

The Political Implications of Buffalo's Infrastructure

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Abstract

This thesis aims to uncover the inherent political value of Buffalo's Housing, Transit, and Food Infrastructure. This narrative will be built by tracking the historical progression of these industries and how they have impacted Buffalo's residents. Buffalo's East Side will be the primary urban area of focus, as it consistently endured divisive infrastructure aimed at segregating and undermining the city's Black community. Infrastructure such as public housing in the 1930s set the tone for how both housing policy and the physical space can be used to exercise political ideologies. The construction of highways that tear apart urban landscapes provides further evidence for the intrinsic political value of Buffalo's historic infrastructure. Presently, the lack of supermarkets and fresh food access on the East side shows a continuous disregard for the well-being and economic stability of Black residents in the city. Buffalo's social justice organizations and community leaders have begun to take action through bottom-up approaches, aimed at creating an East Side built on opportunity and reflective of the needs of its residents. By creating awareness and building knowledge of the inequality resulting from malevolent infrastructure across Buffalo's decline and attempts at revitalization, this research can provide a framework for creating change without further disenfranchisement. This thesis will add to existing literature on the nature of Buffalo's infrastructure and provide insight into how the city can grow into an equitable, accessible, and sustainable home for its residents.

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Chapter 1: Introduction

In the current ecosystem of modern technology, we rarely look to the built environment as a source of political belief, disadvantage, and opportunity. The environment we live in has a similar relationship to socio-economic wellbeing as the contentious political and social technology of the modern era. The only difference is that most of it was built when the goals of the people and the values of the politicians were vastly different. When urban planners, politicians, and organizations laid the groundwork for our cities, were they aware of the effects that things like highway placement, fuel consumption, and public housing would have on shaping the demographics and equity of the city's residents years down the line? Were their decisions arbitrary, geared toward making the rich richer, personal intent, or were they taken to make the city a better place for its residents? We stand at a pivotal point in time where decisions about how we re-structure our cities have a direct impact on creating equity and accessibility. It is crucial to understand how the infrastructure that dictates the lives of urban residents reflects and enforces specific political ideologies. From a historical perspective, to decipher these modern topics we need to reassess how previous infrastructure has gotten us here, what political meaning it had in the past, and what political value it has in the modern day.

Three key categories of infrastructure crucial to any city are housing, transit, and food. In the following chapters, each of these topics will be closely analyzed from a historical perspective. The goal of this analysis is not to view these pieces of infrastructure as an innate part of the city's makeup but rather as active agents within the city's landscape that hold

authority over city residents. To make reliable and dynamic claims about how each of these three sectors has developed and altered the city it is vital to understand why they were thought to be necessary or meaningful at the time and what role they play in modern life. With an understanding of how the city has been shaped by past policies and infrastructure it becomes possible to accurately assess what kind of feasible changes the city can make to reduce segregation, create systems of equal opportunity, and produce economic stability. Of course, these sectors of infrastructure are not the only ones that have political qualities however, they will be the primary focus of this thesis.

Understanding the political value of infrastructure requires a deep exploration of how these systems influence freedom and embody societal power structures. In his writing on development and its effect on individual freedoms, Amartya Sen explores how city developments affect access to opportunity, health, education, and political freedom. Sen emphasizes that freedom is created by the ability to experience education and health. Individual freedoms provided by these rights are not only shaped by economic growth but also by social and physical arrangements.¹ In Buffalo, disparities in housing, transit, and food distribution systems have historically constrained these freedoms for marginalized groups, reflecting inequities that signify underdevelopment. This framework underscores the importance of examining the systemic barriers that have limited the ability of all residents to

¹Amartya Sen . *Development as Freedom*. Oxford University Press, 1999. Page: 4-11

fully embrace the city's opportunity.² This thesis will show that infrastructure consistently affects the freedoms available to Buffalo's residents.

Langdon Winner, a popular political theorist and science and technology writer, proposed the idea that beyond the tangible effects of technology, there are embodied manifestations of power and authority. He claims that the designs of these technologies, regardless of size or shape, reflect the motives and goals of the powerful. Furthermore, he suggests that these large sociotechnical systems possess a sort of momentum that transforms the beliefs of humans into technical mechanisms.³ In order to understand what relationship we have with these artifacts and the momentum surrounding sociotechnical systems, it is important to look at both their historical significance and understand how they have been brought about or inhibited on political grounds. These thinkers provide a lens for looking at Buffalo's development not as intrinsic changes the city has gone through but rather as reflections of the values of those in power. These pieces of infrastructure guide the freedoms available to city residents and the privileges given to specific groups in the city. By interrogating these historical choices, this thesis seeks to illuminate how Buffalo's infrastructure has served as both a reflection of societal values and a mechanism for shaping the lived experiences of its residents. However, it is not all about the past. From grassroots movements to state government Buffalo's citizens and stakeholders have shifted their attention to those who have faced oppression and grown up in poverty. Modifying these pieces

²Amartya Sen, *Development as Freedom*. Oxford University Press, 1999. Page: 4-11

³Langdon Winner. *The Whale and the Reactor: A Search for Limits in an Age of High Technology*. University Of Chicago Press, 1986. 19-24

of infrastructure is a crucial aspect of creating a city that serves its residents, reflects their neighborhood pride, and repays their resilience.

Chapter 2: Historical Overview

The growth of Buffalo can be attributed to its strategic position along the Erie Canal. The waterway connecting trade from Lako Ontario to eastern cities promoted trade and made Buffalo a strategic location for the grain industry. This led to massive population growth and established Buffalo as a city on the rise.⁴ On Saturday, November 2nd, 1901, the Buffalo News read: “The exposition after today will be a part of the past but while the buildings and fountains and sculptures go away the things of material, the glory of the enterprise will abide.”⁵ The Pan-American Expedition marked not only the turn of the century but celebrated the establishment of Buffalo as an Industrial and technological hub of the United States. The expedition also showed that Buffalo served as a hub for the arts and for social change. The expedition was the first time a collection of Black literary and photo work was assembled.⁶ In the early 1900s, a city previously known for its grain industries was leading the charge toward electricity with hydroelectric power generated by Niagra Falls creating vast growth and opportunity for industrial operations in the steel and automotive Industries.⁷ As a result of the economic growth due to Industrial success and business opportunities, Buffalo’s urban areas began to rapidly develop. Companies such as Bethlehem Steel, Peirce Arrow, and the Larkin Company (a mail-order conglomerate) provided thousands of jobs leading to consistent

⁴Tim Leffel. “Booms, Busts, and Rebirths on the Erie Canal.” Perceptivetravel.com, 2019.
<https://www.perceptivetravel.com/issues/0619/newyork.html>.

⁵“Buffalo News Paper .” September 2, 1901.

⁶Buffalo Bike Tours. “Buffalo Black History Timeline: 1900 -1950 | Buffalo Bike Tours,” February 17, 2021.
<http://buffalobiketours.com/buffalo-black-history-timeline-1900-1950/>.

⁷Buffalo. “History | Buffalo,” 2022. <http://www.buffalo.org/history>.

population growth in the early to mid-19th century. Projections for the city's success only showed promise.

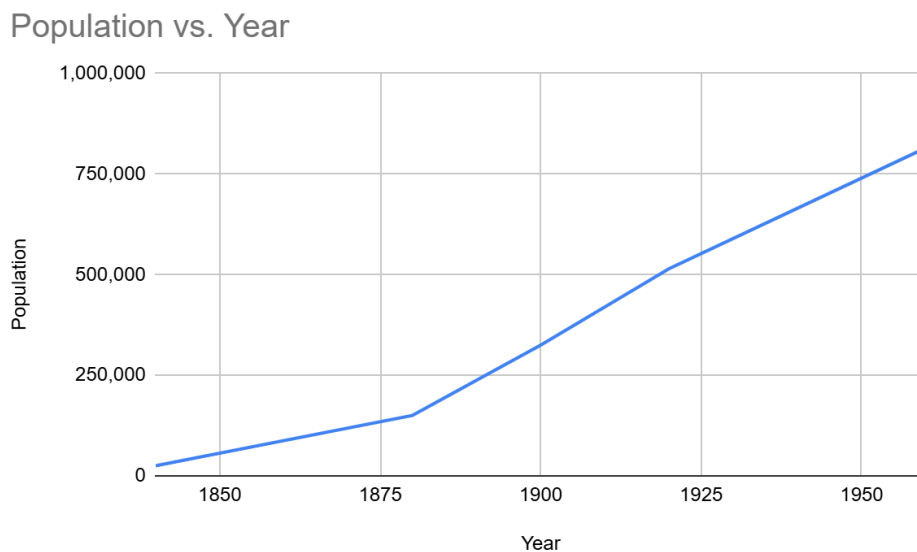


Figure 1: The projection of population growth as of 1920. Adapted from a fuel program for the city of Buffalo.⁸

As both arts and infrastructure continued to flourish in the early 19th century with the opening of the Albright Knox Art Gallery, the commercial traffic created by the Erie Canal, and the continued growth of the Steel and Automobile Industries, the population steadily rose to 506,775.⁹ Continuing into the 1920's Buffalo's infrastructure continue to grow with the creation of the New York Central Terminal and the Buffalo Airport. The hope of opportunity drove large Black populations to move to Buffalo in what would later be known as the "Great Migration".

⁸, G.S. Brewer, and Benjamin Hatmaker. "Fuel Program for the City of Buffalo New York," 1920.

⁹Buffaloah.com. "Population," 2025. <http://buffaloah.com/h/bflop.html>.

Although Buffalo seemed to be a city filled with opportunity and promise of a brighter future, social and political movements dissuaded Black success.

In the 1950's, although Buffalo was still in its heyday of Industry, signs of decline started to emerge. The WW2 economy brought promise to Buffalo as it once again boomed with the founding of the Curtis Wright Plant. Instantly Buffalo became the national leader in military aircraft production at a time when the world desperately needed it.¹⁰ On the other hand, Buffalo was on the brink of being cut out of the network of international commercial transportation with the imposing opening of the St. Lawrence seaway. The plans for the seaway were first drawn up in 1928 between the US and Canada to create a more effective way to transport goods to the East Coast, but the seaway was not completed until the 1960s.¹¹ This plan would render Buffalo's strategic position on the Erie Canal ineffectual.

Simultaneously, in the 40's Buffalo received its greatest boom in population growth and with it saw the greatest growth for housing needs in Buffalo's Urban areas. The 1950s was the peak of Buffalo's population sitting at a staggering 580,131.¹² Unfortunately, the 1950's saw Buffalo's largest urban population decrease. White flight was in full effect as over "eighty thousand white Buffalonians - close to twenty percent of the 1950 population - move out of the city."¹³ The promise of a yard, a white picket fence, and opportunity in the suburbs led to a vast

¹⁰"Buffalo News Paper." August 14, 1941.

¹¹Edward Glaeser. "Can Buffalo Ever Come Back?" City Journal, 2007.
<https://www.city-journal.org/article/can-buffalo-ever-come-back>.

¹²Buffaloah.com. "Population," 2025. <http://buffaloah.com/h/bflop.html>.

¹³www.math.buffalo.edu. "1935-1970," n.d. <http://www.math.buffalo.edu/~sww/0history/1935-1970.html>.

decline in the population of Buffalo's urban area as well as a shift in funding away from the city toward accommodating the expansion of the Suburbs.

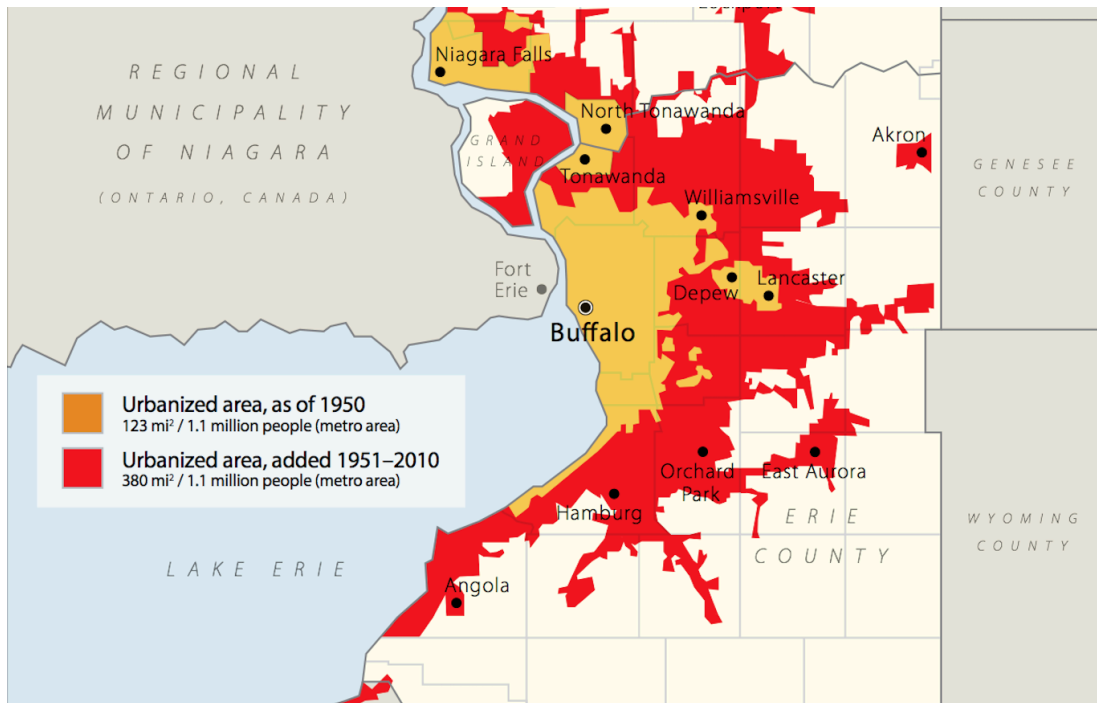


Figure 2: The decentralization of the population from the 1950s up until 2010.¹⁴

From 1950-1960, federal funding for Buffalo's inner city neighborhoods declined and the city showed its devotion towards facilitating suburban expansion. Similarly, some of Buffalo's prominent historical buildings and businesses began to close.¹⁵

In 1960 the population continued to decline down to 532,759.¹⁶ Simultaneously, Buffalo's Black population continued to grow to over 70,000.¹⁷ Unfortunately for Buffalo's

¹⁴Rise Collaborative. "NB2: Sprawl Damaging Buffalo & Its Suburbs - Rise Collaborative," May 2017. <http://risecollaborative.com/rise/nb2-sprawl-damaging-buffalo-suburbs>.

¹⁵Buffalo. "History | Buffalo," 2022. <http://www.buffalo.org/history>.

¹⁶Henry-Louis Taylor. "The Harder We Run, the State of Black Buffalo in 1990 and in the Present," 2021.

¹⁷www.math.buffalo.edu. "1935-1970," n.d. <http://www.math.buffalo.edu/~sww/0history/1935-1970.html>.

shipping industry, this was also the year that the St. Lawrence Seaway finally opened. As Buffalo was no longer a necessary path of shipment and transportation, many businesses no longer saw a need to endure the harsh northern winters and high taxation. The city tried in vain to keep businesses at home, even attempting to restructure transit systems to serve employees commuting from new suburbs. Finances put towards pleasing businesses and residents who had already set their minds on abandoning the city for new opportunities left incoming black residents in the inner city financially unstable.¹⁸ The 70's continued on a similar trajectory with Buffalo's population continuing to plummet while Buffalo's Black population continued to increase despite decreasing opportunities in the city. As resources continued to be poured into quickly developing suburban infrastructure, Buffalo's East side faced major disinvestment. Many of the once-thriving businesses in Buffalo continued to shut down or move out of the city resulting in major unemployment, which would hit its peak in the 1980's. Although Buffalo's reputation as a Rust Belt city was beginning to present itself as a disadvantage, this was truly the time when Buffalo earned its title as one of the strongest and most resilient cities in the United States. This was proven during the blizzard of 77' when the city banded together to keep its community safe during one of the most destructive snow storms of the century.

From the 1980s to the present day, Buffalo has faced its fair share of struggles. The closure of Bethlehem Steel in 1993 was one of the greatest examples of job loss. At its peak, Bethlehem Steel was the 3rd largest steel manufacturer in the country employing over 20,000

¹⁸Edward Glaeser. "Can Buffalo Ever Come Back?" City Journal, 2007.

people.¹⁹ Throughout the years the city attempted to create tourism as a way to show off its rich industrial heritage. Investing in locations such as the waterfront and downtown only further left the populations of Buffalo with the greatest poverty rates to fend for themselves. Buffalo has attempted to revitalize its economy by attracting tech and healthcare industries which thus far has been successful.²⁰ Much of what the city has chosen to invest in since the 1980s does not directly impact Buffalo's East Side and the residents who are living in poverty, poor housing conditions, and low food access.

¹⁹"Buffalo News." 1993.

²⁰Cheval Balloun. "FAQ for inside Buffalo's Thriving Tech Hub: Startups and Success Stories."

Chapter 3: Housing

Housing is a critical factor in creating equitable, sustainable, and healthy communities, particularly in areas where systemic inequalities have persisted. In Buffalo, housing quality, affordability, and stability are directly linked to economic mobility and health outcomes.. Physical houses and the housing industry as a whole are largely shaped by political forces; however, the built urban housing reflects these initiatives.

An inability to build up wealth as a result of housing can have a significant impact on neighborhood quality, affecting the transit, food, and health assets that are accessible to a community. Impoverished neighborhoods have limited access food from supermarkets, limited public transportation, and have lower academic outcomes.²¹ All of these factors have a direct effect on upward mobility, especially in neighborhoods of color. In order to mitigate future marginalization, housing affordability and quality need to be addressed. Policymakers need to be aware of the most effective ways to make positive changes in low-income areas as well as understand how these areas were created. In doing so, they should aim to create sustainable affordable housing that can have long term benefits on marginalized communities.

²¹Kriti Ramakrishnan, Elizabeth Champion, Megan Gallagher, and Keith Fudge. "Why Housing Matters for Upward Mobility: Evidence and Indicators for Practitioners and Policymakers." Urban Institute, January 11, 2021. <http://www.urban.org/research/publication/why-housing-matters-upward-mobility-evidence-and-indicators-practitioners-and-policymakers>.

Setting the Scene

Present-day Buffalo, similar to its 20th-century state, remains an extremely segregated city. As mentioned previously, Buffalo is divided into its east, west, south, and north quadrants. The East Side is predominantly made up of Buffalo's Black residents. The West Side is composed of predominantly Asian and Hispanic residents. Buffalo's North and South sides are composed of predominantly White people, as these neighborhoods tend to seep into suburban areas.²²

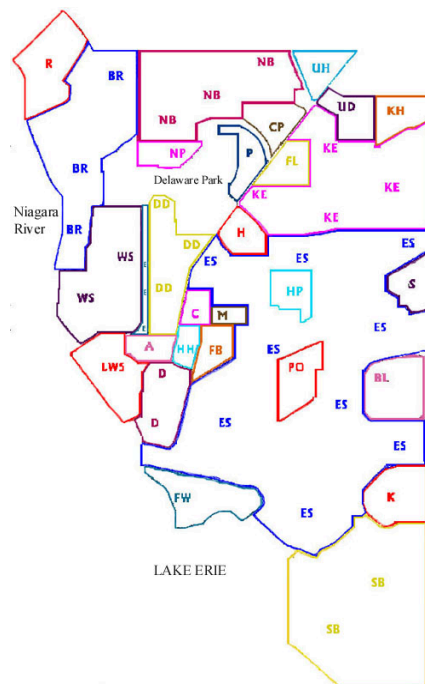


Figure 3: Depicts the layout of these 4 quadrants: SB stands for south Buffalo, ES stands for the East side, WS stands for the west side, and NB stands for North Buffalo. Other notable areas are D or downtown, and FB or Fruit Belt.²³

²²SEGREGATION BY DESIGN. "SEGREGATION by DESIGN," 2025.

<http://www.segregationbydesign.com/buffalo/redlining>.

²³Buffalo.edu. "City of Buffalo - Neighborhoods - University at Buffalo Libraries," 2025.

<http://library.buffalo.edu/maps/buffalo-wnymaps/buffalo-neighborhoods.html>.

It is evident from Figure 3, Buffalo's East Side and West Side are much closer to the downtown area and therefore contain much more of Buffalo's urban landscape. E and DD are smaller neighborhoods that stand between these two sides and are primarily composed of White residents. This area is commonly referred to as the Elmwood Village as it surrounds Elmwood Avenue, a popular strip of stores and restaurants. Housing values within this area are far higher than those of Buffalo's East or West Side.

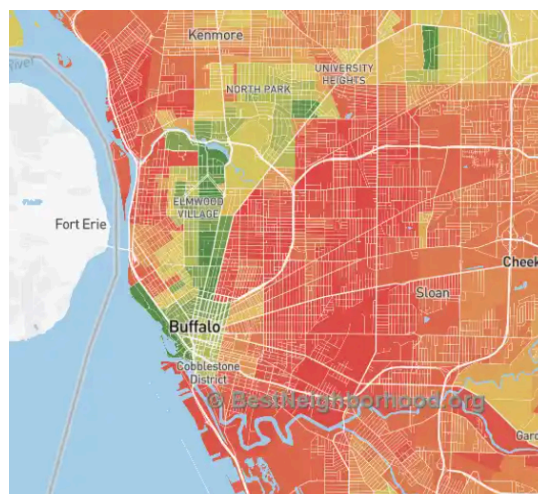


Figure 4: This map depicts housing values mapped over the city of Buffalo. Red indicates low housing value. Green indicates high value, and yellow indicates medium value.²⁴

As shown in Figure 4, the predominantly red areas separated by the green strip of the Elmwood Village depict the disparity in housing value present in Buffalo's East and West sides. Buffalo's West Side is a far smaller area than the East Side. It is clear from this map that the high and medium housing values of Elmwood are beginning to seep into neighborhoods on the West

²⁴Bestneighborhood.org. "The Best Neighborhoods in Buffalo, NY by Home Value | BestNeighborhood.org," 2023. <http://bestneighborhood.org/best-neighborhoods-buffalo-ny/>.

Side as a result of housing renewal and gentrification, which will be expanded upon later in this chapter. On the other hand, the line between high housing value and low housing value bordering the Elmwood Village and the East side is clear as day. This split is drawn firmly on the line that is Main Street, which is often considered the border of the East Side. This same area is where 72% of Buffalo's Black population resides.²⁵

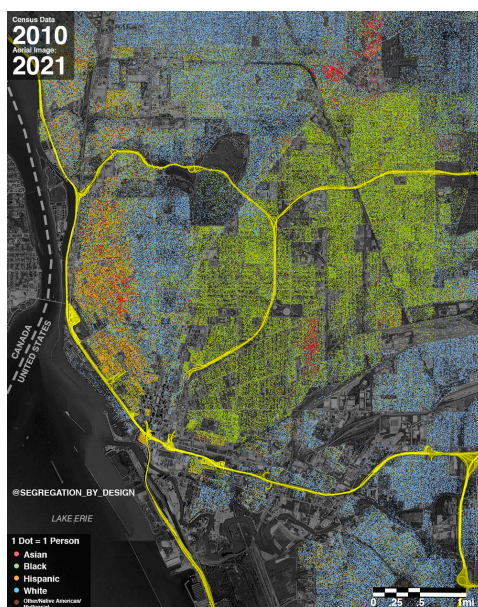


Figure 5: This map shows the geographic layout of Buffalo. As the dots indicate, the West side is primarily inhabited by Hispanics and Asians, and the East side is primarily inhabited by Black people.²⁶

As depicted in the images above, housing values in Black and Hispanic neighborhoods are almost always lower. When overlaid, the maps above displaying the demographics of Buffalo and housing value indicate that there is significant segregation and inequality. In an article titled “Housing as a Social Determinant of Health and Well-being: developing an Empirically

²⁵Joshua L. Crutchfield. “How Public Policy Shaped Buffalo’s Segregated Geography - AAIHS.” AAIHS - African American Intellectual History Society, September 15, 2022.

²⁶SEGREGATION BY DESIGN. “SEGREGATION by DESIGN,” 2025.

Informed Realist Theoretical Framework,” researchers utilized a longitudinal study of tenants from 3 housing organizations to prove that housing quality had significant effects on health and well-being (low-quality housing was directly associated with lower health and well-being).²⁷ Furthermore, data published in an article titled “Advancing Health Equity and Inclusive Growth in Buffalo” indicates that Buffalo’s Black population has the lowest life expectancy.²⁸ Based on these findings and the structural makeup of the city, it is clear that insufficient housing is a key factor in worse health outcomes in Black communities.

Segregation on this scale, seen in not only Buffalo but a multitude of cities in the United States, can be traced back to racist housing laws, redlining, and zoning that began in the early-mid 20th century.

Initial Stages of Housing Discrimination

Moving from examining Buffalo's demographic and housing landscape to the broader implications of this structure, it is essential to consider how Buffalo’s segregated neighborhoods reflect larger patterns of housing inequality across American cities. These divisions, rooted in historical zoning and redlining practices, have led to significant disparities in property values, access to resources, and overall neighborhood health, as seen on Buffalo’s East and West sides. Understanding these structural influences sets the stage to explore not

²⁷Steve Rolfe, Lisa Garnham, Jon Godwin, Isobel Anderson, Pete Seaman, and Cam Donaldson. “Housing as a Social Determinant of Health and Wellbeing: Developing an Empirically-Informed Realist Theoretical Framework.” *BMC Public Health* 20, no. 1 (July 20, 2020): 1–19. <https://doi.org/10.1186/s12889-020-09224-0>.

²⁸ppgbuffalo.org. “Advancing Health Equity and Inclusive Growth in Buffalo.” Project for the Public Good, n.d. ppgbuffalo.org/files/documents/health/health_disparities/health-_advancing_health_equity_and_inclusive_growth_in_buffalo.pdf.

only how they impact Buffalo’s communities today, but also to determine what systemic changes might be necessary to mitigate their long-standing effects.

During the Great Migration of the 20th century, Buffalo’s Black population exploded. This attempt to move from the South was motivated by the constant terror and subjugation they faced. Cities across the nation with the resources to do so were able to allocate land specifically for the purpose of Black migration.²⁹

YEAR	TOTAL	%		%		OTHER	%
	Population	Black	Total Population	White	of Pop	& Ethnicities	Total Population
1940	575,901	17,794	3	557,618	97	489	0
1950	580,132	36,745	6	542,432	94	955	2
1960	532,759	70,904	13	459,371	86	2,484	0
1970	462,768	94,404	20	364,198	79	8,329	2
1980	357,870	94,329	26	249,120	70	14,421	4
1990	328,123	100,579	31	212,449	65	15,095	5

Figure 6: This graph depicts the growth of Buffalo’s Black Population and the decline of the White population.³⁰

When cities were faced with these mass migrations, they resorted to policies that were meant to deter Black people from moving into White neighborhoods, as it was seen as a source of unrest. Prior to 1916, explicitly racist zoning laws were used to specifically ban residents who were not White from living in specific neighborhoods. In Buffalo, the removal of explicitly racist zoning laws in 1916 was intended to bring positive change; however, many landowners found alternative ways to keep Black people out of certain neighborhoods. Furthermore, the shift away from explicitly racist zoning laws across the nation was not a decision that was strictly

²⁹Rothstein. *The Color of Law*. The Liveright Publishing Corporation, 2018. Page: 39-57

³⁰Henry-Louis Taylor. “The Harder We Run, the State of Black Buffalo in 1990 and in the Present,” 2021. Page 19.

enforced. There were many ways to maintain the status quo of segregation.³¹ One such example of this is the use of restrictive covenants. These were clauses included within the deeds to property that suggested that if the inquisitor was not white, they could not buy the house.³² Restrictive covenants were used as a way to restrict Black people from entering certain neighborhoods until 1948. These policies laid the groundwork for how neighborhoods and demographics would be arranged within the urban landscapes of cities across the country.

Public Housing

In the 1930s, the New Deal and the emerging practice of redlining changed the rules of housing policy and significantly exacerbated the segregation of cities. The New Deal brought about the establishment of public housing projects. Cities were given the power to clear out slums created by the Great Depression and instate new public housing intended to cater to the working poor. However, White people consistently denied the placement of these public housing projects within their neighborhood. These notions to deny public housing were often motivated out of fear that public housing would lower neighborhood value. Along with this, there was a rule within the public housing program's structure referred to as "prevailing composition" that required the inhabitants of the housing project to match the racial composition of the surrounding area, making it easy for cities to create segregated

³¹Rothstein. *The Color of Law*. The Liveright Publishing Corporation, 2018. Page 39-57

³²Anna Blatto. *A City Divided: A Brief History of Segregation in Buffalo*. Partnership for the Public Good, 2018.
(Page 8)

neighborhoods based on race.³³ This program further allowed white residents to increase homeownership in areas where prevailing composition prevented the integration of Black people.³⁴

The first two instances of public housing were the Kenfield and Lakeview developments on the northeast and west sides of Buffalo. Soon after, to solve the issue of overcrowding of Black people on Buffalo's East Side the Willert Park development was erected. Willert Park did little to solve the crisis of overcrowding on Buffalo's East side. The city proposed to place new developments in North Buffalo. This notion was strongly opposed by north-side residents and ultimately led to the expansion of the Willert Park development. The Ellicott Mall and Talbert Mall were built soon after in the late 1950s and housed 1200 units of primarily Black residents.³⁵ This led to the flight of White families from the East Side, as well as other parts of Buffalo, to new urban landscaping in Buffalo's suburban areas.³⁶ The vast expansion of primarily Black public housing on the East Side ultimately led the area to be perceived as a Black community. The East Side public housing developments signaled a change in the city's demographic. The East Side's new role as a place for Black residents only perpetuated discriminatory practices and led to decreased funding and care for the area.³⁷ The establishment of these pieces of infrastructure marks a major turning point in the use of housing for political means. Outside of existing policy, the establishment of these pieces of

³³D. Bradford Hunt. "Public Housing in Urban America." *Oxford Research Encyclopedia of American History*, December 20, 2018. <https://doi.org/10.1093/acrefore/9780199329175.013.61>.

³⁴D. Bradford Hunt. "Public Housing in Urban America." *Oxford Research Encyclopedia of American History*,

³⁵Anna Blatto. *A City Divided: A Brief History of Segregation in Buffalo*. Partnership for the Public Good, 2018.

³⁶Scott Gehl. *THE LEGACY of BUFFALO'S LANDMARK HOUSING DESEGREGATION*

³⁷Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018. Page 8

infrastructure reflects a newfound method of utilizing infrastructure to create a nationwide shift towards establishing segregated cities.

Redlining

Redlining, a practice that had similar effects as the public housing program, was prevalent in the United States from 1930 until the late 1960s. Redlining began when the FHA (Federal Housing Administration) and HOLC (Home Owners' Loan Corporation) mapped all of the urban areas in the United States and ranked them on a scale from A to D. This ranking system accounted for the racial demographics of an area, such as the number of Black people in an area. Similar to public housing, these practices were founded on the idea that if one were to change the racial composition of the neighborhood, it would have unintended consequences and cause instability.³⁸ Places where there was high diversity or a high percentage of Black people were immediately given lower scores. The rankings given by the FHA and the Home Owners Loan Corporation were then used for lenders to determine who to distribute loans and mortgages to. This had a multitude of negative consequences for Black communities, as it prevented the buying of homes in different areas, dropped the value of houses within predominantly Black communities, and disabled their ability to build up wealth.³⁹ Furthermore, Black businesses continuously struggled as a result of limited access to loans. Additionally, in Buffalo, Black residents were forced to live in overcrowded, poor-quality public or rented housing.⁴⁰ This led to decreases in the life expectancy of primarily Black

³⁸ Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018.

³⁹Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018. page 6

⁴⁰James Coughlin. "City of Redlined Neighbors: Redlining in Past and Present Buffalo," 2024.

people living in areas the HOLC deemed as “red” or low value, which was an estimated 1.5 years shorter than the life expectancy of residents in areas deemed “green” or high value.⁴¹ The low quality features of this housing reflect how multi family-rental homes and public housing are really technologies that serve to destabilize the Black community.

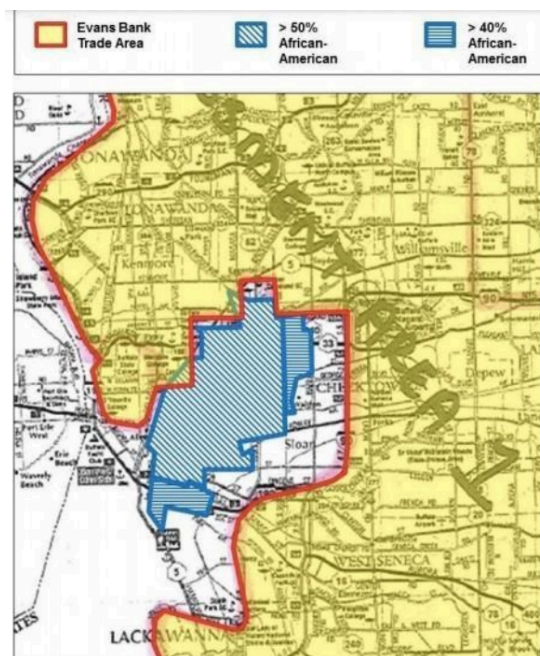


Figure 7: Evans Bank's Redlining Map.⁴²

Figure 7 depicts Evans Bank's redlining map of Buffalo. The area covered by blue stripes is considered to be Buffalo's East Side. As indicated, there is a distinct red line separating the blue portion of the map from the yellow portion of the map where Evans Bank typically distributed loans and mortgages. In one of the most blatant abuses of racist housing practices the city has ever seen, Evans Bank gave out less than 1 percent of their loans to Black people.⁴³

⁴¹Ellen Goldbaum. "Living in Redlined Neighborhood Risk Factor for Early Death." Buffalo.edu, October 11, 2024. <http://www.buffalo.edu/ubnow/stories/2024/10/egede-redlining.html>.

⁴²Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018. Figure 5 Source: Buffalo Attorneys Office

⁴³ Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018. Page 15

This map clearly identifies how Evans Bank ultimately played a major role in the seclusion of the Black population to the East Side. The mass deficit of loans drained Black communities of capital and left them with few resources to grow.

Redlining was not only a means to create segregation but also a method of extracting wealth from Black communities.⁴⁴ These racist practices were a primary example of the economic motives of banks and policymakers that reflected their ambition to support white residents' ability to build wealth through homeownership.⁴⁵ Additionally, a lack of government representation led to the loss of valuable community assets. Furthermore, this practice encouraged movement into the suburbs, as oftentimes, loans and mortgages were more accessible to developing suburban communities. This practice not only undermined the prosperity of Buffalo's Black community but also led to urban decline and disinvestment in urban infrastructure.

The lack of finances required to purchase houses in the 20th century has had long-term impacts on the East Side residents' ability to accumulate wealth. East Side residents currently pay 30% of their income on housing even though there are over an estimated 7,000 vacant lots in the area. The practice of redlining has also limited Eastside residents' ability to access

⁴⁴Rashawn Ray, Andre M. Perry, David Harshbarger, Samantha Elizondo, and Alexandra Gibbons. "Homeownership, Racial Segregation, and Policy Solutions to Racial Wealth Equity." Brookings, September 1, 2021. <https://www.brookings.edu/articles/homeownership-racial-segregation-and-policies-for-racial-wealth-equity/>

⁴⁵Emerald Rutledge. "Redlining, Predatory Inclusion, and Housing Segregation." AAIHS, March 10, 2021. <https://www.aaihs.org/redlining-predatory-inclusion-and-housing-segregation/>.

higher-paying jobs, leading to a median household income of \$28,320 among Black residents.⁴⁶

White Flight and Suburban Development

The development of Buffalo's housing landscape is directly correlated to government policies that disenfranchised Black people and incentivized white flight. Post-WWII policy was aimed at supporting the expansion of cities into suburban areas.

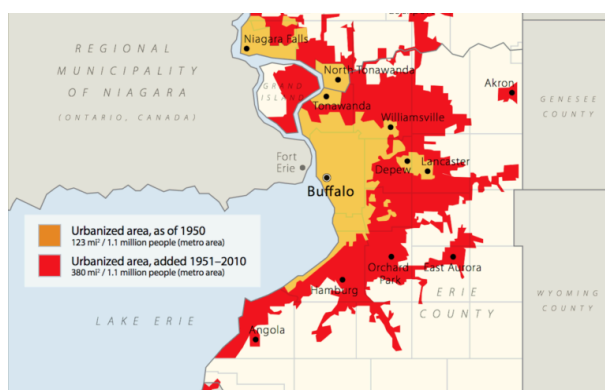


Figure 8: This map depicts the expansion of Buffalo's Urbanized area from the 1950's-2010's.⁴⁷

Since the 1950s, Buffalo's metropolitan area has expanded vastly, including almost three times as many square miles as it did in 1950 despite containing around the same number of people. Some of the most affluent suburbs include West Seneca, Hamburg, Orchard Park, and Lancaster. Currently, all of these suburbs are composed of over 90% white residents, while Buffalo's white population is less than 50%.⁴⁸ These suburbs were financed through the use of three key mechanisms: insurance, national mortgage markets, and new standards for debt

⁴⁶James Coughlin. "City of Redlined Neighbors: Redlining in Past and Present Buffalo," 2024.

⁴⁷Rise Collaborative. "NB2: Sprawl Damaging Buffalo & Its Suburbs - Rise Collaborative," May 2017. <http://risecollaborative.com/rise/nb2-sprawl-damaging-buffalo-suburbs>.

⁴⁸M. K. Jacob. "Engaging the Future of Housing in the Buffalo-Niagara Region: A Preliminary Exploration of Challenges That Lie Ahead." *Partnership for the Public Good*, 2021.

structuring. In an attempt to make homeownership more attainable after the Great Depression, the FHA mandated low interest rates. In an attempt to stimulate economic growth, they laid down the groundwork for how suburbs should be laid out in order to create efficient housing that could be built and sold at low cost.⁴⁹ The New Deal policy created the idea of national mortgage markets as a method to create funding for large developments far quicker than the standard local mortgage practices. Furthermore, they cut down payments from 50% down to only 10% and expanded the duration of mortgage payments to 30 years.⁵⁰ At first glance, these practices allowed millions of people to afford homes in newly developed areas; however, these homes were not made available to everyone.

Zoning practices played a major role in shaping who was able to move into newly founded suburban areas. Oftentimes the use of large minimum lot sizes, zoning restrictions, and the practice of giving out loans were tailored to make moving into the suburbs as a lower-income family of color much harder. These practices of zoning are referred to as exclusionary zoning. Large minimum lot sizes made purchasing land for housing in the suburbs far harder for people with lower incomes. Oftentimes these lot sizes would be set to a specific size in order to restrict low-income families from integrating into medium to high-income neighborhoods.⁵¹ Furthermore, restrictions often excluded multi-family homes or

⁴⁹Devon Zuegel. "Financing Suburbia: How Government Mortgage Policy Determined Where You Live." Strong Towns, August 16, 2017.
<http://www.strongtowns.org/journal/2017/8/15/financing-suburbia-how-government-mortgage-policy-determined-where-youlive>.

⁵⁰Devon Zuegel. "Financing Suburbia: How Government Mortgage Policy Determined Where You Live." Strong

⁵¹Planetizen.com. "What Is Exclusionary Zoning? | Planopedia," 2021.
<http://www.planetizen.com/definition/exclusionary-zoning>.

rental properties, limiting low-income families ability to rent or share housing. This practice is an example of how the physical attributes of a home serve to restrict its accessibility to diverse communities. Due to the movement of wealth away from the city and into the suburbs, Buffalo thought it best to push the idea of urban renewal by spending millions of dollars building up infrastructure such as roads, highways, and parking lots that could cater to the needs of workers living in the suburbs and commuting to the city.⁵²

Urban Decline and Disinvestment

The overwhelming economic and social effects of white flight during the 1940s and 1950s left Buffalo's economy, businesses, infrastructure, and housing at the mercy of those in the suburbs and the help of government aid. The stagnant policy of Buffalo's politicians caused the East Side to decay while the suburbs were prioritized. Jobs became few and far between due to businesses' hopes of moving to greener pastures such as Sunbelt cities. The inner city was left with vacant, low-value housing.

During the period of white flight and into the 1980s, Buffalo saw a massive economic decline and disinvestment in the city. The culmination of numerous big businesses both leaving the city and the lack of federal funding for cities left Buffalo struggling to stay afloat and provide adequate housing to its residents. This shift led to a decline in jobs as well as government funding. Simultaneously, Reagan's policy of slashing the budget for domestic programs that were vital in supporting the working class left many in poverty.⁵³ These policies

⁵²Anna Blatto. "A City Divided: A Brief History of Segregation in Buffalo," 2018. Page15

⁵³Claire Bond Potter. "Opinion | the Shadow of Ronald Reagan Is Costing Us Dearly." *The New York Times*, November 11, 2021, sec. Opinion.
<https://www.nytimes.com/2021/11/11/opinion/reagan-social-welfare.html>.

created a decline in business, schooling, and public service that was detrimental to the urban residents of Buffalo. A potential result of the lack of support during this period of expansion, the Black population is six times less likely to have access to a supermarket, most likely to be unemployed, and faces the worst health outcomes in the city.⁵⁴ The perpetual disinvestment in the urban area of Buffalo has led housing values to drop significantly in parts of Buffalo's West Side and a majority of Buffalo's East Side. A major proponent of this collapse is the prevalence of vacant and abandoned buildings riddled throughout these areas.

Abandoned housing has been shown to lead to lower property values, higher crime rates, and higher deterioration of built areas.⁵⁵ Coined as "zombie properties," these pieces contribute heavily to the destabilization of neighborhoods. Moreover, the increasing amount of abandoned buildings has been shown to have a direct correlation with the progression of segregation.⁵⁶ The growth of vacant buildings and the city's attempt to demolish them directly resemble the city's decline and attempts at revitalization. Analyzing the emergence of these abandoned buildings shows the damage of years of neglect however, currently they still hold political value. These buildings serve as artifacts that hinder the East Sides ability to bounce back, as they lower neighborhood value.

Buffalo's most ambitious attempt to mitigate abandonment is the 5-in-5 demolition plan. The 5-in-5 demolition plan is a policy that the city of Buffalo has chosen to take in an

⁵⁴Tracey Ross. "Health Equity: The Path to Inclusive Prosperity in Buffalo. Partnership for the Public Good," 2017.

⁵⁵Li Yin, Fuzhen Yin, and Robert M. Silverman. "Spatial Clustering of Property Abandonment in Shrinking Cities: A Case Study of Targeted Demolition in Buffalo, NY's African American Neighborhoods." *Urban Geography*, November 4, 2022, 1–20. <https://doi.org/10.1080/02723638.2022.2142404>.

⁵⁶Li Yin, Fuzhen Yin, and Robert M. Silverman. "Spatial Clustering of Property Abandonment in Shrinking Cities"

attempt to lower the number of abandoned housing units in the city, predominantly on the East Side. The goal was to demolish 5000 structures in 5 years. Since 2007, when the plan broke ground, abandonment had been on a steady incline. Although demolition did take place, the sheer number of abandoned buildings far outweighed those destroyed.

Furthermore, new abandoned housing continuously popped up throughout the span of the 5-in-5 journey. Unfortunately, the 5-in-5 had a negative impact on the housing market, leading to destabilization at the neighborhood level.⁵⁷ Put simply, this is typically the course of events during Buffalo's revitalization efforts; the 5-in-5 plan was a strong idea, however, underlying problems undermined its effectiveness, and it at times it caused more bad than good.

Looking Forward: Revitalization and Policy

There have been numerous attempts to revitalize Buffalo's housing infrastructure both through government funding and through grassroots efforts. In recent years, Buffalo's economy has begun to bounce back due to the influx of profitable businesses in the medical and tech industries. This rejuvenation has additionally led to an increase in housing demand, causing developers to look towards renovating housing on the East and West sides.⁵⁸ In contrast to developers' ambition to make a quick buck, government-aided housing, such as the Sycamore Village Developments, has made strong efforts to provide low-cost housing specifically to low-income residents. Sycamore Village, an effort to increase homeownership rates, first broke ground in the 1980s and was developed until 2010. This area now

⁵⁷Li Yin, Fuzhen Yin, and Robert M. Silverman. "Spatial Clustering of Property Abandonment in Shrinking Cities"

⁵⁸I'Jaz Ja'ciel. "Black Homeowners Face Challenges in Buffalo Real Estate Investigative Post." Investigative Post, December 6, 2023.

<http://www.investigativepost.org/2023/12/06/working-to-boost-homeownership-on-the-east-side/>.

encompasses 1,500 subsidized houses.⁵⁹ Presently, numerous programs exist and are open to eligible Buffalo residents in need of support for home repairs and homeownership.

Organizations such as Community Renewal and New York State Homes have been vital in creating and preserving thousands of homes.⁶⁰ Similarly, programs such as the Buffalo East Homeowner Improvement Program have provided residents the financial support they need to improve property values even if they are living in poverty.

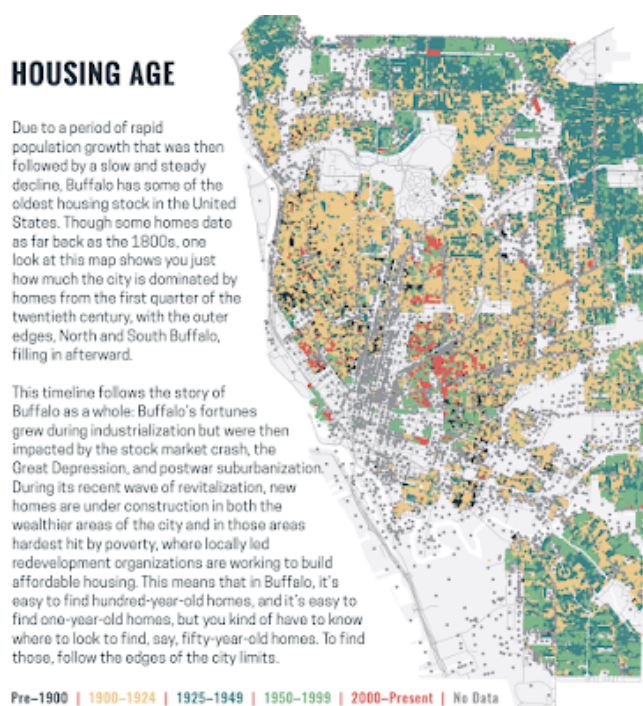


Figure 9: Shows the age of houses in the city.⁶¹

⁵⁹I'Jaz Ja'ciel. "Black Homeowners Face Challenges in Buffalo Real Estate Investigative Post." Investigative Post, December 6, 2023.

<http://www.investigativepost.org/2023/12/06/working-to-boost-homeownership-on-the-east-side/>.

⁶⁰Homes and Community Renewal. "Buffalo East Homeowner Improvement Program (BEHIP)," 2025.

<http://hcr.ny.gov/buffalo-east-homeowner-improvement-program-behip>.

⁶¹Blogspot.com. "Buffalo in 50 Maps," 2023.

<https://mapoftheweek.blogspot.com/2023/03/buffalo-in-50-maps.html>.

This map shows that the oldest houses in Buffalo are predominantly in the urban area (as expected). It is also worth noting that the East Side has a significant amount of yellow indicating old housing. As a result, it is reasonable to assume that based on the lower income of its residents and the higher age of its housing, it needs considerably more attention than suburban areas. Houses that are seemingly at the end of their life cycle and have not yet received renovations from improvement plans serve as technology that limit the economic freedom of its residents as costs such as energy can be up to 50% higher.⁶² Although the effects of the home improvement initiatives are relatively unknown, the growth of these programs could have extremely beneficial effects on lowering housing costs and improving housing value.

As a result of a rising housing market and the expenses of older homes, housing costs have been driven up leading Black people to favor the suburbs over the city. Across the nation, this trend has been prevalent for the past few years and in census data it appears that minority groups are now more likely to live in the suburbs.⁶³ Based on Buffalo's current census data it does not appear that this shift has taken place, as these trends are most prevalent in the South and West; however, as Buffalo's local economy attempts to bounce back, there is a good chance that a shift in minority groups to big suburban developments is possible.

⁶²Brian Potter. "Looking at Energy Use in US Residential Buildings." www.construction-physics.com, n.d. <https://www.construction-physics.com/p/looking-at-energy-use-in-us-residential>.

⁶³William H. Frey. "Today's Suburbs Are Symbolic of America's Rising Diversity: A 2020 Census Portrait." Brookings, June 15, 2022. <https://www.brookings.edu/articles/todays-suburbs-are-symbolic-of-americas-rising-diversity-a-2020-census-portrait>.

Most recently, Buffalo has secured 80 million dollars to create two pilot housing programs. The first of which will be focused on creating affordable homes in upstate New York, and the second will be focused on providing landlords with funds to create improvements. Furthermore, landlords who have accepted these funds will be required to keep rent affordable.⁶⁴ The multitude of programs aimed at providing East Side residents with the opportunity of homeownership indicates that financial growth as well as equitable housing opportunities will continue to expand. These attempts to provide home improvement how the city's acknowledgment of housing as a technology. As is evident from the consistently lower-value and older housing on the East and West side, these are pieces of infrastructure have seemingly reached the end of their life span and refurbishment is necessary in order to provide families with the means to live healthy lives. Similarly, attempts to improve food and transit infrastructure reflect the modern goal to shift technology to meet the modern needs of the community.

Although many policies and programs support improvements in housing equity, gentrification has become a major concern for long-term residents of the East and West Sides. Whether these concerns are warranted or not, Buffalo has recently seen a large influx of residents, as census data reports its first period of growth in 70 years.⁶⁵ This population growth

⁶⁴NYSenate.gov. "State Legislators Announce Major Investments in Housing for Buffalo and Other Upstate Cities," 2024.
<http://www.nysenate.gov/newsroom/press-releases/2024/sean-m-ryan/state-legislators-announce-major-investments-housing>.

⁶⁵Caitlin Dewey. "The Census Results: What Is Apportionment?" Buffalo News, August 12, 2021.
https://buffalonews.com/news/local/buffalo-growing-for-first-time-in-70-years-according-to-census/article_e18d79e6-fb92-11eb-8123-3f09381360f1.html.

can be attributed to numerous reasons, including increasing immigrant populations as well as young professionals.⁶⁶ Regardless of efforts to create cheaper housing, rent has risen significantly in the past few years as Buffalo's housing market has grown increasingly competitive and construction has struggled to keep up.⁶⁷ This rise in price has made finding affordable housing on the West Side troublesome, especially for many of the residents who are refugees with little financial support.⁶⁸

The examination of housing through the STS perspective reveals the critical role infrastructure plays in housing equity. The creation of infrastructure and policies such as public housing projects, redlining, and abandoned housing has created and perpetuated disadvantages in Buffalo's Black community. The current housing structures on the East side, although showing signs of improvement, contribute to a larger ecosystem of infrastructure that actively undermines the community. The practices of the past as well as neglect for decades have left the East Side of Buffalo with a multitude of issues.

Addressing these issues is not as simple as building more housing, as seen by the impact of public housing; new living space sometimes only serves as a means for further displacement and segregation. The rise in housing value seen in Buffalo, coupled with

⁶⁶Buffalo.edu. "Influx of New Residents Drawn to Jacobs School," April 3, 2025.

[Ahttps://www.buffalo.edu/provost/messages.host.html/content/shared/smb/news/2025/4/incoming-residents-match-day-22229.detail.html](https://www.buffalo.edu/provost/messages.host.html/content/shared/smb/news/2025/4/incoming-residents-match-day-22229.detail.html).

⁶⁷M. K. Jacob. "Engaging the Future of Housing in the Buffalo-Niagara Region"

⁶⁸Omar Fetouh, and Khalid Terrell. "East Side, West Side, Gentrification Displacing Longtime Residents All around the City." Buffalo Toronto Public Media, December 27, 2017.

<http://www.wbfo.org/local/2017-12-27/east-side-west-side-gentrification-displacing-longtime-residents-all-around-the-city>.

concerns about gentrification, has left Buffalo's low-income residents at a crossroads. Buffalo must move forward with infrastructure that promotes economic stability and gives room for economic growth by holistically improving disadvantaged areas. As exhibited by the 5-in-5 demolition plan, targeting individual aspects of housing disparity can undermine housing stability. By focusing on the sources of rising costs, inadequate public infrastructure (streets and sidewalks), and low homeownership, Buffalo's policymakers can promote policy and erect infrastructure that is representative of Buffalo's new goal: revitalization through equity. Housing as a political artifact stands at utmost importance. Adequate, affordable, and sustainable housing is a means to also support improvements in the transit and food distribution sectors. Housing equity is a key first step towards solving much of the economic disparity in the city and restoring the city as a fair and thriving home.

Chapter 4: Transit

Transit systems are not just a means of moving people; they are political artifacts that reflect and shape power dynamics within a city. Whether it be public transportation, streets, highways, or walking routes and bike lanes, they dictate how each resident of the city is allowed to move. In Langdon Winner's "The Whale and the Reactor," he describes how the design of Robert Moses' bridges on New York City's Long Island parkways, which were intentionally built with low clearances, served to prevent buses from passing under them. In doing so, Moses prevented residents using public transportation from accessing other parts of the city.⁶⁹In the 1950s, during the period of white flight, Buffalo experienced a massive expansion of its transit infrastructure by expanding its network of highways and altering the goals of its public transportation systems. In an attempt to keep residents in the greater Buffalo area, these transportation systems catered to the needs of workers in the suburbs. Urban neighborhoods in Buffalo, such as the East Side, were split down the middle in order to accommodate these changes. From the early days of streetcars to the rise of highways, transit infrastructure in Buffalo has dictated access to opportunity, defined the movement of different demographics, and determined the value of particular neighborhoods. Moreover, it was not until recent years that Buffalo's government and city leaders identified and attempted to rectify this issue. Unfortunately, the size of infrastructure such as highways leaves few options for future change or alteration. The suburban population has become dependent on these

⁶⁹Winner Langdon. *The Whale and the Reactor*" Page: 23

transit systems, and demolishing them in an attempt to rectify their negative impacts is not always a compelling option for decision makers.

Early Transit

In the early 19th century, streetcar systems were the primary mode of public transportation. A majority of the population did not own cars, and due to the high population density of the city, public transportation was enough to serve their needs.⁷⁰

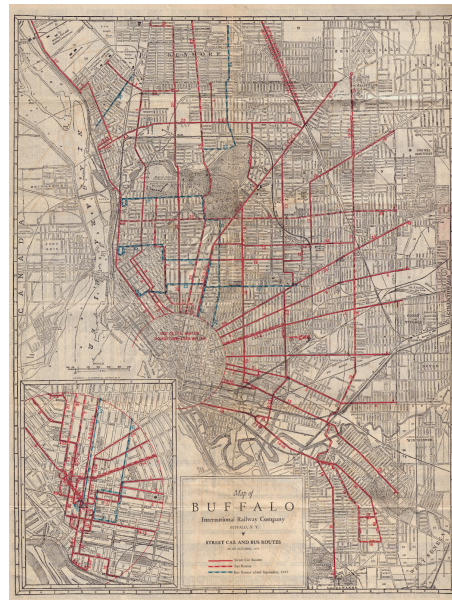


Figure 10: Depicts the Streetcar and Bus System In the 1930s.⁷¹

As is apparent from Figure 10, the majority of streetcar and bus routes in the 1930s were centered around transportation from downtown Buffalo into each quadrant of Buffalo. During

⁷⁰Adrian Gamble. "Buffalo's 180-Year Streetcar History Linked to the City's Changing Fortunes | SkyriseCities." Skyrisecities.com, 2017. <http://skyrisecities.com/news/2017/01/buffalos-180-year-streetcar-history-linked-citys-changing-fortunes.24701>.

⁷¹Wikipedia Contributors. "List of Routes of City of Buffalo Streetcars." Wikipedia. Wikimedia Foundation, July 2, 2024.

the 1930s, however, Buffalo's streetcar system began to decline.⁷² The primary reasons for this were the beginning of urban sprawl, Buffalo's expansion, and the growing rates of private car ownership. Due to these reasons, the city decided that it was in its best interest to scale back the prevalence of the streetcar system and create space for cars. Instead of electric streetcars, the city shifted to the use of buses to maintain the scope of the streetcar system while also ensuring that people could drive their cars in all parts of the city.⁷³

The Highway Era

The relationship between suburban expansion and public transportation was give-and-take. In one regard, suburban expansion meant that there was a declining need for public transportation. However, declining Urban transportation provided motive to move to the suburbs. The decline in public transit infrastructure also shifted people's focus away from commercial avenues. Strips with businesses that once had high value began to decline due to the reduced foot traffic in the area.⁷⁴ The decline of the streetcar system in Buffalo ultimately symbolized the city's shift in focus from urban development to suburban development.

In the years following 1950, Buffalo's public transit infrastructure shifted to buses run by a private corporation called Niagara Frontier Transportation (NFT). These buses were used specifically because they could provide transportation on the newly built thruway systems used to facilitate suburban transportation, further diverting from the electric streetcar

⁷²Adrian Gamble. "Buffalo's 180-Year Streetcar History Linked to the City's Changing Fortunes | SkyriseCities."

⁷³Adrian Gamble. "Buffalo's 180-Year Streetcar History Linked to the City's Changing Fortunes | SkyriseCities."

⁷⁴Adrian Gamble. "Buffalo's 180-Year Streetcar History Linked to the City's Changing Fortunes | SkyriseCities."

system.⁷⁵ The shift away from the streetcar system marks the city's new prioritization of infrastructure that supports the use of the car.⁷⁶ The integration of buses as the new public transit infrastructure shows the city's prioritization of the use of highways and the reduction in population density of urban areas. The Federal Aid Highway Act, signed in 1956, was the driving force behind the federal government's push towards automobility.⁷⁷ This act granted twenty-five billion dollars to fund more than 40,000 miles of highways across the country. This officially made the United States transit centered around privately owned cars. The 2.2 million cars produced in 1946 jumped up to 8 million by 1955.⁷⁸ A possible reason for the growth of cars is the Great Compensation, a period in the 1940s where wage disparities between the lower and middle classes decreased significantly.⁷⁹ Thus, people in lower paying jobs were now given an opportunity to purchase utilities such as cars. During this period of transition, the number of registered vehicles increased exponentially and people per vehicle decreased exponentially across the nation.⁸⁰ The expanded use of the automobile was a technological advancement that changed the uses and organization of the infrastructure discussed in this thesis. The shift to a car-centered society changed the way people accessed food and decided where to live. For instance, people who could not afford a car were not able to live in the suburbs. People who could not afford to live in the suburbs often lived in communities that were torn apart by

⁷⁵metro.nfta.com. "History of Metro - Metro Bus & Rail," n.d. <https://metro.nfta.com/about/history-of-metro>.

⁷⁶metro.nfta.com. "History of Metro - Metro Bus & Rail," n.d. <https://metro.nfta.com/about/history-of-metro>.

⁷⁷Jay Young. "Infrastructure: Mass Transit in 19th- and 20th-Century Urban America." *American History*, n.d.

⁷⁸courses.lumenlearning.com. "Suburbanization | United States History II," n.d.

⁷⁹Robert A Margo . "Explaining Black-White Wage Convergence, 1940-1950." *Industrial and Labor Relations Review* 48, no. 3 (April 1995): 470. <https://doi.org/10.2307/2524775>. Page 1-3

⁸⁰Walter Bottiny. "Trends in Automobile Ownership and Indicators of Saturation," n.d. <https://onlinepubs.trb.org/Onlinepubs/hrr/1966/106/106-001.pdf>.

new transit systems and highways. Although Black people did seem to benefit from the Great Compensation, redlining and racist loaning practices may have still impacted the opportunity to purchase cars and restricted movement to the suburbs.⁸¹

In Buffalo, the Kensington Expressway and 190, constructed in the 1960s, served as the inner city's monoliths of suburban expansion. The Kensington Expressway, the most destructive of these projects, split the East Side in two in order to provide quicker transportation from downtown Buffalo to the suburbs and the airport. Although property value throughout the East Side has been negatively affected in a multitude of ways, the areas surrounding the Kensington Expressway acquired the lowest housing value in the city.⁸² As discussed in the Housing chapter, prior to and during the construction of these highways, east Buffalo was becoming the primary location for Black residents. Black migrants were pushed into this area through the use of public housing, restrictive covenants, prevailing composition, and redlining. The establishment of these highway systems only perpetuated further displacement in an area where segregation was already extremely prominent. Additionally, the expressway has led to widespread air pollution as well as severed parts of the East Side from being able to access the rest of the city without the use of a car or public transit.

⁸¹Robert A. Margo. "Explaining Black-White Wage Convergence, 1940-1950." Page 1-3

⁸²Owens-Chaplin, and McCormack. "Is the Environmental Racism of the Past Repeating Itself in Buffalo's Kensington Expressway Project?" NYCLU. Accessed April 17, 2024.
<https://www.nyclu.org/commentary/environmental-racism-past-repeating-itself-buffalos-kensington-expressway-project>.

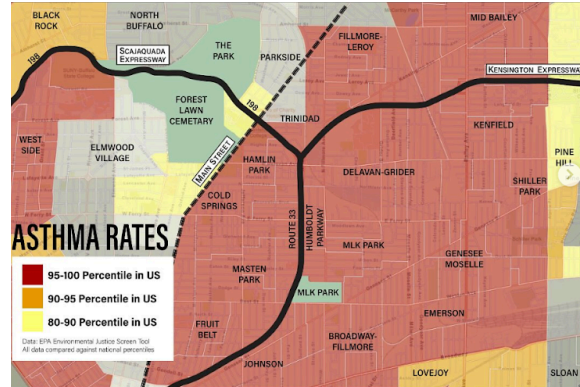


Figure 11: This map shows the placement and effects of air pollution on Buffalo.⁸³

Figure 11 shows that Main Street is the primary boundary of the East Side. The Kensington Expressway divides this area nearly in half, rendering residents living in the Delevan Grider, MLK Park, and Broadway-Fillmore areas as cut off from the city.



Figure 12 shows the construction of the Kensington Expressway.⁸⁴

⁸³Ed Nice. "More Buffalonians Disapprove of Kensington Expressway Project." Power 93.7 WBLK, December 21, 2023. <https://wblk.com/community-disapproval-kensington-expressway-project/>.

⁸⁴SEGREGATION BY DESIGN. "Humboldt Parkway/Kensington Expressway," n.d. <https://www.segregationbydesign.com/buffalo/humboldt-parkwaykensington-expressway>.



Figure 13 shows the current state of the Kensington Expressway.⁸⁵

As shown in Figures 12 and 13, the expressway is placed in a seemingly obscure location in the middle of the East Side. The construction in Figure 12 was extremely destructive to the community and the quality of life of residents in that area, as it destroyed the green public space previously there. As displayed in Figure 11, the expressway has also lowered the health of residents in its surrounding area as they deal with higher rates of respiratory illness due to pollution. Although the health effects of this highway may have been unforeseen during its establishment, it is evident that the expressway was placed with little regard for the housing quality and community access available to East Side residents. Buffalo's political goal of supporting suburban residents' access to downtown Buffalo is precisely why this expressway was built and stands today.

⁸⁵Ed Nice. "More Buffalonians Disapprove of Kensington Expressway Project."

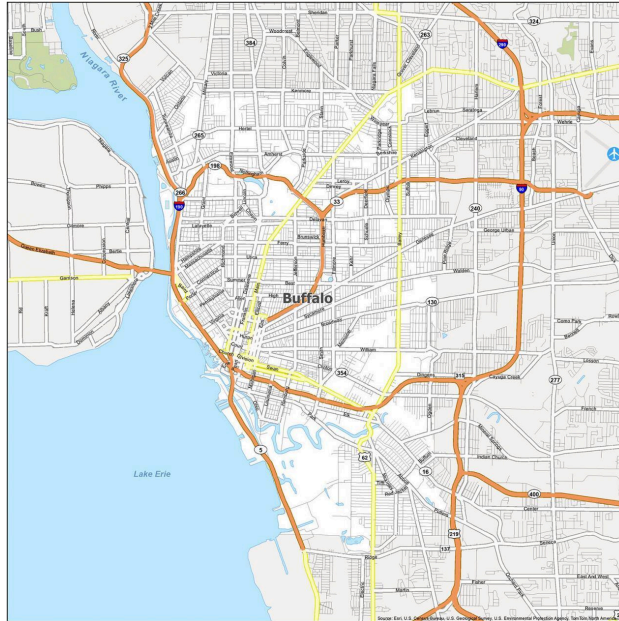


Figure 14 shows the placement of Buffalo's highway infrastructure.⁸⁶

As seen in Figure 14, the 190 cuts south through the West Side, connecting suburban areas in the north and downtown Buffalo. It also connects with the Kensington Expressway and the suburbs to the east of Buffalo. The 190 has had a similar impact on the West Side of Buffalo as the Kensington Expressway's impact on the East Side. The 190 increased air pollution that worsened respiratory health for residents in the surrounding areas, as well as led to lower housing values and a decline in business in the area. For middle and lower class families that remained in the Urban areas, the decline in business created an economy where money flowed outward rather than remaining in the community making it harder for pre-existing business to survive and impossible for new business to flourish.⁸⁷

⁸⁶GISGeography. "Map of Buffalo, New York - GIS Geography." GIS Geography, 2018.
<https://gisgeography.com/buffalo-map-new-york/#RoadMap>.

⁸⁷Farrell Evans. "How Interstate Highways Gutted Communities—and Reinforced Segregation." History.com, October 20, 2021.

The rapid expansion of the automobile industry and consumer culture, which will be discussed in the food chapter, seems to be the primary driving force behind these mass infrastructure shifts within such a small time window. Policies such as the Federal Highway Act seem to support the expansion and utilization of the automobile industry in order to generate economic growth as well as support connectivity throughout the country. However, the inverse effect of this growth was the decline of Urban Hubs.⁸⁸ As cities sprawl, the nation's value of Urban areas as locations for business seemingly declines. Similarly, there was little regard for housing infrastructure during this shift, specifically in low-income, minority neighborhoods. Buffalo, like many other cities, chased the perceived benefits of suburban expansion and pervasive automobile use. Through the development of artifacts (as Landon Winner quantifies them), such as the Kensington Expressway and I-90, Buffalo was able to quickly adapt the city's design to accommodate these shifts. Unfortunately, the East Side's public health, economic well-being, and access to the greater community were the cost.

Public Transit

Effective and efficient public transportation is vital in order to promote social equity, create citywide accessibility, and reduce emissions.⁸⁹ Public transit systems do so by evening out the economic and social disadvantage of limited automobile access. Public transit should aim to do so by providing efficient and cheap transportation to all parts of the city. Presently, Buffalo's public transit system is made up of a network of buses and a single metro rail line

⁸⁸Farrell Evans.. "How Interstate Highways Guttled Communities—and Reinforced Segregation."

⁸⁹"Working toward Equality, Updated: Race, Employment, and Public Transportation," 2017.

https://ppgbuffalo.org/files/documents/working_toward_equalityfinal.pdf.

that runs from North Buffalo to Downtown Buffalo. This metro rail line was initially constructed in 1986 as a way to connect north and south Buffalo. The light rail line runs adjacent to Main Street, the border of the East Side. The rail line, although limited by its length of only 6.2 miles, does facilitate a significant amount of public transportation.⁹⁰



Figure 15: A map of Buffalo's public transportation infrastructure.⁹¹

As illustrated by Figure 15, the network of buses primarily moves in north-south and east-west patterns. The Metro Rail runs from downtown Buffalo, underneath Main Street, and towards North Buffalo. The high-frequency transit options (running every 15 minutes) are clustered in the center of the city, while the lower-frequency long-distance options (running every 30-60 minutes) reach the city's outskirts. The metro rail system was initially created in 1980, and there are currently plans to expand its reach even further. The prevalence of buses has also steadily increased throughout the years.⁹² One challenge of Buffalo's public transit system is its

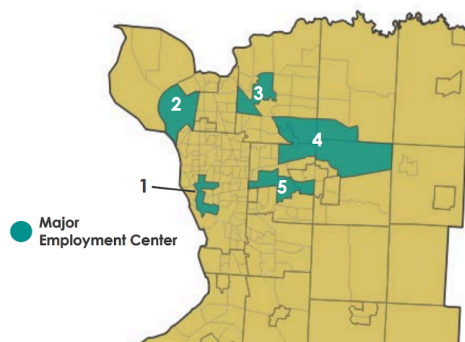
⁹⁰Buffalo Rising. "Think Twice: Buffalo Metro Rail," June 9, 2009.

<https://www.buffalorising.com/2009/06/think-twice-buffalo-metro-rail/>.

⁹¹NFTA Public Transportation Map. 2024.

⁹²metro.nfta.com. "History of Metro - Metro Bus & Rail," n.d. <https://metro.nfta.com/about/history-of-metro>.

inability to keep up with urban sprawl. Urban sprawl is the expansion of residential areas. Because of the decreasing population density, areas boasting high job opportunities have similarly decentralized. Public transportation has not been able to keep up with this decentralization, leading those without cars to have limited access to jobs. Furthermore, the lack of metro options limits the people who use public transportation to reach jobs outside of the city in a timely manner.⁹³ The limitations of public transit serve as a barrier to employment across cities in the United States.⁹⁴ This is an issue that disproportionately affects those with low incomes and no access to a car.⁹⁵ Buffalo is known to have 5 primary career centers: Downtown Buffalo, River Road, Sweet Home Road, Airport (Main-Wehrle-Transit), and Walden Ave.⁹⁶



*Figure 16: The major employment centers of Buffalo.*⁹⁷

⁹³ “Working toward Equality, Updated: Race, Employment, and Public Transportation.” 2017.

⁹⁴ Joseph Mengedoth. “Transportation Access as a Barrier to Work | District Digest | Richmond Fed.” www.richmondfed.org, 2023.

https://www.richmondfed.org/publications/research/econ_focus/2023/q4_district_digest.

⁹⁵ Joseph Mengedoth. “Transportation Access as a Barrier to Work | District Digest | Richmond Fed.”

⁹⁶ “Working toward Equality, Updated: Race, Employment, and Public Transportation,” 2017.

⁹⁷ “Working toward Equality, Updated: Race, Employment, and Public Transportation,” 2017.

Figure 16 displays that four out of the five primary employment centers lie outside of Buffalo's urban area. This means that over 50 percent of the city's jobs are outside the reach of public transit.⁹⁸ Although Buffalo's network of buses has its strengths, the lack of metro rail infrastructure in the area is a massive limitation on the scope of its effectiveness. Metro rail provides a far faster and more reliable means for those using public transit to work. Expansion of this system could have a multitude of benefits for Buffalo's residents and the city government's environmental goals.

As mentioned before, Buffalo's busing systems spread quite expansively across the city. Yet, they do possess some limitations. For instance, they do not reach the outskirts of the city in a timely manner because these routes are run at a lower frequency. Another limitation of the busing system is its tendency for routes to only move in accordance with longitude and latitude. This increases the time that riders can move across the city and overcomplicates routes. There are a multitude of explanations for why the bus route may be organized in this fashion; however, it seems likely that this is to limit costs and create operational efficiency. The NFTA and Metro services in the city have been scaled down and up numerous times in the past, indicating that residents' usage of public transportation dictates the state of its services.⁹⁹

Due to the difficulty of expanding the light rail system into a network with multiple routes, it is important for the city to consider restructuring busing routes as an alternative. For example creating bus routes that travel concentrically around the city from a starting point

⁹⁸"Working toward Equality, Updated: Race, Employment, and Public Transportation," 2017.

⁹⁹metro.nfta.com. "History of Metro - Metro Bus & Rail," n.d. <https://metro.nfta.com/about/history-of-metro>.

such as downtown could have a multitude of benefits. Unlike linear routes, concentric routes create direct connections between neighborhoods, bypassing the need for riders to take multiple buses. The physical organization of public transit and its routes inherently modifies the personal freedoms of those that use it on a day to day basis. Unlike other pieces of infrastructure involved in transit, housing, and food, buss routes are easily modified. The ability to shape transit options in order to fit the needs to the population is a feature that is seemingly overlooked in its current design.

Contemporary Projects and Goals

In recent years, there has been a large push from city officials to shift away from the network of highways running through the city and support East Side revitalization. This is seen in their attempts to rectify the damage done by the Kensington Expressway and reopen Buffalo's Central Terminal. Up to 300 million dollars has been allocated to refurbishing and repairing this historic building. The terminal will not be used as a means of transit but will instead be used as a landmark of Buffalo's history, economic hub, and historical center. The terminal stands in the middle of the East Side and has sat dormant and decaying for years after its closure in 1979. Previously, it was a signal of a prosperous Buffalo, serving 10,000 passengers daily.¹⁰⁰ The reopening of this terminal reflects Buffalo's contemporary goals of creating a more prosperous East Side. Furthermore it signifies that people no longer view the

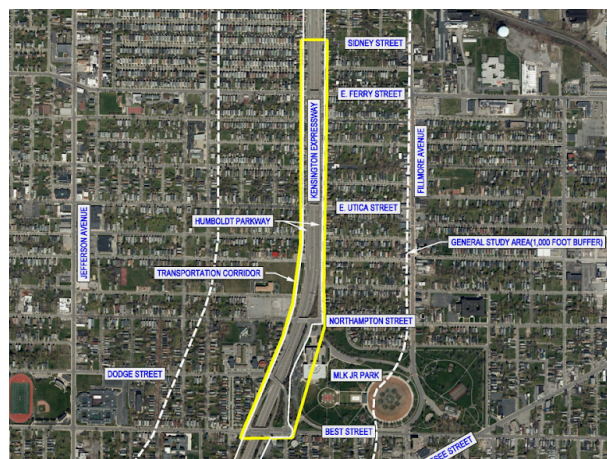
¹⁰⁰Buffalo Central Terminal. "Buffalo Central Terminal," 2023.
<https://buffalocentralterminal.org/about/history-restoration/>.

space in the same light and reflects the infrastructure’s need to be updated in order to fit plans aimed at revitalization.

The most prominent example of Buffalo’s goals to alter transportation infrastructure is the remodeling of the Kensington Expressway. In 2022, the NYS Department of Transportation set plans to place a deck covering a section of the expressway.



Figure 17: Ariel Image of the Proposed Deck.¹⁰¹



¹⁰¹Mark Sommer. “Video Opinion: Plan for Kensington Is Not Perfect, but It’s a Start.” Buffalo News, July 26, 2022. https://buffalonews.com/news/local/kensington-expressway-project-comes-into-focus-but-some-say-generational-plan-falls-short/article_44972378-01f7-11ed-861d-e3b3365f9215.html.

Figure 18: Proposed area of the Kensington Expressway Deck.¹⁰²

The goal of this project is to reduce the expressway's negative effect by allowing walking, biking, and pedestrian traffic above it. In doing so, they aim to recreate Humbolt Parkway, a grassy, tree-filled parkway that previously stood there.¹⁰³

The plan to redevelop Buffalo's Kensington Expressway has raised significant concerns about its potential to worsen pollution in the area. While the project aims to reconnect neighborhoods and enhance greenspace, it could harm predominantly Black communities near the tunnel's entrances and exits by trapping and releasing dense pollution in these areas. These neighborhoods already endure higher rates of asthma, heart disease, and lower life expectancy due to decades of pollution from the expressway. The New York State Department of Transportation has seemingly bypassed conducting a full environmental impact statement, which is standard for major infrastructure projects, by instead using a vague "environmental assessment."¹⁰⁴ Without a detailed environmental impact statement, the project lacks the necessary analysis to address impact on nearby residents.¹⁰⁵

Similar to the 5-5 demolition plan discussed earlier, the covering of the Kensington expressway may only be a half baked solution to a greater problem. While the proposed tunnel

¹⁰²"Transportation Project Report Project Scoping Report," 2022.

<https://kensingtonexpressway.dot.ny.gov/Content/files/ScopingReport/Project%20Scoping%20Report.pdf>.

¹⁰³"Transportation Project Report Project Scoping Report," 2022.

¹⁰⁴Owens-Chaplin, and McCormack. "Is the Environmental Racism of the Past Repeating Itself in Buffalo's Kensington Expressway Project?" NYCLU. Accessed April 17, 2024.

<https://www.nyclu.org/commentary/environmental-racism-past-repeating-itself-buffalos-kensington-expressway-project>.

¹⁰⁵Owens-Chaplin, and McCormack. "Is the Environmental Racism of the Past Repeating Itself in Buffalo's

provides cosmetic improvements and has the potential to increase the walkability of the neighborhood, it does not confront the deeper injustice of the expressway's existence. Updating this piece of infrastructure by placing a roof on it does not address the negative impact its location has on the community.

Full highway removal is an option that should be considered. One such instance of a project, with a similar scale to the Kensington Expressway, is Boston's Central Artery Highway. This highway, which once disrupted and polluted the surrounding area, now stands as a grassy public space. This has led to both a higher quality of life in the area as well as business development.¹⁰⁶ With enough support and a well thought out plan a project such as this could take place in Buffalo. The removal of the Kensington Expressway would provide a permanent solution to car pollution and enhance efforts to raise housing values and reduce segregation. A removal project would also signify a concrete shift Buffalo's infrastructure that reflects its desire to rectify damages done by 20th century infrastructure and policy.

Conclusion

Unlike housing, transit infrastructure does not progress in a linear fashion. Excluding buss routes, transit infrastructure is often put in place and left until it becomes obsolete. Highways and roads are not malleable or easily modified. In the case of Buffalo's transit infrastructure, the development of highways, shift away from streetcars, and use of buses reflect the city's push toward suburbanization in the 1900s. These changes symbolized

¹⁰⁶Lauren Mayer. "Eight Completed Highway Removals Tell the Story of a Movement." CNU, May 31, 2022. <https://www.cnu.org/publicsquare/2022/05/31/eight-completed-highway-removals-tell-story-movemen>.

Buffalo's hopes of survival. Similar to the expansion and decentralization of housing projects, the city expanded its infrastructure as a way to keep businesses and residents in the city.

Today, these pieces of infrastructure no longer hold the same political value as what the city once thought or intended. These pieces of infrastructure serve to cut off neighborhoods, segregate, and limit the access that East Side residents have to the rest of the city.

Furthermore, they contribute to a larger network of infrastructure that has consistently undermined the East Side.

Right now, there is a sense of momentum toward shifting this infrastructure away from the needs of the past and toward a model that supports the needs of all Buffalo residents. The expansion of the metro rail, the remodeling of the Kensington Expressway, and the activism surrounding addressing inequalities in public transportation all work together to change the weight of this network. This means that the system as a whole is beginning to recognize the roots of issues that have plagued and undermined the economic success of the neighborhood for decades. However, these changes are no small feat. As mentioned, transit infrastructure is not easily malleable. Changing bussing routes to better fit the needs of the community is one thing, but remodeling and potentially erecting highways is another. Any changes the city makes now will likely remain for the foreseeable future. Decisions surrounding these issues must take into account the historical patterns of disenfranchisement created by transit infrastructure and address these topics from a holistic perspective. Any changes made to transit infrastructure need to be centered around providing equitable transit access to

Buffalo's inner-city residents, as they have the most limited access to cars and freedom to choose their transportation methods. Similarly, if new infrastructure is erected to replace it, the same analysis of its political value must be done in order to quantify how it can alter the lives of Buffalo's residents.

Transit infrastructure is a vehicle for connectivity within the city. By utilizing infrastructure that connects neighborhoods, job centers, and critical infrastructure, the city's residents can create a sense of shared prosperity over the city's assets. Future change has the potential to shift this network away from suburban prosperity towards balanced connectivity.

Chapter 5: Food

Introduction

Food infrastructure is a vital aspect of every United States city. Yet for many residents of Buffalo, particularly those living in historically marginalized neighborhoods, obtaining fresh and affordable food without significant travel time remains a challenge. The city's legacy of disinvestment in urban areas and the impacts of white flight have contributed to the emergence of food deserts. Food deserts are regions where there aren't any grocery stores within close proximity, making it difficult or impossible for local residents to obtain healthy food options.¹⁰⁷ In this thesis, urban food distribution networks will be the primary focus. The urban food distribution system encompasses wholesaling, intra-urban transportation, retailing, street food, grassroots gardens, and restaurants.¹⁰⁸ These pieces of urban infrastructure serve as the final step between the product and the consumer. All of these pieces of infrastructure contribute to a larger urban food system intended to feed the city.

Unlike transit and housing, food is primarily managed by private corporations, and like any business, it is based on maximizing profits. The methodology supermarkets use to place stores is often heavily contingent on the perceived economic fruitfulness or lack thereof in a particular location. Transit and housing policy have contributed to the organization of food infrastructure, as they have had a direct effect on the economic status of neighborhoods

¹⁰⁷Food Empowerment Project. "Food Deserts." Food Empowerment Project, n.d.
<https://foodispower.org/access-health/food-deserts/>.

¹⁰⁸Fao.org. "Chapter 1. Food Supply and Distribution Systems to Cities," 2024.
<https://www.fao.org/4/X6996E/x6996e08.htm>.

throughout the city. In Buffalo, supermarkets are for the most part distributed based on the deemed profitability and feasibility of a neighborhood. In Buffalo's impoverished areas, it is more likely to find community gardens and local food networks rather than large corporate supermarkets. Similarly, fast food locations are far more common in impoverished areas.¹⁰⁹

Differences in food access between urban and suburban areas and across demographics have major implications for people's freedom in their daily lives. These disparities constrain the freedom to choose one's diet and access fresh food and daily necessities. These limitations not only affect physical health but also contribute to broader socio-economic inequities. Reliance on fast food or alternative options, although seemingly cost-effective, perpetuates cycles of poverty and poor health.

In this chapter, food distribution infrastructure will be discussed through a historical lens to uncover why Buffalo's food deserts exist and what effects they have on the urban population. Understanding how the city was fed before white flight dictates how the city should approach returning to a system equipped to feed all of its residents is. Ultimately, increasing food security in Buffalo will have numerous economic and health benefits for the population, thus creating a system that serves its community rather than its corporations.

¹⁰⁹MVP's of Buffalo NY. "What You Should Know about Food Deserts - MVP's of Buffalo NY," January 19, 2023. <https://www.joinmvp.org/what-you-should-know-about-food-deserts/>.

How Buffalo Was Fed Pre-White Flight/Decentralization

After World War II, the rapid increase of consumer culture and technological progress, such as the automobile and advanced refrigeration, led to the rise of supermarkets, fast food, and processed foods. The growth of mass agriculture and the prioritization of efficiency seen in many other industries bled into the food distribution industry.¹¹⁰ These advancements in technology reflected U.S. capitalism and the value it placed on economic achievement. But what stood before the supermarkets? Prior to these changes, decentralized food distribution networks were used to get people's groceries. Local markets were the primary source of everyday groceries.¹¹¹ Similarly, food was often sourced from smaller scale operations such as local farms.¹¹² The shift from these local food systems to the corporate-driven model of supermarkets marked a transformation of infrastructure, where offering lower price and higher convenience drove success. In the early 20th century, during the planning stages of expanding neighborhoods and suburban developments, food infrastructure was considered an important aspect of regional economic development and infrastructure planning. Zoning policy was created to protect agricultural lands to preserve farming as a way to support the needs and economy of urban areas and the region as a whole.¹¹³ Prior to the 1950s, as described above, Buffalo's residents relied on a network of independent stores and food infrastructure. One

¹¹⁰Youth in Food Systems - Engaging Youth in Food Exploration. "How Food Systems Implemented throughout the Years (1900'S, 1950'S, 2000'S) - Youth in Food Systems," August 10, 2023. <https://seeds.ca/schoolfoodgardens/how-food-systems-implemented-throughout-the-years-1900s-1950s-2000s/>.

¹¹¹Youth in Food Systems - Engaging Youth in Food Exploration.

¹¹²Youth in Food Systems - Engaging Youth in Food Exploration.

¹¹³Catherine Brinkley. "The Hidden History of Food System Planning." *Journal of Planning History*, 2014.

such marketplace, the Washington Market, was established in 1856 and remained open until 1965.¹¹⁴ The marketplace was home to around 200 grocery vendors. Similarly, the Elk Street Market stood from 1845 until 1930, when it eventually closed due to a fire.¹¹⁵ These marketplaces created a self sufficient local economy. There was no private or public control of the food in an area. This system provided a competitive marketplace between local business's.

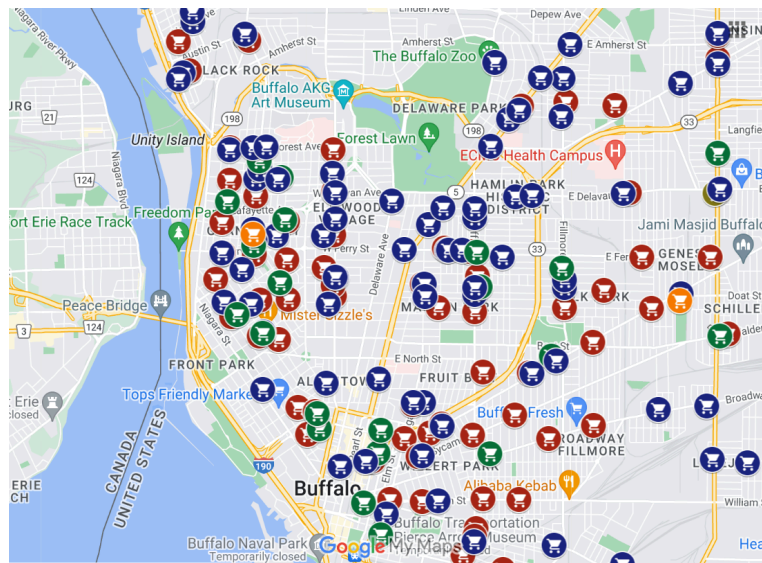


Figure 19: A Map of Buffalo's Grocery Stores in the Year 1925. Each icon represents a grocer.¹¹⁶

¹¹⁴Gwen Ito. "A Look Back at the Washington Market." buffalospree.com, May 15, 2013.

https://www.buffalospree.com/features/a-look-back-at-the-washington-market/article_ce426f4f-e3e1-550b-9056-072f377ec28b.html.

¹¹⁵Gwen Ito. "A Look Back at the Washington Market."

¹¹⁶Google My Maps. "Buffalo (Layers) - Google My Maps," 2025.

<https://www.google.com/maps/d/u/0/viewer?mid=1afzaRsbiLVgjokq2SGCo--Byg1g&ll=42.889335630624096%2C-78.7965737839331&z=13>.

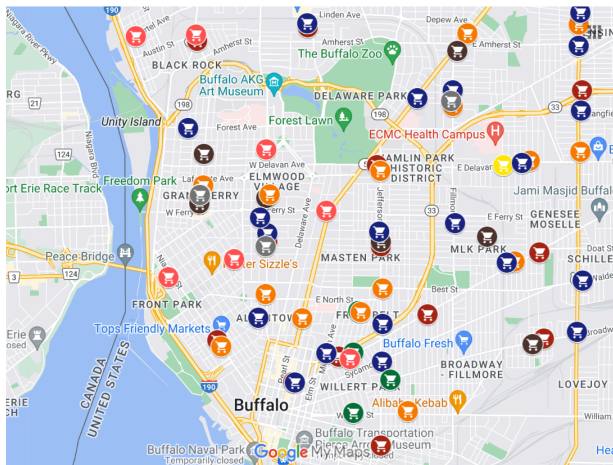


Figure 20: A Map of Buffalo's Grocery Stores in the year 1950. Each icon represents a grocer.¹¹⁷

As is evident in Figures 19 and 20, Buffalo had a far larger and more distributed network of grocery options prior to 1950. This infrastructure reflects a period where food access was driven by local competition. Furthermore, it depicts a time when corporations were not yet in control of the industry. The larger network of businesses and consumers created by this infrastructure is more balanced, allowing residents to support local businesses and build up neighborhood economies. Although there are vast benefits to this system, not all members of Buffalo's community benefited equally. The policies of redlining and race-based loaning of the 1930s highlighted in the housing chapter made Black participation as business owners extremely difficult.

The decline of these food marketplaces and distributed networks can be attributed to local consolidation, which led to larger consolidation of the industry within the United States.

¹¹⁷ "Buffalo (Layers) - Google My Maps." 2025. Google My Maps. 2025.
<https://www.google.com/maps/d/u/0/viewer?mid=1afzaRsbiLVgjokq2SGCo--Byg1g&ll=42.889335630624096%2C-78.7965737839331&z=13>

As the 20th century progressed and white flight began to take effect, efforts towards urban planning and the planning of public health in urban areas also declined.¹¹⁸ To avoid waste, it became favorable to consolidate smaller grocery vendors into wholesale grocery stores.¹¹⁹

How Food Infrastructure Has Changed Since the 1950s and Why?

As local grocers struggled to remain competitive with large supermarket corporations, urban food access became increasingly scarce. Supermarket redlining, a practice in which large grocery chains avoided or abandoned low-income urban neighborhoods due to perceived financial risk, further diminished access to fresh food in urban areas.¹²⁰ These practices have significantly impacted the health and economic outcomes of residents living in the resulting food deserts.

Similar to the housing market, from the 1930s to the late 1960s, supermarket chains participated in a practice where they redlined neighborhoods that were deemed unprofitable because of their economic state, which often coincided with racial composition.¹²¹ Supermarket locations would not be placed in locations with low ratings. Another practice used by supermarkets during this time was restrictive covenants. Similar to restrictive covenants used to ban Black people from purchasing or living in specific houses, these covenants banned other supermarkets from operating at that location. These practices

¹¹⁸Catherine Brinkley. "The Hidden History of Food System Planning." *Journal of Planning History*, 2014.

¹¹⁹Catherine Brinkley. "The Hidden History of Food System Planning." *Journal of Planning History*, 2014.

¹²⁰Brown.edu. "How Supermarkets Failed U.S. | Stone Inequality Initiative," 2024.
<https://watson.brown.edu/stoneinequality/node/517>.

¹²¹Brown.edu. "How Supermarkets Failed U.S. | Stone Inequality Initiative"

restricted alternative stores from entering neighborhoods, as most lots do not contain the infrastructure to support a supermarket. This practice perpetuated food insecurity as locations that once catered to entire neighborhoods were left vacant.¹²²

During the same period that supermarket redlining was taking place, federal policy change led to the mass decline of independent grocery stores. Established in 1936, the Robinson-Patman Act aimed to prohibit price discrimination by preventing suppliers from offering high volume discounts not made available to all retailers.¹²³ In 1981, “The FTC stopped enforcing Robinson-Patman as part of a broader rollback of antitrust policy.”¹²⁴ This led to a drop in the market share of independent grocery stores and the exponential growth of the largest grocery chains. In 1958, local grocers held over 55% of the market share in the U.S.; however, by 2022, this had dropped to under 25 percent.¹²⁵

The legacy of supermarket redlining, compounded with the negative effects housing and transit policy and infrastructure, continues to affect city residents and shape food accessibility. Research conducted by Yasamin Shaker, Sara E. Grineski, Timothy W. Collins, and Aaron B. Flores shows that neighborhoods historically graded as “hazardous” or “declining” by the Home Owners’ Loan Corporation continue to experience lower food access today, particularly those with higher proportions of Black, Hispanic, and disabled residents.

¹²²Brown.edu. “How Supermarkets Failed U.S. | Stone Inequality Initiative”

¹²³Stacy Mitchell. “The Policy Shift That Decimated Local Grocery Stores.”
<https://ilsr.org/wp-content/uploads/2024/11/ILSR-GroceryMarket-Graph-Final.pdf>, n.d.

¹²⁴Stacy Mitchell. “The Policy Shift That Decimated Local Grocery Stores.”

¹²⁵Stacy Mitchell. “The Policy Shift That Decimated Local Grocery Stores.”

Residents in these areas are often left with fast food and convenience stores as a means to access food without extensive travel time.¹²⁶ As mentioned in the transit chapter, public transit is a variable option for transportation; however, reliance on public transportation for neighborhood-to-neighborhood movement is often inefficient. Similarly, for East Side residents walking is relatively restricted due to the Kensington Expressway, especially when supermarkets are more than 2 miles away. Buffalo's transportation infrastructure significantly restricts those without access to a vehicle from shopping at supermarkets outside of one's neighborhood. The current disparities in health and economic prosperity highlight how structural racism and economic exclusion have shaped the modern food landscape.¹²⁷

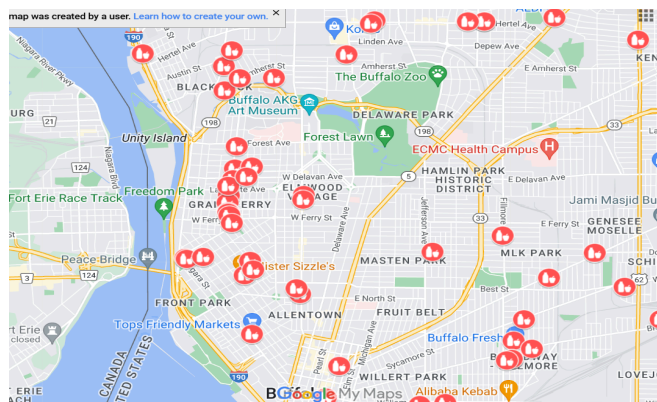


Figure 21: This map showing Buffalo's current grocery store locations.¹²⁸

¹²⁶Yasamin Shaker, Sara E. Grineski, Timothy W. Collins, and Aaron B. Flores. "Redlining, Racism and Food Access in US Urban Cores." *Agriculture and Human Values* 40, no. 40 (July 22, 2022). <https://doi.org/10.1007/s10460-022-10340-3>.

¹²⁷Yasamin Shaker, Sara E. Grineski, Timothy W. Collins, and Aaron B. Flores. "Redlining, Racism and Food Access

¹²⁸ "FOOD RESOURCES in BUFFALO, NY | RESPONSE to COVID 19 - Google My Maps,," 2020. <https://www.google.com/maps/d/u/0/viewer?mid=1jhK8nNYWtYkr8TgcSzCatt-HX7jVJ6NL&ll=42.90647158581397%2C-78.83299869571299&z=13>

As shown in Figure 21, Buffalo's food assets have significantly declined in comparison to 1925 and 1955. The map shown above depicts independent grocers, butchers, bakeries, and large corporate supermarkets. The results of the practices above have led Buffalo's East Side to be deemed a food desert.

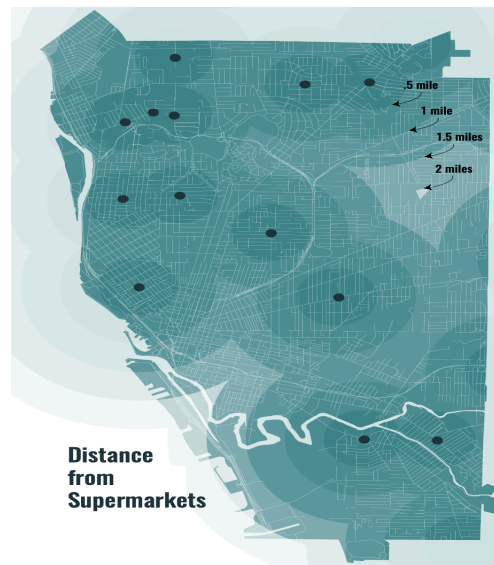


Figure 22: Map of Supermarkets in Buffalo.¹²⁹

Figure 22 gives a clearer image of the supermarkets in Buffalo (the map excludes shops and smaller grocers). There are only two available supermarkets on the East Side. These disparities in food access are further maintained by broad structural challenges that make it difficult to reverse decades of disinvestment. The far distance needed to travel to get to these locations coupled with inefficient public transportation options leave many East Side residents without

¹²⁹Blogspot.com. "Buffalo in 50 Maps," 2023.

<https://mapoftheweek.blogspot.com/2023/03/buffalo-in-50-maps.html>.

viable alternatives to fast food and convenience stores. The limited accessibility East Side residents have creates an inequitable system of highest food costs and time investment.

As of 2016, 26 percent of Buffalo's population did not have access to a vehicle.¹³⁰ Although there is no direct data on what neighborhoods have the lowest or highest car ownership, based on household income statistics, it can be hypothesized that the East Side may have had the lowest car ownership rates. As described in the transit chapter, Buffalo's infrastructure has been shaped around the use of cars. No direct access to a vehicle has significant implications for access to supermarkets, specifically within the food desert shown above. Significant health inequities arise from a dependence on fast food and limited access to fresh food. Throughout the United States, food insecurity is correlated with higher rates of obesity, heart disease, mental health disorders, and chronic disease.¹³¹ These effects are present specifically within Buffalo's East Side Black community, as Black residents of Buffalo experience 300% higher mortality rates due to largely preventable, chronic illnesses.¹³² In 2020, the Robert Wood Johnson Foundation reported that Erie County ranked 57th out of 62 New York counties in health outcomes, which include measures of life expectancy and overall

¹³⁰Mike Maciag. "Vehicle Ownership in U.S. Cities Data and Map." *Governing*, December 9, 2014.

<https://www.governing.com/archive/car-ownership-numbers-of-vehicles-by-city-map.html>.

¹³¹NIMHD. "Food Accessibility, Insecurity and Health Outcomes," 2021.

<https://www.nimhd.nih.gov/resources/understanding-health-disparities/food-accessibility-insecurity-and-health-outcomes.html?utm>.

¹³²"NIMHD. "Food Accessibility, Insecurity and Health Outcomes," 2021.

well-being. This poor ranking is primarily driven by racial health disparities.¹³³ Access to fresh food is a vital part of creating equitable health outcomes for Buffalo's East Side residents.

What are the Solutions?

In 2022, the Top's supermarket on Buffalo's East Side, the only one in that neighborhood, was the location of a racially motivated shooting leading to the destabilization of the area and devastating loss of life. This shooting, which led to the closure of the Tops market, left the majority of the East Side without a supermarket. This crushing event brought major attention to the instability of food sourcing on the East Side. Over 22,000 residents of Buffalo, 19% of the East Side population relied on that grocery store for their everyday needs.¹³⁴ The shooting left the store closed for two months, leaving East Side residents without a local supermarket within around 3 miles. This tragedy highlights the delicacy of food infrastructure on the East Side, as a single closure left 8% of Buffalo's population without direct access to fresh, affordable food.¹³⁵

In response, local organizations and community members worked to expand urban farming initiatives and community gardens as an alternative means of food access. These efforts aimed to create a broader network of food resources rather than relying solely on a

¹³³medicine.buffalo.edu. "Forward Thinking," n.d.

<https://medicine.buffalo.edu/175/forward-thinking.host.html/content/shared/smb/175/forward-thinking/health-disparities.detail.html>.

¹³⁴Anna Blatto. "Food Access Data: How Many People Might Have Depended on Tops for Groceries? - Buffalo, NY."

<https://ppgbuffalo.org/news-and-events/news/article:05-20-2022-12-00am-food-access-data-how-many-people-depended-on-tops-for-groceries/>: Partnership for Public Good, 2022.

¹³⁵Anna Blatto. "Food Access Data: How Many People Might Have Depended on Tops for Groceries? - Buffalo, NY."

single supermarket. Pop-up markets and food distribution programs were also implemented to address the immediate lack of grocery access in the area.¹³⁶

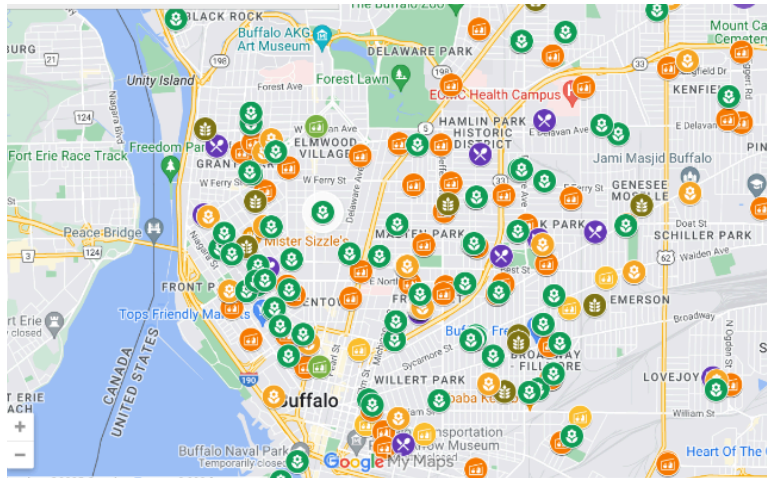


Figure 23: This Map shows the community gardens and free food locations across Buffalo.¹³⁷

As depicted in Figure 23, the city has numerous fresh food gardens, food pantries, and free food assets that aim to provide free fresh food to residents with limited access and money. These free food locations are primarily focused on providing food to the East and West sides. These alternative food distribution centers are aimed at mitigating the economic load of low-income families and providing fresh, sustainable food. Organizations such as Double Up Food Bucks New York and many others believe that these grassroots movements are a critical part of solving the food scarcity disparity on the East Side. The central idea is that simply attempting to move supermarkets into the area will not provide a full-service solution to food

¹³⁶Anna Blatto. “Food Access Data: How Many People Might Have Depended on Tops for Groceries? - Buffalo, NY.” <https://ppgbuffalo.org/news-and-events/news/article:05-20-2022-12-00am-food-access-data-how-many-people-depended-on-tops-for-groceries/>: Partnership for Public Good, 2022.

¹³⁷“FOOD RESOURCES in BUFFALO, NY | RESPONSE to COVID 19 - Google My Maps.” 2020.

scarcity. Instead, they propose that Buffalo's East Side neighborhood needs a network of diversified food assets in order to prevent dependency on a single location. This includes both grassroots solutions as well as new supermarket resources.¹³⁸ Organizations such as the Mass Ave Project and the West Side Tilth Farm have been successful in creating support for community gardens, educating members of the community, and creating a voice for greater change. In doing so, these grassroots organizations centered around food inequality represent Buffalo's hope to create sustained change over time as urban farming grows and support for food accessibility gains further traction.

Grassroots initiatives serve as local actors that aim to address to the immediate needs and ambitions of the community. These programs create momentum towards creating equitable food access by initiating connections between nonprofit organizations, residents, and policy makers. Grassroots movements, though virtuous, have significant limitations. Community gardens can be extremely difficult to scale, struggle with the harsh seasonal changes of Buffalo's climate, and require time and knowledge from their caretakers. These solutions provide momentary relief but do not directly challenge the larger economic and political forces that have created and perpetuated food insecurity. A true shift in the momentum means alignment over how to create systemic change rather than relief. Ultimately, grassroots movements and urban farming cannot meet the food demands of the East Side or any other low income neighborhood in Buffalo. While the ambition of creating a

¹³⁸Double up Food Bucks NYS. "Why Improving Food Access in Buffalo Neighborhoods Won't Be a 'One-Size-Fits-All Solution,'" 2022. Doubleupnys.com.

network of food assets is appealing, doing so without infrastructure that has the physical capacity to create lasting impact may not be an efficient investment of resources.

Policymakers have also attempted to rectify the issue of food scarcity in the East Side. As a response to the Tops supermarket shooting, Governor Kathy Hochul announced a new indoor food production incubator located on the East Side. The facility uses hydroponic farming to grow vegetables and fresh food year-round. The goal of this initiative is to create a sustainable community driven solution to food scarcity.¹³⁹ Similarly, organizations such as the Buffalo Bills have donated significant amounts to nonprofit and grassroots initiatives aimed at addressing food deserts.¹⁴⁰ It is evident on the federal and corporate scale that the most popular approach to addressing these inequalities is through the community. The belief that a community network of food assets can turn the tide is strongly backed. On the other hand, a food incubator does not seem like the best way to solve the East Side's food crisis. Being able to cultivate food and share it directly with the community seems advantageous but, the scope of these projects seems very limited in comparison to the effect of a new supermarket. The question is now, "Do East Side residents actually want food incubators? Are these solutions enough to create real change, or should there be more focus on just getting a supermarket?"

¹³⁹“Governor Hochul Announces New Indoor Food Production System in East Buffalo,” 2023.

<https://www.governor.ny.gov/news/governor-hochul-announces-new-indoor-food-production-system-east-buffalo>.

¹⁴⁰Buffalobills.com. “Bills Foundation Has Donated \$2 Million since 2023 to Address Food Insecurity | Huddle for Hunger,” 2023.

<https://www.buffalobills.com/news/bills-foundation-has-donated-2-million-since-2023-to-address-food-insecurity-huddle-for-hunger>.

As described earlier, there are a host of problems that are entailed with the construction of supermarkets. Urban supermarket deals can take up to 10 years to finalize. In order to construct a supermarket, companies must acquire several lots in order to accommodate loading docks, parking lots, and the store itself.¹⁴¹ These lots are often difficult to acquire, as landowners are incentivized to hold out in hopes of more money. These pre-development obstacles are often a greater difficulty than the operation of the supermarket itself.¹⁴²

Organizations such as co-ops are able to reach a sort of middle ground between grassroots organizations and larger supermarket locations. A co-op (cooperative) is a member-owned and operated business or organization designed to serve the collective needs of its members rather than maximize profit for external shareholders.¹⁴³ In Buffalo, the Lexington Co-op has become a major success story. At its founding in 1971, the Lexington Co-op was a single storefront in Elmwood Village. As the co-op gained traction and members, it was able to expand into a larger space, allowing it to develop into a significant neighborhood supermarket.¹⁴⁴ Unlike corporate supermarkets, Co-ops, such as the Lexington Co-op, start small and grow based on demand, requiring less land initially. The community centered

¹⁴¹S Harney. "The Grocery Gap." *Governing*, August 15, 2010.

<https://www.governing.com/archive/grocery-gap.html>.

¹⁴²S Harney. "The Grocery Gap." *Governing*, August 15, 2010.

¹⁴³Your Community Grocery Store — Lexington Co-op . "Your Community Grocery Store — Lexington Co-Op," 2015. <https://lexington.coop/our-history>.

¹⁴⁴Your Community Grocery Store — Lexington Co-op . "Your Community Grocery Store — Lexington Co-Op," 2015.

approach of the co-op provides a unique way to grow more substantial food distribution centers that are focused on the community.

Despite the expansion and increased funding towards grassroots gardens and community movements, the East Side is restricted by its density. Expanding these gardens and attracting new supermarkets are both difficult and expensive tasks. In the previous chapters, displacement has been a significant source of distress for East Side residents, and further displacement in an effort to boost community food assets may not be the most equitable path. While grassroots initiatives provide relief, they struggle with scalability, seasonality, and resource limitations. The impact of projects such as the hydroponic farms is unknown, and at this point, they can not be considered a full-scale solution to food security. The idea of locally owned supermarkets, such as co-ops, may present a viable solution; however, there is no current indication that a co-op will be the solution. The impact of these potential solutions is largely unknown. The problem, however, is clear as day. East side residents need a time-efficient, low-cost, equitable, and sustainable way to access fresh food. An understanding of Buffalo's network of infrastructure, and the knowledge of how each actor is currently being used or modified is needed to create a long lasting solution.

Chapter 6: Conclusion

Sustainability

Energy is a unifying aspect of each of the pieces of infrastructure mentioned above. A major part of addressing inequality within each of these sectors is through reliable, affordable energy solutions. Buffalo's location on Lake Erie and proximity to Niagara Falls give it unique access to hydroelectric and wind power. By utilizing these renewable energy resources, there is hope that Buffalo, as it did in the 1900s with the Pan Am expedition, can move into the 21st century as a leader in energy. Not only would utilizing energy infrastructure protect the environment, but it could also serve to promote equity for low-income and disadvantaged residents.

Low-income neighborhoods such as Buffalo's East Side have consistently experienced the physical and economic effects of fossil fuel consumption.¹⁴⁵ By prioritizing clean energy, Buffalo can reduce the financial burden of fossil fuels as well as the negative health impacts of pollution evident on the East Side. Sustainable infrastructure can be implemented in a bottom-up method across all of the discussed pieces of infrastructure. Within the sector of housing, programs that incorporate energy-efficient modifications into housing refurbishment programs can reduce future energy costs for low-income households. As mentioned, these

¹⁴⁵Donovan, Liz. "Low-Income Housing in NY Burns Fossil Fuels More than Other States, Study Finds." City Limits, October 26, 2021. <https://citylimits.org/2021/10/26/low-income-housing-in-ny-burns-fossil-fuels-more-than-other-states-study-finds/>.

changes are desperately needed as many of the older houses in the area are energy inefficient. The electrification of public transit options can potentially reduce rising ticket costs for riders and increase the appeal of public transit for those who drive. Solar-powered cold storage facilities can be implemented in community garden spaces to improve the operational effectiveness of grassroots food sources, creating greater potential for scalability. Creating sustainable economic development serves to boost employment and bridge the equity gap throughout the city.

Final Remarks

Although food, transportation, and housing are discussed in three independent chapters, each of these three industries coalesces in ways that fundamentally transform the lives of Buffalo's residents. No single field of infrastructure has control over another. The way that this infrastructure maintains itself within this network is reflected in the outcomes of its residents. Each piece of infrastructure within this network holds a political value that directly impacts day-to-day life as well as the formation of the city's demographic layout and economic well-being. As described in each chapter, equity, accessibility, and sustainability should be at the forefront of policymakers' minds when deciding the future of Buffalo's housing, transit, and food infrastructure.

How infrastructure is planned, funded, and maintained determines who benefits and who is left behind. The disparities in Buffalo's East Side, including low homeownership rates,

inadequate public transit, and food deserts, are not incidental but the result of historical policies that have supported the creation of divisive infrastructure. The construction of public housing, segregation of Black people on the East Side, expansion of urban highway systems, and movement of food infrastructure out of the East Side all reshaped the socioeconomic landscape of Buffalo.

There are a multitude of ways to change the political value of infrastructure that are possible on both the grassroots and federal scales. These bottom-up and top-down changes should be coordinated in a way that creates holistic, long-lasting change for Buffalo's residents. However, these changes must be implemented in a way that acknowledges the historical practices of disinvestment and displacement. The conversation over how infrastructure has impacted Buffalo's urban landscape is based in historic trends, however, it must be continued through the analysis of modern pieces of infrastructure as technologies with inherent political value. Modern sustainable housing initiatives, equitable transit investments, and accessible fresh food are interdependent pieces of a larger vision for revitalization and should be treated as technologies aimed at achieving these goals.

Even though the Bills find a way to lose every year, Buffalo's residents continue to stand behind Buffalo Way. Buffalo is not a stagnant, declining city anymore. Buffalo can work towards a revitalized urban landscape by promoting sustainable, equitable, and accessible infrastructure. Buffalo's resilience and commitment to progress will be the central force toward building an equitable, thriving city for all future generations. Go Bills!

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