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Executive Summary

Economic decline has plaqued the American Rustbelt for over 60 years, resulting in significant population loss and an abundance of vacant and abandoned properties. These properties are known to be a detriment to communities, negatively impacting property values and quality of life, and fueling a vicious cycle of decline. Rochester, New York is no exception to this. The city has experienced prolonged issues of vacancy following major economic restructuring and suburbanization. With chronically low incomes and persisting spatial patterns of racial and socioeconomic segregation, Rochester's vulnerable residents are disproportionately left to suffer with the effects of vacancy and the new and existing social issues it exacerbates. While the City of Rochester has made recent progress in addressing vacancy, the benefits of many of their policies and programs are not equally felt by all residents, with those most in-need receiving less assistance. These programs are mostly applied in Rochester's stronger market areas and have eligibility requirements that are not attainable for many residents, catering to neighborhoods that have higher incomes and less diversity. In an attempt to develop more equitable and effective solutions, recommendations are provided that work to improve existing efforts and propose new ones that are tailored to the needs and barriers faced by the City's vulnerable residents. By moving away from market-based strategies, this research offers a comprehensive, human-centered approach to addressing vacancy that engages residents and improves quality of life.

Key Words: Rochester, Vacancy, Vulnerable Populations

GLOSSARY

Abandoned - A vacant property that has been deserted or discarded, the owner of which may not be known. All abandoned properties are vacant, but not all vacant properties are abandoned.

(Census) Block Group - The smallest unit of geographical area used by the United States Census Bureau for data collection and sampling. This study aggregates and assesses factors of neighborhood condition at the Block Group level.

Greening - Converting vacant properties to more environmentally friendly uses, such as parks and openspace, community gardens, or green infrastructure. Greening is a fundamental tool of right-sizing and neighborhood revitalization (Schilling & Logan, 2008).

Growth Paradigm - The conception under which planning traditionally operates that says growth is an almost inevitable condition of cities and that planning efforts must be oriented accordingly to account for it (Hollander, 2010; Weaver & Knight, 2018).

HMS Typology - Housing Market Typologies developed for the Rochester 2018 Citywide Housing Market Study (City of Rochester, 2018).

Land Bank - A government body created to acquire, maintain, improve or repurpose, and sell vacant and abandoned properties (Alexander, 2015).

Legacy City - Older, post-industrial cities, that have experienced significant economic restructuring and population loss.

Lis Penden - A filing of legal action over the claim of a property. Lis Penden is used mostly by lenders in regard to failed mortgage or other property loan payments preceding foreclosure.

Neighborhood Condition - The physical, socioeconomic, and demographic characteristics of a neighborhood that collectively determine quality of life for residents (see Table 2).

Right-sizing - A new approach to planning that challenges the conventional growth paradigm. Right-sizing is the strategic realignment of a city's built environment to better suit its current population (Schilling & Logan, 2008)

Vacant - A property that is unoccupied, empty, or no longer in use. Vacant properties may be owned by governments, land banks, nonprofits, banks, or private individuals.

Vulnerable Populations - Populations that are more at risk to exposure of various threats and hazards within their community, such as those who are economically disadvantaged, racial or ethnic minorities, unemployed, have low educational attainment, or are children (The American Journal of Managed Care, online).

Wicked Problem - Social problems that, because of their complexity and multitude of interrelated causal factors, are difficult or impossible to fully define and solve (Rittel & Webber, 1973).



TABLE OF CONTENTS

Chapter 2: Research Design	8 13
Chapter 3: Literature Review	13
Chapter 4: Case - Rochester, New York	
Chapter 5: Findings	22
Chapter 6: Discussion and Recommendations	31
Chapter 7: Conclusion	43
References	45
Appendix A: Rochester's Vacancy Policy Framework	49
Appendix B: Expanded Literature Review	55
Appendix C: Spatial Analysis	59

CHAPTER 1: INTRODUCTION

While there is currently a global trend towards increased urbanization, a great number of U.S. cities are still experiencing continued population decline, a trend that began shortly after the end of World War II. Since 1960, approximately one-quarter of American cities with populations over 100,000 have seen significant population loss, with dozens losing 25% or more, and some over 50% in the cases of St Louis, Missouri and Youngstown, Ohio (Hackworth, 2014). These shrinking cities are largely concentrated in the Rustbelt of the American Midwest and Northeast and have had their main industrial and employment bases, such as the steel and automotive sectors, collapse or relocate as a result of economic restructuring. The Great Recession of 2008 further devastated struggling urban centers, leaving countless residents jobless and in many cases forced to leave their homes in search of better livelihoods (Nemeth & Hollander, 2016).

Increased vacancy reduced many once thriving neighborhoods to a checkerboard of properties. These neighborhoods are now the site of a host of problems, some pre-existing that have been exacerbated, and others entirely new. Formerly beautiful and historic walkable neighborhoods are left with crumbling infrastructure, emaciated public realms, and increased crime rates. Their residents are forced to confront the realities of reduced property values, poverty, and a diminished quality

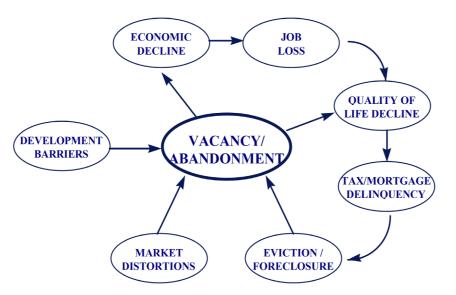


Figure 1. The Cycle of Decline. Source: Goldstein, Jensen, & Reiskin, 2001.

of life. At the same time, local governments, with reduced tax bases and revenues, struggle to provide basic services and make necessary investments in their communities (Dynamo Metrics, 2019; Mallach, 2018.) With fewer and more dispersed residents, not only do cities have fewer resources to provide services, but the cost of doing so increases, placing a significant burden on both city governments and residents (Newman, Park, Bowman & Lee, 2018). As these negative impacts compound, urban decay becomes a self-reinforcing cycle, as shown in Figure 1, and the wicked problem now defining many shrinking Rustbelt cities.

As cities and residents attempt to tackle issues around vacancy and abandonment, they must be very strategic in how they allocate the funds they have available. Resource scarcity is a common trait among shrinking cities, forcing local governments to make difficult decisions about which strategies to apply and where. Strategies range from small-scale programmatic interventions that work to improve a single lot, to city-wide planning and policy initiatives that reconceptualize how local governments manage and use property. Each is designed to reuse or improve a parcel or neighborhood in its own unique way, producing varied effects based on location and the level of intervention applied (Johnson, Hollander, & Hallulli, 2014). Ultimately, it's up to policymakers, planners, and public administrators to make the difficult choice of which neighborhoods receive assistance and which do not. It then becomes imperative that local governments to fully understand the nature of the issues they are seeking to address and the impacts they may have on neighborhoods in order to provide effective, efficient, and equitable solutions.

The Legacy of a Rustbelt City

Like many Rustbelt cities, Rochester, New York once played a vital role in the evolution and growth of the United States. Since its peak around 1950. Rochester has lost nearly 40% of its residents. in large part due to regional economic restructuring (see Figure 2). As with many Rustbelt cities experiencing prolonged decline, Rochester struggles with high rates of vacancy, poverty, and crime, significant levels of foreclosure, a diminished tax base, and a built environment greatly in need of rehabilitation. Vacancy in Rochester is heavily concentrated among residential properties, with over 80% of all vacant parcels zoned residential. However, in contrast to many other legacy and Rustbelt cities, only 10% of Rochester parcels are vacant (BuildingBlocks). This marks more than a decade of decreasing vacancy rates, with the peak occurring around 2006 (U.S. Census Bureau, 2007). When combined with the leveling off of population loss since 2000, this marks a slowdown in decline and a positive new trend for the City of Rochester.

Purpose and Research Contribution

With the extensive literature published on shrinking cities and issues of vacancy and abandonment, relatively few have taken a focused approach to offer a comprehensive analysis of existing conditions and programmatic efforts in a single city. Many of the problems shrinking cities face, and even the causes themselves, are often quite similar, but generalizing the strategies that could be employed there may not be so simple. Planning and public-policy research has theorized, and in some cases proven, the shortcomings of efforts to address vacancy and the outcomes they can have for communities.

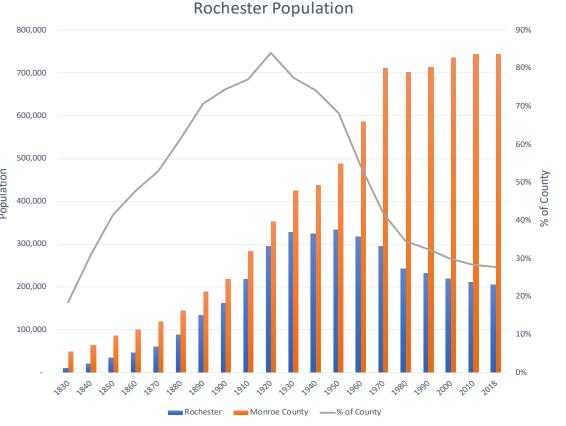


Figure 2. Rochester's Population Change. Source: U.S. Census Bureau.

The goal of this research project is to go beyond broad issues of vacancy and explore the true nature of the places where it exists, the people who live there, and

the ways that cities can develop policies and programs that adequately address their needs. To do this, I use Rochester, New York, as a case study to apply existing research on vacancy and its contributing factors. By performing an in-depth analysis of vacancy in Rochester, I compare the physical and social manifestations of vacancy and the City's current efforts to address them with the strategies applied and lessons learned in other shrinking cities. This study has the potential to not only uncover new dimensions of the vacancy problem, but also shed light on the applicability and relevance of the City of Rochester's efforts. By identifying gaps in the City's current vacancy strategy, I provide recommendations for more informed policies and programs that recognize and address the needs of residents and barriers they face when attempting to tackle vacancy and revitalize their neighborhoods. While there are numerous types of vacant properties in Rochester, the main focus of this research and the recommendations I offer will be those that are residential and the neighborhoods they are located in.



2. Geoba is a free software developed by Edic Ariselin and used to conduct spatial addocontellation and data analysis.

CHAPTER 2: RESEARCH DESIGN

For this research, I applied an inductive, mixed-methods approach to analyze existing neighborhood conditions in Rochester, New York, and then compare them to the City's policies and programs designed to address issues of vacancy (Hollander, 2018). I answer quantitative-based research questions through conducting a statistical and spatial analysis of pre-existing data on demographic information and various factors of neighborhood condition, focusing on those related to vacancy. I answer qualitative-based research questions by developing the City of Rochester's vacancy policy context via document review.

Research Questions

This research addresses issues of vacancy and neighborhood condition in Rochester and the City's current efforts to address them. To accomplish this, I will answer the following research questions:

- 1. How are vacant properties distributed and related to other factors of neighborhood condition in Rochester, NY?
- 2. How does the City of Rochester manage vacant land?
- 3. How does the City of Rochester's current vacancy strategy align with resident characteristics and neighborhood condition?
- 4. How does the City of Rochester's vacancy strategy assist and support vulnerable residents and neighborhoods?

Process

To answer the researched questions posed herein, I use the following methods and process.

Document Review

- .. Identify City of Rochester's plans, policies, and programs developed to address issues of and relating to vacancy and abandonment.
- 2. Review the City's plans and identify themes and strategies (current plans/policies) and assess impact and effectiveness (past plans/policies)
- . Review City's currently offered programs (and partner programs) to see what they intend to accomplish, eligibility requirements, and where they have been applied.

Spatial Analysis (ArcGIS¹ and GeoDa²)

1. Compile Census and City of Rochester data and aggregate to Census Block Group level.

1 ArcGIS is a server-based geographical information systems software created by ESRI and used for mapping, conducting spatial analysis, and data sharing.

- Map location and concentrations of variables to establish current conditions (demographics, housing, financial, and neighborhood conditions).
- 3. Calculate Global and Local Moran's I Index values to test for clustering.

2 GeoDa is a free software developed by Luc Anselin and used to conduct spatial autocorrelation and data analysis.



Statistical Analysis (Excel, GeoDa, and SPSS³)

- 1. Calculate correlation coefficient and p-values in Excel to identify strongest and most significant relationships between variables.
- 2. Create scatter plots in GeoDa to show correlation between vacancy, HMS Typology, and vulnerable populations.
- 3. Run variables with a correlation coefficient > 0.5 and p value < 0.05 95% confidence level through an OLS regression model in SPSS.

The equation for the OLS regression used is: $\hat{Y} = b_0 + b_1 X_1 + b_2 X_2 + \cdots + b_p X_p$

Y is the dependent response variable. In this analysis, regressions were run using two different dependent variables: Rate of Vacant Lots and Rate of Vacant Structures.

X represents all relevant independent variables. In this analysis, the independent variables were divided into three categories: Neighborhood Condition (factors relating to the neighborhood as a whole), Lot Condition (factors specific to a parcel), and all factors Combined.

b is the regression coefficient. The regression coefficient represents the change in the dependent variable relative to a one-percent change in the independent variable when all other variables are held constant.

Table 1. Research Design

	Data Collection/Research Method		
Research Question	Document Review	Spatial Analysis	Statistical Analysis
1. How are vacant properties distributed and related to other factors of neighborhood condition in Rochester NY?		Х	X
2. How does the City of Rochester manage vacant land?	X		
3. How does the City's current vacancy strategy align with resident characteristics and neighborhood condition?	Х	Х	Х
4. How does the City's vacancy strategy assist and support vulnerable residents and neighborhoods?	Х	Х	

³ SPSS is a software package developed by IBM and used to conduct various types of statistical analysis.

Data

I conducted a statistical and spatial analysis of the following variables to determine neighborhood condition in Rochester.

Table 2. Research Variables.

Variable	Description	Source
Foreclosure	Parcels currently in tax foreclosure	City of Rochester (BuildingBlocks and city staff)
Less than HS Ed.	Percentage of residents of at least 25 years of age without a high school diploma or equivalent	U.S. Census Bureau (2018 American Community Survey 5-year Estimates)
Lis Penden	Parcels with a lis pended filed since 2010	City of Rochester (BuildingBlocks and city staff)
Median Income	Median household income (logged)	U.S. Census Bureau (2018 American Community Survey 5-year Estimates)
Median Property Value	Median property value (logged)	City of Rochester (BuildingBlocks and city staff)
Non-white	Percentage of population identified as non-white (sum of all residents not identified as "white alone")	U.S. Census Bureau (2018 American Community Survey 5-year Estimates)
Occupancy Status	Occupancy status of property: Owner-occupied or Renter-occupied	City of Rochester (BuildingBlocks and city staff)
Open Code Case	Parcels with an outstanding code violation	City of Rochester (BuildingBlocks and city staff)
Owner Location	Location of property owner: Out of State or In State	City of Rochester (BuildingBlocks and city staff)
Related Crime	Vacancy related crime (aggravated assault, auto theft, burglary, murder, robbery) committed on them since 2010	City of Rochester (BuildingBlocks and city staff)
Under 18	Percentage of population under 18 years of age	U.S. Census Bureau (2018 American Community Survey 5-year Estimates)
Unemployment	Percentage of working age, able bodied persons not employed	U.S. Census Bureau (2018 American Community Survey 5-year Estimates)
Vacancy	Percentage of parcels classified as a vacant lot or structure	City of Rochester (BuildingBlocks and city staff)
Vacant Lot	An empty, unoccupied lot with no primary structure present	City of Rochester (BuildingBlocks and city staff)
Vacant Structure	A lot with an with a empty, unoccupied primary structure present	City of Rochester (BuildingBlocks and city staff)

Source: BuildingBlocks, online; U.S. Census. Bureau.



The City of Rochester is made up of 229 Census Block Groups (2018 U.S. Census Bureau) and 65,515 tax parcels. This study includes 225 Census Block Groups and 65,013 parcels in the analysis, excluding 4 Block Groups that lacked adequate data or that are used solely for industrial, medical, or University of Rochester purposes. The study area covers 57,617 residential parcels and 205,029 residents, accounting for over 99% of the population. I selected Rochester for this analysis because of its history of industrial decline and population loss, above average data availability, and relatively little focus of academic research in this area of study. Weak market Block Groups, as defined by the HMS Typologies, are particular areas of focus, as they are areas most reliant on City investment and action.

Expected Findings

Based on existing research and literature, I expect to find the following:

- 1. Tax foreclosure, property values, code violations, crime, and median income will all be statistically significant predictors of vacancy.
- 2. The location of vulnerable populations will closely coincide with areas of high vacancy.
- 3. The City of Rochester's current efforts to address vacancy are most applied in middle and strong market areas, as well as those in transition, leaving out weak market areas.
- 4. Vulnerable populations have less resources and forms of assistance available to them to address issues of vacancy.

Limitations

I encountered a number of data limitations during this study that should be noted. Demographic, housing, and income data acquired from the 2018 American Community Survey have varying levels of inherent error and may not be truly representative of the current conditions at the Block Group level. This level of analysis is used because it coincides with the data and HMS Typologies provided by the City and helps illustrate the nuances and local variation in neighborhood condition. Much of the data acquired from the City of Rochester's BuildingBlocks website is real time data, with numbers fluctuating constantly. The data used in this research was a snapshot in time from March 14, 2020, at which time I conducted the bulk of analysis.

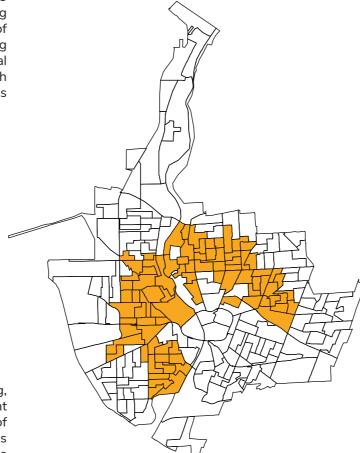


Figure 3. Study Area: Census Block Group (weak market typologies highlighted). Source: 2018 Rochester Citywide Housing Market Study, 2018.

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CHAPTER 3: LITERATURE REVIEW

Existing Work

With the issues surrounding shrinking cities becoming ever more apparent, there has been a considerable amount of research on the subject over the last 20 years. Due to the complexity of this wicked problem, the scope of existing research ranges widely, with some giving general overviews of industrial decline, shrinkage, and population loss, and others investigating specific tools and strategies for addressing vacancy. The existing literature informing my recommendations largely falls into two categories; 1) management strategies; and 2) development barriers.

Shrinking Cities

As cities shrink and population declines, outmigration usually occurs in one of two ways; either as inter-metropolitan or intra-metropolitan (Ribant & Chen, 2019). The first occurs when former residents relocate to a new city out of necessity, in many cases to follow a relocated company or in hopes of pursuing new employment altogether. In the context of shrinking cities, intermetropolitan movement generally occurs on a regional basis, with individuals moving from Rustbelt cities of the Northeast and Midwest to Sunbelt cities of the South and West. Not only does this change entail a movement of people, but capital as well. New investment and job growth focused in destination regions is a major contributing factor to the recent growth of cities like Phoenix and Seattle (Newman, Park, Bowman & Lee, 2018). Conversely, intra-metropolitan migration occurs when residents relocate within the metropolitan area but outside the city proper. This suburbanization is less a direct result of changing or declining industry and more closely related to changing demographics, decreasing property values, or various other real or perceived forms of declining neighborhood condition. However, intra-metropolitan migration often follows prolonged inter-metropolitan migration, as cities and residents suffer from the impacts of constrained budgets and a lack of investment (Ribant & Chen, 2019).

Though many of the effects of vacancy and abandonment are felt throughout a city, they by no means affect every neighborhood or group of residents the

same. As residents leave and relocate, those that remain are typically people of color and low-income individuals, creating pockets of neighborhood distress (Mallach, 2018). This exodus of mostly white residents, known as white flight, in part caused by institutional redlining and racist rhetoric spread by realtors, further fueled the hollowing out of cities and greatly distorted housing markets. Combined with compounding factors of racial segregation, class-based discrimination, and prolonged economic decline, cities' most marginalized residents, with severely limited financial resources, are left little choice of where they can afford to live (Hollander, 2010). Those who are already struggling to make ends meet are now faced with new problems that further reduce their quality of life. Additionally, policymakers may overlook vulnerable populations and these residents often lack the agency to influence them to make meaningful change in their neighborhoods (Johnson, Hollander, & Hallulli, 2014). This further exacerbates issues presented by vacant and abandoned property and can create significant challenges when attempting to develop and employ equitable solutions. Not only do higher vacancy rates disproportionately affect the more vulnerable populations who are left to inhabit these areas, but efforts to rehabilitate and redevelop vacant land are often inequitably distributed in areas of higher demand (Schilling & Logan, 2008). Though intended to maximize cities' return on investment, this uneven resource allocation leaves vulnerable neighborhoods last in line to receive recovery and revitalization assistance, again further compounding the burden placed on these residents. The wickedness of this issue becomes apparent not only in local governments' attempts to remedy it, but for residents and their livelihoods, which begs for a reconceptualization of how revitalization efforts and investments are made in areas hardest hit by vacancy and decline.

The exact causes of shrinkage and decline vary place to place but are most often connected to some type of regional industrial decline or recession. A 2019 study by Ribant & Chen that examined the characteristics of 367 shrinking US cities identified a number of common trends. Though population loss ranges greatly between cities, as of 2015 the average shrinking city was only 22% of its peak population, as shown in Figure 4. When compared to growing cities, the demographic makeup of shrinking cities was found to be considerably different. Shrinking cities on average have fewer white residents and are more racially and

ethnically diverse, in large part due to the northward mass migration of Black Americans following the Civil War and the influx of Asian and Latino groups to serve in industrial and agricultural jobs. Compared to growing cities, median household incomes are on average approximately \$19,000 less, with 20% of residents living in poverty in shrinking cities. Housing characteristics also vary greatly from that of growing cities, averaging 4% higher housing vacancy, 9% lower owner-occupancy rate, and a median home value of nearly half (2019).

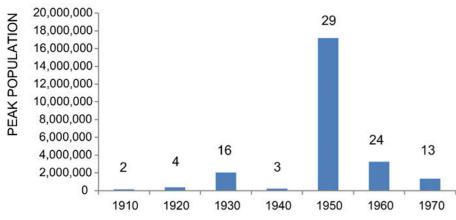


Figure 4. Shrinking Cities by Peak Year Cohort. Source: Mallach, 2017.

Vacant Land Production

Vacant land is mostly produced in two ways as cities experience the cycle of decline. The first is the result of economic restructuring, leaving behind vacant storefronts and large industrial properties. The second is caused by the outmigration of residents, leaving behind an abundance of vacant residential properties. With declining markets and increasing housing stock, a lack of demand causes many residents to abandon their homes or turn them over to lenders. These residential properties also become vacant when owners fail to make mortgage or tax payments, with tax delinquency and foreclosure serving as chronic conditions of declining neighborhoods and the best proxy for

abandonment. Some vacant properties are also owned by speculative investors and are held to resell or redevelop later if and when the market improves. Deferred maintenance and neglect are common among these and other vacant properties and major contributors to abandonment. When owners can't afford or choose not to remedy code violations and make needed repairs, local government may condemn or place a lien against the property (Apgar, Duda, & Gorey, 2005).

Effects of Vacancy on Neighborhood Condition

Despite the close link between vacancy and abandonment in a city's cycle of decline, the two can produce very different effects on neighborhood condition. Though vacancy is a blanket term used for a number of types of unoccupied properties, the distinction between vacant lots and vacant structures must be made, as they can produce starkly different outcomes for neighborhoods. Vacant land itself is not directly a product of a shrinking city, as growing cities often have a greater land supply as they increase boundaries and annex new lands. Even in the context of a shrinking city, vacant land itself may be as much an asset as it is a liability. However, it is the condition of vacant property that is somewhat unique to shrinking cities and becomes a nexus for many of the problems that arise during urban decline. Vacant properties, particularly those containing abandoned structures, may turn into liabilities if they become home to hazards, including squatters, arson, illegal dumping, stray animals, and unsafe play areas for children. Additionally, the Crime Opportunity Theory links higher rates of theft and assault with areas of high vacancy, as land is unmonitored (Kondo, Hohl, Han, & Branas, 2016).

More so than vacant lots, vacant structures are indicative of a shrinking city and are the strongest determinant of an adjacent property becoming vacant. Vacant structures pose perhaps the most direct threats to communities as they can have a greater negative impact on adjacent properties values, neighborhood pride, and the safety of the community at large. Even before a property becomes vacant, the condition of the lot can impact the surrounding neighborhood. Foreclosure alone has been linked to a reduction in property values of nearly 1% for lots within 1/8 mile (Alexander & Powell, 2011). A study of Flint, Michigan, found

that the presence of a vacant structure resulted, on average, in a 2.26% decrease in the value of properties within 500 feet. Cities also bear a financial burden in addition to reduced tax revenue. A 2005 study of Chicago, Illinois, found that abandoned buildings imposed a cost to the City of nearly \$20,000 before being foreclosed on (Apgar, Duda, & Gorey, 2005).

As property values and rents decline, landowners are less likely to keep up with basic maintenance, as they view it to be a wasted investment in a failing neighborhood, known as the *Broken Window Theory*. This is the case for many rental properties and those held as speculative investments, as they are valued mostly for their short-term financial return and owners conduct little or no maintenance as they wait for market conditions to improve and property values to increase. If the market does not improve and the owner then sees the property as a lost investment, residents are left with subpar living conditions until the property is abandoned, condemned, or foreclosed (Goldstein, Jensen, & Reiskin, 2001). When such conditions persist, cities will often issue code violations that require the homeowner to improve their property. Neighborhoods with high rates of chronic code violators are common in shrinking cities and in many cases have unintended consequences, often resulting in financial hardship and foreclosure, rather than remedying the violation (Newman, Park, Bowman & Lee, 2018).

Vacant Land Management Strategies

With so many intersecting issues in shrinking cities, the presence of vacant and abandoned property serves as both a challenge and an opportunity. A number of shrinking cities have made an effort to focus revitalization around addressing vacant properties, with strategies ranging from planting community gardens to fundamental changes in land use planning. Strategies require varying levels of funding, staff time, and community involvement, and are somewhat dependent on the physical and legal status of the property. See Table 3 below for an abridged description of key vacant land management strategies and Appendix B for a detailed review of principal literature on these strategies.

Table 3. Vacant Property Management Strategies.

Strategy	Description	Application	Requirements	Potential Benefit
Alternative/Temporary Uses	Repurposing vacant lots as temporary gathering spaces, art installations, or other uses	Vacant lots	Funding and organizational/community capacity to operate and maintain	Neighborhoods stabilization, community building, increased property values for adjacent properties, spur private investment
Building Rehabilitation/Reuse	Rehabilitating vacant or abandoned structures to be usable and occupiable spaces	Vacant structures	Funding, labor, mortgage/loan approval, and an interested buyer if not already privately owned	Neighborhood stabilization, increased tax revenue, blight removal, incentivizes better maintenance
Code Enforcement	Issuance of code violations to incentivize proper maintenance and identify potential hazardous properties	Vacant structures	Funding and staff time	Identifies blight properties and requires repair
Community Gardens	Repurposing vacant lots as community gardens, planted and maintained by nonprofits, community organizations, or residents	Vacant lots	Funding and organizational/community capacity to operate and maintain	Neighborhood stabilization, community building, food production
Demolition	Demolition of blighted vacant or abandoned structures to reduce threat to neighborhood	Vacant structures	Funding and labor	Neighborhood stabilization, blight removal, reduces development barriers

Table 3. Vacant Property Management Strategies Cont.

Strategy	Description	Application	Requirements	Potential Benefit
Development Incentives	Offers financial assistance, reduced development and code requirements, or tax abatement for redevelopment by private organizations or individuals	Vacant lots or structures	City-level policy development and funding	Facilitates redevelopment, reduces costs
Foreclosure Prevention	Offers foreclosure prevention counseling or financial assistance to struggling residents	Residential properties	Funding and staff time	Supports struggling property owners, prevents vacancy/abandonment
Greening	Repurposing vacant lots as green space by planting and maintaining vegetation. Greening can also include conversion of vacant lots into low impact development stormwater treatment sites	Vacant lots	Funding and staff time to maintain	Neighborhood stabilization, site remediation, reduces development barriers, increased property values for adjacent properties of up to 30%, crime reduction, health benefits, spur private investment
Homeownership Incentives	Incentivizes or assists with homeownership through tax abatement, down payment assistance, or low/no-interest home loans	Residential properties	City-level policy development and funding	Neighborhood stabilization, increase tax revenue
Land Banking	Acquisition and maintenance of vacant property by a city or nonprofit organization	Vacant lots or structures	Legal standing and funding	Moves property to City control, blight removal, site remediation, facilitates redevelopment
Landlord License/Registration and Fees	Requires landlords to be licensed and pay fees	Rental properties	Staff time and funding	Incentivizes good landlord behavior, helps track/contact landlords, creates funding source for nuisance abatement/receivership
Land Use Forecasting	Allows cities to predict areas of future vacancy or development with high accuracy	All properties	Funding and staff time	Determine where future vacancy or development will occur, inform vacancy strategies
Nuisance Abatement	Court order to remedy a nuisance violation, the cost of which is placed as a lien against the property	Residential properties	Legal standing and funding	Neighborhood stabilization, blight removal, incentivizes better maintenance
Receivership	Transfer of ownership to court appointed receiver who agrees to improve and maintain property	Vacant structures/ rental properties	Legal standing, court procedures, staff time, funding, and labor	Neighborhood stabilization, blight removal, supports tenants, prevents vacancy/abandonment, incentivizes good landlord behavior and property maintenance
Resale/Redevelopment	Selling vacant properties to be redeveloped or to adjacent landowners to join with a larger parcel as a side-lot	Vacant lots	Interested buyer, financial capacity, site remediation, mortgage/loan approval, market strength	Neighborhood stabilization, returns property to tax role
Right-Sizing	The strategic realignment of a city's built environment to better suit its current population by re-concentrating remaining residents in urban centers and finding new and productive uses for underutilized property	Land use and comprehensive plan development	Political will. Legal challenges may arise as implementation may require displacing and relocating residents	Reduces urban footprint and municipal costs
Spot Blight Eminent Domain	Seizure of blighted properties through eminent domain. Often combined with demolition or other strategies	Vacant structures	Legal standing and court procedures	Moves property to City control, blight removal
Property Tax Reform	Creation of new or improved property tax policies that change the taxation rate or payment structure	All properties	State-level policy change	Supports struggling property owners, incentivizes rehabilitation/redevelopment

Source: Accordino & Johnson, 2000; Wachter, 2005; Schilling & Logan, 2008; Mallach, 2010; Alexander & Powell, 2011; Heckert & Mennis, 2012; Mallach, 2012; Appel, Botti, Jamison, Plant, Shyr, & Varshney, 2014; Johnson, Hollander, & Hallulli, 2014; Nemeth & Langhorst, 2014; Hummel, 2015; Center for Community Progress & New York Land Bank Association, 2017; Madanipour, 2017; Mallach, 2017; National Trust for Historic Preservation, 2017; Lee, Newman, & Park, 2018; and Mallach, 2018. Creator: Author.

Barriers to Management and Redevelopment

With structural abandonment perhaps the most chronic condition of shrinking cities, programs and policies to address this issue must be developed with a complete understanding of the barriers that could limit their effectiveness. Barriers to building reuse and vacant land redevelopment fall into three categories: physical, financial, and regulatory and institutional. While these barriers are produced in a number of ways, many of which are outside the control of city governments, well-crafted policies and programs have the ability to mitigate or eliminate them. See Table 4 below for an abridged description of barriers to effective vacant land management and redevelopment and Appendix B for an expanded literature review.

Table 4. Barriers to Vacant Land Management and Redevelopment.

Barrier Type	Description	Example
		Shape, size, or slope of the property
	Makes property or neighborhood	Site contamination/brownfield
Physical	unattractive for residents or developers. Physical barriers often incur and are	Derelict structure
	closely connected to financial barriers.	Discontinuous urban fabric/scattered properties
	discory contributed to interioral barriers.	Poor quality infrastructure/public realm
		Site remediation/demolition
		Structural rehabilitation/renovation
		Relatively high price of urban land
Financial	Makes purchase and redevelopment of property financially inviable.	Tax/financial encumbrances
i ilialiciai		Weak market strength
		Lack of applicable financing options/assistance
		Eligibility requirements for incentives/assistance
		programs
		Incompatible zoning/code requirements
		Lengthy/convoluted property acquisition and disposition processes
	Deters or prevents purchase and	Antiquated tax foreclosure policy/process
Dogulator /Institutional	redevelopment due to antiquated	Legal encumbrances
Regulatory/Institutional	administrative/legal procedures and strict	Unknown/unresponsive property owner
	development requirements.	Lack of leadership/poor organizational
		structure/information silos
		Lack of identification and monitoring of vacant property

Lack of identification and monitoring of vacant property Source: Goldstein, Jensen, & Reiskin, 2001: Apgar, Duda, & Gorey, 2005: Alexander, 2015: National Trust for

Historic Preservation, 2017; and Mallach, 2018. Creator: Author.

CHAPTER 4: CASE - ROCHESTER, NEW YORK

Community Profile

Population:

206,290

Median Age:

31.9

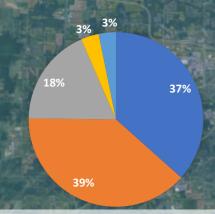
Less than High School Education:

19.5%

Population in Labor Force:

61.9%

Racial Makeup



■ White ■ Black or African American ■ Hispanic or Latino ■ Asian ■ Other Figure 5. Rochester Racial Make-up. Source: U.S. Census Bureau.

Median Household Income:

\$33,399

Poverty Rate:

32.6%

Median Home Value: Median Home Value:

\$82,000

Owner Occupancy:

36.3%

Occupied Housing Units:

86.5%

Rochester



Figure 6. Rochester in the Northeast. Source: visitrochester.com

History of Rochester

Flour to Flower (1803-1949)

Starting as no more than a plot of land built up around Western New York's Genesee River, the Village of Rochesterville was founded by three military men following their purchase of the 100-acre tract in 1803. Formerly the home territory of the Seneca Nation, one of the five members of the Iroquois Confederacy, following the defeat of the British after the Revolutionary War, the Seneca were forced to sign over millions of acres of land to the U.S government in the Treaty of Big Tree (Livingston County Historical Society, 1897). By the late 1830's, with a population already well over 10,000 people, Rochesterville was a booming mill town and the nation's largest producer of flour, becoming dubbed "The Flour City." Less than two decades later, as the mill industry began to take a stronger foothold farther west, the City's economy began its first of several economic transitions. As flour mills closed, the seed and nursery industry began to blossom, largely centered around two well-known horticulturists living in the city. Soon the newly donned "Flower City" was again flourishing, with its new parks system designed by Frederick Law Olmsted becoming one of the region's main attractions (City of Rochester, 2019).

Though at the time known mostly as a regional economic hub, Rochester was also known for its outspoken and innovative-minded civic leaders. As industry became well established, so too did the City's reputation as a leader in the abolitionist and women's suffragette movements. Both Frederick Douglass and his famed publication The North Star, and Susan B. Anthony, made Rochester their home, making it the center of two ideological revolutions and igniting the progressive flame that has come to define the City. In addition to these social justice leaders, Rochester was also known for its industrial and entrepreneurial innovators. While staple businesses such as Genesee Brewing Company and optics titan Bausch & Lomb were beginning to take hold in the local economy, it was Rochester's most legendary figure, George Eastman, that played perhaps the most influential role in the City's rise to fame and prosperity. Starting with the founding of the Eastman Kodak Company in 1880, Eastman would go on to

found a number of the region's anchor institutions, including the world renowned Eastman School of Music, the Eastman Theater, and the Eastman Dental Center, as well as making significant investments in the University of Rochester (City of Rochester, 2019).



Figure 7. Main Street Bridge. Rochester, New York, 1929. Source: Rochester Municipal Archives





In part due to Rochester's reputation as a civil rights hub, starting in the late 1940's, the City experienced a major influx in African Americans, as they moved north to escape persisting racism and Jim Crow laws. Within a span of less than 20 years, Rochester's African American population increased by roughly 300%, but these new residents were met with far from a warm reception. Many of the same type of discriminatory education, employment, and housing policies that black residents were hoping to move away from were very present in Rochester, greatly limiting their ability to thrive or even get established in the community. To push back against the racist institutions that sought to suppress them, local residents and civil rights groups banded together to form the Integrated Non-Violence Committee and were successful in electing Constance Mitchell, the first African American to hold public office in Rochester. As local government began to embrace the racial and cultural transformation they were experiencing, Mitchell and others pushed for greater scrutiny of government and business policies and practices. Even with this progress, racial tensions in the community were still very present, coming to a head at the 1964 Race Riots, with the National Guard being called in to squash the unrest (City of Rochester, 2019).

At the same time, demographics were rapidly changing with suburbanization, as mostly white residents left the City by the tens of thousands. This out-migration, combined with new forms of home mortgages and a quickly expanding highway system, not only led to the beginning of Rochester's long decline in population, but a mass exodus of wealth and power from the City. As demand for residences in the City sharply fell, so too did property values and tax revenue. Neighborhood transformations soon gave rise to concentrated pockets of poverty, as redlining and other discriminatory practices created significant limitations on where black residents were able to locate. The effects of increased poverty then snowballed into the decay of City schools and decreased employment opportunities, causing many of the few remaining white residents to leave. This cycle of population loss and urban decay was felt across the City, causing a number of major downtown businesses to close or relocate (City of Rochester, 2019).

As employment centers moved to more suburban areas, the development of

Monroe County continued to be increasingly organized around the automobile. The diversity of jobs located in the City decreased dramatically, and the low-skilled and entry-level positions that were once a staple of the local economy were no longer there. Many of the low-income residents living in Rochester then had to commute to the suburbs to work, with many higher-paid workers commuting in the opposite direction. With less and less economic activity being focused in the City, services and infrastructure began to break down, with the diminishing quality of urban life further segregating those of different socioeconomic strata (City of Rochester, 2019).

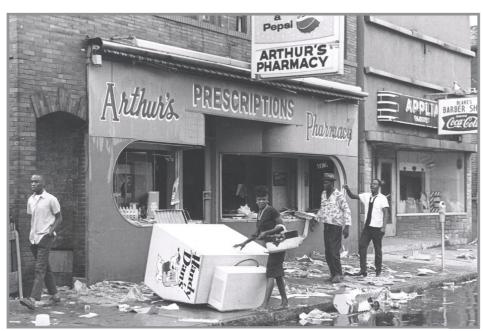


Figure 8. Aftermath of Race Riots. Rochester, New York, 1964. Source: City of Rochester

At its peak in the mid-1980's with over 60,000 employees, Eastman Kodak was not only the world's leader in film and camera production but also the center of Rochester's economy and largest contributor to the city's success. The 1960's gave rise to the third of Rochester's "Big Three" industrial titans, the

Xerox company. However, with rapid technological advances and the birth of the digital age came great change to Rochester's economy. Due to changes in organizational structure, increasing production costs, and new competition, the Big Three began to lose their status as leaders in their respective industries and by the 1990's it was clear that yet another economic transformation was on the horizon (City of Rochester, 2019).

Rochester Today (2000-present)

Though Rochester's many-decade decline in population has slowed significantly since 2000, today the City looks much different than it did during its height in the 1950's. In contrast to its industrial roots, Rochester's main employment sector is now Education, Health, and Social Services. Though not new players in the City's economy, three new powerhouse institutions emerged as leaders towards the turn of the 21st century. Wegman's Food Markets, one of the Northeast's premier grocers and #3 on Fortune Magazine's list of top 100 companies to work for in 2020, Rochester Regional Health, a major healthcare provider since the mid-1880's, and the University of Rochester are now the new Big Three and the foundation of the City's economy, employing over one-quarter of the population (City of Rochester, 2019). In addition to the significant level of employment offered by the Big Three, Rochester is also home to a thriving small business sector , with over 15,7000 small time employers making up over 60% of the City's total number of businesses (City of Rochester, 2019).

High foreclosure rates persist in Rochester and have been closely tied to vacancy and abandonment, with New York being one of the least foreclosure resilient states in the country (*see Figure 9*). As national foreclosure rates peaked in 2009 following the onset of the 2008 recession, nearly all New York counties saw foreclosure rates continue to rise as the rest of the country was in recovery (Wang and Immergluck, 2019). As can be expected in an area with low demand and an excess of housing stock, home sale prices in Rochester are some of the lowest in the country. Low prices make it difficult for many residents to build equity, with property values at nearly half of county-wide levels, it does help maintain the City's affordability. Among all households, nearly 25% of those that are owner-occupied, and 57% of those that are renter-occupied, are considered

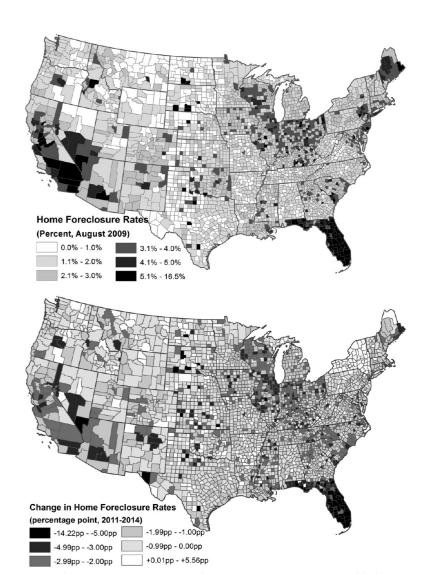


Figure 9. Home Foreclosure Rates. Source: Wang and Immergluck, 2019.



cost-burdened, spending at least 30% of their annual income on housing. However, this is more a product of low wages than it is expensive housing costs, as the average renters' annual income is less than half that of homeowners (City of Rochester, 2019).

While Rochester is still grappling with the effects of its multi-decade decline, the City has many assets that are leveraged within its community revitalization efforts, at both neighborhood and City-wide levels. In addition to top employers and strong anchor institutions, Rochester's arts and culture scene is consistently ranked among the top 20 in the Southern Methodist University National Center for Arts Research's Arts Vibrancy Index. Rochester's rich history of innovation has also held fast, with the City ranked #1 in the nation in 2015 for U.S. patents granted per 1,000 workers. Manufacturing also continues to be relatively strong in Rochester. Though no longer the nation's leader, a number of the City's companies, both old and new, are leaders in their respective fields, with a competitive and growing technology industry. Job growth is currently on the rebound in Rochester, with overall employment increasing by approximately 1.6% annually (Data USA, 2017). Rochester's higher education institutions have continued to expand despite the City's population and industrial decline, with the Greater Rochester Area being #3 in the nation in college degrees per capita (US Department of Education, 2018, City of Rochester, 2019).

Rochester's Vacancy Policy Framework

Rochester's city government recently made a concerted effort to address the continued prevalence of vacancy and abandonment. After decades of decline, starting in the mid-2000's, the City of Rochester began to fundamentally change the way it viewed and addressed the effects of prolonged population and industrial decline. To understand Rochester's efforts to combat issues of vacancy and abandonment, the following policy framework outlines the City's past and present vacancy and revitalization related policies and programs.

Past Planning and Policy Efforts

Starting in 2008, Rochester's Focused Investment Strategy (FIS) sought to change how the City invested in vulnerable neighborhoods by developing more targeted revitalization efforts. The strategy established four distinct quadrants around the City's most in-need areas and 20% of all annual Community Development Block Grant (CDBG) funds were reallocated and matched by the City to be spent specifically on neighborhood rehabilitation and physical built environment improvements. This major shift in the City's investment strategy successfully diverted over \$17 million in public funds over the 7-year lifespan of the program and leveraged an additional \$74 million in private investment. Overall, the program was deemed a success, renovating and constructing dozens of affordable residential units and completing a number of public realm catalyst projects. A 2016 program evaluation concluded that "FIS... made visible, tangible changes in the neighborhood fabric - if not on every property in each FIS Area" (p.3, City of Rochester Department of Neighborhood and Business Development, 2016). The evaluation also noted that selecting four discrete areas in which to focus investments may have been beyond the capacity of the City given their limited resources. If a similar effort was to be made in the future, only one or two areas should be selected in order to maximize the program's impact (City of Rochester Department of Neighborhood and Business Development, 2016).

In 2009, following the publication of From Blight to Bright: Project Green, a comprehensive right-sizing report, the City of Rochester launched its Project Green initiative.

"Faced with limited resources and a decreasing population, the city must take bold steps to ensure that Rochester remains a vital, successful, and thriving community. Growing smaller does not have to mean declining."

- City of Rochester, 2009, pg. 8

Focused on converting vacant lots to green space and maintaining them for future development, the program was a hybrid greening/land banking effort developed

to establish the process and funding for the future land bank. Emphasis was placed on the development of a more organized demolition strategy, citing the ineffective practice of rather random demolitions that had done little to stabilize the neighborhoods they were located in. While the title and mission of the program are largely focused around the "green(ing)" element, in reality it offered little in the way of identifying funding and ways of sustaining the program long-term, turning the effort more into warehousing vacant properties (Hackworth, 2015, City of Rochester, 2008). Though innovative for its time and valiant in its vision of improving quality of life through rightsizing, for a number of reasons, including staff and administration turnover, the program was never fully implemented

Current Efforts

Even with recent progress in reducing vacancy rates throughout the city, Rochester continues to prioritize issues around vacancy and abandonment in its guiding planning documents. Published in 2019, the City's most recent comprehensive plan, Rochester 2034, identifies vacancy as one of its most pressing problems, as well as an opportunity for revitalization and community building. The plan provides a narrative around vacant land and subsequent redevelopment opportunities that is carried throughout Rochester 2034 and its supplemental plans and studies, identifying it as a vital part of the City's current and future health and prosperity. The documents address vacancy and related issues in two fundamental ways: identification and monitoring, and reuse and redevelopment. Emphasis is placed on increasing the productivity of city-owned vacant parcels by either leveraging them for housing and transportation related development projects, or promoting a variety of community-based and temporary uses such as community gardens, stormwater infrastructure, community solar, and art and beautification projects (City of Rochester, 2019).

Many of the strategies outlined in Rochester 2034 are based on the findings of the supporting Rochester 2018 Citywide Housing Market Study. This comprehensive study analyzed variables that determine housing market condition, with many connected to historic patterns of decline and vacancy. Data analyzed includes, but is not limited to, terms of property sale, assessed value

and sale price, foreclosures, and various components of property distress such as code violations and vacate orders. The product of this analysis was then used to create Rochester's Housing Market Typologies (HMS Typologies) establishing seven demand classifications and three overall market condition categories, with goals and strategies detailed for each (City of Rochester, 2018). Weak market typologies cover almost all areas of high vacancy, making it a useful tool for informing the City's vacancy strategy (see Figure 10. See also Tables 5.1 and 5.2 for descriptions and identified strategies for each typology).





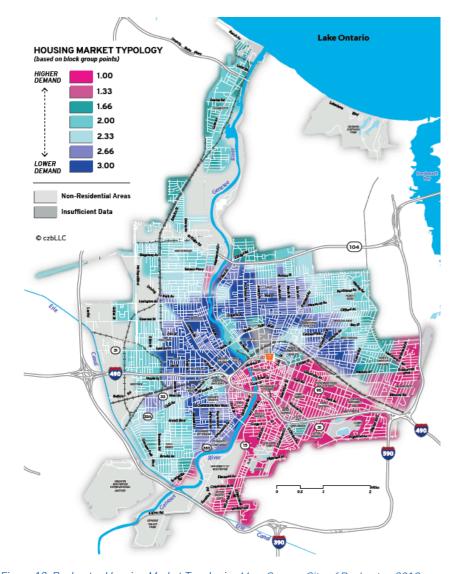


Figure 10. Rochester Housing Market Typologies Map. Source: City of Rochester, 2019.

Table 5.1 HMS Typologies Description

Typology	Demand Level	Description
Strong Market	1.00 1.33	High property values and incomes Relatively high demand and development activity High housing quality and neighborhood condition Highest population densities and concentration of rental units
Middle Market	1.66 2.00 2.33	Moderate incomes and property values Relatively stable markets, but with little growth Mostly single-family, owner-occupied properties Housing quality and neighborhood conditions vary and are significantly influenced by the condition and market of adjacent areas Growing demand for rental properties
Weak Market	2.66 3.00	Low property values and incomes Home to the City's most marginalized and vulnerable residents Low population density and owner occupancy levels Poor housing quality, neighborhood condition, and property maintenance levels Distressed investment properties are in abundance, with investors valuing properties for short-term return High crime

Source: City of Rochester 2018

Source: City of Rochester, 2018.						
Table 5.2 HMS Typologies Goals and Strategies.						
Typology	Goals	Strategies	Investment			
Strong Market	Leverage private investment Promote existing market strength Test and grow new markets and housing types Compete for larger share of regional housing demand Increase economic diversity Grow the City's tax base	Encourage and support new mixed-use and mixed-income development and housing types Raise gap financing to pay for moderate- to low-income units Targeted property acquisition, rehab, and sale by Land Bank and other partners Grow housing market Targeted code enforcement Selective demolition Support community building Beautify public realm Focus right-of-way investments and amenities near key corridors	Private			
Middle Market	Leverage high homeownership rates Help homeowners create value, build equity, and grow community Build, support, and grow neighborhood confidence, identity, leadership, and self-management Increase economic diversity Grow the City's tax base	Targeted property acquisition, rehab, and sale by Land Bank and other partners First time homebuyer incentives Foreclosure prevention and financial assistance Test and grow new markets and housing types Establish and strengthen neighborhood relationships Proactive code enforcement Strategic demolition Invest in community gathering places Support community building Beautify public realm Focus right-of-way investments near key corridors and other assets	Private/Public			
Weak Market	Re-position vacant and abandoned property as an asset for future leverage Reduce poor quality housing Address housing affordability Connect residents and families with community programs and services Promote community building Stabilize property values	Reduce excess housing Acquire and hold vacant land for future redevelopment Support mid-term re-use of vacant lots Focus new investment near existing assets and transition market areas Convey properties to partners for re-use Identify and cultivate responsible landlords Continue proactive code enforcement Market and cross promote existing services and programs Host community building events Beautify public realm Focus right-of-way investments near key corridors and other assets	Public			

Source: City of Rochester, 2018.

The City has a number of other programs and policies designed to address issues of vacancy and abandonment. Both the City of Rochester and Monroe County work to identify and monitor vacant properties through code enforcement, an online property database, and a vacant and abandoned property task force. BuildingBlocks, the City's property database, is used to monitor all parcels in the City of Rochester and hosts a number of other data points around property attributes and other factors related to issues of vacancy, including code violations, foreclosures, lis pendens, and crime (BuildingBlocks, online). Code enforcement is then used by the City's Bureau of Buildings and Zoning to physically monitor vacant properties and identify those that may become vacant. Enforcement is the City's primary method of addressing hazardous or unsafe deficiencies in property condition and maintenance. The Monroe County Vacant and Abandoned Property Task Force, a collaborative between local government, law firms, local nonprofits, lenders, and other partners, serves three main functions: vacancy prevention, vacant property identification and monitoring, and structural rehabilitation (Monroe County Vacant and Abandoned Property Task Force, online).

One of the main mechanisms for addressing vacancy is the Rochester Land Bank Corporation, established in 2013. The Land Bank has preferred bid power on vacant properties, allowing them to place a trump bid that eliminates any subsequent bidding. It may also bid on behalf of pre-qualified developers to expedite the redevelopment process and reduce costs. The Land Bank operates in conjunction with other City programs and partner organizations to demolish, rehabilitate or redevelop, and sell properties to qualified buyers (Rochester Land Bank Corporation, 2020). For City-owned vacant lots, a "clean and green" method is used, grading, seeding, and mowing them regularly at an average cost of \$260 per lot per year, totaling roughly \$650,000 annually city-wide. Bollards are installed around the perimeter of the property to discourage illegal dumping (City of Rochester, 2019). Properties containing blighted structures are subject to the City's demolition program, removing roughly 100 structures annually. Demolition costs are approximately \$20,000 per structure, with some site remediation costs remaining for future owners, as 1/3 of the foundation is filled in and buried on-site (City of Rochester, online, City of Rochester, 2019).

The City of Rochester offers several forms of financial assistance and incentives focused mostly around homeownership and rehabilitation. These programs are broadly applicable to owner-occupied properties, with various other income and credit related eligibility requirements. All of these programs and policies play instrumental roles in the City's efforts to address vacancy and will be the subject of the discussion and recommendations offered in the following chapters of this report. These programs are outlined in Table 6 on page 21.



Table 6. Financial Assistance and Incentive Programs.

Туре	Name	Provider	Description	Location Applied	Eligibility Requirements
Homeownership	Home Purchase Assistance Program	City of Rochester	Down payment and closing cost assistance for first-time homebuyers of single-family or two-family homes. Maximum grant of \$3,000.	Strong Market: 67 (10%) Middle Market: 544 (83%) Weak Market: 45 (7%) (2007-2017)	Be a first-time homebuyer Have an income of no more than 120% AMI Be able to qualify for a mortgage loan \$1,500 minimum buyer contribution Agree to occupy the property as a primary residence for at least 5 years after closing Must attend multiple homebuyer training sessions
Assistance	Employer Assisted Housing Initiative	City of Rochester	Down payment and closing cost assistance of up to \$9,000, with City funds matched by participating employers and lenders.	Strong Market: 353 (48%) Middle Market: 365 (50%) Weak Market: 19 (2%) (2007-2017)	Potential buyers may not currently own another home in the city \$1,500 minimum buyer contribution Be able to qualify for a conventional mortgage Agree to occupy the property as a primary residence for at least 5 years after closing Must attend multiple homebuyer training sessions if a first-time homebuyer Be employed by qualified partnering employer
Vacant Lot/Structure Rehab and Redevelopment	HOME Rochester	Greater Rochester Housing Partnership	Vacant single-family homes are renovated and sold to income-eligible first time buyers.	Strong Market: 8 (2%) Middle Market: 314 (71%) Weak Market: 120 (27%)	Be a first-time homebuyer Have an income of no more than 80% AMI Be able to qualify for a conventional, fixed-rate mortgage \$1,500 minimum buyer contribution Agree to occupy the property as a primary residence for at least 15 years after closing Must attend multiple homebuyer training sessions
	Neighborhood Builders	Greater Rochester Housing Partnership	New homes built on vacant city lots and sold to income-eligible buyers.	Strong Market: 0 (0%) Middle Market: 11 (73%) Weak Market: 4 (27%)	Potential buyers must have an income of no more that 80% AMI Be able to qualify for a mortgage
Tax Exemption	Capital Improvements to Residential Property	City of Rochester	Temporarily exempts owners of single-family homes and duplexes from paying property taxes on the increased property value from eligible capital improvements.	Strong Market: 183 (38%) Middle Market: 164 (34%) Weak Market: 138 (28%)	Complete capital improvement project on single- or two-family home
	Basic STAR	City of Rochester	Relieves homeowner tax burden for households making less than \$500,000 and exempts the first \$21,000 of assessed value from city and school taxes tax burdens, particularly for seniors.	Strong Market: 6,011 (27%) Middle Market: 12,148 (54%) Weak Market: 4,288 (19%)	Be an income eligible homeowner or senior
	Emergency Assistance Repair Program	City of Rochester	Provides financial assistance for emergency repairs or replacement of hot water tanks, furnaces, or broilers for homeowners who have lived on the property for at least one year at the time of application.	Unknown	Applicants must be the owner of the property.
	Owner Occupant Roof Program	City of Rochester	Provides financial assistance to repair or replace roofs, gutters, downspouts, chimneys, soffits, or venting for owner-occupied single-family homes.	Unknown	 Property must be located within city limits and be in "good condition," excluding structures that have been damaged by fire, are structurally compromised, or have been severely neglected.
Home Rehabilitation and Repair	I Housing Rehabilitation and Repair Program	City of Rochester	Provides financial assistance for repairs to address lead-based paint hazards, health and safety hazards, and other environmental issues for owner-occupied single- and two-family homes. This program is limited to "areas where the most gain can be achieved as identified in the City's Housing Market Study to support neighborhoods where housing development projects are located and to mitigate blight and hazards citywide."	Unknown	Household income for owner-occupied may not exceed 80% AMI and for rental properties, tenants' household income may not exceed 50% AMI. Landlords must contribute 10% of the cost of the improvement. Property owner must not have received any form of assistance from the city for a lead hazard control program within the past 7 years. County taxes, City property taxes, and water bill payments must be up to date and not subject to tax foreclosure. Property owner must be up to date on all mortgage payments and not subject to
	Lead Hazard Control Program	City of Rochester	Provides financial assistance to remove lead-based paint hazards for one- to four-family homes that house children under the age of 6. This is the only program applicable to rental properties and requires that they are rented at or below fair market value to low- and moderate-income families for at least 5 years after the repair.	Unknown	foreclosure. • Property owner must sign a Program Agreement, Note and Mortgages and agree to maintain the property as their primary residence for 5 years.

Source: City of Rochester, 2018.

21

CHAPTER 5: FINDINGS

Descriptive Statistics

The following sections compare the presence of neighborhood condition factors on various types of properties in Rochester.

Occupancy Status

Compared to owner-occupied properties, those that are renter-occupied are much more likely to be the site of vacancy related hazards and factors of poor neighborhood condition, including foreclosure, code violation, crime, and vacancy. 60% of properties currently in foreclosure and 89% of all vacant properties in Rochester are classified as renter-occupied. Rental properties tend to be located in weak market areas.

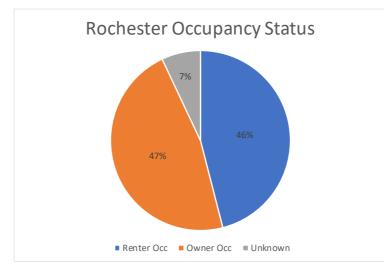


Figure 11. Rochester Occupancy Status. Source: BuildingBlocks, online.

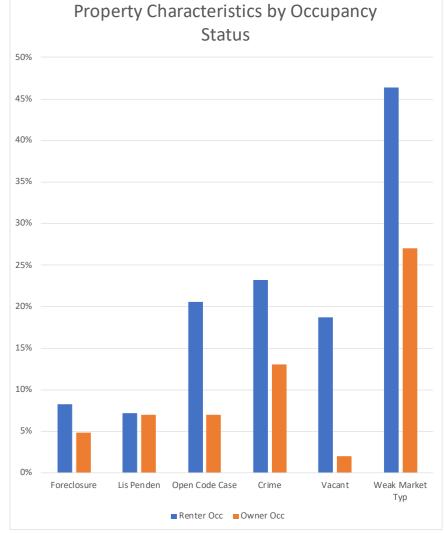


Figure 12. Property Characteristics by Occupancy Status. Source: BuildingBlocks, online.

Owner Location

Compared to properties with in-state owners, those with out-of-state owners are much more likely to be the site of vacancy related hazards and factors of poor neighborhood condition, including lis penden, code violations, crime, and vacancy. Properties with out-of-state owners tend to be located in weak market areas.

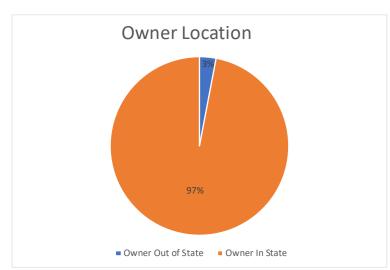


Figure 13. Owner Location. Source: BuildingBlocks, online.

Property Characteristics by Owner Location

■ Owner Out of State ■ Owner In State

Figure 14. Property Characteristics by Owner Location. Source: BuildingBlocks, online.

Vacancy Type

Compared to vacant lots, properties with a vacant structure present are much more likely to be the site of vacancy related hazards and factors of poor neighborhood condition, including code violations and crime. Both vacant lots and structures tend to be more located in weak market areas.

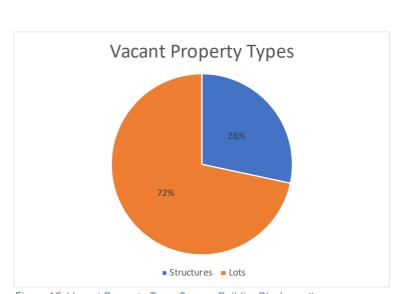


Figure 15. Vacant Property Type. Source: BuildingBlocks, online.

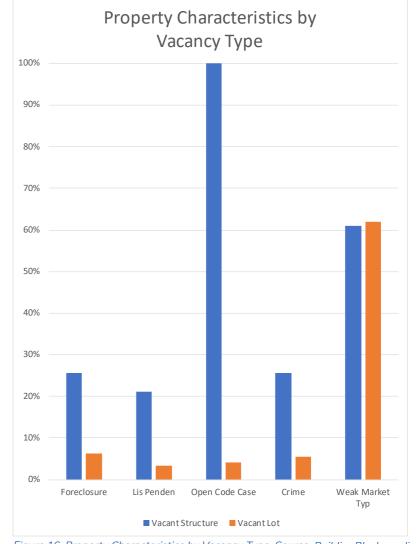


Figure 16. Property Characteristics by Vacancy Type. Source: BuildingBlocks, online.

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Spatial Analysis

Across all variables analyzed in the study, several distinct spatial patterns emerge. The City of Rochester's vulnerable populations, vacant properties, and various indicators of poor neighborhood condition are often located in the same areas. Vacancy, crime, tax foreclosures, open code violations, low property values, lower incomes, lower education attainment, higher unemployment, non-white residents, and residents under 18 years of age are largely concentrated just to the north and west of City center, while higher incomes, higher property values, and white residents being mostly concentrated in the southeast region and the peripheries of the City (see Figures 17-19).

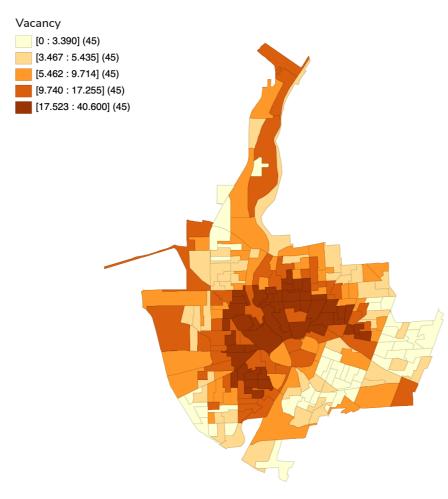


Figure 17. Vacancy. Source: BuildingBlocks, online.

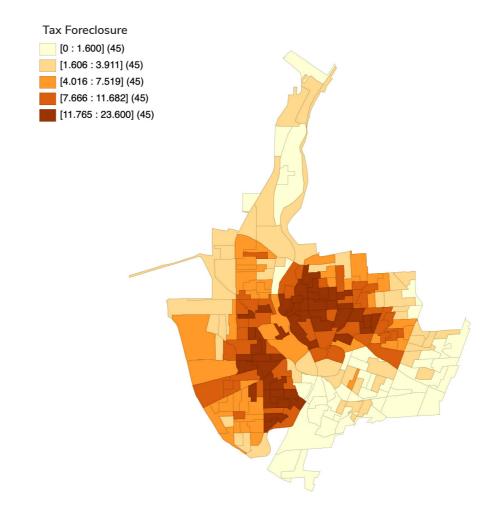


Figure 18. Tax Foreclosure. Source: BuildingBlocks, online.

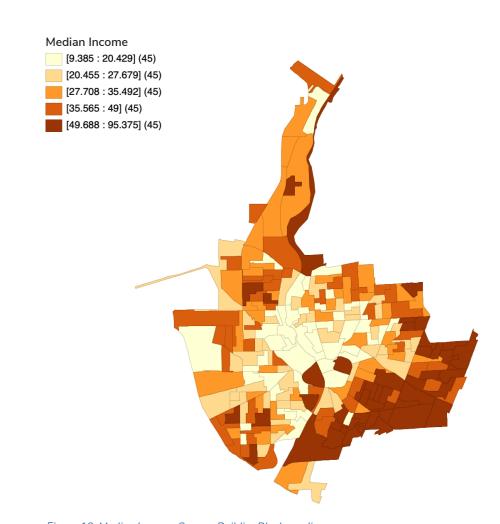


Figure 19. Median Income. Source: BuildingBlocks, online.

Global Moran's I Index values for vacancy and a number of the other variables analyzed, are above 0.5 at the 95% confidence level, indicating the clustering effect of Block Groups with these traits. See Figures 20 and 21 and Moran's I Spatial Autocorrelation Analysis in Appendix C for complete findings.

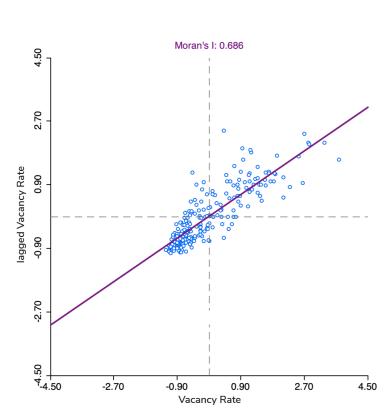


Figure 20. Local Moran's I Vacancy Scatter Plot. Source: BuildingBlocks, online.

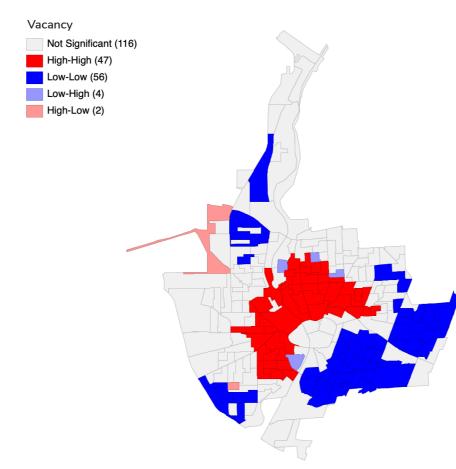


Figure 21. Local Moran's I Vacancy Cluster Map. Source: BuildingBlocks, online.

Correlation Analysis

Vacancy and all indicators of vulnerable populations analyzed show strong collinearity. This indicates that these factors are closely related and that an increase or decrease in vacancy will produce a reciprocal change in the rate of vulnerable populations in that Block Group.

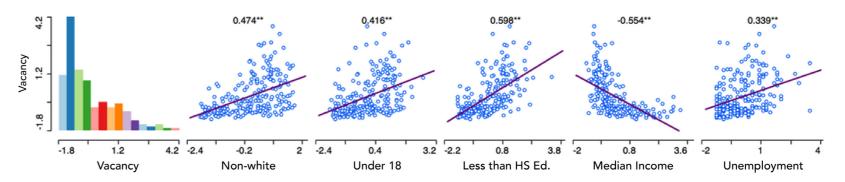


Figure 22. Vacancy and Vulnerable Populations. Source: BuildingBlocks, online; U.S. Census Bureau.

HMS Typology and all indicators of vulnerable populations analyzed show strong collinearity. This indicates that these factors are closely related and that higher or lower typologies will produce a reciprocal change in the rate of vulnerable populations in that Block Group.

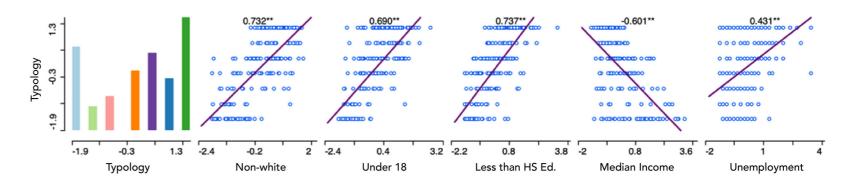


Figure 23. Typology and Vulnerable Populations. Source: BuildingBlocks, online; U.S.



To understand the factors that are the strongest predictors of vacancy, I ran six multivariate regressions in SPSS.

Model Fit

Table 7 shows the R² values for the models run in this project. Both OLS models explain a considerable portion of the variability recorded. For both the Vacant Lots and Vacant Structures models, Lot Condition variables explained more of the variation than Neighborhood Condition, indicating that these factors are the strongest predictors of vacancy. Between the two models, both Neighborhood Condition and Lot Condition are better predictors of vacant structures than vacant lots. Across the non-combined variable models, the greatest amount of variability accounted for is in the Vacant Structure model, with 76% being explained by Lot Conditions. As can be expected, with all models, the Combined variable set has the greatest explanatory power.

Table 7. Model Fit

	Regression Model		
Vairable	Vacant Lot (OLS)	Vacant Structure (OLS)	
Neighboorhood Condition	0.429/0.413	0.611/0.600	
Lot Condition	0.556/0.543	0.761/0.754	
Combined	0.618/0.596	0.776/0.763	

Source: BuildingBlocks, online; U.S. Census Bureau.

Regression Results

The strongest statistically significant predictor of areas with high rates of vacant lots is Median Income, followed by Lis Pendens and Tax Foreclosures. For areas with high rates of vacant structures, the strongest statistically significant predictor is Median Property Value, followed by Open Code Violations and

Foreclosures. This illustrates the nuances that exist when analyzing the different effects and influences of vacant lots versus vacant structures. Overall, in the City of Rochester, areas with low property values and median incomes, higher foreclosure rates, greater instances of code violations, and less instances of lis pendens tend to have higher vacancy rates. Among indicators of neighborhood condition and vulnerable populations, all except non-white populations returned statistical significance results for either vacant lots, vacant structures, or both. In addition to non-white populations, occupancy status was found to be the weakest predictor of vacancy. See Table 8 on page 30 for complete regression results.

The following chapter provides a more in-depth discussion of these findings.

Table 8. Regression Results.

	Regression Model		
Vairable	Vacant Lot (OLS)	Vacant Structure (OLS)	
Neighboorhood Condition			
Constant	**13.779	0.992	
% Non-white	-0.017	0.008	
% Under 18	0.046	**0.029	
% Less than HS Ed.	**0.010		
Unemployment Rate	0.017		
Median Income (logged)	**-3.504		
Crime Rate	**0.258		
Vacancy Rate	N/A	N/A	
Lot Condition			
Constant	**17.092		
Tax Foreclosure Rate	**0.639		
Lis Pended Rate	**-0.642		
% Open Code Violation	-0.093		
% Owner Out of State	**0.558	**0.113	
% Owner Occupied	*-0.032		
Median Property Value (logged)	**-2.129	**-0.624	
Combined			
Constant	**17.839	1.092	
% Non-white	-0.001	-0.005	
% Under 18	0.028		
% Less than HS Ed.	0.052		
% Unemployment	0.01	**0.038	
Median Income (logged)	*-1.851	-0.014	
Crime Rate	**0.201	*0.020	
Tax Foreclosure Rate	**0.436		
Lis Pended Rate	**-0.694	-0.003	
% Open Code Violation	**-0.168	**0.154	
% Owner Out of State	0.245	0.082	
% Owner Occupied	-0.005	0.008	
Median Property Value (logged)	-1.197	**-0.492	
Vacancy Rate	N/A	N/A	

^{* - 90%} Confidence (0.10)

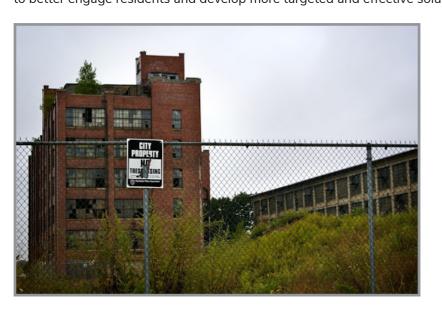
Table 6. Regression Results	Regression Model		
Vairable	Vacant Lot (OLS)	Vacant Structure (OLS)	
Neighboorhood Condition			
Constant	**13.779	0.992	
% Non-white	-0.017	0.008	
% Under 18	0.046	**0.029	
% Less than HS Ed.	**0.010	**0.045	
Unemployment Rate	0.017	**0.067	
Median Income (logged)	**-3.504		
Crime Rate	**0.258	**0.077	
Vacancy Rate	N/A	N/A	
Lot Condition			
Constant	**17.092	*1.967	
Tax Foreclosure Rate	**0.639		
Lis Pended Rate	**-0.642	0.005	
% Open Code Violation	-0.093	**0.165	
% Owner Out of State	**0.558	**0.113	
% Owner Occupied	*-0.032	0.006	
Median Property Value (logged)	**-2.129	**-0.624	
Combined			
Constant	**17.839	1.092	
% Non-white	-0.001	-0.005	
% Under 18	0.028	0.006	
% Less than HS Ed.	0.052		
% Unemployment	0.01	**0.038	
Median Income (logged)	*-1.851	-0.014	
Crime Rate	**0.201	*0.020	
Tax Foreclosure Rate	**0.436		
Lis Pended Rate	**-0.694		
% Open Code Violation	**-0.168	**0.154	
% Owner Out of State	0.245	0.082	
% Owner Occupied	-0.005		
Median Property Value (logged)	-1.197	**-0.492	
Vacancy Rate	N/A	N/A	

^{** - 95%} Confidence (0.05)

The three categories of independent variables can be found on the left side of the chart under the Variable heading and dependent variables are shown on the top of the chart under the Regression Model heading. Source: City of Rochester, 2018.

CHAPTER 6: DISCUSSION AND RECOMMENDATIONS

The wicked problem of vacant and abandoned properties has no single cause and is the product of a web of interrelated issues that have been evolving for decades. Thus, Rochester must understand the complexity of the problem when seeking to define and address it. The keys to doing this revolve around developing strategies that complement each other, working together to address multiple elements of the problem simultaneously, and applying a collaborative approach to engage and empower residents. By fostering better relationships with community members and organizations, the City can apply their acute knowledge of the places they live in to identify problem properties early and apply solutions that are mutually beneficial (Mallach & Brachman, 2013). Another important part of this is understanding and specifically addressing the social issues related to vacancy, such as poor property maintenance and crime. Employing strategies that directly improve how comfortable and safe people feel in their neighborhoods will not only produce benefits for quality of life and increase the opportunity for community building but will also in turn help the area's market strength. A reframing of the City's vacancy strategy may be needed to better engage residents and develop more targeted and effective solutions.



Expected Findings Reviewed

- Tax foreclosure, property values, code violations, crime, and median income will all be statistically significant predictors of vacancy.
 - a. Confirmed Tax foreclosure, code violations, and crime were found to be statistically significant predictors of both vacant lots and structures. Property value was only found to be a statistically significant predictor of vacant structures, while median income was only found to be a statistically significant predictor of vacant lots. See Table 8.
- 2. The location of vulnerable populations will closely coincide with areas of high vacancy.
 - a. *Confirmed* All the factors of vulnerable populations analyzed showed strong collinearity with vacancy. *See Figure 22.*
- 3. The City of Rochester's current efforts to address vacancy are most applied in middle and strong market areas, as well as those in transition, leaving out weak market areas.
 - a. *Confirmed* The majority of Rochester's programs around vacant property rehabilitation and redevelopment and promoting homeownership are applied in middle and strong market areas. *See Table 6.*
 - Denied Demolished structures and vacant properties acquired by the City are mostly located in weak market areas with high vacancy. See Analysis Maps in Appendix C.
- 4. Vulnerable populations have less resources and forms of assistance available to them to address issues of vacancy.
 - a. Confirmed Vulnerable populations have less resources and assistance available to them due to the City's vacancy efforts being applied mostly in middle and stronger marker areas and having eligibility requirements that do not align with resident characteristics. See Table 6 and Figure 23.

The key takeaways of this research are:

- Vacancy is prevalent in Rochester, with areas with higher rates of vacant lots, structures, and other factors concentrated together in pockets across the city.
- Issues of vacancy and abandonment disproportionately affect vulnerable populations and the City's current efforts do not adequately serve them.
- Rental properties are most likely to become vacant and create multivalent liabilities for neighborhoods.
- Vacant properties pose a significant threat to neighborhood safety and property values.
- The growth paradigm is still present in Rochester's efforts to address vacancy.

The recommendations developed out of this research are:

- Enhance and expand programs that assist vulnerable residents in becoming homeowners and preventing abandonment.
- Create pathways to rental property repair and better maintenance.
- Take a lead role in renovating and reusing vacant and neglected structures in weak market areas.
- Develop a collaborative, resident-focused right-sizing strategy.
- Develop a comprehensive strategy that simultaneously removes development barriers, employs complementary strategies, and allows for experimentation.

Each of the takeaways of this research directly relates to and represent one or more of the barriers to vacant land management discussed in Chapter 3. I offer one stand-alone takeaway, four that are paired with recommendations to address them, and one stand-alone recommendation. These pairings are listed in order of priority, from most urgent to least. The recommendations proposed herein do not attempt to address larger underlying structural issues at play, such as economy and education, but merely seek to mitigate their effects by helping stem the downward forces in Rochester's cycle of decline.

Overall Takeaway

Vacancy is prevalent in Rochester, with areas with higher rates of vacant lots, structures, and other factors concentrated together in pockets across the city.

Due to a mix of historic, racial, and economic factors, vacancy rates and neighborhood conditions vary drastically across Rochester. Distinct neighborhoods range from those with higher incomes, lower diversity, and a well-maintained built environment, to those that are more segregated, have significantly lower incomes and property values, and have decaying infrastructure and housing stock. In areas of high vacancy, tax foreclosure and code violations continue to show the strongest relationship to and influence on neighborhood condition. Priority should be given to addressing these factors specifically (see Table 8). Factors of neighborhood condition also tend to cluster, affecting the surrounding areas and feeding into a cycle of decline (see Figures 20 and 21). As vacancy and related factors co-locate and at higher concentrations, so too do the City's vulnerable populations, continuing historic patterns of racial and socioeconomic segregation and compounding the issues already faced by these groups. In these places, policies and programs must be developed that are multifaceted and address the numerous factors contributing to vacancy simultaneously to ensure efforts are both efficient and effective. See Appendix C for complete results of this spatial analysis.

Takeaway: Issues of vacancy and abandonment disproportionately affect vulnerable populations and the City's current efforts do not adequately serve them

Vulnerable populations, including single parents, children, low-income and cost-burdened individuals, those with less than a high school education, and people of color, disproportionately reside in areas of higher vacancy and those identified as weak market typologies (see Rochester Vacancy Policy Framework in Chapter 4). Though not all indicators of vulnerable populations were statistically significant predictors of vacancy, they did show strong collinearity, indicating that they are more affected by issues of vacancy, as shown in Table 8, Figure 22, and Figure 23. Herein lies the wickedness and self-reinforcing nature of the cycle of decline, as those who are most resource constrained and with the least amount of capital available to them live in the places in most need of those things. This indicates the need for additional efforts to be made that specifically support these populations and neighborhoods, with a focus placed on the social and financial aspects of vacancy and abandonment.

At the same time, many of the City of Rochester's resident-based programs intended to address issues of vacancy are not equally distributed across the City, with a relatively small portion applied in weak market areas and some specifically targeted toward transition and stronger market areas (see Table 6). Many of these programs have eligibility requirements that leave out a significant portion of the population and the neighborhoods that are most in-need. The eligibility requirements for most of the City's programs limit potential applicants to homeowners or first-time home buyers, those who can be approved for a mortgage, are fully current with City taxes and fees, and in the case of home repair programs, have houses that are in "good condition." For many, these requirements are not attainable and even for those with adequate financial standing, many have had their future lending opportunities marred by the looming shadow of the 2008 Recession. This mismatch between eligibility and residents likely means that those who do use these programs are of a higher income bracket and potentially less diverse.

The City's HMS Typologies may also be under-serving some residents in the way it is designed to inform how and where investments and programmatic

efforts are focused. By reducing the City's neighborhoods to HMS Typologies, the human element and cultural capital of these areas are diminished. The typologies also indicate that weak market areas are not a wise place for investors to spend their money, which while working to support other areas, places too much reliance on both the availability of public funding itself and the continued good decisionmaking around where and how public investments are made. This is where some of the broader, one-size-fits-all strategies fall short and do not serve all Rochesterarians equally. Programs and policies that can mix public and private investment and leverage capital in different ways depending on the characteristics of the neighborhood may produce more equitable outcomes. Market typologies can still be a helpful tool to inform such policies but creating a diversity of funding sources would benefit weak market areas as well and the City could incentivize private investment to varying degrees depending on market strength. In some cases, it may be preferable for some individuals to live in weaker market areas, despite the typologies implying they are less desirable.

Lastly, code enforcement itself as a universal tool to tackle vacancy, though effective for identifying blighted properties and incentivizing proper maintenance, may also create undue hardship for vulnerable residents. Without alternative means to remedy such code violations and with resource scarcity being common for these residents, a strategy intended to remove blight may in fact create it. When low-income and cost-burdened residents are not able to pay the fees incurred, they are sent down the path to tax foreclosure and the likelihood that their homes will be abandoned increases substantially. Even though code enforcement is still a necessary tool for helping to maintain the health, safety, and welfare of the community, it must be carried out in a manner that fully considers the consequences it has and the people it affects.

Recommendation: Enhance and expand programs that assist vulnerable residents in becoming homeowners and preventing abandonment

Strategy 1: Relax eligibility requirements for City offered programs and further support other community-based efforts.

The mismatch between eligibility requirements and residents is likely one of the biggest hurdles residents face when attempting to address issues of vacancy and abandonment. Not only do many of the City's existing programs prefer those with greater capacity and available assets, they leave out a great number of residents and neighborhoods in most need of assistance. Expanding or relaxing these eligibility requirements could be an impactful way to engage residents across all parts of the City and ensure that solutions are applied equitably. To better serve residents and fuel private investment in weak market areas, programs focused on assisting with homeownership and structural repair and rehabilitation should have their eligibility requirements relaxed for vulnerable residents specifically. Eligibility should not be solely determined by past financial history or the location of the property. Financial contribution and current financial standing should still be a base requirement, but others must be based on and tailored to those who live in these places and not just prospective outsiders. The City should develop creative financing alternatives to mortgage approval that work with privatesector and nonprofit organizations to establish a line of credit and build equity for residents. Further supporting and helping build community land trusts can

also be an effective tool for assisting vulnerable residents in purchasing homes and building equity.



- Existing homeownership and repair programs
- City Roots Community Land

Strategy 2: Provide greater technical and financial assistance to vulnerable residents

With code enforcement as an effective strategy to identify potentially hazardous properties and those in need of repair assistance, the City should develop sliding-scale fees that are based on the number and frequency of the violations. This structure can then be paired with alternative pathways to address violations that prevent further burden on the homeowner. Struggling and vulnerable residents could be paired with a case worker to coordinate and assist in achieving compliance. Case workers can connect in-need residents to various assistance programs offered through the City or those offered by community-based organizations. Similarly, directly partnering with residents can increase the use and effectiveness of other foreclosure prevention strategies. Creating lenience in

City property tax payments for those experiencing short-term financial hardship could help residents immensely. More lenience could take the form of further promoting, leveraging, and directly supporting programs and partnerships with community-based organizations that offer foreclosure prevention assistance for homeowners. Simply making residents aware of program availability is a crucial first step.



Example:

- The City of Rochester's Home Rehabilitation and Repair Programs
- Pathstone's Home Rehabilitation and Energy Services Program
- NeighborWorks Home Rehab Grants
- Milwaukee's Tax Incremental Districts (Take Root Milwaukee, online)

Takeaway: Rental properties are most likely to become vacant and create multivalent liabilities for neighborhoods

Renter-occupied properties are most likely to become vacant in Rochester and outside of vacant structures, are most likely to experience almost all of the indicators of poor neighborhood condition. Part of this is poor property management and maintenance practices by absentee landlords, with outof-state property owners serving as a strong predictor of vacancy (see Table 8) and when compared to in-state owners, properties of out-of-state owners are much more likely to experience crime, have an open code violation, and become vacant (see Figure 12). These private rental properties negatively impact the surrounding neighborhood and may discourage good maintenance practices for nearby properties. Rental properties in poor condition are also a particular threat to vulnerable residents, with renters as a whole in Rochester being more diverse and having lower incomes.



Recommendation: Create pathways to rental property repair and better maintenance

Strategy 1: Foster better landlord maintenance practices through licensing, fees, and incentives

A number of strategies are being used to address this issue around the county, including Rochester's own newly created housing section in the district court. In addition to providing a financial remedy to tenants suffering poor housing conditions, the City should explore stricter landlord requirements and pathways to repair. As a basis for this effort, landlord registration and licensing allow the City to better keep track of landlords and hold them accountable for poor property conditions. Landlord fees can also incentivize property maintenance. Landlord security deposits can be collected to establish a fund to cover the costs of emergency repairs, nuisance abatement, or receivership. The City would charge these security deposits on a per dwelling unit basis, with landlords owning less than four units being exempt, as to not burden small, private owners. Rental impact fees can also be collected to account for added stresses on infrastructure and municipal services (Mallach, 2010).

Landlord licensing can also help landlords establish a record of property maintenance and management. For those with a proven good record, fees can be discounted or waived to incentivize good practices. Similarly, those who

participate in crime-free housing and landlord training courses can have fees waived or reduced. Offering additional incentives that offer grants or loans for property improvements, easily accessible and discounted properties, assistance finding tenants, free advertising, free inspections, and other forms of technical and financial assistance have also been proven to foster better landlord behaviors (2010).

Example:

Borough of Ridgefield, New Jersey's landlord security deposits

- (Mallach, 2010).

 Utah Good Landlord Program
- Utah Good Landlord Program (Mallach, 2010).

Strategy 2: Add receivership and nuisance abatement to the arsenal of the district court's housing section

For rental properties with a history of unremedied code violations, nuisance abatement and receivership should be used to ensure repairs are made and in a timely manner. Receivership can be used for currently occupied rental units to allow tenants to stay in their homes and minimize the amount of time that these properties are a hazard to their residents and the surrounding neighborhood. Receivers, such as local Community Development Corporations or other nonprofits, would then collect rents from tenants. Once repairs have been made, the receiver has the option to retain ownership of the property, selling it under agreement of retaining current residents, or transferring it to a licensed landlord with a history of good property management (Kelly, 2004; New York State Unified Court System, online). Depending on the structure of the program, some form of compensation could be provided to the original owner of the subject property. This process must be transparent and adequate notifications made to all parties to avoid potential legal challenges.



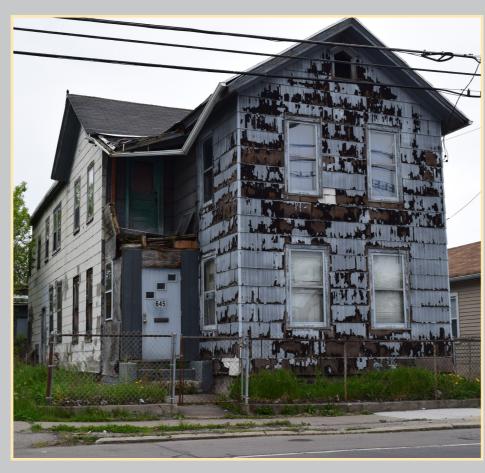
 Baltimore's Vacant Building Receivership Ordinance (Kelly, 2004).

Takeaway: Vacant properties pose a significant threat to neighborhood safety and property values

Vacant structures are shown to be most detrimental to neighborhood condition and likely have a significant impact on adjacent properties and the health, safety, and welfare of the community as a whole. In particular, crime and code violations were found to be strong predictors of vacancy and are much more likely to occur on properties with vacant structures (see Table 8 and Figure 16). The scattered distribution of occupied properties in Rochester leaves less eyes on the street and presents an opportunity for crime to go unaddressed. Poor condition of these properties is likely discouraging good maintenance and lowering the values of

adjacent properties. These properties are a nexus for many of the issues plaguing struggling neighborhoods, and should be top priority in Rochester's efforts to address vacancy and related issues.

With the City's vacancy efforts largely focused on identification and maintenance of vacant properties and reuse and redevelopment, those designed to prevent vacancy and abandonment are lacking. Strategies identified by the City to prevent vacancy, such as foreclosure prevention or building rehabilitation and repair, are often those carried out by, or in partnership with, nongovernmental community organizations. Though promoting and supporting these programs is essential, reliance on them to prevent the creation of vacant properties is insufficient. Unless the City fully invests in and prioritizes these efforts, their vacancy strategy will continue to be reactionary and unable to adequately address the underlying causal factors. When fully incorporated, not only will strategies to prevent vacancy benefit residents and neighborhoods, but they will contribute to greater community resilience now and in the future.



Recommendation: Take a lead role in renovating and reusing vacant and neglected structures in weak market areas

Strategy 1: Expand current programs and find new ways to support and incentivize structural repair and rehabilitation

Once a property has become vacant, there is a limited amount of time during Once a property becomes vacant, there is a limited amount of time during which a building can be salvaged before it is dilapidated and in need of demolition. The 2018 Housing Market Study identified property reuse as a desired strategy to employ, citing the success of Baltimore's Vacants to Value program (City of Rochester, online). Identifying the highest need neighborhoods with significant rates of vacant structures as "community development clusters" can help target areas that could benefit from mass rehabilitation, similar to the City's 2008 FIS. The HOME Rochester program works similarly, but its application is limited in some areas and only allows rehabbed homes to be sold to first-time buyers. Expanding the program to allow for rehab of rental properties or building reuse

would benefit the City. Expanding tax exemptions, providing tax credits, and offering development incentives and expedited review are also effective ways to incentivize rehabilitation and reuse of structures, especially when direct funding is lacking.



- HOME Rochester
- Baltimore's Vacants to Value Program (Mallach, 2017).
- South Carolina's Abandoned Buildings Revitalization Act (National Trust for Historic Preservation, 2017).
- Phoenix's Adaptive Reuse Program (National Trust for Historic Preservation, 2017).

Strategy 2: Use receivership and nuisance abatement to repair and rehabilitate derelict structures

Though potentially costly endeavors, receivership and nuisance abatement should be considered for neglected vacant structures. These strategies can prevent vacant structures from posing further detriment to the community, as well as reduce their likelihood of becoming derelict and needing demolition. Both work to address negative impacts on the surrounding neighborhood and create a path to timely remedying when owners cannot be located, are unresponsive, or are unable to make the necessary repairs (Kelly, 2004; Mallach, 2018). Not only does such an effort return properties to more productive uses, but can incentivize other property owners to make the necessary improvements to their home. Various other forms of expedited property disposition processes work to minimize the amount of time properties lie dormant and exacerbate neighborhood condition. Receivership for vacancy properties can be used in tandem with the other repair and rehabilitation programs mentioned above.



4. Takeaway: The growth paradigm is still present in Rochester's vacancy strategy

The City continues to move towards more informed policy around vacancy with the 2018 Housing Market Study and the strategies it identifies as perhaps their most comprehensive yet. The City is carefully considering many of the key factors that determine neighborhood condition. However, the growth-oriented planning paradigm is still somewhat in effect in Rochester, as can be seen in the lack of long-term alternative uses for vacant land. The short-term leasing, gardening, and other greening and community-based programs continue to operate under the concept that vacant land will be returned to a more productive use soon. Preserving these lands for future development is a tempting prospect, but in many places, such as weak market areas and those with the highest vacancy rates, it is highly unlikely demand will return in the near future. In these areas, finding more long-term or permanent uses for these properties may be appropriate and produce lasting benefit for the community. While programs like Project Green and similar right-sizing efforts may meet community opposition and require significant political will, they may ultimately be the most realistic and effective and should not be discounted. Though there are few examples, if any, of cities that have fully and successfully applied right-sizing, this is largely due to the top-down approach often used.





Recommendation: Develop a collaborative, resident-focused rightsizing strategy

Strategy 1: Implement long-term or permanent greening strategies in weak market areas and those with high vacancy rates

Instead of a 5-year outlook for properties, weak market areas and those struggling with chronic vacancy should be viewed at least at a 10-20 year timeline. Assessing these properties in the context of an ongoing 60+ year trend of decline, it is clear that demand will likely not return for at least several decades to come. Applying more long-term or permanent alternative uses for vacant lots in these areas will create lasting assets for communities and has been shown to contribute significantly to neighborhood stabilization, increase property values, reduce crime, benefit health, and improve overall neighborhood satisfaction and quality of life for residents (Nemeth & Langhorst, 2014, Madanipour, 2017).

With the recent test of the Implied Dedication Rule in Glick v. Harvey, which formerly deterred cities from implementing temporary park space on vacant cityowned lots, municipalities can now do so without worry of being barred from development later on (Breidenbach, 2016).

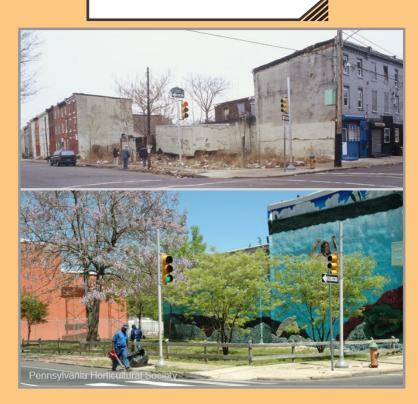
"In Glick, the New York Court of Appeals essentially held that temporary parks are not subject to protection under the public trust doctrine if and when a municipality documents the park's temporary status."

- Breidenbach, 2016, pg. 16

Provided this assurance, Rochester should consider converting vacant lots into parks and open space. Understanding the City's current budget constraints, the type of greening and locations applied should be chosen carefully, working with residents to identify those that are most beneficial to the community. Working with residents to implement these strategies can then provide local employment and enhance the effort's effectiveness and longevity. Through more collaborative, resident-focused policy development and implementation, Rochester can offer a new model for equitable greening and right-sizing.



• Philadelphia's PHS Landcare program (PHS, online).





Develop a comprehensive strategy that simultaneously removes development barriers, employs complementary strategies, and allows for experimentation

Strategy 1: Experiment with vacant land strategies by implementing pilot programs

Vacant properties present both threats and opportunities for Rochester and should be seen as an urban laboratory for applying new and innovative strategies. While selecting one neighborhood from a Block Group over another may be met with resistance, the costs of inaction are much greater. Many of the proceeding recommendations are new or have not been tested in the context of Rochester. Developing pilot programs similar to the 2008 FIS, but that only focus on one or two areas, would allow the City to try a strategy before considering broader application and investment. To do this, the City should use a model similar to Baltimore's Vacants to Value program, that identifies community development clusters most in need of revitalization. Based on my spatial analysis of vacancy

and related factors, I recommend focusing one of the following groups of census tracts:

- Group 1 (Census Tracts 96.01, 96.02, 96.03, 96.04, 21, and 2)
- Group 2 (Census Tracts 48, 49, 50, 51, and 52)
- Group 3 (Census Tracts 55, 56, and 57)



Example:

- Baltimore's Vacants to Value program (City of Baltimore, online).
- Milwaukee's Neighborhood Improvement Districts (NIDs) and Targeted Investment Neighborhoods (TIN) program

Strategy 2: Use new and emerging land use modeling software to help inform vacancy strategies

Several recently developed land use forecasting models have been shown to predict where future vacancy and development will occur with high accuracy (Lee, Newman, & Park, 2018; National Trust for Historic Preservation, 2017;

and Appel, Botti, Jamison, Plant, Shyr, & Varshney, 2014). With these new technologies, it is no longer a guessing game to determine where future demand will occur. By identifying those areas where longer-term strategies are best suited, the City can apply them with confidence and without concern of preventing development later on, while still contributing to incremental parcel- and neighborhood-level transformation.



- Land Transformation Modeling (Lee, Newman, & Park, 2018).
- Preservation Green Lab's Reuse Opportunity Model (National Trust for Historic Preservation, 2017).
- IBM's Foreclosure Modeling used in Syracuse, NY (Appel, Botti, Jamison, Plant, Shyr, & Varshney, 2014).
- Johnson, Hollander, & Hallulli's Municipal Shrinkage Planning Model (Johnson, Hollander, & Hallulli, 2014).

Strategy 3: Combine complementary strategies that simultaneously remove barriers and incentivize reuse and redevelopment

As the City continues to develop and improve its vacancy strategy, it must make sure that all its efforts inform and complement each other. This can be done in a number of ways but starts with establishing an organizational structure that prizes information sharing and cross-agency communication. One of the lessons learned from the many other cities trying to tackle these issues is that it is local governments themselves that often create some of the biggest barriers to developing and applying solutions. In Rochester, these barriers include incompatible zoning and programs that are too broad or cannot be applied where needed most. Home rehabilitation, receivership, and other programs should be applied in tandem with enhanced tax foreclosure and property disposition processes to create a multi-faceted approach that maximizes program

effectiveness. The City should perform a comprehensive review of all the process elements that are related to the production, management, and redevelopment of vacant land. as they may be adding undue strain on other aspects of the City's efforts. Rochester's vacancy strategy needs to be streamlined, simple, accessible, and more transparent to maximize efficiency and ease of use. The success of such an effort lies within its overarching goal to create a strategy with numerous, yet cohesive elements designed with a complete understanding of the challenges faced by residents and local governments when seeking to improve their neighborhoods.



Example:

- Preservation Green Lab's Model Adaptive Reuse Ordinance and Zoning Overlay (National Trust for Historic Preservation, 2017).
- San Diego's three-part strategy:
 1) Landlord Training Program,
 2) Notice of Intent Process, 3)
 Abandoned Properties Ordinance (Accordino and Johnson, 2000).
- Buffalo's Green Code (Ross, 2017).

Table 9. Recommendations

		Barrier Type		
Recommendation	Strategy	Physical	Financial	Regulatory/ Institutional
Enhance and expand programs that assist vulnerable residents in becoming homeowners and	Relax eligibility requirements for City offered programs and further support other community-based efforts			х
preventing abandonment.	Provide greater technical and financial assistance to vulnerable residents		х	x
Create pathways to rental property	Foster better landlord maintenance practices through licensing, fees, and incentives			х
repair and better maintenance	Add receivership and nuisance abatement to the arsenal of the district court's housing section	х	x	x
Take a lead role in renovatinge and reusing vacant and neglected	Expand current programs and find new ways to support and incentivize structural repair and rehabilitation	х	x	
structures in weak market areas	Use receivership and nuisance abatement to repair and rehabilitate derelict structures	х	х	x
Develop a collaborative, resident- focused right-sizing strategy	Implement long-term or permanent greening strategies in weak market areas and those with high vacancy rates	х		х
Develop a comprehensive strategy	Experiment with vacant land strategies by implementing pilot programs			x
that simultaneously removes development barriers, employs	Use new and emerging land use modeling software to help inform vacancy strategies			x
complementary strategies, and allows for experimentation	Combined complementary strategies that simultaneously remove barriers and incentivize reuse and redevelopment	х	x	x

The recommendations offered herein acknowledge that all efforts require the allocation of precious funding and staff-time, and whatever strategies are applied, they must use a long-term cost-benefit analysis. At the same time, research has already proven that effective revitalization and vacancy strategies can produce economic gains that far outweigh the costs, in addition to providing unquantifiable improvements to quality of life for residents. The element of time is imperative, and decisionmakers should make it a guiding consideration. Additional focus should also be given to the struggling and under-served populations, as the City can only be as strong as its weakest neighborhood or resident.

CHAPTER 7: CONCLUSION

Like many other Rustbelt cities across the country, Rochester has experienced the challenges that result from prolonged industrial decline and population loss. Vacancy and abandonment rise to the top as the most visible and pervasive problems, requiring comprehensive solutions that actively work to improve quality of life for residents. However, with almost any revitalization effort comes the potential for gentrification. While the effects of revitalization are somewhat unavoidable, there are ways that the City can mitigate them by implementing complementary policies to support vulnerable residents, maintain neighborhood affordability, and minimize the likelihood of displacement. Rochester runs the risk of providing only short-term relief that contributes to continued neighborhood decline and the segregation of vulnerable residents. If implemented correctly, policies will not only improve quality of life for residents but can generate a number of other benefits and positive externalities that increase community resilience.

Ultimately, better vacancy and housing policy won't be a one-size-fits-all solution. Though many of the economic factors relating to vacancy and abandonment are outside the City's control, finding ways to influence the determinants of residents' income and ability to purchase a home, such as educational attainment, may be the best way to address the cause of these issues. Focused investment in the City's schools would likely produce the greatest long-term benefit and work to reduce foreclosure, vacancy, and abandonment issues, as well as being the best way to build community capacity.

Despite the prevailing issues of vacancy and abandonment in Rochester, the City made significant progress in recent years to mitigate its effects and has immense human and cultural capital that can be leveraged as it continues to revitalize its neighborhoods. As they have already proven, the City understands the severity of vacancy and abandonment and policymakers have made it a top priority. With continued focus and pulling from the lessons learned in other shrinking cities and the findings of this research, Rochester may yet become a national leader in vacancy policy and once again be a thriving, livable City that offers a high quality of life to all residents.









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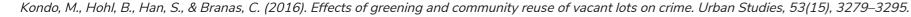
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APPENDIX A: ROCHESTER'S VACANCY POLICY FRAMEWORK

Past Efforts

Focused Investment Strategy (FIS) - 2008

In 2008, the City of Rochester adopted the Focused Investment Strategy (FIS), which sought to change how the city invested in vulnerable neighborhoods through developing more targeted revitalization efforts. Four distinct quadrants were established around the city's most in-need areas and 20% of all annual Community Development Block Grant (CDBG) funds were reallocated and matched by the city to be spent specifically on neighborhood rehabilitation and physical built environment improvements. This major shift in the city's investment strategy successfully diverted over 17 million dollars in public funds over the 7-year lifespan of the program towards neighborhood improvements. The main strategies employed by the program included enhanced code enforcement, building rehab, demolition, greening, infrastructure investments, and various forms of public realm improvements. In addition to the funds invested directly by the city itself, it was estimated that the program was also able to leverage an additional 74 million dollars in private investment. Overall, the program was deemed a success, renovating and constructing dozens of affordable residential units and completing a number of public realm catalyst projects. A 2016 FIS program evaluation concluded that "FIS... made visible, tangible changes in the neighborhood fabric - if not on every property in each FIS Area" (p.3, City of Rochester Department of Neighborhood and Business Development, 2016). Among the evaluation criteria used in the evaluation, improve local housing markets and neighborhood vitality was the only area that saw little or no progress towards the program's goals. The evaluation also noted that selecting four discrete areas to focus investments in may have been beyond the capacity of the city given their limited resources and if a similar effort is made in the future, only one or two areas should be selected in order to maximize the program's impact (City of Rochester Department of Neighborhood and Business Development, 2016).

Project Green - 2009

In 2009, following the publication of From Blight to Bright: Project Green, a comprehensive right-sizing report, the City of Rochester Launched its Project Green initiative. The program was an early example of cities explicitly acknowledging and addressing the reality of being a shrinking city.

"Faced with limited resources and a decreasing population, the city must take bold steps to ensure that Rochester remains a vital, successful, and thriving community. Growing smaller does not have to mean declining"

- City of Rochester, 2009, pg. 8

Focused on converting vacant lots to green space and maintaining them for future development, the program was a hybrid greening/land banking effort developed to establish the process and funding for the future land bank. Properties included in Project Green were planted and maintained as green space with the hopes of spurring or aiding neighborhood revitalization. This involved a range of vacant and abandoned property management strategies, including vacant land acquisition, decommissioning public infrastructure, resident relocation, and the demolition of nearly 3,000 dwellings. Emphasis was placed on the development of a more organized demolition strategy, citing the ineffective practice of rather random demolitions that did little to stabilize the neighborhoods they were located in. The publication also discusses the parallels between it and the city's history of racially driven blight removal with the intention of using a more informed process to avoid a repeat of past injustices. To achieve this, the effort was designed to be based around community involvement to identify how and where to focus revitalization efforts. However, it is unclear if those elements were carried out, with some skepticism arising from the lack of details around how relocation might occur and the distinct lack of language around future affordable housing development. While the title and mission of the program are largely focused around the "green(ing)" element, in reality it offered little in the way of identifying funding and ways of sustaining the program long-term, turning the effort more into simply a move to warehouse vacant properties (Hackworth, 2015, City of Rochester, 2008). Though innovative for its time and valiant in its vision of improving quality of life through right-sizing, for a number of reasons, including staff and administration turnover, the program was never fully implemented.

Current Efforts

Prioritizing Vacancy

Even with recent progress in reducing vacancy rates throughout the city, Rochester continues to prioritize issues around vacancy and abandonment in its guiding planning documents. The city's most recent comprehensive plan, Rochester 2034, published in 2019, identifies vacancy as one of its most pressing problems and as an opportunity for revitalization and community building. A narrative around vacant land and subsequent redevelopment opportunities was developed and carried throughout Rochester 2034 and its supplemental plans and studies, identifying it as a vital part of the city's current and future health and prosperity. The documents address vacancy and related issues in two fundamental ways: identification and monitoring, and reuse and redevelopment. With the issues tied to vacancy and abandonment well known, the city has created a vision for mitigating these effects through expanding current efforts and proposing new ones. Emphasis is placed on increasing the productivity of city-owned vacant parcels by leveraging them for housing and transportation related development projects or by promoting a variety of community-based and temporary uses, such as community gardens, stormwater infrastructure, community solar, and art and beautification projects. Code enforcement is also frequently cited throughout many of the documents as a vital instrument for tackling hazardous properties that are or could become vacant. Throughout the plans, collaboration with community partner organizations plays a significant role in the city's efforts, identifying groups and funding sources that seek to assist residents with homeownership and home rehabilitation and construction. Action plans detailed in Rochester 2034 connect these partnerships to larger

goals and strategies for various topic areas, with vacant land opportunities being incorporated throughout (Rochester 2034).

Many of the strategies outlined in Rochester 2034 are based on the findings of the 2018 Citywide Housing Market Study. This comprehensive study analyzed a number of variables that determine housing market condition, with many being in some way connected to historic patterns of decline and vacancy. Data analyzed includes, but is not limited to, terms of property sale, assessed value and sale price, foreclosures, and various components of property distress such as code violations and vacate orders. The product of this analysis was then used to create Rochester's Housing Market Typologies (HMS Typologies), establishing seven demand classifications and three overall market condition categories, with goals and strategies detailed for each (see Figure 10. See also Tables 5.1 and 5.2 for descriptions and identified strategies for each typology).

The findings of the study are intended to inform future policy, program, and investment decisions, with neighborhood typology being the guiding factor. The 5 key findings of the study are:

- "Rochester is a soft market within a soft regional market."
- "There are three distinct patterns of housing demand in Rochester each with distinct problems and opportunities to address."
- 3. "Very low incomes not high housing costs are at the root of affordability challenges in Rochester and cannot be solved by housing policy."
- 4. "Virtually all housing development in Rochester requires subsidy either to induce or assist."
- 5. "Growing Rochester's limited share of the regional housing demand is necessary to strengthen the City's markets and financial capacity."

Rochester Land Bank Corporation

In 2012, the State of New York passed Assembly Bill A373A, known as the Land Bank Act, empowering local governments to create and operate land banks with the intent of returning vacant, abandoned, and tax-delinquent properties to

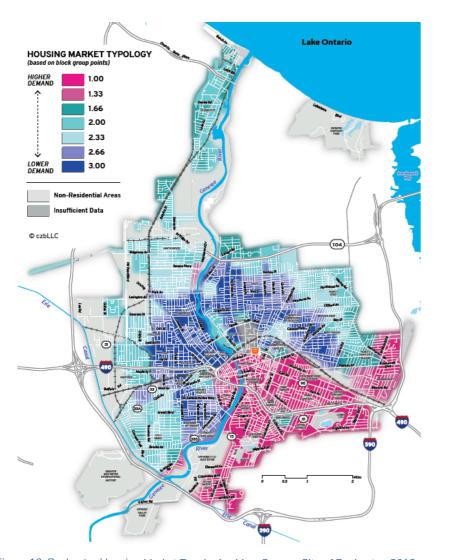


Figure 10. Rochester Housing Market Typologies Map. Source: City of Rochester, 2019.

Table 5.1 HMS Typologies Description.

Typology	Demand Level	Description
Strong Market	1.00 1.33	High property values and incomes Relatively high demand and development activity High housing quality and neighborhood condition Highest population densities and concentration of rental units
Middle Market	1.66 2.00 2.33	Moderate incomes and property values Relatively stable markets, but with little growth Mostly single-family, owner-occupied properties Housing quality and neighborhood conditions vary and are significantly influenced by the condition and market of adjacent areas Growing demand for rental properties
Weak Market	2.66 3.00	Low property values and incomes Home to the City's most marginalized and vulnerable residents Low population density and owner occupancy levels Poor housing quality, neighborhood condition, and property maintenance levels Distressed investment properties are in abundance, with investors valuing properties for short-term return High crime

Typology	Goals	Strategies	Investment
Strong Market	Leverage private investment Promote existing market strength Test and grow new markets and housing types Compete for larger share of regional housing demand Increase economic diversity Grow the City's tax base	Encourage and support new mixed-use and mixed-income development and housing types Raise gap financing to pay for moderate- to low-income units Targeted property acquisition, rehab, and sale by Land Bank and other partners Grow housing market Targeted code enforcement Selective demolition Support community building Beautify public realm Focus right-of-way investments and amenities near key corridors	Private
Middle Market	Leverage high homeownership rates Help homeowners create value, build equity, and grow community Build, support, and grow neighborhood confidence, identity, leadership, and self-management Increase economic diversity Grow the City's tax base	Targeted property acquisition, rehab, and sale by Land Bank and other partners First time homebuyer incentives Foreclosure prevention and financial assistance Test and grow new markets and housing types Establish and strengthen neighborhood relationships Proactive code enforcement Strategic demolition Invest in community gathering places Support community building Beautify public realm Focus right-of-way investments near key corridors and other assets	Private/Public
Weak Market	Re-position vacant and abandoned property as an asset for future leverage Reduce poor quality housing Address housing affordability Connect residents and families with community programs and services Promote community building Stabilize property values	Reduce excess housing Acquire and hold vacant land for future redevelopment Support mid-term re-use of vacant lots Focus new investment near existing assets and transition market areas Convey properties to partners for re-use Identify and cultivate responsible landlords Continue proactive code enforcement Market and cross promote existing services and programs Host community building events Beautify public realm Focus right-of-way investments near key corridors and other assets	Public

Source: City of Rochester, 2018.

productive use (NY Land Banks). In 2013 The Rochester Land Bank Corporation was established with a stated intent of seeking to promote neighborhood revitalization and eliminate and alleviate the effects of vacancy and abandoned properties. The main authority granted through the act was preferred bid power, giving local governments first choice of properties at annual tax foreclosure auctions by allowing them to place a trump bid that eliminates any subsequent bidding. The land bank may also bid on behalf of pre-qualified developers to expedite the redevelopment process and reduce costs. Activities carried out by the land bank are in large part made possible by New York State's Community Revitalization Initiative Grant Program. Though a distinct entity and separate from the city, the land bank carries out many of its functions in partnership with city partners and other grant programs, including HOME Rochester, Neighborhood Builders, and Strategic Blight Removal. Since its establishment, The Rochester Land Bank Corporation has provided hundreds of thousands of dollars in affordable housing construction subsidies and has successfully rehabbed, demolished, or sold well over 100 properties, with more than 20 currently remaining in their inventory (Rochester Land Bank Corporation, 2020).

Vacant Property Acquisition and Disposition

In addition to the property acquisition power granted to The Rochester Land Bank Corporation, the city itself has a number of other mechanisms through which property can be acquired. The main source of property is the annual tax foreclosure auction. The city has the ability to bid on properties as long as funding has been secured and any excess properties that were not sold at the auction are transferred directly to the City of Rochester Real Estate Division. Other methods of property acquisition include donation, eminent domain, and negotiated sale (Rochester 2034). Vacant lots owned by the city and free of any form of tax debt can then be sold through one of two ways. For small, steep sloped, or otherwise irregular shaped properties deemed "unbuildable," a sale may be made to adjacent property owners as a side yard for \$1.00. "Buildable" lots are also available for purchase by an adjacent property owner at the full assessed value. Upon purchase, the city commences the process of combining the two properties in one legal lot. Other "buildable" properties are made available for purchase via a Request for Proposal Sale for the assess

value. Potential buyers must provide a concept plan for the lot, proof of financial means required for the proposed development, and may not have a history of foreclosure, tax delinquency, or other financial or property related issues in the past five years (City of Rochester, online).

Vacant Land Monitoring and Maintenance

The city's Real Estate Division actively works to monitor vacant properties via site inspections and through its BuildingBlocks platform, an online vacant property inventory. The platform is used to monitor all parcels in the City of Rochester and hosts a number of other data points around property attributes and other factors related to issues of vacancy including code violations, foreclosures, lis pendens, and crime (BuildingBlocks). Code enforcement is then used to physically monitor vacant properties and identify those that may become vacant and is the city's primary method of addressing hazardous or unsafe deficiencies in property condition and maintenance. Property owners that fail to make the required improvements and pay the associated fees within 60 days then have the debt added to their tax bill with fees and a lien is placed on the property. Failure to comply may impact the owner's credit rating and ability to apply for various forms of financial assistance for home improvement, rehabilitation, or purchase (City of Rochester, online, Rochester 2034). Vacant properties held by the city and which are not blighted or demolition candidates, are maintained using a "clean and green" method. Vacant lots are graded, seeded, and mowed regularly by the city, at an average cost of \$260 per lot per year, totaling roughly \$650,000 annually city-wide. Bollards are also installed around the perimeter of the property to discourage illegal dumping. Residents may also request lot cleanup for properties needing more immediate attention (Rochester 2034). New York's 7th Judicial District, encompassing Monroe County and the Rochester City Court, has recently created a new housing section to support renters enduring poor housing conditions. Working in close conjunction with the City's code enforcement efforts, landlords who fail to address code violations may be ordered by the court to refund tenants their security deposit and even rental payments. However, the new court does not yet hold the power to order landlords to make the necessary improvements to their properties (Moule, 2020).

The Monroe County Vacant and Abandoned Property Task Force, a collaborative between local government, law firms, local non-profits, lenders, and other partners also works to address issues of vacancy and abandonment throughout Monroe County and the City of Rochester. The group has three overarching objectives: vacancy prevention, vacant property identification and monitoring, and rehabilitating. Through engaging and organizing community members and partner organizations, the Task Force offers foreclosure prevention assistance, implements property maintenance volunteer projects, and rehabilitates bank donated homes (Monroe County Vacant and Abandoned Property Task Force, online).

Demolition Program

The city's demolition program has played a significant role in tackling blighted properties for more than a decade, demolishing approximately 100 structures annually. Most demolitions occur on city-owned properties after a staff assessment has been made once the property is acquired. In a small number of instances, privately owned structures that are deemed a public nuisance, unsafe, or a hazard to the health, safety, and welfare of the community may also be subject to demolition after adequate efforts have been made to notify the owner. Evaluation criteria used when considering a structure for demotion include structural condition, risk of fire hazard, violation of Chapter 90 of the city's Property Code. A property is considered a demolition candidate once deemed abandoned, defined as one year of vacancy and failure to correct Chapter 90 violations, or when deemed blighted, defined as four or more property code violations within six months, or six or more violations within 12 months. A demolition hearing is then held by an independent, third-party hearings officer. Final decisions are made within 21 days, at which time the demolition costs become personal liability of the owner and a lien on the property and may be added to the parcel's property tax bill. While demolition is effective in removing dangerous and hazardous properties, it comes at a significant cost to the city. Demolition costs are roughly \$20,000 per structure, with some site remediation costs remaining for future owners, as 1/3 of the foundation is filled in and buried on-site. This additional foundation removal cost can range from \$12-15,000. Since its birth, the city has worked to improve the effectiveness of the program

through a more comprehensive and informed process of demolition selection that prioritizes properties that pose the greatest threat to the surrounding neighborhood (City of Rochester, online, Rochester 2034).

Alternative and Temporary Uses for Vacant Lots

The City of Rochester works to increase the productivity of vacant lots through promoting temporary and alternative uses such as community gardens, community solar, and art installations. The largest and most widely used of these programs is the Garden Permit Program. This program offers seasonal garden permits for any resident willing to commit to build and maintain a garden for a full season, and 5-year garden permits for community and non-profit organizations who agree to maintain and cultivate the lot without issue for the duration of the permit. The City grants approximately 80 of these garden permits annually. Temporary license agreements are also available for city residents who wish to hold an event or art installation on a vacant lot.

Financial Assistance and Incentives Programs

The City of Rochester offers several forms of financial assistance and incentives focused mostly around homeownership and rehabilitation. These programs are broadly applicable to owner-occupied properties, with various other income and credit related eligibility requirements. The City also offers two tax exemption programs for home reinvestment, Capital Improvements to Residential Property and Historic Improvement Exemption, that temporarily exempts property owners from paying additional property taxes resulting from eligible home rehabilitation, improvement, or repair projects (City of Rochester, online).

Table 6. Financial Assistance and Incentive Programs.

Туре	Name	Provider	Description	Location Applied	Eligibility Requirements
Homeownership Assistance	Home Purchase Assistance Program	City of Rochester	Down payment and closing cost assistance for first-time homebuyers of single-family or two-family homes. Maximum grant of \$3,000.	Strong Market: 67 (10%) Middle Market: 544 (83%) Weak Market: 45 (7%) (2007-2017)	Be a first-time homebuyer Have an income of no more than 120% AMI Be able to qualify for a mortgage loan \$1,500 minimum buyer contribution Agree to occupy the property as a primary residence for at least 5 years after closing Must attend multiple homebuyer training sessions
	Employer Assisted Housing Initiative	City of Rochester	Down payment and closing cost assistance of up to \$9,000, with City funds matched by participating employers and lenders.	Strong Market: 353 (48%) Middle Market: 365 (50%) Weak Market: 19 (2%) (2007-2017)	Potential buyers may not currently own another home in the city \$1,500 minimum buyer contribution Be able to qualify for a conventional mortgage Agree to occupy the property as a primary residence for at least 5 years after closing Must attend multiple homebuyer training sessions if a first-time homebuyer Be employed by qualified partnering employer
Vacant Lot/Structure Rehab and Redevelopment	HOME Rochester	Greater Rochester Housing Partnership	Vacant single-family homes are renovated and sold to income-eligible first-time buyers.	Strong Market: 8 (2%) Middle Market: 314 (71%) Weak Market: 120 (27%)	Be a first-time homebuyer Have an income of no more than 80% AMI Be able to qualify for a conventional, fixed-rate mortgage \$1,500 minimum buyer contribution Agree to occupy the property as a primary residence for at least 15 years after closing Must attend multiple homebuyer training sessions
	Neighborhood Builders	Greater Rochester Housing Partnership	New homes built on vacant city lots and sold to income-eligible buyers.	Strong Market: 0 (0%) Middle Market: 11 (73%) Weak Market: 4 (27%)	Potential buyers must have an income of no more that 80% AMI Be able to qualify for a mortgage
Tax Exemption	Capital Improvements to Residential Property	City of Rochester	Temporarily exempts owners of single-family homes and duplexes from paying property taxes on the increased property value from eligible capital improvements.	Strong Market: 183 (38%) Middle Market: 164 (34%) Weak Market: 138 (28%)	Complete capital improvement project on single- or two-family home
	Basic STAR	City of Rochester	Relieves homeowner tax burden for households making less than \$500,000 and exempts the first \$21,000 of assessed value from city and school taxes tax burdens, particularly for seniors.	Strong Market: 6,011 (27%) Middle Market: 12,148 (54%) Weak Market: 4,288 (19%)	Be an income eligible homeowner or senior
Home Rehabilitation and Repair	Emergency Assistance Repair Program	City of Rochester	Provides financial assistance for emergency repairs or replacement of hot water tanks, furnaces, or broilers for homeowners who have lived on the property for at least one year at the time of application.	Unknown	Applicants must be the owner of the property.
	Owner Occupant Roof Program	City of Rochester	Provides financial assistance to repair or replace roofs, gutters, downspouts, chimneys, soffits, or venting for owner-occupied single-family homes.	Unknown	 Property must be located within city limits and be in "good condition," excluding structures that have been damaged by fire, are structurally compromised, or have been severely neglected.
	d Housing Rehabilitation and Repair Program	City of Rochester	Provides financial assistance for repairs to address lead-based paint hazards, health and safety hazards, and other environmental issues for owner-occupied single- and two-family homes. This program is limited to "areas where the most gain can be achieved as identified in the City's Housing Market Study to support neighborhoods where housing development projects are located and to mitigate blight and hazards citywide."	Unknown	Household income for owner-occupied may not exceed 80% AMI and for rental properties, tenants' household income may not exceed 50% AMI. Landlords must contribute 10% of the cost of the improvement. Property owner must not have received any form of assistance from the city for a lead hazard control program within the past 7 years. County taxes, City property taxes, and water bill payments must be up to date and not subject to tax foreclosure. Property owner must be up to date on all mortgage payments and not subject to
	Lead Hazard Control Program	City of Rochester	Provides financial assistance to remove lead-based paint hazards for one- to four-family homes that house children under the age of 6. This is the only program applicable to rental properties and requires that they are rented at or below fair market value to low- and moderate-income families for at least 5 years after the repair.	Unknown	foreclosure. • Property owner must sign a Program Agreement, Note and Mortgages and agree to maintain the property as their primary residence for 5 years.

Source: City of Rochester, 2018.

APPENDIX B: EXPANDED LITERATURE REVIEW

Vacant Land Management Strategies

With so many issues existing in shrinking cities all at the same time, the presence of vacant and abandoned property serves as both a challenge and an opportunity. A number of shrinking cities have made an effort to focus revitalization around addressing vacant properties, with strategies ranging from planting community gardens to fundamental changes in planning theory. Strategies require varying levels of funding, staff time, and community involvement, and are somewhat dependent on the physical and legal status of the property.

Right-Sizing

As the number of people living in declining urban areas decreases, the footprint of the cities remains the same. This has led to the development of the concept of right-sizing, as cities are forced to confront and shift away from the growth paradigm that urban planning has historically operated under. Right-sizing is the strategic realignment of a city's built environment to better suit its current population. By re-concentrating population to urban centers and finding new and productive uses for underutilized property, a city can make more efficient use of its resources and infrastructure, which not only benefits it financially but can improve quality of life for residents at the same time (Schilling and Logan, 2008). Though initially met with some resistance and given little attention by scholars, as the concept became more accepted by planners and policymakers in cities hardest hit by urban decline, the body of literature surrounding it quickly began to grow. The heralded Youngstown 2010 Plan, a comprehensive plan adopted by Youngstown, Ohio in 2005, was perhaps the first to embrace the theory of right-sizing and was developed specifically to address the issues of population loss and urban decline. This marked departure from more traditional modes of urban planning made far reaching ripples in the planning and public administration world and greatly influenced future planning efforts in a number of other cities such as Flint and Detroit, Michigan. Though the Youngstown plan was given much attention for its innovative vision and goals, the effectiveness and long-term success of the plan has yet to be seen.

As the concept gained popularity, planners and administrators in many shrinking

cities found it hard to stomach, having to accept the fact that efforts to spur new development and population growth were no longer relevant or effective. In addition to resistance from practitioners, a number of scholars have also noted the inequitable effects that arise when cities make the decision cut-off areas of a city that are sparsely populated (Mallach, 2017). With the intent of right-sizing being to re-concentrate the remaining population and make more efficient use of limited budgets and investment, a number of the tools proposed with which to do this involve the use of eminent domain and displacing residents. Though meant to improve quality of life, the strategies used exhibit a startling likeness to the redlining practices of the 1960's and 70's that systematically targeted lowincome and minority populations.

Land Banking

One of the most effective and widely used methods of moving vacant land from abandonment and tax delinquency to being productive and developable is through Land Banking. This is done through the creation of a public or quasipublic organization that acquires land and transfers it to public or private developers. This strategy can be particularly effective on parcels with existing buildings that need demolishing (Center for Community Progress & New York Land Bank Association, 2017). Land Banks can manage a site, rehabilitate or redevelop it themselves, or clear the site and make it ready for development, reducing costs and other barriers to potential development. Land Banks usually require political support and funding from local governments and function through the enforcement of building maintenance codes and enhanced tax sales processes (Hummel, 2015).

Cleaning and Greening

To address issues of structural abandonment, many cities have undertaken ambitious demolition initiatives with the hopes of removing blight and hazardous properties in their communities. Demolition is usually conducted by the municipality or land bank in possession of the property but has been known to occur even when held in private ownership if the property poses a significant threat to nearby residents. Though an effective tool for cities, the

costs of demolition can be high, ranging anywhere from \$7,500 in Cleveland to roughly \$19,000 in Buffalo. A number of considerations must also be made to maximize the benefit of demolition programs. Demolition alone, when not part of a larger vacancy management strategy, may have only a neutral impact on a city (Mallach, 2012).

Once lots have been cleared of blighted structures, a variety of greening strategies exist to reduce the presence of future hazards and increase the land's productivity. Greening can also be used to supplement a city's right-sizing efforts by preserving land on the peripheries of the city and limiting the supply of developable land to closer to the urban core. Greening also has the potential of contributing to the remediation of brownfields, which can benefit surrounding properties. It also has the ability to create a more livable neighborhood, while engaging and empowering residents in the process. These types of programs are particularly effective on small or unbuildable parcels, as well as in areas with a weak development market, high crime, lack of greenspace, or various environment issues (Schilling and Logan, 2008). Installing parks not only provides areas of gathering and recreation for residents but has also been shown to reduce crime and increase the value of homes within a quarter-mile by 10%. Greening can also contribute to improved environmental quality through planting more trees. removing impervious surfacing, installing vegetation and green infrastructure to improve stormwater runoff, and remediating contaminated soils. Green infrastructure and other forms of low impact development can alleviate stress on stormwater systems and reduce municipal costs. Studies from Philadelphia have even shown that areas where vacant lots were converted to greenspaces have lower mortality rates and fewer reported health issues (Hummel, 2015, Heckert & Mennis, 2012). Greening and vacant lot improvements efforts in the New Kensington neighborhoods were found to increase the value of surrounding properties by as much as 30% (Wachter, 2005).

Alternative and Temporary Uses

Temporary uses for land can be developed to temporarily remove the land from the market and increase demand elsewhere, while also providing a location for greening, educational or community-based initiatives, and public art. Urban gardens have also been a successful strategy implemented in many places, increasing nearby property values, providing a source of food to vulnerable populations, and in some instances reducing crime. These types of programs require political support and administrative oversight but can be an effective way to provide short-term solutions to vacant land while demand evolves, allowing governments to be more flexible and adaptive. Finding temporary uses for vacant land is most beneficial in areas where development interest is low, public investment is lacking, and where risk of further decline is high. The risk for these types of programs is relatively low and allows communities to experiment with potential uses while engaging communities in ways that reinstates power to residents and may even result in long-term place-making initiatives (Nemeth and Langhorst, 2014; Madanipour, 2017). It should be noted that community-based efforts are largely dependent on a base level of funding and organization, as well as the capacity of community members to engage in and maintain such programs.

Rehab and Resell

For properties with viable structures present, many cities have successfully implemented programs that rehabilitate and sell abandoned homes. With low homeownership rates being one of the characteristics of neighborhoods struggling with high vacancy, efforts to increase homeownership are commonly used. Owner-occupied properties in general, are found to be better maintained than renter-occupied properties and have been shown to contribute to neighborhoods stabilization (Galster, 1983; Rohe & Stewart 1996). These programs can take a number of forms and are largely dependent on the condition of the property and surrounding neighborhood. In moderate to strong market areas, such strategies can be rather straightforward, transferring ownership to qualified developers or community non-profits. Strategies for weak market areas are often more complex and require a nuanced approach. Some cities directly coordinate rehabilitation efforts and then resell properties to eligible first-time homebuyers or at market rate. Other programs take a different approach, selling properties with few buyer restrictions and at a relatively low cost, but with the requirement that the purchaser makes the necessary repairs to the structure and occupies it as their primary residence for a certain period of time (According

and Johnson, 2000). Cities may even incentivize and target reuse in specific neighborhoods via reuse zoning overlays that relax zoning requirements and offer various forms of technical and financial assistance (National Trust for Historic Preservation, 2017).

Legal and Financial

A number of financial and legal strategies also exist that work to better identify vacant and abandoned properties, reduce barriers to purchase and redevelopment, and assist residents when seeking to rehab or purchase a property or who may be facing foreclosure. Code enforcement is the most widely used tool by cities to identify and remedy vacant and abandoned properties. While this may in some cases direct and incentivize homeowners to practice better upkeep and maintenance, when employed in struggling neighborhoods code enforcement may only add to the financial and legal troubles for residents. Code enforcement is thus sometimes directly or indirectly used by cities to move blighted properties into foreclosure and to change ownership. In some cases, if granted the powers by the state, cities may use spot blight eminent domain, to seize property that poses a risk to the community and which has been deemed "blighted" (Center for Community Progress & New York Land Bank Association, 2017).

With tax delinquency and foreclosure being closely linked to vacant and abandoned properties, a number of strategies exist to either prevent or expedite such processes. Property tax foreclosure reform is used to create both a more transparent and fair foreclosure process for property owners, and to reduce the amount of time it takes to move a property from tax delinquency through foreclosure. The former can benefit struggling residents who may not be familiar with the necessary proceedings and the latter is effective when a property is already abandoned or if the owner of a blighted property can't be located. Receivership programs can also be used for structures that have been abandoned or those whose owners refuse or fail to make necessary improvements. A court appointed receiver is then given ownership of the property, often with the requirement that they rehabilitate or demolish the structure. Offering financial assistance in the form of grants and low or no-interest loans can then be paired

with other strategies to incentivize rehabilitation of structures. Receivership also works for rental properties, as the appointed receiver of the property is required to continue to house current tenants (Alexander and Powell, 2011). A host of other options exist for cities to address issues related to vacancy and abandonment that work to remove barriers to purchase and redevelopment, return properties to the tax roll, and prevent speculative investors and absentee landlords.

Barriers to Management and Redevelopment of Vacant Land

With structural abandonment being perhaps the most chronic condition of shrinking cities, programs and policies to address this issue must be developed with a complete understanding of the barriers that could limit their effectiveness. Barriers to building reuse and vacant land redevelopment fall into three categories: physical, financial, and regulatory and institutional. While these barriers are produced in a number of ways, many of which are outside the control of city governments, well-crafted policies and programs have the ability to mitigate or remove them.

Physical

As stated previously, the physical condition of a vacant or abandoned property can vary greatly from one lot to the next. Many vacant lots stay undeveloped and unowned because of their shape, size, or slope. Small or awkward shaped parcels may limit the type of development that could occur on them and may make them incompatible with local code and zoning requirements. Parcels with steep slopes may pose similar challenges and may significantly increase the costs of development. Depending on the former use and status of the property, vacant parcels are oftentimes brownfields or may be home to derelict structures. These factors can all incur a fair number of financial barriers, as discussed later, that can deter potential buyers and developers. The distribution and neighborhood context of a property may also serve as a deterrent when considering redevelopment. The discontinuous nature of vacant parcels, common

in areas of high vacancy, may make a property less desirable. The quality of the neighborhood, infrastructure, and public realm in areas of high vacancy makes these properties less attractive, as improvements costs may be transferred to the developer and potential residents (Goldstein, Jensen, & Reiskin, 2001).

Financial

Whether a developer or first-time homebuyer, the financial aspects of rehabbing a building or redeveloping a vacant lot are often the biggest hurdle. Outside of potential site remediation or demolition costs, the relatively high price of land in urban areas may make such projects inviable. Even when vacant lots are more modestly priced, other financial impediments associated with vacant properties, such as back taxes or liens deter many potential buyers. With high numbers of code violations and foreclosures being closely tied to areas of high vacancy, this is a common financial barrier for many properties. Even for viable structures that can be rehabilitated, asbestos and lead removal may create added costs. A lack of or inapplicable forms of financial assistance for those wishing to purchase or rehab properties is also not uncommon in many shrinking cities. Many offer some form of tax incentive for redevelopment; however small projects are often ineligible. When home buyers and other investors are seeking to purchase a property, lending may not be applicable to some types of building reuse or renovation. For those seeking funding from private lenders, neighborhood and market condition are often a determinant of loan approval and may exclude or favor certain areas.

Many programs designed to incentivize structural rehabilitation or homeownership often have eligibility requirements that hinge upon one's credit history and their ability to be approved for a mortgage. This may be an especially difficult barrier for some to overcome, as residents and neighborhoods most in need of support were also those hardest hit by the 2008 recession, leaving lasting scars on the financial records of many. Additionally, some banks may simply deny a mortgage because the subject property value is less than \$50,000, which is not uncommon in severely distressed areas (Mallach, 2018). Regardless of the need for outside financial assistance, a neighborhood's market strength is in most cases the ultimate determinant of redevelopment potential, as areas perceived to have

high risks greatly reduce the chances of recouping one's investment (National Trust for Historic Preservation, 2017; Goldstein, Jensen, & Reiskin, 2001).

Regulatory and Institutional

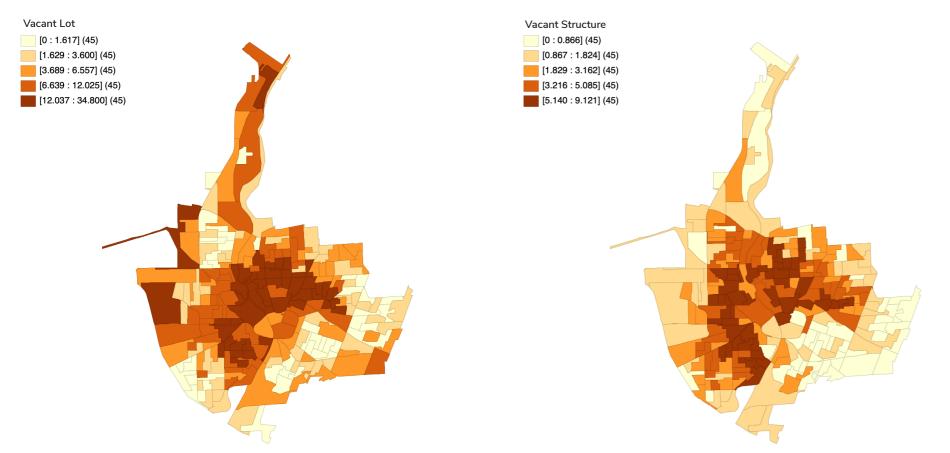
When seeking to redevelop vacant properties, in many cases it is cities themselves that create the barriers to such activity. In the context of many shrinking cities, where funding and staff are limited, organization and leadership around vacancy and abandonment may be lacking. Simply being unaware of the true nature and extent of the problem may prevent efforts from being effective or even to be sought initially. The complexity of the issue can be particularly difficult for cities to manage, as the causal factors and observable effects are often things monitored and managed by numerous different departments or agencies, creating information silos. The definition of vacant land itself is even an obstacle for many local governments, as various agencies and organizations each define it differently. Existing policy and zoning may also restrict or prevent redevelopment, with complex and inflexible zoning, code, and parking requirements placing undue burden on potential developers. In historically single-family residential neighborhoods, those wishing to construct new multifamily, commercial, or mixed-use developments may be unable to do so.

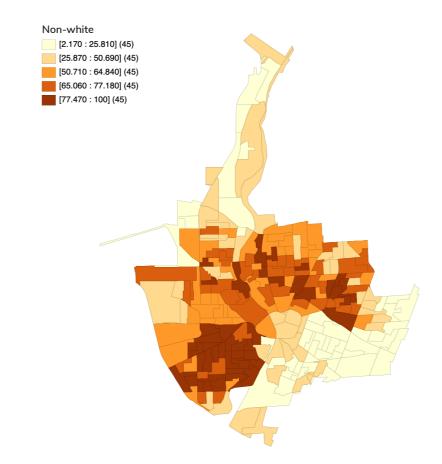
In the common case of properties that are tax delinquent, in foreclosure, or have owners whose location is unknown, antiquated tax policies and disposition processes may create a number of barriers to redevelopment and leave properties left in limbo for years as the condition of the parcel and any structures thereon to further deteriorate (Alexander, 2015, Goldstein, Jensen, & Reiskin 2001). Even when left abandoned, it may take a city years to locate owners and put the property through foreclosure. When ownership is unknown, cities may have to use potentially lengthy and convoluted legal processes to acquire the property and ready it for sale. Once possessed by a city or land bank, demolition and site remediation costs may outweigh the potential return on investment and may sale unlikely, leaving the property as a continued liability and burden to the municipality (Apgar, Duda, & Gorey 2005).

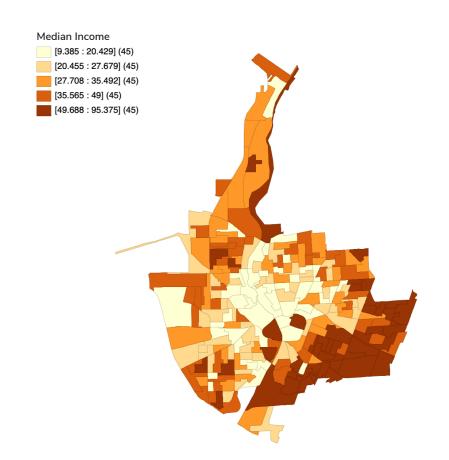
APPENDIX C: SPATIAL ANALYSIS

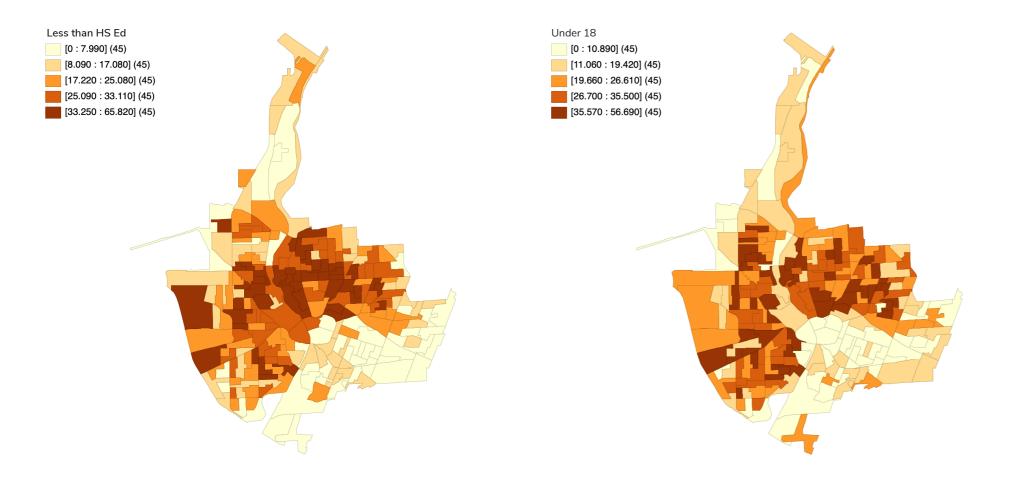
Analysis Maps

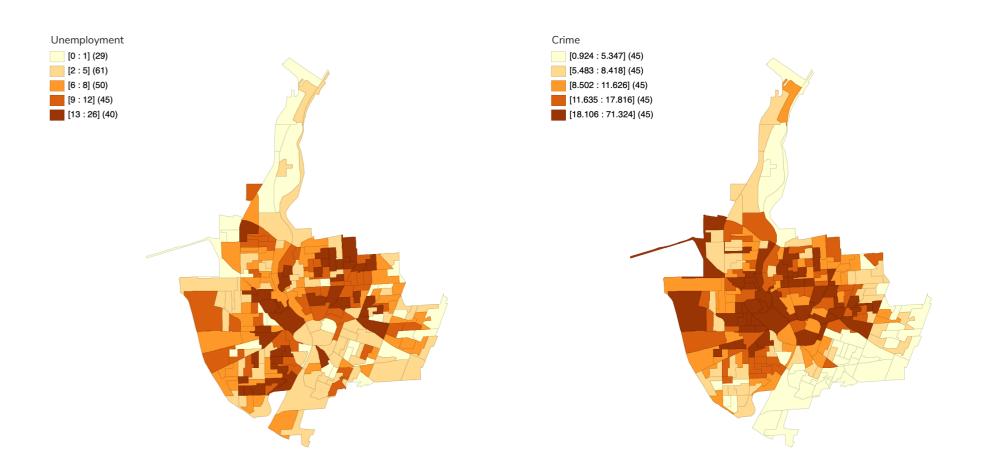
Nearly all of the variables mapped in this research follow a very similar spatial pattern. Vacancy, vulnerable populations, and factors of poor neighborhood condition are mostly concentrated to the north and west of City center. The collocation of these factors illustrates the compounding issues that vacancy presents and the complexity inherent when attempting to address it. Housing occupancy status and lis pended are the only variables that do not follow this spatial pattern but are distributed similarly to one another. This is likely due to lis pendens being most common among owner-occupied homes with a mortgage.

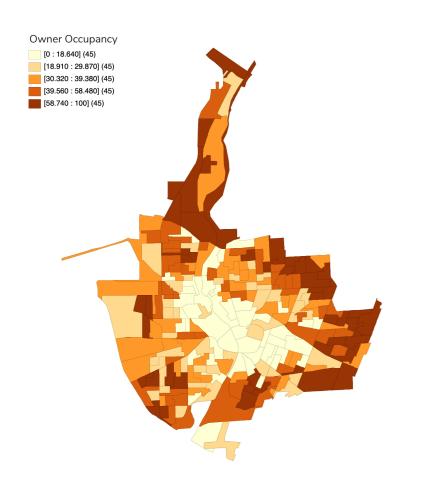


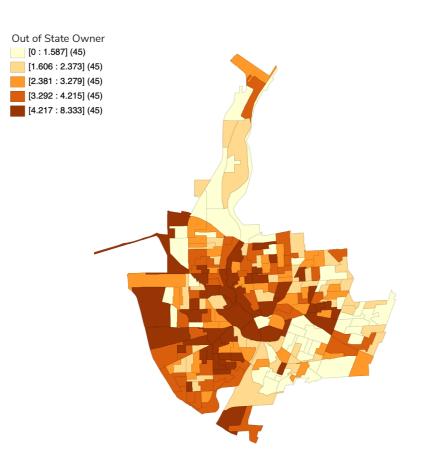


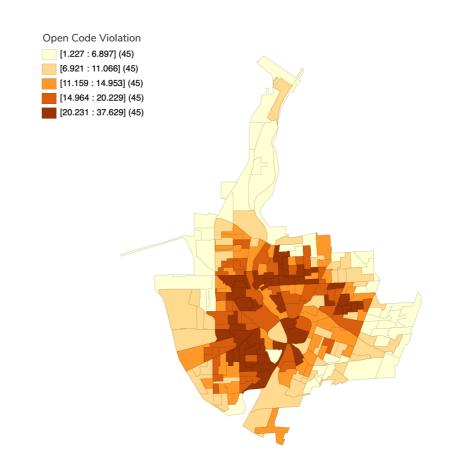


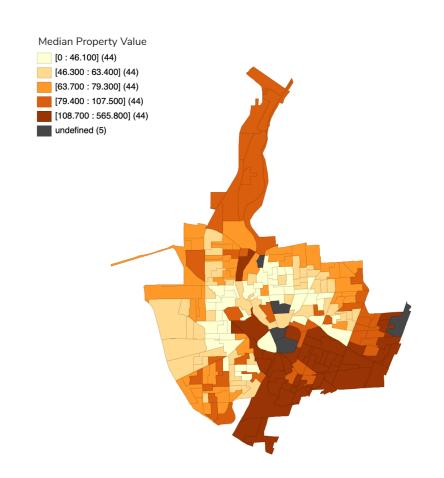


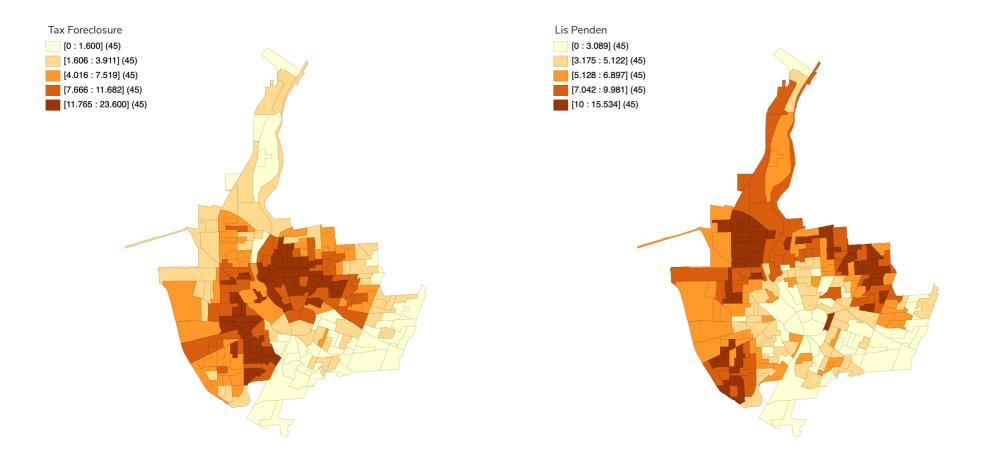


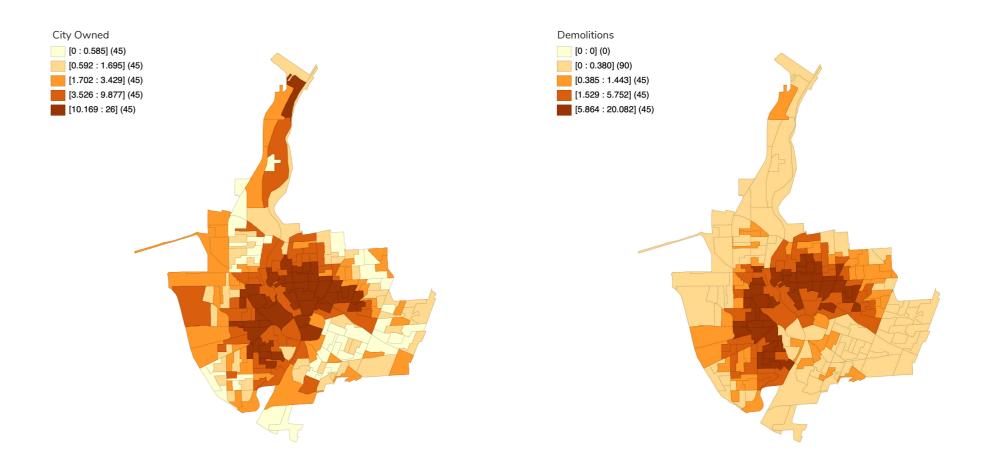












Moran's I Spatial Autocorrelation Analysis

Most of the variables analyzed in the research have Moran's I Index values greater than 0.5, indicating that Block Groups that exhibit these traits tend to cluster. This illustrates the effect of areas with poor neighborhood condition on surrounding Block Groups and the need for policies and programs that operate on the neighborhood level.

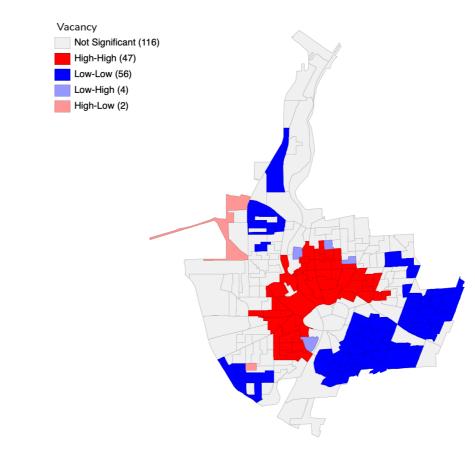
Table 10. Moran's I Results.

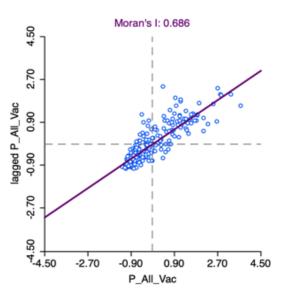
Variable	Spatial Clusters		Spatial Outliers		Not Cignificant
variable	Hotspots	Coldspots	Low-High	High-Low	Not Significant
Crime	26	43	5	2	149
Foreclosure	50	56	2	0	117
HMS Typology	57	50	3	0	113
Less than HS Ed.	39	52	5	2	127
Lis Penden	37	59	7	2	120
Median Income	30	40	3	7	145
Median Property Value	40	47	1	4	128
Non-white	49	54	2	0	120
Open Code Violation	49	47	6	0	123
Owner Occupied	28	38	2	2	155
Owner Out of State	17	29	13	3	163
Under 18	33	47	9	0	136
Unemployment	18	23	11	5	168
Vacancy	47	56	4	2	116

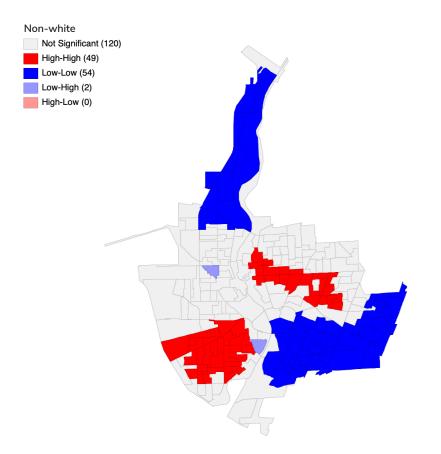
All values found at 95% Confidence Level

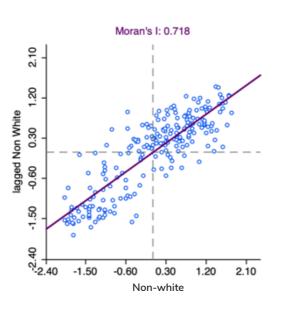
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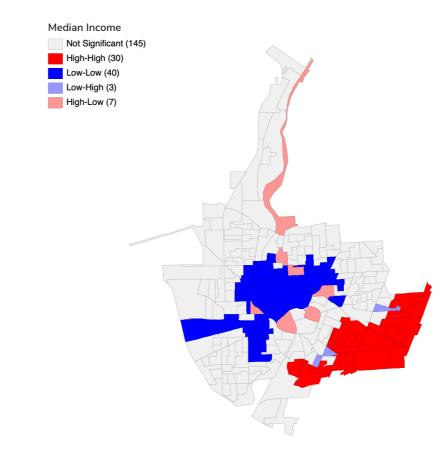
Source: City of Rochester, 2018.

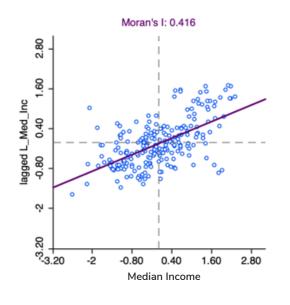


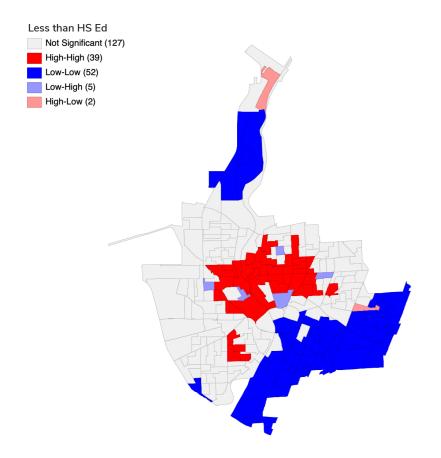


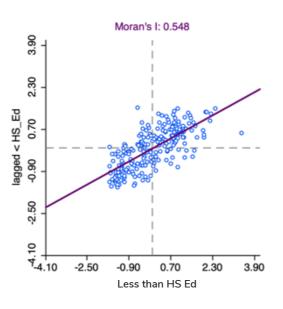


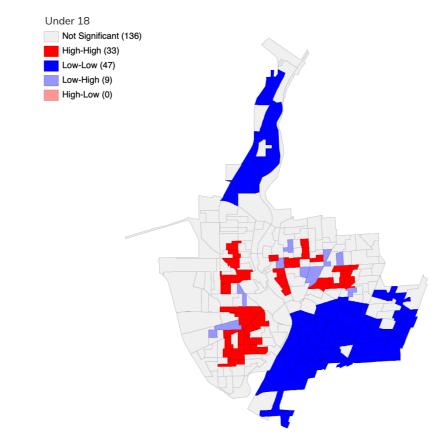


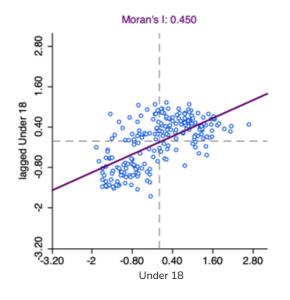


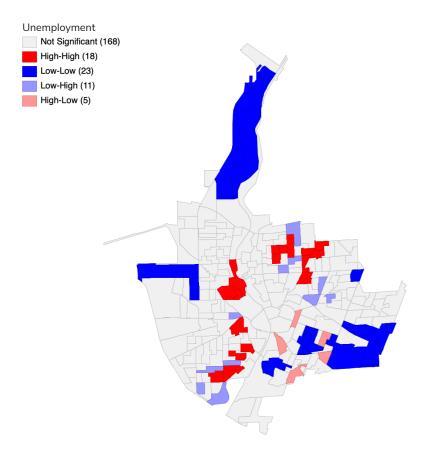


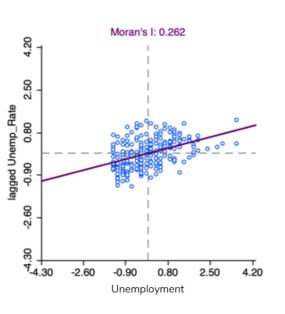


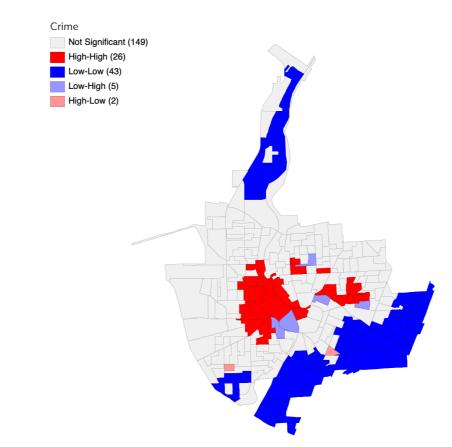


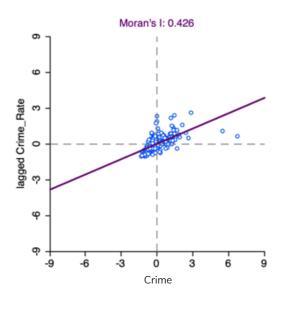


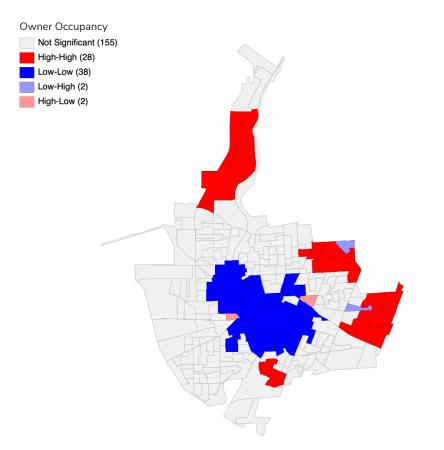


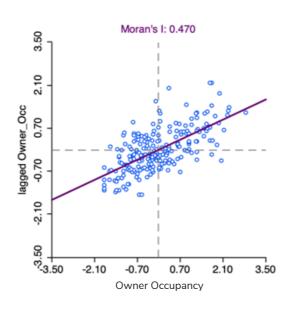


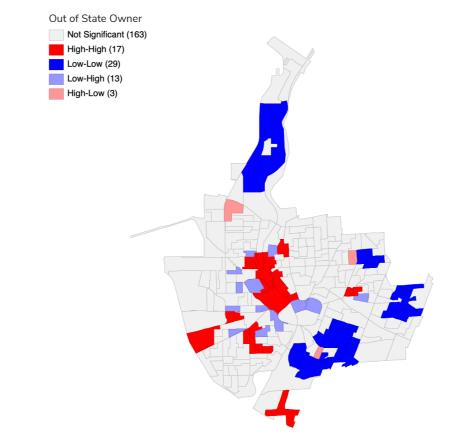


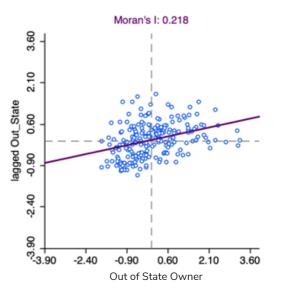


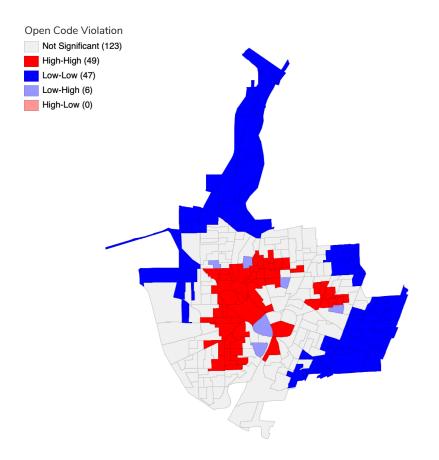


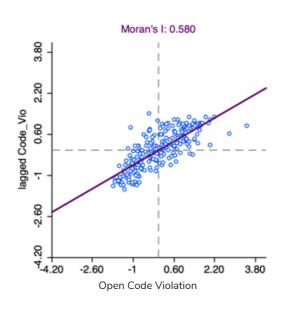


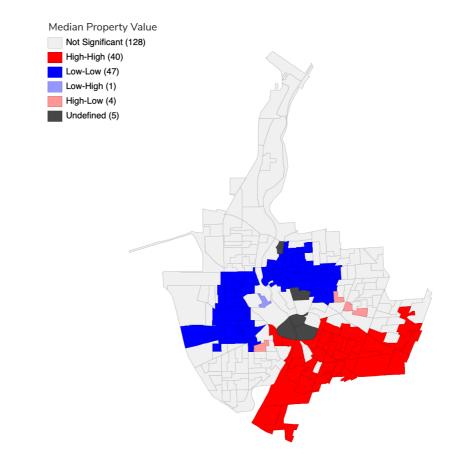


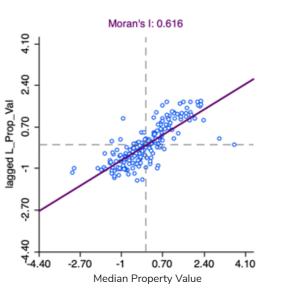


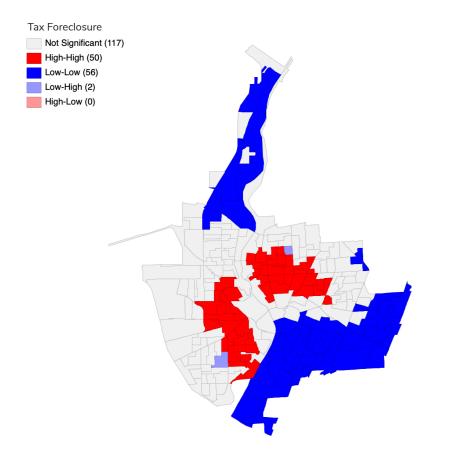


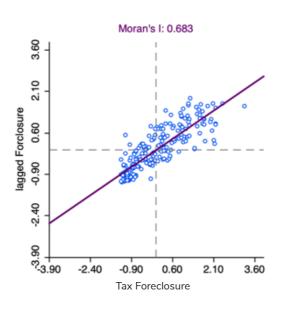


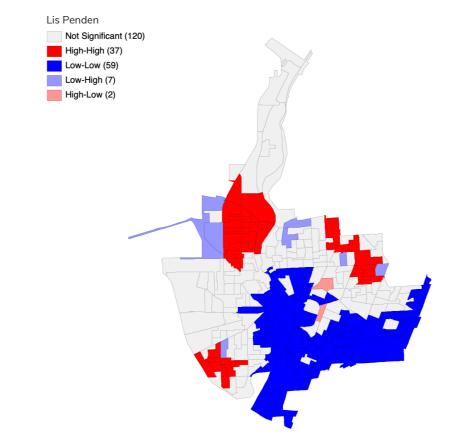


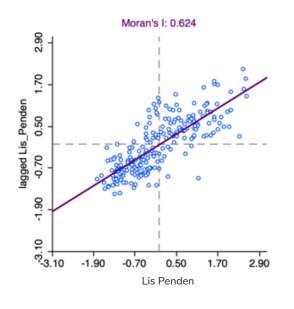
















It is a cliché, but nonetheless true, that there are no silver bullets to solve the challenges of turning around America's legacy cities. The problems are highly complex and the challenges deeply entrenched. However, hopeful signs are emerging: change is fostered through the herculean efforts of local heroes who have forged strategic visions for change, articulated the incremental steps needed to move toward that vision, and brought people together around that goal. Finding new forms for these cities requires leadership, persistence, patience, and most of all, collaboration and partnerships.

- Alan Mallach and Lavea Brachman, 2013

