Chapter 6. Excellent Housing

Introduction

Overview

Transportation and housing are inextricably linked, as are their influence on equity and quality of life in a region.

This chapter reviews the historical housing trends in the United States and Northeast Ohio over the past century and highlights the policies that have shaped the current development patterns. Secondly, the chapter addresses the demographic changes in recent years, current trends that affect housing in the region, and NOACA's existing efforts to support communities that are challenged by an aging housing stock, declining population, and disinvestment. Finally, the chapter explores strategies and initiatives by other organizations in Northeast Ohio to address future housing needs in the region, followed by a discussion on how NOACA might affect transportation policy decisions to improve housing, property values, and equity.

What Role can NOACA Play?

NOACA has not traditionally held a significant role in the housing realm across the five counties of Greater Cleveland; its primary responsibilities have focused on transportation and environmental planning. As the lead agency for the Northeast Ohio Sustainable Communities Consortium (NEOSCC) during 2011-2014, NOACA did oversee the development of a housing study as a companion piece to *Vibrant NEO 2040*, the regional visioning framework for Northeast Ohio. This effort elevated the important relationship between housing, economy, land use, and transportation in NOACA's Regional Strategic Plan (2015). Current NOACA policies such as the ones that address Environmental Justice (EJ) areas, Urban Core Communities and Disadvantaged Communities refer specifically to locations characterized by elements such as federally designated criteria related to low-income or minority households (EJ), as well as other characteristics including housing stock and population density.(see Chapter 5). The NOACA Board's official Commitment to Racial Equity acknowledges the detrimental impact of past practices in transportation investment on minority neighborhoods, and its New or Modified Highway Interchange Projects Policy calls specific attention to the regional impacts of proposed highway interchanges on development patterns in both urban core and exurban communities.

NOACA will continue to advance its role as the primary regional planning agency for infrastructure (roads, highways, bridges, transit, sewer) through data analysis, policies, programs, and facilitation of collaborative discussions and educational events to highlight the impact of infrastructure planning on patterns of future residential development and redevelopment. This is an exciting opportunity for NOACA to become a stronger partner with leading housing agencies and the housing development community during the next 30 years.

Where Have We Been?

This chapter briefly summarizes the past policies and practices that have shaped the housing market in Northeast Ohio over the past century, particularly as related to transportation and water infrastructure development. While there are myriad factors that have contributed to the housing patterns that one can observe today, including schools and income levels, the following

section focuses on the public and private sector policies that formed the basis of infrastructure investments that significantly contributed to racial discrimination and segregation. Learning from the past, NOACA is committed to racial equity in planning and is vigilant about potential racial implications of its policies.

In the first part of the 20th century, zoning was used across the United States to racially segregate neighborhoods.[1] This was perpetuated by the practice of restrictive covenants and redlining in the 1930s and 1940s. Redlining was initially initiated by the insurance and loan companies which downgraded entire neighborhoods as "red districts" in which home loans were harder to obtain.[2] Even today, districts that were redlined 80 years ago still see the impacts of the lack of private investment.[3] Minority and low-income populations tend to be clustered in the previously redlined districts and evictions are still high today.

Responding to the lack of private investment, federal urban policy in the 1930s through 1960s attempted to make funding available for low-income housing. Hence, the 1949 and 1954 Housing Acts directed funding toward urban renewal. While the program was aimed at facilitating redevelopment and new construction after the demolition of distressed structures, 90% of demolished housing was not replaced.[4] Furthermore, the federal program was applied in a way that disproportionately displaced black neighborhoods. Metropolitan areas across the United States, including the NOACA region, experienced an unprecedented displacement of people and businesses (primarily low-income and minority).

Actions under the so-called urban renewal program quite literally "paved the way" for the massive interstate highway system established, funded, and built in the decades after World War II. In the years after the Second World War, highways served as a mechanism for growth and prosperity: move people and goods, spur neighborhood development and land use, and increase property values. The planning and construction of these highways mirrored the effects of urban renewal. Expansion of the highway network meant the demise of many established minority and low-income neighborhoods.[5] New housing was built on the fringe of the urbanized area which was more attractive to those who could access it. At the same time, older housing stock and public infrastructure saw a lack of reinvestment.

In 1964, the Civil Rights Act called for an end to discrimination based on race, religion, sex, or national origin. Coupled with the Title 8 Fair Housing Act in 1968, more minorities moved outward into homes and neighborhoods that were once prohibited.[6] Several communities transitioned from white to predominately African-American neighborhoods, but the dwindling population and loss of jobs during the decline in the industrial sector left a diminished tax base

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[1] Jason Reece, Matt Martin, Joshua Bates, Amanda Golden, Kelsey Mailman, and Ronni Nimps, "History Matters: Understanding the Role of Policy, Race, and Real Estate in Today's Geography of Health Equity and Opportunity in Cuyahoga County" (Columbus, OH: The Ohio State University Kirwin Institute of Race and Ethnicity, February 2015); http://kirwaninstitute.osu.edu/wp-content/uploads/2015/06/The-History-of-Race-Real-Estate-Cuyahoga-County-Final-Report-February-2015.pdf (accessed December 12, 2020)

[2] Robert K. Nelson, , LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers; https://dsl.richmond.edu/panorama/redlining/ (accessed January 14, 2021).

[3] U.S. Federal Reserve-Community Reinvestment Act; https://www.federalreserve.gov/consumerscommunities/cra_resources.htm

[4] Reece et al., "History Matters."

[5] Mark Rose, "Highways," *Case Western Reserve University Encyclopedia of Cleveland History*; https://case.edu/ech/articles/h/highways (accessed November 25, 2020.)

[6] Reece et al., "History Matters.".

and significant disinvestment. Migration of blacks to previously white neighborhoods propelled even more whites to leave the city; patterns of outward migration by race ultimately drove down property values across an increasing percentage of the urban core while suburban values escalated.

Across the region, each county has legacy cities that have experienced a lack of reinvestment in their older housing stock coupled with disinvestment in public infrastructure such as roads and sewers. The lack of investment has certainly disproportionately affected low-income and minority populations. Due to the availability of inexpensive land and highway access to it, there has been a tendency for new public and private investment to occur on greenfields on the fringes of the region, not just in Northeast Ohio but across metropolitan areas in the United States. However, the outward sprawl of industries, services, and housing investments is more problematic for the NOACA-region as we have not seen population growth as a region.

Housing in America: A History of Inequality

The built environment of regions, cities and neighborhoods reflects historic housing policy and planning in America; the NOACA region is no exception. Recognition of the foundation of housing as it relates to the current landscape in the United States is crucial to understand the overarching impacts on transportation, land use, economics, and equity, and vice versa. It is especially important to review policies and legislation that may have been detrimental to large portions of the population.

Zoning, Restrictive Covenants, and Redlining

The roots of early housing opportunity and exclusion began with the founding of the National Association of Real Estate Exchanges (NAREE) in 1908, which became the National Association of Real Estate Boards (NAREB) and, later, the National Association of Realtors (NAR).[7] These associations influenced racial exclusion through housing and prohibitions against "race mixing."

America's long history of racial inequity is based on the social ideology of "keeping order between racial groups."[8] In terms of housing, the real estate profession presented several methods to "keep order" through restrictions on where people could live. The most notable examples included zoning, restrictive covenants, and redlining. Together these policies hampered minority home ownership and the subsequent potential of building of equity and personal wealth through the 1960s.[9] The cumulative effects are still measurable more than 100 years later.

Zoning
Zoning based on race began in Baltimore in 1911, but quickly spread to other cities in the United States. Although struck down as unconstitutional in 1917, zoning ordinances persisted, all under the guise of "protecting property values." While zoning ordinances did not explicitly state that races, ethnicities, and incomes were not allowed, specific "detrimental uses" such as heavy industry and toxic waste were relegated to minority neighborhoods. Conversely, diverse and affordable housing types were restricted in white, upper-income neighborhoods. These codes generally went unchallenged by those negatively affected, as low-income and minority populations had little to no political capital.[10]

Restrictive Covenants
The second policy tool, the restrictive covenant, was tied to the deed of a property and indicated which races could and could not live there. Additionally, covenants could dictate who was permitted to purchase the property or relied on approval from the developer or neighbors before a sale. In 1914, the National Association for the Advancement of Colored People (NAACP) found "a noticeable tendency toward inserting clauses in real estate deeds restricting the transfer of property to colored people, Jews, and foreigners generally."[11] These restrictive

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[7] Jason Reece, Matt Martin, Joshua Bates, Amanda Golden, Kelsey Mailman, and Ronni Nimps, "History Matters: Understanding the Role of Policy, Race, and Real Estate in Today's Geography of Health Equity and Opportunity in Cuyahoga County" (Columbus, OH: The Ohio State University Kirwin Institute of Race and Ethnicity, February 2015); http://kirwaninstitute.osu.edu/wp-content/uploads/2015/06/The-History-of-Race-Real-Estate-Cuyahoga-County-Final-Report-February-2015.pdf (accessed December 12, 2020).
[8] Ibid.
[9] Ibid.
[10] Ibid.
[11] Ibid., 6.

policies were even used as a marketing tool within neighborhood associations; they warned of "undesirable neighbors" and promised "your neighbors are people with tastes like yours."[12] In his book, *Housing Dynamics in Northeast Ohio: Setting the Stage for Resurgence,* Dr. Thomas Bier shares an advertisement that touted Shaker Heights in 1921:

> "From even the finest home communities [that is, neighborhoods] about Cleveland, old families have been forced away because undesirable buildings, features, neighbors could not be kept out. But not in Shaker Heights. Protective restrictions operate for 78 years to come. We created it – we sell it."[13]

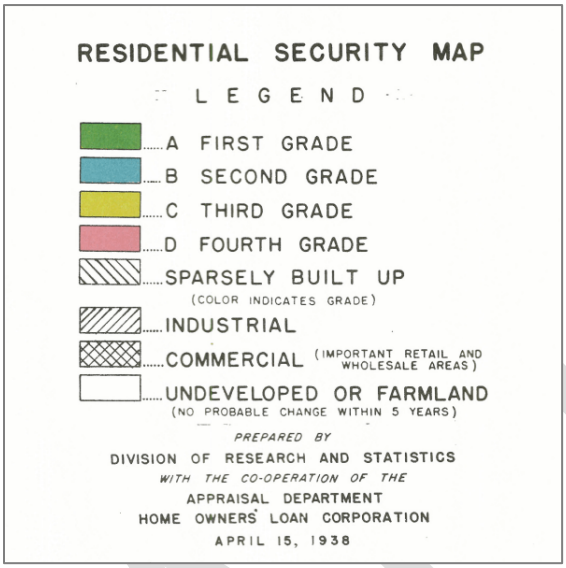
Redlining

The third, and perhaps the most damaging tool in the legacy of restrictive housing policy, is redlining. The Federal Housing Administration's early urban development policies followed the underlying theories of "neighborhood life cycles" postulated by Homer Hoyt and Frederick Babcock at the end of the Great Depression.[14] The National Commission of Neighborhoods also adopted the theory that declining neighborhoods were tied to minority and low-income residents, using this as a basis for appraisal, lending and underwriting of mortgages, and ultimately as justification for redlining practices.

In 1933, the United States Congress created the Home Owners Loan Corporation (HOLC) in response to increased foreclosures during the Great Depression. HOLC existed to help refinance home loans, and thus created "Residential Security Maps" for 239 cities to rate financial security for real estate investment. Through a ranking system marked by color, areas designated Type A were green ("best"), Type B areas were blue ("still desirable"), Type C areas were yellow ("definitely declining"), and Type D areas were red ("hazardous"), as shown in Figure 6-1.[15] These rankings indicated levels of approval for federal mortgage backing (green areas received up to 80% backing, while red areas received no backing, hence the term "redlining"). Predictably, those areas in yellow and red were largely home to people of color, laborers, immigrants, and Jews.[16]

[12] Ibid.
[13] Thomas E. Bier, *Housing Dynamics in Northeast Ohio: Setting the Stage for Resurgence*, (Cleveland: MSL Academic Endeavors eBooks, 2017).
[14] Reece et al., "History Matters.
[15] Robert K. Nelson, , LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers; https://dsl.richmond.edu/panorama/redlining/ (accessed January 14, 2021).
[16] Reece et al., "History Matters."

Figure 6-1. Example of Residential Security Map Legend[17]



These maps and rankings further widened and effectively institutionalized inequality in cities. Redlining was openly discriminatory; it used race, ethnicity, and social class to gauge security risk. The real estate industry used residential security maps to shape neighborhoods and minority economic progress over 40 years; however, in 1976 a federal lawsuit [US vs. American Institute of Real Estate Appraisers (AIREA)] struck down the use of race as a factor to appraise property and underwriting.[18]

In Ohio, 14 cities and counties had Residential Security Maps, including Cuyahoga County and the City of Lorain (see Figures 6-2 and 6-3). The Ohio State University (OSU) Libraries note that the maps were usually hand drawn/colored and not published. In 2012, OSU Libraries purchased digital copies of the maps from the National Archives so the public could view and download them.[19]

[17] Nelson et al., "Mapping Inequality,"
[18] Reece et al., "History Matters."
[19] The Ohio State University Libraries, "Federal HOLC 'Redlining' Maps for Ohio Cities," *Research Guides*, 2013; https://guides.osu.edu/maps/redlining (accessed December 12, 2020).

Figure 6-2. Cuyahoga County HOLC Residential Security Map (1940)[20]

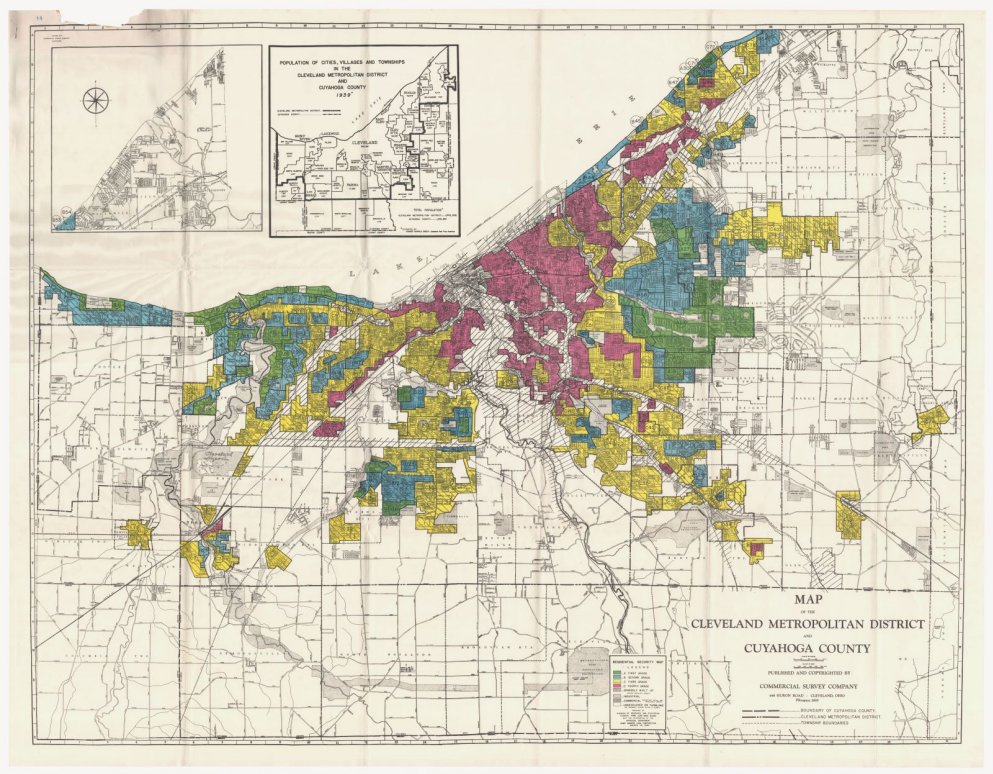
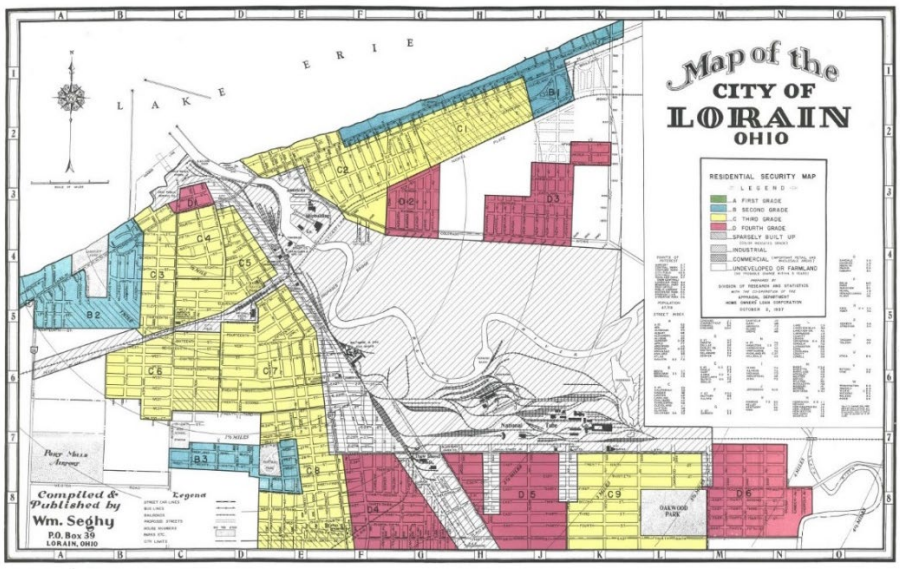


Figure 6-3. Lorain County HOLC Residential Security Map (1937)[21]



[20] The Ohio State University Libraries, 2013. "Federal HOLC 'Redlining' Area Descriptions: Cuyahoga County, Ohio 1940;" https://guides.osu.edu/maps/redlining (accessed February 1, 2021)
[21] The Ohio State University Libraries, "Federal HOLC 'Redlining' Maps for Ohio Cities."

The lasting impacts of redlining persist in neighborhoods throughout the United States. A 2018 study by the National Community Reinvestment Coalition (NCRC) compared historic redlining maps and their A-D ratings with current neighborhood characteristics. The current statuses are defined by economic data: low-to-moderate income (LMI) or middle-to-upper income (MUI), and demographic data: majority non-Hispanic white or majority-minority. The data indicates that, after more than 80 years, neighborhoods rated highly on HOLC maps continue to have the highest percentages of middle-to-upper income and non-Hispanic white residents (Tables 6-1 & 6-2). Data grouped by region shows the Midwest has a high percentage of low-to-moderate income individuals who live in neighborhoods deemed "hazardous" according to HOLC maps (Table 6-3 highlighted in yellow). [22]

Table 6-1. Percentage of areas with HOLC currently low-to-moderate middle-to-upper income nationally.

Grades/Income	LMI	MUI
A Best	8.61%	91.39%
B Desirable	27.27%	72.73%
C Declining	53.94%	46.06%
D Hazardous	74.40%	25.60%

Table 6-2. Percentage of areas grades that are grades that are currently majority non-or Hispanic white or majority minority nationally.

Grades/Minority	White	Minority
A Best	85.82%	14.18%
B Desirable	71.57%	28.43%
C Declining	54.91%	45.09%
D Hazardous	35.16%	63.84%

Table 6-3. Regional HOLC grades and current economic status.

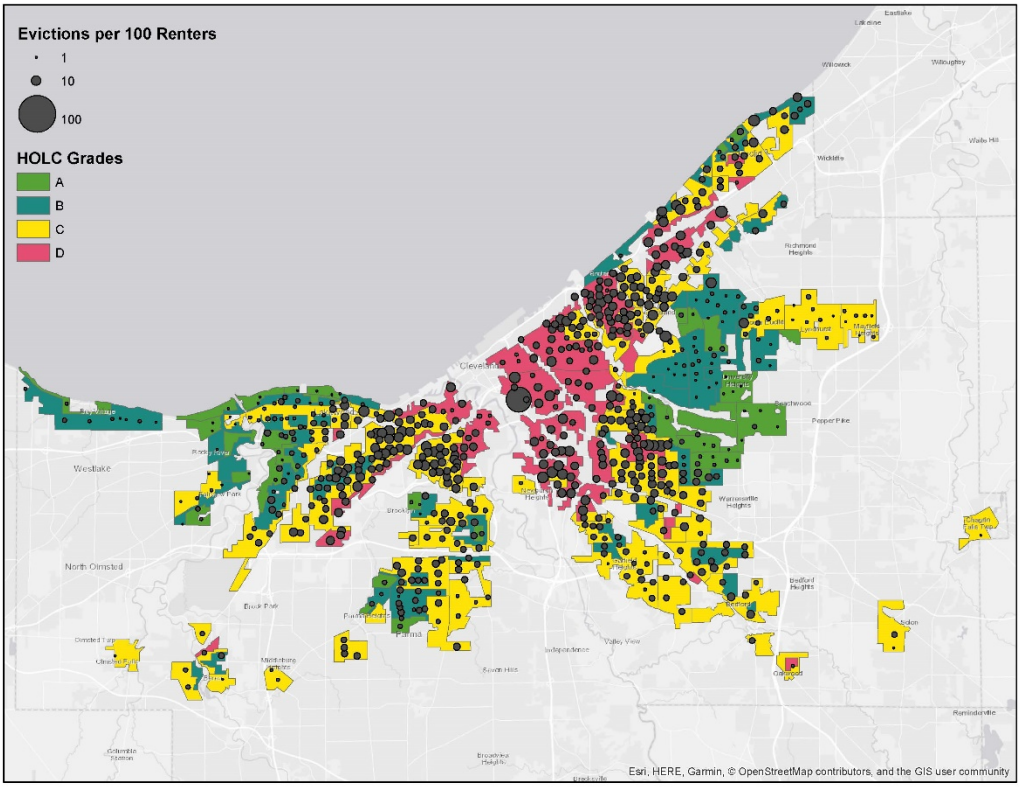
	Northeast		Midwest		South		West	
Grades/Income	LMI	MUI	LMI	MUI	LMI	MUI	LMI	MUI
A Best	5.42%	86.58%	9.34%	84.28%	6.03%	90.64%	5.09%	94.91%
B Desirable	28.19%	71.81%	37.36%	62.64%	28.58%	71.42%	20.28%	79.72%
C Declining	51.39%	48.61%	67.24%	32.76%	59.20%	37.47%	37.47%	48.23%
D Hazardous	74.75%	25.25%	81.22%	18.78%	80.41%	19.59%	19.59%	31.74%

A study from the Ohio Housing Finance Agency compared redlining maps and evictions. Figure 6-4 shows evictions per 100 Cleveland-area renters from 2002-2016, transposed over the

[22] The study methodology defined the median family income (low-to-moderate, or middle-to-upper) based on Federal Financial Institutions Examination Council 2016 criteria and Community Reinvestment Act definitions, adjusted by the median family income of the MSA each city. Low-to-Moderate Income (LMI) is defined as less than 80% of area median income (low < 50%, medium 50-80%). Middle-to-Upper Income (MUI) is defined as 80% or more of area median income (middle 80-120%, upper more than 120%). U.S. Federal Reserve-Community Reinvestment Act; https://www.federalreserve.gov/consumerscommunities/cra_resources.htm. The study methodology defined racial composition of census tracts by taking non-Hispanic white population into consideration, then determining if a census tract was "majority white" or "majority minority."

HOLC map. The map very clearly demonstrates that higher numbers of evictions are clustered in locations with historic yellow and red HOLC designations, versus those in green and blue.[23]

Figure 6-4. Evictions per 100 Renters transposed over HOLC Security Map, Cleveland Area (2002-2016) [24]



NOACA references historically racist policies such as zoning, restrictive covenants, and redlining in its Board Resolution 2020-2029 (Commitment to Racial Equity in Planning), adopted in June 2020:

> The NOACA Board of Directors is aware of the consequences of historic racism and its legacy that has resulted in systemic racism, which is defined as a form of racism, intentional or unintentional, that is embedded as normal practice within society. Consistent with NOACA's guiding mission and values, we are committed to doing our part to eradicate racism in our region and across the country. We unequivocally condemn racism, injustice and inequality.[25]

Subsequent sections of this chapter will highlight the legacy of transportation infrastructure investment that took advantage of the real estate profession's effective devaluation of property

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[23] Devin Keithley, "Predicting Evictions: A Look Back on Redlining in Ohio," *Ohio Housing Finance Agency,* October 3, 2018; https://ohiohome.org/news/blog/october-2018/predictingevictions.aspx (accessed February 1, 2021).

[24] Ibid.[25] NOACA, NOACA Board of Directors Resolution 2020-29: Commitment to Racial Equity in Planning, June 2020; https://www.noaca.org/home/showpublisheddocument?id=25175 (accessed March 14, 2021).

[25] NOACA, NOACA Board of Directors Resolution 2020-29: Commitment to Racial Equity in Planning, June 2020; https://www.noaca.org/home/showpublisheddocument?id=25175 (accessed March 14, 2021).

in communities they characterized as “low-income” and “minority,” as well as NOACA’s efforts to counter such practices as the region envisions a more equitable future for Northeast Ohio.

Blight, Urban Renewal, and Public Housing

After the Great Depression and World War II, housing became a top priority of political and policy leaders in the United States. Born of the Public Works Administration and President Franklin Delano Roosevelt’s New Deal, the Housing Act of 1937 helped to accelerate public housing construction.[26] Techwood Homes, the inaugural federal public housing project, was built in Atlanta in 1935.[27] That same year, the Cuyahoga Metropolitan Housing Authority (CMHA) became the first public housing authority (PHA) in the United States (see Figure 6-5), and remains one of the 10 largest in the nation.[28]

Figure 6-5. Poster advertising Cleveland Metropolitan Housing Authority Apartments on E. 30th (1936)[29]

The 1949 Housing Act expanded federal public housing and also directed funding toward rebuilding and revitalizing urban neighborhoods. During this time, the Urban Land Institute, in

[26] “Public Housing History,” *National Low Income Housing Coalition,* October 2019; https://nlihc.org/resource/public-housing-history (accessed January 15, 2021).
[27] Ibid.
[28] Lenore Healy, Lenore and Michael Lepley, “Housing Voucher Mobility in Cuyahoga County,” *The Housing Center: Housing Research and Advocacy Center*, February 2016; https://www.thehousingcenter.org/wp-content/uploads/2016/02/Cuyahoga-County-Voucher-Mobility-Report.pdf (accessed February 5, 2021).
[29] Federal Art Project, Sponsor, “Your children like these low rent homes Cedar-Central Apt., East 30th Street,” Library of Congress, between 1936 and 1940; www.loc.gov/item/98518825 (accessed January 28,2021).

collaboration with the National Association of Real Estate Brokers, identified areas of "blight" in 221 cities across the country. The Act encouraged demolition of distressed structures and aimed for construction and redevelopment; however, 90% of demolished housing was not replaced.[30]

The Housing Act of 1954 amended the 1949 bill. The term "urban renewal" described "slum" clearance in the name of revitalization.[31] In the core areas of downtown Cleveland, these federal funds helped to clear "blighted" neighborhoods for the development of modern office buildings. This clearance ultimately displaced predominately black residents, relocating them to high-density, low-income housing. Clearance eradicated established communities and decimated gains in economic independence.[32] In *The Death and Life of Great American Cities*, Jane Jacobs wrote of new, high-rise public housing: "Low-income projects that become worse centers of delinquency, vandalism, and general social hopelessness than the slums they were supposed to replace... This is not the rebuilding of cities.

This brief history on urban renewal and public housing is important from a transportation planning perspective because such actions quite literally "paved the way" for the massive interstate highway system established, funded, and built in the decades after World War II. Metropolitan areas across the United States, including the NOACA region, experienced an unprecedented displacement of people and businesses (primarily low-income and minority) in the name of high-speed, limited-access highways and freeways versus streetcars and trolleys. As the next section describes, the practice of bulldozing low-income and minority neighborhoods followed the devaluation of these areas by the national real estate profession; these became the paths of least resistance due to lack of affluence and influence.

Interstate Highway System, White Flight, and Civil Rights

Just as housing and renewal were factors in the rapidly changing urban landscape, so, too, was the birth and growth of the U.S. Interstate Highway System. In the years after the Second World War, highways served as a mechanism for growth and prosperity: move people and goods, spur neighborhood development and land use, and increase property values. The transportation network became crowded and created conflict between users as personal vehicles became more attainable by the public.

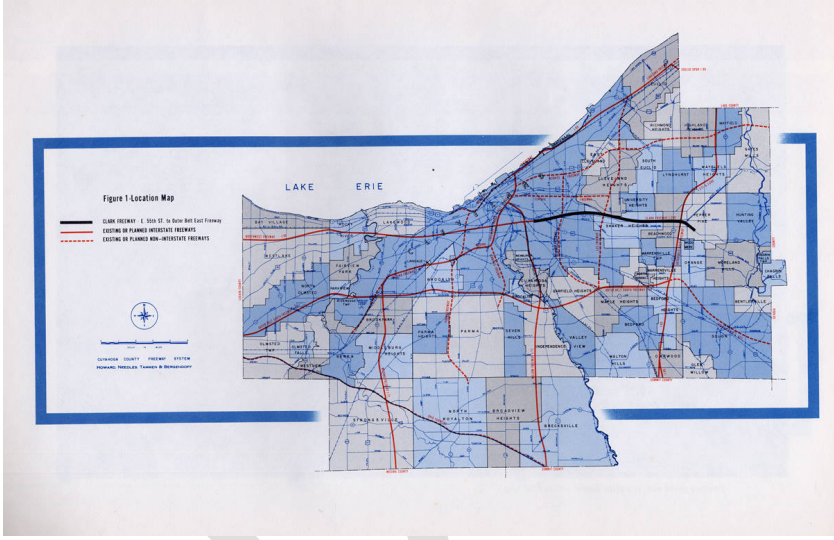
In 1944, President Roosevelt and the U.S. Congress established the National Highway System.[33] Anticipation of future expressways became a tool for urban renewal and revitalization of downtowns. Ten years later, the 1954 Federal-Aid Highway Act enabled federal and state governments. This legislation enacted a federal gas tax to provide the funds necessary to construct the National System of Interstate and Defense Highways.[34] Lane miles of concrete and asphalt replaced brick streets and streetcar tracks to make way for the purportedly more efficient movement of people and goods.

The planning and construction of these highways mirrored the effects of urban renewal. Expansion of the highway network meant the demise of many established minority and low-

[30] Reece et al., "History Matters."
[31] Ibid.
[32] Ibid.
[33]. Reece et al., "History Matters."
[34] Ibid.

income neighborhoods.[35] In Cuyahoga County, Engineer Albert Porter designed an extensive east-side freeway network (Figure 6-6). One such road, the Clark Freeway, would connect Interstates 271 and 490 and replace 300 homes in Cleveland and 80 homes in Shaker Heights, as well as a large swath of park space set aside as a respite for city-dwellers.[36] Concerned citizens of Shaker Heights, led by 30 garden club advocates, pressed officials to stop construction.[37] One outcome of their efforts became The Nature Center at Shaker Lakes. Eventually Ohio Governor James Rhodes removed the Clark Freeway from a list of state-approved projects in 1970.[38] The success of this group of white, wealthy, and politically influential residents was, however, a stark outlier to the many low-income, minority communities unable to prevent new freeways in Cleveland and other U.S. cities; they simply lost their homes and, in many cases, their livelihoods.

Figure 6-6. Proposed Location of Clark Freeway from Highway Route Planning Study 1966[39]



Although engineers, economists, and politicians touted highways as a way to revitalize cities and encourage redevelopment, the results were varying. Many white residents and business owners, now with increased mobility, moved outward into the suburbs. World War II veterans received new homes with no down payment and low-interest mortgages and ignited a boom of new residential construction on vacant land. For example, in the 1950s, 85% of the 120,000 new homes built in Cuyahoga County were located in suburban communities. By the 1960s, very little new construction occurred in Cleveland; there was practically no vacant land left.[40]

In 1964, the Civil Rights Act called for an end to discrimination based on race, religion, sex, or national origin. Coupled with the Title 8 Fair Housing Act in 1968, more minorities moved

[35] Mark Rose, "Highways," *Case Western Reserve University Encyclopedia of Cleveland History*; https://case.edu/ech/articles/h/highways (accessed November 25, 2020.)
[40] Bier, *Housing Dynamics in Northeast Ohio*.
[40] Bier, *Housing Dynamics in Northeast Ohio*.
[40] Bier, *Housing Dynamics in Northeast Ohio*.
[40] Bier, *Housing Dynamics in Northeast Ohio*.
[40] Bier, *Housing Dynamics in Northeast Ohio*.

outward into homes and neighborhoods that were once prohibited.[41] In Cleveland, Hough and Glenville transitioned from white to predominately African-American neighborhoods, but the dwindling population and loss of jobs during the decline in the industrial sector left a diminished tax base and significant disinvestment. Migration of blacks to previously white neighborhoods of Cleveland propelled even more whites to leave the city; patterns of outward migration by race ultimately drove down property values across an increasing percentage of the urban core while suburban values escalated.

NOACA also references the impact of past transportation infrastructure planning on low-income and minority populations in its region as part of Board Resolution 2020-2029 (Commitment to Racial Equity in Planning). In the resolution, NOACA recognizes:

> The historically inequitable results of transportation planning in Northeast Ohio and throughout the country, particularly the development of the highway system, which have facilitated and heightened racially segregated communities and disparate outcomes relative to mobility and access to opportunity. We are aware that there are still inequity implications across the region and the nation.[42]

An Era of Demographic Change

By 1970, the combined population of NOACA's five counties peaked at 2.32 million (see Chapter 3) and began to fall, following the trend of other Rust-Belt metropolitan areas. From its peak in 1969 to the early 1980s, the City of Cleveland lost nearly a third of the high-paying, unionized manufacturing jobs that had been so vital to the region's growth.[43] Political, economic, and social change significantly affected the demographic landscape of Northeast Ohio, patterns reflected in other Rust-Belt cities as well. Cleveland, Pittsburgh, Buffalo, and Detroit lost 40% of their residents during this period (1970-2010), but the decline was not uniform across all neighborhoods.[44] The onset of population decline was simultaneous with full development and implementation of the arterial and highway network presented in NOACA's first long-range transportation plan, *A Framework for Action*.

Since the 1960s, the gradual outward movement of Greater Cleveland's population has created concentric rings of development, leaving a hollowed out core with deteriorated infrastructure, loss of investment, and socioeconomic struggles. In the 1970s, home prices were lowest in neighborhoods closest to the center of Cleveland, and gradually rose in communities farther out. Dr. Thomas Bier posits that when individuals move, they want to move up, but lack of redevelopment and renewal in aging neighborhoods forced them also to move out in search of better options and diverse housing types; the buildout of the region's highway network facilitated this outward movement, which further added to urban and inner-ring suburban decline.[45]

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[41] Reece et al., "History Matters.".
[42] NOACA, Resolution 2020-29.
[43] David C. Hammack, "Economy," *Case Western Reserve University Encyclopedia of Cleveland History*; https://case.edu/ech/articles/e/economy (accessed November 25, 2020).
[44] Daniel Hartley, "Urban Decline in Rust-Belt Cities," *Federal Reserve Bank of Cleveland Economic Commentary*, No. 2013-06, May 20, 2013; https://www.clevelandfed.org/newsroom-and-events/publications/economic-commentary/2013-economic-commentaries/ec-201306-urban-decline-in-rust-belt-cities.aspx (accessed December 5, 2020).
[45] Bier, *Housing Dynamics in Northeast Ohio*.

Dr. Bier studied home sales during the 1980s and 1990s to understand better where people moved and why. Through deed transfers and recorded property sale price, year built, and size, Dr. Bier noted the trends shown in Figure 6-9 for sellers in Cuyahoga County.[46]

Figure 6-9. Cuyahoga County Real Estate Study Survey Results[47]

The study also found that movers already in suburbs moved further out into exurban areas when they could afford a bigger, better home on a larger land parcel. This movement created more opportunities for city residents also to move outward. Dr. Bier noted that "healthy functioning of the suburban housing market requires that Cleveland residents leave the city for the suburbs."[48] An excess of capacity on area highways and freeways (built for a growing population that was now declining) made this possible, so commute times remained reasonably low. This period witnessed the outward migration of jobs as well (see Chapter 5).

The outward shift of a declining population in the region resulted in concentrations of vacant properties in urban and inner-ring suburban areas that were no longer desirable. Of the approximately 287,000 homes abandoned and demolished between 1960 and 2010 in the seven-county Northeast Ohio housing market, 150,000 were in the City of Cleveland and 8,000 were in East Cleveland. While only 33,000 units of housing were built to replace the 150,000 homes demolished in Cleveland, 232,000 new homes were built outside the City of Cleveland.[49] Figure 6-10 shows the difference between residential permits in three geographic areas: City of Cleveland, Cuyahoga County suburbs, and the four adjacent NOACA counties over a 37-year span. Breaking out the aggregated four counties, Figure 6-11 indicates the residential permits in each county (peak years noted with symbols).

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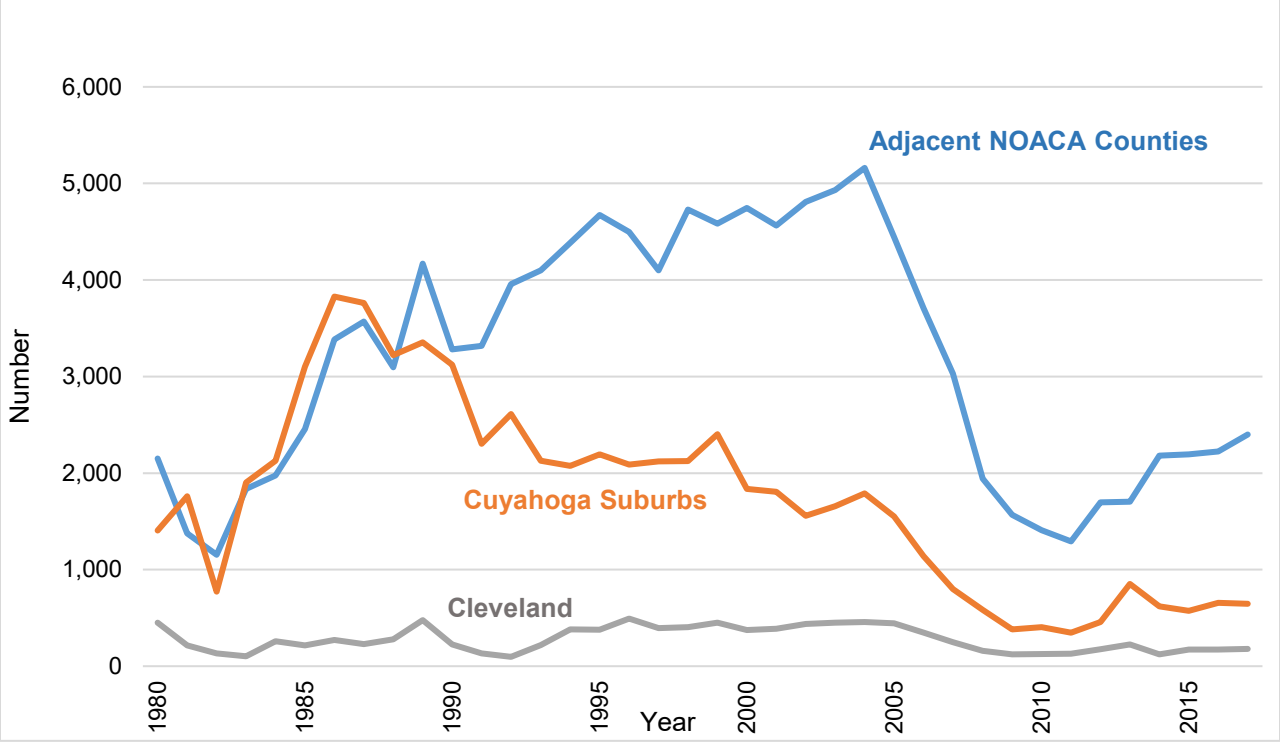
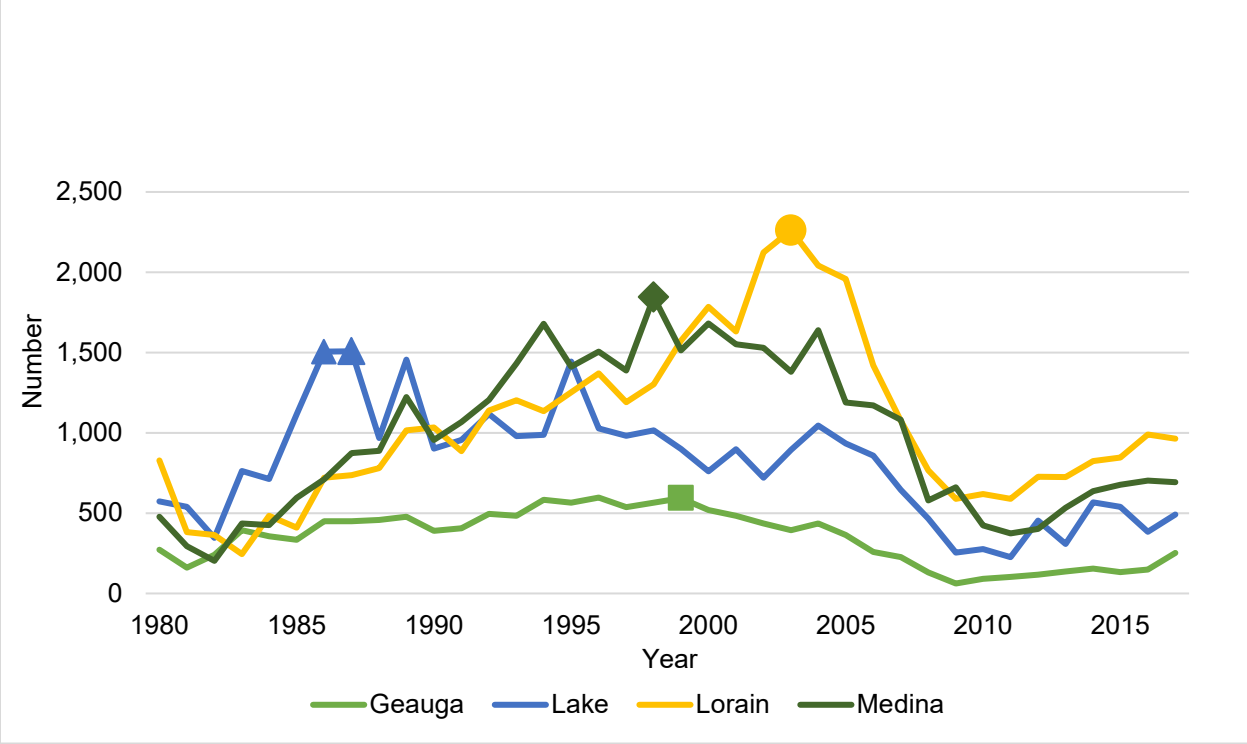
[46] Ibid.
[47] Ibid.
[48] Ibid.
[49] Ibid.

Figure 6-10. Number of Residential Permits (single and multi-family): City of Cleveland, Cuyahoga Suburbs, Collar Counties, 1980-2017[50]



[50] Cleveland State University, "Residential Building Permits, Tables, and Charts," Northeast *Ohio Metropolitan Data Resource*; http://levin.urban.csuohio.edu/neomdr/permits_tables.html (accessed January 11, 2021).

Figure 6-11. Number of Residential Permits (Single and Multifamily): Collar Counties, 1980-2017[51]



In a 2020 study commissioned by Cleveland.com journalist Steven Litt, researchers from Cleveland State University compiled assessed values (adjusted for inflation) of residential, commercial, and industrial properties in 226 communities across seven Northeast Ohio counties (1960-2018). The researchers used this data to measure change in property values and community tax bases over time (see Figure 6-12).[52] The results show how the slow decline of Northeast Ohio's population, combined with highway capacity expansion, created a clear dichotomy of the region's property values as reflected in the "green" and "red".

[51] Ibid.
[52] Steven Litt, "Highways turned Northeast Ohio communities into winners and losers. Can rules of the game change?" *Cleveland.com,* October 18, 2020; https://www.cleveland.com/news/2020/10/highways-turned-northeast-ohio-communities-into-winners-and-losers-can-rules-of-the-game-change.html (accessed January 5, 2021).

Figure 6-12. Percent change in total property value, 1960-2018

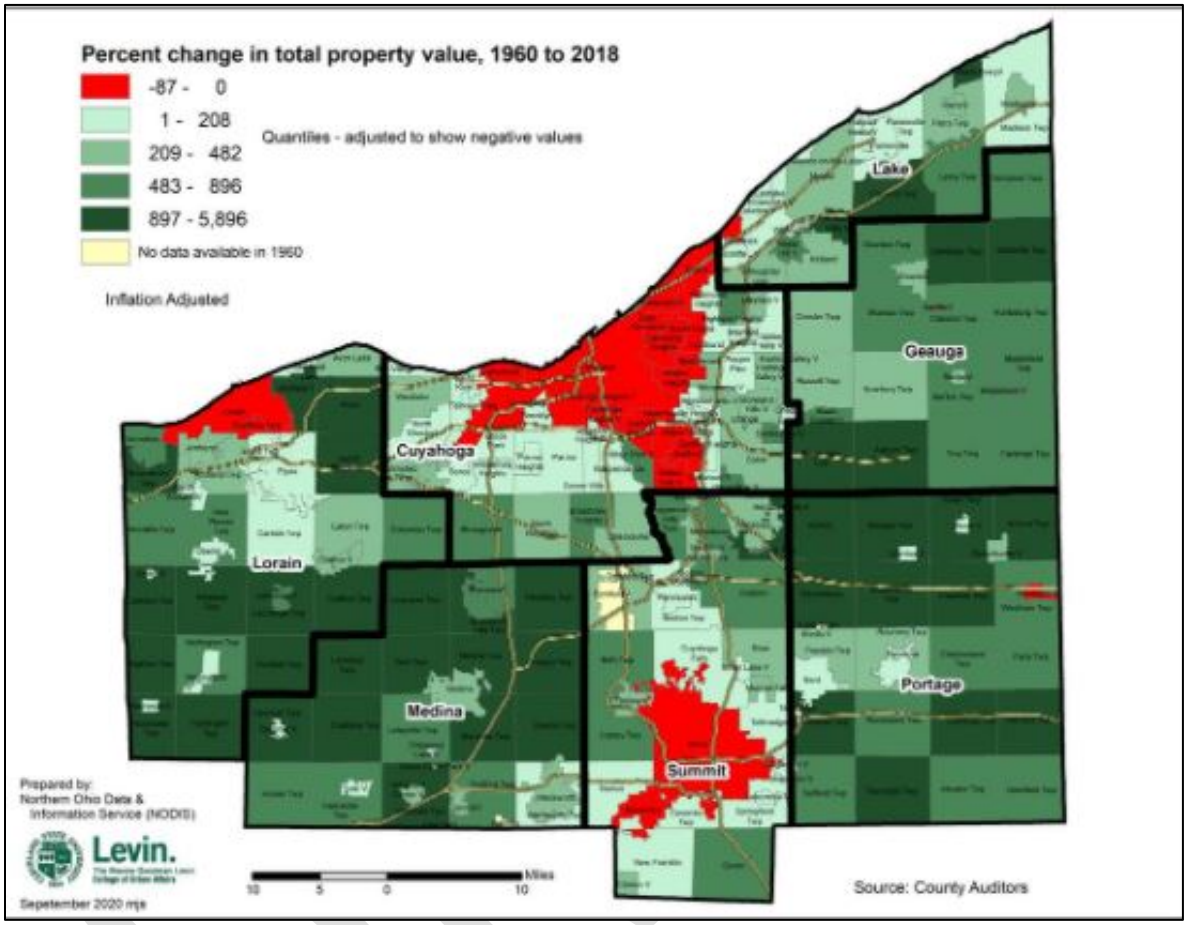


Figure 6-13 quantifies the magnitude of the valuation changes experienced by those communities, reflecting positive in blue and negative in red. Cleveland lost more than $9 billion in tax base revenue during this period. Inner-ring suburbs such as Euclid, East Cleveland, Cleveland Heights, and Shaker Heights also saw losses, while outer-ring suburbs such as Strongsville, Westlake, Solon, and Avon saw tax base revenue gains.[53] Although the regional tax base grew by nearly 48%, the gains were in the collar counties, with an overall loss in Cuyahoga County (see Figure 6-14).[54] This data demonstrates the impact of significant investment in the transportation network for vehicular traffic on the region, compared with the lack of equivalent investment in transit to serve older communities in the core.

[53] Ibid.
[54] Ibid.

Figure 6-13. Biggest Tax Base Winners and Losers in Northeast Ohio, 1960-2018

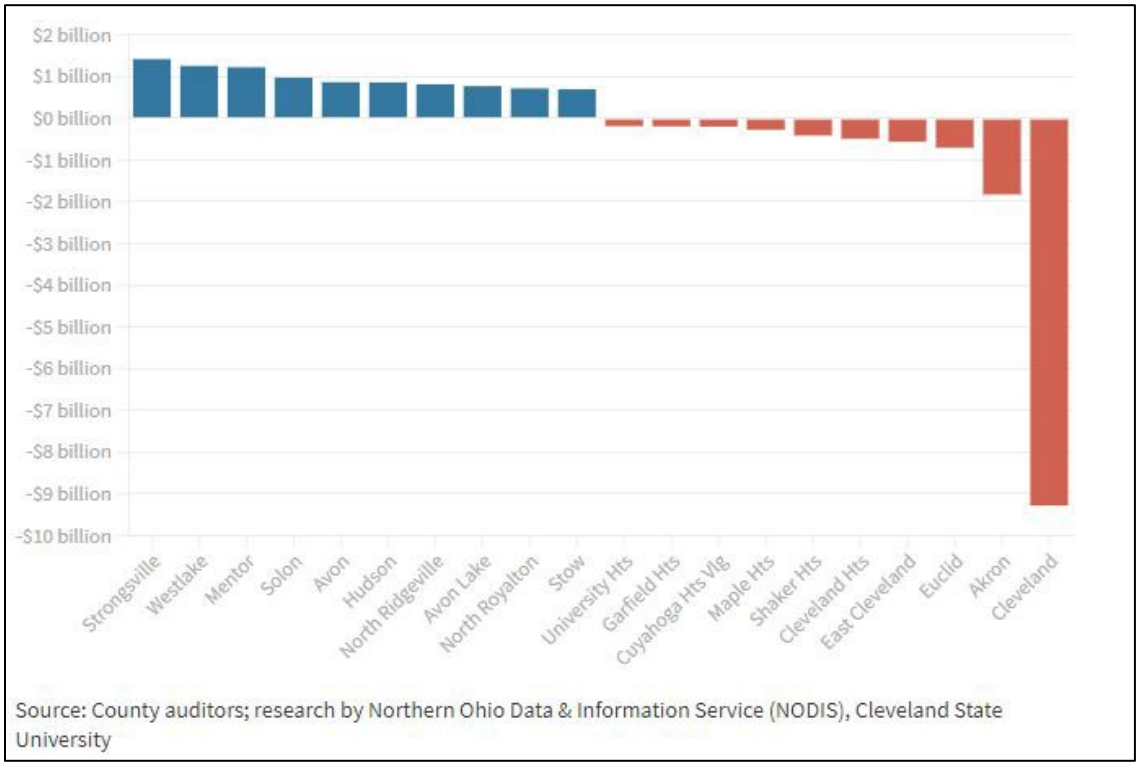
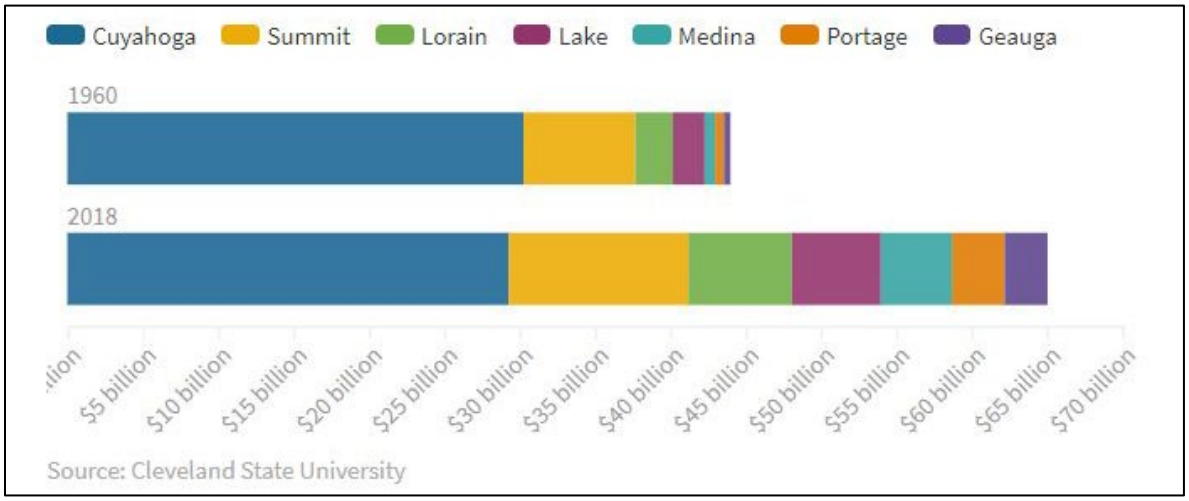


Figure 6-14. Total Tax inflation-adjusted tax base[55]



[55] Ibid.

NOACA's Urban Core Communities Policy seeks to foster reinvestment in defined urban core areas and simultaneously minimize the rising regional infrastructure costs. [56] The policy defines specific criteria to measure the extent to which the current infrastructure network serves the population at a cost-effective density to support a multimodal network. These criteria include the age of a community's housing stock: "Median year of housing structures built is on or prior to 1970, the year that the region's population peaked."[57]

The Northeast Ohio Sustainable Communities Consortium's report *Vibrant NEO 2040* identifies "exogenous and endogenous barriers" to infill and redevelopment that contribute to outmigration and exurban development. Exogenous barriers are external impacts, namely incentivized greenfield development, with much of those incentives in the form of subsidized vehicular transportation infrastructure investment. Endogenous barriers are internal impacts, which include high costs for redevelopment and urban infill. Extensive approvals, environmental remediation, and special improvement costs discourage some investors and developers from projects in core urban neighborhoods. Additionally, such projects may require layered financing, use of public funds, and support funding from private capital.[58]

Recognizing the role that transportation and environmental policy decisions had on past development patterns, have on current valuations, and will have on future growth, the NOACA Board stated the following in its Commitment to Racial Equity and Planning:

> Seek to better understand the root causes of racial disparities linked to transportation and the environment, such as development patterns, and promote a deeper awareness of their correlations, with the goal of eliminating them. We will be more comprehensive in our planning scope, focusing on the relationship of transportation and environmental planning to housing, land use, economic development and health outcomes.[59]

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[56] NOACA, Urban Core Communities Policy, September 2015, 27, included in NOACA, Diversity & Inclusion Policy (Cleveland: NOACA, December 2020); https://www.noaca.org/home/showpublisheddocument?id=21248 (accessed March 15, 2021).
[57] Ibid.
[58] NEOSCC and SASAKI, *Vibrant NEO 2040: A Vision, Framework and Action Products for our Future*, February 2014; https://vibrantneo.org.
[59] NOACA, Resolution 2020-29. [60] Richey Piiparinen; Kyle Fee; Charlie Post; Jim Russell; Mark J. Salling, PhD, GISP; and Thomas Bier, "Preparing for Growth: An Emerging Neighborhood Market Analysis Commissioned by Mayor Frank G. Jackson for the City of Cleveland," *Urban Publications* (Cleveland: Cleveland State University 2017); https://engagedscholarship.csuohio.edu/urban_facpub/1469 (accessed December 15, 2020).

Here Are We Now?

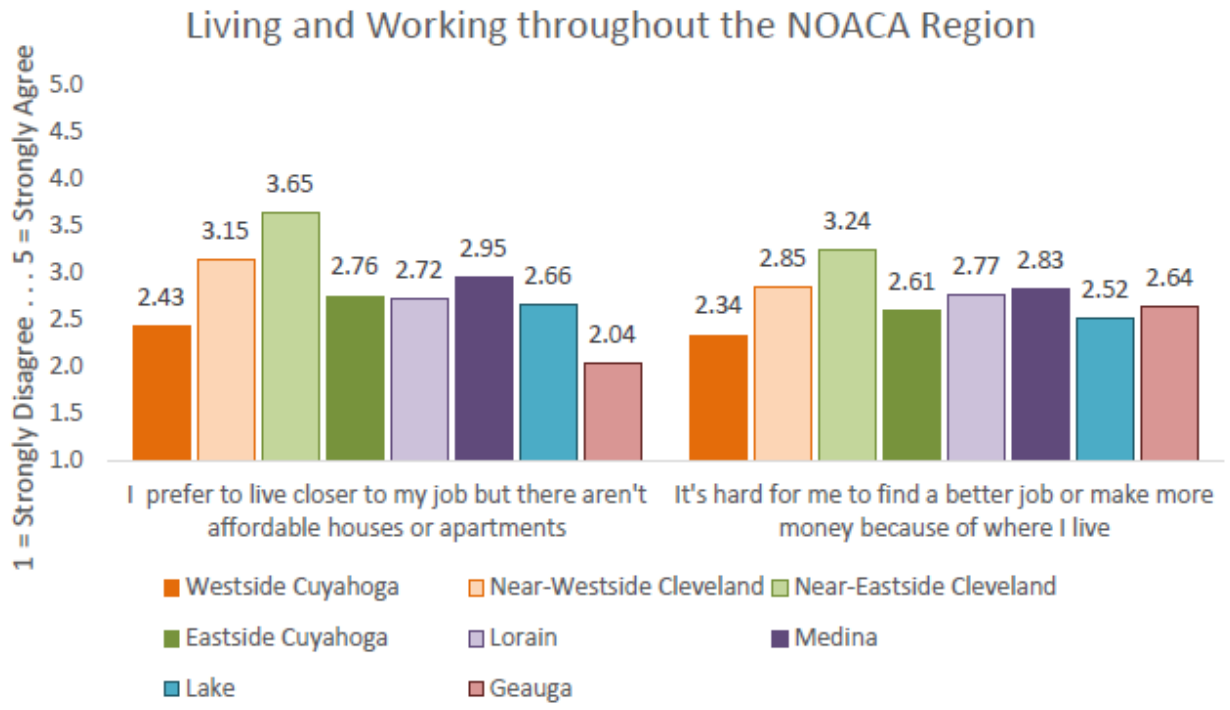
NOACA Regional Survey: Housing and Accessibility

NOACA conducted a Regional Survey in 2020 (see Chapter 4) to understand present perceptions toward a number of issues (transportation, housing, economy, quality of life, future outlook) from a representative sample of the region's adult population. The following discussion focuses on those questions and responses specific to housing, community and accessibility.

Proximity of Employment Opportunities and Affordable Housing

Chapter 5 featured responses to survey questions that focused on employment within Northeast Ohio. A pair of those questions featured statements about both the availability of affordable housing near work and the potential limitations a respondent's place of residence puts on their ability to find a better job or make more money (see Figure 6-20). This figure illustrates that, when broken down by geography, both issues resonate most with City of Cleveland respondents.

Figure 6-15. NOACA Regional Survey: Preferences for Living and Working Arrangements



The NOACA Regional Survey also organized responses by other variables (age, Environmental Justice area status, income race, employment status, etc.). A review of those results reveal that income/race classification highlights the biggest differences in response to the two statements. More specifically, Table 6-4 shows that lower-income, nonwhite respondents agree most strongly with the statement, "I prefere to live closer to my job but there aren't affordable houses

or apartments." White respondents disagree, regardless of income (respondents shown as "BASE" in the table).

Table 6-4. NOACA Regional Survey Results: Affordable Housing Near Jobs

		I prefer to live closer to my job but there aren't affordable houses or apartments			
	NOACA Region	Higher-income white	Lower-income white	Higher-income Nonwhite	Lower-income Nonwhite
BASE	1,326	768	253	148	133
Strongly Agree (5)	14.48%	9.51%	13.83%	24.3%	30.83%
Somewhat Agree (4)	17.12%	15.449%	18.97%	16.22%	26.32%
Neutral (3)	25.57%	24.87%	26.48%	26.35%	25.56%
Somewhat Disagree (2)	15.16%	17.71%	12.65%	14.86%	6.77%
Strongly Disagree (1)	27.68%	32.42%	28.06%	18.24%	10.53%
	100%	*100%*	*100%*	*100%*	*100%*
MEAN	2.76	2.52	2.78	3.14	3.60

Table 6-5 shows that lower-income, nonwhite respondents also agree with the statement, "It's hard for me to find a better job or make more money because of where I live." The other income/race groups disagree.

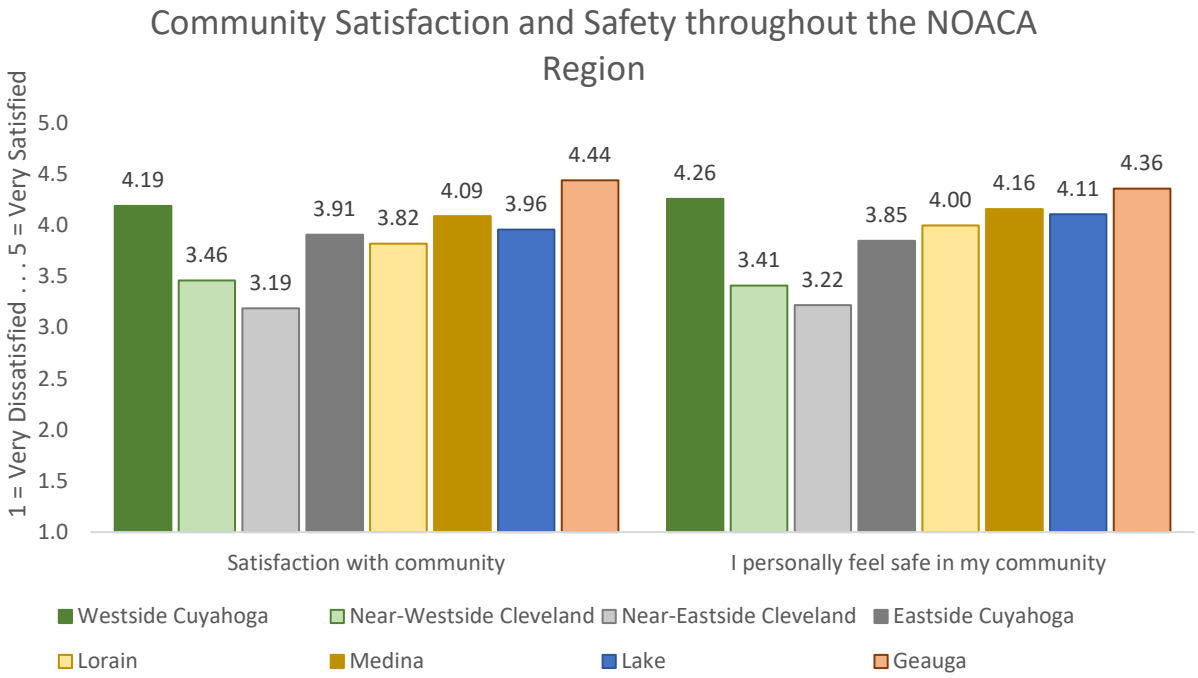
Table 6-5. NOACA Regional Survey: No Jobs Near Home

		It's hard for me to find a better job or make more money because of where I live			
	NOACA Region	Higher-income white	Lower-income white	Higher-income Nonwhite	Lower-income Nonwhite
BASE	1,326	768	253	148	133
Strongly Agree (5)	11.69%	8.46%	11.86%	14.86%	24.06%
Somewhat Agree (4)	16.44%	13.80%	22.53%	18.24%	20.30%
Neutral (3)	26.02%	25.13%	29.25%	23.65%	27.07%
Somewhat Disagree (2)	16.82%	19.27%	11.07%	16.89%	12.03%
Strongly Disagree (1)	29.03%	33.33%	25.30%	26.35%	16.54%
	100%	*100%*	*100%*	*100%*	*100%*
MEAN	2.65	2.45	2.85	2.78	3.23

Satisfaction with Community, Safety and Home

The survey also included statements for respondents to indicate how satisfied they were, generally, with their communty and whether they personally felt safe in their community. Figure 6-21 shows responses by geographic location. The results are very similar to those received for the "living and working" statements. Respondents from the City of Cleveland are least satisfied; the respondents from suburban Cuyahoga County and the four collar counties are much more satisfied.

Figure 6-16. NOACA Regional Survey: Community Satisfaction and Safety



Tables 6-6 and 6-7 show that, among income/race groups, lower-income nonwhites are the least satisfied with their communities overall and feel the least safe in their communities.

Table 6-6. NOACA Regional Survey: Satisfaction with Community Overall

		Satisfaction with community overall			
	NOACA Region	Higher-income white	Lower-income white	Higher-income Nonwhite	Lower-income Nonwhite
BASE	**2,461**	**1,218**	**536**	**219**	**239**
Very Satisfied (5)	32.26%	36.12%	27.43%	31.05%	23.01%
Somewhat Satisfied (4)	39.66%	44.58%	38.81%	35.62%	24.69%
Neutral (3)	17.43%	12.73%	21.27%	19.63%	32.22%
Somewhat Dissatisfied (2)	7.23%	4.93%	8.40%	10.96%	12.13%

Very Dissatisfied (1)	3.41%	1.64%	4.10%	2.74%	7.95%
	100%	*100%*	*100%*	*100%*	*100%*
MEAN	3.90	4.09	3.77	3.81	3.43

Table 6-7. NOACA Regional Survey: Feelings of Personal Safety

		I personally feel safe in my community			
	NOACA Region	**Higher-income white**	**Lower-income white**	**Higher-income Nonwhite**	**Lower-income Nonwhite**
BASE	**2,461**	**1,218**	**537**	**220**	**239**
Strongly Agree (5)	36.16%	42.45%	27.93%	30.91%	23.85%
Somewhat Agree (4)	37.51%	40.23%	39.48%	35.91%	26.78%
Neutral (3)	16.01%	11.82%	20.48%	18.64%	28.03%
Somewhat Disagree (2)	6.75%	4.19%	8.38%	8.18%	11.30%
Strongly Disagree (1)	3.58%	1.31%	3.72%	6.36%	10.04%
	100%	*100%*	*100%*	*100%*	*100%*
MEAN	3.96	4.18	3.80	3.77	3.43

For purposes of comparison, Table 6-8 shows satisfaction with respondents' homes and surrounding homes, as well as satisfaction with their communities overall. The same patterrn of lower satisfication from urban (City of Cleveland) respondents and higher satisfaction from suburban respondents exists here. When broken out by income/race group, higher-income whites are the most satisfied with their homes (4.27) and surrounding homes (4.15), while lower-income, nonwhites are the least satisfied with their homes (3.60) and surrounding homes (3.64). That being said, it's worth noting that all respondents, on average, are satisfied.

Table 6-8. NOACA Long Range Plan (LRP) Public Opinion Survey: Home and Community Ratings ("How satified are you with the condition of the following?")

		Satisfaction		Satisfaction
Home and Community Ratings *5 = Highest 1 = Lowest*	**BASE**	**Home**	**Homes near home**	**Community overall**
Cleveland	446	3.75	3.56	3.32
Cuyahoga	1,087	4.15	4.14	4.06
Lorain	362	4.17	4.03	3.84
Lake	271	4.10	3.98	3.97
Medina	207	4.17	4.06	4.09
Geauga	91	4.43	4.29	4.44
NOACA Region	2,462	4.09	4.00	3.90

Community Access to Products and Services

A final set of statements that respondents considered for the NOACA Regional Survey pertained to whether they agreed that their home community provided good access to products and services. Table 6-9 shows several types of products and services and average response scores across geographic areas. There was strongest agreement (average scores 4.00 and higher) on accessibility to services such as health care, retail stores, recreation, and entertainment. Agreement was less strong (scores below 4.00) on accessiblity to education, affordable housing, jobs, and public transportation. The lowest average scores for education and affordable housing were from City of Cleveland respondents. while the Lorain County respondents averaged lower scores on accessibility to job opportunties, and all of the suburban respondents averaged lower on accessibility to public transportation (especially Lorain and Geauga counties).

Table 6-9. NOACA Regional Survey: Community Access to Products and Services

	Agreement										
Community Access Ratings *5 = Highest 1 = Lowest*	**BASE**	**Hospitals & health care**	**Stores & grocery ***	**Recreation ****	**Entertainment & restaurants**	**Education & training*****	**Affordable housing**	**Job opportunities**	**Job opportunities (FTEs)**	**Public transportation**	**Public transportation (if ride weekly+)**
Cleveland	446	4.20	3.91	3.82	3.84	3.59	3.47	3.39	3.62	3.80	3.83
Cuyahoga	1,086	4.44	4.38	4.20	4.19	3.88	3.67	3.55	3.65	3.62	3.84
Lorain	362	4.19	4.19	3.93	3.80	3.79	3.61	3.32	3.44	2.68	3.19
Lake	271	4.31	4.36	4.18	4.14	3.82	3.74	3.72	3.86	3.61	3.93
Medina	207	4.19	4.20	4.13	3.99	3.80	3.53	3.63	3.74	3.14	3.45
Geauga	91	4.40	4.37	4.23	4.00	4.05	3.71	3.67	3.71	2.82	3.24
NOACA Region	2,463	4.32	4.25	4.08	4.04	3.81	3.62	3.52	3.66	3.44	3.83

*Stores and services (including fresh food/grocery)
** Recreational activities including parks, playgrounds, and swimming pools

*** Educational training opportunities

When broken out by income/race groups, access scores were lowest among low-income, nonwhites and highest for high-income whites (except public transportation).

While respondents indicated they were generally satisfied with their residences, neighboring properties, communities, and access, significant challenges (aging infrastructure, disinvestment, outward migration, and lack of diverse transportation options) confront multiple entities in Northeast Ohio, including NOACA. Urban core and low-income, nonwhite respondents were least satisfied with their homes, communities, and accessibility. The needs expressed by low-income, minority respondents in core areas suggest opportunities for NOACA to focus its transportation infrastructure investment efforts more equitably to benefit existing communities and improve accessibiltiy for the marginalized.

Current Conditions and Response to Disinvestment and Abandonment

Nascent Urban Development and Increasing Values

Urban neighborhoods in the NOACA region have shown signs of repopulation and redevelopment in the past decade, though not uniformly. Between 2009 and 2015, Cuyahoga County property valuations were generally static; however there was growth in the urban core, its surrounding neighborhoods, University Circle, and small pockets in outer suburbs (see Figure 6-22). Conversely, losses were concentrated in urban neighborhoods on the east side of Cleveland, and inner eastern suburbs such as Euclid, Garfield Heights, and Maple Heights.[60] A snapshot of the City of Cleveland housing market from 2019-2020, however, shows that most neighborhoods saw increased single-family home sale prices, save for a few on the east side (see Figure 6-23).[61] A Bloomberg Report noted that in 2020, home values in urban areas of Cleveland grew by 16.5%, while suburban values increased by 10.1%.[62] Cuyahoga County Fiscal Office residential sales between 2016 and 2020 show a dramatic increase in “high-end” transactions (+$300,000) in the City of Cleveland, although they are primarily concentrated in just a few neighborhoods. Table 6-10 reveals more than 80% of all “high-end” residential sales occurred in just four neighborhoods during this period: Detroit-Shoreway, Downtown/Flats, Ohio City/Duck Island, and Tremont.

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[60] Richey Piiparinen; Kyle Fee; Charlie Post; Jim Russell; Mark J. Salling, PhD, GISP; and Thomas Bier, "Preparing for Growth: An Emerging Neighborhood Market Analysis Commissioned by Mayor Frank G. Jackson for the City of Cleveland,” *Urban Publications* (Cleveland: Cleveland State University 2017); https://engagedscholarship.csuohio.edu/urban_facpub/1469 (accessed December 15, 2020).

[61] Richard Exner, “Cuyahoga County home prices in 2020,” https://www.cleveland.com/datacentral/2021/01/cuyahoga-county-home-prices-in-2020-up-more-sharply-than-at-any-time-since-the-housing-bust-see-details-for-each-town-thats-rich.html (accessed January 17, 2021).

[62] Bloomberg L.P., “U.S. Homebuyers want to live in cities just as much as suburbs,” *Crains Cleveland Business*, February 4, 2021; https://www.crainscleveland.com/real-estate/us-homebuyers-want-live-cities-just-much-suburbs?utm_source=afternoon-report&utm_medium=email&utm_campaign=20210204&utm_content=article8-headline (accessed February 4, 2021).

Figure 6-17: Heat Map of Change in Residential Property Valuations, 2009-2015

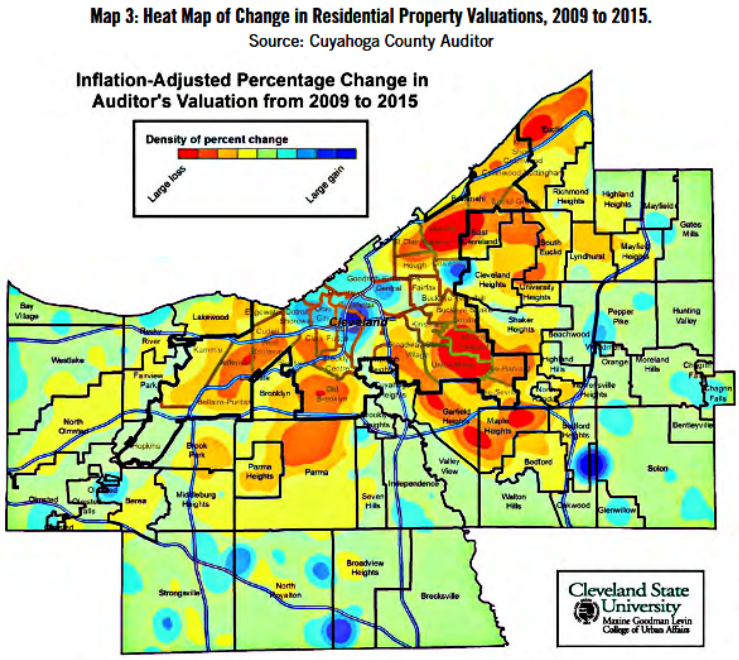

Figure 6-23: Median Home Sales Price Change in Cleveland Neighborhoods, 2019-2020[63]

[63] Richard Exner, "Cuyahoga County home prices in 2020," https://www.cleveland.com/datacentral/2021/01/cuyahoga-county-home-prices-in-2020-up-more-sharply-than-at-any-time-since-the-housing-bust-see-details-for-each-town-thats-rich.html (accessed January 17, 2021).

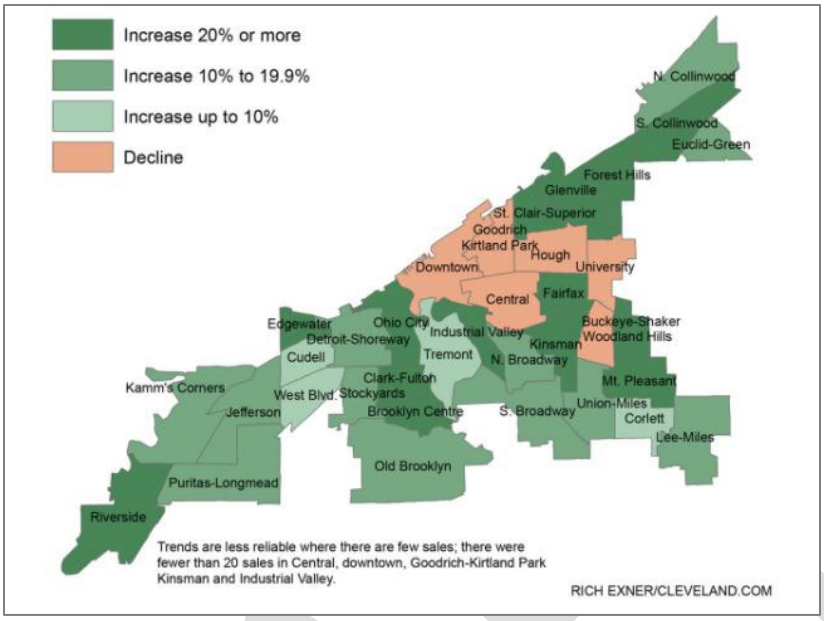

Table 6-10. Number of "High-End" Sales by Cleveland Neighborhood, 2016-2020[64]

	YEAR					2016-2020	
NEIGHBORHOOD	**2016**	**2017**	**2018**	**2019**	**2020**	**#**	**%**
Detroit Shoreway	17	21	54	96	77	265	29.2%
Ohio City/Duck Island	17	18	44	53	58	190	21.0%
Tremont	24	40	24	44	49	181	20.0%
Downtown/Flats	13	17	19	20	28	97	10.7%
University Circle/Little Italy	13	12	10	22	21	78	8.6%
Clifton/Edgewater	2	4	14	15	16	51	5.6%
Shaker Square	3	4	5	3	6	21	2.3%
West Park/Kamm's Corners	3	2	4	1	5	15	1.7%
Midtown	0	0	0	1	2	3	0.3%
North Collinwood	0	0	0	1	1	2	0.2%
Old Brooklyn/South Hills	0	0	0	1	1	2	0.2%
Glenville	0	0	1	0	0	1	0.1%
TOTAL	**92**	**118**	**175**	**257**	**264**	**906**	**100**

[64] Rich Exner, "Find Cuyahoga County property sales and transfers with this searchable database," Last updated March 32021; retrieved 2016-2020 from https://www.cleveland.com/datacentral/2009/06/find_cuyahoga_county_property.html. Michael Chambers, "Cuyahoga County Fiscal Officer: Real Property Information," 2021; retrieved 2016-2020 from https://fiscalofficer.cuyahogacounty.us/).

Downtown Cleveland has shown an increase in population that began in the early 2000s; it grew 102% from 2000-2017, and reflected the millenial generation's preference for urban living and close proxmity to dining, culture, entertainment, and sporting venues. In 2015, the number of downtown residents reached 15,000, with a goal set by the Downtown Cleveland Alliance (DCA) of 20,000 by the end of 2020.[65] As of its 2020 annual report, the DCA reported a downtown population of 19,645 residents (see Figure 6-24).[66]

Figure 6-24. Housing and Population in Downtown Cleveland (2020)

FOR SALE MARKET	2020	2019
Total Sales	71	76
Average Sales Price	$310,338	$248,731
Average Price PSF	$215.86	$187.49

RENTAL MARKET	2020	2019
Occupancy	84.1%	90.0%
Rent PSF	$1.57	$1.58
Market Rate Units	8,797	7,520

Housing and Transportation Index: The Intersection of Affordability

Northeast Ohio is generally considered to have an affordable housing market, especially when compared to other metropolitan regions in the United States. The median sale price in Cuyahoga County in 2020 was $140,000, still far below the median U.S. sale price of $274,500.

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[65] Karen Connelly Rice, "Population boom: Downtown Cleveland will see 20k residents by year end as DCA sets new goal of 30k," *Fresh Water,* February 18, 2020; https://www.freshwatercleveland.com/breaking-ground/DowntownGrowth021820.aspx (accessed December 15, 2020).

[66] Downtown Cleveland Alliance, *2020 Annual Report* (Cleveland: Downtown Cleveland Alliance, 2021); retrieved March 11, 2021 from https://www.downtowncleveland.com/DCA/media/DCA_Media/2020_DCA-Annual-Report.pdf.

[67] When monthly housing prices are viewed as just one piece of the overall cost of living, however, a different picture emerges.[68]

The Center for Neighborhood Technology (CNT) is an organization that focuses on research and technology solutions to improve sustainability and equity within economic development, climate resilience, and urban analytics. CNT created its Housing and Transportation Affordability Index (H+T Index) to inform its Location Efficiency Hub work, using technology to make places more sustainable. The H&T Index calculates affordability at the intersection of housing and transportation, as transportation is the second-highest cost burden for households (see Figure 6-25). It also ranks communities based on job and transit access, as well as density and walkability.[69] CNT sets an affordability benchmark at 45% of a household budget as the maximum allocation toward both housing and transportation costs. CNT found that only 26% of U.S. neighborhoods met this benchmark.[70]

Figure 6-25. H+T Index Methodology

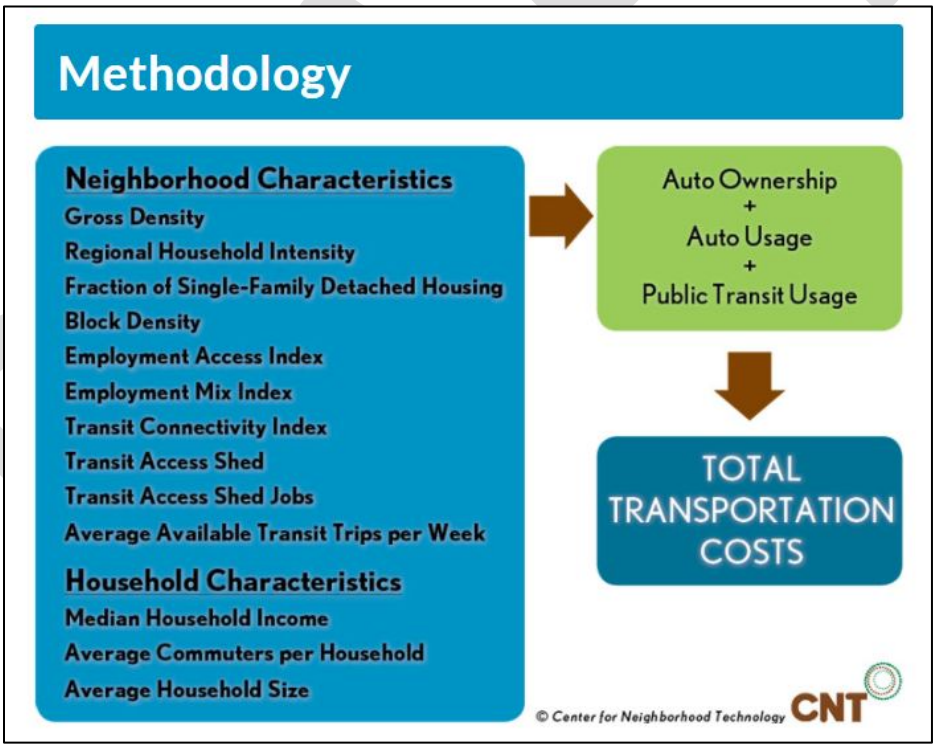

Figure 6-26. Northeast Ohio Communities Analyzed with H+T Index

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[67] Exner, "Cuyahoga County home prices in 2020." Lee Chilcote, "Cleveland has a middle-class Housing Affordability Problem," *Cleveland Scene*, July 31 2020; https://www.clevescene.com/scene-and-heard/archives/2020/07/30/cleveland-has-a-middle-class-housing-affordability-problem (accessed December 18, 2020).

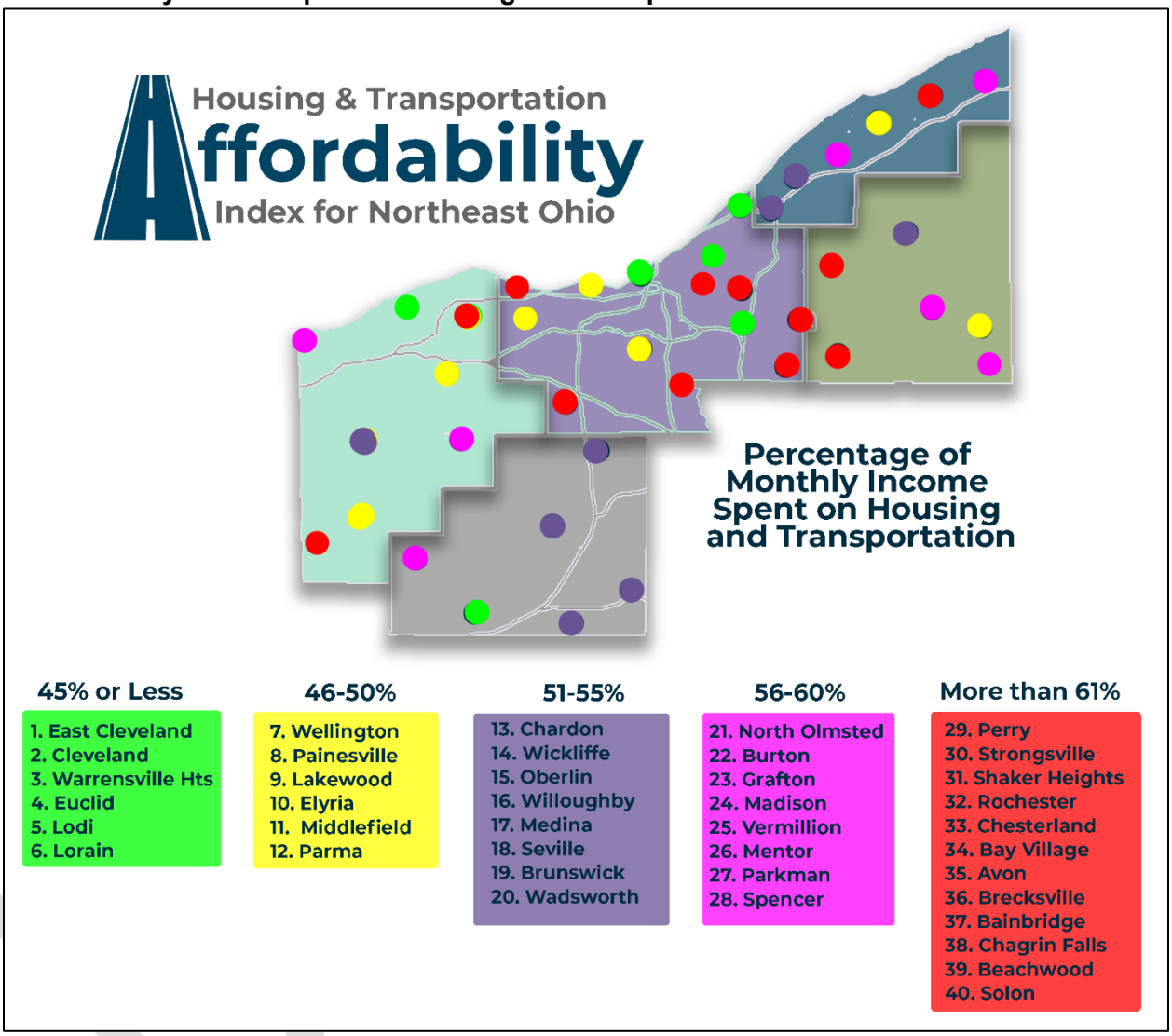
[68] The Center for Neighborhood Technology, "Housing and Transportation Index"; https://htaindex.cnt.org/. (accessed November 2, 2020).

[69] The Center for Neighborhood Technology, "H&T Index Methods," August 2017; https://htaindex.cnt.org/about/HTMethods_2016.pdf; (accessed January 29, 2021).

[70] The Center for Neighborhood Technology, "Housing and Transportation Index."

NOACA analyzed affordability for 41 communities in the five counties in Northeast Ohio that NOACA covers (Figure 6-26). Only six communities met CNT's affordability benchmark of 45%: East Cleveland, Cleveland, Warrensville Heights, Euclid, Lodi, and Lorain, primarily due to low housing values. Figure 6-27 shows total percentage of average local income spent on housing and transportation for each of the 41 communities.

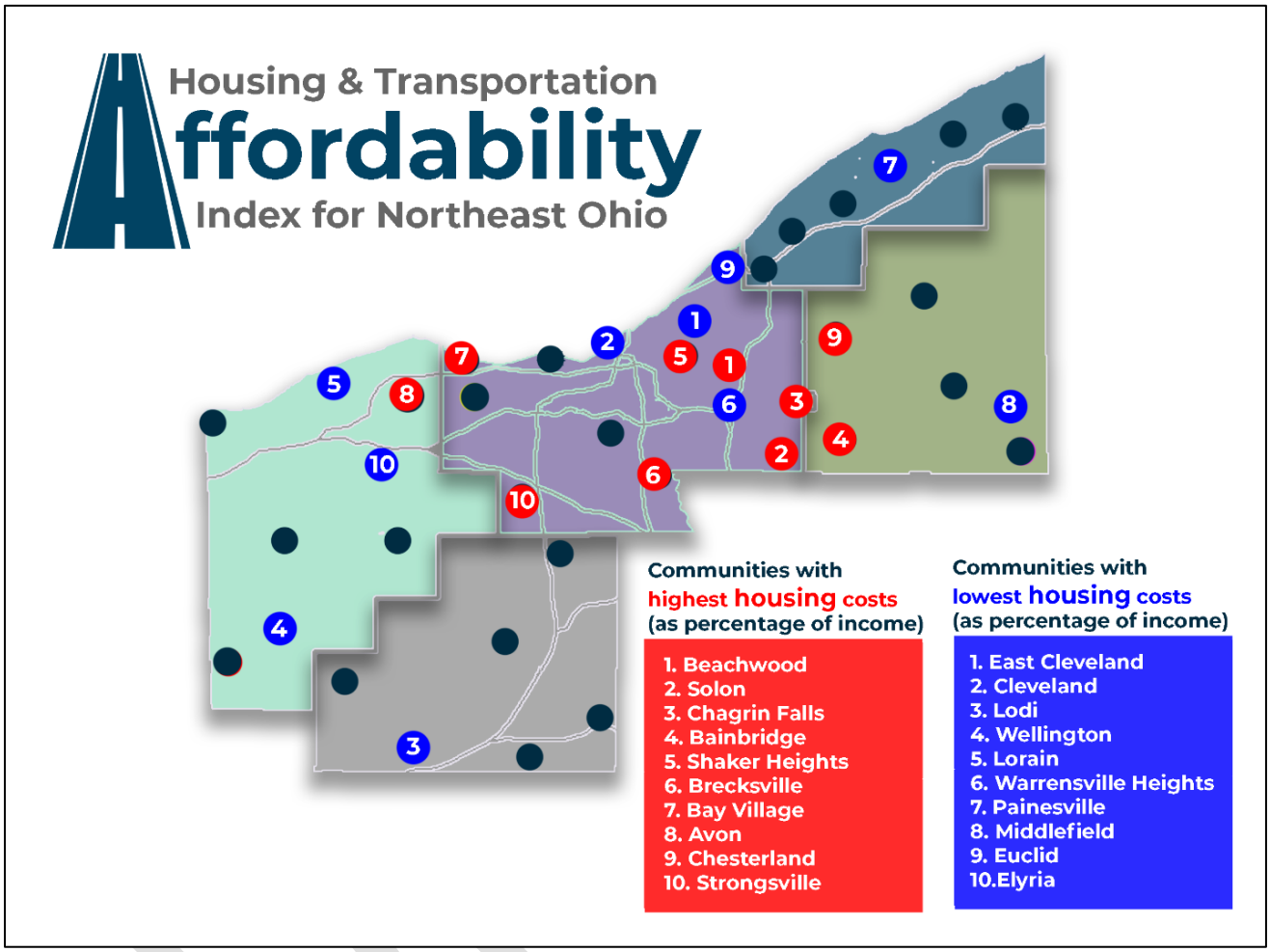
Figure 6-27. H+T Index for Northeast Ohio communities: Percentage of average local monthly income spent on housing and transportation costs



To better analyze and understand the overall methodology and data outputs, NOACA examined and mapped housing and transportation costs as separate variables. To calculate housing costs, CNT used nationally available datasets.[71] The other side of the H+T Index, transportation, is "modeled based on three components of transportation behavior—auto ownership, auto use, and transit use—which are combined to estimate the cost of transportation."[72] See Figure 6-28 for the highest and lowest housing costs as a percentage of monthly income. See Figure 6-29 for the highest and lowest transportation costs as a percentage of monthly income.

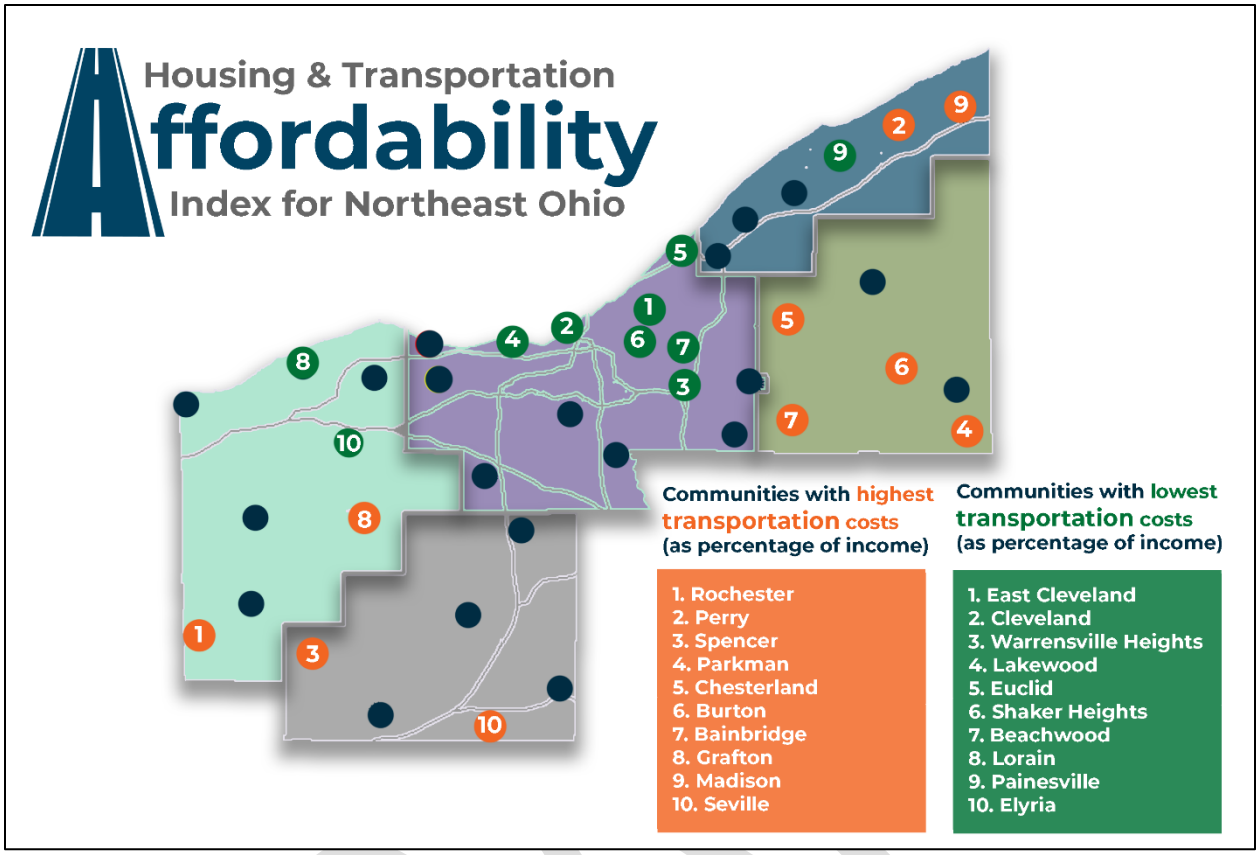
[71] The Center for Neighborhood Technology, "H+T Index Methods," 5.
[72] Ibid. 6.

Figure 6-28. H+T Index for Northeast Ohio: Communities with highest and lowest housing costs



Many of the communities with low housing costs are in either older urban cities or rural areas. Those with the highest housing costs are suburban or exurban, but still close to job hubs and with most housing stock as single-family homes.

Figure 6-29. H+T Index for NE Ohio: Communities with highest and lowest transportation costs



Communities with the highest transportation costs are those in rural, peripheral locations within their counties, those with limited public transit service, or those in areas that are not easily accessible by highways. Owning or having access to a personal vehicle is necessary in those locations. Conversely, those with the lowest transportation costs are urban communities close to highways and transit routes. Most communities with low transportation costs also rank highly in Job Access Score, Transit Performance Score, and Compact Neighborhood Score.

The data shared here suggest although some progress has been made, there are insufficient units of affordable housing within access of jobs and opportunity for some of its residents, particularly those with the greatest need. To better understand programs and policies that have brought the region into its current state, including some by NOACA, the next few subsections take a deeper dive into how the region has responded to the migration patterns, which have resulted in a significantly larger footprint that requires maintenance without net regional growth.. This discussion will undergird the platform for the final section of the chapter, the look ahead to what the future might hold.

Neighborhood Stabilization and Land Reutilization

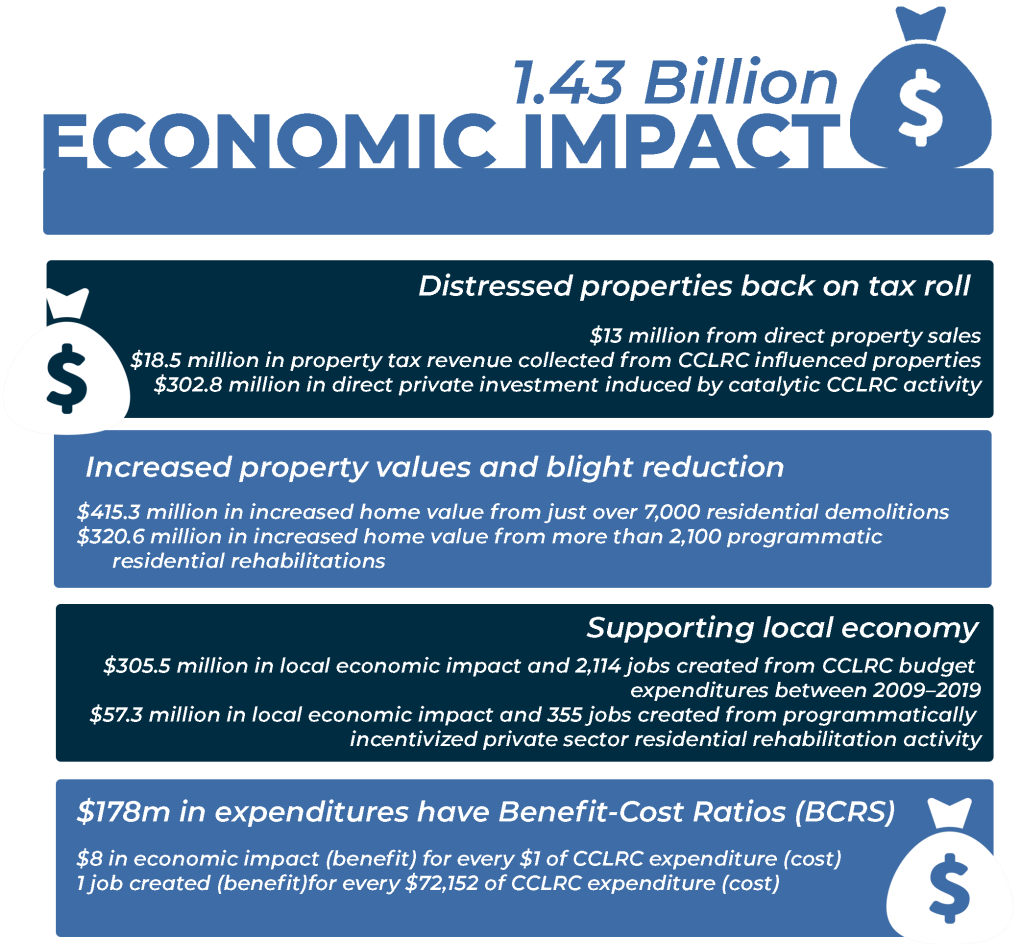
One of the tools utilized in the revitalization efforts of Cleveland's urban core is the United States Department of Housing and Urban Development (HUD)'s, Neighborhood Stabilization Program (NSP). The NSP offered grants to state and local governments to fund the purchase of foreclosed and abandoned properties for the purpose of rehabilitation, redevelopment, or demolition when warranted, to stabilize urban communities and neighborhoods affected by the foreclosure crisis. The Housing and Economic Recovery Act of 2008 authorized two rounds of funding, and a third became available by formula grant through the Dodd-Frank Wall Street Reform Act in 2010.[73]

In Ohio, Senate Bill 353 helped establish Land Reutilization Corporations and expanded the impact of traditional land banks to combat against vacant and deteriorated properties. The Cuyahoga County Land Reutilization Corporation (CCLRC) became the first authorized Land Reutilization Corporation in 2008, officially opening for operations in 2009. In 2010, counties with populations greater than 60,000 were authorized to create their own Land Reutilization Corporations. By 2015, all counties in Ohio were eligible to establish land banks and access funds allocated to them.[74] In the NOACA region, Lake and Lorain counties also have land banks, and Medina County has considered a land bank to address vacant properties.[75]

According to the "Cuyahoga County Land Bank Economic Impact Study," the CCLRC facilitated the renovations of 2,000 abandoned homes and the demolition of 8,000 deteriorated properties from 2009 to 2019.[76] The study also found that CCLRC's efforts resulted in a $1.43 billion positive impact on taxes, property values, and local economic indicators (see Figure 6-30).

[73] United States Department of Housing and Urban Development, Office of Policy Development and Research, "Neighborhood Stabilization Program Data"; www.huduser.gov (accessed Nov. 25, 2020).
[74] James Rokakis, 2020. *The Land Bank Revolution*. Presentation, Cleveland.
[75] Lake County Land Bank, https://lakecountylandbank.org/ (accessed January 15, 2021). Lorain County Land Bank. http://www.loraincounty.us/landbank (accessed January 15, 2021).
[76] Dynamometrics, "Cuyahoga Land Bank: 10 Year Economic Impact Analysis," June 2019; http://cuyahogalandbank.org/documents/CuyahogaImpactReport20190626.pdf (accessed January 14, 2021).

Figure 6-30. Cuyahoga County Landbank Economic Impact Study Outcomes



In 2011, the Western Reserve Land Conservancy, a collaborative organization that encompasses land trusts from 17 counties, established the Thriving Communities Institute. Now known simply as Thriving Communities, the program initially supported the creation of land banks across Ohio and expanded to five priorities (see Figure 6-31). According to the Western Reserve Land Conservancy website:

> "Land banks are an essential tool for stabilizing our fragile cities. They give our counties the much-needed ability to quickly acquire a distressed property, safely hold it, clean its title and prepare it for a better day. The goal is to secure vacant properties — which would otherwise attract crime, lower neighboring home values and incur public services costs — so they can be put to better use in the future. County land banks are powerful tools in the fight against blight."[77]

[77] Western Reserve Land Conservancy, "Thriving Communities"; https://www.wrlandconservancy.org/whatwedo/advocacy-and-research (accessed December 14, 2020).

Figure 6-31. Thriving Communities Five Program Priorities

Tax Abatements: Encourage Investment or Reinvestment

Another driver of revitalization efforts in the region has been use of property tax abatements. Tax abatement is a temporary halt on property taxes, targeting either commercial or residential property or both. The most prominent example in the NOACA region has been the use of tax abatement in the City of Cleveland, which began in the mid-1980's by Mayor George Voinovich and the Cleveland City Council to set the stage for redevelopment through new home construction.. Cleveland experienced a 20% increase in permits during the 1980s and 1990s while permits in suburban Cuyahoga County saw a decrease of 8%.[78]

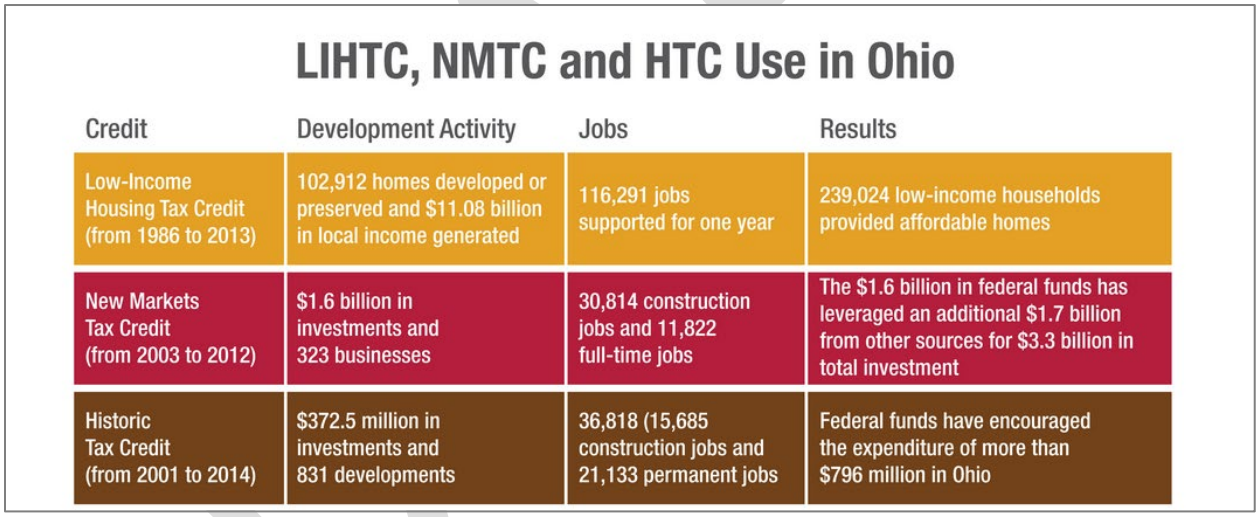
Dr. Thomas Bier surveyed Cleveland homebuyers (of those moving within the region) nine times between 1982 and 1995. Results showed 40% of those who purchased homes in the city came from the suburbs where they had rented, while the remaining 60% had been renters in Cleveland. He also noted that 30% of city homebuyers had earned college degrees, while another 30% had some college experience. Dr. Bier noted a similar trend years later (2006-2013), when Cleveland's college-educated young adult population doubled, from 7,536 to 15,057.[79]

[78] Bier, *Housing Dynamics in Northeast Ohio*.
[79] Ibid.

Affordable Revitalization: Workforce Housing

In response to the abundant development of high-end homes, apartments, condominiums, and townhomes in the region,, housing and equity advocates have called for more affordable options. Low and middle income workers do not earn enough to live in the communities in which they work. This is especially true for teachers, fire-fighters and healthcare workers, as well as hospitality staff and light manufacturing employees. The Urban Land Institute describes workforce housing as "affordable to households earning between 60 to 120 percent of area median income (AMI). Households who need workforce housing may not qualify for housing subsidized through the Low-Income Housing Tax Credit (LIHTC) program or the Housing Choice Vouchers program which are two major programs in place for addressing affordable housing needs."[80] Figure 6-32 illustrates the impact of LIHTC in Ohio, along with two other housing tax credit programs: New Markets Tax Credit and Historic Tax Credit. ,

Figure 6-32: LIHTC, NMTC and HTC Use in Ohio[81]



LIHTC, NMTC and HTC Use in Ohio

Credit	Development Activity	Jobs	Results
Low-Income Housing Tax Credit (from 1986 to 2013)	102,912 homes developed or preserved and $11.08 billion in local income generated	116,291 jobs supported for one year	239,024 low-income households provided affordable homes
New Markets Tax Credit (from 2003 to 2012)	$1.6 billion in investments and 323 businesses	30,814 construction jobs and 11,822 full-time jobs	The $1.6 billion in federal funds has leveraged an additional $1.7 billion from other sources for $3.3 billion in total investment
Historic Tax Credit (from 2001 to 2014)	$372.5 million in investments and 831 developments	36,818 (15,685 construction jobs and 21,133 permanent jobs	Federal funds have encouraged the expenditure of more than $796 million in Ohio

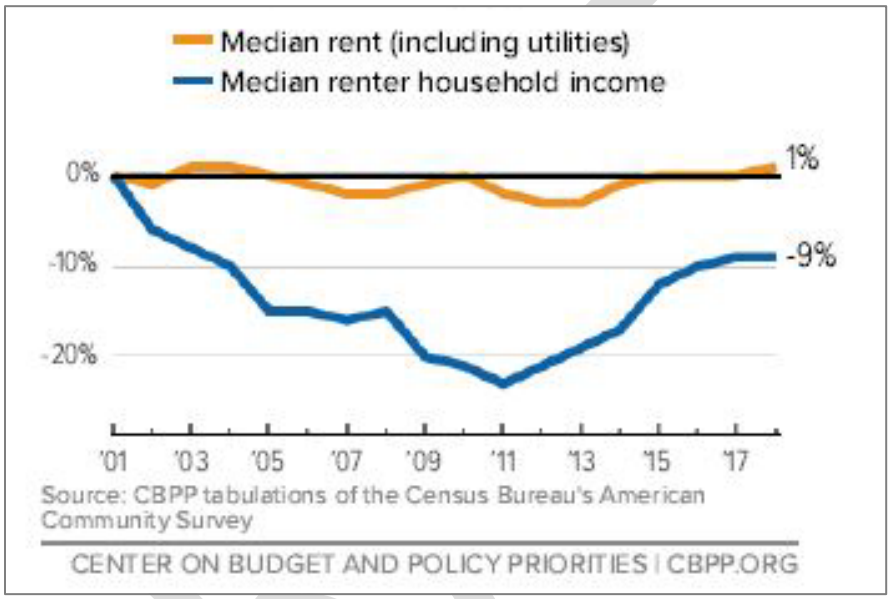
More Affordable Revitalization: Public Housing and Assistance

For individuals who have very low incomes, as well as seniors and people with disabilities, even workforce housing may be out of reach. Median incomes have not kept up with rising housing costs in the U.S., as shown in Figure 6-33.[82] Since 2001, the gap between median rent and median renter income has fluctuated (10% as of 2018).[83] While the federal government considers housing costs that exceed 30% of income to be "unaffordable," the Center on Budget

[80] University of North Carolina (UNC) School of Government, "What Exactly is Workforce Housing and why is it important?" July 12, 2018 https://ced.sog.unc.edu/what-exactly-is-workforce-housing-and-why-is-it-important/ (accessed January 25, 2021).
[81] Novogradac & Company LLC. "LIHTC, NMTC and HTC Use in Ohio," Novovco.com, March 16, 2016; https://www.novoco.com/atom/143616 (accessed February 16, 2021).
[82] Center on Budget and Policy Priorities, "Ohio Federal Rental Assistance Fact Sheet," December 2019; https://www.cbpp.org/research/housing/federal-rental-assistance-fact-sheets#OH (accessed January 22, 2021).
[83] Ibid.

and Policy Priorities reports that approximately 350,000 low-income households in Ohio pay more than half of their income toward housing.[84]

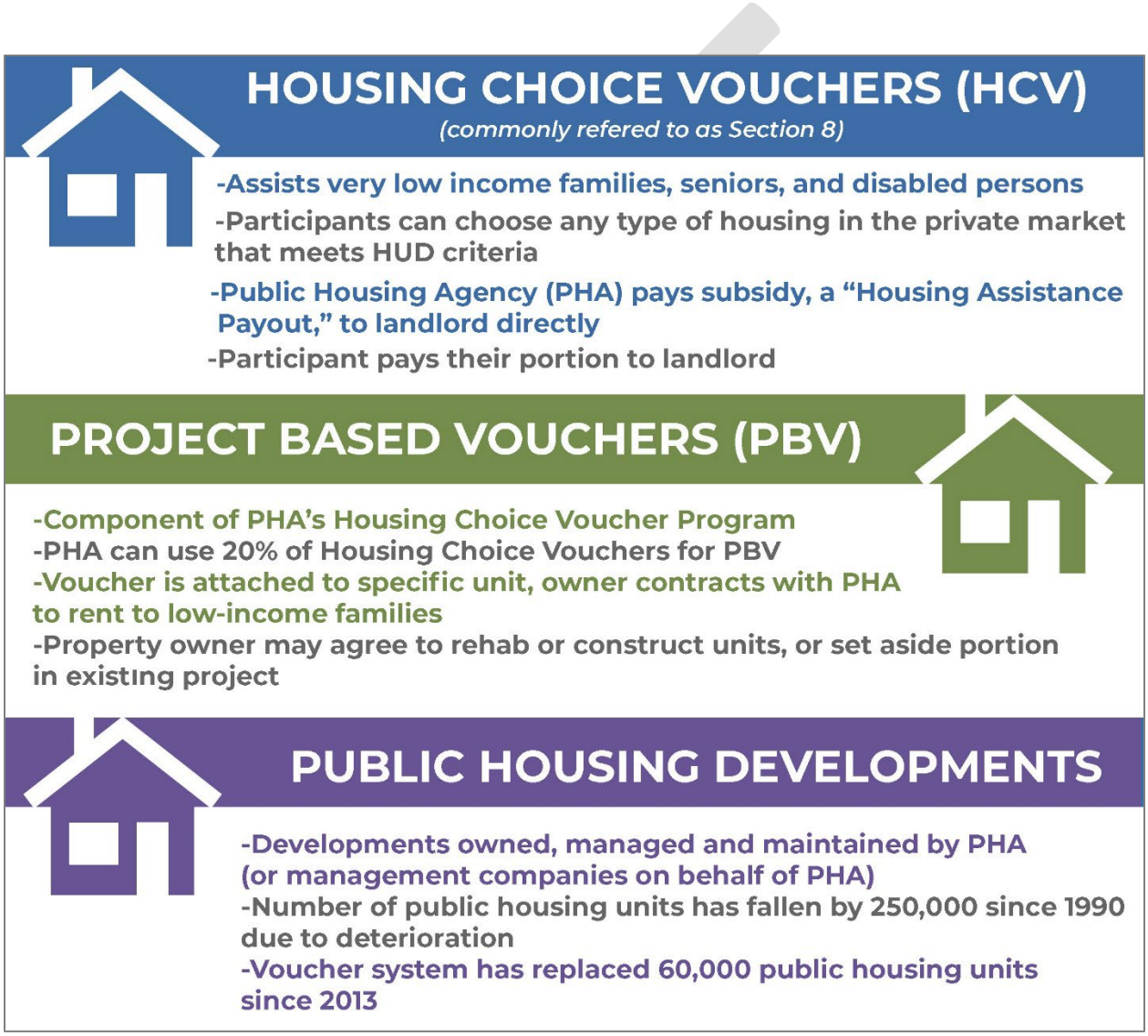
Figure 6-33. Percentage Gap between Median Rent and Median Renter Household Income since 2001, adjusted for inflation



In response to these needs, there are several types of assistance programs for seniors, individuals with disabilities, very low-income households, and unique or emergency housing situations. Figure 6-34 (HUD programs) highlights three main HUD programs to provide safe and healthy housing for those who need it most.

[84] Ibid.

Figure 6-34. HUD Primary Housing Assistance Programs



In the NOACA region, there are nine Public Housing Agencies (PHAs) that administer federal housing assistance. Together, these nine agencies managed 13,545 affordable housing units (2020) and administered 20,520 housing choice vouchers of more than $128 million (2018).[85]

[85] Cuyahoga Metropolitan Housing Authority: https://www.cmha.net/
Geauga Metropolitan Housing Authority: http://www.geaugamha.org/
Lake Metropolitan Housing Authority: https://www.lakehousing.org/
Lorain Metropolitan Housing Authority: http://www.lmha.org/

The Metropolitan Housing Authorities for each of NOACA's five counties all own and manage public housing developments and smaller scale properties (Table 6-11), in addition to federal housing vouchers. The City of Parma manages a federally funded rental assistance program, as do Cleveland-based nonprofits Emerald Development & Economic Network (EDEN) and New Avenues to Independence. EDEN and New Avenues to Independence both focus their services on people with disabilities, namely those with low-incomes or who experience homelessness.[86]

Table 6-11. Public Housing Statistics in NOACA Region[87]

Geographic Entity	Public Housing Agency (PHA)	Developments/ Properties (Jan 2021 Statistic)	Managed Units (Jan 2021 Statistic)	Housing Choice Vouchers: Quantity (Q4 2017 Statistic)	Housing Choice Vouchers: Funding (Annual 2017 Statistic)
Cuyahoga	Cuyahoga Metropolitan Housing Authority	60	10,000	15,275	$92,367,397
Geauga	Geauga Metropolitan Housing Authority	5	243	171	$877,043
Lake	Lake Metropolitan Housing Authority	4	280	1,457	$8,817,094
Lorain	Lorain Metropolitan Housing Authority	14	1627	3,109	$18,332,217
Medina	Medina Metropolitan Housing Authority	10	461	669	$3,017,848
Parma	Parma Public Housing Agency	1	60	742	$4,344,966
Cuyahoga, Lake, Lorain, Medina	Eden, Inc	87	867	125	$546,722
Cuyahoga, Lake	New Avenues to Independence	7	7	50	$262,340
TOTAL		**188**	**13,545**	**21,598**	**$ 128,565,627**

Where Will We Go?

Future Development Scenarios

Looking forward to 2050, there are a number of different possible paths for the NOACA region to realize its future. The following four scenarios serve as predictions for what could be, based on levels and types of transportation investment. There will be particular focus on worker accessibility to jobs and equity. The scenarios—MAINTAIN, CAR, TRANSIT and TOTAL—are discussed in relation to impacts on housing in the region. Chapter 9 provides a more detailed presentation of the scenarios, their components, and performance measures used for scenario comparison and selection.

Scenario 1: MAINTAIN-State of Good Repair

Medina Metropolitan Housing Authority: http://www.mmha.org/
Parma Public Housing Agency: http://cityofparma-oh.gov/en-US/Public-Housing.aspx
Eden, Inc: https://www.edeninc.org/housing-programs-applications/
New Avenues to Independence: https://www.newavenues.net/residential

[86] Healy and Lepley, "Housing Voucher Mobility in Cuyahoga County."
[87] Center on Budget and Policy Priorities, "Ohio Federal Rental Assistance Fact Sheet."

Scenario 1 focuses solely on maintenance of the existing transportation system, with no expansion of roads, bridges, highways, or public transit. The scenario assumes no variation from the current population and employment forecasts for the region, which reflect recent trends (slight decrease in population, slight increase in employment).

While the population of the region and total households will both decrease slightly, moderate new housing starts and demand for new housing will likely remain as NOACA will prioritize projects to maintain roads and highways with good access to job hubs. An emphasis on maintenance will likely encourage continued outward migration of the region and continued deconcentration of development in the urban core. Average commute times will likely decline slightly, but so will the number of people and jobs within a 15-minute (3/4-mile) walk of a transit (rail or bus) station. Modal choice will not expand under the MAINTAIN scenario; it's all about a state of good repair with regard to what the region currently has, not new investment.

Given the continued outward spread of people and jobs, there will be only limited demand for more multi-family, urban housing and continued demand for single-family, suburban housing. Regardless, the existing population of aging Baby Boomers will create demand for accessible, affordable housing of all types (independent living through skilled nursing levels). A demand for housing that allows individuals to "age in place" could be part of some developments and could grant access to transit, dining, entertainment, shopping, healthcare resources, and other essential needs.

Limited redevelopment and revitalization in traditional urban core communities and inner-ring suburbs is expected with population loss; however, some urban infill projects may persist where professionals and retirees demand housing (high-end, workforce type mix) in urban areas. Increased transportation costs from more driving and less transit may strain household budgets a bit, but the improved state of existing roads may reduce vehicle maintenance needs and insurance premiums.

MAINTAIN will continue the housing trends of the past few decades; there will be little to no change.

Scenario 2: Captivating Auto Region (CAR)-Single—Occupancy Vehicles

In Scenario 2, road capacity expansion is the priority. This includes new and improved infrastructure (roads, highways, bridges, interchanges), shorter travel times through traffic signal timing optimization, reduction of highway bottlenecks, ramp metering,[88] and reduced commutes to job hubs. Like Scenario 1 (MAINTAIN), CAR assumes no change to the projected population (slight decrease) and employment (slight increase) totals by the year 2050.

Despite the expected loss of population and total households in the CAR scenario, improved and expanded highways will accelerate existing migration of people and jobs to peripheral areas of the region. Moderate to high new housing starts should occur in more rural and exurban areas, even outside NOACA entirely, due to fast and easy access to job hubs. New highway access points will continue to incentivize greenfield development while disincentivize greyfield and brownfield redevelopment. There will be less motivation for urban core infill and

[88] Ramp meters are signal systems near the end of entrance ramps onto limited-access highways. The meters detect speed and occupancy of mainline lanes, allowing cars to enter the highway from the ramp at appropriate times to promote the most efficient flow of mainline traffic (retrieved 4.9.2021 from https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/traffic-operations/resources/ramp-meters).

revitalization since a centralized location won't mean as much. Average commute times by car will likely decrease given the anticipated improvements and even greater capacity in the arterial and highway network.

The CAR scenario promises an expanded, efficient transportation system for drivers, likely decreasing the demand for housing near job hubs as workers can live anywhere in the region, provided they have access to a private, reliable vehicle. Job hubs may even see increased demand for parking since there will likely be an increase in the number of workers incentivized to drive. Though the emphasis on personal, single-occupancy vehicles will lower demand for multi-family, urban housing, it will continue to be a useful development strategy for seniors who need accessible, affordable housing of all types (independent living through skilled nursing levels). Such units will also be necessary for low-income individuals and families who may not be able to afford personal vehicles or single-family, suburban homes. Unfortunately for these groups, overall demand for transit will likely decline and transit investment will be an even lower priority for investments of transportation dollars. These groups will still need a mix of workforce and low-income housing, but it is unclear whether such housing can find a home in closer proximity to a major regional job hub.

CAR will accelerate the housing trends of the past few decades; there will be increased spread from the urban core and from major regional job hubs.

Scenario 3: TRANsportation System with Improved Transit (TRANSIT)-Multimodal Transportation System

Scenario 3, TRANSIT, is essentially the opposite of CAR (Scenario 2). TRANSIT expands all transit agencies in the region through implementation of the improved 2017 Visionary Rail Network and increased bus service to Environmental Justice Areas.[89] TRANSIT also includes connections between transit stops and job hubs with autonomous shuttles and new pedestrian and bike routes. In Scenario 3, the projected 2050 population and employment is based on the same NOACA forecasts used in the MAINTAIN and CAR scenarios, plus additional increases as described below.

The transit and active transportation investments should stimulate both population and employment increases beyond the original projections used in the MAINTAIN and CAR scenarios. NOACA staff anticipate a 5% increase in target area population (transportation analysis zones within a five-mile radius from any rail station or major regional job hub would experience this additional 5% increase). NOACA staff anticipate 80% of this growth would occur in multifamily housing (20% single-family housing) due to its affordability and closer proximity to existing, denser development; transit stations; and job hubs. NOACA staff also anticipate a 3-8% additional employment increase in each of the six major regional job hubs (although the actual increase will vary based on the primary employment sector at each hub); see Chapter 9.

Total households are projected to increase from 2020 as well, and increased accessibility across the region due to expanded public transit capacity (particularly rail) will make urban living more attractive. New housing starts will increase to accommodate the growth in both single family and multifamily units. Infill housing in urban and core towns and neighborhoods, particularly near transit stations, should exceed the numbers in the first two scenarios. More

[89] NOACA, "AIM Forward 2040" (Cleveland: NOACA, June 2017); https://www.dropbox.com/s/1pvfvhx8xszgdlo/AIM%20Forward%202040.pdf?dl=0 (accessed March 16, 2021).

households will be within a 30-minute commute from work, whether by car or transit. Transit trips may double, and more than 100,000 more people will be within a 15-minute walk of a bus stop or rail station.

The expanded transit system will increase the demand multi-family, urban housing so people and employers can take advantage of greater modal choice, including transit, biking, and walking. More workforce housing in transit-accessible locations or near job hubs will be necessary. Housing demand, particularly demand for revitalized or repurposed housing in existing urban areas, will likely increase as this would be the first time in more than 50 years the region has experienced any population growth. There will continue to be a need for accessible, affordable housing of all types for the aging population, and improved transit will increase options for dining, entertainment, shopping, healthcare resources, and other essential needs.

While TRANSIT does not necessarily help drivers (expect increased costs from lack of roadway maintenance and greater population without capacity expansion), individuals who cannot afford personal vehicles will have greater mobility and can more easily access jobs. A transit mobile workforce should encourage companies and other employers to focus on, and prioritize proximity to, transit during location decisions.

Scenario 4: Transportation with Optimal Technology and Access for All (TOTAL)- Advanced Multimodal Transportation

The fourth scenario, TOTAL, incorporates all projects in the CAR (save highway interchanges) and TRANSIT scenarios. Additionally, the TOTAL scenario includes technological advances in the form of electric vehicle (EV) charging stations; autonomous vehicle lanes; and the futuristic Hyperloop system and stations. The projected 2050 population and employment in TOTAL is based on the same NOACA forecasts used in the other scenarios, plus additional increases as described below.

The wide array of transportation investments should stimulate significant population and employment increases beyond the original projects used in the other scenarios, even the TRANSIT scenario. NOACA anticipates a 10% increase in target area population (transportation analysis zones within a five-mile radius from any rail station or major regional job hub would experience this additional 10% increase). NOACA anticipates 80% of this growth would occur in multifamily housing (20% single-family housing) due to its affordability and closer proximity to existing, denser development; transit stations; and job hubs. NOACA also anticipates a 6-16% additional employment increase in each of the six major regional job hubs (although the actual increase will vary based on the primary employment sector at each hub); see Chapter 9.

To accommodate more households, the percentage of infill housing in urban and inner suburban neighborhoods should exceed the previous three scenarios. The average commute time for auto users will increase slightly, but transit commute times will decrease by a significant margin. Transit trips are expected to triple, and nearly twice as many people will be within a 15-minute walk of a bus or rail station than even in the TRANSIT scenario.

Like the TRANSIT scenario, the expanded transit system will increase the demand for multi-family, urban housing. An increase in jobs in the region will spur demand for workforce housing, especially near job hubs. As noted in all scenarios, there will continue to be a need for accessible, affordable housing of all types for the aging population. New technology and improved transit will benefit individuals who cannot, or do not, drive, which allows for improved mobility. Individuals who cannot afford personal vehicles will also have greater mobility and

easier access to jobs. Employers and companies should look to existing job hubs and housing when they make siting decisions.

A greater emphasis on technology in the TOTAL scenario can be a boon for mobility across the region, but there should be concerted efforts to ensure equal access to these opportunities for all residents in the NOACA region. One of the biggest issues related to either the TRANSIT or TOTAL scenarios could be the potential negative environmental impacts from an increase in population in Northeast Ohio. Although 5% and 10% increases over the current baseline projection don't seem like much, the model predicts that air quality and water quality will bear the brunt of negative impacts from an increase in population, households, and jobs. The next chapter, Environment and Health, will explore these issues in greater detail and consider how Northeast Ohio leaders and stakeholders might plan for future transportation investment; maintain and improve the region's environmental quality; and mitigate climate change impacts to improve its resiliency.

Performance Measures and Targets

Although Chapter 9 will present a much more detailed discussion and analysis of the four future scenarios mentioned above, this section details performance measures to assess progress toward more equitable housing. The performance measures are variables used to assess the scenarios comparatively against each other. There are two important values associated with each performance measure: the baseline and the target. The baseline is the value of the performance measure in the current state (2020). The target is the value of the performance measure in the future state (2050). One of the four future scenarios will be the preferred scenario and its performance measures will be the target values NOACA will use to assess the region's progress from the current state to the preferred future state. Table 6-12 illustrates the performance measures and targets focused on equitable housing. This table does not include as many performance measures as similar tables in Chapters 5 and 8; one of NOACA's recommendations is to research and develop more performance measures and targets on housing for the 2025 Long-Range Plan.

The outputs are presented in a specific way to help the reader digest the information clearly and concisely with the following guidelines:

1. The baseline represents current conditions (2020 conditions). The outputs reflect how the performance measure will change from the baseline to the target year (2050) under each of the four scenarios.
2. The "-" and "+" signs shown as outputs for each performance measure under each scenario indicate the direction of change. A "-" sign indicates a decrease from the baseline and a "+" sign indicates an increase from the baseline. There are two sizes for each sign; they represent the magnitude of change (smaller signs indicate slight change; larger signs indicate more substantial change).
3. The colors of the signs and numbers for each output are also important. Red color indicates a negative impact on the region, while green indicates a positive impact on the region. While many people commonly associate "-" signs with a negative impact and "+" signs with a positive impact, that is not always the case. It is possible to have a red "+" sign, meaning the value of that performance measure will increase under a scenario, but that increase will have a negative impact on the region.

4. Some of the performance measures in Table 7-13 are qualitative. To help the reader interpret the differences across scenarios, consider the performance measure, "future population and employment in communities with peak population in 1970."
    a. MAINTAIN: Maintenance of the status quo will likely yield continued slow decline of population in those communities whose population peaked in 1970, the same year the region's population peaked. These communities make up the region's peak population development footprint; after 1970, all growth essentially came at the expense of older, urban core neighborhoods that experienced decline, disinvestment, abandonment, and demolition.
    b. CAR: Prioritization of arterial and highway infrastructure expansion will likely yield a substantial decline in the population and employment of the 1970 development footprint.
    c. TRANSIT: Investment in expansion of transit lines and stations instead of road/highway capacity will restore some of the population and employment within the 1970 development footprint.
    d. TOTAL: Investment in both transit and road capacity expansion will restore some of the population and employment within the 1970 development footprint.

Table 6-12. Performance Measures and Targets (Equitable Housing)

Performance Measure	Scenario 1 MAINTAIN	Scenario 2 CAR	Scenario 3 TRANSIT	Scenario 4 TOTAL	2020 Base
Regional Population	- (42,806)	- (42,806)	+ 100,406	+ 200,892	2,026,866
Regional Employment	+ 55,850	+ 55,850	+ 66,254	+ 132,950	1,421,195
More investment in Environmental Justice Areas?	SAME	-	+	+	Current investment within EJ areas
Future Population and Employment in Communities with Peak Population in 1970	-	-	+	+	Current estimate of total population for all communities whose populaton peak occurred on or before 1970 (another option is to consider median age of single-family homes (1970 or earlier)
Cleaned Brownfields (formerly developed, polluted sites)	-	-	+	-	Current number and acreage of brownfields

Recommendations

As NOACA and Northeast Ohio plan for the next three decades, here are some key recommendations that may help create more equitable housing opportunity for residents of Northeast Ohio:

1. Prioritize more diverse housing options closer to public transportation networks to provide greater transportation choice and employment opportunities.
2. Develop stronger relationships with housing advocacy organizations in Northeast Ohio to build more in-depth understanding of regional housing dynamics to improve the efficiency of transportation investments.
3. Collaborate with the real estate development/homebuilding industry to broaden partnerships across the public and private sectors and within different geographic markets.
4. Collaborate with more organizations that gather housing and housing-related data to increase knowledge about housing trends and patterns.
5. Collaborate with more public and workforce housing providers and advocates to increase support for transportation projects that increase workforce accessibility to jobs.
6. Advocate for regional data sharing about projects and programs that embody approaches to more equitable housing so that communities can learn from one another and replicate success stories across multiple jurisdictions.

Implementation Action Items

Looking forward to 2050, NOACA should implement the following actions to move the region toward a more equitable future:

1. Develop a calculator to help others determine the true impact of varying tax rates on residential properties across Northeast Ohio communities.
2. Gather and maintain a portfolio of “best practices in housing” from each of the five NOACA counties to share with members and the public to improve knowledge of local success stories that may be replicated or “scaled up” to benefit the region.
3. Refine the transportation model with new data from the 2020 Census once it becomes available. The new model runs will enable NOACA staff to update and expand its housing performance measures and targets.
4. Develop or apply a Racial Dissimilarity Index across the five-county NOACA region to better track the racial homogeneity of Northeast Ohio communities and neighborhoods; do this possibly in collaboration with the new NOACA Equity Subcommittee.
5. Probe deeper into the CNT Housing+Transportation Cost Index to understand better how it (and its sub-indices) rate Northeast Ohio communities; possibly assist CNT in the calibration of this tool.
6. Develop a comprehensive clearinghouse of Northeast Ohio housing and real estate data; possibly through the NOACA website or its Long-Range Plan website.
7. Create a comprehensive housing strategy/ coordinated affordable housing strategy for the 5-county region to coordinate incentives for affordable housing between interested counties, Ohio Housing Finance Agency, and US-HUD.