Summer 8-2022

A Tale of Two Gentrifications: Reconceptualizing Gentrification Using Third Places, Demolition and Hierarchical Linear Modeling

Kylil R. Martin
Old Dominion University, k3martin@odu.edu

A TALE OF TWO GENTRIFICATIONS: RECONCEPTUALIZING GENTRIFICATION USING THIRD PLACES, DEMOLITION AND HIERARCHICAL LINEAR MODELING

by

Kylil R. Martin
B.S. May 2016, Appalachian State University
M.S. May 2018, University of North Carolina at Charlotte

A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

CRIMINOLOGY AND CRIMINAL JUSTICE

OLD DOMINION UNIVERSITY
August 2022

Approved By:

Randy Gainey (Director)

Ruth Triplett (Member)

MICA Deckard (Member)

Thomas R. Allen (Member)

ABSTRACT

A TALE OF TWO GENTRIFICATIONS: RECONCEPTUALIZING GENTRIFICATION USING THIRD PLACES, DEMOLITION AND HIERARCHICAL LINEAR MODELING

Kylil R. Martin
Old Dominion University, 2022
Director: Dr. Randy Gainey

A growing body of research points out that communities in the most need of assistance are often the ones established by racially biased processes and have not been invested in for generations – with little to no attention ever positively directed toward these spaces. Instead, because of policies and tactics used to label areas as problematic and divest from them, public actors are reluctant to consider the lived-lives, both good and bad, of the residents of these communities when discussing needed changes. Criminologists have long been interested in neighborhood change and its relationship with crime. There has also been theoretical and political interest in the notion that gentrification of an area may reduce crime rates. However, tests of these ideas have produced mixed empirical support due to issues with conceptualization, measurement, and study design. This dissertation explores a reconceptualization and measurement of gentrification, adding elements of "third places" and demolitions to standard measures (e.g., census measures) found in the literature. This work employs hierarchical linear modeling to analyze data over time, providing a systematic analysis of the relationship between gentrification and crime in Norfolk, VA, from 2016 – 2019. By linking these empirical analyses with theoretical and historical context, this study advocates for better community research focused on the interplay of history, social context, systematic empirical research, and generational effects that may play a role in the current neighborhood structure.

This dissertation is dedicated to my grandparents, Cynthia and Oscar Dunlap, for instilling strength and persistence in me to further my education and for believing in me through all of my academic and personal endeavors.

and

To my best friend and love of my life, Sabrina Mance.

ACKNOWLEDGEMENTS

Throughout my academic and professional successes, towards the end of a chapter I have been told, "Now, the work really begins," and I consistently replied, "Yes, but only if you haven't already been giving your best." I completed this academic journey because of the perseverance and belief that what I accomplished would better my life and the lives of my community. To begin, I would like to acknowledge myself for all of the pains, tears, and tolls endured while completing this academic journey. I purposefully acknowledge myself first so that on days that I feel defeated or as though I am not enough, I can look back on this document and revel in all that I have accomplished – knowing I am worthy.

I would like to thank the Department of Sociology and Criminology at Old Dominion University (ODU) for taking a chance on a graduate student with a lack of direction or research interest. There were countless hours spent talking to faculty in the department and expressing my grandiose ideas. It was through these conversations where, for the first time, I was told my tendency to explore the crevices of my imagination were not a shortcoming but a gift. I value the friendships and comradery from all that I have met at ODU, but I especially appreciate the connections with two of my committee members – Dr. Randy Gainey and Dr. Ruth Triplett. Dr. Triplett was a necessary filter and a worthy contender to contextualize my abstract thinking. As a mentor, she not only offered her insight but challenged me to go further and to fully understand the scope of my ideas. As my dissertation chair and leading supporter, Dr. Gainey, I value you most. From building rapport in class to being there when I was a nervous wreck, you always kept me relaxed and focused on the big picture. Your mentoring style allowed me to develop into the scholar I needed to become instead what is conventionally accepted. I will cherish our friendship as both of our careers' progress.

To colleagues turned friends, I love you. The last two years of my doctoral journey were not the easiest, and I cannot say, as an introvert, that I would have made it without you. You not only brought me out of my shell but also helped me realize that I sometimes take myself too seriously and need to enjoy myself, especially with those who genuinely care. To "Party People" (LaQuana, Josh, Narissa, Mac, Suzy, and Briana) I am proud to call you, my family. Thank you for all the support, love, and laughs shared. I cannot wait to see the great things we accomplish.

I want to thank the brothers of Alpha Phi Alpha Fraternity Inc., specifically the Pi Nu Chapter, for instilling character and focus in me as I fulfill the mission of developing leaders, promoting brotherhood, and academic excellence while providing service and advocacy for my communities.

Lastly, I would like to acknowledge my family. This includes the family that I was born into and the family I have made with those I can depend on and love. Thank you to my parents, Nichole Wofford and Raashaun Payne, grandparents, Oscar and Cynthia Dunlap, and all living members and ancestors of the Mason family tree. Moreover, thank you, Sabrina Mance, Deric Hunter, Joshua Carr, Billy Carr, and Mariah Webber, for being the family and support I never thought I needed. Thank you for loving me.

TABLE OF CONTENTS

Page

Chapter Page

Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Just as our bodies need upkeep, the structures we have built and the communities established within them, need care and maintenance as time goes on. This upkeep is not only for the physical appeal but also for the social benefit, symbolizing a connectedness to adjacent communities and the city. Unfortunately, this needed revitalization often comes with a hyper-focus on the future economic success of an area, not the needs of the preexisting community residents that have established homes and valued cultures, and without an understanding of the processes that led to the establishment of the communities in the first place or their decline. As a growing body of research points out, the communities in the most need of assistance are often the ones established by racially biased processes and have been divested in for generations – with little to no attention ever positively directed toward these spaces (Alexander 2012; Kruse, 2013; Rothstein, 2017). As a result of historical and current policies and tactics used to label areas as problematic and divest from them, public actors are reluctant to consider the plights of these residents when discussing needed changes.

While there are many processes through which neighborhood change occurs, gentrification has received increasing attention. The term gentrification has been used to describe the process of attempting to increase an area's socioeconomic status by producing socio-structural changes such as increasing homeownership, luxury venues, and businesses geared to stimulate income (Barton, 2016; Meltzer & Capperis, 2017; DeSena, 2018). Much of the attention given to gentrification has been a debate on the consequences of this developmental change, both negative and positive. Some studies note the effects of displacement and disconnection to former stability as significant occurrences and consequences of the

gentrification of neighborhoods (Chum, 2015; Ding, Hwang & Divringi, 2016), while others contrast these accounts (Freeman & Barconi, 2004). Proponents of gentrification detail the prosocial effects and opportunities of gentrification available to all of the residents, both preexisting and future, regardless of costs (Powell, 1999; Freeman & Barconi, 2004).

Gentrification is known to bring economic and social changes to an area (Papachristos et al., 2011). Two processes central to gentrification are demolition, and renewal through the establishment of new third places. Demolitions are often used to restructure the landscape of the area and have been uncovered as an important indicator of gentrification (Weber et al., 2006). Although not all areas that undergo gentrification include this phase, demolition is a turning point for a community as its influence will likely permanently change the area. Communal effects of demolitions include the impact on crime, but more importantly the effects on those who may have formerly resided there. Demolition is a direct event that will reshape the future of these spaces. Because demolitions can vary in categories and purposes, this dissertation focuses on residential demolitions located by physical address.

Third places are public places embedded into the community that creates social, informal, and comradery spaces (Oldenburg, 1982). They promote social cohesion and networks that can act as forms of social control – decreasing crime and deviance (Wo, 2016). These places include but are not limited to bars, lounges, clubs, barbershops, coffeeshop, and parlors. Third places may advertise as welcoming establishments for residents, both existing and future, across all community eras. In the context of gentrification, however, third places may hold completely different responsibilities, especially if these new third places are replacing preexisting structures. For example, barbershops can be argued to be places of sociability and comradery, indicating properties of third places. Where the pre-gentrified area may rely on this barbershop to be a place

of neutrality in response to neighborhood angst and delinquency, however, a replacement barbershop will not have the same ability to create social ties or reputation due to new people, rules, and atmosphere. Although they are the same type of third place (e.g., barbershops), their role within the community has changed indirectly due to gentrification.

Despite debates about the benefits and problems of gentrification, many theoretical explanations would logically lead public actors to believe that gentrification is beneficial to an area. In criminology, ecological frameworks originated from works by Cohen and Felson (1979), Shaw and McKay (1942), and Wilson and Kelling (1982). Their theories of crime and place could be taken to suggest that gentrification will have preventive effects on crime. For example, routine activities theory states that crime is more likely to occur in areas with vulnerable targets, motivated offenders, and without capable guardians. Gentrification policies may embolden the area by providing more capable guardians to dissuade criminals. This can include but is not limited to increasing surveillance through police patrol, and changes in structural elements such as streetlights. Likewise, actions following the social disorganization framework would seek to promote social control among neighbors while policies emerging from broken windows promote "cleaning up the streets." This may be shown through over-policing and being tough on minor crimes.

With narratives such as these, government officials can construct their vision of change in areas where they feel disorder and poverty are at their greatest. Historically, practices of rezoning and over-policing target areas were used to achieve this goal (Rothstein, 2017; Hyra & Prince, 2015). With government or private funding, however, cities can revitalize areas; spaces can be purchased, renewed, and renovated to stimulate the area's economy while simultaneously "cleaning up the streets." As suggested by the debate above, though, questions remain. What

about the communities that you are building on? Do residents get a say to the stores and merchants that you are replacing their daycares and schools with? Is this revitalization for them? Unfortunately, we often tell the story of gentrification at the expense of the preexisting community. When we consider the financial abandonment of these targeted neighborhoods and historical disenfranchisement of these spaces, implementing practices resembling gentrification may not be the best way to increase the area's socioeconomic status or enhance community for current residents.

In addition to questions about the effect on the individuals whose communities are being gentrified, is the effect on crime. Criminologists have long been interested in neighborhood change and its role in understanding crime but the idea that gentrifying an area reduces crime has had mixed empirical support (Barton, 2016; McDonald, 1989 Papachristos et al., 2011; Kraeger, Lyons & Hays, 2011). The variety of findings is mainly due to the various conceptualizations of the process. When measuring gentrification, researchers rely on census variables to explain this change; however, decennial data (Covington & Taylor 1989; Lee 2010) may not be the best way to model this change and understand gentrification as a process because it does not give small enough increments for a more real-time assessment. In addition, these changes become increasingly difficult to capture when attempting to accurately conceptualize third places and demolitions as dimensions of gentrification. This is because gentrification involves a continuum of effects that interplay where social and physical change are the outcome, which can occur at smaller time intervals?

This dissertation explores a reconceptualization of gentrification using elements of third places and demolitions within the research site of Norfolk, Virginia. These effects will be modeled against changes in crime rates by accounting for changes in race and socioeconomic

demographics within and between areas of analysis. Research questions for the investigation are as follows: 1) What is the relationship between gentrification and crime – conceptualized through zoning, SES, third places and demolitions? 2)How do these relationships change over time? 3) How are these changes contextualized through race?

This document comprises the following: Chapter 2 highlights the relevance of the work as it relates to historical policy and government investment in communities – creating reasoning for a critical framework expressed in the next chapter. Chapter 3 discusses the relevant literature pertaining to the conceptualization of gentrification, the theoretical frameworks supporting the process, and the critical theoretical perspective taken here to explain its relationship to crime. This includes elements used to conceptualize gentrification in the analysis. Chapter 4 presents the research questions discusses the data used, the variables of interest, and the methodology. Chapter 5 reports on the analysis of the effect of gentrification using yearly data inclusive of third place and demolition measures to model this change at the block group level in a longitudinal design. In this dissertation, gentrification is conceptualized as a process of physical and social change to an area through municipal and capitalistic undertakings shown through the drastic shifts in people, places, and cultures. Finally, this manuscript concludes with interpretation of findings, a presentation of research limitations and recommendations for future research and policies.

CHAPTER II

HISTORY OF NEIGHBORHOOD DIVESTMENT AND REINVESTMENT

Historical context is essential when characterizing the conditions of American communities and their relationship with gentrification. Today, America faces class and race stratification in neighborhoods (arguably segregation), employment scarcity in under-resourced communities, and allocation of essential funding to predominately White and affluent areas (Pager, 2008; Desmond, 2012). As a growing body of research shows, these problems often stem from historical federal and local legislation and financial strategies that placed low-income residents and, generally, persons of color into quadrants of slums and deterioration (Rothstein, 2017; Imbroscio, 2021). Focusing on the period after World War I, these areas became increasingly underprivileged over time as employment became scarce during the Great Depression, wealth moved to the suburbs with the establishment of new loan and finance opportunities for White homeowners, and racially unjust practices and policies, such as redlining, barred disadvantaged populations from buying and maintaining their homes, and settling in other places within their city. Today, we continue in our inattention to poor communities, the lack of expendable capital (time and energy) created by their external circumstances, and thus are denying their residents the "right to decent living."

This section will highlight the federal and local failures America has created in the form of racially charged policies and practices detrimentally affecting residents and communities of color. It is important to note that it is not the scope of this dissertation to cover all the processes and policies that may be of interest in the development of under-resourced communities. It is important, though, to set the context for understanding both the conditions of neighborhoods today and the changes that occur today. This chapter starts with the Great Depression. It is a

notable occurrence in American history and characterizes a period where most Americans and their communities had the opportunity to restructure due to circumstance, creating a historical checkpoint. This section is influenced by Richard Rothstein's *The Color of Law* (2017), which details how federal, state and local policies and practices played a part in reinforcing segregation in America.

Great Depression: The Federal Government, Bank Loans, and Public Housing

The first major stock market crash in the U.S. occurred in 1929 ushering in the Great Depression (1929 – 1939). The crash left many Americans unemployed, indebted to banking institutions, defaulting on loans, and delinquent on their taxes (Rothband, 1972). Without employment to provide income for families, the resulting decline in spending meant American markets continued to suffer as homelessness and poverty increased (Powell, 2003). As the Great Depression continued, noticeable effects of suffering penetrated the housing markets. Homeowners reliant on bank loans were foreclosed on due to borrowers defaulting. In major cities, the number of slums increased as areas once prominent and stable became areas of disorganization, poverty, and homelessness (Abelson, 2003).

In response to the problems in housing created by the Great Depression, the federal government established a number of policies to help rebuild the American economy. One important part of the federal government's plan to make housing accessible dealt with banking policies. In 1932, President Herbert Hoover addressed congress and constituents pleading for a change in the banking industry to combat these aversive trends:

> *"I recommend the establishment of a system of home-loan discount banks as the necessary companion in our financial structure… Such action will relieve present distressing pressures against home and farm property owners. It will relieve pressures*

> *and give added strength to building and loan associations, savings banks, and deposit banks engaged in extending such credits. Such action would further decentralize our credit structure. It would revive residential construction and employment. It would enable such loaning institutions more effectually to promote homeownership."(Hoover, State of Union Address, 1932)*

This statement rallied citizens in a time of financial scarcity as the economy became a staple in the coming political campaigns.

Upon winning the election against Hoover, President Franklin D. Roosevelt concentrated on his campaign promise of economic recovery and an end to the Great Depression via "The New Deal" (Smith, 2014). This involved promised changes to banking practices which would improve the economy and bolster home ownership. Roosevelt's New Deal legislation would create new institutions, namely the Homeowners Loan Corporation (HOLC), Federal Housing Administration (FHA), and the Public Works Administration (PWA) that would decentralize government and create funding opportunities for homeowners through mortgage credits and lending opportunities (Faber, 2020). The HOLC, specifically, granted emergency and extended lending options to homeowners who were near default and in danger of foreclosure (Hillier, 2003a; Carrozzo, 2008). This normalized the practice for banks of replacing short-term loan contracts with high interest rates with long-term contracts with low interest rates. Banks became a part of the HOLC and the newly created FHA in 1934. Rothstein (2017) notes that for the HOLC to be successful, it needed to offer discretion when loaning borrowers for their homes. Through local real estate agents, the HOLC would gather data about the characteristics of the neighborhoods of their potential loanees and unsurprisingly took racial composition into consideration, given national codes to uphold segregation during this time (Barron, 2004).

The FHA insured bank mortgages covering eighty percent of the housing cost. This insurance assisted middle-class renters to participate in the homeowner market. Unfortunately, this offer was only extended to White renters as a guideline within the FHA instructed banks to deny loans for those who lived in communities of color (Imbroscio, 2021). In addition, FHA lending eligibility standards gave preferential treatment to homes that had race restrictions within the deed – preventing non-White residents from living there (Rothstein, 2017).

The PWA was established in 1933. Through private contractors, the agency's job was to distribute funds to drastically change American landscapes, including constructing bridges, buildings, dams, and highways (Smith, 2001). This administration was created to help boost the American economy with jobs and give the nation a needed physical change. The PWA was also tasked with demolition tasks within residential areas of cities to make room for housing for future lower to middle-class White families. This would address the labor shortage and the urgent need for affordable housing in America.

Communities of color were also targeted for reconstruction; however, these works were disproportionately built and were segregated. Harold Ickes, former US Secretary of the Interior and a major advocate for the PWA created a neighborhood composition rule that federal housing projects should occupy the same race of tenants that resided there before the housing development (Rothstein, 2017). As a results, only neighborhoods that were already integrated could house mixed-raced residents in the same complex so even this policy fostered segregation.

During a time of crisis and national decline in quality of life, income, and opportunity, America could have started its rebuilding after the Great Depression on a racially equal or equitable basis. Instead, the national economy and, more notably, the housing market was revived by federal agencies, expecting to structure communities of color at the bottom, starting

by disallowing funding for homeownership or preventing foreclosures for people of color. In addition, the PWA seemed to be explicitly tasked with demolishing areas categorized as "slums" – making room for expected growth. Unfortunately, this growth was segregated as racial composition guidelines were applied to federal public housing. Unofficially, the PWA was tasked with reinforcing racial divides within the city. With these federal institutions coming into play and tasked with determining where housing should go and who should live there, the following practices would provide more explicit guidelines by the banks as to which communities were eligible for funding and expansion and which ones were not.

US Housing Authority and Redlining

In September of 1937, the Wagner-Steagall Housing Act was enacted, this legislation addressed housing as a universal right for American citizens and highlighted the importance of addressing poverty and homelessness in the country. With the increasing development of shantytowns and deteriorating neighborhoods identified as an urgent problem, Congress approved over half a billion dollars in loans to address low-income housing issues (Brabner-Smith, 1937). The strategy was to construct self-sufficient low-income housing, allowing a portion of the rental cost to be paid by residents. The rest came from government expenditure – later devised as Section 8 program housing. The Act was later assisted in developing the second Bill of Rights – the right for every family to have a decent home (Sustein, 2009). This legislation permitted the involuntary movement of individuals with low income or unemployment into "public housing arrangements." Targeting, stigmatization, and marginalization became effects of the Act as those with lower income, usually persons of color, who were disproportionately those living in poverty would soon be trapped in the communities they once called home (Welch & Kneipp, 2005).

The Wagner-Steagall Housing Act also led to establishing the US Housing Authority (USHA), which included among its goals the improvement of housing quality by lending money to public housing agencies formed by local governments to construct low-income residential communities. Barron (2004) notes that USHA practices upheld the idea of “separate but equal” when approving funding and constructing space. Officials admitted that not only was the approval of projects not based on logic or rationality, but the autonomy USHA gave city leaders allowed for them to define “separate” and “equal” through their own ideals. Like the PWA, USHA’s job was to keep resources racially biased and public housing segregated. For example, Barron (2004) details how in the 1930s Marietta, GA, leaders exploited these ambiguous guidelines and used the federal program to segregate the town at a record level by placing White public housing in prime parcels in the Eastern portions of the city. Black public housing, however, with the same structural design to keep the element of equality, was placed closer to business districts – some with toxic hazards. Segregation and public housing were now used as new racial bargaining chips to be gambled for public opinion and political votes (Barron, 2004).

With lower-income populations corralled into “separate but equal” housing projects through the PWA, and now the USHA, the FHA and HOLC continued their loan approval and insurance operations to assist White American homeowners. Home loans began to be restricted and denied in specific areas in a process labeled “redlining”. The redlining appraisal process, controlled by HOLC through Appraisal Committees, made up of bankers and realtors, held that an area's eligibility for Economic Background Rating determined approval of the loan – spaces determined ineligible were labeled as "too risky" or unwise investments (Nardone, Chiang, and Corburn, 2020; Woods, 2012). Maps of cities showed low-income housing, dense non-White populations, and inner-city properties labeled unfit for loan applicants. These unjust policies

created racial tensions, specifically among those White homeowners within or close to redlined districts (Aaronson, Hartley & Mazumser, 2021). With support from the FHA and HOLC, White homeowners were credited funds to buy homes and relocate from the city to establish suburban residencies. As these federal practices persisted, local behaviors also developed to keep areas racially homogenous.

Racial Segregation and Restrictive Covenants

Beyond the federal government, local laws and practices such as the lack of response by law enforcement and the violence of private individuals were also important in shaping neighborhoods during the 1940s. In addition, local communities attempted to prevent African Americans from integrating into "White" residential areas through racial zoning and restrictive covenants. Racial zoning laws were local ordinances preventing any race from residing where another racial majority occupied the community (Rothstein, 2017; Troesken & Walsh, 2019). Restrictive covenants were clauses within homeowners' paperwork, stating that it was it a violation to sell or rent to families of color. Where redlining had confined low-income Black families into inner city zones, restrictive covenants were designed to keep middle class Black families out of new suburban communities.

An example from the case Buchanan v. Warley (1917) illustrates the practice of racial zoning and the response by the United States Supreme Court to the practice. Louisville, KY, where Buchanan, who owned his home, had an ordinance stating that it was against the law to allow a Black resident to live in areas occupied predominantly by White residents. Warley and Buchanan entered into an agreement where Warley would buy Buchanan's house, but Warley wouldn't be able to live there because of the ordinance. Because of this, Buchanan did not pay for the home leading to Warley suing Buchanan. In an attempt to complete the sale of the house

while simultaneously protesting the ordinance, Buchanan sued Warley, stating that this was a violation of one's constitutional rights. Further appealed to the United States Supreme Court, they ruled that racial zoning violated one's Fourteenth Amendment (Freedom of Contract). Although found unconstitutional, racial zoning's prolongation was due to the courts' lack of enforcement of the law and White racial hostility and violence towards people of color. For example, ignoring the Buchanan decision, southern cities, such as Atlanta, excused the court's ruling by arguing that "threats of peace" should trounce constitutional rights (Rothstein, 2017; Bernstein, 2017). Thus, racial zoning practices continued well into the 1950s – with effects lasting generations (Schmidt, 2017). Another solution White homeowners and home developers created to undermine the USSC's decision in Buchannan of racial inclusion was to develop "restrictive sections" embedded in the deed and leasing agreements (Rothstein, 2017). For example, in a St. Louis, Missouri community, property deeds included clauses stating that the homes could not be sold nor occupied by anyone other than White residents (Darden, 1995; Kucheva & Sander, 2014). This custom stood unopposed until a Black family (Shelly) attempted to move into a home with such a deed in 1945 and was met with heavy backlash, including physical and verbal threats. The Shelly v. Kraemer (1948) case decision originated from these acts. In this case, the Supreme Court ruling stated restrictive covenants themselves did not violate the equal protection clause of the Fourteenth Amendment. They agreed that private owners may agree to these terms in the selling of their homes; however, any judicial enforcement of the covenant would be a violation of one's constitutional rights (Gonda, 2014). Although this as a win for those seeking to purchase homes outside of their communities, this led to backlash as the same law enforcement agents who were barred from protecting the covenants, began to use their discretion in answering calls to homes with new owners of color.

Failure to be protected by law enforcement came in many forms. In 1954, Andrew and Charlotte Wade moved into a White, suburban community in Shively, Kentucky. As the family moved into the once entirely White neighborhood, they were met with hostile response from the community's White residents through profanity, disturbances, and cross burnings on the Wades' property (Rothstein, 2017). Later that night, they would be subjected to rocks thrown through their home windows and gunshots to intimidate them. Violence would continue for over a month as officers stood in the proximity of the demonstrations. These violent actions would ultimately lead to the destruction of their home from an explosion. Though law enforcement uncovered the identities of the bomber and cross burner, the prosecutor failed to indict them. In addition, the previous White homeowners were arrested and convicted on charges of inciting unrest and encouraging a rebellion (Motts, 2020). Scholars such as Rothstein (2017) suggest that the racism, violence, and destruction of their home experienced by the Wades should be considered state-sponsored actions, given the lack of formal response by the local police department.

As White, affluent communities continued to grow through financial opportunity and lending, communities of color continued to struggle. Those families of color that could afford to move into the city's outer limits met with White-led community resistance and a failure to be protected by local law enforcement, state courts, and federal law. This failure to be protected in predominantly White environments led to the return of families of color into the communities they tried to leave, or the establishment of a few pocket communities that escaped the reach of redlining (Rothstein, 2017; Kruse, 2013). This would continue for the next few decades until federal laws would be put in place to help remove these oppressive systems. Although, racial zoning laws began in the early 1900s and continued well into the 1950s, the effects lasted for generations in the form of overt racism in predominately White communities, housing price

fluctuations correlated with racial proportions and disregarding of court decisions barring racial discrimination (Schmidt, 2017).

The Fair Housing Act and US Housing and Urban Development

The 1960s was a time of revolution as the civil rights era began. This decade was filled with changes that would benefit those affected by biased racial policies. During a time of tragedy, racial tension and violence and oppression, communities fought as "separate but equal" became "equal for all." Legislation at the federal level eventually in support of the equal rights included the Civil Rights Act of 1964, Voting Rights Act of 1965 and, important for this chapter, the Fair Housing Act of 1968. The Fair Housing Act of 1968 prohibited the discrimination based on race, religion, sex, etc. when attempting to buy, rent, or sell property (Schwemm & Taren, 2010; Tighe, Hatch & Mead, 2017). It was the hope that this law, in tangent with many others, would lead to the desegregation of American life and offer opportunities to communities that were under-resourced and forgotten during the reconstruction after the Great Depression. In addition, as a result of the Housing and Urban Development Act of 1965 and to replace USHA after its dissolvement in 1947, the US Department of Housing and Urban Development (HUD) was created. HUD was created to address and improve housing needs in America and enforce housing laws (Bostic et al., 2012). This included establishing a leasing program to aid in homeownership for low-income families.

Though with the stated purpose of aiding forgotten and excluded communities, the reality of HUD and the Fair Housing Act fell short of their promises to communities of color. It was the job of the HUD to enforce fair housing laws; unfortunately, the agency was provided little to no power to stop unfair practices from continuing or penalizing offenders. Agents were only authorized to investigate the grievance and refer the issue to state officials (Massey, 2015).

Additionally, although the Fair Housing Act prohibited discrimination in buying and renting, it did not stop discrimination towards loans and lending (Massey, 2015) – including discriminatory pricing. Discriminatory pricing is when loan officers increase rates to borrowers that were initially fixed based on a prejudiced factor, in turn raising their interest rates (Schwemm & Taren, 2010).

In all, the establishment of the HUD and passing the Fair Housing Act of 1968 were the first steps in a grand gesture to correct decades of discriminatory policy and maltreatment. Unfortunately, as we saw with court cases outlawing racial-biased practices, loopholes that allowed entities to discriminate based on race became the new goal in American housing.

Stigmatization and the War on Drugs

As legislation and financial institutions trapped communities of color fiscally, the emergence of the War on Drugs would aid in community decay. The War on Drugs was a national campaign aimed at reducing and stopping the sell and use of recreation street level substances (e.g., crack-cocaine), specifically in the streets of low income and impoverished communities. In addition to fitting police departments with paramilitary gear, the War on Drugs included racially biased enforcement communities of color in the form of pretextual traffic stops, legal misrepresentations in court, and disproportionate incarceration rates compared to White residents and communities (Alexander, 2012). These invasive tactics continuously solidified a state of war on communities of color – a place where residents were confined due to racially charged legislation and societal mistreatment (King, 2008; Alexander, 2012) . Now, areas under-resourced and excluded from White society began to be labeled as criminal and deviant and burdened by the invasion of an immoral crusade destroying Black and Brown bodies and communities. In all, the War on Drugs increased the criminalization of neighborhoods through

its propaganda. This, in turn, affected these communities through deteriorating housing prices, lack of available employers for legitimate financial opportunities for residents, and over-policing of these neighborhoods.

Alexander (2012) notes that the War on Drugs, which began its rise in the 1970s, has detrimentally affected communities of color – with effects lasting to this day. This has been done through the discriminatory practice of laws aided by politician's "Tough on Crime" regimes. For example, during Richard Nixon's regime the country saw an increase in prison sentences, protection of search and seizure laws, and harsher criminal codes. These allowed for the over-policing of communities of color, leading to a discriminatory overrepresentation of these populations, often Black, within the carceral system, and subjecting them to societal stigmatization that is represented through limited opportunities for employment, government assistance, and housing (Alexander, 2012). The effects of these criminal justice practices on these communities, in tangent with White Flight, redlining and poverty, have contributed to the deterioration of housing prices and thus wealth in poor communities of color.

Extant research has shown that neighborhood housing prices are affected by people's perceptions of criminal activity and offenders in the area (Pope, 2008, Bishop & Murphy, 2011; Buonanno et al., 2013). There are several ways that the stigma that comes from overpolicing, or the unequal attentiveness to criminal activity suspected based on purposeful implementation and not logic (Perry, 2006), affects housing prices. First people who want to buy homes rather than rent are unlikely to risk buying homes in stigmatized areas of poverty and crime (Glaeser et al., 2002). Second, those within the stigmatized areas lack the needed capital to purchase their community home. Finally, residents of poor neighborhoods who can purchase homes are likely to retreat into rural or suburban accommodations.

In addition to the lack of readily accessible capital, research notes individuals are more likely to have issues acquiring funds through legitimate employment when they have a criminal record – especially when comparing White to Black applicant experiences. Pager (2008) notes this is due most employers and states have discriminatory policies for applicants with misdemeanor or felony convictions. With similar backgrounds, credentials and other qualifying features, Pager (2008) notes that it was more likely that White male applicants with criminal records were seen as "redeemable" by employers even with the same offending record as Black male applicants.

Another concept Pager (2008) notes is the idea of a spatial mismatch when analyzing employment and space. With this idea, companies and business owners choose to move closer to more affluent and non-city environments to ascertain a specific business and applicant demographic. With employers moving farther from low-income populations, gainful employment becomes more inaccessible to all. Without opportunities for employment, these communities are less likely to be able to raise the socioeconomic status, which helps in developing social control, restoring physical structures, and developing aspects of collective efficacy.

Housing Market Crash and Foreclosures

Lastly and more recently, communities have been hit with a national economic crisis, similar to the Great Depression, that restructured housing and community for US citizens. In 2007, the US was faced with a new housing epidemic when the housing market crashed, leaving over two million homes in foreclosure. Throughout the nineties and mid-2000s, banks and finance agencies granted high-risk loans to constituents with low credit. These high-risk loans were given to individuals "unknowingly" in preparation for their economic demise through their

inability to keep up with loan payments. With loan rates heightened and the frequency of loans accepted increasing, the housing market grew to hazardous standards (Holt, 2009). When high-risk enrollees could not afford payments, revisiting a high-risk loan agreement was a routine option. With many people defaulting on loans, the market could not sustain itself, causing it to crash – causing economic recession (Coleman, LaCour-Little & Vandell, 2008; Levitan & Wachter, 2011).

Recession effects would now be seen through multiplied debt of lower-income residents, foreclosures, and deteriorating neighborhood conditions upon the economic recovery in 2009 (Wial, 2013). Patterns formed where those who were fortunate enough to escape the recession relocated to more prominent areas, abandoning former communities. Foreclosures left many homes abandoned, leaving lasting effects in neighborhoods in terms of decreased property values of proximate homes and communities and social cost in terms of increased turnover and crime (Wial, 2013; Hyra & Rugh, 2016).

As the economy gradually stabilized in 2010 and rose for some, often low income, and often communities of color, continued to suffer from unemployment and poverty. As housing prices in these areas continued to fall, the predatory buying, acquisition, and transformation of properties and neighborhoods through government and private sector investments increased – some termed this gentrification (Hightower & Fraser, 2020).

CHAPTER III

CONCEPTUALIZING GENTRIFICATION

There are a variety of definitions of the term gentrification. Gentrification has been defined most broadly to describe various financial, cultural, and social changes a community undergoes via external investments. Some definitions though define gentrification as a partnership with state agents and private investors to generate a lasting change in communities (Hightower and Fraser, 2020). Others broadly expand this definition to encompass any change in a neighborhood that reduces poverty and the increase in median income with the implementation of retail and other capitalistic features (Meltzer & Schuetz, 2012; Rose, 2002; Shaw & Hagemans, 2015; Meltzer & Capperis, 2017). Commonalities in all these general definitions characterize this process as an adjustment to the neighbor's financial structure and the social environment.

In criminology, theoretical frameworks give insight into defining the mechanism of gentrification. Through ecological frameworks from, mainly from the Chicago School, gentrification has been shown as one way to decrease the likelihood of crime in an area by implementing policies that will "clean up the streets" and promote the transitioning of these spaces from the current, often labeled problematic, culture to one of a more conventional nature. This includes additions such as increasing law enforcement, surveillance, and other tactics that change the physical and social landscape.

The purpose of this chapter is to highlight how gentrification has been conceptualized in research and theory. In this dissertation, gentrification is conceptualized as a process of physical and social change to an area through municipal and capitalistic undertakings shown through the drastic shifts in people, places, and cultures. The following sections explore the concepts

commonly identified when conceptualizing and measuring gentrification and advance it through a methodological and theoretical lens. This is done by expanding the concept of gentrification, defined by conventional criminological theory, to include a critical element supported by the disproportionate changes and opportunities influencing neighborhoods – explained in Chapter 2. Additionally, this is done methodologically by conceptualizing gentrification through more city-level and real-time means to better model the transformation.

Measuring Gentrification

When measuring gentrification, social scientists often look at how the community of interest changes. This includes large-scale shifts such as family median income and racial composition change. Other changes include more physical changes such as the rise and fall of establishments and the transformation of public housing to condominiums. Measuring gentrification in extant research has presented some issues, including access to reliable data that measures the actual process of gentrification over time.

Neighborhood Composition

Gentrification aims at increasing the socioeconomic status of the areas chosen. This not only includes the establishment of new structures and businesses, but a new group of people. People who are the targets of advertising campaigns for housing in gentrifying areas are often affluent buyers who live a single/unattached lifestyle or are newlywed without children – both with expendable capital and room/opportunity to expand their household (Weber, et al.,2006). Stakeholders in gentrification are also often employed college graduates capable of buying or renting in an upper-scale suburban neighborhood. As more people of these types of people move into the neighborhood, gentrification becomes more cemented and invested in the change – altering neighborhood composition.

Unfortunately, research that models gentrification through composition flux often focuses on changes that are measured by decennial statistics (Hwang & Lin, 2016). For example, in examining gentrification and public schools, Keel, Burdick-Will, and Keene (2013) reviewed neighborhood composition using percent changes from 1990 to 2000 of rent, home value, and median household income. Using ten-year intervals to model gentrification is problematic because it presents more of a snapshot of change instead of modeling the process. Smaller intervals are needed to measure the change that captures gentrification, and the closer the measures are to representing real-time, the better the model.

Another issue when measuring gentrification by changes in composition, is the reliance on census tract data to capture change (Barton, 2016; Hwang & Lin, 2016; Meltzer & Capperis, 2017). If we understand that gentrification can influence the individual level, methods used to measure gentrification should be as close to that unit of analysis as possible without violating anonymity. Despite the benefits that economic change in an area that come with gentrification have, cultural changes can backfire as the area becomes exclusionary to those who counter the new culture developed – such as residents who have survived the gentrification. Former resident who could not afford to stay but still frequent the area are also important to consider.

Displacement

Along with changes in the neighborhood resident composition, gentrification is conceptualized through the displacement of existing residents. As targeted communities are prepped and gentrification proceeds, many residents are displaced from their homes and are expected to endure detrimental situations with little to no support. Freeman (2005) notes that during gentrification efforts, often previously residing families are unable to find accommodations that still fit within their financial boundaries in proximal locations – causing displacement and forcing relocation into more distant communities. Families forced to move into

new accommodations due to gentrification must navigate a new life for themselves often far away from their homes. For example, because of school zoning guidelines, families who have to relocate with children must not only find a home but new schools for the children. These families may also need to learn new public transportation routes if they do not have a reliable means of transportation, acquire new transportation means, and foster new communal and trusting networks for external support with strangers. Zimmer (2020) notes that when discussions of gentrifications occur and are implemented as projects of revitalization, there are seldom discussions about the lives of those whose neighborhoods are changing. This prompts the question, whom is gentrification for?

When measuring displacement as a result of gentrification quantitatively, many issues prevent scholars from inferring causal relationships. Studies that focus on cross-sectional trends may fail to capture the change happening through time and space given issues with spatial autocorrelation. Additionally, because of the failures of official statistics, a mix of "proxy" measures must be used when measuring displacement, such as race/ethnicity, unemployment, elderly, and sex/gender. For example, Atkinson (2000) states that previous works look at increases in mean and head of household statistics. This presents an issue, as Atkinsons notes, is an "ignorant" and "male-centered" view of neighborhood structure neglecting the impact of women. More importantly, these predictors only measure neighborhood change and not explicitly the displacement of residents. Lastly, existing measures of displacement have issues with internal validity as teasing out where removal is voluntary, involuntary, or related to the gentrification process is challenging without the assistance of qualitative data. For example, one new method modeled social media activity to indicate displacement and neighborhood change (Gibbons, 2018; Shelton, Poorthuis & Zook, 2015). However, though this method presents a new

way of mapping individuals who have moved from an area, it does not help in identifying the reason for the move making it difficult in interpreting findings associated with gentrification. Other challenges in measuring displacement are found when using geospatial data and location-based methods (Easton, Lees, Hubbard & Tate, 2002), which have validity drawbacks.

Third Places

Despite the importance of economic and demographic changes of the residents, there are other shifts that often come with gentrification. These alternative shifts in the community may be used to help resolve problems with traditional measures of gentrification that have relied on census and decennial data. Gentrification research investigating neighborhood revitalization notes the increase of third places as a beneficial outcome of the neighborhood renewal (Brown-Saracino, 2010). Third places offer a social and economic change in an area, potentially bringing in money, interest, and new kinship among participators. Oldenburg & Brisset (1982) originated this idea by conjecturing that society and its members benefit from residents' participation in social environments and thus need inclusive and local spaces. Home is often considered the "first place," and work is a person's "second place" – given the time and accountability associated with these areas. Places outside these domains are partially eligible to be considered "third places." These environments can include, but not limited to, coffee shops, lounges, clubs, bars, and restaurants.

A vital element to third places is the concept of sociability. Sociability is the capability for an individual to discover benefits from the environment through interpersonal connection. Oldenburg & Brisset (1982) note that sociability is represented in several facets within third places. First is the idea of escapism from the burdens and pandemonium of dull and ordinary life. Joseph Weschsberg (1966) details these areas by stating:

> *"[A man's] coffee house is his home away from home…There he is safe from nagging wife and unruly children, monotonous radios and barking dogs, tough bosses and impatient creditors"*

Williams and Hipp (2019) state:

> *"[Third Place] activities tend to be unstructured and unscheduled, [where] patrons do not act as formal host… do not require formal membership or significant monetary spending… are designed to facilitate conversation… and are temporarily and spatially accessible."*

These statements characterize third places as locales to escape from the familiar characters one deals with regularly, and the obligations, demands and pressure generated from these groups – which are generally found at work and home. Within the third place, patrons are welcome to relieve themselves of established roles and enjoy the company of like friends and strangers in a communal and leisure space. Oldenburg & Brisset (1982) note that these spaces are separate from achievement and formal guidelines placed by the labels given by society. Further these spaces purposely refrain from providing atmospheres that encourage their patrons to perform expected behaviors that may be casually but recommended by different atmospheres – such as strip clubs or singles bars. These spaces provide specific requirements and adherence to strict guidelines, dictating the environments activities and performances.

Another aspect of third-place sociability offers is the aspect of equality. In providing a safe communal space for patrons of the third place, it is essential to ensure the "escapism" theme is prevalent within the atmosphere. This includes providing a space that dismisses qualifications, credentials, and prerequisites. In this facet of third places, everyone can express themselves and have a voice. Similarly, third places should invoke an autonomous and non-threatening

conversation – also called triangulation (Whyte, 2012). Oldenburg & Brisset (1982) note thirds spaces are unique in that they focus on the nondiscursive conversation. This conversation style allows individuals and groups to learn from others' experiences without being narcissistic, and to ask questions without being judged.

Third places are spaces of benefit for individuals and communities (Oldenburg & Brisset, 1982). They provide areas of varying perspectives and diverse groups of people. The average person's home and work life are often spent in repetitious and often isolated environments. Third places offer variety to their patrons in the form of people and experience. Although those participating in third spaces are focused on relaxing and having an informal and communal time, people change every visit. This ranges from people from all walks of life, occupation, socioeconomic status, and cultures. Via experience, although not entirely unpredictable or varying, third places offer the opportunity for random and unique happenings that one is unlikely to experience during their methodical daily routine. Third places allow people in the community and proximity to socialize and develop trust amongst strangers. It acts as a beacon of neutrality for the community as these spaces promote comradery by denying behaviors that would violate the sociability aspects of the space.

Third places allow for those affected by roles and expectations in their daily lives to come and rejuvenate with informal banter and mutual conversation (Oldenburg & Brisset, 1982). It is an arena welcoming to all and relies on the comradery and sociability of its patrons. These sociability elements allow individuals to find relationships and communication aside from their roles as workers or members and enable a sense of belonging and self-worth. It is important to note that technology has become a beneficial escape for most people; virtual third place communities have been created to replace the need for brick-and-mortar establishments (Soukup,

2006). Although this community is growing and has a place in the modern experience, it does not fit within the project's scope.

As third places act as a valuable part of the community, these places are essential in low-income and marginalized communities. These third places may be particularly important in marginalized communities, because the residing population is often barred or unable to participate in class-oriented spaces that require access or capitalistic freedom. Within third places spending significance is unnecessary. In these places, over time, these spaces become areas of cultural resilience and community bonding. These areas share the experience of the environment, trauma, and pride where interaction and existence transform into social cohesion (e.g., barbershops).

Despite the importance of third places in gentrification literature, few quantitative studies include measures of third places in the analysis. Some studies measure changes in the number of coffee shops, restaurants, and other establishments when conceptualizing gentrification (Zheng & Kahn, 2013; Papachristos, 2011, Wo, 2016). For example, Zheng and Kahn (2013) analyze place-based investments and their relationship to gentrification. In this study, they posit that the process of gentrification will include an increase in homeowners and home developments and the development of new amenities such as restaurants. When research third places qualitatively, this concept is often conceptualized using individual experiences and narratives. For example, Jeffres and colleagues (2009) examined the impact of third places and the quality of life in communities. Their operationalization of third places included one open-ended question, “What are the opportunities for communication in public places in your neighborhood, for example, places where people might chat informally or where friends and neighbors might go for a

conversation?". These were then coded into three categories: food/drink accommodations, location, and surrounding attractions.

Although third place research is growing to model gentrifications impact on space, many limitations are often present. Modernity has made characterizing space as third places difficult. Through the advancements of the internet and technology, digital third places are online spaces where third place characteristics are present (i.e., sociability) and occur through online mediums such as chatrooms, social media, and various forms of online gaming (Soukup, 2006; Yuen & Johnson, 2017). Additionally, places considered third places (i.e., coffee shops) have now turned into expedited food service areas where options include drive-ins and online ordering, thus taking away the sociability aspect of the space (Papachristos et al., 2011). Gentrification may provide opportunities for new businesses and public spaces, but it is not necessarily a setting in which third places develop or thrive as they do not automatically offer an extension of the community. Sometimes establishments that characterize themselves as third places (such as Starbucks) are highly exclusive and deter patrons. For example, in 2018, two Black men were arrested at Starbucks after being prohibited from using the restroom because they were not "customers" (Ozen, 2021). These public and exclusionary messages defy a fundamental principle of sociability - open access to all patrons. Additionally, third place areas can restrict certain behaviors and people by employing heavy signage, age restrictions, high surveillance, or overstaffed police presence. Specifically, in communities of color, these precautions and leave these patrons open to negative bias and treatment – deterring them from engaging with the third place.

Demolition

Demolition is a prevalent mechanism when reshaping the environment as it has the power to dismantle and destroy cultural and historical pillars within the community. It is also another aspect of gentrification where measurement and inclusion in models in important for capturing the process. As redevelopers acquire properties and attempt to make room for new businesses and housing, demolition becomes vital in redesigning the targeted landscape (Shaw & Hagemans, 2015). Additionally, demolition proves to be a useful method in removing structures that show to be physically and socially "unsafe" (Goetz, 2011). Weber, et al. (2006) characterizes demolitions as physical indicators of gentrification. Although not all buildings are marked for destruction, gentrification's scope includes having enough variable change in the physical makeup of the environment to welcome new and more affluent construction and culture.

Demolition of marginalized and low-income communities is at times advertised as a chance to tear down structures, often public housing, deemed unproductive to prosocial society and to dissuade deviant behavior (Smith, 2014b; Turken, 2020). Unfortunately, these ideas that support urban and landscape policy is influenced by the idea that urban poverty is the root of mainstream societal issues. This ideology thus leads to policy not oriented around the deconcentrating of poverty but the deconcentrating of people.

To date, there are no studies that measure the direct relationship between gentrification in demolitions in neighborhoods with modern data. One study did use redevelopment and demolition between 1996 and 2007 in the large US cities to measure gentrification and displacement (Goetz, 2011). They used a list of demolished public housing structures from HUD and compared it with household demographics from the HOPE VI project, highlighting disparities. Pre-post model comparisons are commonly used in studies that measure demolition and housing (MacDonald & Stokes, 2020; Sandler, 2017; Aliprantis & Hartley, 2015, Wheeler;

2018; Kondo et al., 2015). This is effective as it helps input a mechanism related to gentrification, displacement, and communal change. Aliprantis and Hartley (2015) showed that crime measures were displaced into the areas that former residents moved to post-demolition when measuring displacement and crime. Unfortunately, there are no studies that analyze demolition outside of the demolition of public housing in cross-sectional frameworks.

Theorizing Gentrification and Crime

It is important to note that when areas are chosen to undergo a drastic change, it is often not an individual decision – but one with multiple players at different levels of government, occupations, and motives. When looking at why local governments or private developers choose to gentrify existing communities, there tends to be a focus on lawbreaking (Doering, 2020). Gentrification is often defended or explained as an attempt by private and public investors to make the area "safer" and combat concentrated crime. Public actors often advocate not to reinforce the gentrification of neighborhoods that are seen to be doing conventionally "well" but to focus on those driven by issues they have deemed problematic because of problems with crime. By attending to crime from broken windows or situational crime prevention perspectives, public and private actors' ideologies seek to restructure targeted communities. Other justifications for gentrification include a generalization label attached to middle- and upper-class neighborhoods as having lower crime rates; the idea that crime is stressful for forced on low-income residents and displacing them relieves them of that pressure; and the idea that of higher SES residents moving into these areas will attract prosocial policing due to the relationships newcomers have with public institutions. This section will highlight criminological frameworks used to understand and promote structural changes such as gentrification. This section begins

with conventional theoretical understandings of neighborhood crime in criminology, followed by the imploring of a new theoretical perspective to view this mechanism of community change.

Routines Activities Theory

Routine activities theory suggests that crime reduction can result from changing characteristics of crime targets and environments. In the early formulation of routine activities theory, Cohen and Felson (1979) stated that crime is more likely to occur in times and places with vulnerable targets and motivated offenders, without capable guardians to protect potential victims. Using this theoretical framework, crime and criminal justice policy would suggest engaging with the target population to act as capable guardians as well as reducing the number strangers, thus limiting motivated offenders.

Theoretically, gentrification would decrease areas deemed to have increased vulnerability by providing them with resources and protection against further violence. Johnson, Guerette, and Bowers (2014) note that these are similarly key components in situational crime prevention. These constructs theorize that by protecting targets more, making targets harder to access, and reducing tools for criminogenic means, reductions in crime will occur.

Situational Crime Prevention. Situational crime prevention theory posits that changing an environment's features may hinder potential offenders and reduce the opportunity for crime and delinquency. Reductions in crime happen by providing defensible spaces that can be observed and attended to in instances of wrongdoing. Clarke (1980) notes that one of the best ways to operate situational crime prevention techniques is to take away potential offenders' anonymity by increasing surveillance and reducing the areas in which they may escape from social control enforcers.

Gentrification is often advertised as a situational crime reduction method in that it changes environments known for high concentrations of crime to promote higher SES and a law-

abiding way of living. The changes that come with gentrification often include but are not limited to entirely new structures and layout, an increase of businesses and industries that come with their security measures and systems, and an increase of law enforcement (Hightower & Fraser, 2020; Zimmer, 2020). These operations can thus serve as mechanisms for crime reduction and prevention.

Social Disorganization Theory

Other frameworks that can help characterize the effects gentrification has on crime are centered around social disorganization theory. For example, Parks and Burgess's (1925) concentric zone theory describes a model of the city that includes an understanding of the relationship of the different areas of the city to one another and how they change over time. Here more affluent, often White, populations were spaced towards the outer limits of the city where more impoverished, immigrants and residents of color lived in the central business district.

Additionally, Robert Park (1936) claimed that cities represent a type of complex organism that had a sense of unity which was made up of the interrelations that exist among the citizens and groups in the city. This model can illustrate land-use transition as an area expands or is targeted for growth. These communities go through stages of invasion, dominance, and recession. Invasion notes the beginnings of dominance from the marginal population into the majority's environment. This would include but is not limited to the acquisition of low-income area lots and properties as investors show interest in more affluent residents moving into the neighborhood and/or constructing homes. Dominance includes the takeover of the environment from the once marginal population resulting in them becoming the majority. As this happens, the preexisting community begins to recede into more adjacent areas – divesting from their former sectors. This soon leads to a full recession of the preexisting population as time goes on.

Concentric zones can help depict gentrification and its themes as residential recession by external and forceful means, also considered displacement, becomes the outcome.

More explicitly, Shaw and McKay's (1942) social disorganization theory framework illustrates how physical elements of a neighborhood can be used to explain crime at the neighborhood level. Factors such as race, socioeconomic status, residential mobility, and family disruption have been shown to be characteristics of areas prone to deviance (Sampson & Groves, 1989). In these areas, fear of victimization and distrust manifests within heterogenic populations as they become divided, thereby decreasing interaction and social control. Poverty is another factor conducive to crime-concentrated areas in this framework, as communities without resources and support cannot attend to communal issues such as control of crime (Sampson & Groves, 1989; Kurbin, Branic & Hipp, 2021). Residential mobility is another factor noted to disrupt communal socialization development in peer networks, local ties, etc. (Sampson & Groves, 1989). Areas where residents tend to relocate frequently have an unstable foundation in social control. Family disorder, another component of the theory, has been argued to decrease civic-level social controls. For example, due to the lack of supervision by families who are characterized as abusive, impoverished, and often single-parented, there is a higher probability of deviant participation in children and noninterference through social controls. (Browning, 2002).

The systematic model of social disorganization developed by Kasarda & Janowitz (1974), expands on earlier concepts provided by Shaw and McKay and others by including a process in which social institutions help regulate residential behavior. Drawing on their work, Hunter (1995), he argued that neighborhood social control is comprised of three layers – private, parochial, and public. At the private level, private institutions include the familial dynamic and close relations. At the parochial level, control is found among those less-intimate connections

and include social institutions such as churches and community associations and networks. Finally, at the public level are those organizations outside of the community (e.g., law enforcement). It is important to note that this model shows parochial institutions collaborating with public agents instead of deferring power to them in order to promote civic order. This means community organizations and networks are the gatekeepers of social control. Thus, neighborhood characteristics outside of the communal networks' management (i.e., poverty, heterogeneity, family disruption, and mobility) prevent communities from coming together as a deviant deterrent force. In communities unable to rely on their public and parochial organizations, public agents (i.e., police) are often used as a convenient although problematic option.

Broken Windows

Wilson and Kelling (1982) developed broken windows theory. With their assumptions, as visible signs of disorder become more apparent (i.e., litter, antisocial behavior, and deviance), the more likely a neighborhood is to become more disordered. As public agents (e.g., police) become more frequent in the neighborhood in response to the signs of disorder, the area is recognized for its "inability" to be a law-abiding community. This then prompts agencies to annex control from preexisting communal organizations to public agencies. However, the social control of public agents is different from the community's attempt at crime prevention and neighborhood order. These attempts include more egregious tactics such as over-policing and property acquisition leading to negative labeling of the area and surrounding locales. This then leads to a reduction in legitimate opportunities and an increase in vacant and ill-cared-for homes and buildings (Barton & Gruner, 2016). The broken windows theory believes that a neighborhood's physical condition and deterioration are positively associated with the area's

crime rates (Barton & Gruner, 2016). These target areas are then prime areas to advertise and generate plans for gentrification.

Social disorganization frameworks predict high crime rates in communities with high poverty rates, increased availability for renters versus homeowners, and ethnic/racial heterogeneity (Brehon 2007). Gentrification would attend to these factors by introducing financial investment, allowing higher-income residents to move in (countering the area's poverty). Beyond changes in the economic status of the area and the opposite of economic disadvantage, gentrification aids in developing collective efficacy as the resources and "peace of mind" that comes with it allow for trust and networks to be established. Social disorganization frameworks would assume these incoming residents often have higher incomes education and are more likely to have resources and networks to endorse collective efficacy efforts and community agreed-upon values. Unfortunately, when ideas are discussed, and municipal actors choose gentrification as the method of change, pre-existing residents often do not have the resources to remain in their homes. With them consequently not able to afford their newly renovated accommodation, they are displaced into either the conditionally similar or worse communities from where they were exiled. This theoretically displaces the crime, concentrating further proximate areas of disorganization.

Critical Race Theory

Critical criminology is a form of study that theorizes crime as a manifestation of political, economic, and social inequalities – operated to create differentiations in treatment and outcomes. Scholars such as Crenshaw (1996; 2010), Alexander (2012) and Delgado and Stefancic (2017) note specifically these systems of inequality are predominantly based on and operated through race. Critical race theory (CRT) holds that these racial disparities are an embedded feature in American society. In the law, Crenshaw (1996) has shown the embeddings of race and expanded

it to consider how race intersects with other forms of identity to shape outcomes. She notes that CRT in a "post-racial state," the public is influenced by this idea of colorblindness. Successes for notable figures (e.g., Barrack Obama) are taken as victories for the entire race. However, this is a bleak reality as society's functioning, and legislation still prevents people of color from moving the bar from a success story to the norm (Crenshaw, 2010). For criminologists, the embeddedness of racial disparities is shown in the disproportionalities of arrest, sentencing and incarceration lengths, and overall opportunities for people of color (Alexander, 2012; Stefancic, 2017). Considering the above, it is easy to see how theoretical frameworks, especially those entrenched in American history, need a critical framework to help explain how the past has influenced the present.

As discussed in chapter 2, American housing policies after the Great Depression, established through Homeowners Loan Corporation (HOLC), Federal Housing Administration (FHA) and others have been rooted in discrimination and racism. These acts have prevented communities of color from prospering by systematically making it more challenging to acquire funding, resources, and protection to grow and provide opportunities and social control for their members. Systematic operations such as redlining made it impossible for communities of color to acquire loans to purchase and finance their homes during the implementation of New Deal policies. Families attempting to transition into suburban living were not only met with violent acts carried out by current White residents but were unable to gain protection from public agencies such as law enforcement.

The impact of these policies is felt still today. Due to historical legislation and practices such as discriminatory lending, redlining and the promotion of local and federal racism, many communities of color today are still suffering from the structural disadvantages they caused.

These conditions then leave them open to gentrification, through disorganization, lowered property values and lower likelihood of homeownership, leaving residents eligible for displacement through eviction, absurd rent increases and acquisitioning of property (Zimmer, 2020). These same historical processes have allowed White, affluent homeowners and areas to generate generational wealth, allowing them to move away from the inner city and return with accumulated capital.

In relation to crime, these discriminatory opportunities and practices result in disproportionate attention and presence from law enforcement in communities of color. Notably, the War on Drugs is a historical highlight of discriminatory and racist policies and actions resulting in the disproportionate crime, arrest, and incarceration rates in communities of color (Alexander, 2012). as predicted by the ecological criminological theories, these communities are more likely to be disorganized, have suitable targets and vulnerable populations, and less like to provide social control for their members.

Viewing gentrification through a critical framework allows us to take the expectations of the historical processes and events and see if they are capable of not only understanding the harm, they have caused but have evolved and aligned themselves with modern goals pertaining to race, injustice, and equity; or are these systems that remain bent on continuing to perpetuate a cycle of disproportionate opportunity and protections that they were founded on. Is gentrification for the people already living in the area, or is it for whom it plans to replace the existing population?

Gentrification and Crime

Theoretically, gentrification can potentially have very diverse influences on crime. The revitalization of an area could decrease crime by displacing current low income and perceived

deviant persons and spaces with more affluent ones – shown to be less criminal. Additionally, inletting these more "prosocial" affluent groups would provide the area with more social control and introduce better infrastructure to prevent criminal opportunities. Alternatively, gentrification can also be problematic for an area. The process includes vacating properties and preexisting guardians which may make the area more appealing to criminal offending. Additionally, displacement and altering the landscape disrupts current communities with preestablished social control.

Despite debates about the effect of gentrification on crime, there is relatively little research on its effect. When relating gentrification to crime reduction, the extant research has produced mixed results. Extant literature has found that gentrification may reduce crime, displace crime, increase crime or have no effect. Some research shows that areas experiencing gentrification also reduce or have no effect on crime rates (Barton, 2016; McDonald, 1986). Alternatively, when measuring gentrification and crime quantitatively, research tends to show an increase in crime as a result of gentrification (Covington and Taylor 1989; Lee, 2010).

Only a handful of studies have quantitatively attempted to examine the relationship between gentrification and crime, and the results have been quite mixed. Early empirical studies had methodological issues and found that gentrification did not influence property crime in an area. In one longitudinal exploration of census tracts in comparative gentrified neighborhoods in major cities, including but not limited to Boston, San Francisco, New York, shows that gentrification, measured through residential densities and concentration of nonfamily household members, has no effect on property crime within the area, noting that prosocial impacts of gentrification are temporary (McDonald, 1986). This work is one of the initial manuscripts to investigate gentrification and its role in crime, however when generating a sample of fourteen

"gentrified" neighborhoods, there was no clarification or exclusive characteristics on why and what counted as a "gentrified" area. In another early study, Covington and Taylor (1989) found that gentrified neighborhoods increased in robbery and larceny within their investigated areas. In measuring gentrification, they included only one indicator – housing value measured by census data.

These works, important as they are as first steps, measure gentrification with census variables such as median income increase, housing values, and percent changed of "affluent" demographics (often college graduates or employment) alone. Other early studies, have followed suit, have relied on census-based indicators to measure gentrification such as racial composition, income levels and educational attainment (Hamnett & Williams, 1980; DeGiovanni, 1983).

Kraeger et al. (2011) measured property crime rates against census tract level variables and property indicators of gentrification (i.e., mortgage investment). In this study they analyzed gentrification as an outcome using the time frame of 1982 through 2000 in Seattle, WA. Using data from the Federal Financial Institutions Examination Council (FFIEC), these scholars looked at census tracts comparing the amount of home loans approved in the area. Investments were inflated and adjusted to the 2000 dollar to provide a more reliable analysis. Analyzing the change of gentrified versus non gentrified neighborhoods and using estate indicators, results showed gentrification did not influence property crime rates; but only ten percent of property crime change could be attributed to the gentrification factors used.

In studies that measure gentrification through non-census, community, and micro-level characteristics, findings do not indicate a significant effect on property crime – similar to older studies (Albertson, 2020). However, research finds that these revitalizations alter community perceptions of the area, thus changing residents' fear of crime. Albertson et al. (2020) investigate

a redevelopment of a low-income apartment complex in Seattle, Washington. Using annual mailing surveys analyzed with official crime data, results showed that crime had not changed; however, residents felt safer in the newly developed space. When measuring other perception variables, results show that positive views on gentrification are often seen as a deductive approach to crime (Arnold, 2011).

Gaps in Current Research

Primary gaps in gentrification literature is the lack of studies conducted to understand how this affects the social health of an area and more of how it affects the physical health in residents (Schnake-Mahl et al., 2020; Smith et al., 2020; Mehdipanah et al., 2018). Other gaps in the literature and results can be attributed to nonuniform definitions of gentrification and how it is measured. Some studies of gentrification fall short of conceptualizing the process by solely examining changes in one factor (Kraegar, 2007; Lee, 2010). Some studies heavily rely on census-based predictors to conceptualize gentrification – median income, property values, etc. (McDonald, 1986; Covington and Taylor, 1989). Unfortunately, though this macro-level approach is valuable, it has a limitation when attempting to analyze gentrification as a process that involves changes in time periods shorter than ten years.

Another issue limiting progress on understanding the gentrification is the reliance on cross-sectional designs (Kraeger et al., 2007). Because gentrification by its very nature is an extended process, cross-sectional studies are an inadequate to model the processes involved. Although not within the scope of this research, qualitative approaches (Lloyd, 2005) to understanding gentrification are also met with their own limitations. Although providing in-depth accounts and experiences of those facing gentrification is essential, these findings heavily rely on residents' circumstances being a driving force of the manuscript; however, gentrification should

be seen as a collaborative process engaging businesses, stakeholders, and government officials. Although this methodology is the best approach when highlighting residential experiences and micro-level systems that provide evidence of gentrification and crime, these accounts tend to take away from the public actors at the crux of the issues – acquisitioning homes and displacing communities of people. Currently, research has only focused on residential and community perspectives of gentrification. To date, there has been no empirical qualitative manuscript interviewing public sector administrations accounting for their role or view on the gentrification processes they are a part of.

Research Site and Gentrification

Norfolk, VA, has had its focus on infrastructural change arranged by the city. In addition to being a participator of redlining in the 1940s (Ringelstein, 2015) (**see** Figure 3.1**),** Norfolk's Redevelopment and Housing Authority played a role in reconstructing space to suit the needs of its affluent community at the expense of displacing families and communities (Finn, 2021). These changes have been met with backlash and criticism as the low-income residents, often Black, are facing issues of food deserts, gentrification, and displacement (Ringelstein, 2015; Murphy, 2020; Finn, 2021). Historical periods of gentrification in the city include but are not limited to:

Ghent District

During the 1950s, the area now known as the "East Ghent District," was home to many communities of color. The area developed during a period of "White Flight," as affluent White families began moving and constructing homes in the suburbs (Turken, 2020). By the 1960s this neighborhood was designated as a slum and unfit for prosocial living and as a result the area was divested in and left to fend for itself. In the mid-1960, Norfolk's Redevelopment and Housing

Authority (NRHA) designated the area as a conservation project (Fella, 2019). This designation made the area eligible to receive federal loans for restoration. Unfortunately, this restoration came at the expense of current residents; many were displaced due to the acquisition of their homes and land (Turken, 2020).

Moton Circle

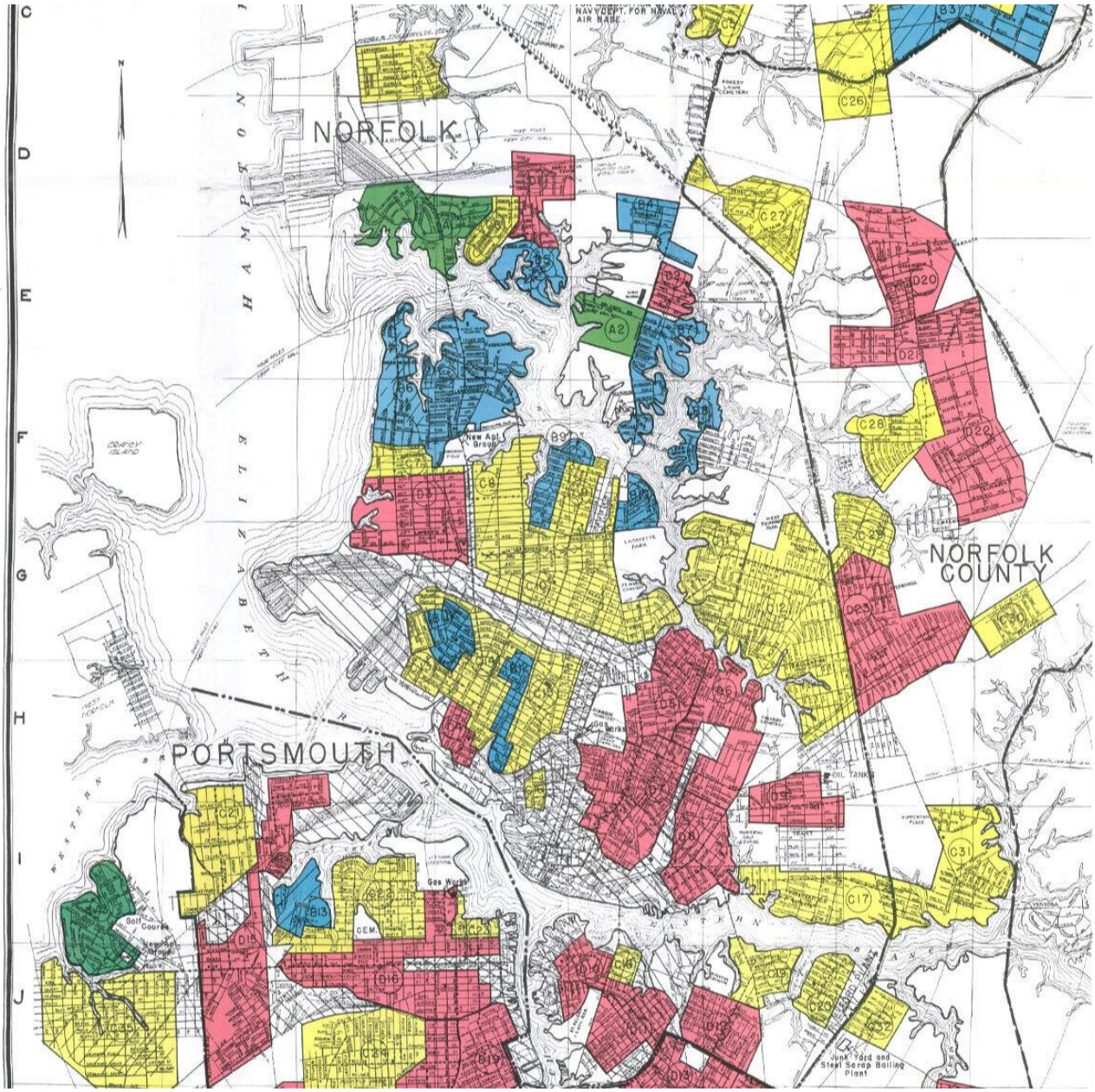
Built in 1952, this public housing complex housed 138 subsidized apartments for the Norfolk community and predominantly consisted of Black and Brown families (The Virginia-Pilot, 2010). Like other low-income accommodations, the area was allowed to go unmaintained, leading to an approved petition by Department of Housing and Urban Development to demolish the complex in 2010 (The Virginia-Pilot, 2010). Along with a notice to vacate the property, residents were falsely promised that they could return once construction finished or were instructed to use the vouchers provided by the NRHA (The Virginia-Pilot, 2010). Unfortunately, these vouchers have experienced significant problems as available spaces are few or as deteriorated as the unkept community they were displaced.

St. Paul Area

Approximately fifty years after the gentrification of the Ghent area, predominately Black and low-income families have to plan for future displacement at the hands of the Norfolk Redevelopment and Housing Authority (Finn, 2021). The St. Paul's Project is advertised as a revitalization project aimed at providing Norfolk with a modern mixed community layout. With approximately 600 units (roughly 4,200 families) occupying the area today, roughly 250 units are planned to accommodate them. Families existing in the area since the 50s, and some who relocated from the gentrification of the Ghent area, now face further displacement (Finn, 2021).

Norfolk is no stranger to changing its landscape to fit the need for prospects, nor using a space deterioration and crime rate as provided reason for the revitalization – gentrification. Black communities have been displaced due to these policies that coincide with the historical maltreatment of communities of color (Rothstein, 2017). As evidence, the provided local examples highlight how low-income areas are at the whims of larger municipal agents who determine the fate of these neighborhoods without any real consideration for the ones being removed (Turken, 2020; Finn, 2021). As the gentrification process continues, changes in social and economic compositions of areas are seen; however, this dissertation questions if these changes solved the advertised issue of crime and to what extent. The next chapter provides research questions and methodology aimed at understanding the effect of gentrification on Norfolk. Through the reconceptualization of gentrification through demolition and third places, this chapter aims to map out a way to model gentrification as a yearly process using growth curve modeling – hierarchical linear modeling.

Figure 3. 1. 1940 Norfolk Redlining Map[1]



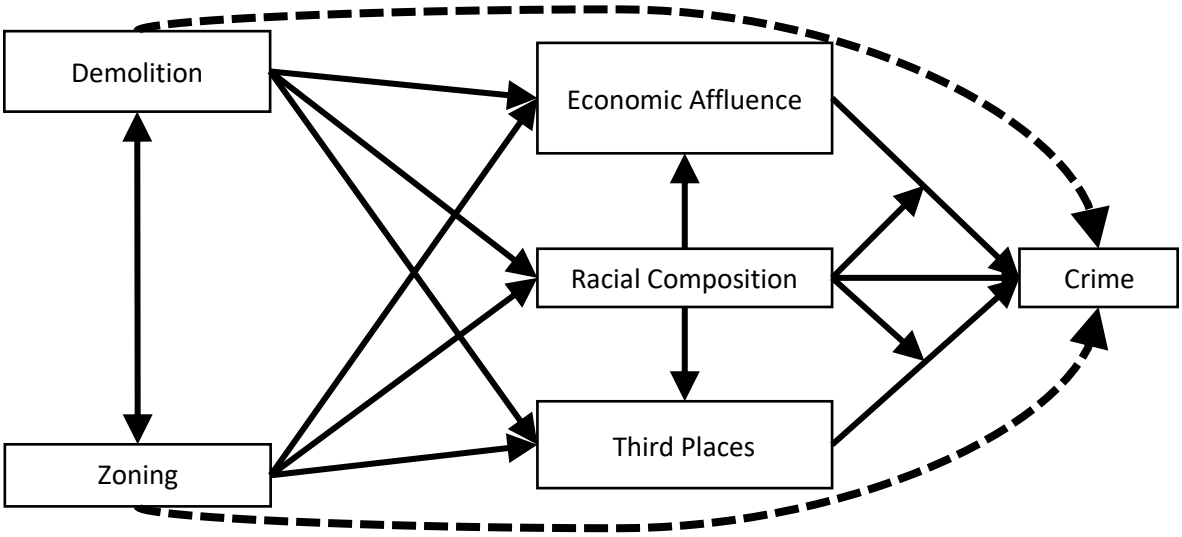
[1] The historical maps was generated in the 1930s and 1940s by the government-sponsored Homeowners Loan Corporation (HOLC) and Federal Housing Administration (FHA). These maps were used to rate neighborhoods to determine which spaces were eligible for loans and private funding. Neighborhoods were classified into four categories: "A" (GREEN) and "B" (BLUE) areas were the eligible communities for funding, where "C" (YELLOW) were characterized as areas in decline and in line to become a "D" (RED) area. These res areas were "characterized as a neighborhood that was ineligible for financial support as it presented to much of a "risk". Race was the dominant factor in determining a neighborhood's zone, where White neighborhoods were nearly always classified as A or B areas, while black neighborhoods were almost always classified as D areas, or those in decline.
Source Generated from: Robert K. Nelson and Edward L. Ayers, accessed November 19, 2021
http://dsl.richmond.edu/panorama/redlining/#city=norfolk-va
All of the scans of the HOLC maps are in public domain, with the vast majority coming from the National Archives.

CHAPTER IV

METHODOLOGY

This chapter presents a discussion of the research setting, data sources, key independent and dependent variables, statistical techniques, and other systems (e.g., mapping) used to investigate the relationship between gentrification and crime. This research seeks to add to the literature by providing conceptual and statistical models to assess the effect of gentrification on changing rates of crime with the aid of geographical information systems (GIS). Using municipal repository data to model change and development within and across the city over time, this project aims to develop a new way to conceptualize gentrification process using measures of demolition and the concept of third places. A conceptual model that serves as basis for this research is provided below (see Figure 4.1).

Figure 4. 1. Conceptual Model



This conceptual model suggests ways of disentangling the relationship between gentrification and crime through space but also time – by examining this relationship longitudinally. Moreover, this research will examine whether gentrification decreases crime uniformly or is only affecting specific zoning locales and residential populations. The following research questions drive the focus of this research project:

- What is the relationship between gentrification and crime – conceptualized through zoning, SES, third places and demolitions?
- Does where third places are established matter?
- How are these relationships contextualized through race?

Setting

This project investigates the city of Norfolk, VA. This waterfront southeastern Virginian city is home to the most extensive naval base in North America. From the 2010 Census, the city's population is approximately 240,000 residents. Norfolk is ~46% White, ~40% Black, and ~13% identifying as Latinx, Asian, or categorized Other. Approximately 45% of Norfolk residents own their home, with 47% renting with 16% of households being female headed. Median household income totals approximately $46,000, with over 15% of the population under the poverty line with an unemployment rate of 10% (US Census Bureau 2010). Table 4.1 presents these estimates.

Table 4. 1. 2010 Census Statistics (Norfolk, VA)

Population and Race	
Population	242,803
White [b]	46.3%
Black [b]	40.6%
Asian [b]	0.3%
American Indian and Alaskan Native [b]	3.7%
Native Hawaiian and Other Pacific Islander [b]	0.1%
Hispanic or Latino [b]	8.4%
Two or More Races [b]	5.9%
Age and Sex	
Percent Women [b]	47.8%
Persons under 5 years [b]	6.5%
Persons under 18 years [b]	19.6%
Persons 65 years and Older [b]	11.2%
Housing and Economics	
Households	89,398
Owner occupied housing	43.5%
Person per Household [d]	2.43
Median Household Income [d]	$53,026.00
Median Rent [c d]	$ 1,077.00
Female Headed Households	16%
Percent in Poverty [b d]	17.8%
Education	
High School [d]	88.1%
Bachelors [d]	30.0%

[a] Single-race percentages are from those who identify only as the categorized race.
[b] Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.
[c] Median rent is estimated from the gross rent calculated from 2016 -2020
[d] Estimates are from 2016 – 2020 ACS 5-year estimates

Variables

Zoning Distribution

Norfolk zoning regulates the use of areas by dividing the city into categories to control the placement of structures and businesses. Data characterizing these distributions comes from the Office of City Planning. Categorical information comes from the Zoning Ordinance of the City of Norfolk, Virginia public document and are as below. Categories that were not designed to host housing or residents were excluded as these spaces showed to have no residential population nor median household income. Because these factors are pertinent to the study, zones labelled Industrial Use Zones or Special Purpose Districts are not represented. Eligible zones are as follows:

Commercial. Commercial lots provide lands that accommodate small-scale, neighborhood-serving commercial development such as retail and personal service establishments, offices and small shopping centers, and historic structures. Figure 4.2 displays the zoning distribution for this category. Here it shows most of the city's block groups are allocated to at least 25% to 50% for commercial establishments to be placed. No block group in the figure exceeds this threshold.

Residential Single-Family. The purpose of the single-family residential district is to provide lands that primarily accommodate low-density, single-family detached dwellings on large lots – shown in Figure 4.3. It also accommodates daycares, group living, parks and recreation centers, and minor utility facilities. District regulations discourage development that substantially interferes with the quiet residential nature of the district. Looking at the figure, roughly all block groups have some space allocated for single residential dwellings with roughly large concentrations of the space located in the center of the city and northeastern sectors. Maps

reveal areas with up to 75% allocated for this residential category, with some surpassing over this limit. Southwestern and western block groups show lower allocations for this zoning, with most of the area not exceeding 25%.

Residential Multiple- Family. These lots provide lands that accommodate a range of multi-family developments on generally smaller lots. Allowed uses include detached single-family dwellings, two-family dwellings, townhomes, moderate-scale multi-family dwellings, and parks and recreation centers. Figure 4.4 presents the distributions of residential multiple family spaces. Norfolk's allocation for residential multiple housing shows to be equally spaced throughout the city with most block groups not exceeding the 25% threshold. There are small parcels of heavily concentrated areas, but these are vastly separated throughout the city.

Downtown/ Mixed Use. Figure 4.5 characterizes the zones deemed for regional business and is the city's cultural center. The district provides lands that support a wide range of intensive, commercial, civic, institutional, and office uses. The space encourages the adaptive reuse of existing buildings and the creation of new infill structures at a scale conducive to pedestrian movement and small-scale growth. Looking at the figure, these spaces block groups are concentrated along with the southwestern spaces of the city with some influence in the center of the map. It is important to note that a large portion of the map is not allocated to this zoning category.

Residential versus Non-Residential. Figure 4.6 divides the above zoning categories into two main hubs – residential and non-residential. These are categorizations based on a zone’s expected use and whether it is tailored to housing or a more business-oriented use. Zones categorized as residential include residential multiple-family and residential single-family zones, and non-residential zones are commercial and downtown allocated zones. Looking at the figure,

large portions of space are generally allocated to residential zoning. Other than sparingly distributed, the only spaces that show a heavy non-residential influence include parcels alongside the southwestern parts of the city – similar to the downtown zoning. Other combinations of zone distribution is presented in the appendices: Residential versus Commercial (Appendix A); Residential versus Downtown Mix (Appendix B); Non-Residential versus Residential Single (Appendix D); and Non Residential versus Residential Multiple (Appendix E).

Figure 4. 2. Commercial Zone Allocations

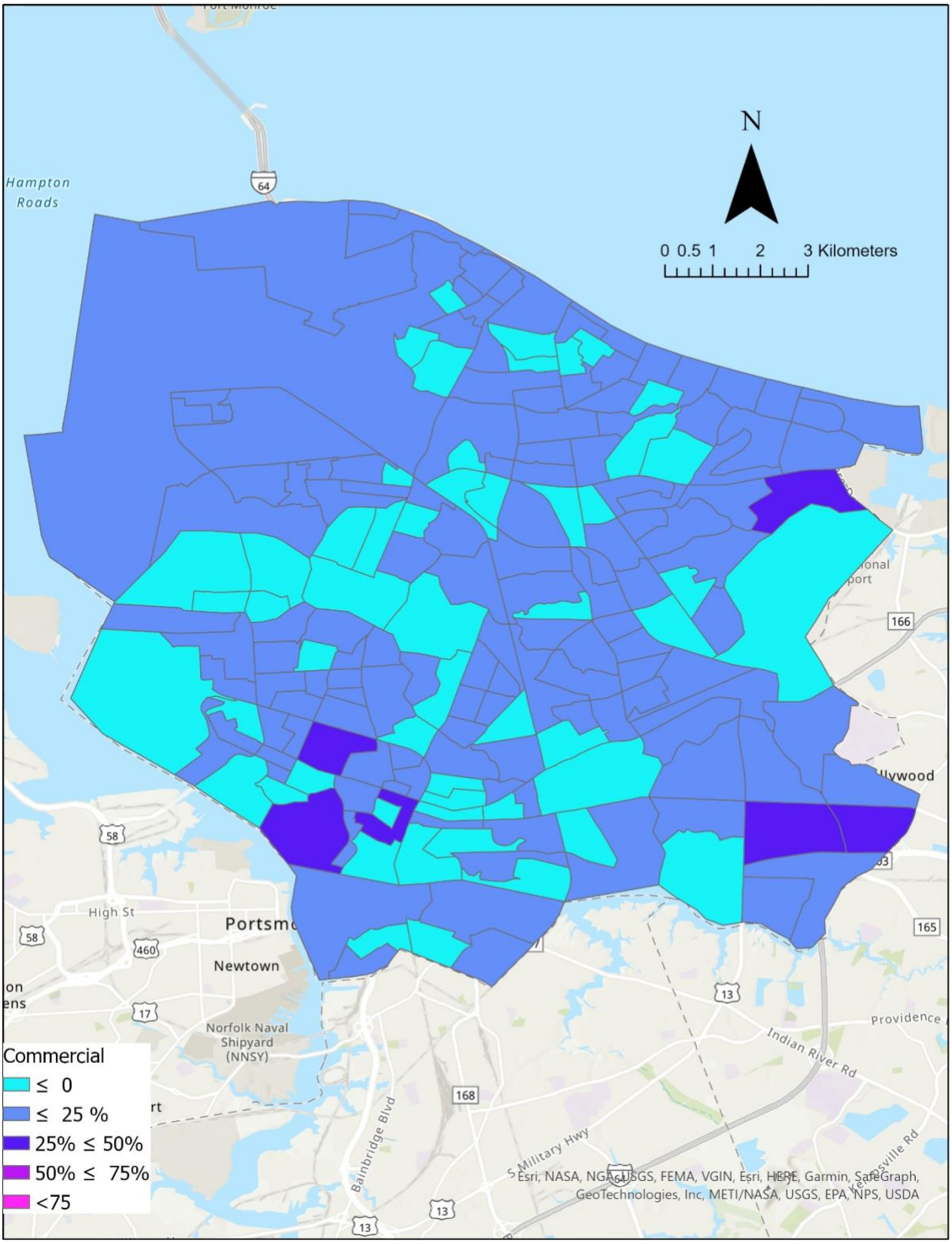


Figure 4. 3. Residential Single Zone Allocations

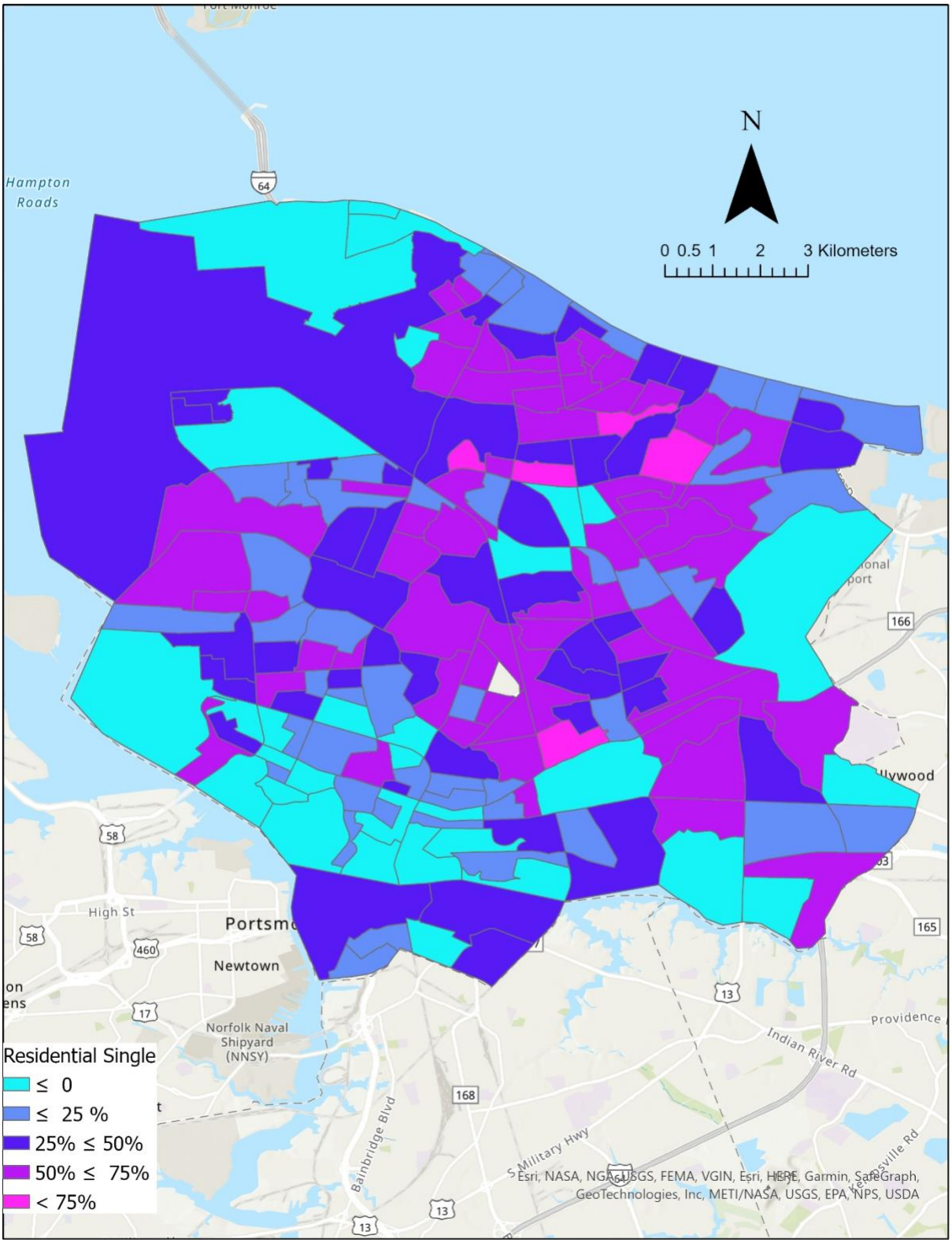


Figure 4. 4. Residential Multiple Zone Allocations

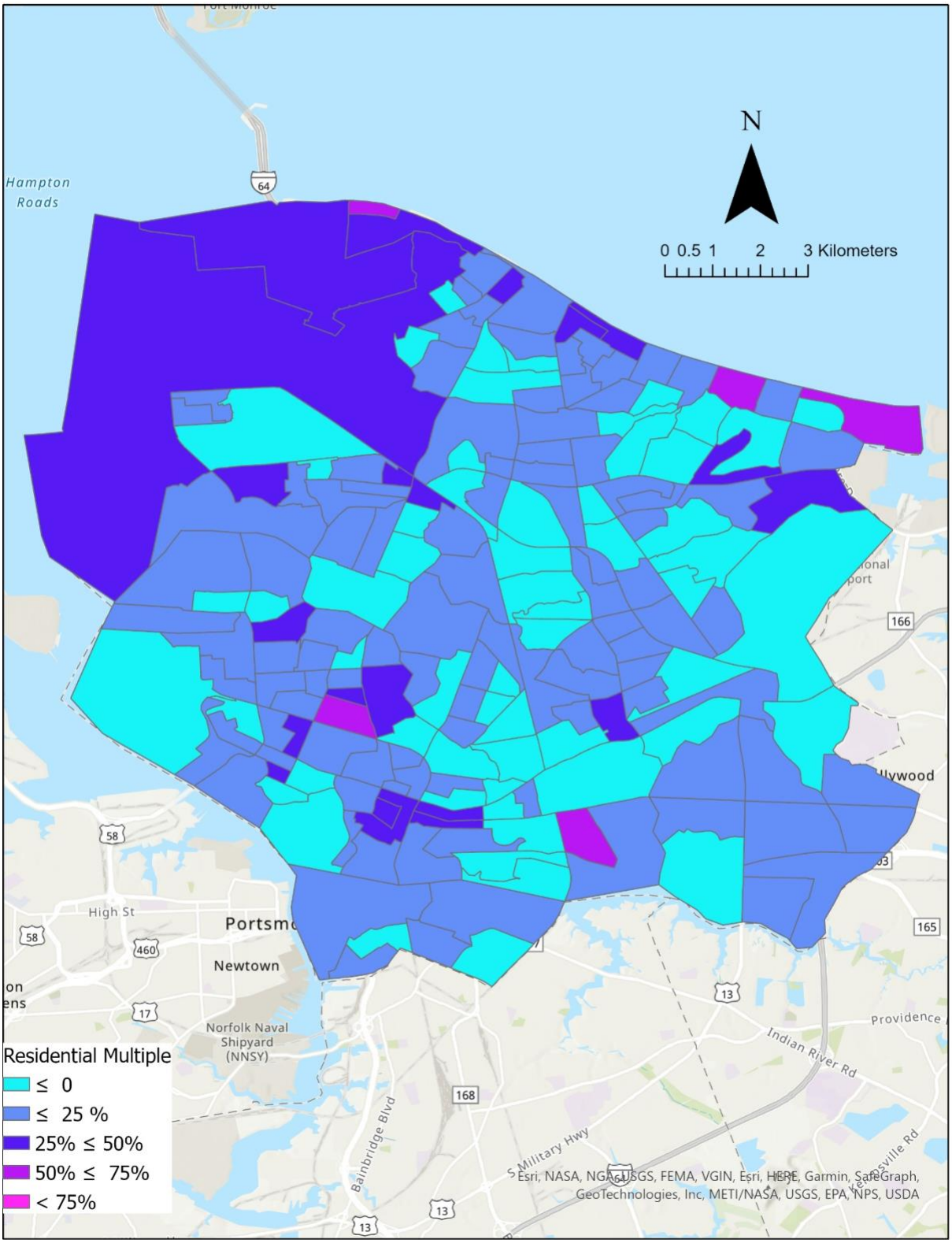


Figure 4. 5. Downtown Mix Zone Allocations

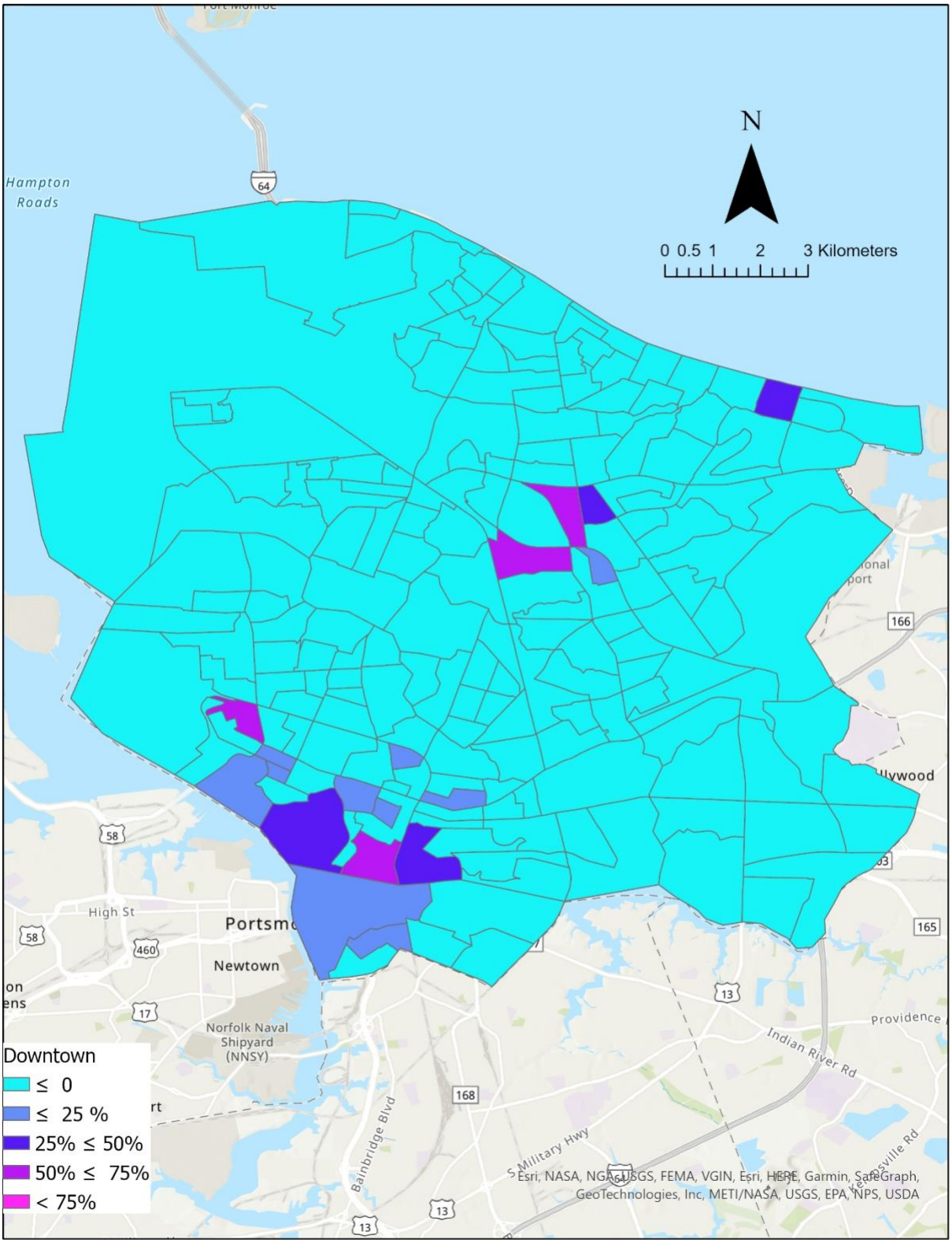
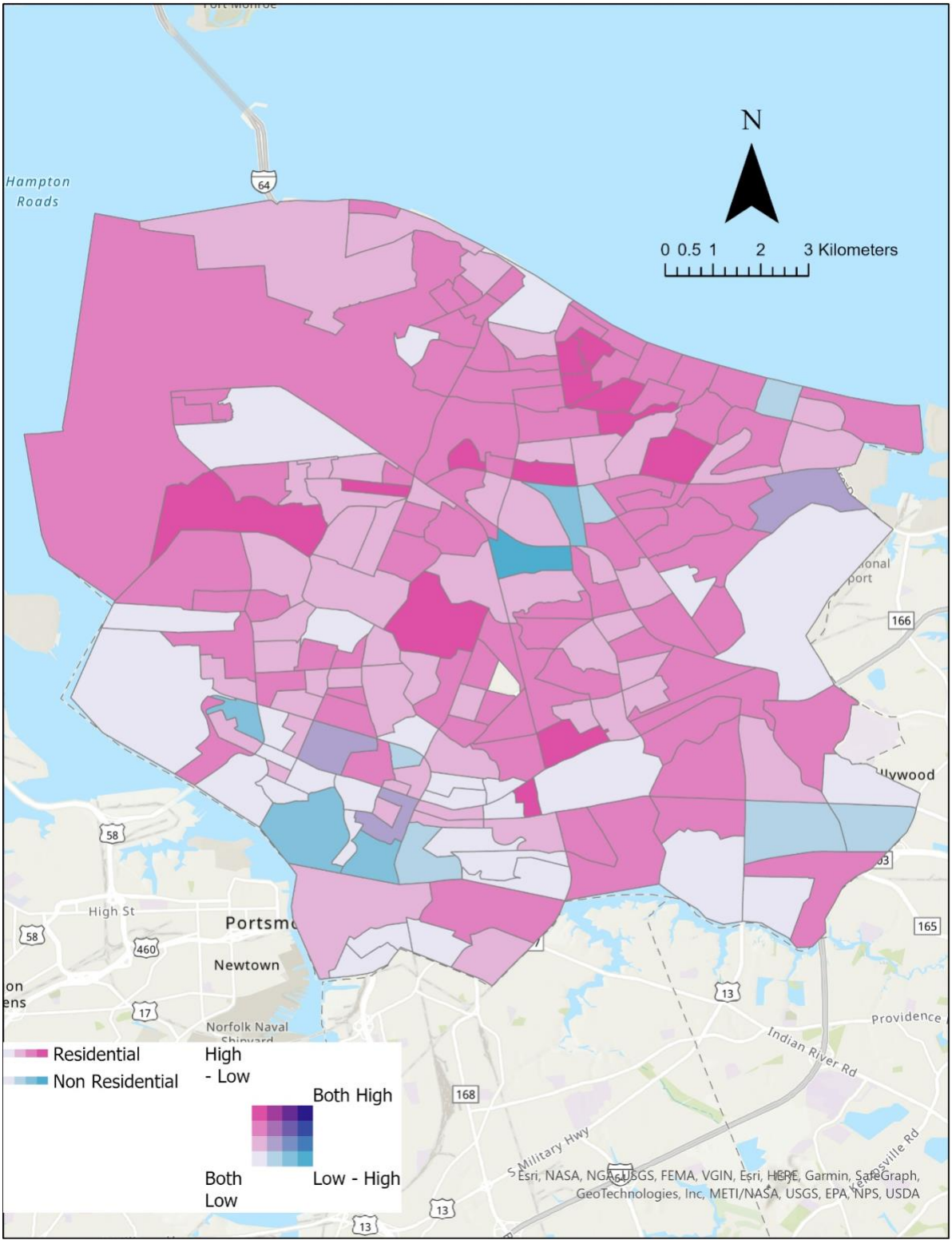


Figure 4. 6. Non-Residential versus Residential Zone Allocations



Spatial Units of Analysis

Block Groups

Much research that examines neighborhood change, specifically gentrification, uses census tracts as the unit of analysis. Because gentrification is a mechanism that affects communities, examining data at the census tract level fails to capture that change as the units are potentially too large. Studies that analyze neighborhood change at the block level are limited as well, as too much information about a parcel can potentially remove the anonymity from the residents of the research site. Because Norfolk is a small-to-medium city and the mentioned limitations of extant research, block groups (White et al., 2015) were chosen as the units of analysis. In its entirety, the city of Norfolk consists of 196 block groups, and with eligibility parameters, the block group count is reduced to 185. With this longitudinal design spanning over five years, the eligible block group total increases to 925 spaces for investigation.

Geocoding

Effectively geocoding and matching your data to an accurate map is essential in analyzing crime and place. Research states that an 85% match rate of crimes is minimal to be sufficient for analysis (Ratcliffe, 2004). Without valid data, the inaccuracy could cause misinterpretation of spatial findings, which in the social sciences can have serious detrimental effects. To correct this error, geographical information systems software is available to match geospatial indicators (i.e., longitude and latitude) to accurately depict the features on the map. Because the data comes from a southern Virginian city, a NAD 1983 HARN State Plane Virginia South FIPS 4502 mapping coordinating system was inputted. This allowed the gathered data to be projected accurately and in correct metrics. All crime data geocoded received a match of over 95% shown in Table 4.2.

Table 4. 2. Crime Geocode Matching

Year	Match (%)	Person (%)	Property (%)	Society (%)	All Crime[2]
2015	95.1	2,261 (8.4)	12,995 (48.6)	1,278 (4.7)	26,751
2016	96.5	2,246 (8.4)	14,987 (56.0)	1,356 (5.1)	26,751
2017	97.2	2,108 (8.4)	14,182 (56.6)	1,375 (5.5)	25,078
2018	97.5	1,952 (8.4)	11,645 (50.0)	1,404 (6.0)	23,285
2019	97.2	1,921 (8.1)	11,856 (50.2)	1,827 (7.7)	23,602

Data

Data for the dissertation comes from multiple municipal government sources. Crime incident data was provided by the Norfolk Police Department (NPD). This dataset included real time incidents recorded by the department. This was aggregated into yearly crime crimes known to the police for a 5-year period from 2015 through 2019. Data from crime incidents were categorizes using the NIBRS Group A classification guidelines – crimes against persons, crimes against property and crimes against society. This categorization of crime was decided upon based on the lack of focus of more popular databases (e.g., Uniform Crime Report) when reporting crimes such as drug offenses and other community-harming offenses. Crimes against persons consist of assault, homicide, kidnapping, and sex offenses shown in Table 4.3. Table 4.4 includes crimes against property include burglary, robbery,[3] bribery, vandalism, fraud, embezzlement and extortion, larceny, and motor vehicle theft. Crimes against society include drug offenses,

[2] "All Crime" is made up of all crime known to the police – including those not categorized as crimes against persons, property, or society.
[3] NIBRS classifies "Robbery" as a Crime Against Property. Instructions for law enforcement coding include categorizing all robberies as Crimes Against Property, regardless of the number of victims involved.

gambling, pornography, prostitution, and weapons violation – shown in Table 4.5. For analysis purposes these counts were converted into rates, illustrating crime per 100 people. Another way to view main effects relationship to crime, these variables can be viewed as a percent.

Table 4. 3. Norfolk Crimes: Crimes Against Persons[4]

Year	Assault	Homicide	Sex Offenses	Total
2015	2,029 (89.7)	34 (1.5)	198 (8.8)	2,261
2016	2,070 (92.1)	42 (1.9)	134 (6.0)	2,246
2017	1,942 (92.1)	34 (1.6)	132 9 (6.3)	2,108
2018	1,792 (91.8)	37 (1.9)	123 (6.3)	1,952
2019	1,758 (91.5)	36 (1.9)	127 (6.6)	1,921
Total	9,591	183	714	10,488

Table 4. 4. Norfolk Crime: Crimes Against Property

Year	Burglary	Vandalism	Fraud	Larceny	Robbery	MVT	Other[5]	Total
2015	1,256 (9.7)	3,065 (23.6)	623 (4.8)	6,590 (50.7)	502 (3.9)	831 (6.4)	128 (0.9)	12,995
2016	1,280 (8.5)	3,173 (21.2)	563 (3.8)	8,416 (56.2)	502 (3.3)	875 (5.8)	178 (1.1)	14,987
2017	1,134 (8.0)	3,904 (27.5)	463 (3.3)	7,394 (52.1)	293 (2.1)	784 (5.5)	210 (1.5)	14,182
2018	713 (6.1)	2,308 (19.8)	390 (3.3)	6,994 (60.1)	139 (1.2)	876 (7.5)	225 (1.9)	11,645
2019	835 (7.1)	2,330 (19.7)	405 (3.4)	6,903 (58.2)	336 (2.8)	840 (7.1)	207 (1.8)	11,856
Total	5,218	14,780	2444	36,297	1,772	4,206	948	65,665

[4] Kidnapping is considered a Crime Against Persons. For this study, kidnapping was not included due to its low frequency in the crimes against person category.

[5] The "Other" category for Crimes Against Property is classified as arson, counterfeiting, bribery, extortion, and embezzlement. These were chosen based on their low cumulative percentage.

Table 4. 5. Norfolk Crime: Crimes Against Society[6]

Year	Drug Offenses	Pornography	Prostitution	Weapons	Total
2015	1,059 (82.9)	3 (0.2)	139 (10.9)	77 (6.0)	1,278
2016	1,121 (82.7)	15 (1.1)	143 (10.5)	77 (5.7)	1,356
2017	1,202 (87.4)	15 (1.1)	66 (4.8)	92 (6.7)	1,375
2018	1,279 (91.1)	18 (1.3)	31 (2.2)	76 ((5.4)	1,404
2019	1,673 (91.6)	13 (0.7)	61 (3.3)	80 (4.4)	1,827
Total	6,334	64	440	402	7,240

[6] Gambling is considered a Crime Against Society. For this study, gambling was not included due to its low frequency.

Measures of Gentrification

Measures of gentrification are generated from five sources: (1) 2010 Decennial Census, (2) American Community Survey, (3) Norfolk Database of ABC Licensures, (4) Norfolk's Database on Permits and Inspections, and (5) Norfolk's Database of Approved Business Licenses. The 2010 Decennial Census was used to generate an accurate shapefile for the GIS software. The American Community Survey provides yearly demographic and SES data at the block group level. The Norfolk ABC License database allows for the search of all ABC licenses applied for and issued within Norfolk that could be considered third places – based on third places characteristics. To expand my measurement of third places, I cross-referenced the ABC Licensure Dataset with business license data provided by the Commissioner of Revenue. This allowed for a more robust list of businesses in an area that matched third place characteristics of sociability and social and economic benefit to the area. The Norfolk public repository on permits and inspections to obtain demolition records comes from the Department of City Planning. This dataset provides information about permits and associated inspections, violations, and status information consolidated and displayed as public data.

Third Places. As mentioned, third places have been characterized as a product of gentrification due to the change in culture and economic scenery that allows its patrons to be voluntarily participatory in socializing and welcoming enough to invite groups of diverse perspectives and cultures (Oldenburg & Brisset, 1982; Williams & Hipp, 2017). For this study, this measure of gentrification is calculated by the yearly number of third places established within the block group in the investigation period from 2015 through 2019. Using the Norfolk Database of ABC Licensures, this measure included businesses that issued permits for alcohol. Oldenburg & Brisset (1982) state that most third places for adults are often located at bars and lounges. These establishments were chosen given the relevance to empirical literature and

characteristics associated with third places, such as spaces of escapism from work and home with the inclusion of sociability. This database was used in tandem with the business license data from the Commissioner of Revenue. This dataset included North American Industry Classification System (NAICS) codes. These codes are the standard categorization system used to analyze data relevant to the US economy and commerce. Out of the robust list of codes, I used businesses within the "71. Arts, Entertainment, and Recreation" and "72. Accommodations and Food Services" categories – as they were the most relevant to the concept of third places. With the compiled list, third places include but are not limited to gyms, bowling centers, soda shops, coffee shops, lounges, clubs, bars, and restaurants. These categories of establishments ideally offer general sociability, aside from work and home, and inviting for patrons; social and economic benefit for the area and are often open to the public. These avenues are not only spaces of socialization but also businesses that offers economic prosperity for the area. Figure 4.7 illustrates the total number of establishments added to the block group within the investigated period. Using a dot density map to present the dispersion of third places, the map shows that most third places saw the emergence in the southwestern portion of the city and around the eastern boundaries during the investigation period.

Demolitions. Demolitions have shown to be a common feature when altering landscapes to accommodate gentrification efforts (Weber, et al., 2006). Using the Norfolk Permits and Inspections database, this measure includes the change of all requested demolitions, whose permits have been finalized and issued in the city aggregated by block group. Given limitations explained by city officials and data keepers the demolition variable shows finalized permits from the years 2016 – 2019. Figure 4.8 comparably shows the total number of demolitions that

occurred in each block group. Looking at the figure, we can see that approved demolitions are diversely distributed around the city with heavy influence in the center regions of the city.

Third Places and Demolition. This research focuses on conceptualizing gentrification through the occurrences of third-place establishments and demolitions. Figure 4.9 characterizes this relationship by showing a matrix detailing the relationship. Here we can see various growth around the city within the variables' time intervals. There show to be high concentrations of demolitions and third places occurring within the center of the city and in the northeastern parcels. Areas that seem to have the lowest concentrations are along the edges of block groups that undergo higher concentrations of change. Lastly, higher totals of demolitions than third place emergence can be seen on the city's geographical boundaries. Higher frequencies of third places than demolitions can be seen the more inland the block group is. This view of the variables shows much variation in the city relating to third places and demolitions.

Figure 4. 7. Density of Total Third Places (2015 – 2019)

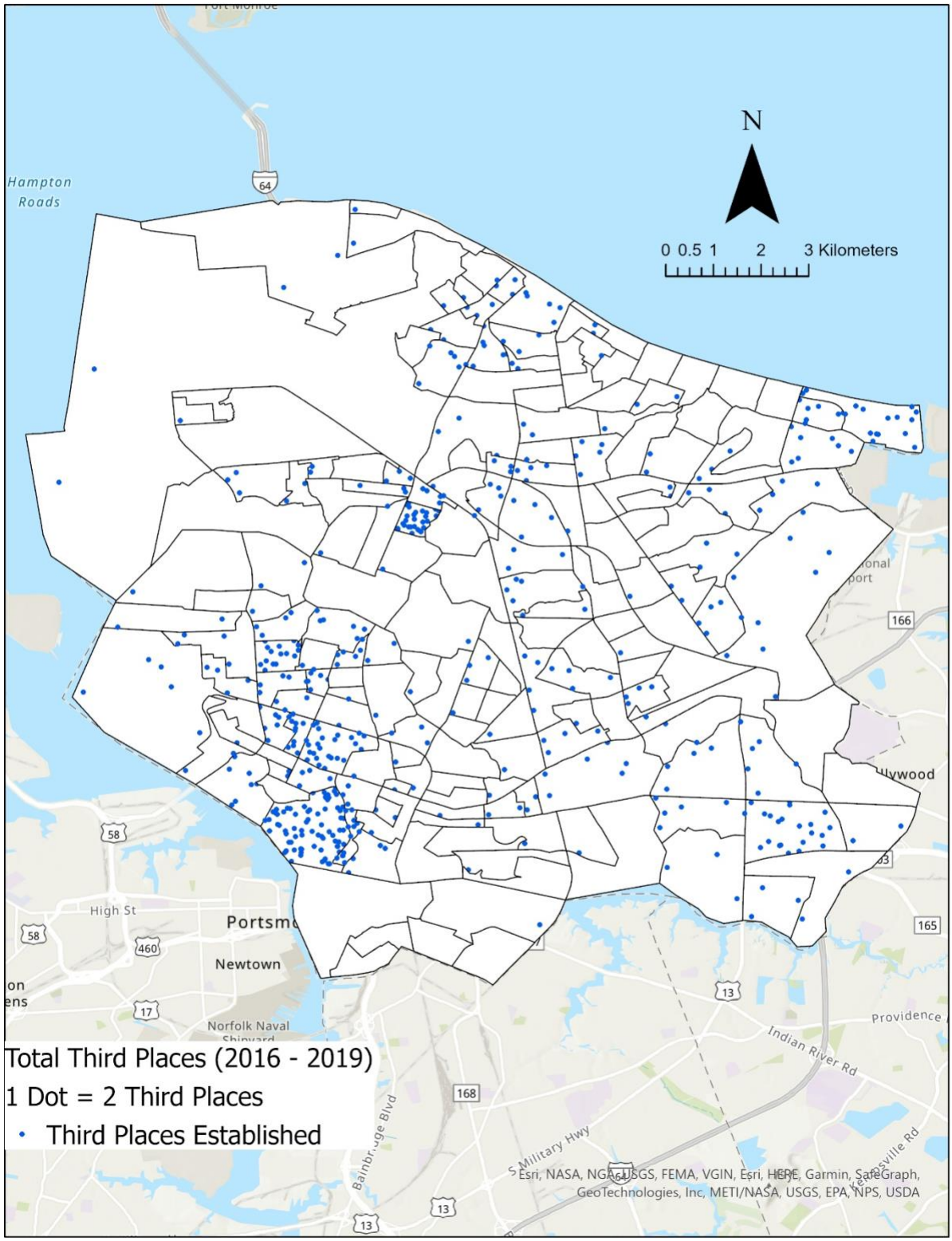


Figure 4. 8. Density of Total Demolitions (2016 -2019)

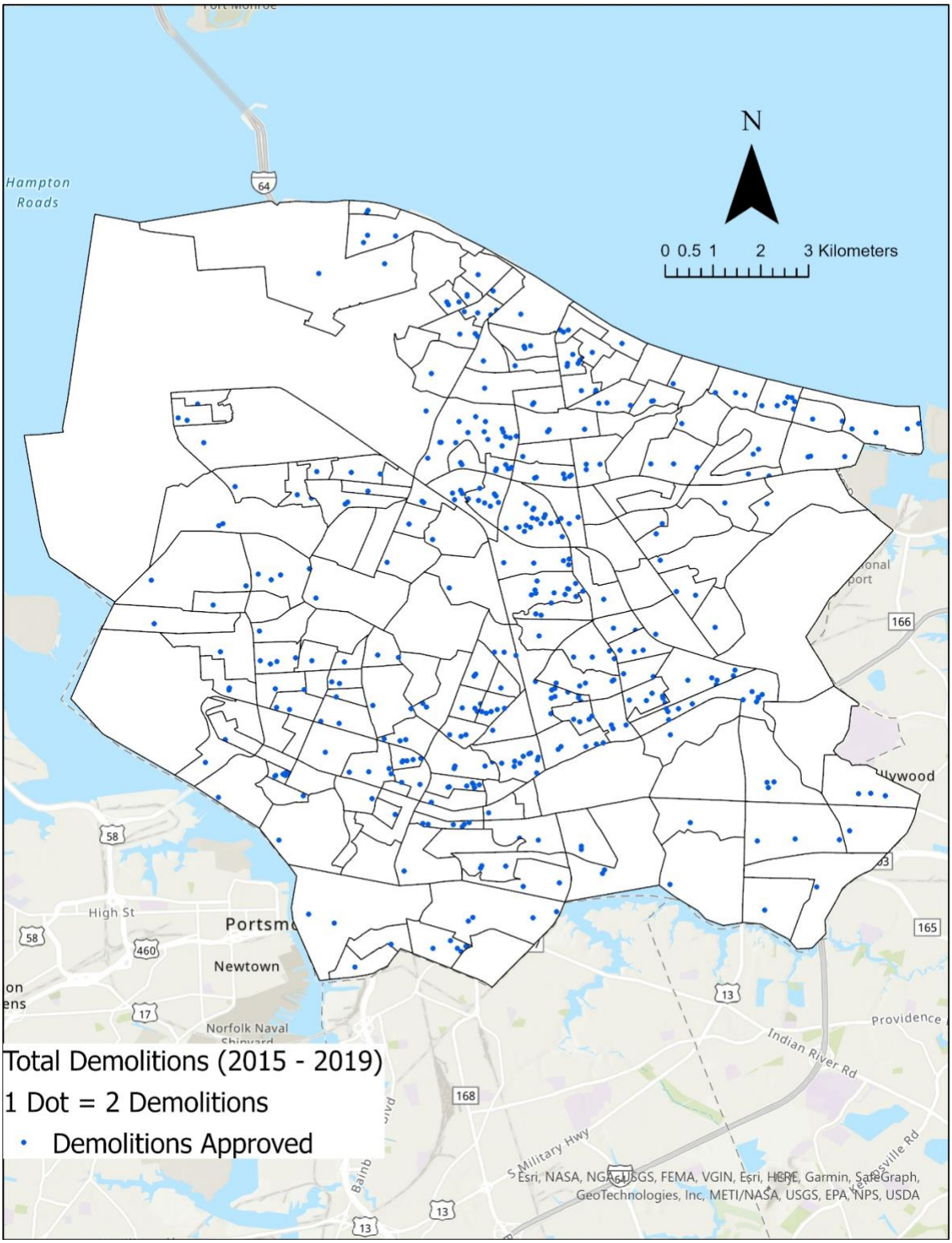
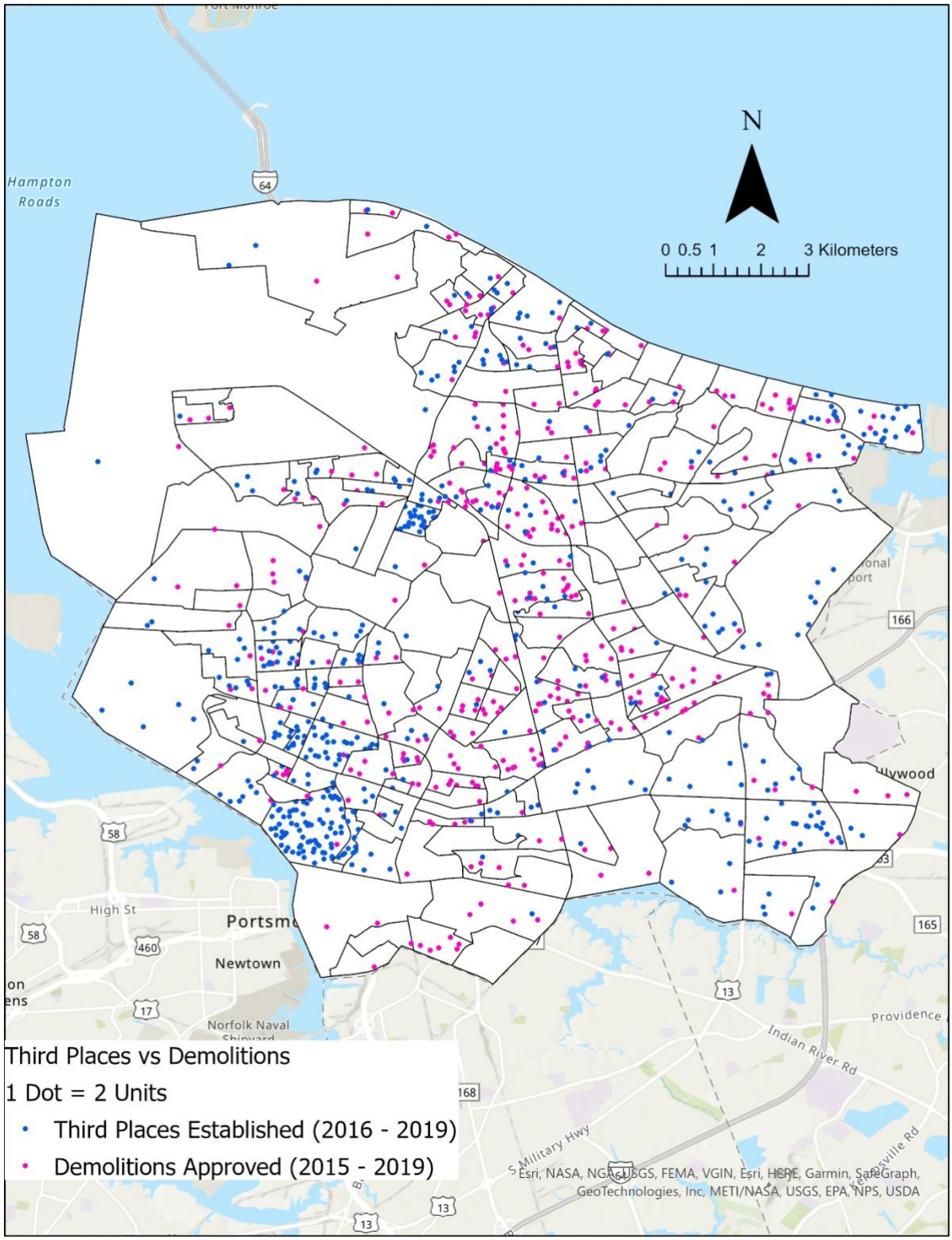


Figure 4. 9. Density of Total Third Places (2015 – 2019) versus Total Demolitions (2016 -2019)



Economic Affluence. Economic affluence was measured using a group's Index of Concentration at the Extremes (ICE) equation by Kubrin and Stewart (2006). Their equation is as follows:

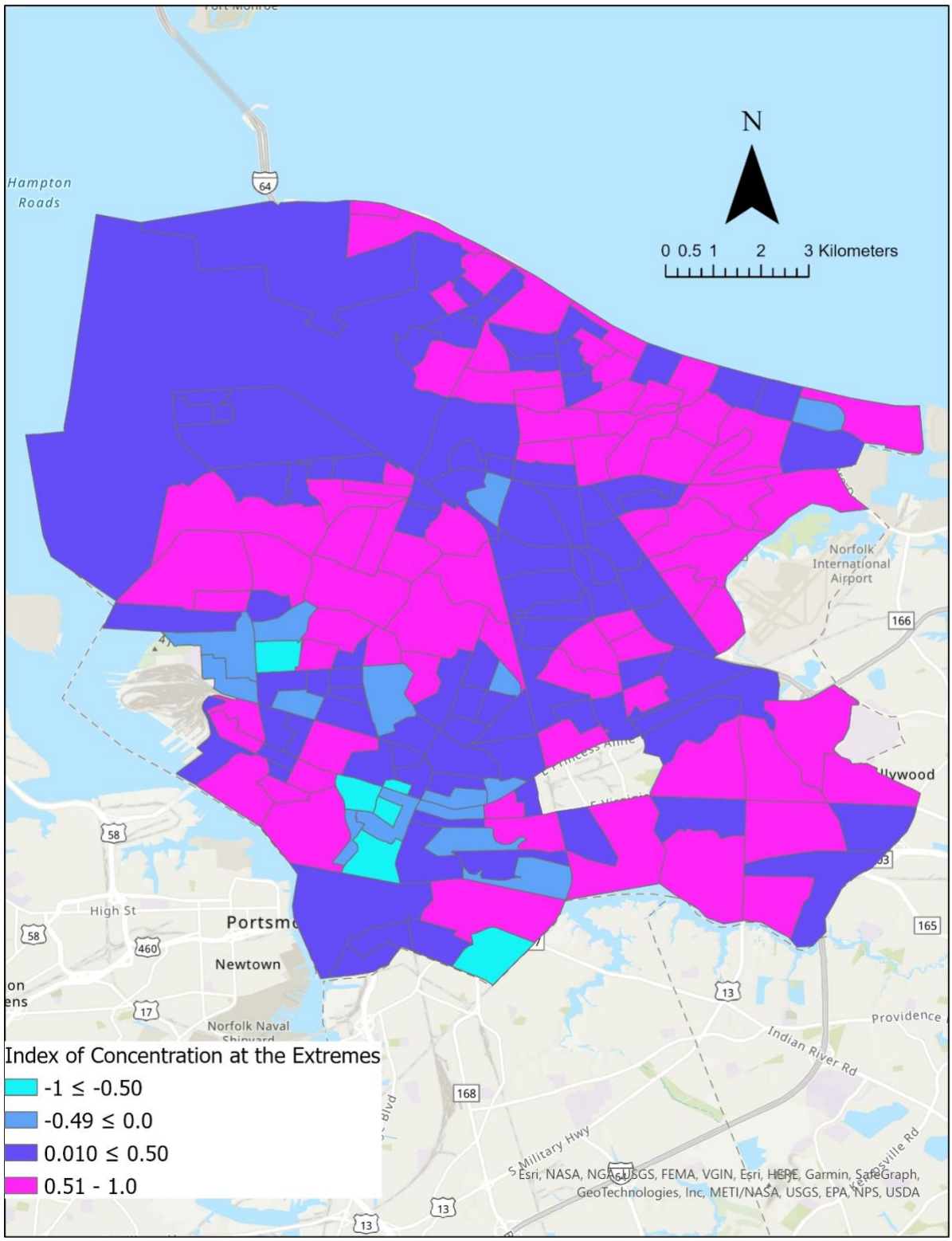
$$y = \frac{\text{Number of Affluent Housholds – Number of Poor Households}}{\text{Number of Total Families}}$$

where "affluent" is defined by block groups whose median household income is two standardizations above the mean and "poor" is defined as block groups whose income is below the poverty line.

For this study, the data was from the American Community Survey characterizing households' income-to-debt ratios within the block group to measure yearly economic change. This ratio is calculated by dividing family income by the poverty threshold. For example, if a household's income is $32,000 and the poverty threshold is set at $12,700, this household's income to debt would be 2.52. This index helps calculate the imbalances that may be presented in income between impoverished and affluent communities. ASC categorizes these ratios into the following groups: "under .50"; ".50 to .99"; "1.00 to 1.24"; "1.25 to 1.49"; "1.50 to 1.84"; "1.85 to 1.99"; "over 2.00". For this study, "affluent" block groups are characterized as those above 2.00, whereas "poor" block groups are defined as those under 1. Scores range from +1 to -1, with +1 indicating the highest advantage score and -1 indicating the lowest. Those with indexes at 0 show a balance of resident incomes. In Figure 4.10, indexes are presented for block groups with households within the boundaries.[7] From the illustration, Norfolk has many spaces that are clustered with similar averages. Lower household indexes are found sparingly but are mostly located in the lower western region of the city.

[7] Transparent spaces in the figure indicate there are no households within the block group to calculate an ICE Index.

Figure 4. 10. Mean Distribution of Index of Concentration at the Extremes (2015 – 2019)



Statistical Analysis

Ecological research has come far in measuring the change of neighborhoods from a once rudimentary concept of linear community influence and growth (see Duncan and Duncan, 1957) to a complex algorithm addressing between and within-group differences (Woltman, Feldstain, Mckay & Rocchi, 2012; Bursik & Grasmick, 1992). These methods violate data assumptions in estimating simple ordinary least squared regressions (OLS). Traditional linear regression models fail to consider data that is no longer independent. Because we are dealing with geographical units, some aspects of space (i.e., race and economic growth) will be more relevant to proximate areas than others – thus impacting the whole model. Additionally, because each unit of analysis is different, there are varying populations within each block group, providing between-group heteroskedasticity or unequal residuals and variance. Lastly, more complex statistical models are needed because of the potential varying effects predictor variables may have on different spaces. This means that the effect of gentrification on crime may be different for one block group than it is for another. To model these varying effects accurately, each space must be considered respectively and not collectively. Here, hierarchical linear modeling is used to effectively model neighborhood change within and across block groups to adequately develop models to accurately measure the effect of neighborhood revitalization - gentrification.

Hierarchical linear modeling provides a sophisticated modeling technique where multiple linear and nonlinear regressions are generated, accounting for each regressions' varying predictors' influence on each trajectory (Woltman, Feldstain, Mckay & Rocchi, 2012). This is often due to the data being nested structure of the data, where individual units are placed into groups and are subjected to being influenced by characteristics and behaviors of the other

sampled groups. By using HLM, estimates are calculated to show within and between-group differences.

There are two levels in the model. Level one of this analysis estimates the change in the sample as a result of the block groups specific predictors, also called within-group variation. Level two of this analysis compares the trajectory of that individual case amongst the other trajectories across the complete sampling frame, known as between-group variation. For example, within our investigation, crime and gentrification predictor variables (e.g., third places) are nested inside of the block groups over time (see Table 4.6). Each block group has varying socioeconomic and racial characteristics, which may influence the dependent variable (i.e., crime). Our conjecture is that the variation in block group characteristics leads to differential effects when estimating the impact of gentrification and crime. Some areas that experience gentrification may have different crime patterns depending on their residential composition – and the specific time point (i.e., year). Because of this, we can calculate between and within neighborhood variation over time.

Table 4. 6. Hierarchical Factor Levels Affecting Crime Rates

Hierarchical Level	Level of Analysis	Variable
Level 2	Block Group	Zone Distribution (2010) Total Demolitions (2016 – 2019):
Level 1	Block Group	Economic Advantage (2015 – 2019) Racial Composition (2015 – 2019) Third Places Frequency (2015 – 2019) Crime Rates (2015 – 2019) [a]

[a] Outcome variables are always level 1 variables

Other models have shown to be successful at analyzing neighborhood change while simultaneously accounting for variations with space – however these techniques have limitations. Structural equation modeling would be useful in creating a between-persons model. Using SEM allows for random effects in your level one models needed to gather the number of individual trajectories (Rugutt, 2011; Raudenbush & Bryk, 2002). Unfortunately, this modeling structure disallows uneven time placements to be successful. That is, every model must include the same amount of time points. Multivariate and Repeated Measures (MRM) models also prove to be an unsatisfactory design given their rigidness and design inflexibility. MRM models require specific characteristics of main effects occurring within each model, and similar to SEM, all estimated models must be defined in identical time parameters (Raudenbush & Bryk, 2002).

To investigate the effect of gentrification in relation to crime rates in the investigated block groups, the HLM equation(s) for level one indicator is as follows (Woltman, Feldstain, Mckay & Rocchi, 2012):

$$\mathbf{Y}_{ij} = \beta_{0j} + \beta_{1j}\mathbf{X}_{ij} + \mathbf{r}_{ij}$$

where:

Y_{ij} = dependent variable measured for *i*th level-1 unit nested within the *j*th level-2 unit,

X_{ij} = value on the level-1 predictor,

β_{0j} = intercept for the *j*th level-2 unit,

β_{1j} = regression coefficient associated with for the *j*th level-2 unit, and

r_{ij} = random error associated with the *i*th level-1 unit nested within the *j*th level-2 unit.

In the context of our example, these variables can be redefined as follows:

Y_{ij} = crime rate measured for block *i* in block group *j*

X_{ij} = gentrification measured for block *i* in block group *j*

β_{0j} = crime rate measured for block *i* in block group *j* who are gentrified

β_{1j} = regression coefficient associated with gentrification for the jth block group

r_{ij} = random error associated with block i in block group j.

In the level-2 models, the level-1 regression coefficients, and are used as outcome variables and are related to each of the level-2 predictors

$$\beta_{0j} = \Upsilon_{00} + \Upsilon_{01}G_j + U_{0j}$$

$$\beta_{1j} = \Upsilon_{10} + \Upsilon_{11}G_j + U_{1j}$$

where:

β_{0j} = intercept for the jth level-2 unit;

β_{1j} = slope for the jth level-2 unit;

G_j = value on the level-2 predictor;

Υ_{00} = overall mean intercept adjusted for G;

Υ_{10} = overall mean intercept adjusted for G;

Υ_{01} = regression coefficient associated with G relative to level-1 intercept;

Υ_{11} = regression coefficient associated with G relative to level-1 slope;

U_{0j} = random effects of the jth level-2 unit adjusted for G on the intercept;

U_{1j} = random effects of the jth level-2 unit adjusted for G on the slope.

In the context of our example, these variables can be redefined as follows:

β_{0j} = intercept for the *j*th block group;

β_{1j} = slope for the *j*th block group;

G_j = crime rate in block group *j*;

Υ_{00} = overall mean intercept adjusted for gentrification;

Υ_{10} = overall mean intercept adjusted for gentrification;

Υ_{01} = regression coefficient associated with gentrification relative to level-2 intercept;

Υ_{11} = regression coefficient associated with gentrification relative to level-2 slope;

U_{0j} = random effects of the *j*th level-2 unit adjusted for gentrification on the intercept;

U_{1j} = random effects of the *j*th level-2 unit adjusted for gentrification on the slope.

Using hierarchical liner modeling is appropriate for the data, as it address the limitations of statistical technique: 1) sample size; 2) inability to handle missing data; and 3) model assumptions. Because this model will be estimated longitudinally using block groups, the number of cases provides the model with efficient statistical power (N= 925). Additionally, because of cleaning steps taken prior to generating HLM, there is not missing data at level 2.

The next chapter will provide results from the model built to address the research questions. The research questions for this study are as follows: 1) What is the relationship between gentrification and crime – conceptualized through zoning, SES, third places and demolitions? 2) Does where third places are established matter? 3) How are these relationships contextualized through race?

CHAPTER V

RESULTS

Given the literature on neighborhood revitalization and change, gentrification has been advertised as a benefit to communities. This includes new people, amenities, and changes to the socio-cultural aspects of an area and crime. However, as mentioned, although this framework shows a general benefit to neighborhoods through conventional criminological theory (e.g., social disorganization and routine activities theory), by viewing gentrification through a critical lens, we can understand how these changes could be detrimental to certain places - specifically spaces of communities of color that have been historically manipulated and disenfranchised through discriminatory legislation, banking opportunities, and societal labeling.

To test these models, a more complex regressions model is needed. This is due to the nesting nature of the data, meaning that the data is organized in layers. Geographically, the dependent variable (e.g., crime) occurred within different areas, which have their own individual socioeconomic and racial makeup, observations are not independent of each other but instead the specified area where the data occurred (i.e., within-cluster dependency). This becomes even more complex when we add in longitudinal data where these spaces are being affected at different rates as time continues. Because of this, a hierarchical linear modeling technique is used to account for within and between space variations (Bursik and Grasmick, 1992; Brown & Uyar, 2004).

The first part of this chapter provides information on the sample's descriptive statistics, followed by dispersion of the dependent variables, and then by bivariate correlation analysis between the major variables investigated. Finally, results from the mixed effect model for each crime category will be reported to assess the effect of gentrification and crime.

Descriptive Statistics

Descriptive statistics were generated – see Table 5.1. On average, Norfolk has more zoning allocated for residential multiple spaces compared to any other zoning category used for this study – followed by the residential single allocations, commercial, and then downtown. On average, four demolition permits were finalized per block group between the years 2016 to 2019.

Regarding racial composition change within the city over time, we can see the city generally stayed the same. Standard deviations indicate that racial populations fluctuate a great deal around the mean, however as mentioned remain constant throughout the year. Household wealth and poverty also showed a steady trend throughout the investigated frame. What is important to note is that when examining third place averages across the city over time, there is a constant increase in the number of third places in block groups from 2015 to 2019.

Table 5. 1. Descriptive Statistics

Variable		2015	2016	2017	2018	2019
Level – 1		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Race (%)						
	White	0.47 (0.29)	0.46 (0.29)	0.46 (0.29)	0.46 (0.29)	0.46 (0.29)
	Black	0.43 (30.60)	0.44 (0.30)	0.44 (0.30)	0.43 (0.30)	0.43 (0.31)
	Other	0.06 (0.06)	0.06 (0.06)	0.07 (0.06)	0.07 (0.07)	0.07 (0.07)
Poverty-to-Income (ICE Index)						
	Poor (< 1)	0.13 (0.33)	0.12 (0.33)	0.12 (0.33)	0.11 (0.32)	0.11 (0.32)
	Affluent (> 1)	0.87 (0.33)	0.87 (0.33)	0.87 (0.33)	0.88 (0.32)	0.88 (0.32)
Third Places						
	Third Places	0.77 (2.47)	0.93 (2.81)	1.06 (3.58)	1.14 (3.87)	1.32 (4.41)
Level – 2						
Zoning (%)						
	Commercial	5.39 (7.71)				
	Residential Single	9.72 (14.04)				
	Residential Multiple	36.39 (25.76)				
	Downtown Mix	2.85 (11.12)				
Demolition						
	Demolition	4.01 (5.08)				

Crime Distribution and Moran's I

To begin, an exploratory analysis was conducted to view the spatial patterns in the data by obtaining the Moran's I. Moran's I measures if the data is spatially autocorrelated and determines if the variable(s) are distributed in random or non-random manner or if they are in a clustered or dispersed structure. A score that is closer to +1 shows that the data is clustered. The z score shows whether the data is dispersed at random, while the p-value indicates whether the data is clustered or dispersed. Table 5.2 shows the statistics and the longitudinal data.

Shown in Table 5.2, with index scores significant and positive for crimes against persons and society, these categorized incidents were randomly clustered from 2015 to 2019. It is important to note that property crime spatial autocorrelations statistics never reach significance at the $p < .05$ level. Because of this, a spatial lag was added to society and persons models to control for the spatial autocorrelation of the dependent variable. This illustrates that property crime within the city was not clustered and occurred randomly in respect to other crimes.

Table 5. 2. Spatial Autocorrelation Statistics of Distribution (Global Moran's I)

		Moran's I	Z
2015			
	Person	0.71	7.39 ***
	Property	0.06	1.95
	Society	0.27	7.34 ***
2016			
	Person	0.25	6.60 ***
	Property	0.05	1.44
	Society	0.01	2.58 ***
2017			
	Person	0.20	5.40 ***
	Property	0.06	1.87
	Society	0.27	7.44 ***
2018			
	Person	0.25	6.80 ***
	Property	0.05	1.71
	Society	0.34	9.20 ***
2019			
	Person	0.19	5.29 ***
	Property	0.06	1.66
	Society	0.39	10.54 ***

*** $p < 0.05$

Bivariate Analysis

Tables 5.3 through 5.4 illustrates the correlation matrixes with the study's major variables. First, we examine the variables that will be used at level two of the hierarchical linear model – zoning and demolitions (Table 5.3a). Here, the percentage of space allocated for commercial use negatively correlates with single residential allocations (-.186; $p < .05$). This states that the more space that is allocated for commercial uses, the less that is allocated for single residential homes. Similarly, residential single spaces also have a moderate negative relationship with space allocations for multiple residential areas (-.403; $p < .01$) and downtown/mix zoning (-.338; $p < .01$) – showing that as residential single spaces increase, room for residential multiple and downtown areas decreases.

Relationship strength and direction are maintained among the level-one variables in the longitudinal dataset – shown in Appendix F. Means were calculated and presented in Table 5.3b to show average correlational strength for those predictors. As expected, percent White is strongly negatively correlated with percent Black (-.969; $p < .01$). This relationship is smaller when comparing the White composition to all crime categories – persons (-.398; $p < .01$) and society (-.484)- and a positive association with crimes against property (.380; $p < .01$). However, percent White shows support for a moderately strong positive relationship with a block group's Index of Concentration at the Extremes (ICE) (.622; $p < .01$), illustrating the increase of White residents in an area, the further the block group is from poverty.

Percent Black within a block group is negatively correlated with the percentage of the races categorized as "Other" (-.289). As the rate of Black residents increases, other populations of color decrease. Lastly, as areas percentage of Black residents shows a positive correlation to

crimes against society (.504), unlike the relationship between the percentage of "Other" residents and the crime category (-.187).

When analyzing the ICE index correlation against the dependent variables, results show a moderate negative relationship with crimes against persons and society and an intermediate positive connection with crimes against property – showing an increase of crimes against property the more affluent a block group. Looking at the establishment of third places in a block group, this variable shows no significant effect on any level-one variables.

The matrix shows that crimes against persons have a moderately positive relationship with crimes against society (.351) and a moderate negative association with crimes against property (-.427). Crimes against property have a moderate negative relationship with crimes against society. This indicates that the more property crime in the area, the more societal crime (.398).

Table 5. 3. Correlation Matrix (Level -2)

	(1)	(2)	(3)	(4)	(5)
Commercial	1				
Single	-.186*	1			
Multiple	0.122	-.403**	1		
Downtown	-0.058	-.338**	-0.099	1	
Demolitions	-0.027	0.08	-0.014	-0.007	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 5. 4. Correlation Matrix (Level-1 Means)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
% White	1							
% Black	-.969 **	1						
% Other	.083	-.289**	1					
ICE Index	0.622**	-0.631**	0.141	1				
Third Places	0.087	-0.087	0.022	0.050	1			
Crimes Against Persons	-0.398**	0.395**	-0.062	-0.368**	-0.003	1		
Crimes Against Property	0.380**	-0.372**	0.047	0.209**	0.061	-0.427**	1	
Crimes Against Society	-0.484**	0.504**	-0.187**	-0.278**	-0.055	0.351**	-0.398**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Hierarchical Linear Models

Crimes Against Society

The first empirical model measures nested differences with crimes against society shown in Table 5.5. The equation for the initial model considers variation in time (linear and quadratic trends), percent Black and number of third places in the block group in the following equation:

$$
\begin{aligned}
CRIME\_SO_{ti} = {} & \beta_{00} + \beta_{01}*COMMERCIAL_i + \beta_{02}*RES\_MULTIPLE_i + \beta_{03}*RES\_SINGLE_i \\
& + \beta_{04}*DOWNTOWN_i + \beta_{05}*DEMOLITION_i \\
& + \beta_{10}*LIN\_YEAR_{ti} \\
& + \beta_{20}*QUAD\_YEAR_{ti} \\
& + \beta_{30}*PERC\_BLACK_{ti} \\
& + \beta_{40}*PERC\_OTHER_{ti} \\
& + \beta_{50}*ICE\_INDEX_{ti} \\
& + \beta_{60}*THIRD\_PLACES_{ti} \\
& + \beta_{70}*\text{SOCIETY\_LAG}_{ti} \\
& + r_{0i} + r_{1i}*LIN\_YEAR_{ti} + r_{2i}*QUAD\_YEAR_{ti} + r_{3i}*PERC\_BLACK_{ti} \\
& + r_{6i}*THIRD\_PLACES_{ti} + e_{ti}
\end{aligned}
$$

Focusing first on the level two (between block group) data, the main effect, the coefficient direction, and significance of the model's variables remained throughout the investigated models (1 – 4). the number of demolitions is negatively related to crimes against society (B = -0.06), illustrating crime going down approximately six percent the more demolitions took place in that area from 2016 to 2019. There is also a significant negative relationship with the percentage of space allocated to residential single (B = -0.02) and residential multiple (B = -0.04) dwellings in a block group.

Examining level-one estimates (Model 1), we see that crime modeled as linear, and a quadratic trend is significant. With the coefficients being negative (B = -1.30; -0.61), these patterns model crime at a decreasing at an increasing rate as time continues. The model also

shows a significant negative relationship between a yearly number of third places in an area and crimes against society (B = -0.10). Interpreting these results, they project an eleven percent decrease in crime when additional third-place establishments are introduced.

The conceptual model expresses how zoning can have a differential effect on third places and its relationship with crime. Because of this, and the significance and direction of the main effects at levels one and two, interactions were placed with the third places variable to see if the number of establishments added to these respective level-two areas yielded comparable and significant results. Although racial composition failed to present significant results, interactions with specific zoning categories generated meaningful statistics. Unfortunately, when only using the interaction of third places with single residential areas, the interaction yielded nonsignificant results – although the main effects for third places did increase, and significance remained. When implementing an interaction between multiple residential zones and third places, we see that the main effects for all other variables generally remain the same. Third places main effects coefficient decreased (B= -0.14); however, it remained significant at the $p < 0.05$ level. The interaction, although minimal, shows a significant positive relationship illustrating that more third places added to more residential multiple areas are likely to increase crime. When implementing both interactions into the model, results show a significant positive relationship with the percentage of residential single (B = 0.00)[8] and residential multiple (B = 0.01) homes. With these outcomes, crime is projected to increase by approximately one percent the more third places are added to residential areas.

Another interaction model was generated to estimate the influence of nonresidential zoning on racial composition (i.e., % Black). Similar to the mentioned models, the results show a

[8] This coefficient is not an exact zero, but between the values of $0 > x > 1$.

significant negative relationship between residential single (B = -0.02) and residential multiple (-B =0.04) zoning and total demolitions (-0.06) at level two. A decreasing trend persisted in illustrating the relationship between linear (B = -1.26) and quadratic (B = -0.61) time trends and crime. Although the percent Black coefficient was not significant, the interaction coefficient showed a positive relationship, stating that the association with a block groups percent Black population and increase of nonresidential spaces shows an increase in crime within the area (B = 0.01). When modeling the interaction using residential zoning, the coefficients show a significant negative association, illustrating a decrease in crime, the more residential allocations are designated for spaces in relation to their Black population (B = -0.00)[9].

[9] This coefficient is not an exact zero, but between the values of $0 > x > 1$.

Table 5. 5. Hierarchical Linear Model Results w/ Crimes Against Society

	-1	-2	-3	-4	-5	-6
Level -2						
Intercept	4.03 (.20) ***	4.03 (0.20) ***	4.03 (0.20) ***	4.03 (0.20) ***	4.03 (0.20) ***	4.03 (0.20) ***
Commercial	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.02)	-0.02 (0.01)
Single	-0.02 (0.01) **	-0.02 (0.01) **	-0.02 (0.01) **	-0.02 (0.01) **	-0.02 (0.01) **	-0.02 (0.01) **
Multiple	-0.04 (0.01) ***	-0.04 (0.01) ***	-0.04 (0.01) ***	-0.04 (0.01) **	-0.04 (0.01) **	-0.04 (0.01) ***
Downtown	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.00 (0.02)	-0.00 (0.02)	-0.01 (0.02)
Demolitions	-0.06 (0.02) **	-0.06 (0.02) **	-0.06 (0.02) **	-0.06 (0.02) ***	-0.06 (0.03) **	-0.06 (0.02) **
Level -1						
Linear_Yr	-1.30 (0.07) ***	-1.26(0.07) ***	-1.30 (0.07) ***	-1.30 (0.07) ***	-1.26 (0.07) ***	-1.26 (0.07) ***
Quad_Yr	-0.61 (0.05) ***	-0.61 (0.05) ***	-0.61 (0.05) ***	-0.61 (0.05) ***	-0.61 (0.05) ***	-0.61 (0.05) ***
% Black	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.02 (0.02)	0.01 (0.02)
% Other	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	0.00 (0.02)	-0.04 (0.03)	0.00 (0.02)
ICE Index	-0.96 (0.86)	-1.01 (0.87)	-0.96 (0.86)	-1.03 (0.87)	-0.96 (0.91)	-0.90 (0.88)
Third Places	-0.10 (0.02) ***	-0.14 (0.44) **	-0.10 (0.03) ***	-0.14 (0.04) ***	-0.09 (0.05) ***	-0.10 (0.02) ***
Lag	0.02 (0.01) **	0.02 (0.01) **	0.02 (0.01) **	0.02 (0.01) **	0.01 (0.01) **	0.02 (0.01) **
Third Places * Single		0.00 (0.00)		0.00 (0.00) *		
Third Places * Multiple			0.00 (0.00) **	0.01 (0.00) **		
% Black * Nonresidential					0.01 (0.00) **	
% Black * Residential						-0.00 (0.00) *
Variance Components						
Intercept	5.93 ***	5.92 ***	5.93 ***	5.91 ***	5.92 ***	5.92 ***
Linear_Yr	0.55 **	0.30 **	0.30 **	0.29 **	0.31 **	0..31**
Quad_Yr	0.49 **	0.23 **	0.23 **	0.22 **	0.23 **	0.23 **
% Black	0.02 **	0.00 **	0.00 **	0.00 **	0.00 **	0.00 **
Third Places	0.15 ***	0.02 ***	0.03 ***	0.03 ***	0.02 ***	0.02 ***

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Crimes Against Property

The next model, presented in Table 5.6, estimates the effect of major variables on crimes against property. In this final model, similar to the first, the model considers variation in time (linear and quadratic trends) and the number of third places in the block group. Unfortunately, given the insignificant of the variance component percent Black was not selected. The initial equation for the model is as follows:

$$
\begin{aligned}
CRIME\_PR_{ti} = {} & \beta_{00} + \beta_{01}*COMMERCIAL_i + \beta_{02}*RES\_MULTIPLE_i \\
& + \beta_{03}*RES\_SINGLE_i + \beta_{04}*DOWNTOWN_i + \beta_{05}*DEMOLITION_i \\
& + \beta_{10}*LIN\_YEAR_{ti} \\
& + \beta_{20}*QUAD\_YEAR_{ti} \\
& + \beta_{30}*PERC\_BLACK_{ti} \\
& + \beta_{40}*PERC\_OTHER_{ti} \\
& + \beta_{50}*ICE\_INDEX_{ti} \\
& + \beta_{60}*THIRD\_PLACES_{ti} \\
& + r_{0i} + r_{1i}*LIN\_YEAR_{ti} + r_{2i}*QUAD\_YEAR_{ti} + r_{6i}*THIRD\_PLACES_{ti} + e_{ti}
\end{aligned}
$$

Directing attention to the level two effects on crimes against property results initially show no significant main effects related to the categorized zones. However, in the initial model, demolitions have a significant positive impact on crimes against property (B = 0.19) – stating that the more demolitions that occurred within the block group, the more crime against property occurred. These significant effects found at the $p< 0.10$ level show to dwindle with the inclusion of both interactions placed in the model, as well as when an interaction with downtown zoning is presented with the frequency of third places in an area.

Model 1 shows a negative linear (B = -7.36) and quadratic (B = -7.11) significant relationship illustrating the relationship between time and crime. Here the model shows that

crime against property follows a decreasing trend. Additionally, in the initial level-one model, results show a significant positive relationship with third places (B = 7.88), in that the more third places added to an area, crime against property is stated to increase drastically.

Exploring the data further, several cross-level interactions were significant. The first included an interaction with third places and commercial allocated zoning. Here the relationship shows that an increase in third places within a block group constitutes an increase in crimes against property (B = 0.88). This relationship is inconsistent compared to the third-place interaction, including downtown zoning (B = -0.51). These main effects show a significant negative relationship, illustrating the more third places you position within the downtown area, the less crime will occur. When combining the interactions, these directional effects remained and showed a decreasing influence for commercial zones (B = 0.87) and a decreasing impact for downtown allocations (B =- 0.53).

Table 5. 6. Hierarchical Linear Model Results w/ Crime Against Property

	(1)	(2)	(3)	(4)
Level -2				
Intercept	53.41 (1.83) ***	53.41 (1.83) ***	53.40 (1.83) ***	53.41 (1.83) ***
Commercial	0.04 (0.12)	0.03 (0.13)	0.04 (0.12)	0.03 (0.13)
Single	-0.04 (0.19)	-0.04 (0.19)	-0.04 (0.07)	-0.05 (0.07)
Multiple	0.08 (0.08)	0.08 (0.09)	0.08 (0.09)	0.08 (0.09)
Downtown	-0.04 (0.12)	-0.05 (0.12)	-0.06 (0.11)	-0.06 (0.11)
Demolitions	0.19 (0.12) *	0.19 (0.12) *	0.18 (0.12)	0.18 (0.12)
Level -1				
Linear_Yr	-7.36 (2.26) ***	-7.36 (2.26) **	-7.50 (2.31) ***	-8.00 (2.51) **
Quad_Yr	-7.11 (1.89) ***	-7.12 (1.89) ***	-7.14 (1.92) ***	-7.40 (2.02)
% Black	0.23 (0.19)	0.23 (0.18)	0.21 (0.19)	0.21 (0.19)
% Other	-0.40 (0.42)	-0.40 (0.42)	-0.42 (0.42)	-0.42 (0.43)
ICE Index	-3.07 (8.91)	-2.48 (8.81)	-3.63 (8.82)	-3.06 (8.62)
Third Places	7.88 (3.88) **	7.71 (3.85) **	8.67 (4.00) **	9.21 (4.21) **
Third Places * Commercial		0.88 (0.46) *		0.87 (0.48) *
Third Places * Downtown			-0.51 (0.24) **	-0.53 (0.29) *
Variance Components				
Intercept	463.46 ***	460.30 ***	469.38 ***	449.20 ***
Linear_Yr	869.59 ***	906.30 ***	905.71 ***	1074.29 ***
Quad_Yr	582.80 ***	599.37 ***	602.65 ***	669.29 ***
Third Places	929.81 ***	933.28 ***	985.70 ***	1210.01 ***

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Crimes Against Persons

The last model shows the effect of the study's predictor variables alongside crimes against persons. It is important to note that unlike the previous models, Table 5.7 presents a HLM model with no variation components with level-one variables. The equation for this mixed model is as follows:

$$
\begin{aligned}
CRIME\_PE_{ti} = {} & \beta_{00} + \beta_{01}*COMMERCIAL_i + \beta_{02}*RES\_MULTIPLE_i \\
& + \beta_{03}*RES\_SINGLE_i + \beta_{04}*DOWNTOWN_i + \beta_{05}*DEMOLITION_i \\
& + \beta_{10}*LIN\_YEAR_{ti} \\
& + \beta_{20}*PERC\_BLACK_{ti} \\
& + \beta_{30}*PERC\_OTHER_{ti} \\
& + \beta_{40}*ICE\_INDEX_{ti} \\
& + \beta_{50}*THIRD\_PLACES_{ti} \\
& + \beta_{60}*PERSONS\_LAG_{ti} \\
& \\
& + r_{0i} + e_{ti}
\end{aligned}
$$

In the model, findings indicate no significant effects between-block group differences at level two. Examining level one predictors in the model, coefficients show a significant negative associated with a block group's concentration index at the extremes (ICE). Here the results illude to a relationship expressing a decrease in crimes against persons as the block groups index increases.

Table 5. 7. Hierarchical Linear Model Results w/ Crime Against Persons

		(1)
Level -2		
	Intercept	53.41 (1.83) ***
	Commercial	0.17 (0.23)
	Single	0.02 (0.12)
	Multiple	0.10 (0.23)
	Downtown	-0.06 (0.19)
	Demolitions	0.17 (0.28)
Level -1		
	Linear_Yr	-5.38 (1.70) **
	Quad_Yr	-4.46 (0.96) ***
	% Black	0.09 (0.29)
	% Other	-0.34 (0.32)
	ICE Index	-2.14 (0.69) **
	Third Places	-8.82 (10.18)
		-0.57 (0.31) *
Variance Components		
	Intercept	89.17 *
	Level-1	2719.97

*** p < 0.01; ** p < 0.05; * p < 0.10

CHAPTER VI

DISCUSSION

Based on the literature, three questions were designed to examine:

- What is the relationship between gentrification and crime – conceptualized through zoning, SES, third places, and demolitions?
- Does where third places are established matter?
- How are these relationships contextualized through race?

Additionally, major gaps in prior research can be attributed to nonuniform definitions of gentrification (Kraegar, 2007; Lee, 2010), over-reliance on census-based predictors (McDonald, 1986; Covington and Taylor, 1989), and cross-sectional designs (Kraeger et al., 2007). A new theoretical and empirical model was developed based on these questions in an attempt to resolve the concerns to help illustrate the relationship between gentrification and crime. The model is not only longitudinal and uses statistical analysis to consider within and between group change but combines the use of census data with municipal databases to model yearly change. Variables were operationalized in Chapter 4, with the results of several hierarchical linear regression model results presented in Chapter 5. This chapter will be used to further elaborate on the findings from the models, including policy recommendations, presentation of studies limitations, and guides to future research.

The first question, that examines the relationship between gentrification and crime, shows mixed effects dependent on the type of crime examined. The model predicting crimes against society (Table 5.4) proved to be the most robust model estimated. That is, there was considerable variation in changes across block groups over time and this model considered the differential placement of Black population compositions and third places. The model included variation in

Black residential populations and the establishment of third places, meaning for crimes against society, there are significant differences in racial populations and growth within each block group. Here, initial models showed similarities to extant research showing that more gentrification (through the conceptualization of third places and demolitions) helps reduce crime within an area. Additionally, results oppose adding more third-place establishments to "residential multiple" spaces as a solution to reduce this type of crime. This may be due to the lack of employment opportunities generally afforded to individuals of low income who commonly stay in public housing (Pager, 2008). Moreover, the addition of third places in marginalized areas may generate a form of exclusion of the previous "culture" of an area in hopes of accommodating new patrons of a different lifestyle.

The model explaining crimes against property was significant but did not include racial variation in level one; thus, the interpretations of these results do not include the differential placement of racial compositions within an area. However, this model assesses the effect of gentrification on crimes against property with the inclusion of third place establishments. Here initial results show that the higher number of third places and the more demolitions occur within an area, the more crimes against property occur. Interpreting this finding through a conventional frameworks like routine activities and focusing on the possible perceptions of offenders, it is possible that demolished spaces can be unprotected by guardians that would encourage offending, opening up these block groups to issues such as burglary and vandalism (Cohen & Felson, 1979; Barton & Gruner, 2016). The increase of third places may provide motivated offenders (e.g., young males) with more places and greater opportunities to offend.

The last model, estimating crime against persons, shows no significant variation in changes in this type of crime, over time and across block groups; thus, the model does not

provide an opportunity to greatly explore factors affecting across neighborhoods. A block group's ICE Index increase was attributed to less crime. Similar to extant research findings showing the rise in an area's SES shows reductions in crime – likely due to the forces available to enact social control in the block group (Kraeger et al., 2011; Barton, 2016; McDonald, 1986).

The second research question focuses on the influence of third places and whether they had a significant impact on crime across block groups over time. Similarly expressed above, these results were mixed and determined based on the type of crime modeled. For crimes against society, third places showed a negative relationship indicating a decrease in crime the more third place establishments were in the proximity. These results are similar to most traditional criminological theories showing gentrification being a benefit to the area (Johnson, Guerette & Bowers, 2014). These frameworks describe how gentrification creates avenues for new and more affluent patrons to spend money and foster community. However, when analyzing third places in relation to property crime, we can see that crime increases the more establishments in the block group. Therefore, the results can be interpreted to demonstrate that with the inclusion of new third place establishments, the more properties are to be victimized. The results are consistent with traditional frameworks described like routine activities theory (Cohen & Felson, 1979; Barton & Gruner, 2016) in that crimes increase the more vulnerable targets and motivated offenders are in an area. The increase of these establishments may bring offenders to the area to vandalize and or burglarize the newly introduced businesses.

The interaction placed with third places in the model shows distinct significant effects for commercial and downtown zones. Commercial zones with an increase of third places show an increase in crime, whereas the third places erected in downtown allocated locales show to deter crime. This is potentially due to the emphasis on protection during the night. Spaces in more

commercial areas generally have more security during business hours. Once shops and businesses close for the evening, security lightens, creating more opportunities for offenders. Downtown districts typically host parts of the city's nightlife (e.g., bars and nightclubs). Because of this, security and law enforcement are often positioned in the general vicinity to attend to crime and protect municipal property (Triplett, Sun & Gainey, 2005). These changes in security detail can attribute to the differential effect of the interactions.

Lastly, when understanding the impact of race in these contexts, we see that for some spaces, race does place a role in conjunction with other predictors of gentrification; however, there were no significant effects solely with our racial composition variables. This could be due to the general racial composition and distribution of Norfolk, VA, or a highlight showing that all races are known to offend within the city.

Interestingly, the interaction used to present racial effects with predictors shows that the more a block group is designated for nonresidential purposes, crimes against society rates in Black communities' increase; in contrast the more residential allocations there are, crime goes down. This supports the critical race theory (Crenshaw, 1999). It was hypothesized that this is due to the need for Black communities to keep their residential communities. Therefore, as explained in the closing of Chapter 3, where historical and current gentrification efforts of the city sought to provide fewer residencies and more business-oriented spaces (Finn, 2021), the city contributed to a disservice to the city in an attempt to curb crime rates. Results from the model show that city actors should attempt to create more housing in spaces with higher Black populations in these planned revitalizations. Areas with high Black residential populations should have space to develop their community and social control uninhibited, similar to the

historical treatment of White communities. These places need to be funded with non-predatory lending practices from banks to own their communities and fortify them.

Limitations

There are a several limitations to this exploratory study. One limitation concern is the small, investigated time intervals. It was previously suggested that smaller increments of data are needed to model the change accurately to capture gentrification as a process, however, five years of data may not capture the full picture as neighborhood often take more than five years to full gentrify (citations). A longer historical context is needed. Regarding issues in the data collection process for this research specifically, city agents informed me that data could only be acquired for years as far back as 2016 for some variables due to guidelines allowing them to discard of earlier datasets to make rooms for more current data. Ecological researchers seeking to use municipal repositories may need to begin data collection years in advance to construct more chronologically robust datasets.

Another limitation to consider is the unique measure of third places used to generate the statistical models. As mentioned, third places were conceptualized through the works of sociologist Ray Oldenburg (1982) and operationalized from a pre-generated list of NAIC codes used to categorize business for government and commerce labeling. These categories are not explicitly used to measure third places therefore create some downside into conceptual validity. For example, there could be establishments that would meet the criteria of third places not labeled in the subgroup of codes (e.g., infrequent or mobile establishments), or are included in these lists but lack the features of third places in the community (e.g., casinos).

The residential allocations and racial compositions throughout the city of Norfolk VA are influenced by larger structural characteristics of the city. For example, the local shipping ports

and naval base create an issue when attempting to disentangle racial effects in the model. Given that Norfolk hosts the largest naval base in America, we credit a large portion of stability of racial compositions over time to its influence – found in the descriptive statistics table (Table 5.1). With naval buying power they acquire various homes and construct housing for its enlistees, low-income areas' median incomes, relative housing values, and racial diversity theoretically increase. In contrast, with Norfolk having the largest shipping terminal in the Virginia Port Authority[10] industry, this creates a concentration of labor workers and tax revenue[11]. On the one hand, in theory, these populations who are both racial and socioeconomically diverse, causing variations in block group elements such as race are harder to investigate. On the other hand, this also means that these racial variations may be unique and should be investigated further.

Policy Implications

This work attempts to reconceptualize gentrification in a method using annual aggregation to help uncover a more real-time visualization of its relationship with crime. This work postulates that although gentrification is beneficial in the scope of conventional criminological theory, when explored through a critical lens, historical highlights can easily capture gentrification as a detriment to impoverished communities and those of color. Policy implications should be focused on uncovering any lasting effects of historical disenfranchisement in these communities and look to provide community aid instead of external control through prejudiced political regimes.

[10] The Port of Virginia (or Virginia Port Authority) is a cargo shipping entity responsible for distribution operations centered in the harbor of Hampton Roads

[11] According to an economic impact study conducted by the Mason School of Business at the College of William & Mary in 2008, 390,000 Virginia jobs – nearly ten percent of the state's resident workforce – are linked to port activity across the six active terminals. This generates $23 billion in annual revenue and $2.1 billion which is provided in state and local taxes.

The most vital policy recommendation from this study is that in attempting to address crimes against society (i.e., drug crime), gentrification in the form of adding more third-place establishments does not appear beneficial. City planners should look to assess the spaces they have allocated to residents and businesses to properly engineer physical changes, not at the expense of city dwellers. This, along with pro-community policy includes keeping families in the areas where they have already established life and well-being instead of displacing them for future economic prosperity (Alexander, 2012, Desmond, 2016). For example, as mentioned in Chapter 3, Norfolk, VA, is undergoing a revitalization project in the St. Paul's District. As many families face relocation, this begs the question, where will they go and what opportunities wait for them to combat the trauma of being displaced?

Grants and other public funding should be budgeted for these communities to maintain their businesses and homes. With the displacement of these folks, there is an uprooting of the current lives they have built. In paralleling these policy recommendations with criminological concepts of collective efficacy, these communities should be provided resources to help better their communities and continue communal social control. When spaces are gentrified, and the people are displaced, the area must create different social control mechanisms for its remaining and new residents. Additionally, every displaced individual must find other sources of mutual trust and community. The focus needs to be shifted into keeping these communities together.

Understandably, this takes a lot of organizing, petitioning, advocating and altruistic decision make provide help to these areas. It would assist community-based aid and legislation if there were actual committees and databases tasked with analyzing the generational ramifications discriminatory policies such as redlining have had on low-income and communities of color. This will help ensure that future developments are occurring Inequitable parts of the city with

minimum expense to current residents. These committees could compare former redlining maps to see if drastic inequality persists within those spaces and act accordingly. Additionally, providing a hub for those committed to equitable change will create advocates for those who have routinely been ignored by prominent city actors and private funding.

Future Research

In tandem with the limitations presented, future research can expound on the proposed gentrification models to better demonstrate community change and influence. This exploration should primarily focus on generating a database worthy of strong longitudinal mixed-methods models. This includes expanding the dataset to possibly a ten-year model to create a long-term representation of gentrification's effects on neighborhoods. Additionally, when researching gentrification and crime further, researchers should seek to further the conceptual model by creating better ways to operationalize social and economic changes. Because these changes help define gentrification, scholars should look to locate reliable repositories that assist in modeling community change. This study uses the influence of third places and demolition, which shows some impact on feature change. Further strategies should look at exploring qualitative properties to include but are not limited to what modern characteristics make up third places and why spaces are deemed for demolition.

Research should look at the growing influence of virtual third places (Soukup, 2006; Moore, Hankinson Gathman & Ducheneaut, 2009) and how they may be a function of gentrification and crime. Establishments such as cyber cafes and eGaming centers may provide a unique social and economic benefit where previously conceptualized third places may be limited. Additionally, although this study considers potential modern third places, these spaces are also conceptualized through Oldenburg's (1982) original characterizations. With this in mind, it

would appear worthwhile to construct a new definition of third places that is not primarily through an older cis-gendered, White, heteronormative perspective to include other potential establishments. There may be establishments within marginalized or overlooked communities that host properties of third places that are ignored, given the inattention to these communities by mainstream research. For example, places that may be omitted are businesses such as neighborhood smokehouses and candy shops, which can have a positive social and economic influences. However, because the work is considered illegitimate, it may not be legitimate, although providing a service to the community and having characteristics of third places.

Future research should compare historical maps of neighborhood change (i.e., redlining) and analyze potential generational effects on neighborhoods related to significant revitalization and transformation (Finn, 2021) – within or surrounding the space. Qualitative historical rhetoric explains how Norfolk, VA, unambiguously used government grants and funding to transform areas into a now known gentrified space – for example, the Ghent District. Comparing these maps and policies provides an avenue of research available to examine any lasting effects on crime rates and racial and economic characteristics in proximate locales.

Perhaps more importantly, this research model provided in his dissertation should be expanded to consider the context within a larger metropolitan city, one that has the economic independence of major industry or continuously changes to the city's physical aspects. Because Norfolk, VA is a mid-sized city, it is heavily influenced by its prominent characteristics (e.g., US Naval Base), major shipping port, and local universities. Gentrification models would be assisted by data from locales that offer enough racial and economic diversity to view explicit variation not found in the current growth curve statistical models.

This last research avenue is geared towards understanding the relationship of crimes against society in the wake of new legislation changing drug laws. Virginia became the first southern state to legalize the possession and use of marijuana by adults, and the bill was signed into law on July 1, 2021. With drug offenses making up at most 91% of all crimes against society in Norfolk, and in understanding the effect the War on Drugs has had on communities, alongside the significant results found in the study's models, future research should look to compare the influence of drug crimes with the new legislation. Ideally, this law would decrease the arrest and incarceration of individuals for cannabis-related offenses. For example, Alexander (2012) explains how the detriment of a drug conviction creates a caste of issues for ex-felons released from prison. This includes but is not limited to being barred from public assistance, paying fees and debt incurred while incarcerated, alongside being monitored, and forced to perform check-ins with limited financial resources and modes of transportation (Alexander, 2012). This then should shift the motive from revitalizing areas from crime to more prosocial purposes. This should lead to less residential displacement, improved structure, not at the expense of the residents, and an increase in median income for families and the overall communities.

The major contributions of this dissertation are that cities need to consider the historical and generational effects that may have some influence on current neighborhood structures and elements of social control. Additionally, when revitalizing space, planners, developers, and city agents must be mindful about con ducting gentrification practices that further displace residents as this may not be the best way to reduce crime in an area. Lastly, by measuring gentrification through these new elements, and hierarchical linear modeling, we can accurately measure gentrification changes in smaller time intervals.

REFERENCES

Aaronson, D., Hartley, D., & Mazumder, B. (2021). The effects of the 1930s HOLC" redlining" maps. *American Economic Journal: Economic Policy*, *13*(4), 355-92.

Abelson, E. S. (2003). "Women who have no men to work for them": gender and homelessness in the Great Depression, 1930-1934. *Feminist Studies*, *29*(1), 105-127.

Alexander, M. (2012). *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. The New Press.

Arnold, E. K. (2011). Oakland gang injunctions: gentrification or public safety?. *Race, Poverty & the Environment*, *18*(2), 70-74.

Atkinson, R. (2000). Measuring gentrification and displacement in Greater London. *Urban studies*, 37(1), 149-165.

Barconi, F., Freeman, L. (2004). Gentrification and Displacement: New York City in the 1990s. *Journal of the American Planning Association*, 70(1), 39-52.

Barron, M. (2004). Adequately Re-Housing Low Income Families: A Study of Class and Race in the Architecture of Public Housing, Marietta, Georgia, 1938-1941. *Perspectives in Vernacular Architecture*, *11*, 54-70.

Barton, M. (2016). An exploration of the importance of the strategy used to identify gentrification. *Urban Studies*, *53*(1), 92-111.

Barton, M. S., & Gruner, C. P. (2016). A theoretical explanation of the influence of gentrification on neighborhood crime. *Deviant Behavior*, *37*(1), 30-46.

Bishop, K. C., & Murphy, A. D. (2011). Estimating the willingness to pay to avoid violent crime: A dynamic approach. *American Economic Review*, *101*(3), 625-29.

Brabner-Smith, J. W. (1937). The Wagner Act: A definite housing program. *ABAJ*, *23*, 681.

Brehon, D. J. (2007). *Essays on the economics and econometrics of urban crime and house price prediction*. Columbia University.

Brown, K., & Uyar, B. (2004). A hierarchical linear model approach for assessing the effects of house and neighborhood characteristics on housing prices. Journal of Real Estate Practice and Education, 7(1), 15-24.

Brown-Saracino, J. (2010). A neighborhood that never changes. In *A Neighborhood That Never Changes*. University of Chicago Press.

Browning, C., Dietz, R., & Feinberg, S. (2004). The Paradox of Social Organization: Networks, Collective Efficacy, and Violent Crime in Urban Neighborhoods. Social Forces, 83(2).

Buonanno, P., Montolio, D., & Raya-Vílchez, J. M. (2013). Housing prices and crime perception. *Empirical Economics*, *45*(1), 305-321.

Bursik, R. J., & Grasmick, H. G. (1992). Longitudinal neighborhood profiles in delinquency: The decomposition of change. *Journal of Quantitative Criminology*, *8*(3), 247-263.

Bursik Jr, R. J., & Grasmick, H. G. (1993). Economic deprivation and neighborhood crime rates, 1960-1980. *Law & Soc'y Rev.*, *27*, 263.

Carrozzo, P. M. (2008). A New Deal for the American Mortgage: The Home Owners' Loan Corporation, the National Housing Act and the Birth of the National Mortgage Market. *U. Miami Bus. L. Rev.*, *17*, 1.

Clarke, R. V. (1980). Situational crime prevention: Theory and practice. *British. Journal of Criminology*, *20*, 136.

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American sociological review*, 588-608.

Coleman iV, M., LaCour-Little, M., & Vandell, K. D. (2008). Subprime lending and the housing bubble: Tail wags dog? *Journal of Housing Economics*, *17*(4), 272-290.

Covington, J., & Taylor, R. B. (1989). Gentrification and crime: Robbery and larceny changes in appreciating Baltimore neighborhoods during the 1970s. *Urban Affairs Quarterly*, *25*(1), 142-172.

Crenshaw, K. W. (2010). Twenty years of critical race theory: Looking back to move forward. *Conn. L. Rev.*, *43*, 1253.

DeGiovanni, F. F. (1983). Patterns of change in housing market activity in revitalizing neighborhoods. *Journal of the American Planning Association*, *49*(1), 22-39.

Delgado, R., & Stefancic, J. (2017). *Critical race theory: An introduction* (Vol. 20). NyU press.

DeSena, J. N. (2018). 'Swimming Against the Tide': Working-Class Discourse on Gentrification in North Brooklyn. In *The Palgrave Handbook of Urban Ethnography* (pp. 205-219). Palgrave Macmillan, Cham.

Desmond, M. (2016). *Evicted: Poverty and profit in the American city*. Crown.

Doering, J. (2020). *Us versus them: Race, crime, and gentrification in Chicago neighborhoods*. Oxford University Press, USA.

Duncan, O. D., & Duncan, B. (1957). *The Negro population of Chicago: A study of residential succession*. University of Chicago Press.

Easton, S., Lees, L., Hubbard, P., & Tate, N. (2020). Measuring and mapping displacement: The problem of quantification in the battle against gentrification. *Urban studies*, *57*(2), 286-306.

Faber, J. W. (2020). We Built This: Consequences of New Deal Era Intervention in America's Racial Geography. *American Sociological Review*, *85*(5), 739-775.

Fella, A. C. (2019, June 24). ABCs of gentrification. Retrieved March 3, 2022, from https://theurcnorfolk.com/abcs-of-gentrification.

Finn, J. (2021, April 10). St. Paul's redevelopment plan offers one false choice after another. *The Virginian-Pilot*. Retrieved March 3, 2022.

Freeman, L. (2005). Displacement or succession? Residential mobility in gentrifying neighborhoods. *Urban Affairs Review*, *40*(4), 463-491.

Gibbons, J., Nara, A., & Appleyard, B. (2018). Exploring the imprint of social media networks on neighborhood community through the lens of gentrification. *Environment and Planning B: Urban Analytics and City Science*, *45*(3), 470-488.

Glaeser, E. L., Laibson, D., & Sacerdote, B. (2002). An economic approach to social capital. *The economic journal*, *112*(483), F437-F458.

Goetz, E. (2011). Gentrification in Black and White: The racial impact of public housing demolition in American cities. *Urban Studies*, *48*(8), 1581-1604.

Gonda, J. D. (2014). Litigating racial justice at the grassroots: The Shelley family, Black realtors, and Shelley v. Kraemer (1948). *J. Sup. Ct. Hist.*, *39*, 329.

Hamnett, C., & Williams, P. (1980). Social change in London: a study of gentrification. *The London Journal*, *6*(1), 51-66.

Hightower, C., & Fraser, J. C. (2020). The Raced–Space of Gentrification: "Reverse Blockbusting," Home Selling, and Neighborhood Remake in North Nashville. *City & Community*, *19*(1), 223-244.

Hillier, A. E. (2003a). Redlining and the home owners' loan corporation. *Journal of Urban History*, *29*(4), 394-420.

Hillier, A. E. (2003b). Who received loans? Home Owners' Loan Corporation lending and discrimination in Philadelphia in the 1930s. *Journal of Planning History*, *2*(1), 3-24.

Holt, J. (2009). A summary of the primary causes of the housing bubble and the resulting credit crisis: A non-technical paper. *The Journal of Business Inquiry*, *8*(1), 120-129.

Hunter, A. D. (1995). Private, Parochial and Public Social Orders: The Problem of Crime and Incivility in Urban Communities. In Reprinted in Metropolis: Center and Symbol of Our Times. New York University Press.

Hwang, J., & Lin, J. (2016). What have we learned about the causes of recent gentrification?. *Cityscape*, *18*(3), 9-26.

Hyra, D., & Prince, S. (2015). Beyond Gentrification: Investment and Abandonment on the Waterfront. In *Capital Dilemma* (pp. 245-256). Routledge.

Hyra, D., & Rugh, J. S. (2016). The US great recession: Exploring its association with black neighborhood rise, decline and recovery. *Urban Geography*, *37*(5), 700-726.

Jahera Jr, J. S. (2018). Bank Asset-Liability Management Theory Revisited. *Journal of Banking and Finance*, *1*(1), 39-47.

Jeffres, L. W., Bracken, C. C., Jian, G., & Casey, M. F. (2009). The impact of third places on community quality of life. *Applied research in quality of life*, *4*(4), 333-345.

Johnson, S. D., Guerette, R. T., & Bowers, K. (2014). Crime displacement: what we know, what we don't know, and what it means for crime reduction. *Journal of Experimental Criminology*, *10*(4), 549-571.

Kasarda, J. D., & Janowitz, M. (1974). Community attachment in mass society. *American sociological review*, 328-339.

Keels, M., Burdick–Will, J., & Keene, S. (2013). The effects of gentrification on neighborhood public schools. *City & Community*, *12*(3), 238-259.

King, R. S. (2008). *Disparity By Geography The War on Drugs in America's Cities*.

Kondo, M. C., Keene, D., Hohl, B. C., MacDonald, J. M., & Branas, C. C. A Difference-In-Differences Study of the Effects of a New Abandoned Building Remediation Strategy on Safety. *PLOS One*

Kreager, D. A., Lyons, C. J., & Hays, Z. R. (2011). Urban revitalization and Seattle crime, 1982–2000. *Social problems*, *58*(4), 615-639.

Kubrin, C. E., Branic, N., & Hipp, J. R. (2021). (Re) conceptualizing Neighborhood Ecology in Social Disorganization Theory: From a Variable-Centered Approach to a Neighborhood-Centered Approach. *Crime & Delinquency*.

Kubrin, C. E., & Stewart, E. A. (2006). Predicting who reoffends: The neglected role of neighborhood context in recidivism studies. *Criminology*, *44*(1), 165-197.

Lee, Y. Y. (2010). Gentrification and crime: Identification using the 1994 Northridge earthquake in Los Angeles. *Journal of Urban Affairs*, *32*(5), 549-577.

Levitin, A. J., & Wachter, S. M. (2011). Explaining the housing bubble. *Geo. LJ*, *100*, 1177.

Lloyd, R. (2010). *Neo-bohemia: Art and commerce in the postindustrial city*. Routledge.

McDonald, S. C. (1986). Does gentrification affect crime rates?. *Crime and Justice*, *8*, 163-201.

Mehdipanah, R., Marra, G., Melis, G., & Gelormino, E. (2018). Urban renewal, gentrification and health equity: a realist perspective. *The European Journal of Public Health*, *28*(2), 243-248.

Meltzer, R., & Capperis, S. (2017). Neighbourhood differences in retail turnover: Evidence from New York City. *Urban Studies*, *54*(13), 3022-3057.

Meltzer, R., & Schuetz, J. (2012). Bodegas or bagel shops? Neighborhood differences in retail and household services. *Economic Development Quarterly*, *26*(1), 73-94.

Millon-Cornett, & Tehranian. (1989). Stock market reactions to the depository institutions deregulation and monetary control act of 1980. *Journal of Banking and Finance*, *13*(1), 81-100.

Moore, R., Hankinson Gathman, E., & Ducheneaut, N. (2009). From 3D space to third place: The social life of small virtual spaces. *Human Organization*, *68*(2), 230-240.

Mott, C., & Cockayne, D. (2020). Understanding how hatred persists: situating digital harassment in the long history of White supremacy. *Gender, Place & Culture*, 1-20.

Murphy, R. (2020, January 14). Lawsuit seeks to block Norfolk's plan to move people out of public housing in St. Paul's. *The Virginian Pilot*. Retrieved March 3, 2022, from https://www.pilotonline.com/government/local/vp-nw-norfolk-lawsuit-fair-housing-authority-20200114-uqietfkz4rhc7jqof6bl6343vu-story.html.

Oldenburg, R., & Brissett, D. (1982). The third place. *Qualitative sociology*, *5*(4), 265-284.

Ozen, B. (2021). Case Study Analysis-Starbucks.

Pager, D. (2008). *Marked: Race, crime, and finding work in an era of mass incarceration*. University of Chicago Press.

Papachristos, A. V., Smith, C. M., Scherer, M. L., & Fugiero, M. A. (2011). More coffee, less crime? The relationship between gentrification and neighborhood crime rates in Chicago, 1991 to 2005. *City & Community*, *10*(3), 215-240.

Park, R. E. (1936). Human Ecology. *American Journal of Sociology*, 42(1), 1–15. http://www.jstor.org/stable/2768859

Park, R. E., Burgess, E. W., & McKenzie, R. D. (1925). The City Chicago. *Univ. Press, Chicago*.

Pope, J. C. (2008). Fear of crime and housing prices: Household reactions to sex offender registries. *Journal of Urban Economics*, *64*(3), 601-614.

Powell, J. (1999). Race, poverty, and urban sprawl: Access to opportunities through regional strategies. In *Forum for Social Economics* (Vol. 28, No. 2, pp. 1-20). Taylor & Francis Group.

Powell, J. (2003). FDRs Folly: How Roosevelt and His New Deal Prolonged the Great Depression. Crown Forum.

Ratcliffe, J. H. (2004). Geocoding crime and a first estimate of a minimum acceptable hit rate. *International Journal of Geographical Information Science*, *18*(1), 61-72.

Raudenbush, S., & Bryk, A. S. (1986). A hierarchical model for studying school effects. *Sociology of education*, 1-17.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). sage.

Ringelstein, K. L. (2015). *Residential segregation in Norfolk, Virginia: How the federal government reinforced racial division in a southern city, 1914-1959*. Old Dominion University.

Rose, K. (2002). Combating gentrification through equitable development. *Race, Poverty & the Environment*, *9*(1), 5-56.

Rothbard, M. N. (1972). *America's great depression*. Ludwig von Mises Institute.

Rugutt, J. K. (2001). A Study of Individual Patterns of Longitudinal Academic Change: Exploring the Structural Equation Modeling (SEM) and Hierarchical Linear Modeling (HLM).

Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American journal of sociology*, *94*(4), 774-802.

Sandler, D. H. (2017). Externalities of public housing: The effect of public housing demolitions on local crime. *Regional Science and Urban Economics*, *62*, 24-35.

Schmidt, C. W. (2017). Buchanan v. Warley and the Changing Meaning of Civil Rights. *Cumb. L. Rev.*, *48*, 463.

Schnake-Mahl, A. S., Jahn, J. L., Subramanian, S. V., Waters, M. C., & Arcaya, M. (2020). Gentrification, neighborhood change, and population health: a systematic review. *Journal of urban health*, *97*(1), 1-25.

Shaw, C. R., & McKay, H. D. (1942). Juvenile delinquency and urban areas.

Shaw, K. S., & Hagemans, I. W. (2015). 'Gentrification without displacement' and the consequent loss of place: the effects of class transition on low-income residents of secure housing in gentrifying areas. *International Journal of Urban and Regional Research*, *39*(2), 323-341.

Shelton, T., Poorthuis, A., & Zook, M. (2015). Social media and the city: Rethinking urban socio-spatial inequality using user-generated geographic information. *Landscape and urban planning*, *142*, 198-211.

Smith, C. M. (2014). The influence of gentrification on gang homicides in Chicago neighborhoods, 1994 to 2005. *Crime & Delinquency*, *60*(4), 569-591.

Smith, G. S., Breakstone, H., Dean, L. T., & Thorpe, R. J. (2020). Impacts of gentrification on health in the US: A systematic review of the literature. *Journal of Urban Health*, *97*(6), 845-856.

Smith, J. S. (2014). *A Concise History of the New Deal*. Cambridge University Press.

Soukup, C. (2006). Computer-mediated communication as a virtual third place: building Oldenburg's great good places on the world wide web. *New media & society*, *8*(3), 421-440.

Steil, J. P., Albright, L., Rugh, J. S., & Massey, D. S. (2018). The social structure of mortgage discrimination. *Housing studies*, *33*(5), 759-776.

Sunstein, C. (2009). *The Second Bill of Rights: FDR's Unfinished Revolution--And Why We Need It More Than Ever*. Basic Books.

The Virginian-Pilot. (2010, June 2). Demolition of Norfolk housing complex approved. *The Virginian-Pilot.* Retrieved March 3, 2022.

Triplett, R. A., Sun, I. Y., & Gainey, R. R. (2005). Social disorganization and the ability and willingness to enact control: A preliminary test. *Western Criminology Review*, *6*(1).

Troesken, W., & Walsh, R. (2019). Collective Action, White Flight, and the Origins of Racial Zoning Laws. *The Journal of Law, Economics, and Organization*, *35*(2), 289-318.

Turken, S. (2020, July 22). 'It Was Horrific': Norfolk's Predominantly Black East Ghent Wiped Off The Map In 1970s. *WHRO*. Retrieved March 3, 2022, from https://whro.org/news/local-news/11664-it-was-horrific-norfolk-s-predominantly-Black-east-ghent-wiped-off-the-map-in-1970s.

Weber, R., Doussard, M., Bhatta, S. D., & McGrath, D. (2006). Tearing the city down: Understanding demolition activity in gentrifying neighborhoods. *Journal of Urban Affairs*, *28*(1), 19-41.

Welch, D., & Kneipp, S. (2005). Low-income housing policy and socioeconomic inequalities in women's health: the importance of nursing inquiry and intervention. *Policy, Politics, & Nursing Practice*, *6*(4), 335-342.

West, C. (1995). *Critical race theory: The key writings that formed the movement*. The New Press.

Wheeler, A. P., Kim, D. Y., & Phillips, S. W. (2018). The effect of housing demolitions on crime in Buffalo, New York. *Journal of Research in Crime and Delinquency*, *55*(3), 390-424.

White, G. F., Gainey, R. R., & Triplett, R. A. (2015). Alcohol outlets and neighborhood crime: A longitudinal analysis. Crime & Delinquency, 61(6), 851-872.

Whyte, W. H. (2012). *City: Rediscovering the center*. University of Pennsylvania Press.

Wial, H. (2013). Metropolitan economies in the Great Recession and after. In *Prepared for presentation at the Allied Social Science Associations/Labor and Employment Relations Association annual meetings, San Diego, January* (Vol. 4, p. 2013).

Williams, S. A., & Hipp, J. R. (2019). How great and how good?: Third places, neighbor interaction, and cohesion in the neighborhood context. *Social science research*, *77*, 68-78.

Wilson, J. Q., & Kelling, G. L. (1982). Broken windows. *Atlantic monthly*, *249*(3), 29-38.

Wo, J. C. (2016). Community context of crime: A longitudinal examination of the effects of local institutions on neighborhood crime. *Crime & Delinquency*, *62*(10), 1286-1312.

Woltman, H., Feldstain, A., MacKay, J. C., & Rocchi, M. (2012). An introduction to hierarchical linear modeling. *Tutorials in quantitative methods for psychology*, *8*(1), 52-69.

Woods, L. L. (2012). The Federal Home Loan Bank Board, redlining, and the national proliferation of racial lending discrimination, 1921–1950. *Journal of Urban History*, *38*(6), 1036-1059.

Yuen, F., & Johnson, A. J. (2017). Leisure spaces, community, and third places. *Leisure Sciences*, *39*(3), 295-303.

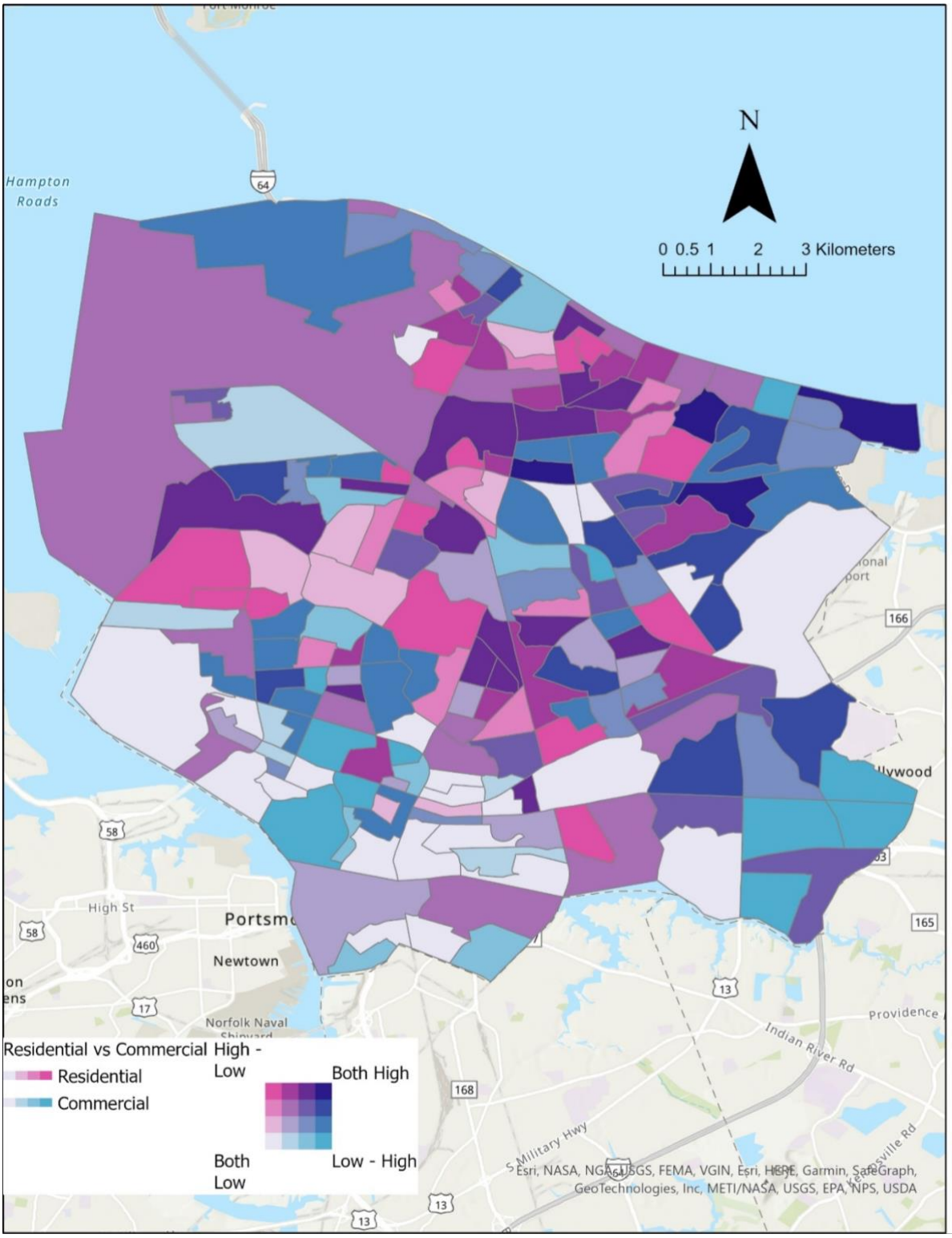
Zheng, S., & Kahn, M. E. (2013). Does government investment in local public goods spur gentrification? Evidence from Beijing. *Real Estate Economics*, *41*(1), 1-28.

Zimmer, T. J. (2020). Gentrification and the racialization of space. *Philosophy & Social Criticism*, 0191453720972733.

Zuk, M., Bierbaum, A. H., Chapple, K., Gorska, K., & Loukaitou-Sideris, A. (2018). Gentrification, displacement, and the role of public investment. *Journal of Planning Literature*, *33*(1), 31-44.

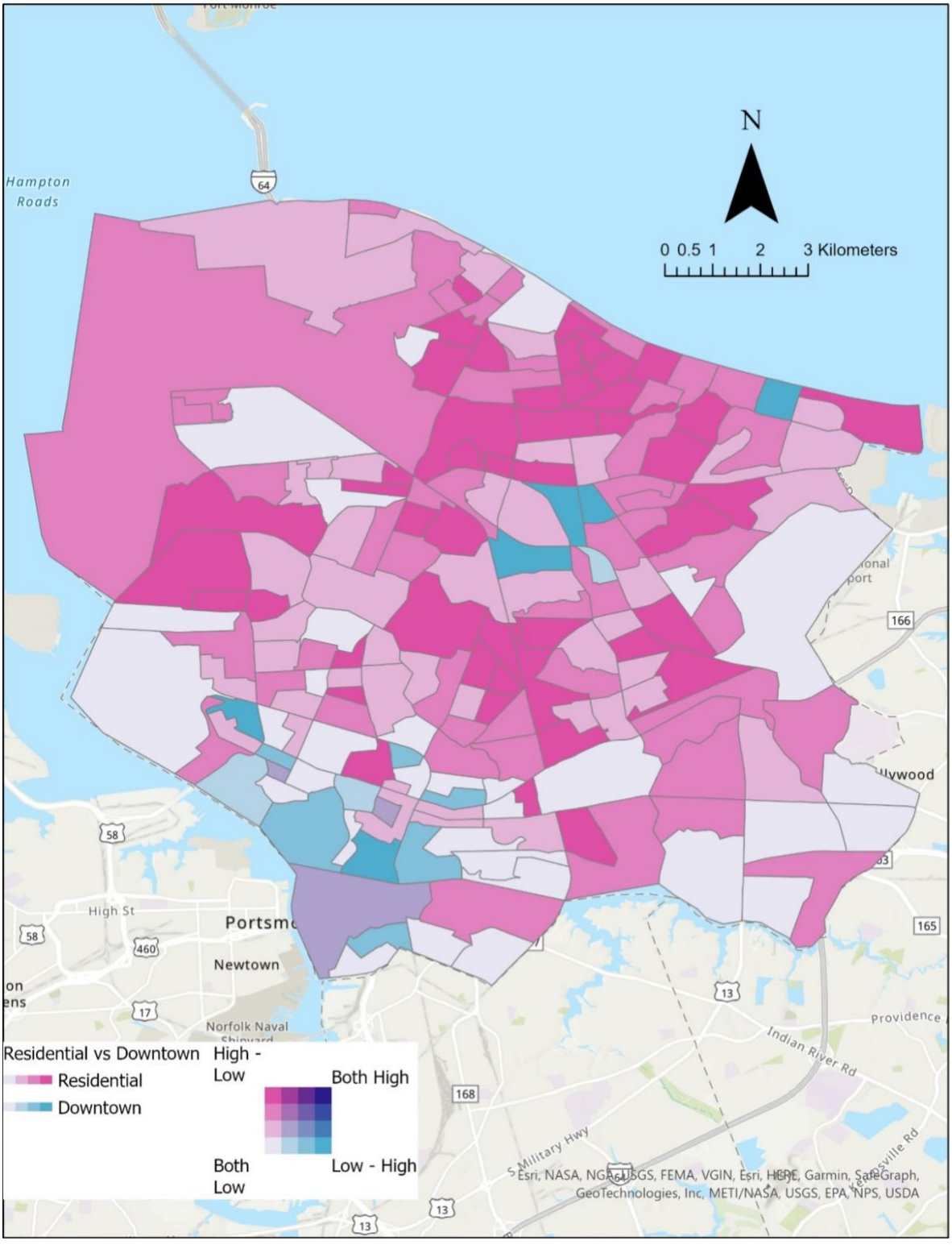
APPENDIX A

RESIDENTIAL VERSUS COMMERCIAL DISTRIBUTION



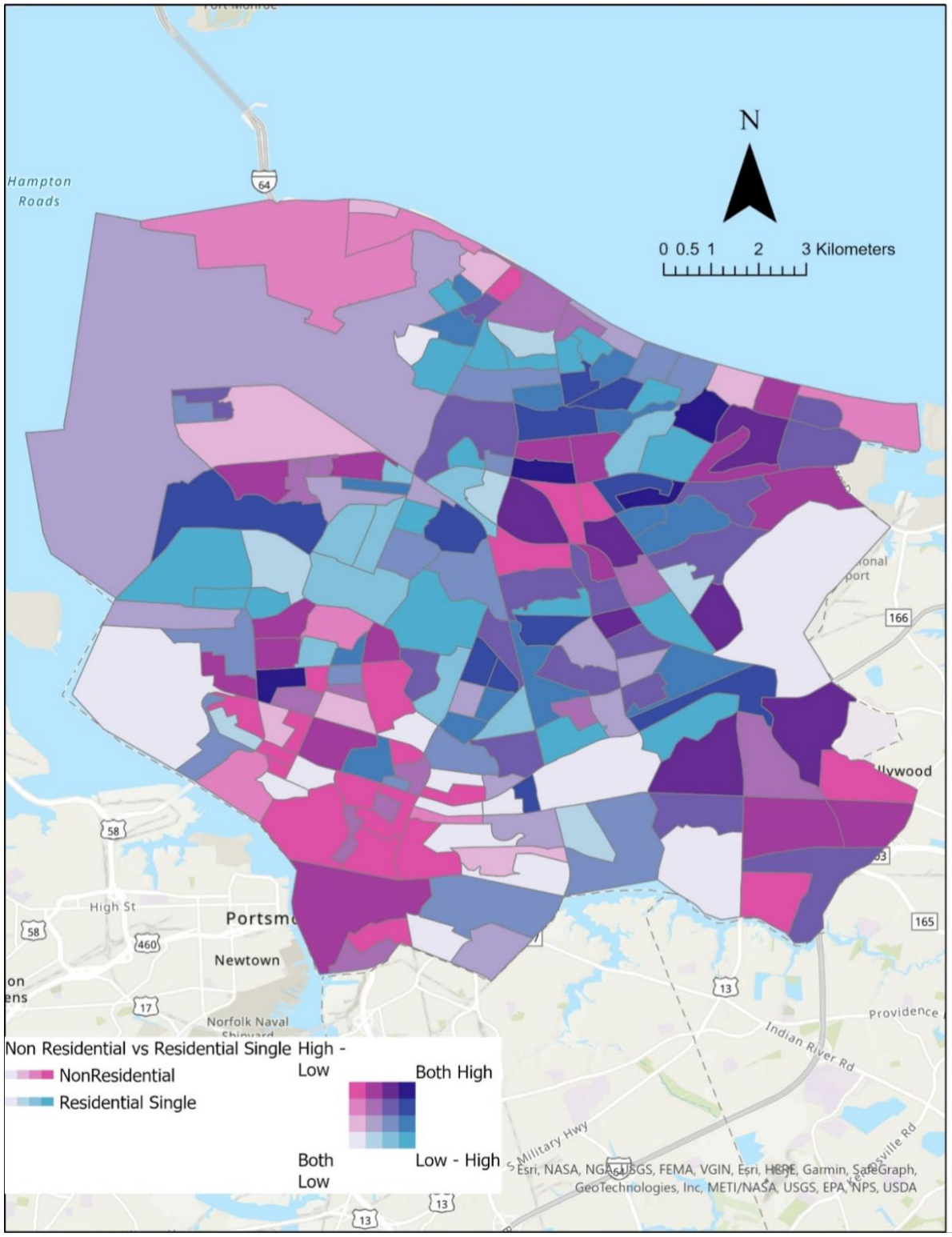
APPENDIX B

RESIDENTIAL VERSUS DOWNTOWN/ MIXED USE DISTRIBUTION



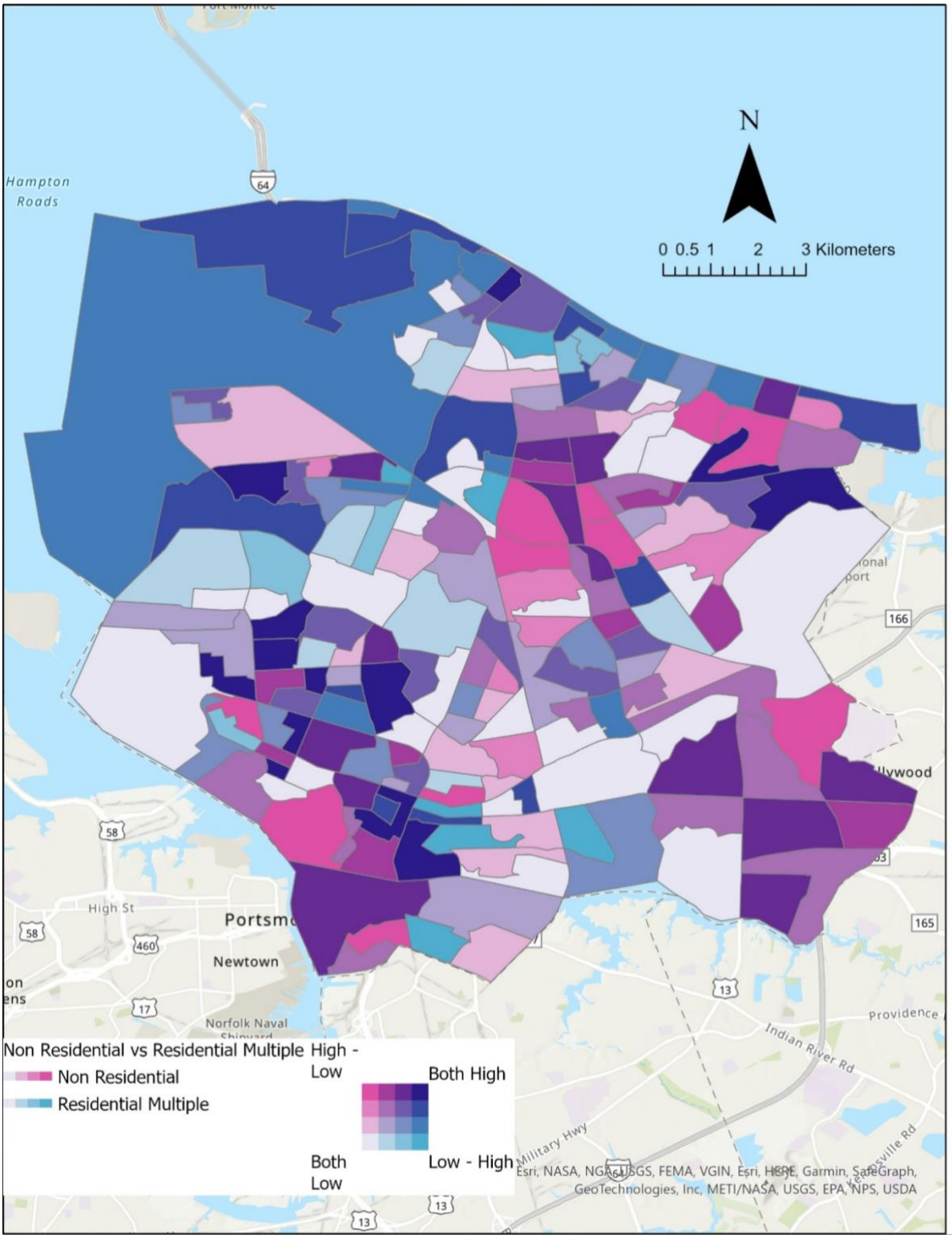
APPENDIX C

NON-RESIDENTIAL VERSUS RESIDENTIAL SINGLE DISTRIBUTION



APPENDIX D

NON-RESIDENTIAL VERSUS RESIDENTIAL MULTIPLE DISTRIBUTION



APPENDIX E

LEVEL ONE BIVARIATE CORRELATION MATRIXES (2015 -2016)

Correlation Matrix – Means (2015 - 2019)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.969	1						
% Other	.083	-.289	1					
ICE Index	.622	-.631	.141	1				
Third Places	.087	-.087	.022	.050	1			
Crimes Against Persons	-.398	.395	-.062	-.368	-.003	1		
Crimes Against Property	.380	-.372	.047	.209	.061	-.427	1	
Crimes Against Society	-.484	.504	-.187	-.278	-.055	.351	-.398	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix (2015)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.972**	1						
% Other	.108	-.302**	1					
ICE Index	.629**	-.630**	.113	1				
Third Places	.089	-.088	.025	.053	1			
Crimes Against Persons	-.446**	.425**	-.064	-.456**	.013	1		
Crimes Against Property	.413**	-.418**	.127	.340**	.095	-.444**	1	
Crimes Against Society	-.501**	.512**	-.169*	-.318**	-.021	.299**	-.486**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix (2016)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.973**	1						
% Other	.092	-.285**	1					
ICE Index	.620**	-.620**	.110	1				
Third Places	.101	-.097	-.013	.070	1			
Crimes Against Persons	-.516**	.513**	-.066	-.463**	0.030	1		
Crimes Against Property	.497**	-.492**	.036	.397**	0.082	-.613**	1	
Crimes Against Society	-.542**	.570**	-.200**	-.337**	-0.069	.347**	-.430**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix (2017)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.970**	1						
% Other	.035	-.244**	1					
ICE Index	.597**	-.608**	.132	1				
Third Places	.096	-.102	.031	.039	1			
Crimes Against Persons	-.394**	.402**	-.113	-.397**	.012	1		
Crimes Against Property	.298**	-.260**	-.051	.154*	-.085	-.235**	1	
Crimes Against Society	-.369**	.383**	-.140	-.341**	-.035	.384**	-.188**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix (2018)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.966**	1						
% Other	.077	-.294**	1					
ICE Index	.635**	-.651**	.167*	1				
Third Places	.114	-.111	.011	.052	1			
Crimes Against Persons	-.353**	.368**	-.115	-.419**	.049	1		
Crimes Against Property	.260**	-.268**	.063	.193**	.190**	-.416**	1	
Crimes Against Society	-.473**	.502**	-.220**	-.432**	-.067	.399**	-.313**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix (2019)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
% White	1							
% Black	-.964**	1						
% Other	.104	-.321**	1					
ICE Index	.630**	-.647**	.184*	1				
Third Places	.037	-.035	.056	.038	1			
Crimes Against Persons	-.279**	.267**	.048	-.105	-.061	1		
Crimes Against Property	.430**	-.422**	.061	-.093	.023	-.429**	1	
Crimes Against Society	-.536**	.554**	-.206**	0.04	-.085	.328**	-.571**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

VITA

Kylil R. Martin
Department of Sociology and Criminal Justice
Old Dominion University

Education

Ph.D. Criminology and Criminal Justice, Old Dominion University, Norfolk, VA, *2022*

M.S. Criminal Justice and Criminology, University of North Carolina at Charlotte, Charlotte, NC, *2018*

B.S. Psychology, Human Service Concentration, Appalachian State University, Boone, NC, *2016*

Manuscripts Under Review

Ruffin, J. R. & Martin, K. R. (2021). "Exploring the Role of Barbershops in Developing Collective Efficacy in Disadvantaged Communities" (Submitted to Race and Justice, March 2022)

Selected Scholarly Presentation

Martin, K. R. (2022). "Assessing Effectiveness of Homelessness Targeted Resources on Proximate Property Crime: An Interrupted Time Series Analysis" Annual Meeting of the Academy of Criminal Justice Sciences, Las Vegas, NV.

Ruffin, J. R. & Martin, K. R. (2021). "Exploring the Role of Barbershops in Developing Collective Efficacy in Disadvantaged Communities" Annual Meeting of the American Society of Criminology, Chicago, IL.

Martin, K. R. (2019). "Disconnecting from Disorder: An Analysis of Neighborhood Disorganization on Adolescent Academic Well-Being" Annual Meeting of the Academy of Criminal Justice Sciences, Baltimore, MD.