1 percent in 2020. The results in this example suggest that concerted and sustained action on a plan can yield results.⁷⁸

A private sector-driven program that connects important dots by assisting with internships throughout the NOACA Region is MAGNET, the Manufacturing Advocacy and Growth Network. This program, working with manufacturing partners, sector partnerships, high schools, and community colleges, focuses on getting students into paid internships in advanced manufacturing jobs important to the regional economy.⁷⁹

In addition to being important pathways for residents of the Region, colleges and their academic connections to healthcare facilities can be important drivers of economic development, providing thousands of jobs directly for the Region. These jobs and individuals conduct important research and development to, and for, industries in the Region. They can serve as economic anchors and centers of innovation that sustain the Region and contribute to national economic competitiveness, as well as a regional success.

An example of an important partnership developed recently is that of IBM® and The Cleveland Clinic on a ten-year partnership for advanced artificial intelligence (AI) and quantum computing research on pathogens. A nationally important research function is thus connected to one of the most important hospitals in the world, located within the NOACA Region, that has strong academic programs in healthcare.⁸⁰

These programs and others that help create pathways to success for the hundreds of thousands of young people already in the Region can help sustain a skilled workforce for the coming decades. In rebuilding communities, especially important are electricians, plumbers, bricklayers, machinists, carpenters, roofers, equipment operators, and related construction trades. Skills needed for building new and existing communities are taught in local high school and vocational schools and trade schools. Communication among employers and schools about specific skills in demand, internships, and curriculums offered will continue to be important going forward.

Further opportunity exists for more improvements in education and better connections to opportunities emerging in the economy with concerted strategic planning and partnerships. As noted in the *Current Regional Conditions* section, data from the Ohio Department of Education show substantial improvement in four-year high school graduation rates in recent years, see **Figure 8**

for more details. The highest percentage gain was in Cuyahoga County. At the regional level, graduation rates moved from 88.6 percent to 91.4 percent. Also noted in that same section, recent comparative data on educational attainment from the ACS show the Region matching the national average on percent of people with a Masters degree or higher.⁸¹ See **Figure 7** for more details.

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Baldwin Wallace University by Erik Drost

Education

Goals: Vibrant, Innovative Economy / Premier Partnerships

Strategies	Outcomes	Potential Partners
Support continued education partnerships with industry sectors	Education and skills better aligned with the needs of industry sectors	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations; Workforce Development Organizations
Support innovation and technology adoption in schools	Students graduate ready to participate in advanced training/ employment that uses advanced technology	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations
Connect students with career opportunities early in their schools	Students better prepared for career opportunities and the requirements of career paths	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations; Workforce Development Organizations
Support economic anchor institutions in education	Higher proportion of students graduating with skills needed by economic anchor employers	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations
Leverage anchor institutions, community-based organizations, and businesses to create alternative classrooms/learning spaces, such as factory, office, farm, civic centers, County extension offices, after school, summer camps, and 4H settings, so that all students have experiential learning opportunities	Additional places throughout the Region that students can learn needed skills Higher graduation rates throughout the Region	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations
Support a review of funding formulas for districts across the Region	Equitable funding solutions benefiting all students throughout the Region	Foundations; Education Leadership; Chambers of Commerce; County/ City Economic Development Organizations; State Delegation



Comprehensive Economic Development Strategy



Equity

Equity, defined as “freedom from bias or favoritism,”⁸² is rarely a standalone issue. Rather, there are critical intersections between equity, business investment, and entrepreneurship; minority homeownership; housing; workforce; education; and poverty, among others.

The Region has a relatively high poverty rate at its core, with other areas throughout that saw economic disruption from a decline in manufacturing and the steel industries. The Region’s core is home to higher proportions of Black residents. **Figure 17** details poverty rates for residents across the Region.

Black Populations

While it is clear that the Region must be welcoming and equitable to all residents regardless of race, gender, age, or sexual orientation, the biggest gap in equity lies with the Black families and residents. **Figure 18** details where the population lives below the Federal Poverty Level; **Figure 19** shows residents living in Census tracts that are minorities.

Black children in Cleveland are more likely than white children to live in poverty, be exposed to lead, and live in unsafe neighborhoods. They are less likely than white children to be enrolled in gifted and talented programs.

While the racial gap in high school graduation rates in Cleveland has shrunk, disparities still exist when it comes to educational outcomes. White Clevelanders are much more likely to have any college education than Black Clevelanders, and they are more than twice as likely to have a bachelor’s degree or higher. Higher educational attainment generally leads to greater employment opportunities, although research shows that Black workers often make less than white workers regardless of education level.

In Cleveland’s residentially segregated neighborhoods, health outcomes vary widely, often along racial lines. Residents who live

in highly segregated, Black neighborhoods are more likely to have asthma, high blood pressure, diabetes, and a number of other chronic health conditions.⁸³

The Region is trying to overcome this long history of racial inequality. In housing, banking, and educational attainment Black communities fare worse than white ones. According to the Brookings Institution paper on *Homeownership, Racial Segregation, and Policy Solutions to Racial Wealth Equity*, in comparison to other major urban areas:

Proportionally, the largest Black populations are located in Cleveland, Atlanta, Baltimore, and Detroit. With the exception of Cleveland, in which 48.8 percent of residents are Black, these cities are more than 50 percent Black.

Black residents are extremely segregated from the rest of the population in four cities, with dissimilarity indices above 0.6: Detroit, Baltimore, Cleveland, and Atlanta.

There are five cities with gaps in Black and white homeownership that range from 15 - 20 percent: Denver, Los Angeles, Baltimore, Oakland, and Cleveland.

In Cleveland, homes in Black-minority neighborhoods were valued at median prices almost twice as high as homes in Black-majority neighborhoods, with a gap in median home value of \$38,297.

Detroit and Cleveland have the lowest levels of Black educational attainment out of all studied cities (21 and 20 percent, respectively). Both cities are also in the bottom half of educational attainment across all racial groups. As mentioned, inequitable access to financial resources continues to exacerbate underinvestment in factors like education, which also contribute to the lack of ability to obtain wealth. Given that these cities have a majority-minority population, it is no surprise that systemic barriers to wealth creation in the form of both financial and educational resources continue to manifest across the country in twenty-first-century America.⁸⁴

Hispanic Populations

Addressing the needs of a growing Hispanic population will be key to the economic improvement. According to Richey Piiparinen of CSU (September, 2021)

...from 1980 to 2020 the Region's Hispanic and Latino population grew from about 39,000 to 133,900, or about 243 [percent]. In Cuyahoga County, the totals increased from about 24,000 to 83,300—a gain of 247 [percent].

While the rest of the Region's population growth has been flat or declining – the growth of the Hispanic population has been phenomenal. One example of community support is found in Lake County. In Painesville, a two million dollar community center has been established with a mix of funding in 2022. The HOLA Community Center provides services to the growing Hispanic community including job training and access to a variety of services. The Center houses a commercial kitchen to be used by Hispanic start-up businesses in a cooperative arrangement with Kent State University.⁸⁵

Asian Populations

The Region's Asian community comprises 2.3 percent of the population that is growing, according to the 2020 ACS 5-year Estimates. (Asian individuals are non-Hispanic persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.)⁸⁶

Housing

Housing disparity is visible in all the Region's Counties. **Figure 20** details residents that own their homes. Access to affordable and quality housing outside the core of Cleveland can and has hampered economic development – see the *Housing* section which addresses these issues.



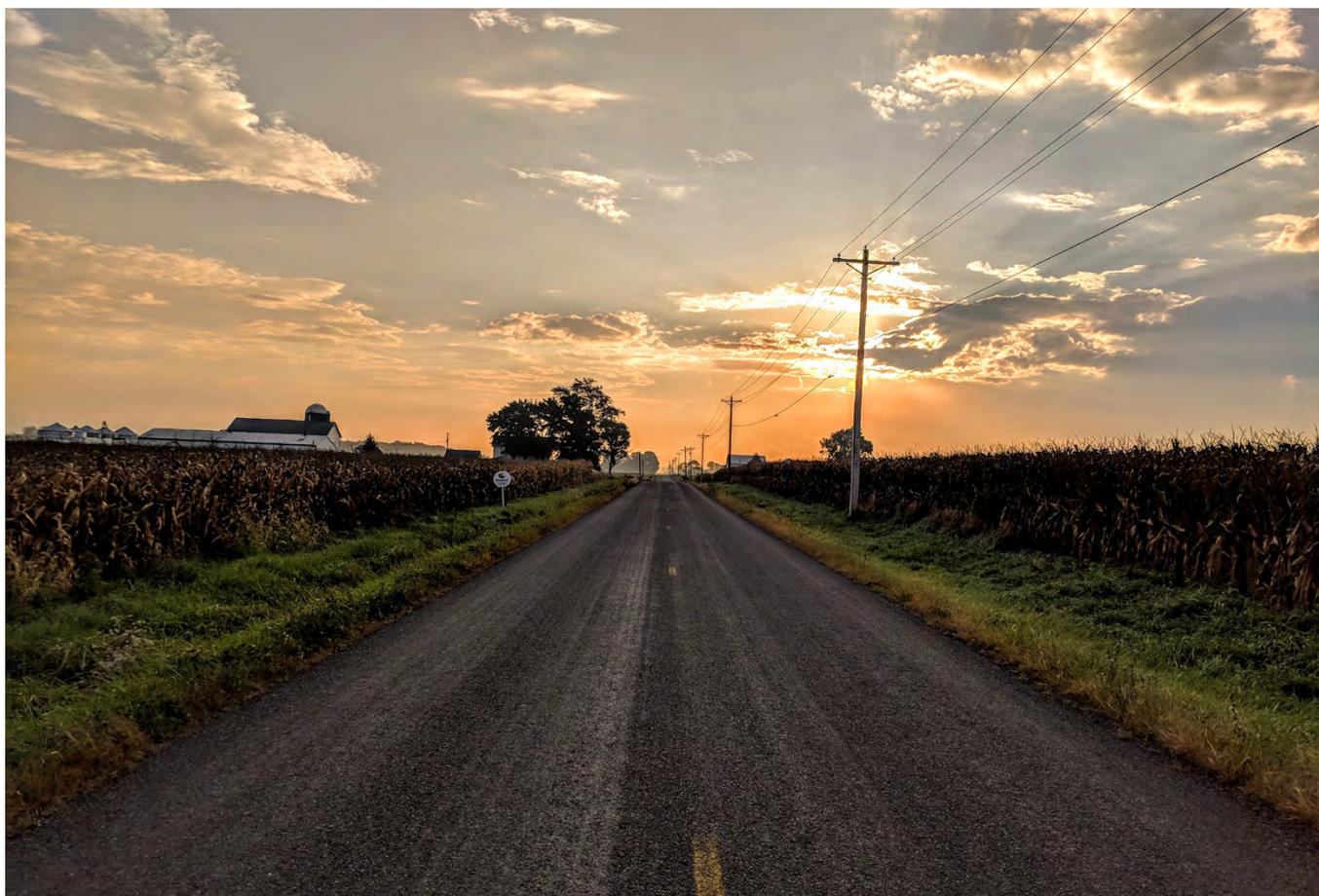
Access

Access to food and markets is a determining factor of the health of communities. The opportunity to create markets and grocery stores provides for economic opportunity, and jobs for small and mid-sized businesses especially in disadvantaged communities. For example, according to the Cuyahoga County Board of Health, as many as half of city residents live in a food desert, defined as an area that's more than a half mile from a grocery store. Public and private investment in local markets can provide access to quality foods and opportunities for new start-ups and employment.⁸⁷ Typically these areas are where low-income individuals live and have inadequate access to transportation.⁸⁸

Rural Communities

Lastly, rural communities and smaller towns need to be part of the Region's resurgence. The farmers and small manufacturers throughout the Region and small businesses require an equitable distribution of infrastructure funding; access to capital and small business lending; mentoring; and all the amenities that promote strong and thriving economies.

The Region must ensure that entrepreneurship and economic opportunity are equally spread throughout the Region – to distressed urban communities and rural areas alike. The downside of entrepreneurial investment is that it can widen equality gaps – by focusing on people and businesses that already have a system of support and access. Therefore, small business lending programs and mentoring, community outreach, and investments need to be tailored and guided to all communities, including those which are distressed and disadvantaged.



Spencer by Igor Oliyarnik

Opportunity Zones

One vehicle to induce more investment into business opportunities in low income communities is the Opportunity Zone program. As described by U.S. EDA, Opportunity Zones are designated low-income census tracts where tax incentives are available to groups or individuals who invest in an Opportunity Fund (i.e., an investment vehicle for injecting money directly in an Opportunity Zone) and hold their capital gains in Opportunity Zone-related assets or property. This Federal initiative is intended to bring new private investment directly to communities that need it, in addition to government and philanthropic programs.⁸⁹

There are now numerous designated Opportunity Zones in the NOACA Region; **Figure 21** details these Opportunity Zones. There is at least one in each County. They are listed with their locations mapped by Census tract, and applicable funds available to investors in the Opportunity Zone Database.⁹⁰

The Region's Counties and local governments help provide capital to local businesses through their economic development agency lending programs and partnership with local lenders. Recent expansions in money available to sustain businesses during the pandemic have created more awareness of the need to support small businesses in particularly vulnerable areas in each County. Updates of plans include a stronger focus on making capital available to minority businesses and communities that have been historically underserved. Each County has economic development initiatives that can help small businesses and underserved populations.

One example is Cuyahoga County's *Five Year Economic Development Plan* specifically includes support for small business with new funding focusing on minority and women-owned businesses; working capital loans to minority-owned businesses; and, working to negotiate affirmative minority hiring and subcontracting efforts in its direct development lending

programs. Additionally, the *Cuyahoga Plan* focuses on job hubs with access for residents of distressed communities as preferred locations for new businesses. The *Plan* further focuses on establishing Equity Zones in communities where historic racial discrimination ("redlining") still causes lasting negative economic impacts, and directing a "surge" of public sector resources to support economic opportunities for residents and businesses in these Equity Zones.⁹¹

Support for programs continues to be needed to specifically address small business capital in low-income, minority communities, and to focus public and private resources in a coordinated manner to recover and grow equitably. Work has been underway and continues, through a combination of public and private initiatives, and with partners, such as The Cleveland Innovation Project, The Cleveland Foundation, Fund for Our Economic Future, GCP, JumpStart, Team NEO, and others.

Teaming of philanthropic, public, and private resources is also being applied in education to boost Science, Technology, Engineering, and Math (STEM) talent through concerted communication about industry needs and education. Efforts are underway to boost broadband to all residents in the home for education, work, and living. Partners are teaming up to enhance the Region's innovation zones, particularly in the Health-Tech and Opportunity Corridors.

The path forward will be very productive if all of the NOACA Region's residents are treated equitably and are contributing their talents with help from teams who have the capacity to make it happen. It will be important for the Region to focus more on increasing the access to capital, loans, technical assistance, etc. for minority communities. Acknowledging a declining population; increasing access to capital and support for their businesses; and sustaining success will go much further than the short stop-gap business formation assistance that has traditionally been offered.⁹²

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Poverty Rates in the NOACA Region

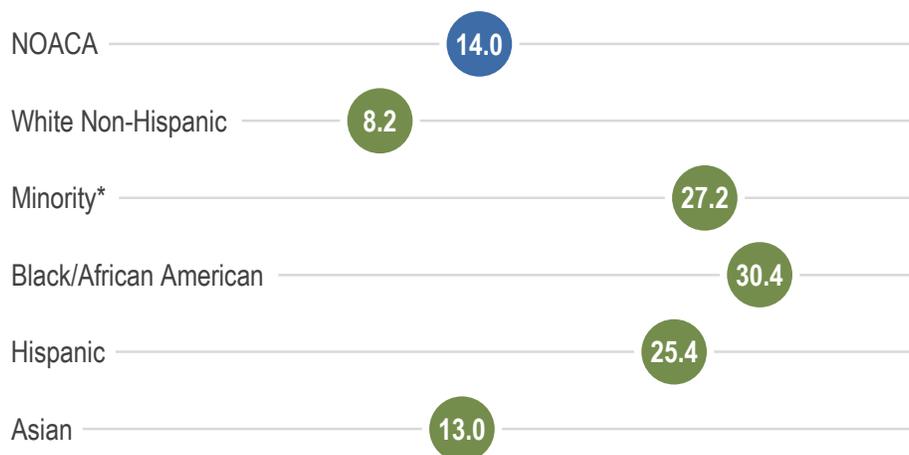


Figure 17.

Non-Hispanic, White regional residents have the lowest poverty rates across the Region.⁹³ Notes: Minority is any person identifying as a race other than non-Hispanic White. Black/African American is a U.S. Census designation as per the U.S. Census Bureau. Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates.

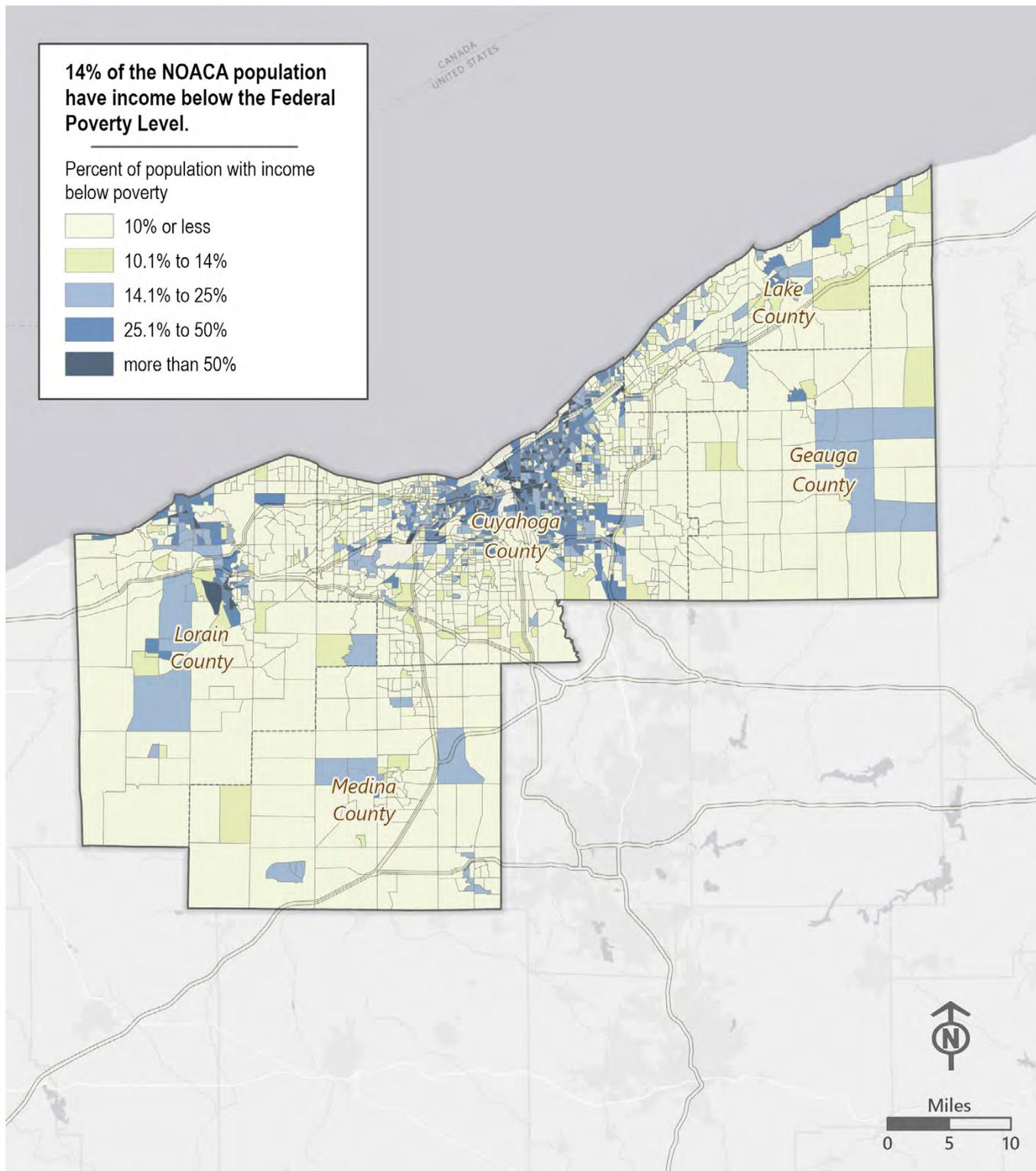


Figure 18.

Map of the Region, indicating the percent of the population with income below the Federal Poverty Level. The areas that have higher concentrations of poverty across the Region are those in the larger urban areas.⁹⁴

Sources: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates, Esri, HERE, Garmin, USGS, EPA, NPS

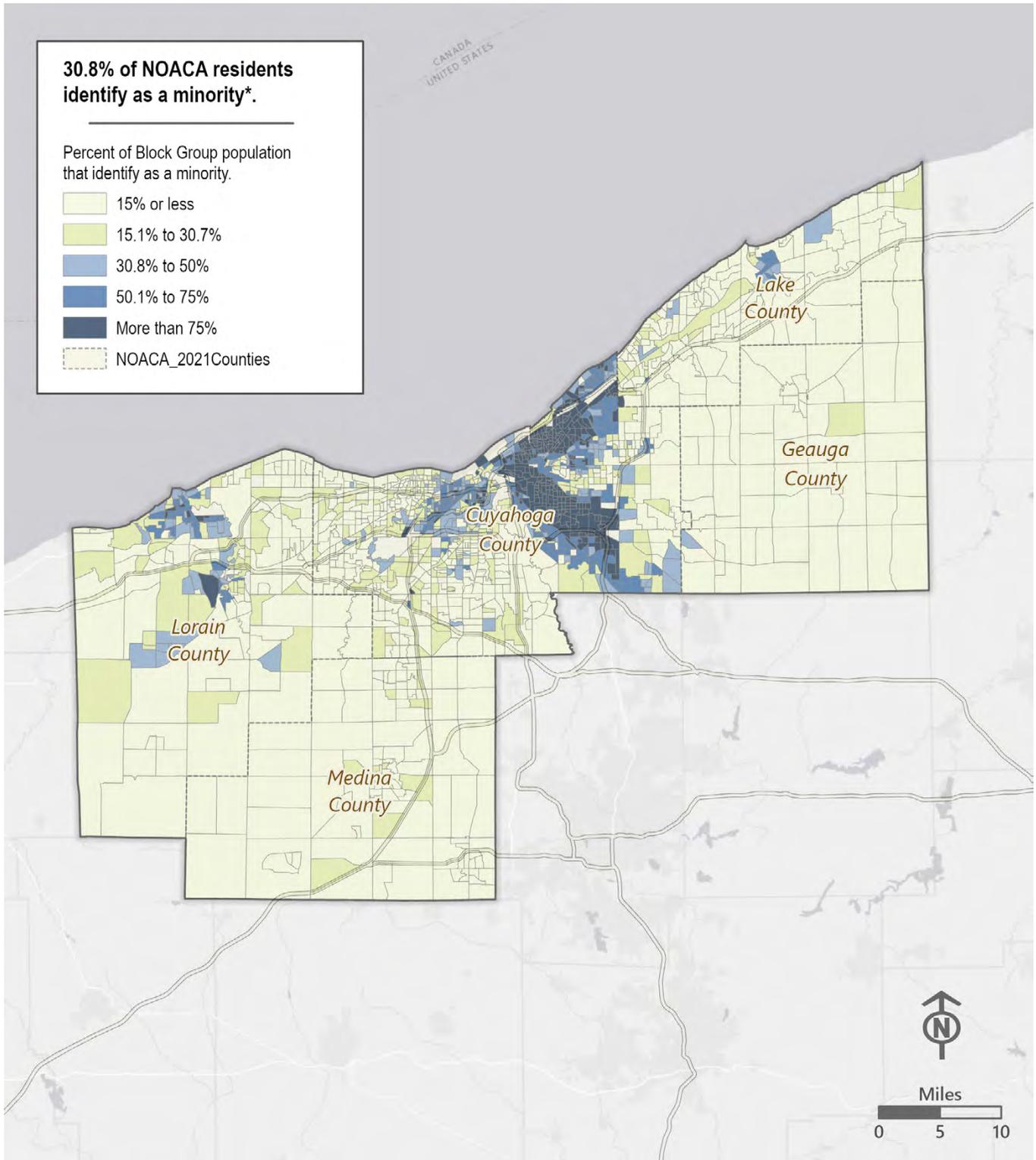


Figure 19.

Map of the Region detailing residents in Census tract block groups that identify as a minority.⁹⁵ Minority is defined as anyone who identifies as a race or ethnicity other than non-Hispanic White.

Sources: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates, Esri, HERE, Garmin, USGS, EPA, NPS

Homeowners Across the NOACA Region

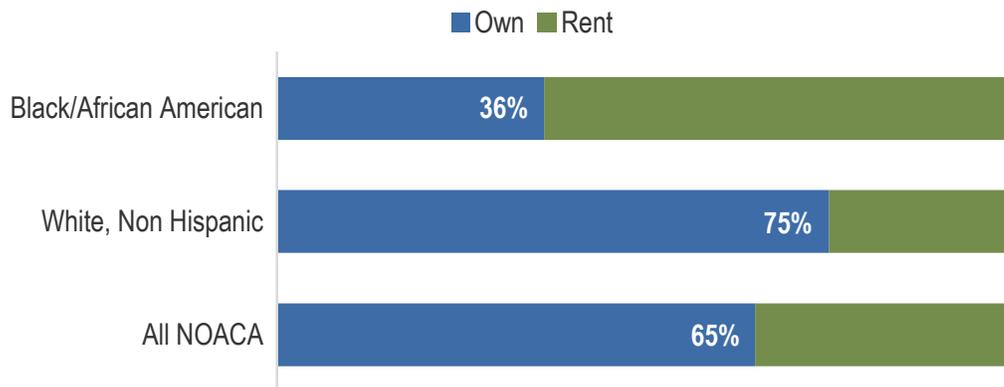


Figure 20.

Residents across the Region who own their homes. Only 36 percent of Black householders own their homes compared to their White, Non-Hispanic counterparts.⁹⁶ Note: Black/African American is a U.S. Census designation as per the U.S. Census Bureau.

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Opportunity Zones

County	Number of Opportunity Zones	Population of Opportunity Zones	Total County Population	Percent of Total County Population
Cuyahoga	64 (48 within Cleveland)	140,000	1,200,000	11%
Lorain	4	15,000	64,000	24%
Lake	2	7,300	230,000	3%
Medina	2	7,600	180,000	4%
Geauga	1	2,300	94,000	2%

Figure 21.

Overview of Opportunity Zones in the Region.

Source: State of Ohio⁹⁷

Equity

Goals: Resilient Communities with Equitable Investment and Affordable Housing

Strategies	Outcomes	Potential Partners
Support small-dollar mortgage loan programs	Increase minority homeownership	Community Banks and Lending Institutions; Counties
Support, create, and expand educational and workforce pipelines	Increase opportunities for job training and employment	Workforce Agencies; Community Colleges and Universities; High Schools; Workforce Connect Sector Partnerships; Counties
Fund and expand more neighborhood community service programs	Increase health indicators and other community statistics positively	Social Service Agencies; Community Development Corporations; Counties
Support the creation of new food markets and shopping in disadvantaged or dislocated communities	Increase access to quality food, increase positive social determinants of health, provide new jobs, provide new businesses, create linkages between local farms and markets	Local Governments; Philanthropic Organizations; Neighborhood Development Corporations; Counties; Local Economic Development Organizations; Community Development Financial Institution (CDFI)
Target small business lending and mentoring	Increase the number of minority and rural businesses	Loan Programs; Small Business Development Centers (SBDCs); Counties; other Lending Agencies
Promote investment in designated Opportunity Zones in each County through Opportunity Funds	Increase the number of minority and rural businesses	Opportunity Funds; Counties; Loan Programs; SBDCs; other Lending Agencies
Increase outreach to minority contractors for government contracting opportunities	Increase the number of minority and rural businesses	Opportunity Funds; Counties; Loan Programs; SBDCs; other Lending Agencies
Support cultural centers across the Region	Increased acclimation and support for emerging populations	Neighborhood Development Corporations; Counties; Local Governments; Philanthropic Institutions



Comprehensive Economic Development Strategy



Healthcare



Healthcare provides one of the most crucial elements of the NOACA Region’s quality of life. Health and well-being provide the foundation for all human activity. For purposes of this *CEDS*, healthcare’s role is one of the key drivers of the Region’s economy at many levels. Healthcare offers jobs ranging from entry-level to the most sophisticated and highly trained medical practitioners, researchers, and entrepreneurs. It supports ancillary jobs in retail, construction, transportation, logistics, and manufacturing, offering jobs in the private sector, the nonprofit sector, and the government. Its influence is significant throughout the Region’s five Counties and beyond. Healthcare is the Region’s largest employer.⁹⁸

Its locational decisions influence the network of commerce, housing, transportation, and other land uses, offering services to the entire spectrum of society ranging from the poor and homeless to the wealthiest individuals. The Region’s healthcare industry is dominated by

three systems: The Cleveland Clinic, University Hospitals, and MetroHealth. In addition, Case Western Reserve University and Cleveland Clinic have renowned medical schools. Virtually all the other colleges and universities in the Region offer programs in such healthcare fields as nursing; physical and occupational therapy; social work; nursing assistants; and other important components of the healthcare system. Many medical practitioners practice privately without hospital affiliation. Additionally Summa Health, based in Akron, serves Medina County.⁹⁹

The healthcare system is supported by transportation, insurance, food, environmental protection, janitorial, and other services. All of these elements help make healthcare one of the primary drivers of the regional economy. The importance of healthcare to the economy is well-documented in the general and business media, and is supported by the Region’s philanthropic community.

The Cleveland Clinic alone is the largest employer in the Region. As reported by Silverlode Consultants on behalf of The Cleveland Clinic, the system in 2019 provided the NOACA Region with an economic output of \$20.19 billion. This included 124,037 jobs, supporting 80,827 households. The Cleveland Clinic's annual payroll was \$8.4 billion, resulting in \$7.33 billion of household spending. That same year, The Cleveland Clinic provided \$1.17 billion in tax revenue to State and local governments. Additionally, the system sparked \$281.7 million in visitor spending and resulted in \$887.2 million in the purchase of goods and services. This economic power was spread throughout the Region, as its facilities are located in every one of the five Counties represented by NOACA and this *CEDS*.¹⁰⁰

Silverlode Consulting completed a similar study for the University Hospitals of Cleveland (UH). Although UH is not as large as The Cleveland Clinic, UH offers comparable numbers. In 2019, the total UH economic impact represents \$10.2 billion. It was responsible for 66,687 direct and

indirect jobs, with a payroll of \$4.4 billion. UH accounted for \$3 billion in household spending, generating \$370.4 million in tax revenue for State and local governments. Its expenditure on goods and services amounted to \$664.1 million.¹⁰¹

In addition to The Cleveland Clinic and UH, MetroHealth and other medical and social service networks make healthcare a major driver of the Region's economy. In 2017, Cleveland State University's (CSU) College of Urban Affairs did a study on the economic impact of the MetroHealth system on Cleveland and Cuyahoga County. Although the data is older than The Cleveland Clinic and UH studies and the geographic reach is limited to Cleveland and Cuyahoga County, the study shows the economic impact into the hundreds of millions of dollars and the number of jobs going into the thousands. The *CEDS* recognizes the importance of healthcare and developed strategies to support this vital element of the Region's economy.

While the impact of healthcare is vital to the Region's economy, the overall health and well-being of the Region's population cannot be ignored. The healthcare system needs to collaborate to improve infant mortality, lead paint abatement, drug overdoses, mental health, and other health issues. A healthy Region will produce untold economic benefits.¹⁰²

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Elyria Medical Center courtesy of University Hospitals



Healthcare

Goals: Vibrant, Innovative Economy / Premier Partnerships

Strategies	Outcomes	Potential Partners
Link the healthcare industry to workforce development to promote better access to care	Increased positive outcomes in the social determinants of health and increased labor participation	Hospital Systems; Healthcare Universities and Colleges; Foundations; Public Health Agencies; Advocates; Local Governments
Use available mentors and talent in business to support entrepreneurial enterprises	Increased innovation in healthcare devices and equipment, patents, start-ups	Universities; Business Support Groups, such as GCP, and others; Foundations; Banks
To support the healthcare activity in the Region, training of healthcare professionals at all levels will be a primary focus of high schools, community colleges, vocational schools, colleges, and universities throughout the Region	A well-trained and available cadre of people ready to support the healthcare industry	Colleges and Universities; Public and Private School Districts; Private Schools; Foundations; Business Organizations
Support this important industry so it will continue to provide world-class healthcare to the Region's population at all levels, as well as visitors from elsewhere	Improved healthcare for the Region's population, with special emphasis on underserved populations who have not fully enjoyed the benefits of the Region's healthcare system	Hospital Systems; Healthcare Universities and Colleges; Business Support Groups, such as the GCP and others; Foundations; Public Health Agencies; Advocates; Local Governments; Banks



Comprehensive Economic Development Strategy



Housing

Nationally, housing markets have become more expensive in general, before and during the COVID-19 period, with some markets reporting sharp increases in prices. Areas of the country that have been building more housing stock to accommodate a rapidly increasing population would be expected to have a higher proportion of newer market-rate housing related to population pressure. The NOACA Region housing stock is relatively older than housing in fast-growing metropolitan areas.

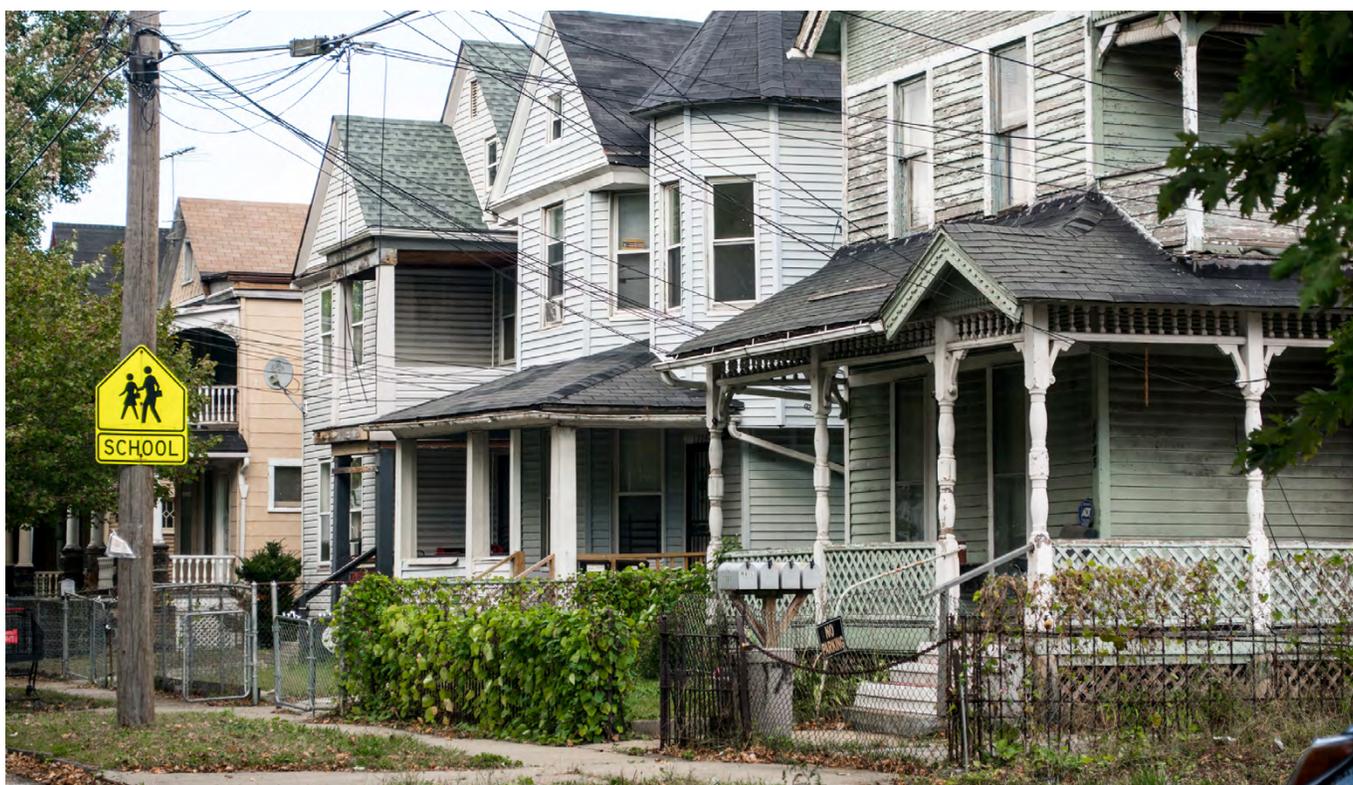
The U.S. HUD Office of Policy Development and Research 2020 Summary of the five-County Market Area notes, “the population of the Region’s Housing Market Area as of July 1, 2020, was estimated at 2.04 million, indicating an average decrease of 3,350—or 0.2 percent—annually since 2010.”¹⁰³ Thus, there was comparatively little population pressure as a component of the cost of housing in the MSA. Reflecting less population pressure and proportionately less new housing construction than faster growth areas, the Region is generally more affordable than average.

Within the Region, approximately 60 percent of the population resides in Cuyahoga County, which has an estimated population of 1.23 million. According to U.S. HUD, “net out-migration from the County has been responsible for all the population decline in the Housing Market Area since 2010, mostly due to people leaving to seek better job opportunities elsewhere.”¹⁰⁴

Approximately 75 percent of new home construction in the Region, since 2010, has occurred in the suburban Counties where developable land is more readily available. For example, of the new homes for sale, 31 percent were built in Lorain County.

Contrasting regional population decline, the current number of households in the Region has been increasing by approximately 2,000 per year in the last decade. While rapid population growth can increase demand for apartments, an increase in demand for apartments also can accompany population decline, reflecting the aging of families and demand for more rental property, as older parents remain in their houses

Cleveland Neighborhood by Tim Evanson



and younger family members move out and form their own households. Older neighborhoods that were mostly built at the same time as part of a wave of construction, such as in the 1950s and 1960s, can find a large percentage of their population living in older houses or apartments with smaller households.

The U.S. HUD also reports that over 80 percent of apartments that have been constructed in the Region since 2015 were built in Cuyahoga County, mostly in the Central Cleveland submarket. Housing numbers alone are not independent of the communities in which they exist. A challenge for communities is to maintain, or create, a mix of housing stock that contains opportunities for households of varying sizes and types from single-family houses to apartments that will help sustain the population and market demand.

An equitable mix of affordable homes can help sustain a community over time, if accompanied by productive land uses that create job opportunities, continuous housing renovation, well-planned public improvements, streets, transit (and other connections), parks, schools, communications, removal of nuisances, and expedited remediation of hazards, such as brownfields. These brownfield sites can be reclaimed and returned to positive uses with assistance in remediation and concerted reuse planning. New uses can be complementary to existing uses in the neighborhood and help revitalize the adjacent property.

While the Region, as a whole, is comparatively more affordable than many other places around the country, all Counties within the Region have areas needing assistance. Notably, designated Opportunity Zones exist in each of the Region's Counties.

Each County has a need for more affordable housing. In areas of recent growth, newer subdivisions and higher-cost housing make it challenging to provide affordable housing for the workforce because the average cost of

housing is higher. For those at the lowest end of the income scale, each County has created a housing authority which handles the range of assistance available to low income families. These authorities are also by definition an indicator of need as well as a vehicle established to provide assistance. **Figure 22** details the Region's building permits by type, showing the type of growth across the Region, and **Figure 23** shows those building permits by County.

All housing and all neighborhoods need maintenance and renovation over time, and many of the businesses supporting housing maintenance and renovation are small businesses that can use a local talent pool in the trades.

Figure 24 shows the median home costs as distributed by Counties; and **Figure 25** details the number of homes built in each County. These figures give an idea of what affordable well-maintained neighborhoods and a mix of housing types are available to the workers in each County. This affordable housing market is critical leverage for the Region's economic development, as well as an element of an ecosystem helpful to small business development and employment.

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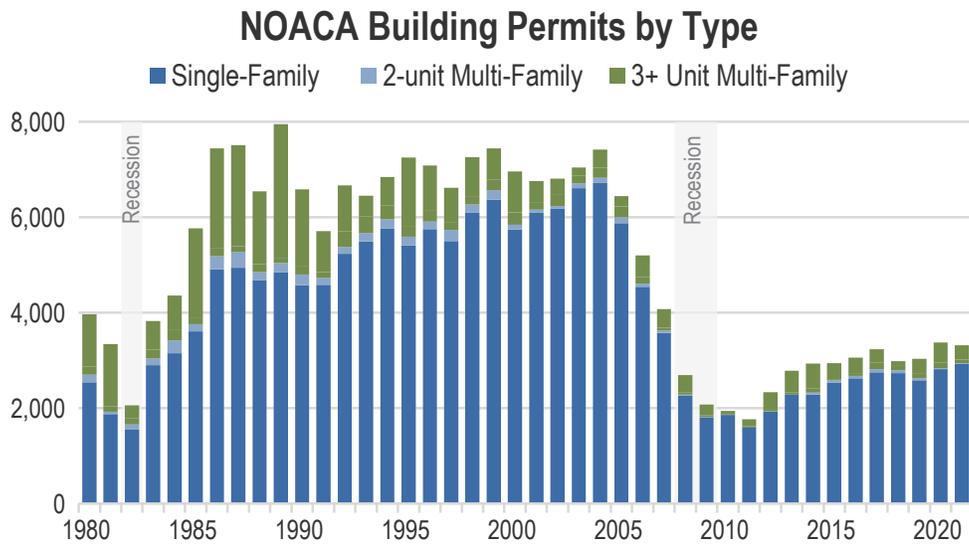


Figure 22.

Region's building permits by type – single family; two-unit multi-family; three- and four-unit multi-family; and more than five multi-family permits.¹⁰⁵ Source: U.S. Census Bureau, Building Permits Survey as collected in the State of the Cities Data Systems HUD User Database.

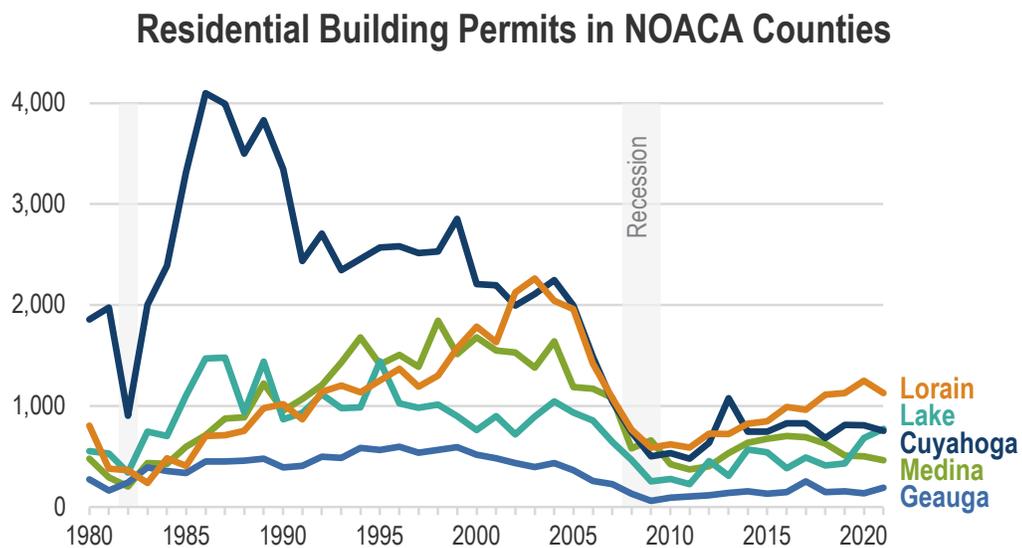


Figure 23.

Region's building permits distributed by Counties from 1980 through 2020.¹⁰⁶ Source: U.S. Census Bureau, Building Permits Survey as collected in the State of the Cities Data Systems HUD User Database. Note: 2021 data are preliminary.

Median Residential Home Listing Price

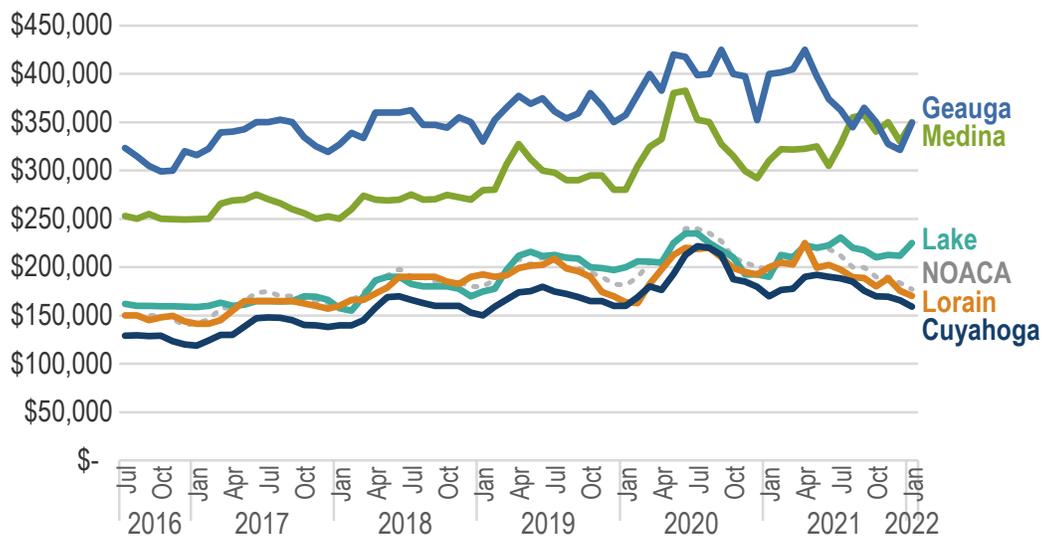


Figure 24.

Region's median residential home listing prices from 2016 through 2022, as distributed by the Counties. The clear distinction is the housing prices in Medina and Geauga Counties have higher housing prices than the other three Counties in the Region.¹⁰⁷ Source: Realtor.com

Year Home Built

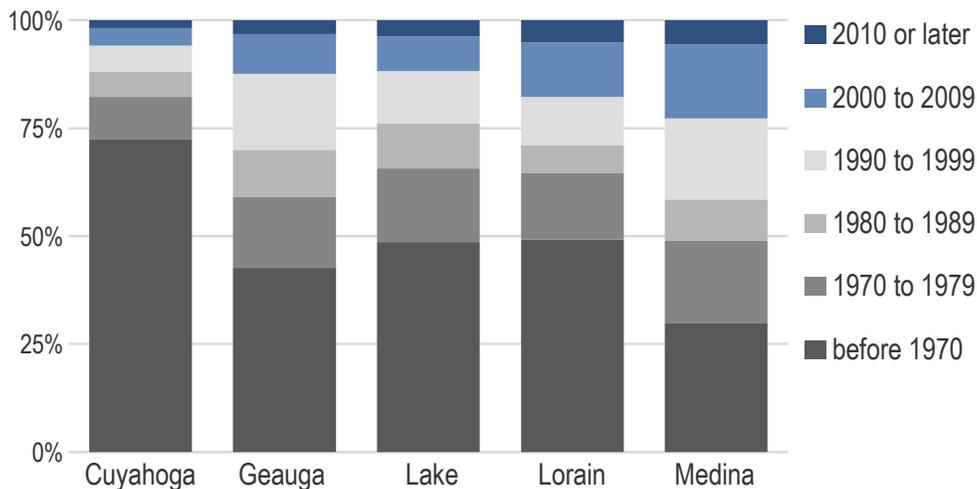


Figure 25.

Region's age of homes built as distributed across the Counties. Cuyahoga County homes were largely built before 1970, making their land and affordable housing challenges different than the other four Counties in the Region.¹⁰⁸ Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Housing

Goals: Resilient Communities / Equitable Investment and Affordable Housing / Reclaimed Brownfields Contributing to Their Settings

Strategies	Outcomes	Potential Partners
Support neighborhood revitalization, maintenance, rehabilitation incentives, and a diversity of housing	Increased availability of marketable housing	Community Development Corporations; Lending Institutions; Cleveland Neighborhood Progress; Ministerial Organizations; Counties; Housing Authorities
Market the Region's housing affordability	Increased immigration of residents	Chambers of Commerce; Global Cleveland
Connect young people with training in the trades needed in neighborhood maintenance	Increased number of people employed in housing construction trades	Secondary, Trade, and Community Colleges; Labor Unions; Cleveland Neighborhood Progress; Ministerial Organizations; Counties; Housing Authorities
Support small businesses in rehab construction	Increased rehab activity by small businesses	Lending Institutions; Economic Development Organizations; Small Business Lenders; Counties; County Housing Authorities
Support professional and environmentally friendly deconstruction	Increased rehab activity by small businesses	Local Governments; Housing Authorities; Cleveland Neighborhood Progress; Ministerial Organizations



Comprehensive Economic Development Strategy



Immigration

Cleveland Asian Festival by Erik Drost



As a community of immigrants, the Region grew into a powerful industrial, cultural, educational, and agricultural area through the efforts of people from other continents, as well as from other parts of the U.S. Immigration has brought a heritage that is celebrated throughout the Region through businesses, neighborhoods, religious institutions, social services, culture, music, art, restaurants, and virtually every other means of expression. Immigrants have provided labor, entrepreneurial spirit, service, and wealth for the Region's economic vitality. In short, much of what the Region has become is in part due to the influence of the immigrants to the area.¹⁰⁹

In 2020, the ACS showed that of the Region's nearly 2,056,900 population, about 123,400, or just under 6 percent, were born outside the U.S. Almost 46,000 people were born in Europe and a similar number were born in Asia. Nearly 93,000 entered the U.S. prior to 2010. In previous generations, the percentage was considerably higher.

With the world in turmoil from war, climate change, and political unrest, it can be expected that the Region, like regions across the country, will see new immigrants arriving. The Region's leaders can provide services to welcome them, and build the Region's economy. Organizations such as Global Cleveland actively work to provide such services. El Centro has been offering bilingual education, tutoring, and free training programs in Lorain County.¹¹⁰ HOLA Ohio offers similar services through its Hispanic Community Center and Commercial Kitchen Incubator in Painesville, Lake County, a \$2 million project.¹¹¹

In addition, the religious community and public agencies help with resettlement and social services. Further, the local educational system and public libraries offer training and education to help the newcomers acclimate.

While immigration helps add to the economy, migration out of the Region detracts. A review of

U.S. Census data, documents, and interviews show that economic opportunities do not exist for all and many people leave the Region to pursue other avenues. Of course, individuals leave for a myriad of reasons, such as health and family considerations, but others leave because they can not find suitable employment. Manufacturing and healthcare, in particular, offer economic opportunities for people, especially young residents to stay in the Region after they graduate. The U.S. Census data showed the Region saw about 67,500 people depart for other parts of the State, the country, and Puerto Rico.¹¹²

A recent development which holds promise is the creation of a new initiative called the Cleveland Talent Alliance. It is the formation of Destination Cleveland and ten other organizations (including the GCP, Team NEO, Cleveland Leadership Center, Engage! Cleveland, and others) with the intent of talent attraction and population growth. The Region has many university students from other countries, and through this partnership, the Region hopes to retain them once they graduate. They are a source of talent that could stay, thrive, and contribute to the Region's economy.

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Immigration

Goals: Growing Population and Skilled Workforce

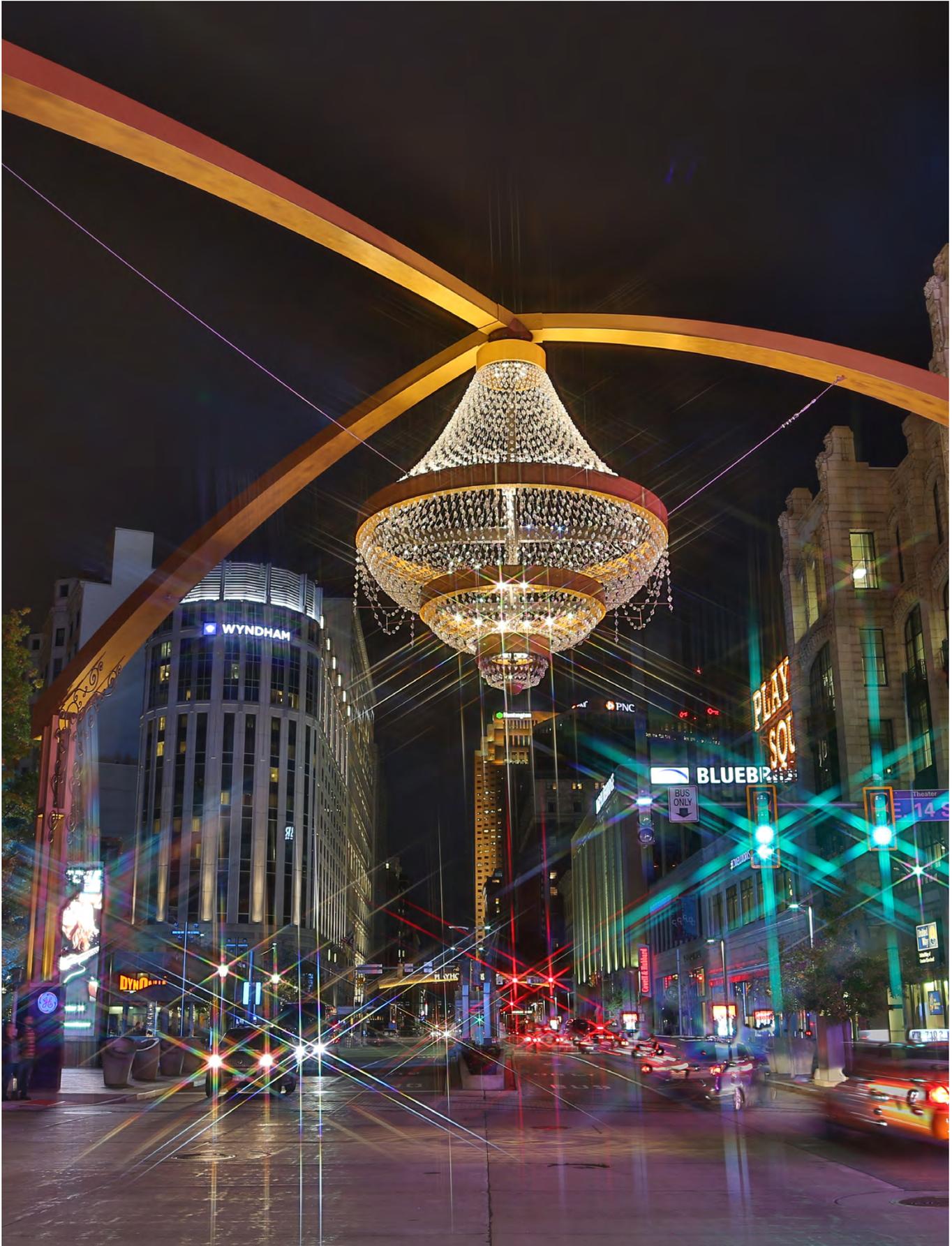
Strategies	Outcomes	Potential Partners
Support education, job opportunities, and social services for new immigrants to the Region	Productive citizens who contribute to the Region's culture and economy	Philanthropic Organizations; Social Service Organizations; Local Governments; School Systems; and Libraries
Provide economic opportunities for young people through workforce innovation, pipelines, and social support	A population that eagerly chooses to stay in the Region and find meaningful, satisfying, and economically viable work	Philanthropic Organizations; Social Service Organizations; Local Governments; School Systems; and Libraries
Support efforts to keep people in the Region through education, job, housing, cultural, and entertainment, etc. opportunities	A population that wants to stay and thrive in the Region	Philanthropic Organizations; Social Service Organizations; Local Governments; School Systems; and Libraries



Comprehensive Economic Development Strategy



Innovation & Entrepreneurship



Recent data from LinkedIn®, originally reported by Alex Kantrowitz for the newsletter *Big Technology*, show Cleveland was the nation's second-biggest net gainer of tech workers from April to October 2020. The data indicated that the Region is attracting tech talent. The story is told by the co-founders of Cleveland's MedPilot, a medical technology company which moved to Cleveland from New York City in 2018. Two of the company's founders, Matt Buder Shapiro and Nathan Spoden, grew up in Northeast Ohio. They choose the Region, in part, because of the healthcare industry to support their employees.¹¹³ This is just one example of a small start-up tech firm choosing to return to Cleveland to grow their business.

The Center for Urban Development at CSU identified five key factors influencing mid-sized regional economies: 1) Innovation and Talent, 2) Entrepreneurship in High-Cost Areas, 3) New Residential Centers, 4) Retirement Destinations, and 5) Polarization. These factors also contribute to changes in regional employment, gross regional product (output), and per capita income.¹¹⁴

High tech industries that produce innovative products often require uninterrupted, predictable electric service which can be provided locally in a microgrid system that is not vulnerable to sudden interruptions or changes in the larger grid systems. Locally based microgrids are part of the ecosystems needed for attraction and support of high tech processes.¹¹⁵

Creating innovation ecosystems is vitally important to diversifying and enhancing the regional economy. Regions like Boston, Denver, and Austin are growing technology and innovation hubs in part thanks to incubators and accelerators; university partnerships; and access to capital.

There are a number of accelerators to assist entrepreneurs. For example, Flash Starts, based in Cleveland, is a technology

development accelerator program that helps innovative businesses to accelerate their growth and improve their business outcomes. This program, just one of many throughout the NOACA Region, helps entrepreneurs transform their tech organizations through talent development programs; guidance to build innovative products and services; and strategy programs to become customer-centered. To date, they have helped 240 startups and companies to grow in the industry.¹¹⁶

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Innovation & Entrepreneurship

Goals: Vibrant, Innovative Economy / Premier Partnerships / Growing Population and Skilled Workforce / Reliable, Renewable Energy

Strategies	Outcomes	Potential Partners
Support energy microgrid development for reliable local energy supply	Attraction of industry that requires a highly reliable supply of electricity	County, City, and Township Governments; Economic Development Organizations
Support business incubators with funding and through expanding partnerships	Increased new ventures and employment	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations
Support industry cluster partnerships	Higher success rates of new ventures	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations
Support high tech ventures and capital infusions	Increased share of new business in high tech	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations
Support Innovation Funds	New business start-ups	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations; County, City, and Township Governments
Promote Public/Private Partnerships in business support and funding	New business start-ups	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations
Ensure distressed and disadvantaged communities gain access to capital and support	New business start-ups, increased employment, increased innovation	Regional Chambers of Commerce; Economic Development Organizations; Philanthropic Organizations
Ensure stability and access to true Broadband service across the Region	Enhanced business support, the attraction of remote workers, business retention	ISPs; City and County Government; County, City, and Township Governments



Comprehensive Economic Development Strategy



Institutions – Regional Collaboration, and Urban and Rural Connectivity



Economic development can benefit from collaboration through the efforts of multiple units of government, business, and non-profit organizations. No public agency at the regional level exists whose primary focus is regional economic development. It can be said that NOACA, the Northeast Ohio Regional Sewer District (NEORS), the Cleveland Water Department, the Western Reserve Area Agency on Aging, and others all have an economic development function, but it is not their primary mission or responsibility. Other countywide public agencies, such as the soil and water conservation districts, and the metroparks are not multi-county umbrella organizations, but they do cooperate on an as-needed basis. Although these organizations do not have economic development as their primary focus, their work impacts economic development. Each County and many municipalities/jurisdictions have economic development functions and they do work together as needed on a regional basis.

At the business level, regional economic development is a major responsibility of Team

NEO, GCP, MAGNET, and others. These organizations have had success in the past, but are looking for ways to create innovative solutions to the Region's economic development. These organizations are aided by philanthropic enterprises, such as The Cleveland Foundation, the George Gund Foundation, the Fund for Our Economic Future, and others.

Much potential exists for the universities, colleges, and community colleges of the Region to collaborate for economic development, especially in educating students to keep the workforce populated with appropriate skills. The Region's economic future will benefit from the innovation, research, and entrepreneurial vision higher education can provide.

As we think of regional economic development, we have to consider healthcare. The major hospitals of the Region function as a regional network. Healthcare is covered as a Key Topic in this *CEDS*, and deserves reiterating that it helps drive the regional regional economy through its employment; educational needs; land usage;

purchase of goods and services; and efforts in keeping the population healthy. UH alone includes an academic medical center, 18 hospitals, 40 health centers, and dozens of medical practices throughout the Region.¹¹⁷

According to the National League of Cities (NLC) in a report funded through the U.S. EDA, *Key Factors and Strategies for Urban and Rural Communities*,

...in many instances economic activity in [a] county is helping to drive regional clusters and, in turn, to provide economic opportunities back to local residents. When we look across urban and rural communities, we find that the share of county-level jobs connected to regional industry clusters is highest in rural counties (59 percent), followed by mixed urban-rural (52 percent) and urban (36 percent) counties. In these counties, a high share of jobs are in industry clusters that are also specialized and competitive in the region outside of the county.¹¹⁸

NLC details that urban and rural jobs, and industries alike bolster economic clusters.

NOACA worked with many other organizations to create the Northeast Ohio Sustainable Communities Consortium, which published *Vibrant NEO 2040*. This plan resulted from the collaboration of five MPOs, serving a 12-County area of Northeast Ohio. The plan's efforts created policy recommendations, guidelines, best practices, and benchmarks reaching far beyond this *CEDS*, and NOACA's reach.¹¹⁹

In the public sector, in particular, the foundation of economic development is the membership of NOACA – the five Counties of Cuyahoga, Geauga, Lake, Lorain, Medina, and the City of Cleveland. Member governments of the NOACA Executive Committee have designated bodies that work with a substantial network to advance economic development in their cities, villages, townships, and communities. These designated agencies, departments, corporations, authorities,

boards, commissions, districts, appointed bodies, and their staffs work to coordinate economic development activities. They help businesses expand and location in their jurisdictions; coordinate with planning bodies; assist with infrastructure development and lending; and many other related functions.

NOACA members also are connected to one another through regional networks of communication, transportation, workforce, businesses, and other assets. For example, the Region's workforce helps fill jobs via interconnected commuting patterns across the Counties. These interconnected commuting patterns are recognized as integral to the federally defined MSA that is the NOACA Region.¹²⁰

Information is key to the Region's economic development. Updates are made available either directly on websites maintained by NOACA member governments or links provided by their partners and associates. Information includes things like demographics and labor force; major businesses and industry sectors; individual municipalities and communities; educational resources; hospitals; unique natural assets of each jurisdiction; special annual events and attractions; roads, waterways, and public transportation; air and rail service; public utilities, such as gas, electric, water, and public works; and incentives. These resources also have institutional relationships beyond their immediate areas.

NOACA members provide a wealth of information and direct assistance to businesses within each of their jurisdictions in the Region. The following are current resources where businesses can get information and assistance.

City of Cleveland

<https://makeitincleveland.org/>

Cuyahoga County

<https://cuyahogacounty.us/development>

Gauga County

<https://co.geauga.oh.us/Departments/CED>

Lake County

<https://ldauthority.org/>

Lorain County

<https://loraincounty.us/commissioners-departments/community-development>

Medina County

<https://medinacounty.org/>

The ubiquitous nature of manufacturing in the Region encourages businesses to draw on the resources and the interconnected infrastructure, such as roads, transit, water, and communications that support economic development. This interconnectedness illustrates the importance of the engaging in strategies that take advantage of strengths and opportunities that exist across the Region, such as functional hubs, that have worked for the healthcare and educational industries for some time.

A brief sample of the Region's diverse asset of information, business support, and connections is available through the following county resources.

City of Cleveland

Starting with the direct question, "How can we help you?" Cleveland provides quick links to its business services and reminds visitors that nearly 50 percent of the U.S. population is within 500 miles. Further, it shows the extensive transportation network, including intermodal facilities; waterways; highways; freight and passenger rail; and international air connections to reinforce the point. <https://makeitincleveland.org/do-business-here/transportation-and-infrastructure>

All of NOACA's members, urban, suburban, and rural, can contribute to regional success with their unique assets and opportunities for collaborative economic development.

Cuyahoga County

Cuyahoga County provides current development news along with information about its

opportunities and services. For example, current funding available from their Brownfield Redevelopment Program is featured, including its relationship with the Ohio Brownfield Remediation Program and its funding cycles. <https://www.cuyahogacounty.us/development/brownfield-redevelopment>

There is also information for residents about home repair program assistance. <https://www.cuyahogacounty.us/development/residents>

Geauga County

Among Geauga County's many resources, the Revolving Loan Fund is notable. This fund has provided loans for businesses to help create jobs by filling the gap between financing from other sources and the total needed to expand the business. <https://co.geauga.oh.us/Departments/CED/Business-Resources/Geauga-RLF>

The County also shows how communities can access Community Development Block Grant (CDBG) funds available in the County's annual allocation and competitive grant programs from the federal government. <https://co.geauga.oh.us/Departments/CED/Community-Development>

Lake County

Lake County features information that notes its significant expanse of coastline with tourist attractions and festivals, beautiful parks, and superb beaches. The considerable expanse of access to fresh water along 31 miles of coastline on Lake Erie is a strong regional asset. The Lake Development Authority offers scrollable detailed listings of properties available to companies. <https://ldauthority.org/spaces/available-properties>

Lorain County

Lorain County's information includes a wide variety of resources, including how to acquire property in their land bank, which recycles land into productive use through acquisition and

resale to private sector users.
<https://www.loraincounty.us/landbank>.

The County offers deal packaging similar to each of the Counties which helps companies utilize funding from multiple sources such as federal, State, and local programs; U.S. Small Business Administration (SBA); Community Development Financial Institutions (CDFI); non-bank lenders; and foundation support.

Medina County

In Medina County alone, there are 342 manufacturing companies and 9,250 manufacturing jobs. There are substantial opportunities for additional development with major interstate proximity, and the County offers financing and other assistance to companies. There is detailed information about Medina County's Opportunity Zone locations on

their website. <https://www.medinacounty.org/opportunity-zones/>

There is an explanation and map of the extensive Medina County Fiber Network on their website which gives companies access to high-speed Internet in the County.
<https://medinacountyfibernet.com/>

Medina County also makes training resources available to help keep their companies competitive. <https://trainingmedinacounty.com>

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Middlefield by Ken Lund



Institutions – Regional Collaboration, and Urban and Rural Connectivity

Goals: Vibrant, Innovative Economy / Premier Partnerships / New and Growing Opportunities for Business

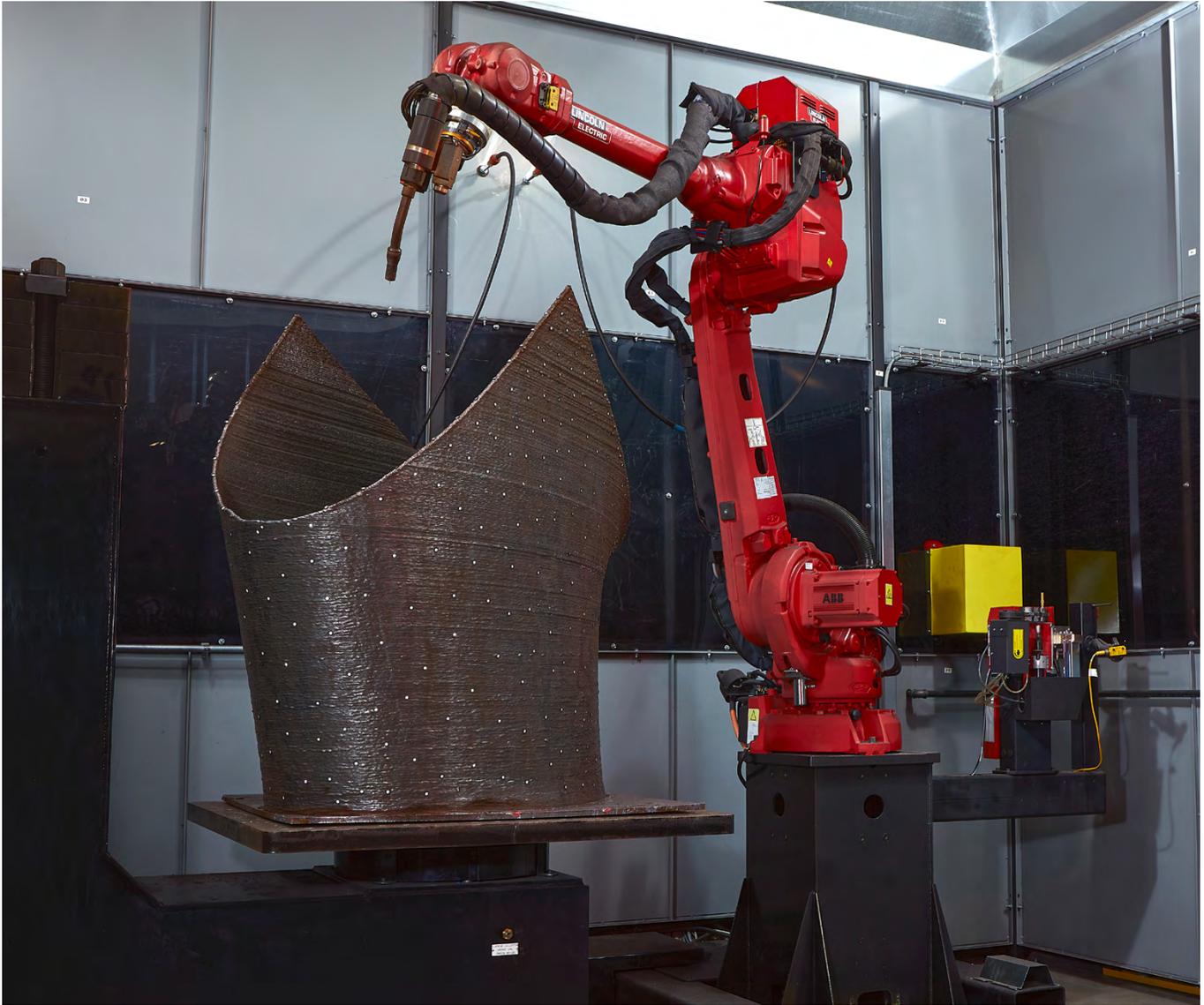
Strategies	Outcomes	Potential Partners
Support an inclusive innovation ecosystem	Growing business across the Region	Foundations; Business Organizations; County and Municipal/jurisdictions Governments; State of Ohio; Regional Governmental Agencies
Support adaptive workforce training across the Region	Balanced business needs and workforce development	Foundations; Business Organizations; County and Municipal/jurisdictions Governments; State of Ohio; Regional Governmental Agencies
Support infrastructure that supports workers and businesses benefiting from each other (transit, broadband, workforce housing, reuse, etc.)	Growing labor participation, support of business across the Region	Foundations; Business Organizations; County and Municipal/jurisdictions Governments; State of Ohio; Regional Governmental Agencies
Promote regional economic development opportunities	Public-private efforts on behalf of the Region's economic development, perhaps leading to a regional governmental agency tasked specifically with economic development	Foundations; Business Organizations; County and Municipal/jurisdictions Governments; State of Ohio; Regional Governmental Agencies



Comprehensive Economic Development Strategy



Manufacturing



The economy of the Region has benefited from its manufacturing base, which directly or indirectly drives nearly 50 percent of the Region's economy.¹²¹ Historically and currently, the Region produces products that are basic (hard tech components) to the nation's industrial might. It is no exaggeration to say manufacturing, and all that it entails, remains the backbone of the Region's economy. Team NEO data shows that manufacturing is the largest sector by GDP and second largest by employer.¹²² Therefore, the Region needs to position itself so that it not only continues its manufacturing might, but advances it to the future. In this regard, the manufacturing industries need a strong transportation system, including roads, rail, airports, and water ports,

as well as a strong energy foundation. These infrastructure elements will enable the movement of freight, including raw materials, production machinery, and finished products. Lake Erie, with its seemingly endless supply of fresh water, is a key competitive advantage for the Region. In addition, a focus on new technologies and process/product innovation is crucial to improving the productivity and competitiveness of the Region's manufacturers.

Most importantly, for the Region to maintain and expand its manufacturing capacity, it needs a workforce trained in everything from basic mechanics to the most advanced high tech skills. With over 3,300 manufacturing businesses in the

Region providing over 114,000 jobs with higher than average worker wages, manufacturing remains a very important economic base for the entire Region.¹²³

The Region is finding its manufacturing workforce getting older and nearing retirement age. Some school systems, and local colleges and universities are working hard to develop curricula and programs that would interest the next generation in preparing for careers in manufacturing. Advocacy organizations, such as the GCP, MAGNET, et al. are working to ensure manufacturing has a trained workforce ready to step in.

A review of the economic development plans for the Region's Counties shows the importance of manufacturing. In addition to basic economic output and the creation of wealth, workers in manufacturing have relatively high wages and salaries compared to many other sectors of the economy. As noted above, the median earnings for those in manufacturing are higher than many other industries. Each of the Counties have identified manufacturing as critical to their economic futures, and have worked with school systems to expand and include manufacturing in their curricula and programs. Finding the future manufacturing workforce has been identified as a key priority. Turning the need into a regional strategy should be seriously considered.

Fortunately for the Region, MAGNET exists and is a strong advocate for manufacturing. MAGNET facilitated the development of *Make It Better: A Blueprint for Manufacturing in Northeast Ohio, 2021*, with over 250 public and private partners, including 150 manufacturing CEOs, to articulate a vision for how Northeast Ohio can become a global leader in smart manufacturing.¹²⁴ The *Blueprint* identifies the following as significant aspects of manufacturing in the Region and beyond: aerospace/aviation, automotive, biohealth, food/beverage processing, metals, chemicals, plastics, polymers, and fabrication. The report, which has great respect for the

Region's manufacturing history and has been endorsed by hundreds of area companies, philanthropies, educational institutions, and nonprofits, identifies the need for the Region's manufacturers to strive for more significant innovation, more rapid adoption of new technology, and greater efforts to recruit workers.

The new Cleveland Innovation Project, a program of the GCP, The Fund for Our Economic Future, The Cleveland Foundation, JumpStart, and others, brings a substantial sum of money (\$800 million) into repositioning the Region for growth and innovation.¹²⁵

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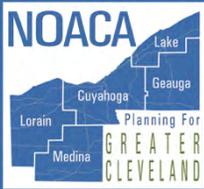
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Manufacturing

Goals: Vibrant, Innovative Economy / Advanced Manufacturing Clusters / Abundant Water Resources

Strategies	Outcomes	Potential Partners
Support educational efforts to educate and train a current and future workforce	A trained workforce ready to support manufacturing now and into the future	School Systems; Local Colleges and Universities; Advocacy and Philanthropic Organizations; Media; MAGNET; Apprenticeship Providers
Place manufacturing on the civic agenda for overall economic development in the Region	A unified vision and effort to bring manufacturing into its rightful place in the Region's economy	Cleveland Innovation Project, Including GCP, Team NEO, Jumpstart, Cleveland Foundation, the Fund for Our Economic Future, MAGNET, and others
Seek manufacturing employees from sources other than schools, including community re-entry populations, opportunity youth, ^a immigrants, and others	Community re-entry and other populations providing future manufacturing employees	MAGNET; Community Re-entry Programs; Youth Programs; Immigrants; Apprenticeship Providers; others working with non-traditional employee sources
Support manufacturer's adoption of current technological advances in their work	A more competitive and up to date manufacturing industry	MAGNET; Community Colleges and Universities; Organizations Involved in Advanced Manufacturing Techniques
Support entrepreneurial activities in manufacturing	Creation of new firms and expansion of existing firms	MAGNET; JumpStart; Community Colleges and Universities; Organizations Involved in Advanced Manufacturing Techniques
Encourage product-based innovation via startups and existing manufacturers	Creation of new products to enhance regional supply chain	MAGNET; JumpStart; Community Colleges and Universities; Organizations Involved in Advanced Manufacturing Techniques

- a. Opportunity youth are young people who are between the ages of 16 to 24 years old and are disconnected from school and work.¹²⁶



Comprehensive Economic Development Strategy



Parks and Recreation



According to the APA,

Parks are a source of positive economic benefits. They enhance property values, increase municipal/jurisdiction revenue, bring in homebuyers and workers, and attract retirees. At the bottom line, parks are a good financial investment for a community.¹²⁷

Parks connect once disenfranchised communities back into a regional whole by offering access to safe places to recreate, natural surroundings, and amenities. Of specific note was access to parks, especially in urban areas, as a refuge from the COVID-19 pandemic. Because Americans needed to be outside to interact; and space to regain, maintain, and regulate mental and physical health, access to these facilities was paramount. Greater Cleveland and its phenomenal park system served and continue to serve as a connection to nature and community, and as a natural health system.

According to the National Recreation and Park Association, and George Mason University's Center for Regional Analysis, "park and recreation departments are significant employers, and their operations and capital spending generate significant economic impacts on local communities."¹²⁸ Furthermore, they promote a high quality of life and create a virtuous development cycle; high quality-of-life locations attract workers, which attract employers, which in turn attract even more investments and jobs; high-quality parks and recreation can play a pivotal role in attracting and retaining quality businesses; and active engagement with companies and workers influence business expansion decisions and attract new residents to a community.

Cleveland

Ranked one of the best regional parks systems in the country, the Cleveland Metroparks system established in 1917, contains 18 reservations and more than 24,000 acres of land including 300 miles of trails, eight lakefront parks, and

five nature centers. An additional 700+ acres and nearly 30 miles of trails recently have been added to the Metroparks' system and the newly-completed Re-Connecting Cleveland TIGER trails project links Cleveland's residents to the Region's trail network, lakefront, and Cleveland's urban core.¹²⁹

According to Cleveland Metroparks,

the Park District offers thousands of education and recreation programs and events each year across the 49 communities it serves, helping to create connections to nature and promote conservation and sustainability. Cleveland Metroparks is the recipient of the 2021 National Gold Medal "Best in Nation" Award for Excellence in Parks and Recreation Management.¹³⁰

Cuyahoga County

Cuyahoga County has 13 lakefront parks, but 78 percent of the Lake Erie shoreline within it, or 23.4 miles, is rendered inaccessible by private property, rail lines, highways, and Burke Lakefront Airport, according to the County's new

Lakefront Public Access plan. The County and City of Cleveland are proposing five new projects to increase lakefront access:

- Enhancing 1.2 miles of Clifton Boulevard in Lakewood and Lake Road in Rocky River with a shared-use trail and scenic overlooks overlooking the mouth of the Rocky River;
- Shoring up the crumbling shale cliffs north of Lakewood's Gold Coast apartment towers by adding seven-tenths of a mile of stone and steel erosion control structures, topped with a trail;
- Realizing a 2015 proposal developed by Cleveland and the nonprofit Campus District Inc. to build or enhance 2.7 miles of trails along the North and South Marginal roads between downtown Cleveland at East Ninth Street and East 55th Street;
- Building the first 0.32-mile section of a connector trail between the Northeast Ohio Regional Sewer District's property in Beulah Park and Euclid Beach Park; and
- Known as CHEERS, which stands for Cleveland Harbor Eastern Embayment Resilience Study, the project would use clean, recycled sediment dredged from the Cuyahoga River over a 10- to 15-year period

Music Mound by Igor Oliyarnik



to create 76 acres of new parkland between the East 55th Street Marina and Gordon Park on the City's East Side.¹³¹

Geauga County

Geauga Park District was established in 1961 to preserve and protect the natural features of Geauga County and to provide open space for residents' enjoyment. Since that time, the district has grown to more than 10,000 acres encompassing 27 open parks for people to explore year-round. Geauga boasts more than 70 miles of trails for walking, biking, horseback riding, and more, including The Maple Highlands Trail stretching 21 miles across the County. Residents can also take advantage of numerous naturalist-led hikes and programs; reservable lodges and shelters; picnic areas; a nature center; and outdoor activities like fishing, camping, kayaking, canoeing, birdwatching, cross country skiing, and snowshoe borrowing.¹³²



Sandy Ridge Reservation by Jen Goellnitz

Lake County

Lake County assets, which include Headland Dunes Nature Preserve and Mentor Beach, offer both habitat protection and recreational opportunities. The totality of the lakefront recreational system is an important part of the cultural and economic landscape of the Region.¹³³

Lorain County

The Lorain County Metropolitan Park District covers over 9,000 acres. Since 1986, the number of programs offered by the Naturalist Department has grown from 386 to the current level of over 1,600. Through these programs, Lorain County and the Region experience diverse offerings regarding the natural and cultural resources of the County, in addition to a wide variety of recreational opportunities available to residents and visitors in the Region.¹³⁴

Numerous recreational sites dot the Lake Erie shoreline. While a tourist attraction, Lake Erie is also an important part of the habitat for fish, fowl, and game, as well as marshland which protects and enhances inland locations.

For example, the City of Sheffield adopted a master plan for further enhancing the City's resources, their Parks and Recreation Department has developed a Boat Launch and chartered a process to redevelop their central commercial lakefront district with multi-use bicycle/pedestrian trails and routes intermingling throughout the City's parks, lakefront, points of interest, and local destinations.

Medina County

Established in 1965, Medina County Park District seeks to enhance the quality of all life through education, conservation, and the protection of natural resources. They manage over 7,500 acres and almost 50 different trails. Notable achievements in the last year include acquiring 75.10 acres; resurfacing 75,000 square feet of parking lots (Buckeye Woods Park and Killbuck



Lakes); planting 5,530 native trees and shrubs; stocking 3,600 lbs. of rainbow trout and 652 lbs. of channel catfish; and seeding and establishing native grasses and wildflowers on 11.5 acres.¹³⁵

The Region

Across the five-County Region, there are over 38,000 acres of parks (59 square miles) that includes Brecksville Reservation, the largest urban park in Ohio.

The Cuyahoga Valley National Park (CVNP) had about 2.2 million visitors in 2019 who spent \$39.5 million in local communities while visiting.¹³⁶ According to the National Park Service, “CVNP encompasses 33,000 acres along the Cuyahoga River between Cleveland and Akron, Ohio. CVNP combines cultural, historical, recreational, and natural activities in one setting.”¹³⁷ While most of the CVNP is outside of the Region, it serves as economic and tourism driver for all five Counties of NOACA.

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Parks and Recreation

Goals: Resilient Communities with Equitable Investment and Affordable Housing / Abundant Water Resources

Strategies	Outcomes	Potential Partners
Link tourism, and parks and recreation strategies	Increased tourism and spending	Parks Departments; Local Governments; Local Convention and Visitor Bureaus; Local County Fair Boards
Increase job and mentoring pipelines for Parks and Recreation opportunities	Increased employment and job participation rates	Parks Departments; Local Governments; Local County Fair Boards
Ensure all communities have access to safe Park and Recreational opportunities	Increased home values Increased positive social indicators of health	Parks Departments; Local Governments; Local County Fair Boards; ODOT
Increase wayfinding and information about Parks and Recreation	Increased access to Parks and Recreation, and tourism	Parks Departments; Local Governments; Local County Fair Boards; ODOT



Comprehensive Economic Development Strategy



Tourism



Tourism is important to the Region for both its direct and indirect impacts. In the words of Destination Cleveland, tourism not only successfully changes perceptions of the Region “as a place to visit but also as a great place to live, work, and retire.” According to Destination Cleveland, the most effective way to improve non-Clevelanders’ perceptions of the Region is to draw them here as visitors. Once here, visitors often marvel at the broad array of assets – from its waterfronts and regional park systems to its world-class cultural and medical facilities, vibrant downtowns, transportation options, and easy-living neighborhoods.¹³⁸

Although the original attraction was as a place of industry, in more recent decades the Region’s leaders have worked to bolster tourism by improving access to Lake Erie and local

ivers, and by strengthening and enhancing the Region’s arts and cultural resources.

As has been the case for regions across the country, the COVID-19 virus took its toll on tourism in NOACA’s Region. However, Destination Cleveland, the largest destination marketing and management organization in the Region, reported that 19.6 million people had visited Cuyahoga County alone in 2019 for business and leisure travel, a 2.1 percent increase over 2018, and a 31.5 percent increase since 2011. Pre-pandemic, the trend line was upward, giving reasonable expectation that the trend could recover post-pandemic.¹³⁹

NOACA’s *LRTP* notes that 25 percent of visitors who stay overnight in the Region’s Designated Market Area arrive by plane. The two commercial airports in the Region are Cleveland-Hopkins International (Cleveland-Hopkins) with 99 percent of all enplanements, and Burke Lakefront (Burke). Both these airports are within easy access to nationally significant visitor attractions; and convention and sports facilities, including NFL Football, Major League Baseball, and the National Basketball Association. These seasonal attractions together fill an annual calendar, along with other attractions including the Rock and Roll Hall of Fame, museums, parks, theaters, and Fortune 500 business travel. The Rocket Mortgage Fieldhouse, home to the Cleveland Cavaliers, is estimated to host two million visitors per year.¹⁴⁰

The Huntington Convention Center, constructed in 2013 advertises 410,000 square feet of exhibit and meeting space. The Convention Center is a connected campus facility with the attached Global Center for Health Innovation, Hilton Cleveland Downtown, and Public Auditorium providing meeting planners with over 200,000 sq. ft. of extra meeting and event space. The Cuyahoga Valley National Park is a 33,000 acre national park asset, and the Cleveland Metroparks system has 24,000 acres with 19.5

million visitors per year. It includes the Region's Zoo, Cleveland Metroparks Zoo.

Regional visitor assets are found throughout the Region, often with popular unique local qualities, such as the Geauga County Maple Festival, distinctive wineries, the many natural trails of Lorain County Metro Parks, lakefront properties, perch fishing, or historic Main Street Medina.

Visit Medina County notes that it is home to some of Ohio's biggest travel treasures. The County is home to America's largest indoor year-round Christmas entertainment attraction, the best outdoor bull-riding rodeos in the Region, one of the best-known candle companies in America, a downtown scene worthy of a Norman Rockwell painting, one-of-a-kind shopping, and award-winning restaurants.¹⁴¹

Visitors to both Lake and Geauga Counties can tour many of the Region's more than 30 Grand River Valley wineries.¹⁴²

There are many more reasons to extend a stay in the NOACA Region to enjoy both urban, small town, and natural attractions. The diversity of experience throughout the Region is part of its strength and it offers opportunities for regional resilience in the face of historic challenges.

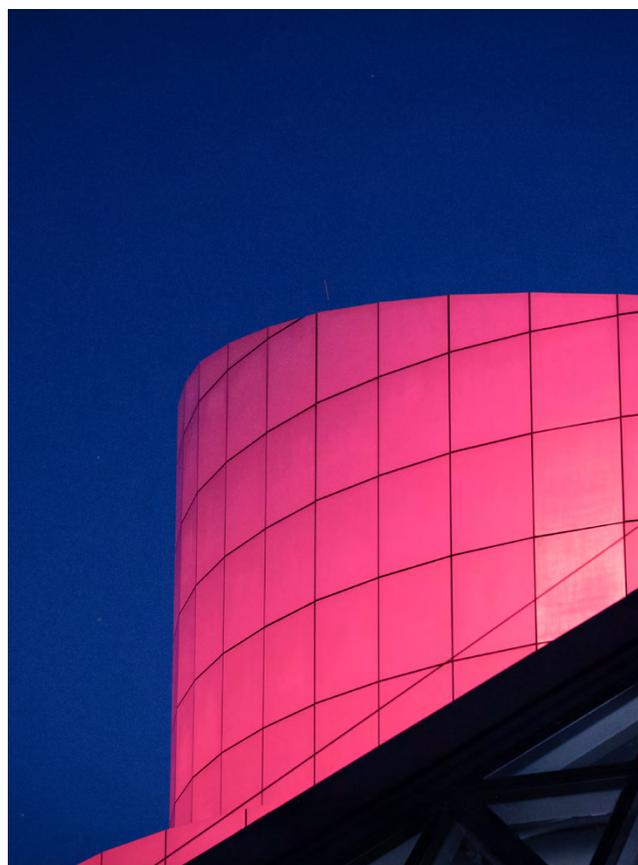
The many unique historical assets throughout the Region are preserved, interpreted, and made available for the public to enjoy by local historical societies, such as the Chatham Historical Society in Medina County, the Century Village Museum/Geauga County Historical Society, the Lake County Historical Society/Lake History Center, or the Lorain County Historical Society/Lorain County History Center.

In 2020, there were approximately 81,550 jobs in the leisure and hospitality industry with average annual wage of \$26,392, according to the BLS QCEW. This accounts for about 10 percent of all jobs in the NOACA Region, with wages less than half of the overall average for the Region.¹⁴³

A new tourism activity has been a stop on Great Lakes excursion trips. Visitors to the Region by touring ship can take in such varied activities as the Rock and Roll Hall of Fame and Museum, as well as a visit to the Amish country in Geauga County. Such tourist activities are coordinated with ground transportation. Aquatic travel has great tourism potential for the Region.

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Rock and Roll Hall of Fame by Lance Anderson

Tourism

Goals: Vibrant, Innovative Economy / Premier Partnerships / Growing Intercity Travel and Tourism / Positive National Brand

Strategies	Outcomes	Potential Partners
Attract and support visitor-focused events and experiences aligned with the Region's brand and product	Increased economic impact/visitor volume	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Capitalize on the Region's international prominence in healthcare and medical education to attract conventions and meetings focused on health/medical	Increased economic impact/visitor volume	Convention and Visitor Bureaus in the Region; Chambers of Commerce; GCP
Utilize the Region's world-class arts and cultural/music institutions and attractions to strengthen the Region's power to draw tourists, conventions, and meetings	Increased economic impact/visitor volume	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Leverage the regional and national draw of Cleveland's professional sports teams to attract conventions, meetings, and individual visits	Increased economic impact/visitor volume	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Promote the Region as a waterfront community, with access and amenities related to Lake Erie and other waterways	Increased economic impact/visitor volume	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Implement integrated regional marketing strategies that enlist residents as ambassadors	Increased economic impact/visitor volume; Improved perceptions	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Capitalize on meetings and conventions that align with talent attraction priorities to inspire meeting attendees to consider the Region as a place to live, work, invest, or attend college	Increased economic impact/visitor volume; Increased migration	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Link conventions/meetings to experiences in unique regional neighborhoods and towns as a means of attracting visitors seeking "authentic" urban and Midwest experiences	Increased economic impact and wider participation in visitor industry	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Attract visitors to expose them to all the Region has to offer	Increased economic impact and wider participation in visitor industry	Convention and Visitor Bureaus in the Region; Chambers of Commerce
Improve availability of workforce in tourism/hospitality jobs through improved wage structures for tipped workers	Increased labor force participation in tourism/hospitality occupations	Ohio Department of Commerce; Convention and Visitor Bureaus in the Region; State Legislative Delegation



Comprehensive Economic Development Strategy



Transportation

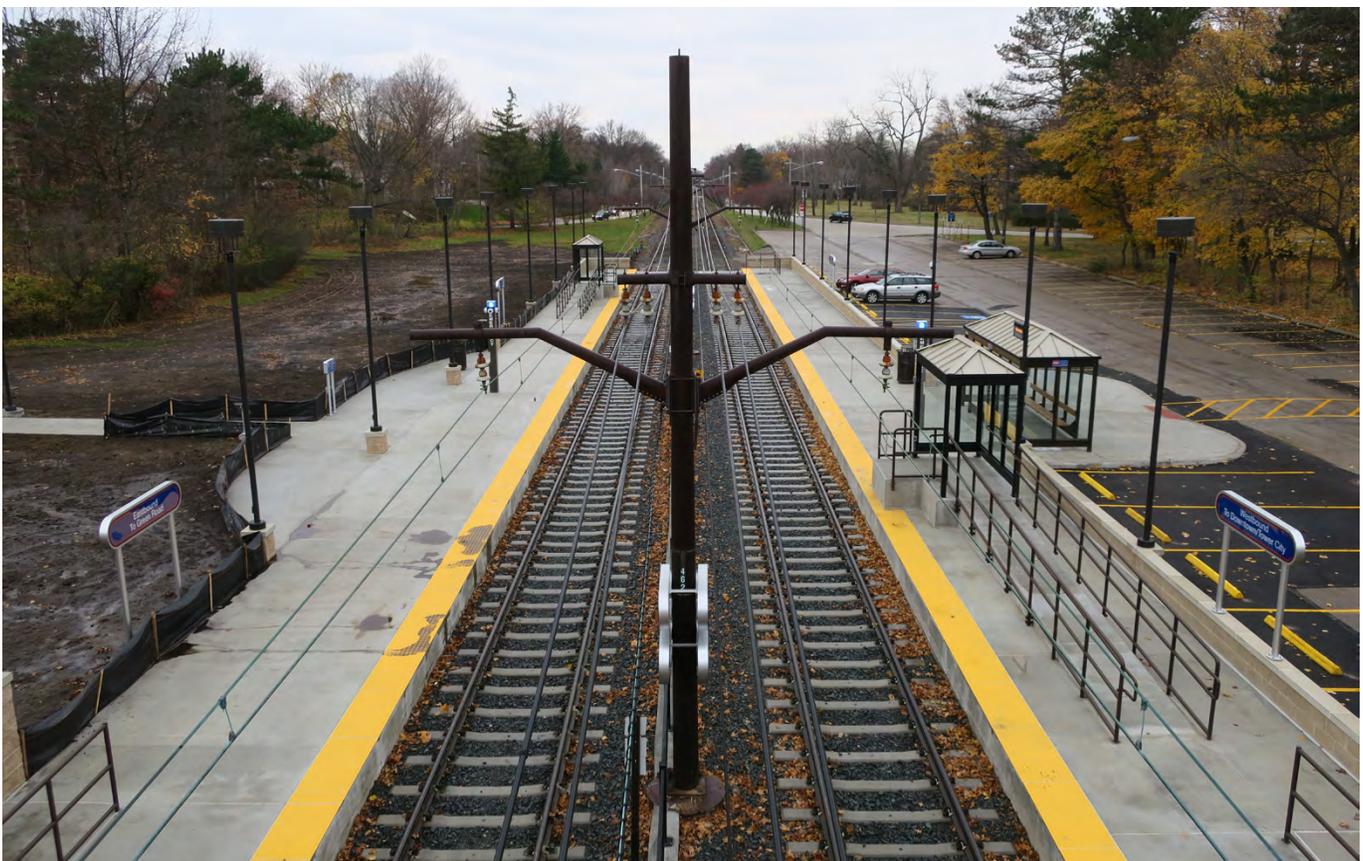
Transportation facilitates economic development and business activities throughout the Region. In addition, transportation is a component of virtually every sector of the *CEDS*. It vitally affects quality of life, social services, safety, and the environment. Research for this *CEDS* has shown that the ODOT, every County, and most municipalities in the NOACA Region have their own transportation plans or planning process. These entities use their funds for various projects or use them as local match for Federal and State funds.

On a regional basis, NOACA focuses on surface transportation as it prepares and maintains the Region's *LRTP*, the shorter-range *Transportation Improvement Program (TIP)*, a host of databases, and multiple planning studies. NOACA Board policies also use transportation to enhance economic development. Its Staff is available to assist localities in their use of transportation for economic development. NOACA's involvement is critical to transportation planning because it

certifies that federal funds can be brought into the Region for transportation projects that have a broad impact on economic development, including travel for commuters; freight movement; public transit; service for the elderly and disabled; and air quality. NOACA also plans for the Region's greater aspirations, such as the Hyperloop and better rail service (for example, Amtrak) for the Region. It should be noted that NOACA uses transportation to serve other goals as well, including equity, diversity, and environmental justice.

Each of the Region's Counties has a transit system serving multiple purposes. Public transit can be used for transporting students to school; helping those without any other form of transportation to shop; assisting elderly and disabled people to medical appointments; and other purposes. These and other functions are important for basic mobility in the Region. But, by enabling residents to reach their jobs, public transit provides a major economic development function.

Warrensville-Shaker Station, Green Line by Jacob G.





The Greater Cleveland Regional Transit Authority (GCRTA) provides transit services throughout Cuyahoga County. As the largest public transit agency in Ohio, it transports an average of 150,000 people a day on its buses, bus rapid transit (BRT), light rail, heavy rail, trolleys, and paratransit. The GCRTA rolling stock is supported by transit centers, shelters, garages, maintenance facilities, and other infrastructure.¹⁴⁴

Other transit agencies in the Region include Geauga County Transit, Lake County Laketrans, Lorain County Transit, and Medina County Transit. The Metro Regional Transit Authority based in Akron brings commuters into Cuyahoga County and downtown Cleveland from Summit County. Laketrans also has routes that bring passengers to and from downtown Cleveland. Public transportation benefits the Region by improving congestion, helping with air quality, and alleviating wear and tear on the Region's roads. Public transportation has its challenges with finances, health issues, technical matters, scheduling, sprawl, etc. But, most importantly, these transit agencies work together to form a regional transit network and thus serve a major economic development function.

For air transportation, the Region is served by the City of Cleveland's international airport, Cleveland Hopkins International Airport, and the reliever airport, Burke Lakefront. The Region's other reliever airports are run by various Counties. A \$2 billion airport renovation plan for Cleveland Hopkins is in the works.¹⁴⁵ The Ohio Office of Aviation maintains Statewide airport planning and grant assistance programs for general aviation, public use airports, which are found in each of the Region's Counties. Ohio water transport and port activities are managed by the Cleveland Cuyahoga County Port Authority, as well as port authorities in Lake and Lorain Counties.

The Port of Cleveland is a powerful economic generator. According to Port statistics,

[t]he Port of Cleveland is one of the largest ports on the Great Lakes. Over 20,000 jobs and \$3.5 billion in annual economic activity are tied to the roughly 13 million tons of cargo that move through Cleveland Harbor each year. The Port of Cleveland is the only local government agency whose sole mission is to spur job creation and economic vitality in Cuyahoga County. The Port is an economic engine for

our community, a key to Northeast Ohio's global competitiveness, and a crucial partner in building Cuyahoga County's future.¹⁴⁶

There are "20,273 jobs supported by maritime activity. \$3.5 Billion of total economic value supported in the Region, \$1.4 Billion total personal income and local consumption."¹⁴⁷

The Region is served by Norfolk Southern and CSX railroads, as well as a number of regional and short-line haulers. NOACA is keenly aware of the importance of freight and logistics planning to the Region's economy and has collected data and prepared plans accordingly. ODOT has a freight plan, as well. Freight movement has been identified as a major element supporting the Region as a manufacturing center. Thus road and bridge projects that help support freight movement are identified in the Region's *TIP* and *LRTP*.

The Region's rail passengers are served by Amtrak. With stations in Elyria and downtown

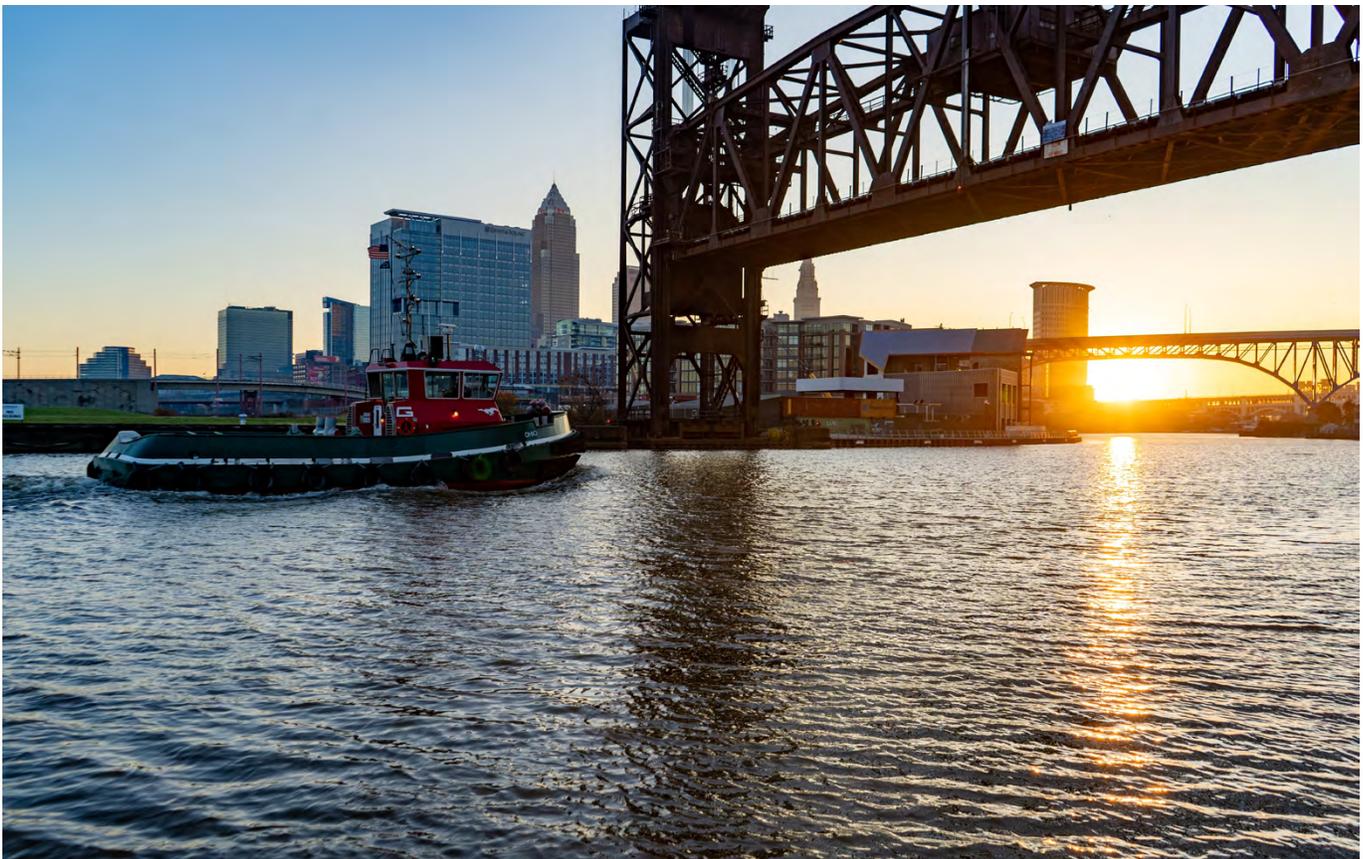
Cleveland, Amtrak's presence is known. Scheduling is often inconvenient for many rail passengers, but that could change with major new investments made possible by the nation's recently passed infrastructure act.

All entities involved with transportation and economic development benefit from a mutual understanding of plans, standards, funding sources, and goals.

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Wendy Park in Cleveland by DJ Johnson



Transportation

Goals: Resilient Infrastructure / Efficient, Affordable Transportation to Job Opportunities / Growing Intercity Travel and Tourism / Vibrant, Innovative Economy / Premier Partnerships / Growing Population and Skilled Workforce / Advanced Manufacturing Clusters with Shorter Supply Chains

Strategies	Outcomes	Potential Partners
<p>Support municipal/jurisdiction, County, special district, and township efforts in transportation as they support economic development</p>	<p>Funding and technical assistance for local governments</p>	<p>NOACA; ODOT; the Ohio Turnpike and Infrastructure Commission; the Transportation Review Advisory Council; Counties; Municipal/jurisdictions; Public transit agencies; Special districts; Other local governments</p> <p>As it relates to funding, the U.S. DOT, as well as the Region's Congressional and Senatorial delegations are critical.</p>
<p>Support and encourage public transit in general with planning and funding opportunities</p> <p>Encourage easier intercounty travel as an economic development function. This will serve economic development without having to create a new agency.</p>	<p>Increased ridership and access to employment across the Region</p>	<p>ODOT; the Region's transit agencies; Counties; Municipal/jurisdictions; Interested businesses</p> <p>Public transit has active advocacy groups that should be encouraged to lend their voice.</p>
<p>Public transit should not be limited to trains and buses. Other techniques such as ridesharing, trolleys, vanpools, etc. should be encouraged, including first and last-mile support for workers to job hubs.</p>	<p>Increased use of multi-modal options connecting to job hubs</p>	<p>ODOT; the Region's transit agencies; Counties; Municipal/jurisdictions; Interested businesses</p>
<p>NOACA, and the various planning commissions, should ensure that their planning efforts include transportation and economic development components that are linked.</p>	<p>Plans and planning that link transportation and economic development</p>	<p>ODOT; NOACA; Counties; Municipal/jurisdictions</p>

Transportation (cont.)

Goals: Resilient Infrastructure / Efficient, Affordable Transportation to Job Opportunities / Growing Intercity Travel and Tourism / Vibrant, Innovative Economy / Premier Partnerships / Growing Population and Skilled Workforce / Advanced Manufacturing Clusters with Shorter Supply Chains

Strategies	Outcomes	Potential Partners
Updating and expanding of Cleveland Hopkins International Airport	Increased user base, increased and enhanced logistics and cargo airlifting, and increased tourism and connectivity	The Business Community; the Region's Congressional and Senatorial Delegation; Federal Aviation Administration; City of Cleveland; other Local Governments; various entities of the State Government
Planning for the reliever airports is a critical sub-element of airport planning	Increased user base, increased and enhanced logistics and cargo airlifting, and increased tourism and connectivity	ODOT; NOACA; Counties; Airport Authorities
Support and enhance the planning for, and building of, an intermodal freight network that connects air, rail, port, lake, river, and highway systems	Increased business growth and business revenue; Increased business retention and attraction	ODOT; NOACA; Counties; Municipal/Jurisdictions; Port Authorities; Business Community
Support expanded intercity heavy rail transportation and passenger rail accessibility within Ohio and connections to major metros	Increased connections and travel among major metropolitan areas	ODOT; Federal Rail Administration; AMTRAK; Cities; Counties; Region's State Delegation
Support Complete and Green Streets, and active transportation connections, trails, bikeways across all municipal/jurisdictions	Increased quality of life, increased social determinants of health, and increased options for workers to access jobs	Complete and Green Streets as a planning strategy can be led by NOACA, with partners including the Private Sector, the Non-Profit Sector, and Government at all levels, with a special emphasis on municipal/jurisdictions



Comprehensive Economic Development Strategy



Water Resources



Shoreline Storage Tunnel (part of Project Clean Lake) by Nicole Harvel, courtesy of NEORSD

When referring to water resources in the Region, Lake Erie immediately comes to mind. Lake Erie, in this Region, has five major rivers flowing into it (The Black, Rocky, Cuyahoga, Chagrin, and Grand Rivers). Each river and its watershed have unique industrial, commercial, recreational, environmental, and aesthetic features. Lake Erie and the rivers provide the Region's water supply for most commercial, industrial, and residential uses. Lake Erie historically has been a major transportation route and source of recreation. The Region is served by a number of ports located on the Lake. The ports facilitate economic activity throughout the Region, and are especially important for the manufacturing component of the regional economy.

Water Treatment

The Region's major public freshwater treatment operation is provided by the Cleveland Water Department, while wastewater treatment is supplied primarily by the Northeast Regional Sewer District (NEORSD). Cleveland Water Department and NEORSD both operate across County lines. This Regional cohesion ensures residents and businesses receive essential access to services and support. Of course, other water and wastewater agencies exist in the Region, but the two aforementioned agencies bear the largest operational responsibility. In addition, some areas are served by wells and septic systems.

Cleveland Water Department

Per its documents, Cleveland Water obtains its water supply from Lake Erie. It maintains four treatment plants, 21 storage tanks and towers, more than 5,300 miles of water mains,

and countless other facilities. It serves 70 communities in multiple Counties, and has 1.4 million commercial, residential, and industrial customers. Over the last 20 years, more than \$1.5 billion has been invested in modernizing facilities. \$700 million will be invested over the next ten years. Fortunately, the water supply appears more than sufficient for generations to come.

Northeast Ohio Regional Sewer District

Wastewater treatment by the NEORSD is accomplished by three major plants, aptly named Easterly, Westerly, and Southerly. The NEORSD is in the midst of a multi-billion dollar upgrade program and is installing miles of interceptor sewers. Additionally, the NEORSD is responsible for stormwater management.

Other Facilities

Water supply and wastewater treatment facilities managed by smaller public agencies, such as Avon Lake, Lorain, and Painesville, provide important services as well. Planning for the Region's wastewater is NOACA's responsibility, through its "Section 208" water quality planning.

Water Management

A number of public agencies and private organizations handle water resources. Most municipal/jurisdictions are responsible for local sewer systems. Combined sewer overflows are a particular problem for many older communities and some are responding to consent decrees that are legal agreements with the U.S. Environmental Protection Agency (EPA) to build stormwater facilities separate from sanitary sewers to keep sewage from overflowing during high stormwater events. Many communities are finding that their systems are aging, and in need of multiple and constant repairs. Officials are concerned because rainstorms are becoming more severe due to climate change and are placing a burden on existing infrastructure. Further, they are finding that many existing sewer systems need upgrading to accommodate the change.¹⁴⁸

Municipalities/jurisdictions and Counties are dealing with watershed management as well. Counties are served by Soil and Watershed Conservation Districts to deal with education and to promote best practices. As conservation and environmental awareness continue to become a larger part of the Region's land and water management practices, improvements are taking place.

Economic Development

For purposes of economic development, it is imperative to understand the value of these resources and help them function at the highest level. Taken together these agencies protect the Region's rivers and Lake Erie. The Region benefits from its water resources and sets it apart from many other Regions in the nation. These water resources provide benefits for many industries, as well as for the population at large. The Region's water resources allow for residential, commercial, recreational, and industrial development. Additionally, the Region's water resources provide habitat for the Region's flora and fauna, and offer great recreational and conservation opportunities.

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Water Resources

Goals: Sustainable, Well-Maintained Resource / Support Lake as Growing Economic Development Opportunities

Strategies	Outcomes	Potential Partners
Support the Region's water and wastewater treatment agencies	Continuing and expanding economic development	Cleveland Division of Water; NEORS; U.S. and Ohio EPA; NOACA; Soil and Water Conservation Districts; other public agencies
Promote, celebrate, and advertise the Region's high level of water quality as well as its abundance	The recognition of just how important and useful the Region's access to water can be for economic development purposes	All public, private, and non-profit organizations involved in promoting the Region for economic development
Support the improvements needed to keep the system functioning and in good order	Water and wastewater treatment at a high level Water available for industry	NEORS; Municipalities/ Jurisdictions; Counties
Manage stormwater to prevent flooding and other destructive outcomes	Reduces flood damage to homes and businesses, environmental protection, etc.	NEORS; Soil and Water Conservation Districts
Support the economic development function of the Region's Lake Erie ports	Ease of bringing raw materials and finished products into and out of the Region	The Cleveland Cuyahoga County Port Authority; Port Authorities in Lorain and Lake Counties
Encourage regional solutions to water quality, water pollution, water resource, stormwater, and other water-related matters	Solutions to issues that cross political boundaries	All public agencies dealing with water resources



Comprehensive Economic Development Strategy



Workforce Development

The ACS 5-Year Estimate for 2020 showed the five-County Region with a population of approximately two million people. Approximately one million residents were employed. The percent of the MSA residents employed by sector were Healthcare and Social Assistance (17 percent); Manufacturing (14 percent); Retail Trade (10.6 percent); Educational Services (8.2 percent); Accommodation and Food Services (7 percent); Professional, Scientific, and Technical Services (6.8 percent); Finance and Insurance (5.6 percent); Construction (5.1 percent); Transportation and Warehousing (3.9 percent); Wholesale Trade (2.8 percent); and Arts and Entertainment (2.1 percent).¹⁴⁹

The State of Ohio maintains a website which classifies job categories as “in-demand” and “critical.” It includes breakdowns by geography and average number of jobs in-demand by category and projected growth. The site focuses on jobs paying at least eighty percent of the median wage, with a higher-than-average growth projection.¹⁵⁰ For the Region, the listings are most prominent for many types of health-related occupations; software applications developers; and construction and trades jobs.¹⁵¹

The Federal Workforce Innovation and Opportunity Act (WIOA) required governors to designate sub-state workforce planning regions for coordination and delivery of services. There are five Workforce Development Areas with their individual Boards within the Region that includes the NOACA MSA Ohio Workforce Areas 2 (Summit/Medina), 3 (Cleveland/Cuyahoga), 4 (Lorain), 5 (Lake), and 19 (Ashtabula, Geauga, Portage). As required by the WIOA, each local workforce development area operates a comprehensive one-stop career center, which is called Ohio Means Jobs (OMJ) Center.

Overall, the WIOA plan noted that there were 95,000 unemployed people at the end of 2020. In the Northeast Ohio Region that includes the Cleveland and Akron MSAs.¹⁵² It also noted a mismatch of skills in demand with the

education of potential employees. There were approximately 17,000 entry-level jobs going unfilled in manufacturing, healthcare, and IT. The size of the labor force was dropping as demand for jobs was increasing in health/education and technology. The plan called for more private sector-driven workforce partnership and job matching opportunities.¹⁵³

Sectors considered most specialized in the Region with a higher percentage of employment than the nation (an economic base export indicator) were Management of Companies and Enterprises; Manufacturing; Educational Services; Health Care and Social Assistance; Wholesale Trade; and Finance and Insurance. Export activities are often considered to have higher potential for growth because of their service to larger markets, beyond their own metropolitan area. There are many sub-sectors and interrelationships among sectors, such as Healthcare and Educational Services where there are large teaching hospitals associated with colleges, such as The Cleveland Clinic, CSU, and Case Western Reserve University.

Local economic development organizations, and private and civic organizations have identified key innovation clusters that employ many in the Region and show opportunities for growth. For example, Team NEO shows support for additive manufacturing and smart manufacturing activity clusters potential in the Region. They also reflect the rise in tech industry during the pandemic and continuing need for tech skills projected through the recovery. Team NEO also recognizes that not enough employees are moving into the Region. The demand for workers, especially, in skilled and technology jobs will have to be filled from within the Region. A strategy they point out that will need to focus on workforce training, education, pipelines, and workforce support – both to fill needed jobs and support distressed and disadvantaged communities.

The GCP “All In” Plan, released in February 2022, includes a strong focus on having an abundant

talent supply to support dynamic business growth in the Region. The Plan also recognizes the need to have appealing communities to attract and retain dynamic businesses and talent, and pro-growth policy at the regional, State, and federal levels that stimulates businesses, talent, inclusion, and communities. The GCP plans to work with partners to “build and sustain an environment where businesses thrive; promote an inclusive and resilient economic infrastructure; and invest in a better future for business owners, students, and workers.”¹⁵⁴

This expressed commitment by the largest Chamber of Commerce in the U.S. to partner with the public sector at all levels on priorities for a thriving Region is an important factor for regional economic development. The recognition of the importance of talent in sustaining a thriving Region is a key foundation for regional success. The GCP Plan states that dynamic businesses need abundant talent to grow. Therefore, their focus is work-based learning for in-demand jobs—both for today and into the future.

Workforce Opportunities

The employment data for the Region suggests a high-level correspondence of opportunity to expand economic activity in initiatives related to manufacturing, healthcare, and finance/insurance. Connected opportunities in occupational clusters will be important. In a Region that educates students in key sectors, as well as providing quality healthcare to patients, the expansion of products, services, and education in high-demand innovation clusters is a significant opportunity.

Workforce education through specially targeted training for in-demand occupations will offer the Region’s youth gateways to emerging employment. As new opportunities develop, close coordination and partnership between the public and private sector in designing and implementing the needed training and the kind of communities that attract and retain the needed talent will be key to successful strategies.

County Plans such as *Medina’s Comprehensive Economic Development Strategy* have workforce development initiatives as well. Medina’s strategies include Job Opportunity Tours that take individuals directly into worksites to show them the facilities and what it is like to work there, Made in Medina Marketing efforts that showcase local products, a County Manufacturing Council, and job fairs. Their Business Advisory Council works with schools to anticipate needed skills and communicate what employers will need from the upcoming workforce. The County enjoys low unemployment rates and therefore looks to retain and grow opportunities.¹⁵⁵

Other Counties share workforce concerns with the Region as a whole. For example, not only are the resident workforces in shorter supply because of the aging demographics, workers often are traveling from their home county to work, so a shorter commute time as well as more training would be desirable. Geauga County has identified their commuting patterns as bedroom community commuting and a need for workforce housing among economic development considerations in their *Strategic Plan for Economic Development*, along with their strong work ethic and pride of place. There is a lot to offer in each of the Region’s Counties, and workforce is a common need to make development happen.¹⁵⁶

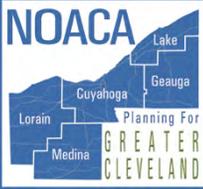
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Workforce Development

Goals: Vibrant, Innovative Economy / Premier Partnerships / Growing Population and Skilled Workforce

Strategies	Outcomes	Potential Partners
Support regional industry cluster work groups	Closer coordination among industry sectors; More competitive industry clusters in the larger economy	Chambers of Commerce; Economic Development Agencies; Labor Leadership; OMJ; Industry Sector Partnerships; Workforce Development Organizations
Coordinate community and economic development strategies with workforce needs	A workforce with the skills needed to sustain the regional economy	Chambers of Commerce; Economic Development Agencies; Labor Leadership; OMJ; Industry Sector Partnerships; Workforce Development Organizations
Work with partners to support the educational needs of the workforce	Workforce advancement through upskilling into opportunities in the Region	Community Colleges and Universities; Trade schools; High Schools; Labor Leadership, OMJ, Industry Sector Partnerships, Workforce Development Organizations
Create programs for older or retired workers to mentor business associations, employers	Retain more workers and transfer skills and work habits needed in the workplace	High Schools; Community Colleges and Universities; Trade Associations, OMJ, Workforce Development Organizations
Identify communities of need and focus services to them to increase labor participation	Upgraded skills for access to available jobs	Business Associations, Employers; High Schools; Community Colleges and Universities; Trade Associations, OMJ, Workforce Development Organizations
Support and create STEM hubs in K-12 systems	More workers trained in occupations needed for business growth	Business Associations, Employers; High Schools; Community Colleges and Universities; Trade Associations, OMJ, Workforce Development Organizations
Support training and reentry of formerly incarcerated individuals into the workforce	Higher labor force participation and lower recidivism	Office of Workforce Development; Ohio Department of Rehabilitation and Correction; Industry Leadership; Education Leadership, OMJ, Workforce Development Organizations
Start young and create paid internships and work experiences while students are in school	More workers trained in occupations and work habits needed in the workplace	Business Associations; Employers; High Schools; Community Colleges and Universities; Trade Associations; Workforce Development Organizations; MAGNET; OMJ; Workforce Development Organizations
Coordinate with neighboring areas that are part of a larger labor shed	Additional jobs and skilled labor supply opportunities in a larger catchment area	Ohio Office of Workforce Development; Neighboring EDDs; OMJ; Workforce Development Organizations



Comprehensive Economic Development Strategy



Economic Resilience¹⁵⁷

The COVID-19 pandemic created a public health crisis and a related economic crisis. On March 23, 2020, Ohio Governor Mike DeWine announced that the State would be under a “Stay at Home” order. The order led to skyrocketing unemployment – unemployment claims rose 274,288 for the week ending on March 28th, representing an increase of 268,091 from a year earlier and 77,979 from the prior week.¹⁵⁸ According to research by the Center for Economic Development at CSU, the most affected industries in the NOACA Region were auto manufacturing; entertainment and arts; accommodation; and food service.¹⁵⁹

More than two years into the pandemic, significant areas of the U.S. economy are still suffering, and Americans are experiencing ongoing disruptions in the supply chain. The uneven economic impacts from the COVID-19 pandemic underscore the need for economic resilience strategies. Resilience is the ability to anticipate, adapt, respond, and recover to unexpected change. Planning for economic resilience includes (1) anticipating potential risks, (2) knowing how those risks might impact your Region economically, and (3) creating a detailed response to protecting those identified risk areas.

Moreover, threats from climate change loom over the Region. The National Climate Assessment (NCA)¹⁶⁰ identifies increased risks to the NOACA Region:

Climate change will exacerbate a range of risks to the Great Lakes, including changes in the range and distribution of certain fish species, increased invasive species and harmful blooms of algae, and declining beach health. Ice cover declines will lengthen the commercial navigation season.

The NCA further expands on six key impacts to the Region:¹⁶¹

- Impacts to Agriculture;
- Forest Composition;
- Public Health Risks;
- Electricity System;

- Increased Rainfall and Flooding; and
- Increased Risks to the Great Lakes.

The NCA suggests the Region should continue to closely monitor the climate and to anticipate how climate change will impact the regional economy. Establishing economic resilience in a local or regional economy is paramount to overcoming and avoiding the negative impact of unavoidable shocks or threats. According to the Rural Policy Research Institute,

[s]hocks can include natural events, often but not always weather-related; human-made events, such as terrorism or nuclear or chemical accidents; medical events, such as pandemic diseases; and economic events, such as the collapse of an industrial sector or the cessation of vital economic activity. These events may, and often do, occur in some combination, thus multiplying the impacts on a community or region.¹⁶²

In this context, we also include impacts from emerging or evolving variables, such as climate change, sea-level rise, globalization, changes in technology, etc., when we discuss a Region’s economic resilience.

Why Plan for Economic Resilience?

The narrow answer is because the U.S. EDA requires it; the broader answer is that economic disruptions can happen at any time and preparation is good policy. In 2015, the U.S. EDA developed updated guidelines for communities creating or updating a *CEDS*. For the first time, the U.S. EDA established requirements that *CEDS* include an economic resilience component. According to the National Association of Development Organizations (NADO), economic resilience is highlighted in a *CEDS* through “planning and implementing resilience, establishing information networks, conducting pre-disaster recovery planning, and measuring resilience.”¹⁶³

Moreover, investments in hazard mitigation have positive cost-benefit outcomes. According to the

Multihazard Mitigation Council, in 2005 a dollar spent on hazard mitigation created about \$4 in future benefits.¹⁶⁴ Judith Rodin, President of the Rockefeller Foundation and author of the book *The Resilience Dividend*, argues that it costs 50 percent more to rebuild in the wake of a disaster than to build infrastructure to withstand the shock.¹⁶⁵ According to the Federal Emergency Management Agency (FEMA), over 40 percent of businesses do not reopen after a disaster, and of those businesses that do reopen 25 percent fail within one year.¹⁶⁶ Furthermore, 75 percent of businesses without a business continuity plan will fail within three years.¹⁶⁷ The U.S. SBA estimates that over 90 percent fail within two years of a disaster event.¹⁶⁸

Beyond meeting U.S. EDA requirements, the resilience section of the *CEDS* identifies regional vulnerabilities with the goal of preventing, mitigating, and responding to economic disruptions. Addressing resilience is a key step in expanding economic development strategies to include potential major losses due to natural disasters and other events that disrupt

economic activities.¹⁶⁹ **Figure 26** details how the level of pre-event resilience contributes to the level and length of time communities take to recover post-event.¹⁷⁰

U.S. EDA Requirements. Title 13, Chapter III, Part 303 of the Code of Federal Regulations outlines the requirements for Planning Investments and *CEDS*. The regulations state that a *CEDS* must: “. . . promote regional resiliency and be unique and responsive to the relevant Region.” According to U.S. EDA, all communities should evaluate their economic vulnerabilities and develop strategies to mitigate potential impacts on the regional economy.¹⁷¹ The U.S. EDA suggests the following activities and projects:

- Identify persistent economic challenges or deficiencies:** What are the Region’s economic vulnerabilities? Is there a singular issue or is it a more holistic problem? Is there a long-term plan for accessing economic vulnerabilities?
- Prepare for disruptions by identifying “early-warning” tools:** Will the Region be able to react swiftly and efficiently in the event

Effect of Resilience on Recovery Time

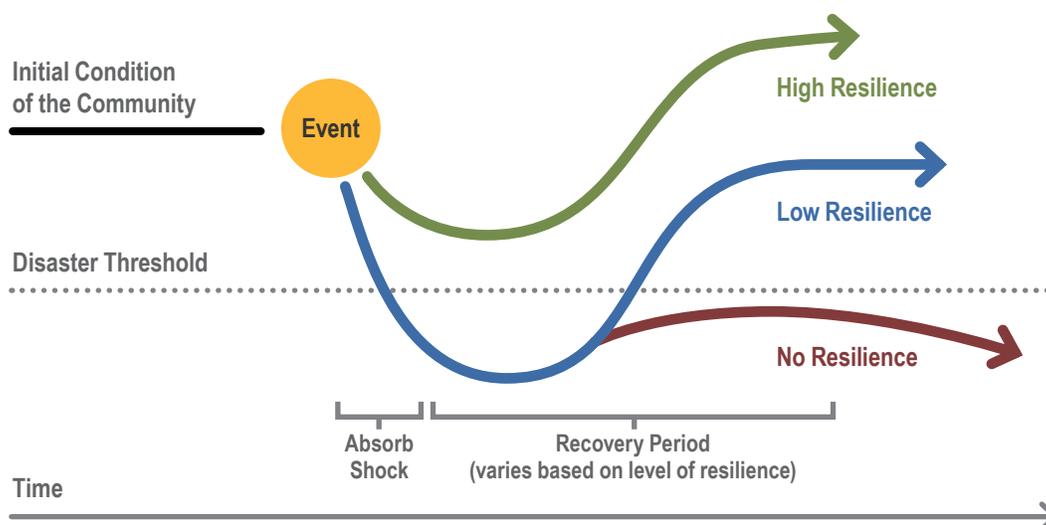


Figure 26.

This conceptual diagram displays how the pre-event resilience contributes post-event recovery.¹⁷² Original graphic by: Oregon Partnership for Disaster Resilience

of a disaster? Is communication between economic development professionals and local/regional emergency managers efficient and active? Are there actuarial systems in place to monitor assessment efficiencies?

Build mechanisms that create flexibility:

Do the local governments and major employers have access to “surge” capital/ credit resources or funds available for emerging diverse economic sectors? Are there resources available to retrain and re-align workforces post-disruption?

Promote a positive vision for the region: Is there positive messaging about the Region’s assets and opportunities? Do stakeholders understand that actions that build resilience are good for the regional economy? Are economic shocks used as an opportunity to “re-vision” and spark economic activity?¹⁷³

Principles of Resilient Systems

Disaster resilience is the process of considering the vulnerability of a system and finding ways to reduce risk or potential damage before an event occurs. As **Figure 26** shows, highly resilient systems are more prepared to respond to a disaster and recover more quickly. The Stockholm Resilience Center outlines seven principles of resilience that can act as tools for guiding the approach, process, and outcomes of disaster planning for heritage resources.¹⁷⁴ Applied to economic development, the Stockholm Resilience Center’s resilience principles provide a framework for strategic investments and planning. The University of Oregon Institute for Policy Research & Engagement (IPRE) adapted and distilled those seven principles into three primary principles focused on economic development.¹⁷⁵

Principle 1: Maintain Diversity and Redundancy.

Diversity and redundancy can be summed up with the phrase, “don’t put all your eggs in one basket.” Diversity and redundancy can be thought of like an umbrella insurance policy that covers a disaster or natural hazard. In an economic sense, this strategy is routinely

used by farmers who plant a diverse rotation of crops that hedges against the unexpected negative impact of crop failure. In the long run, the diversity and redundancy of systems will pay off when systems fail. Part of this philosophy is to ensure that linkages between systems are documented and that communication lines are established between systems. This will result in faster recovery from disturbances.

One of the key challenges is balancing the need for economic diversity and economic efficiency. According to the New Economics Foundation, a United Kingdom think tank, “beyond a certain point, increasing financial system activity may serve only to reduce resilience without any meaningful benefit to society.” Yu Xiao and Joshua Drucker in their paper, *Does Economic Diversity Enhance Regional Disaster Resilience?*, state:

[i]n normal times, diversity benefits employment growth but hampers income gains, a tradeoff that may reflect the conflict between economic diversity and the efficiency advantages of specialization. We do not know yet how public policies or particular regional traits might diminish or negate this tradeoff. Planners and policymakers should consider these outcomes and recognize that some policies may represent compromises among different economic development aims. Ultimately, planners must understand that there are risks in designing policies that promote (or disregard) regional economic diversity.¹⁷⁶

The goal of resilience strategies is to remain as efficient as possible, while acknowledging that preparing for inevitable downturns and disasters does have an initial and ongoing investment cost. The ultimate goal, as shown in **Figure 27**, is to balance diverse and interconnected systems without sacrificing efficiency.¹⁷⁷

Principle 2: Foster Complex Adaptive Systems Thinking.

Connections and interdependencies matter. In fact, the more diversity and redundancy in a community, the greater the “need to understand

the complex interactions and dynamics that exist.” In short, to effectively manage diverse systems, coordination must occur across sectors and systems. Adopting a resilient and adaptive systems framework is important to anticipate and account for these interdependencies. The Stockholm Resilience Center cites several strategies for fostering complex adaptive systems thinking:¹⁷⁸

Adopt a systems framework. This can help business owners and economic development professionals increase their understanding of interdependencies and relationships. For example, recognizing linkages between the private sector and public infrastructure, between the economy and the environment, or between businesses and their customers and supply chains.

Expect and account for change and uncertainty. Businesses can employ scenario planning to explore and evaluate alternative economic development strategies, and to assess the intended and unintended consequences of different decisions. What

happens to agriculture with a significant drought or other changes to the regional climate regime? How do global supply chain disruptions impact the logistics that regional manufacturers rely on?

Recognize barriers to cognitive change. Businesses, institutions, and organizations that could benefit from or capitalize on existing systems and approaches may resist adaptive systems thinking, particularly if it challenges a “business as usual” approach.

Principle 3: Broaden Participation.

One way to increase diversity and foster complex systems thinking is to invite more stakeholders and individuals to participate in the economic development process. Broad participation builds trust and creates a greater understanding. In addition, it has the potential to attract resources, perspectives, and solutions that might otherwise not be available. Important things to consider in engaging more people include: clarifying goals and expectations; getting the right people involved; finding leaders

Window of Viability Between Efficiency and Resilience

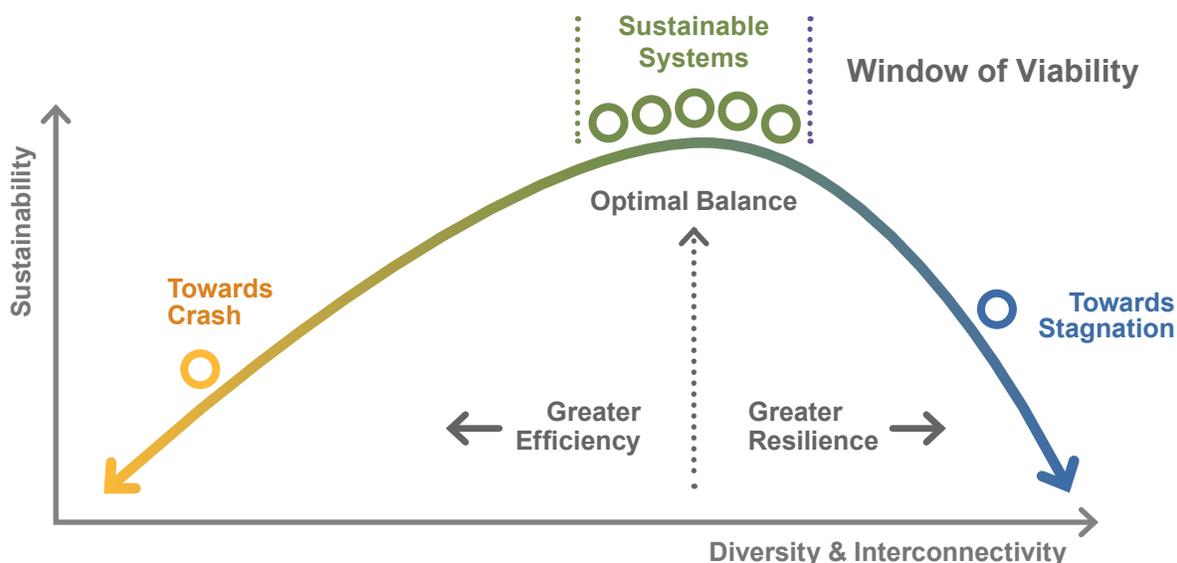


Figure 27.

This figure shows a visual representation of the optimal balance of resilience vs. efficiency.¹⁷⁹ Based on a graphic by Lietaer, Goerner, Ulanowicz, and McLaren

that can mobilize the group; providing capacity building; dealing with power issues and potential conflicts; and securing sufficient resources to enable effective participation.

The Stockholm Resilience Center presents several guidelines that can contribute to effective participation from a diverse set of stakeholders. While these are in no way groundbreaking, they are often overlooked:¹⁸⁰

- Clarify your goals and expectations of the participation process;
- Get the right people involved;
- Find inspired and motivated leaders that can mobilize the group;
- Provide capacity building;
- Deal with power issues and potential conflicts;
- Secure sufficient resources to enable effective participation.

Regional Economic Resilience Assessment

The resilience assessment strives to identify economic vulnerabilities that can inhibit short- and long-term economic recovery after a major disaster event. The assessment includes three primary steps: (1) a review of *Natural Hazard Mitigation Plans*, (2) a review of the U.S. EDA National Economic Resilience Data Explorer (NERDE),¹⁸¹ and (3) a high-level analysis of critical supply chain linkages and infrastructure.

Hazards and Vulnerabilities

State and local governments are required to develop and adopt *Natural Hazard Mitigation Plans (NHMPs)*. These plans are required to address known natural hazards within the jurisdiction. Natural hazard mitigation is defined as any sustained action taken to reduce or eliminate the long-term risk to human life or property from natural hazards.

NHMPs include an inventory of natural hazards as well as a vulnerability assessment; the top based on local hazards for the Region are included in **Figure 28**. They provide the foundation for the assessment that follows which is based on State and County *NHMPs*. The State *NHMP*¹⁸² includes a Hazard Identification and Risk Analysis (HIRA) that provides an overview of the type and location of all-natural hazards that can affect the State. The State also monitors hazards identified in local and regional *NHMPs* based on seven factors for each hazard: Frequency, Response, Onset, Impact (magnitude), Impact on Business, Impact on People, and Impact on Property.¹⁸³

All five Counties included in the *CEDS* have adopted *NHMPs*.¹⁸⁴ Consistent with the Statewide hazard rankings, the County plans identified flooding, severe storm events

Figure 28.

Ranking of the top hazards based on local priorities.¹⁸⁵
Source: 2019 State of Ohio Hazard Mitigation Plan

Hazard	Score	Rank
Flooding	21.09	1
Winter Storms	20.54	2
Severe Summer Storms	18.44	3
Tornado	18.04	4
Drought	16.91	5
Earthquake	15.67	6
Dam/Levee Failure	14.71	7
Invasive Species	12.02	8
Landslide	11.97	9
Land subsidence	11.97	10
Wildfire	11.21	11
Coastal Erosion	10.39	12

(winter and summer), tornadoes, drought, and earthquakes as the key hazards in the Region.¹⁸⁶

The following summarizes the priority hazards for the Region.¹⁸⁷

Severe Summer Storms and Tornadoes

Storms are characterized by violent weather phenomena producing winds, heavy rains, excessive heat, lightning, hail, and tornadoes that can cause injuries, and destruction of property, crops, and livestock.

Severe summer storms and associated thunderstorm/high winds, lightning, and hail events are common throughout Ohio and reported hundreds of times each year. Hail events have a much greater financial impact in urbanized areas. Events of the same magnitude can create substantially more damage in an urban setting, than it would in a forested or agricultural area.

Tornadoes are non-spatial hazards and it is difficult to profile tornadoes and determine the exact risk. While Ohio does not rank among the top states for the number of tornado events, it does rank within the top 20 states for fatalities, injuries, and dollar losses, indicating that it has a relatively high likelihood of damages resulting from tornadoes.

Severe Winter Weather

Canadian and Arctic cold fronts that push cold temperatures, ice, and snow into the State generally cause winter storms, blizzards, and ice storms. Severe winter weather in Ohio consists of freezing temperatures and heavy precipitation, usually in the form of snow, freezing rain, or sleet. Severe winter weather affects all parts of the State.

Extreme events can make conditions dangerous and disruptive. Heavy snow volume makes snow removal difficult. Trees, cars, roads, and other surfaces develop a coating of ice, making even small accumulations of ice extremely hazardous

to motorists and pedestrians. The most prevalent impacts of heavy accumulations of ice are slippery roads and walkways that lead to vehicle and pedestrian accidents; collapsed roofs from fallen trees and limbs from heavy ice and snow loads; and felled trees, telephone poles and lines, electrical wires, and communication towers. As a result of severe ice storms, telecommunications and power can be disrupted for days.

Flooding

A temporary inundation of normally dry land as a result of 1) the overflow of inland or tidal waters, or 2) the unusual and rapid accumulation or runoff of surface waters from any source.

All structures in the floodplain are vulnerable to damages from flooding; particularly capital that is situated below the base flood elevation. Utilities such as furnaces, generators, oil tanks, and electricity meters, often situated near or below ground level, are especially susceptible to water damage from flood events. Key impacts of flooding are damage to structures, particularly structures with repetitive flood losses, loss of business activity, loss of personal property, and loss of life.

Earthquakes

Earthquakes in Ohio are primarily located in the northeast and far west-central portions of the State and historically have not exceeded 5.4 magnitude. The Northeast Ohio Counties of Ashtabula, Geauga, and Lake are one of the most earthquake-prone areas of the State. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure.

Impacts of earthquakes depend on a number of factors including magnitude, depth, and location. Key vulnerabilities include damage to buildings and critical facilities, fire and debris generation, and loss of economic activity.

Drought

Drought is a normal, recurrent feature of climate that originates from a deficiency of precipitation over an extended period of time, resulting in a water shortage for some activity, group, or environmental sector. The effects of drought can vary based on land use (agricultural production as opposed to urban areas), economy (dependence on drought-impacted businesses, such as farming), geology (presence of an aquifer or ground structure that limits well production), and water source (public water supply, private well, or cistern).

Drought risk is based on a combination of the frequency, severity, and spatial extent of drought and the degree to which a population or activity is vulnerable to the effects of drought. The Region's vulnerability to drought is influenced by a wide range of factors, both physical and social, such as demographic trends and geographic characteristics.

When drought begins, the agricultural sector is usually the first to be affected because of its heavy dependence on stored soil water, which can be rapidly depleted during extended dry periods. If precipitation deficiencies continue, then people dependent on other sources of water will begin to feel the effects of the shortage. Those who rely on surface water (reservoirs and lakes) and subsurface water (groundwater) are usually the last to be affected. A short-term drought that persists for 3 to 6 months may have little impact on these sectors, depending on the characteristics of the hydrologic system and water use requirements.

Vulnerability Analysis

The NERDE is a recently opened online data portal sponsored by the U.S. EDA and managed by Argonne Laboratories.¹⁸⁸ According to the data portal, "NERDE consolidates information and data on economic distress criteria, COVID-19 impacts on local economies, and the existence and emergence of industry clusters." NERDE is intended to assist users with local

economic recovery and resilience analysis needs. The data can also help inform regions on the types of 'special need' that may indicate eligibility for U.S. EDA assistance.

The portal does not list NOACA as a Region, but does provide County-level data for the Region.

Figure 29 summarizes selected resilience indicators by County. Cuyahoga, Geauga, and Lorain all show 24-month unemployment rates higher than the national average.¹⁸⁹ All of the Counties show current (January 2022) unemployment rates higher than the national average. The NERDE portal does not identify any major risks to the Region, but classifies Cuyahoga County as a "relatively high" risk.

Social vulnerability is the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. With respect to the social risk index score, Cuyahoga, Lake, and Lorain Counties had higher values (higher values indicate more social vulnerability) than Lake and Medina Counties. **Figure 29** details the social risk scores for the Counties. Cuyahoga County was in the 76th percentile of all Counties (i.e., had a social risk index score higher than 76 percent of counties in the U.S.) suggesting considerable social vulnerabilities.¹⁹⁰

All the Counties had COVID-19 Economic Injury Estimates less than 1 indicating economic harm from COVID-19. All the Counties were above the 50th percentile in economic injury due to COVID-19. All Counties also had local government revenue vulnerability index values of less than 1 indicating a loss of government revenue. The Region fared better than most with percentile rankings between 3 percent and 20 percent.¹⁹¹

Selected Vulnerability Indicators by County

Indicator	Cuyahoga	Geauga	Lake	Lorain	Medina	U.S.
24-month Unemployment	8.0%	5.2%	6.4%	7.4%	5.7%	6.7%
Current Unemployment (Jan 2022)	6.1%	4.9%	5.3%	7.0%	4.7%	4.4%
Persons in Poverty ^a	17.1%	5.9%	8.2%	13.4	5.8%	12.8%
National Risk Index Rating ^b	Relatively high	Very Low	Relatively Low	Relatively Low	Very Low	NA
Social Risk Index Score ^c	44.90	23.77	32.64	36.62	22.55	NA
Social Risk Index National Percentile ^c	76.7%	8.1%	27.3%	42.8%	6.6%	NA
Social Risk Index National Percentile ^c	76.7%	8.1%	27.3%	42.8%	6.6%	NA
COVID-19 Economic Injury Estimates – Value ^d	0.947	0.960	0.950	0.951	0.954	NA
COVID-19 Economic Injury Estimates – County percentile ^d	55.9%	57.1%	56.9%	56.7%	57.6%	NA
Local Government Revenue Vulnerability Index – value ^e	0.968	0.984	0.982	0.987	0.986	NA
Local Government Revenue Vulnerability Index – percentile ^e	2.84%	13.7%	9.4%	20.2%	17.5%	NA

Figure 29.

This table details the social risk index scores for the Counties, as compared to the U.S.¹⁹² Source: NERDE

NA Not applicable

- a. Persons in Poverty is adjusted to the most recent available from the 2020 American Community Survey 5-Year Estimates.
- b. The National Risk Index is a dataset and online tool to help illustrate the U.S. communities most at risk for 18 natural hazards. It was designed and built by FEMA in close collaboration with various stakeholders and partners in academia; local, State, and Federal government; and private industry. The Risk Index leverages available source data for natural hazard and community risk factors to develop a baseline relative risk measurement for each U.S. County and Census tract.
- c. Social vulnerability is the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. As a *consequence enhancing risk component* of the National Risk Index, a Social Vulnerability score and rating represent the relative level of a community's social vulnerability compared to all other communities at the same level. A community's Social Vulnerability score is proportional to a community's risk. A higher Social Vulnerability score results in a higher Risk Index score.
- d. The COVID-19 Economic Injury Estimates the change in overall county-level economic activity during the COVID-19 pandemic relative to January 2020. Values less than 1 indicate losses.
- e. The Local Government Revenue Vulnerability Index measures the vulnerability of local government revenues by estimating monthly changes to a January 2020 baseline. Values less than 1 indicate losses.

Critical Supply Chain and Infrastructure Analysis

Disaster events can impact a range of private and public sector systems the economy depends on. Infrastructure, business, social, and environmental system impacts can result in interruptions to supply chains, workforce availability, distribution networks, communication systems, financial institutions, and wholesale/retail markets. Further, disasters can contribute to decreased production capacities, irregular cash flows, and an inability to transfer goods and services compared to times of strong economic health. Chronic hazards, including floods, landslides, wildfires, and severe storms regularly impact transportation, electricity, and communication systems throughout the Region with consequential impacts across a range of business sectors. Catastrophic hazards of concern in the Region include earthquakes.

The situational assessment of this plan outlines the key assets that support the Region. This includes the capabilities of the public and private sectors and the Region's infrastructure that supports economic activity:

- Highways;
- High-Speed Internet;
- Rail – Freight and Passenger;
- Public Transit;
- Airports; and
- Energy.

All of these systems have their respective vulnerabilities and disruptions of any of these services will impact economic activity. The situational assessment also identifies societal infrastructure:

- Labor;
- Childcare;
- Housing; and
- Education.



Key Industry Clusters

The U.S. Cluster Mapping Project,¹⁹³ a data portal sponsored by the U.S. EDA, shows that Business Services; Distribution and Electronic Commerce; Education and Knowledge Creation; Insurance Services; and Metalworking Technology are the top five industries by employment. The portal further identifies Insurance Services; Metalworking Technology; Information Technology and Analytical Instruments; Upstream Metal Manufacturing; Downstream Chemical Products; Vulcanized and Fired Materials; and Recreational and Small Electronic Goods as industries with strong traded clusters in the Region. A strong cluster is one that has high employment specialization in the Region.

Threats to Economic Resilience

While infrastructure creates a unique set of threats to the Region's economic resilience, other factors are equally, if not more, important. Increasingly, scholars are viewing the economy as a complex adaptive system rather than a mechanism. Complex adaptive systems are characterized by interdependencies between the parts where each part plays a key role and cannot be separated from the system without the potential for system collapse. The *SWOT Analysis* identified several factors of production that pose threats to the Region's economic resilience.

Workforce – This was a common thread in the outreach activities and is perhaps the most important element of the Region's economy. Workforce availability and training both emerged as threats.

Aging Infrastructure – Like much of America, the Region has aging infrastructure some of which has had deferred maintenance, and some of which is in need of upgrades. This includes all types of transportation infrastructure, as well as water and wastewater systems, as identified earlier in this *CEDS*. (See Water Resources Key Topic Area) Aging infrastructure poses both an immediate threat to the Region's economy, as well as a long-term threat.

Housing Costs/Stock – Housing is a prerequisite to attracting and retaining talent. Research is beginning to document the impact of housing costs and stock on economic growth. For example, Uche Oluku & Shaoming Cheng, in their article in *Economic Development Quarterly*, concluded that an increase in homeowner and renter cost burden has a statistically significant adverse effect on business growth in the retail, information, and professional service sectors.¹⁹⁴

Innovation/Entrepreneurship Ecosystems – Business start-ups are an increasingly attractive strategy for economic developers. However, success requires a culture and ecosystem of innovation and entrepreneurship. Creating these ecosystems is particularly difficult in rural areas.

Broadband Access, and Digital Equity and Inclusion – The COVID-19 pandemic underscored the importance of broadband access to economic resilience. During the lockdowns early in the pandemic, many businesses were forced to pivot to online sales.

Healthcare – Like housing, good healthcare is central to attracting and retaining talent.

Action related to any of these threats will serve to improve economic resilience in the Region.



Regional Economic Resilience Strategy

This section presents a set of recommendations NOACA and other stakeholders can use as a starting point to prioritize economic resilience activities in the Region. Many of the other goals and strategies included in this *CEDS* will also contribute to economic resilience.

Strategy #1. Establish a Regional Resilience Council.

This could be as a standalone committee or incorporated into the activities of an existing committee. NOACA should explore options for the council with a preference towards integrating the activities into the function of an existing committee. The *2015 NOACA Strategic Plan: Going Forward, Together* identifies a need for greater regional cohesion.¹⁹⁵ The Plan concludes:

Regions are becoming more important as economic forces have presented challenges to cities, counties, and exurbs relative to

competitiveness, with statewide, national, and international implications. There are inefficiencies resulting from the sheer number of jurisdictions in the NOACA Region. Projected declining tax base and revenues mean we can no longer afford to operate so inefficiently. The Region needs to find practical ways to coordinate and consolidate the provision of services. Moreover, attracting and retaining jobs and population is very dependent on a regional identity.

NOACA has a regional (multi-County) focus and can serve as a forum and resource for developing opportunities for regional cooperation and collaboration.

The intended outcome is establishment of a Regional Resilience Council (or integrating the function with an existing committee) that has sustained relevance. The charge of the council would be to develop a list of priority community and group-wide climate and energy projects,

as well as assistance seeking funding for those priority projects.

This strategy addresses all three resilience principles – diversity and redundancy; fostering long-range complex thinking; and broadening participation.

ACTION STEPS

Convene a Working Group to explore the feasibility of a Regional Resilience Council. Analyze experiences of other organizations, and map the mission and objectives of the council. Assess the functions of existing committees and evaluate their potential to integrate resilience into their mission.

Explore partnerships with the U.S. EDA, NADO, and regional emergency management agencies to support the Regional Resilience Council and help organize a regional workshop.

Conduct regional one-day workshops to discuss the potential for a Regional Resilience Council and assess interest.

If sufficient interest exists, establish the Regional Resilience Council.

Strategy #2. Integrate Economic Development and Natural Hazards Mitigation Planning.

Hazard mitigation and economic development activities are both critical to the long-term prosperity of regions and communities. However, they are typically conducted separately. According to the NADO, “as a result, hazard mitigation plans and economic development strategies can be disconnected, making it difficult to ensure that businesses and regional economies are prepared for natural disasters and able to recover quickly.”¹⁹⁶ A region’s success is inherently linked to its economic resilience – in other words, its ability to anticipate, withstand, and bounce back from any shocks to its businesses and overall economy, whether those stem from natural hazards, climate change, or shifting economic or market conditions.

As such, NADO advocates viewing hazard mitigation (the effort to reduce loss by lessening the impact of hazards) and *CEDS* (the effort to improve economic development through local planning) as interrelated.¹⁹⁷ NADO outlines several benefits:

- Supports business and economic development that is safe and resilient to known hazards;
- Builds capacity and relationships that can lead to a quicker, stronger recovery in the event of a disaster;
- Makes each plan more effective and likely to achieve its objectives;
- Promotes creative thinking about new funding sources for programs and projects; and
- Allows leaders to market the region to businesses as safe and prepared for future disasters.¹⁹⁸

The State of Ohio and the Greater Cleveland Region have a strong legacy of natural hazards mitigation planning. All the NOACA Counties have developed and adopted *NHMPs*. The *NHMPs* provide a detailed evaluation of risk and vulnerabilities, and propose myriad ways of mitigating risk. Moreover the *2015 NOACA Strategic Plan: Going Forward, Together* includes goals and strategies that are consistent with regional resilience.¹⁹⁹

ACTION STEPS

NADO outlines several steps for linking natural hazards and economic plans.

- Broaden participation in both the *CEDS* and *NHMP* planning and implementation processes. Bring emergency managers, and others into the *CEDS* process. Bring economic development partners, including economic developers, business owners, chamber representatives, and others into the *NHMP* process.
- Compare plan components. Both *CEDS* and *NHMP* identify strategies and actions. Review both plans to identify areas of alignment and prioritize actions that are identified in both plans.

Establish a Regional Resilience Council (Strategy 1).

Incorporate economic variables into the risk assessment model. To the credit of State and County emergency managers this is already occurring in *NHMPs*.

View *CEDS* strategies through a mitigation lens. Incorporate strategic direction and actions that flow from the *SWOT Analysis* and risk assessment results. Strategies should strive to achieve multiple benefits when possible, and avoid contradicting each other at least.

Strategy #3. Business Continuity Planning Support.

Research shows that many businesses are not prepared to withstand the impact of a disaster. FEMA estimates that almost 40 percent of the small businesses that close after a disaster never reopen – in part because they did not have a Business Continuity Plan and were unprepared to recover.²⁰⁰ Moreover, the Insurance Institute for Business & Home Safety (IBHS) and the U.S. SBA estimates that 1 in 4 businesses can expect to experience a disruptive disaster.²⁰¹

Business continuity planning (sometimes called a Continuity of Operations Plan or COOP) is the process involved in creating a system of prevention and recovery from potential threats to a company. **Figure 30** shows the development of a COOP. The COOP ensures that personnel and assets are protected, and are able to function quickly in the event of a disaster. According to FEMA, the development of a typical business COOP includes four steps:

Conduct a business impact analysis to identify time-sensitive or critical business functions and processes, and the resources that support them.

Identify, document, and implement to recover critical business functions and processes.

Organize a business continuity team and compile a business continuity plan to manage a business disruption.

Conduct training for the business continuity team, and testing and exercises to evaluate recovery strategies and the plan.²⁰²

Several toolkits are available online through FEMA's (ready.gov) site and the IBHS Open for Business website (ibhs.org).

This strategy addresses the three resilience principles: diversity and redundancy; fostering long-range complex thinking; and broadening participation.

ACTION STEPS

Create a webpage on the EDD site/CEDS site providing information and links to resources about business continuity planning.

Use social media platforms to encourage regional businesses to visit the site to learn more about what business continuity planning is worth the effort.

Seek funding resources to support regional workshops on business continuity planning.

Conduct a regional business readiness assessment by surveying businesses to gauge how prepared businesses are for a disaster.



Huntsburg by Janet Moore-Coll

Business Continuity Planning (COOP) Process Diagram



Figure 30.

This graphic details the development of a business continuity plan.²⁰³

Source: Ready.gov

Strategy #4. Support Local Government Financial Resilience to Disasters.

In 2014, the NADO Research Foundation, the Rural Policy Research Institute, and the Northwest Georgia Regional Commission hosted a “Building Local Government Financial Resilience to Disaster” workshop. The workshop presented city and county financial officers, emergency managers, and elected officials with a process they could use to prepare financially for natural disasters, helping them understand the costs they may face from disasters, evaluate their ability to pay for those costs, and identify strategies for covering projected shortfalls.²⁰⁴

The NERDE portal showed that local governments in the Greater Cleveland Region have financial vulnerabilities. NOACA could partner with NADO and the U.S. EDA to conduct a similar workshop.²⁰⁵

ACTION STEPS

- Assess interest in local government partners for a financial resilience workshop.
- If enough interest exists, approach the U.S. EDA and NADO as potential partners for a workshop.
- Review risk and vulnerability assessments and financial loss estimates in *NHMPs*.
- Support local government financial resilience planning and implementation.

Strategy #5. Regional Food Security and Sustainable Food Production.

According to the Post Carbon Institute and their Resilience Program (resilience.org), food security means that all people at all times have physical and economic access to adequate amounts of nutritious, safe, and culturally appropriate foods, which are produced in an environmentally sustainable and socially just manner, and that people are able to make informed decisions

about their food choices. Food security also means that the people who produce food are able to earn a decent living wage growing, catching, producing, processing, transporting, retailing, and serving food. In short, food security is access to healthy food and optimal nutrition for all. Food access is closely linked to the food supply, so food security is dependent on a healthy and sustainable food system.²⁰⁶

More than 90 percent of food in most regions is imported. As such, the food system relies on complex and expensive supply chain linkages and agricultural practices that are not always sustainable and often do not provide nutritious and healthy options for households.

Regionalizing elements of the food system is an excellent way to increase food security while creating jobs and improving healthy food options for households.

Several organizations in Ohio are active in the food security realm – food banks, healthcare organizations, legal advocates, educational institutions, and government agencies. Thus, any activity addressing this recommendation should begin with partnerships.

This strategy addresses all three of the resilience principles – diversity and redundancy; fostering long-range complex thinking; and broadening participation.

ACTION STEPS

Conduct an environmental scan to learn more about issues and activities in food security and production.

Seek funding to conduct a regional food security assessment and/or a regional food market analysis.

Inventory and support regional businesses working in sustainable agriculture, food systems, and food security.

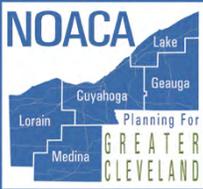


West Side Market by Igor Oliyarnik

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Comprehensive Economic Development Strategy



Evaluation Framework and Performance Measurements

This section outlines the Evaluation Framework for the *NOACA CEDS 2023-2028*.

The *CEDS* Evaluation Framework is used to gauge progress on the goals through measurable outcomes and performance measures during the proposed *CEDS* performance period. This methodology focuses on measurable outcomes of the goals and strategic actions identified in this

document. Over the next five years, the annual assessment process will show how the Greater Cleveland Region addressed the *CEDS* Goals and how the Outcomes identify areas that need to be further addressed. The evaluation process will enable NOACA and its economic development partners to address those issues most important to the economic recovery of the Region and to move forward with a more resilient economy.

Responsible Organization

The *CEDS* is implemented and tracked for ongoing plan maintenance, reporting on progress, and updates by NOACA, serving as the EDD. NOACA Staff provides technical assistance and consultation with related economic development organizations at the State, federal and local levels. The NOACA Staff works in cooperation with project sponsors and applicants to provide assistance on grant guidelines, applications, and required reporting.

Review Periods and Content

This *CEDS* will be reviewed, and progress reported annually in the U.S. EDA required *CEDS* Annual Performance Report. The annual review will include a summary assessment of progress on the Strategies and Outcomes outlined in the *CEDS*, as well as updates to background statistics describing the state of the regional economy. The annual performance reporting and regular monitoring of progress allow for the flexibility needed when implementing plans covering multiple years. Adjustments can be made on a timely basis as conditions change, including economic disruptions, weather events, or international events that can affect supply chains and import/export opportunities.

Performance Matrix

Outcome performance measures are illustrated in **Figure 31** in relation to the goals, strategies, and measurable outcomes of the *CEDS*. The measures may be amended as necessary to improve tracking during the implementation period.

Implementation

The **NOACA Board** is the decision-making body that approves regional priorities through the adoption of *CEDS*. The NOACA Board will provide direction to NOACA Staff, as appropriate. The Board is a convening and support entity.

NOACA Staff is a conduit between decision-makers (the Board) and economic development work. NOACA Staff will convene regional and local stakeholders through *CEDS* implementation meetings and provide support through outreach, facilitation aid, and relevant economic development opportunities to the Region.

Regional and Local Economic Development Stakeholders are NOACA member economic development appointees from within Cuyahoga, Geauga, Medina, Lake, and Lorain Counties, who will provide advice and may be convened quarterly, semi-annually, or annually to provide local updates during *CEDS* implementation meetings to support regional alignment with *CEDS* priorities.

Working Groups may be formed as a result of *CEDS* implementation meetings for action-oriented and project-focused groups that carry out regional priorities. They will be convened by a lead identified from within the group with coordination by NOACA Staff.

CEDS Implementation Five-Year Timeline/Benchmarks

Year 1 Implementation

- NOACA Board will adopt the updated *CEDS*.
- NOACA Staff will convene *CEDS* implementation meetings.
- Working Groups may be formed from *CEDS* implementation meetings, as needed.
- Working Groups may set a schedule for meeting and implementation, as needed.
- NOACA Staff and Member Staff will provide support for Working Groups, as needed.
- NOACA Staff will produce an end-of-year report of *CEDS* implementation activities, including gathering data on outcomes. The report will be available for public review and comment for further refinement of *CEDS* as needed.

Years 2-4 Implementation

NOACA Staff will continue to organize quarterly to semi-annual *CEDS* implementation meetings.

New Working Groups will be formed, as necessary, during *CEDS* implementation meetings.

NOACA Staff and Working Groups will record successes and challenges.

NOACA Staff will produce end-of-year reports of *CEDS* implementation activities, including gathering data on indicators. The reports will be available for public review and comment for further refinement of *CEDS* as needed.

Year 5 Implementation

NOACA Staff will convene *CEDS* implementation meetings, as appropriate.

New Working Groups will be formed, as necessary, during *CEDS* implementation meetings.

NOACA Staff and Working Groups will record successes and challenges.

NOACA Staff will engage appropriate stakeholders in the *CEDS* review and plan update process (reserve a full year for the 2027 update).

NOACA Staff will produce an end-of-year report of *CEDS* implementation activities, including gathering data on Outcomes. The report will be available for public review and comment for further refinement of *CEDS* as needed.

Annual Review Periods and Content

This *CEDS* will be reviewed, and progress reported annually in the U.S. EDA required *CEDS* Annual Performance Report. Annual review will include a summary assessment of progress on the Strategies and Outcomes outlined in the *CEDS*, as well as updates to background statistics describing the state of the regional economy.

Opportunity for public comment on revisions will be made available consistent with NOACA public comment policies.

Background Economic Statistics Examples for Annual Review

POPULATION

The Region's population was 2,088,251 according to the 2020 Decennial Census. Since 2010; the State of Ohio grew by 2.3 percent, while the Region grew by just 0.5 percent or 11,000. The median age in 2010 was 40.5 years. In 2020 it was estimated at 41.4 years.

MEDIAN HOUSEHOLD INCOME

The median household income within the Region is \$57,263, and it is lower than both the State (\$58,116) and the nation (\$64,994). The poverty rate for the Region, 14 percent, is higher than the State, 13.6 percent, and the nation, 12.8 percent.

LABOR FORCE

The U.S. BLS shows the civilian labor force of the Cleveland-Elyria MSA in January of 2022 at 1.01 million. This is lower than it was in 1990 at 1.03 million.

EDUCATIONAL ATTAINMENT

In 2020, 28.8 percent of the regional population age 25 and over had a high school diploma or equivalent, which is higher than the national average of 20.2 percent. However, 19.2 percent had a college degree, which is slightly lower than the national average of 28.9 percent.

ACCESS TO COMPUTERS

According to the 2020 ACS 5-Year Estimates, 90.5 percent of households had a computer, and 82.3 percent had a broadband connection.

HOUSING

According to the 2020 ACS 5-Year Estimates, 68.4 percent of the total population was in owner-occupied units, and 31.6 percent were in renter-occupied units.

Summary of Progress Example for Annual Review

INTRODUCTION

The *CEDS* goals and associated strategic action items help move performance outcomes in population, labor force participation, and other economic measures. **Figure 31** provides a sample report matrix. While affected acutely by the worldwide COVID-19 pandemic, and the chronic effects of population aging, progress is being made in strategic actions through program operation, technical assistance for projects in the Region, and partner activity.

PROGRESS

Progress is being made, for example, in workforce training and recruitment, regional

broadband expansion, transportation upgrades, and manufacturing clusters. Performance measures and project reports show activity and improvements in conditions in the Region.

CHALLENGES

International markets continue to present supply chain issues that tightened during the pandemic and an aging workforce continues to limit labor force participation.

OPPORTUNITIES

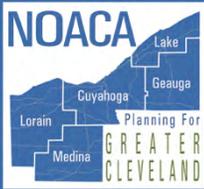
Opportunities exist to take advantage of regional location advantage for freight; logistics and intermodal operations; and cooperation of public, private, and philanthropic partners on marketing the Region's assets.

Prospective Annual Performance Report Matrix Example

Goal	Strategy	Measurable Outcome	Performance Measure	Partner	Status
Identified Goal	Strategy: Project / Task / Service	Outcome of Strategic Action	Positive / Neutral / Negative result	Organization taking action	Completion Level / Ongoing
Goal: A vibrant innovative economy	Strategy: Support continued education partnerships with industry sectors	Education and skills better aligned with needs of industry sectors	Increased regional hiring from educational institutions within the Region	Foundations; Secondary and higher education partnerships; County/City economic development organizations	Ongoing

Figure 31.

Table displays this *CEDS* prospective Annual Performance Report Matrix example to consider.



Comprehensive Economic Development Strategy



Conclusion

The *2023-2028 CEDS* sets a course for the economic development of the Region. It includes an analysis of the Region's major *Strengths, Weaknesses, Opportunities, and Threats*. It presents a Vision Statement and Goals that respond to input from surveys, interviews, facilitated discussions, and review of existing plans and documents from the region, State, and federal agencies, and key partner organizations.

The *CEDS* identifies strategic actions that move the Region forward on its goals, and it provides a framework within which to track the progress

and outcomes annually over the next five years of the *CEDS* timeline. The timeline of outcomes depends on numerous factors.

Conditions can change literally overnight. Therefore, the *CEDS* emphasizes a focus on actions that can be adapted to changing conditions, such as resilient infrastructure, education, and industry partnerships needed to support a strong workforce recovery, and overall progress for a large Region, like NOACAs, whose success can signal a better future for the whole country.



Comprehensive Economic Development Strategy



Appendix

Public Comments

Federal Reserve Bank of Cleveland

Access to Broadband Section

I just wanted to note (rather, ask) about omission of State as critical “potential partner.” I am sensitive to the fact that there are similar efforts at State levels (with new, nat’l funding), particularly around a digital equity and inclusion plan, and I think we want to make sure that -to extent possible- we sync up with the State of Ohio. My understanding is that there may be significant movement on this in next 6-12 months but my staff would know more about this. Larger question for me was about State’s role in supporting/leveraging *CEDS* more broadly, but this stuck out.

Response: Added State of Ohio to list of partners for each strategy.

Federal Reserve Bank of Cleveland

Equity Section

Is there a way to acknowledge that there are critical intersections with this and all other categories, e.g. business investment and entrepreneurship, minority homeownership and housing, etc.

Disposition: Recommendation accepted and sentence added at the beginning of the section.

Going forward, I’d think critically about outcome measures too heavily focused on “increasing *numbers of ...*” versus increasing “*access to...*” capital, loans, technical assistance, etc. I say this because (for example) with PPP, the dollars were not the issue, it was *access to* the funding by minority owned firms given limitation of networks, traditional banking relationships, etc.

Additionally, we must acknowledge a declining population. Increasing access to capital for minority businesses and their sustained success and resiliency has been much more of a challenge than business formation (e.g. there has been a high level of business formation recently, but much

of that was stop-gap business formation and out of necessity-- not a great goal to shoot for).

Response: Recommendation accepted and sentences added at the end of the section.

Geauga County Planning Commission

Opening Section

Recommend not using the word “stagnant” to describe population growth as it comes across as a negative. It could read instead “Population growth for the entire Region has slowed with modest increases for several decades.”

Response: The population trend is clarified in the text as stable.

Recommend defining “equitable” and “sustainable” for those not familiar with the terms.

Response: Equitable and sustainable have been defined in the Opening section; definitions come from U.S. EDA and IEDC definitions.

Geauga County Planning Commission

Opening Section

Recommend adding that NOACA, acting as a regional council of governments, coordinated the preparation of the *CEDS*.

Response: Reference to NOACA acting in its council of governments’ capacity has been incorporated as suggested in the text, in the *Background* section.

Recommend revising the last sentence of the 1st paragraph to only reference the resolution passed by the NOACA Board. I do not agree with the last sentence as written at the beginning of the process, Director Gallucci stated that NOACA does not have jurisdiction over economic development and that is why NOACA reached out to the individual Counties and communities. The manner in which the last sentence is worded makes it seem like NOACA is now the economic

development authority in the Region and it is not. See related comments on Page 48 as well.

Response: Reference to the Board resolution is incorporated on page 11.

The link for footnote 7 is the same as the link for footnote 5.

Response: Footnote has been corrected.

Geauga County Planning Commission

Demographics Section, now called “Current Regional Conditions”

2020 Population Distribution by Age... very nice visual to explain the often referenced “generations” and their age groups.

Response: No action was necessary.

General comment: The Background Report contained much more data... not sure about the status of the draft document, but it should have been included as well for public comment.

Response: No action was necessary.

Geauga County Planning Commission

Economic Conditions Section, now called “Current Regional Conditions”

Recommend clarifying what is considered “Greater Cleveland.”

Response: The text refers to the geographic area of the five Counties and the City of Cleveland served by NOACA, also referenced as the Region and the Cleveland-Elyria, Ohio Metropolitan Statistical Area. Updated text to refer mostly to refer to the Region, which is defined in *Opening*.

Recommend referencing a timeframe for the Great Recession.

Response: Text removed from document.

Geauga County Planning Commission

Agriculture Section

Thank you for adding the section agriculture!

Regarding the Amish population, in addition to farming, please add woodcrafts/carpentry as a focus as well.

Response: Recommendation taken; woodcrafts/carpentry added to paragraph.

Agritourism should be mentioned, permitted through ORC 901.80: <https://codes.ohio.gov/ohio-revised-code/section-901.80>.

Response: Recommendation taken; agritourism added as a strategy for the Region.

The County Farm Bureaus can be listed as a partner for each strategy.

Response: Added County Farm Bureaus to each Strategy.

1st strategy, under “Partners”, change “Oregon” to “Ohio”.

Response: Recommended action taken; updated Oregon to Ohio.

Geauga County Planning Commission

Cultural Amenities Section

There is much detail on the Cleveland theater/cultural scene, which is important, but added a nod to the local theaters and various cultural amenities throughout the Region would be nice (too numerous to reference).

Response: Recommendation taken into consideration; Cleveland-centric information was deleted.

Strategy to support libraries: add “local library boards” to the list of partners.

Response: Recommendation accepted and local library boards added to list of partners to support the library and Region’s economic development strategy.

Add “local non-profit agencies” to the list of local partners under the strategies that are applicable

Response: Recommendation accepted and local non-profit agencies added to list of applicable strategies.

Geauga County Planning Commission

Education Section

Incorporate a statement on the importance of local high school vocational schools and trade schools. Four-year college is not the right path for all students. Electricians, plumbers, bricklayers, machinists, etc. are an important part of the economy, and finding skilled workers is a regional issue.

Response: Recommendation on the importance of education in the trades has been included in the text.

Geauga County Planning Commission

Equity Section

It is not clear if “Cleveland Metro” includes portions of Lake County, but it would be worth mentioning their Hispanic and Latino population.

Response: Reference has been updated to include a recent opening of a Hispanic community center with job training services in Lake County.

Geauga County Planning Commission

Healthcare Section

Mentioning the presence of numerous satellite offices affiliated with the Cleveland Clinic and UH in the five-County Region would be a good addition. This will demonstrate the widespread availability of healthcare, not only from the

perspective of patient convenience, but job creation in the entire Region and not just at its urban core. The number of satellite offices affiliated with each hospital would be good to include in the plan, if known.

Response: Reference has been included to the extensive health care networks throughout the Region, including the economic output of the two main hospital systems; the total spending and payroll produced by each; the number of jobs; and the total tax base for each.

Geauga County Planning Commission

Immigration Section

Recommend revising the sentence “In short, everything northeast Ohio offers economically comes from the Region’s immigrants.” We are a nation of immigrants dating back to when the country was founded, but in this context, I think this sentence can be interpreted differently. It implies non-immigrants do not contribute to the economy.

Response: Sentence was reworked.

Geauga County Planning Commission

Innovation & Entrepreneurship Section

This section States “No public agency at the regional level exists whose primary focus is regional economic development.” This is a true statement and it should remain, but feel it conflicts with the statement made on Page 5, 1st paragraph, last sentence of the Opening.

Response: Text referenced above removed from document. Reference is made to the assistance for businesses available in with NOACA member agencies, including weblinks in the *Institutions - Regional Collaboration, and Urban and Rural Connectivity* section.

Add “townships” to the list of partners.

Response: Recommendation accepted; townships added to the list of partners.

General comment: During the process, it was stated that businesses are often unaware of who to turn to for resources, advice. Other *CEDS* plans, such as NEFCO (Northeast Ohio Four County Regional Planning and Development Organization), have a list by county of economic development planning resources. Such a list likely cannot be created at this point, but it could be incorporated into a plan update based upon the Strategy described in this section about a regional government agency tasked with economic development.

Response: Regular maintenance, expansion of resource directories, and collaborative arrangements at the regional level can be advanced further with the establishment of an EDD similar to neighboring districts. Added list of economic development resources from each County (pages 85 and 86) that can be expanded upon as EDD grows.

Geauga County Planning Commission

Parks and Recreation Section

The following language was submitted by the Geauga Park District. Please incorporate it:

Geauga Park District was established in 1961 to preserve and protect the natural features of Geauga County and to provide open space for residents' enjoyment. Since that time, the District has grown to more than 10,000 acres, encompassing 27 open parks for people to explore year-round. More than 70 miles of trails for walking, biking, horseback riding, and more, including The Maple Highlands Trail stretching 21 miles across the County. Residents can also take advantage of numerous naturalist-led hikes and programs; reservable lodges and shelters; picnic areas; a nature center; and outdoor activities like fishing, camping, kayaking, canoeing, birdwatching, cross country skiing, and snowshoe borrowing.

Response: Recommended action has been included in the *CEDS*.

MAGNET

Economic Conditions Section, now called "Current Regional Conditions"

Sentence references data that is 10+ years old: "Between 2010 and 2012, the area saw a net growth in manufacturing jobs, for the first time in a decade." Can more recent data be included too? A potential source is: <https://northeastohioregion.com/wp-content/uploads/2021/10/2021-team-neo-manufacturing-qer.pdf>

Response: Took recommendation, keeping data in the *CEDS*, but added updated data from NOACA's *LRTP, eNEO2050*.

MAGNET

Economic Conditions Section, now called "Current Regional Conditions"

The annual salary data on p. 13 for manufacturing workers (\$66,000) does not align with data on p. 49 (\$49,728). Maybe these are actually different data points, but may need to be clarified.

Response: Removed reference on page 49.

MAGNET

Manufacturing Section

"The economy of the NOACA Region has benefitted from its manufacturing base." Suggest adding a clause to the end of this sentence that says "which directly and indirectly drives nearly 50 percent of the Region's economy today." (cited in the Manufacturing Blueprint referenced further down in this section. (<https://www.manufacturingsuccess.org/blueprint>).

Response: Recommendation added.

MAGNET

Manufacturing Section

"Basic products" can also be referred to as "hard tech components," which is particularly relevant given Intel's investment in Ohio. It's fine to keep

basic products as that is understandable to all, but can “hard tech components” be added in parentheses?

Response: Recommendation added.

MAGNET

| Manufacturing Section

In addition to referencing infrastructure components in the first paragraph (and the workforce needs in the next paragraph), we feel that it’s important to emphasize the necessity of technology adoption and innovation to describe how the Region needs to position itself. Can a sentence be added to the end of this paragraph? Something like: “In addition, a focus on new technologies and process/product innovation is crucial to improving the productivity and competitiveness of the Region’s manufacturers.”

Response: Recommendation taken and sentence added.

MAGNET

| Manufacturing Section

Paragraph about Manufacturing Blueprint.

We’d like to propose some edits so it reflects that the Blueprint is not MAGNET’s plan alone. Below is revised language for this paragraph for consideration:

Fortunately for the Region, MAGNET (Manufacturing Advocacy and Growth Network) exists and is a strong advocate for manufacturing. MAGNET facilitated the development of *Make It Better: A Blueprint for Manufacturing in Northeast Ohio, 2021*, with over 250 public and private partners, including 150 manufacturing CEOs, to articulate a vision for how Northeast Ohio can become a global leader in smart manufacturing. The *Blueprint* identifies the following as significant aspects of manufacturing in the Region and beyond: aerospace/aviation, automotive, biohealth, food/ beverage processing, metals, chemicals, plastics,

polymers, and fabrication. The report, which has great respect for the Region’s manufacturing history and has been endorsed by hundreds of area companies, philanthropies, educational institutions, and nonprofits, identifies the need for the Region’s manufacturers to strive for more significant innovation, more rapid adoption of new technology, and greater efforts to recruit workers.

Response: Recommendation taken and paragraph replaced/added.

MAGNET

| Manufacturing Section

“Support educational efforts.” In the Partners column can you add “apprenticeship providers”?

Response: Recommendation added.

MAGNET

| Manufacturing Section

“Support entrepreneurial activities in manufacturing.” In the Partners column can you add “JumpStart”? They are a key partner in this space.

Response: Recommendation added.

MAGNET

| Workforce Development Section

Workforce development partners – It seems like there should be a broad category of “Workforce Development Organizations” or something similar listed as partners for all strategies (to encompass the many community-based workforce focused organizations).

Response: Recommendation added.

“Industry Sector Partnerships” should also be added to the first three strategies. Recommendation added.

Response: Recommendation added.

Medina County

Opening Section / General Comment

The overall impression I have of the document is that it is heavily weighted towards the City of Cleveland and its immediate surrounding communities, seemingly referred to as “Greater Cleveland,” as well as Cuyahoga County.

Response: Recommendation taken; updates have been made to the document to add additional information about each of the five-Counties that make up the Region.

The introductory text in section after section relies almost exclusively on data from these geographies to provide history, background, examples, and priorities, to the exclusion of the other four Counties in NOACA’s territory: Geauga, Lake, Lorain, and Medina Counties.

Response: Data has been added that refers to each of the Counties, as well as examples of projects, programs, and resources throughout the Region, focusing less on Cleveland, attempting to balance of the Counties.

Medina County

Economic Conditions Section, now called “Current Regional Conditions”

Contains eleven paragraphs, and eight of them focus on data specific to Cleveland or Cuyahoga County, including Cleveland’s corporate headquarters, education institutions, largest employers, technology sector, per capita GDP, and population change. Only three paragraphs seem to refer to the broader five-county Region. This lack of information on what other economic conditions exist in four other Counties provides a truly skewed picture of the entire Region’s baseline information.

Response: Included major employers from every County and addressed regional conditions as a whole.

Medina County

Cultural Amenities Section

Provides background on “Cleveland’s cultural history” and lists seven Cleveland organizations by name. This section’s list of “regional networks of diverse cultural venues” has 10 venues based in Cleveland or Cuyahoga County, and two in other Counties. In the Libraries, Creative Industries, and Theaters sections, there is only one mention of assets in any area other than Cleveland or Cuyahoga County.

Response: Modified this section to delete extensive references to specific venues and focused on economic activity of amenities.

Medina County

Equity Section

Begins with a statement about the importance of “Greater Cleveland” being welcoming and hospitable to all residents, and except for a brief mention about how “rural communities and smaller towns within the Region need to be part of Greater Cleveland’s resurgence,” the data cited focuses exclusively on Cleveland, Greater Cleveland, or Cuyahoga County. I would ask that data sources be expanded to include language about the importance of equity to the entire NOACA Region, as well as equity-related statistics for the other four Counties in the NOACA Region.

Response: Reworked this section to try to address the concerns of other Counties.

Medina County

General Comment

My comments above are not meant to say that information about Cleveland and Cuyahoga County should be eliminated in the *CEDS* draft. Indeed, this information provides a depth and richness to the picture of what our Region is all about. However, these sections should be supplemented by additional information about

each of the other four Counties so that the information is balanced and accurate.

Response: No actions are necessary.

If it the case that references to “Greater Cleveland” are meant to refer to the entire five-County Region, then the document should be thoroughly reviewed and revised appropriately to refer to the “NOACA Region” instead.

Response: References to “Greater Cleveland,” where appropriate are changed to Region, when referencing the five-County Region that NOACA serves.

Medina County

Equity Section / General Comment

There are other sections that also need to be broadened with information gleaned from the economic development strategies and planning documents from non-Cuyahoga County counties.

For example, the Opportunity Zone section on pages 37-39, the *CEDS* draft refers specifically to Cuyahoga County’s economic development plan, but was there any information in the plans from the Region’s other counties that could be included?

Response: Reference to other plans included, overly specific information deleted.

Medina County

Healthcare Section

The healthcare institutions mentioned are all based in Cuyahoga County, although there are other healthcare institutions serving large populations throughout the Region, such as Summa Health.

Response: Recommendation accepted; Summa Health reference has been added.

Medina County

Housing Section

Section focuses on issues in the Cleveland or Cuyahoga County housing market and ignores the need that other Counties may have for affordable housing. Medina County’s *CEDS* document which was supplied to NOACA has goals around diversity in housing and workforce, and this information could have been included.

Response: The U.S. HUD-defined housing market is the five-County MSA and the summary of the Market Area comes from U.S. HUD. Additional reference to low-income housing needs throughout the Region has been added.

Medina County

Workforce Development Section

Section draws extensively from the Greater Cleveland Partnership’s “*All-In*” Plan, but there are other Counties within the NOACA Region which have a strong focus on workforce development. Again, Medina County’s local *CEDS* strategies emphasizes workforce, so this could be a source of information to deepen the Region’s need for workforce development solutions.

Response: Recommendation taken; edits to the section to include less Cleveland-centric language and additional Medina and other County language.

Medina County

Access to Broadband Section

I think the *CEDS* document should emphasize NOACA’s support for public funding (on a federal and State level) of both publicly-funded and privately-funded broadband networks. Public networks are willing to invest in fiber construction in neighborhoods that private networks may pass over or not prioritize because they think certain areas are not profitable enough. This recommendation speaks to the importance of equity in broadband access and should be a key strategy in the NOACA *CEDS* plan.

Response: Strategy adopted.

Acronyms

ACS	American Community Survey	GCRTA	Greater Cleveland Regional Transit Authority
AI	artificial intelligence	GDP	gross domestic product
Alliance	Aerozone Alliance	IBHS	Insurance Institute for Business and Home Safety
ANR	The Ohio State University's Agriculture and Natural Resource's Extension programs	ICT	Information and Communication Technologies
APA	American Planning Association	IEDC	International Economic Development Council
BIA	Business Impact Analysis	IPRE	University of Oregon's Institute for Policy, Research, and Engagement
BLS	U.S. Bureau of Labor Statistics	HIRA	Hazard Identification and Risk Analysis
Board	NOACA Board of Directors	LAUS	Local Area Unemployment Statistics Program of the U.S. Bureau of Labor Statistics
BRT	bus-rapid transit	<i>L RTP</i>	<i>Long-Range Transportation Plan</i>
CDBG	Community Development Block Grant programs	MAGNET	Manufacturing Advocacy and Growth Network
CDFI	Community Development Financial Institution	MPO	Metropolitan Planning Organization
<i>CEDS</i>	<i>Comprehensive Economic Development Strategy</i>	MSA	Metropolitan Statistical Area
CHEERS	Cleveland Harbor Eastern Embayment Resilience Study	NADO	National Association of Development Organizations
CMSD	Cleveland Municipal School District	NASA	National Aeronautics and Space Administration
<i>COOP</i>	<i>Continuity of Operations Plan</i>	NASA Glenn	NASA Glenn Research Facility
COVID-19	Coronavirus 2019	NCA	National Climate Assessment
CSU	Cleveland State University	NDIA	National Digital Inclusion Alliance
CVNP	Cuyahoga Valley National Park	NEFCO	Northeast Ohio Four County Regional Planning and Development Organization
EDD	Economic Development District	NEORS	Northeast Ohio Regional Sewer District
EPA	U.S. or Ohio Environmental Protection Agency		
FEMA	Federal Emergency Management Agency		
FY	Fiscal Year		
GCP	Greater Cleveland Partnership		

NERDE	U.S. EDA's National Economic Resilience Data Explorer
<i>NHMP</i>	<i>Natural Hazard Mitigation Plan</i>
NLC	National League of Cities
NOACA	Northeast Ohio Areawide Coordinating Agency
NPS	National Park Service
OAI	Ohio Aerospace Institute
ODOT	Ohio Department of Transportation
OMJ	Ohio Means Jobs
OSU	The Ohio State University
QCEW	Quarterly Census of Employment and Wages
SBA	U.S. Small Business Administration
SBDCs	small business development centers
<i>SNAP</i>	<i>Supplemental Nutrition Assistance Program</i>
STEM	science, technology, engineering, and mathematics
<i>SWOT</i>	<i>Strengths, Weaknesses, Opportunities, and Threats</i>
<i>TIP</i>	<i>Transportation Improvement Program</i>
UH	University Hospitals of Cleveland
USDA	U.S. Department of Agriculture
U.S. DOT	U.S. Department of Transportation
U.S. EDA	U.S. Department of Commerce's Economic Development Administration
USGS	U.S. Geological Survey
U.S. HUD	U.S. Department of Housing and Urban Development
WIOA	Federal Workforce Innovation and Opportunity Act