

ASSESSING COMMUNITY RESILIENCE AT THE NEIGHBORHOOD LEVEL  
IN NEW CONSTRUCTION STARTER-HOMES IN  
CHARLOTTE, NORTH CAROLINA.

by

Melissa Anne Currie

A dissertation submitted to the faculty of  
The University of North Carolina at Charlotte  
in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in  
Geography and Urban Regional Analysis

Charlotte

2015

Approved by:

---

Dr. Janni Sørensen

---

Dr. Heather Smith

---

Dr. Owen Furuseth

---

Dr. Jose Gamez

© 2015  
Melissa Anne Currie  
ALL RIGHTS RESERVED



## ABSTRACT

MELISSA ANNE CURRIE. Assessing community resilience at the neighborhood level in new construction starter-homes in Charlotte, North Carolina.  
(Under the direction of DR. JANNI SØRENSEN).

This research explores the resiliency of new construction, “starter-home” neighborhoods using the Charlotte, North Carolina area as a study location. Such developments are characterized by nearly identical homes priced at \$150,000 or less (a local market value), and lack choice in housing types or price points within the neighborhood (i.e. a mix of multifamily or single-family detached homes). All were built between the years 2000 to 2010 with neighborhoods located in suburban and infill locations. Many relatively new neighborhoods are already distressed, while others remained stable. What made the difference? And, what does a resilient starter-home neighborhood look like? To answer these questions, a database was built at the neighborhood level of more than 980 sales of starter-homes across the Charlotte area using demographic information and neighborhood characteristics. Several variables were tested to identify indicators of either stability or instability based on a loss in home value greater or less than 15 percent, the local market trend through the recession. Neighborhood profile area (NPA) is the unit of analysis, as identified in the 2012 Charlotte-Mecklenburg Quality of Life Study. A thorough understanding of historical development patterns, foreclosure, suburban poverty, humanistic geography theory, affordable housing, community resilience, and social capital provides the knowledge base for the project. The research is carried out using a mixed-methods approach including GIS mapping, statistical analysis, case studies, on-site and remote site analysis, resident surveys, and policy analysis. The results show that the

Great Recession disproportionately impacted home values in starter-home communities. After controlling for race and income, predictors of neighborhood stability include the size of home, attendance at neighborhood schools, and residential renovation permitting activity. A close examination of the racial makeup of the 60 study NPAs revealed more diversity than expected, and resident surveys pointed to greater levels of social capital in the stable category. These criteria can be used to predict future success or problems of potential developments, giving planners and policy makers a tool to assist with land use decisions. In addition, these results can be used to guide the rebuilding process following community collapse – whether due to economic or natural disasters – thereby introducing an element of resiliency that is missing from the current model. This research will contribute to the fields of resilience theory, public policy, geography, environmental justice, and urban planning discourse, while bridging the gap between academics and the public sector. A research-based growth strategy can also help shape healthy, equitable communities that are stronger, more resilient and better equipped to respond to change.

## ACKNOWLEDGMENTS

I would like to express my heartfelt thanks to my advisor, Dr. Janni Sørensen, for her outstanding support and guidance throughout my studies in the Geography and Urban Regional Analysis program at UNC Charlotte. Her enthusiasm and dedication to social justice are an inspiration to me, and others, matched only by her passion for teaching. I would also like to thank committee member Dr. Owen Furuseth whose encouragement was instrumental in bringing me to UNC Charlotte. His continued support has helped me complete my doctoral program. I am also grateful to committee member Dr. Heather Smith for her exemplary teaching and leadership skills that have made an indelible impression on me as I move forward in my career in the academy. Many thanks also to Dr. Jose Gamez, whose knowledge of urban design and theory has added to the depth of my inquiry.

I am grateful for the experience of working with Dr. Sørensen and my colleagues at the Charlotte Action Research Project (CHARP): Tara Benge, Angel Hjarding, Joe Howarth, Liz Morrell, and Caché Owens. I also thank Mary Newsom and the UNC Charlotte Urban Institute for the many opportunities afforded me while working there. My experience at UNC Charlotte is richer for having worked together with such amazing people.

I owe my deepest debt of gratitude to my husband Neale Currie and my family for the enormous sacrifice they have made that has allowed me to achieve this dream. It is an understatement to say that I could not have done this without them, and the love and support given me truly sustained me throughout this process.

## TABLE OF CONTENTS

LIST OF TABLES	ix
LIST OF FIGURES	xii
LIST OF ABBREVIATIONS	xv
CHAPTER 1: INTRODUCTION	1
CHAPTER 2: BUILDING A THEORETICAL FRAMEWORK	7
2.1 Resilience Theory and Social Capital	7
2.2 City and Town Planning in Search of Utopia	20
2.3 Tracing Suburban Development in America	26
2.4 Humanistic Geography and the Social and Spatial Construction of Space	45
2.5 Born This Way?	54
CHAPTER 3: THE CHARLOTTE CONTEXT	58
3.1 Charlotte Rising	58
3.2 The Proliferation of Starter Home Communities in Charlotte	63
3.3 Starter-Home Neighborhoods: Creating Landscapes of Vulnerability?	68
3.4 Windy Ridge: A Neighborhood Built to Fail.	70
CHAPTER 4: THE CHANGING ECONOMIC LANDSCAPE	79
4.1 The Rise of Suburban Poverty	79
4.2 Low-Income Housing and Investor-Owners	89
4.3 The Effects of Foreclosure	104
4.4 HUD and Private Land Development	115

CHAPTER 5: BUILDING A RESEARCH FRAMEWORK	126
5.1 Research Questions and Hypotheses	132
5.2 Defining Starter-Home Communities	133
5.3 Data and Methods	135
5.4 Justification of the Research	141
CHAPTER 6: DATA ANALYSIS	144
6.1 Statistical Analysis	144
6.2 Comparison of Starter-Home NPAs Overall to Mecklenburg County Means	147
6.3 Comparison Between Starter-Home Groups: Stable and Unstable	152
6.4 Statistical Modeling	169
6.5 Spatial Analysis	179
6.6 Resident Surveys	188
6.7 Site Analysis of Existing Conditions in Starter-home Neighborhoods	203
CHAPTER 7: CHARACTERISTICS OF STABLE AND UNSTABLE NEIGHBORHOODS	209
7.1 What Does a Stable Neighborhood Look Like?	209
7.2 What Does an Unstable Neighborhood Look Like?	211
CHAPTER 8: POLICY ANALYSIS	215
8.1 The Role of Planning in Starter-Home Development	215
8.2 Document Analysis: The Charlotte-Mecklenburg Zoning Code Examined.	219
8.3 Examining Design and Planning Strategies	224
8.4 Designing for Health	234

CHAPTER 9: DISCUSSION	237
CHAPTER 10: CONCLUSION	245
REFERENCES	254
APPENDIX A: LIST OF STARTER-HOME NEIGHBORHOOD PROFILE AREAS	276
APPENDIX B: SUMMATION OF RESEARCH DESIGN	278
APPENDIX C: STARTER-HOME RESIDENT SURVEY GUIDE	279
APPENDIX D: WINDSHIELD SURVEY FORM	283
APPENDIX E: DATA COLLECTION GUIDELINES FOR NEIGHBORHOOD SITE ASSESSMENT	286

## LIST OF TABLES

TABLE 1: Charting Metropolitan Form.	40
TABLE 2: Poverty rates in Mecklenburg County, 2008 to 2010.	86
TABLE 3: Median Home Values and change over the time period January 2000 to December 2013.	143
TABLE 4: List of Variables and Descriptions with county averages where applicable. 2012 Charlotte-Mecklenburg Quality of Life Study.	145
TABLE 5: Overall descriptive statistics of the 60 NPAs identified in the 2012 Charlotte Mecklenburg Quality of Life Study.	148
TABLE 6: Comparison of selected variables from the 60 overall starter-home NPAs to county averages.	150
TABLE 7: Comparison of means within the 60 NPAs to Mecklenburg County averages of educational performance variables.	152
TABLE 8: Descriptive statistics of the starter-home NPA data grouped by stable and unstable neighborhoods.	154
TABLE 9: Comparison to county averages of proximity to community amenities grouped by stable and unstable neighborhoods.	162
TABLE 10: Comparison of means within the 60 NPAs to Mecklenburg County averages of educational performance variables, grouped by stable and unstable.	164
TABLE 11: Comparison of crime rate variables within the 60 NPAs, grouped by stable and unstable.	165
TABLE 12: Racial makeup of the 60 study starter-home neighborhoods.	167
TABLE 13: Variables found to be not significant in correlation with the dichotomous dependent variable “Stable” using Z-scores.	170
TABLE 14: Correlation analysis of the dichotomous variable “Stable” using Z-scores.	171
TABLE 15: List of independent variables used in logistic regression model and their descriptions.	173

TABLE 16: Omnibus Tests of Model Coefficients.	174
TABLE 17: Model Summary.	174
TABLE 18: Classification Table of model prediction.	175
TABLE 19: Hosmer and Lemeshow goodness of fit test results.	176
TABLE 20: Logistic regression predicting neighborhood stability.	177
TABLE 21: Analysis of census tracts in Mecklenburg County, 2000 and 2011.	187
TABLE 22: Overarching categories used to evaluate community resilience per resident surveys.	190
TABLE 23: Survey data related to housing tenure.	191
TABLE 24: Survey data related to socio-economic and transportation characteristics.	192
TABLE 25: Survey data related to neighborhood safety.	194
TABLE 26: Survey results of the proximity of amenities to starter-home neighborhoods.	195
TABLE 27: Survey results of resident preferences and frequency of use of amenities close to starter-home neighborhoods.	196
TABLE 28: Survey results of resident preferences for neighborhood choice and what residents like about their neighborhood.	197
TABLE 29: Survey results of resident opinions on the condition of their neighborhood, other homes, and the effectiveness of their homeowners association (HOA).	199
TABLE 30: Survey results of things residents dislike about their neighborhoods, and what is missing that might enhance it.	199
TABLE 31: Survey results of things residents of starter-homes like best about their house.	200
TABLE 32: Number of friends reported in the neighborhood.	202
TABLE 33: Summary of existing conditions found in Charlotte area stable and unstable starter-home communities using a Windshield Survey.	205



TABLE 34: Condition of streets found in Charlotte area stable and unstable starter-home communities using a windshield survey.	206
TABLE 35: Matrix of guidelines to assess street conditions found in Charlotte area stable and unstable starter-home communities.	206
TABLE 36: Traditional vs. Form Based Code. Source: After LSL Planning, 1000 Friends of Florida.	226
TABLE 37: Summation of research results and recommendations.	249

## LIST OF FIGURES

FIGURE 1: Community resilience as a function of neighborhood strengths important to promote agency and self-organization.	12
FIGURE 2: The social capital model.	16
FIGURE 3: Ebenezer Howard's 3 magnets diagram of 'Town', 'Country', or 'Town-Country.'	21
FIGURE 4: Ebenezer Howard's diagram illustrating his Garden City model of town planning.	21
FIGURES 5 (left) and 6 (right): The 1893 Chicago's World's Fair.	23
FIGURE 7: GM's Futurama exhibit at the 1939 World's Fair.	25
FIGURE 8: Streetcars serving a suburb of Seattle, Washington. c. 1911	27
FIGURE 9: Park and Burgess's (1925) illustration of urban areas and the typical processes of the expansion of the city.	29
FIGURE 10: The Levittown near Philadelphia, Pennsylvania.	34
FIGURE 11: Hanlon's "New Metropolitan Reality Model."	41
FIGURE 12: Percentage and age range of homes built in Charlotte (city), N.C., 2007-2011.	65
FIGURE 13: Starter-home communities were built in abundance throughout Charlotte's peripheral suburbs.	66
FIGURE 14: Population distribution in Mecklenburg County, 1980 to 2010.	67
FIGURES 15 and 16: Residential units approved by the Charlotte-Mecklenburg Planning Department, 2000 to 2013, by total lots and total subdivisions.	68
FIGURE 17: Windy Ridge Vicinity Map.	71
FIGURE 18: A street view of Windy Ridge, a troubled starter home community in Northwest Charlotte.	74
FIGURE 19: A plan view of the Windy Ridge subdivision shows its industrial surroundings and environmental hazards within 1/2- and 1-mile radii.	76
FIGURE 20: Maps of poverty rates in Mecklenburg County from 2000 to 2013.	82

FIGURE 21: Chart of child poverty rates in selected metropolitan areas.	84
FIGURE 22: Map of change between 2001 and 2009 in the spatial distribution of Charlotte-Mecklenburg high-poverty, high-minority schools.	87
FIGURES 23 and 24: Single-Family Rental Houses and Subsidized Housing Units in Mecklenburg County.	92
FIGURE 25: Map of the concentration of Section 8 units in Charlotte's neighborhoods.	94
FIGURE 26: A family looking for Section 8 rentals in Charlotte's neighborhoods.	96
FIGURE 27: Blackstone's properties located in the Charlotte metro area.	101
FIGURE 28: Investor homeowner trends since January 2001.	102
FIGURE 29: Foreclosure Rates by Loan Type, Charlotte, NC.	108
FIGURE 30: A typical starter-home community in Charlotte.	109
FIGURE 31: Map of Black or African American population in Mecklenburg County.	113
FIGURE 32 - Mecklenburg single-family home foreclosures and other distressed sales from 2005 through late 2009.	113
FIGURE 33: Typical new home when originally built in the 1980s in the Lynton Place community.	118
FIGURE 34: Homes in the Lynton Place community as they currently appear.	118
FIGURE 35: Images in the top row show sample house designs included in HUD's "Made-to-Last" booklet.	123
FIGURE 36: Typical door hanger advertising easy homeownership, quick move in, and pricing based on low down payments and monthly payments.	125
FIGURE 37: Patterns of starter-home neighborhoods in aerial view.	135
FIGURE 38: Examples of starter-home search results using Zillow.	137
FIGURE 39: Graph of Standard and Poor's Case-Shiller Home Price Index showing Charlotte's housing trends.	138

FIGURE 40: Locations of the 60 starter home study communities in the Charlotte-Mecklenburg area.	140
FIGURE 41: Diagram of Charlotte's "Wedge and Crescent" wealth distribution changes from 1970 to 2007.	140
FIGURE 42: Median Home Sales for the Charlotte Area, Jan. 2000 to June 2013. Data obtained from Zillow sales histories.	141
FIGURE 43: Map of stable (17, in yellow) and unstable (43, in red) starter-home NPAs using 2012 Charlotte-Mecklenburg Quality of Life data	153
FIGURE 44: Similarities between stable and unstable starter-home NPAs using 2012 Charlotte-Mecklenburg Quality of Life data.	156
FIGURE 45: Comparison of Stable and Unstable sales trends over study period.	154
FIGURE 46: Comparison of Stable and Unstable sales trends of initial and current sales data.	157
FIGURE 47: General characteristics of differences in stable and unstable starter-home communities in the Charlotte area	159
FIGURE 48: Percent of homes within one-half mile of neighborhood amenities and physical aspects for starter-home NPAs.	163
FIGURE 49: Frequency of starter-home NPAs within Mecklenburg County ZIP codes.	168
FIGURE 50: Levels of public assistance within Mecklenburg County by ZIP code and number of recipients.	169
FIGURES 51 & 52: Maps showing change in the Hispanic population from 2000 (left) to 2011 (right) in Mecklenburg County.	181
FIGURES 53 & 54: Maps showing change in the Black population from 2000 (left) to 2011 (right) in Mecklenburg County.	182
FIGURES 55 & 56: Maps showing change in the White population from 2000 (left) to 2011 (right) in Mecklenburg County.	184
FIGURE 57: Map of stable and unstable NPAs showing proximity to railroads, highways, and environmental hazards.	186
FIGURES 58 & 59: Examples of stable starter-home neighborhoods.	210

FIGURE 60: Locations of stable starter-home NPAs 446 and 447 in the town of Huntersville, NC.	211
FIGURES 61 & 62: Examples of unstable starter-home neighborhoods.	213
FIGURE 63: Locations of unstable starter-home NPAs 5 and 199 in the city of Charlotte, NC.	213

## LIST OF ABBREVIATIONS

CBD	Central business district
CHARP	The Charlotte Action Research Project
CMS	Charlotte-Mecklenburg Schools
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HOA	Home Owners Association
HUD	U.S. Department of Housing and Urban Development
LULU	Locally Unwanted Land Use
NPA	Neighborhood Profile Area
QoL	Charlotte-Mecklenburg Quality Of Life Study
Sq. Ft./sf	square feet
UNC	University of North Carolina
WWII	World War II

## CHAPTER 1: INTRODUCTION

The research presented in this paper explores the resiliency of newly constructed “starter-home” neighborhoods. They are defined herein as those neighborhoods characterized by nearly identical homes lacking choice in price and style (i.e. a range of townhomes, apartments, or single-family detached houses). They are commonly called “cookie-cutter” subdivisions due to their monotonous arrangement on small lots that appear to have been cut from the land using a singular mold. Starter-homes have been lauded as a way for low- and medium-income families to own a little piece of the American Dream. This land development model has proliferated across America in recent decades, but is it a resilient one – meaning they can withstand a shock and bounce back? While some in the land development industry view this model as a simple case of marketplace demand, others denounce it as a part of the ‘placelessness’ transforming our towns and cities into a geography of nowhere (Relph, 1993; Kunstler, 1993; Duany, Plater-Zyberk, and Speck, 2000). Neighborhoods built between the years 2000 and 2010 in the Charlotte, North Carolina area provide the research context. The Charlotte metropolitan area is an excellent place to study the starter-home phenomenon, where population grew by 64.6 percent from 2000 to 2010, outpacing all other urbanized areas with populations of 1 million or more (U.S. Census 2012b). This period is studied to examine neighborhood resilience in response to America’s Great Recession as an external stressor event. Local markets will determine starter-home values and prices and,

therefore will vary from city to city. The local market value in Charlotte of such homes is \$150,000 or less, a price point frequently used by local realtors and journalists when referring to starter-home neighborhoods. Many of these (relatively) newly constructed subdivisions are already distressed, with some requiring significant reinvestment while others have remained stable. Based on these trends, *the resiliency of starter-home neighborhoods comes into question. How did these developments respond to the stressors brought by the Great Recession? Were some more resilient than others? What does a resilient starter-home neighborhood look like? What are the policy implications of the findings?*

To answer these questions, a thorough understanding of historical development patterns, resilience theory, foreclosure, suburban poverty, humanistic geography theory, affordable housing, and social capital provide the knowledge base for the research. Many factors go into land use decisions, and the *where* and *why* of the choices made when purchasing a home are not easily quantified. *Preference* is the type of knowledge that cannot be obtained from census or numerical data, or through spatial analysis; people must be *asked*. Therefore, I propose a mixed-methods research approach to include GIS mapping, statistical analysis, detailed studies of neighborhood examples, site analysis, interviews, and policy review. The variety in research methods is needed in order to examine the economic, social, and physical patterns inherent in starter-home communities. This research makes a unique contribution to resilience theory by exploring it at the neighborhood level, and specifically in suburban and urban infill contexts. Using the results of this study, I developed a set of criteria that can be used by planners and policy makers in the assessment of potential developments as a predictor of



their future success or problems. The resulting criteria will also assist in the development and refinement of appropriate local and regional policy for land use decision-making. In addition, this tool can be used in the rebuilding process following community collapse – whether due to economic or natural disasters – thereby introducing an element of resiliency that is missing from the current model. The first inclination in these situations is often a knee-jerk reaction to rebuild what had previously been there, and as quickly as possible; or to resume an unsustainable behavior, i.e. producing quick, mass housing development. However, these paths will likely lead to repeat situations should a future disruption occur. In the wake of several natural disasters like Hurricane Katrina and the Joplin, Missouri tornado, FEMA has redefined disaster recovery as “an opportunity to develop a vision – to re-think, re-design, and re-build in new ways, with individuals, organizations, and public and private sector partners working together” (FEMA 2011, p. 7). Having a research-based strategy available upon which to rebuild can lead to more resilient, better-equipped communities that coalesce into equitable, healthier growth.

To implement an effective research strategy, preconceived ideas must be avoided and a researcher must: 1) acknowledge that research is subjective and any inquiry is therefore, value-bound; and 2) adhere to the idea that “understanding,” although basically holistic, it is also partial and implicative (Rodaway 2006). Building on these themes calls for reflexivity on the researcher’s part, and here I offer my own.

As an academic, I am the researcher and typically viewed as the expert in the subject being studied. But when this subject is a neighborhood, how could the researcher possibly be the sole expert if she does not also live there? For this examination of the resilience of starter-home neighborhoods, the information cannot come only from

statistics and academic journals. Therefore, I see the role of qualitative analysis as a vehicle to hear from local experts – the residents themselves. The research topic is of interest to me as I have worked in the land development industry for most of my career. As a land planner, I have designed many subdivisions and other types of developments; as a project manager, I have also been involved in many rezoning cases, which can be highly political. My approach to design keeps the end-user in mind, and works to bring spaces to life that are enjoyable to be in and can create a sense of place.

Planned communities and contemporary urban design have provided the backdrop for many of my life's experiences. I grew up near Fort Lauderdale in the planned community of Coral Springs, Florida. Sharing a boundary with the Everglades, this now prosperous city owes its existence to the massive draining and conversion of one of our nation's most incredible ecosystems. I have also lived and worked across Choctawhatchee Bay from the famed town of Seaside. There I watched firsthand as it not only changed the discussion of urban design, but the makeup of the once rural northwest Florida panhandle area. In the sprawling suburbs of Washington, DC, I often spent up to four hours a day in my car traveling I-95 between home and work. Over the years, I have closely observed such things as the loss of open space, resource management conflicts, housing equity, sprawl, environmental (in)justice, and declining health. Such factors contribute to my interest in urban, social, and planning issues and how the built environment influences our lives. I care deeply about the effects of suburban sprawl development on the environment and our quality of life.

I also draw from my experiences as a former resident of a subsidized housing project where I lived with my young children. I understand some of the challenges the

working poor and their families face, particularly in finding affordable housing. My hope is that this research can be used to help lessen some of the negative effects of poor land use practices on communities. Some may view my advocacy for land development types that resist sprawl (often referred to as “Smart Growth”) as a bias against starter-homes. To the contrary, I believe that a range of housing choices is vital to a resilient future, and good starter-home neighborhoods can be an important part of that future. Publications from this research will help advance my professional career in academics, but my ultimate goal is to improve planning and land use decisions by providing policy makers with supporting data to better predict the long-term consequences of policies and plans. Better land use and environmental policies will lead to stronger, more resilient communities that cumulatively produce a better form of growth across regions.

The paper shall proceed in this order: the first sections build a theoretical framework through an understanding of the theory of resilience and social capital, the advent of the suburban development pattern of post-World War II America, and humanistic geography theory. The Charlotte context in which the research is set is introduced followed by the changing economic landscape including discussion of the shift from urban to suburban poverty and low-income housing (acknowledging the fact that suburban starter-homes in the local context are becoming the default solution in the absence of effective policy surrounding affordable housing). The impacts of these exogenous and endogenous forces can be significant in starter-home neighborhoods, especially when acting and reacting together. Subsequent sections discuss Charlotte’s development into an economic center, the rapid urban expansion accompanying it that gave rise to many starter-home neighborhoods, and an examination of sales trends that

form the motivation for the research. One Charlotte starter-home neighborhood case study places the themes in context and highlights their effects. An explanation of the research methods and data sources ensues followed by data analyses. The statistical analysis includes a detailed description of the data, correlations, and regression analysis to test numerous variables for predictive power. Resident's voices are added through the use of surveys administered door-to-door and by telephone. A spatial analysis examines the implications of the neighborhood's locations, including how they changed between 2000 and 2010. The physical characteristics of the study neighborhoods are also assessed using remote and on-site analysis techniques, offering a look into starter-home, new construction typology. An examination of Charlotte's planning code and a discussion of various planning strategies are followed by the final two chapters include discussion of the results and final conclusions.

## CHAPTER 2: BUILDING A THEORETICAL FRAMEWORK

### 2.1 Resilience Theory and Social Capital

The research question being explored herein is the resiliency of newly built, suburban starter-home neighborhoods, and therefore must be built on an understanding of resilience and how it is related to neighborhoods. To begin, a basic definition of the term “neighborhood” is in order. Foundational and theoretical geographer George Kimble (1951) argued against the usefulness of a meticulous establishment of regional boundaries, remarking that the airplane made the whole world a neighborhood. International trade, travel, conflicts, and rapid technological advances have taught us that we are, indeed, in many ways a ‘global village’. A more practical definition of neighborhood is needed, however, to be of more use in social science research. Neighborhoods are simply defined by Chronopoulos (2014) as “social and geographic entities easily demarcated in both the archives and the street, even if they seldom correspond to census tracts, zip codes, school districts, or any meaningful political subdivisions” (p. 388). Neighborhoods do not always have a single center or simple definitive boundary, but can be viewed as a network of overlapping places and shared uses (Calthorpe and Fulton 2001). Foundational urban planner and architect Kevin Lynch (1960) wrote that people form vivid mental images of their surroundings in what he called “environmental maps,” and carry a clear idea of the extents of their own neighborhood in their mind (Lynch 1960). In this research project, I use “neighborhood”

to correspond to the Neighborhood Profile Area (NPA) as delineated in the 2012 Charlotte-Mecklenburg Quality of Life Study<sup>1</sup> (QofL) within analytical contexts. The QofL used input from residents as to how they defined their neighborhood and combined it with U.S. Census block data to break the entire Mecklenburg County jurisdiction down into 464 NPAs. The NPA also reflects a combination of the concepts and definitions described above. Outside of the analytical context, a “neighborhood” refers to a general geographic and social context.

A common interpretation of the term “resilience” is the ability of an ecosystem, business, individual, people group, or some other type of inter-related system to recover after sustaining a shock. How that bounce back occurs can generally be described in four ways: attaining and resuming the previous course (an engineering view); rebounding to a newly established “normal” (an ecological view); rebounding to a certain degree but continuing with an unstable pattern of ups and downs; or not able to recover. The speed with which a system rebounds is its level of resilience. Ecological resilience is interpreted as “how much disturbance [a system] can take and remain within critical thresholds” (Davoudi 2012, p. 300). In consideration of a community’s rebound after a stressor event, the manner and extent of recovery has serious implications. *Community resilience* is a new and emerging branch in resilience theory, and literature focusing at the local level is even less developed (Berkes and Ross 2013). The research I present here contributes to neighborhood-level community resilience literature and more specifically, resilience in the suburban and urban-infill neighborhood context.

Norris et al. (2008) outline many definitions of resilience, including those of

---

<sup>1</sup> <http://maps.co.mecklenburg.nc.us/qoldashboard/>

<sup>2</sup> I add here that being a woman is not in itself a vulnerability, but in low-income and workforce housing

physical analysis, ecological systems, social capital, and individual and community resilience. Ecologists equate resilience inversely with vulnerability while planners and engineers view it as a “core capacity of disaster recovery” (Foster 2012, p. 27). Davoudi (2012) looks to a third “socio-ecological resilience” as a parallel to planning, a concept referred to as evolutionary resilience. This branch of resilience theory advocates that an external disturbance is not necessarily the stressor event, but it may come from within or without the system. It also promotes an interconnectedness of socio-spatial systems that are unpredictable with complex feedback processes. Evolutionary resilience posits that, “past behaviour of the system is no longer a reliable predictor of future behaviour even when circumstances are similar (Duit et al., 2010, p. 367)” (in Davoudi 2012, p. 303).

Although resilience has many meanings, Norris et al. (2008) write it is generally agreed that resilience is better conceptualized: 1.) as an ability or process, rather than an outcome; and 2.) as an adaptability, rather than as stability (p. 130). Foster (2012) discusses *outcome* and *capacity* as a “primary conceptual divide” in how resilience is demonstrated. As an *outcome*, resilience is the degree to which a person or place recovers from a stress; as *capacity*, resilience is the degree to which a person or place “has the conditions and attributes to potentially recover from a stress” (p. 26). Leichenko (2011) uses a simple definition of resilience as “the ability of a system to withstand a major shock and maintain or quickly return to normal function” (p. 164). Leichenko further states that: “(1) cities must become resilient to a wider range of shocks and stresses in order to be prepared for climate change; and (2) efforts to foster climate change resilience must be bundled with efforts to promote urban development and sustainability” (p. 164). Thus, positioning communities for climate change must include securing their economic

and social viability. I extend this interpretation of the resilient city as a step beyond that of the sustainable city.

In broad terms, a sustainable system is one that can meet present needs without compromising its ability to meet future needs. Sustainability is said to rest on a three-legged stool of sound economics, environmental protection, and social equity (US EPA 2015). Both resiliency and sustainability are thus concerned with the ability to persist. The breadth and depth of the discussion on sustainability has afforded its understanding to all levels of society, from the White House to the elementary school. It is common knowledge that if natural resources are depleted or not properly conserved, future generations are in peril. For example, an oft-debated question is how will the post-carbon era function? This is also a question of resiliency – will communities be able to bounce back to some equilibrium? Will they find social and economic stability? Although sustainability has at its core a clear three-part focus, its common interpretation and implementation has been hijacked in the practical, and nearly singularly equated with environmental stewardship. Sustainability also tends to track with the concept of some supply “running out,” whereas resilience encompasses both a chronic condition and a sudden shock. In today’s complex world, systems *volatility* has become the new normal on many fronts: climate, economics, political powers, and civil rest/unrest, to name a few. In easily relatable terms of physical health, resilience can address a long battle with cancer in and out of remission (capacity), or a heart attack (sudden shock). Resilience also emphasizes the building-in of capacity and adaptability to amass pre-stressor resources. Therefore, I view resilience as the next evolution of sustainability.



In their book, *Resilience: Why Things Bounce Back*, Zolli and Healy (2012) identify two key aspects to resilience as continuity, and recovery following change. The key aspects of continuity and adaptability, as discussed by Zolli and Healy, are common themes throughout resilience literature. These concepts are predicated upon self-efficacy and self-actions. They argue that the resilience of a system hinges on its preserving of adaptive capacity, the quality that allows a system to adapt to change without losing the ability to fulfill its core purpose. Like other systems in nature or commerce, “*social resilience* often rests on the adaptive capacity of a community, or its ability to sense, interdict, and intervene” (Zolli and Healy, 2012 p. 211; emphasis added). A community’s adaptive capacity cannot be contrived or simply endowed upon, the authors state. Instead, “it must be nurtured in the social structures and relationships that govern people’s everyday lives” (p. 211). This is complimentary to Harvey’s (1987) basis of critical theory that, “[t]rue empowerment for the presently disempowered must be won by struggle from below and not given out of largesse from above” (p. 283).

Other scholars point to a key factor in resilience as the need for an adaptive system that self-corrects in response to change (Swanstrom, 2012; Reckhow and Weir, 2012). The networks present provide a reference system from which needed resources are drawn in times of stress. Zolli and Healy further state that “the fragility and resilience of most systems begins with their structure” (p. 59). Networks within communities are fragile insofar as they are built between people, and as such, are prone to breach through a variety of external forces. People move away, they may transition into other ‘circles’ through marriage or life stages, or just break away from traditions as their interests change. Maintaining relationships, and the built-in structure they provide can be a

challenge for even the most resilient of communities – and especially so in highly mobile societies as exist in the United States.

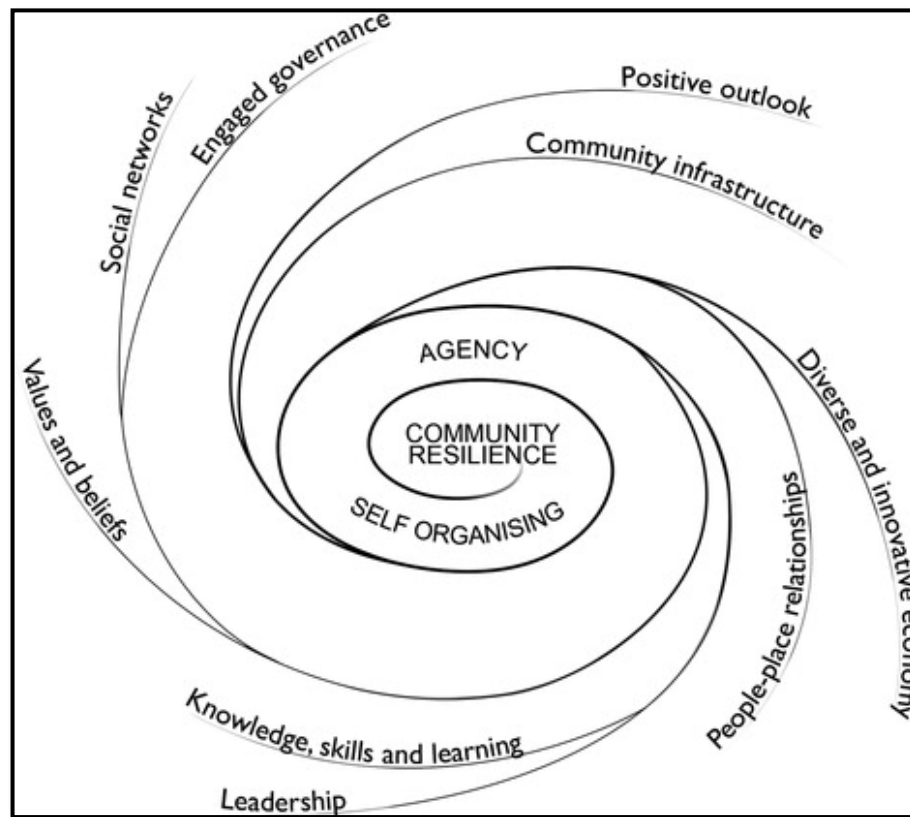


FIGURE 1: Community resilience as a function of neighborhood strengths important to promote agency and self-organization. (Berkes and Ross 2013).

Brown and Kulig (1996) contend that community resilience is not the collective sum of resilient individuals, but examine resilience through three dimensions of the community: political-economic conditions, social networks, and ways of understanding. They maintain, “the interplay between these features within given communities leads to a net enhancement or negation of the collective capacity to be resilient” (p. 36). Therefore, community resiliency is not merely coping (the absence of choice), but rather being

proactive and intervening (p. 41). Communities can actively build resilience through the course of responding to various disruptions over time. Berkes and Ross identify specific strengths that are instrumental in building community resilience (Fig. 1).

Bajayo (2012), in discussing community resilience points to “collective efficacy,” or the motivation of community members to act because they believe that their collaborative action will bring positive change. “Because collective efficacy is a social resource (some authors consider it to be a part of social capital), it is likely to deteriorate in times of stress; undermining community competence and therefore resilience” (p. 33). Steiner and Markantoni (2013) contend that when undertaking a study of community resilience, “local settings and socio-economic characteristics” must be taken into account (p. 410). They view community resilience as the overlap of four areas: individual and community *social* resilience, and individual and community *economic* resilience. In contrast to Brown and Kulig (1996), Steiner and Markantoni argue that individual social resilience enhances the village’s overall resilience. Francois et al. (2012) report that African American adolescents in low-income neighborhoods had higher levels of individual resilience if structured neighborhood activities were available and if they were involved in them. Recreation and community centers, churches, boys and girls clubs, etc. contribute to a neighborhood’s structural makeup and provide those opportunities.

The literature I reviewed invariably links levels of social capital with the concept of resilience, whether that is on an individual level (Forrest-Bank et al. 2014; Francois et al. 2012) or the community level (those discussed herein and others consulted). Social capital – that quality that “broadens people’s sense of self from ‘I’ to ‘we’” (Calthorpe and Fulton, 2001, p.33; Putnam, 2000) – is needed for communities to thrive; without it

they can fail. Through my study of starter-home communities, I found the presence or absence of social capital contributed to their resilience or non-resilience. Robert Putnam, considered the leading authority on social capital, defines it as “social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam 1995, p.67). Elements of social capital are evident in Berkes and Ross’ illustration of community resilience (Fig. 1). Light (2004) also writes that social capital is about trust “embedded in social networks,” and encourages people to work together on community problems by enabling action. These characteristics seem to be missing in many starter-home neighborhoods. By their very nature, starter-homes are typically considered short-term locations until families can move up to ‘better’ neighborhoods. This results in a high turnover rate of residents – both in homeowners and tenants – and prevents social capital from forming (Ziersch & Arthurson 2007).

Light (2004) also traces the roots of social capital by situating it within other forms of capital: financial, physical, human, and cultural. He writes that all forms of capital share two important features: a capacity for storage (which is subject to risk and depreciation), and mutual metamorphosis (where one form of capital morphs into a second through some ‘transaction’). These are common features in community resilience. Social capital stands alone, however, in that its “uniquely democratic accessibility” does not require access or privilege and can be attained by the poor or indigent. We can see examples of social capital evident in older, tight knit neighborhoods that remain strong, even though their residents may be of very modest means.

Richard Florida (2008) gleaned from Putnam’s writings in his book *Bowling Alone* to frame the discussion of the presence of two types of social capital that form

networks. The first is *bonding*, which are those close ties within extended families or ethnic communities to which an individual is closely identified. These are strong, lasting influences that are at the deepest core of an individual. They are sometimes seen as restrictive, however, and for many these ties hinder true self-expression. Therefore, a second network is needed that reaches outside the family bonded network. The second network is known as *bridging*. The bridging network is made up of looser ties that extend across and connect different groups of people. Bridging networks form through relationships such as friends, coworkers, and community or hobby interests. Often they become a surrogate family and are needed for clustering to happen. Bridging promotes the “strength of weak ties,” which brings new information not found in our close family bridging networks. Resilience bridging expands relationships to important connections to structure and institutions such as police, the city, banks, or code & inspection officers – critical to a community rebound. Bonded ties are more numerous, easier to maintain, and typically of more diverse points of view. It is the loose network of bridging that often opens doors for job opportunities, allows a new perspective on things, and promotes new experiences.

Rohe (2004) also demonstrates how social capital is developed using a basic model following the key concepts outlined in Putnam’s definition (Figure 2). He documents how civic engagement and community development activities can ultimately lead to the building of neighborhood-level social capital. Rohe cautions that it is not an automatic process, however, and

...it is important to understand the nature of the interactions that are taking place and how those involved feel about them. It is the content dimension that impacts trust, and hence the effective use of the structural social capital. There may, in fact, be a lot of interaction in a community but little trust. (p. 159).

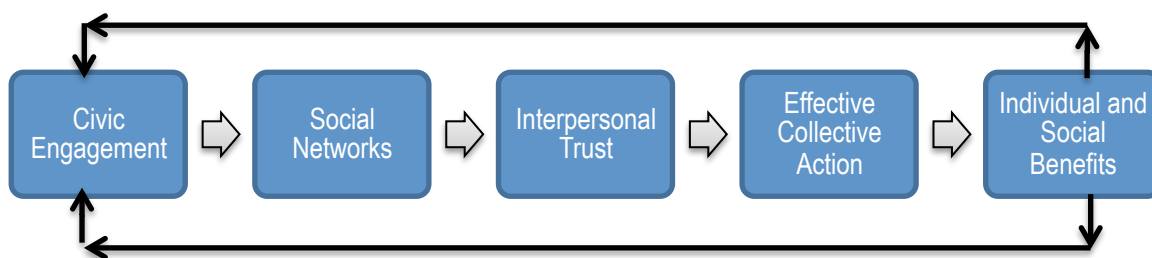


FIGURE 2: The social capital model. (recreated from Rohe 2004, p. 159)

In previous activities focused on community organizing in Windy Ridge (one of the troubled starter-home neighborhoods identified in my research project and discussed in Section 3.4) the absence of social capital was obvious and the main contributor to the lack of positive, formative change (see Sorensen, Gamez and Currie, 2014). The 133-home neighborhood had been built and marketed as a nearly entirely investor-owned development, and as such, the large majority of renter-occupied homes created an environment in turmoil as widespread foreclosures led to numerous evictions. This created a cycle of turnover in residents that hindered community engagement and attachment to the neighborhood. An abridged version of the Windy Ridge case study is presented in Section 3.4. This neighborhood provides a supporting example of Rohe's illustrated social capital model (Fig. 2). The failure to create sustained civic engagement (Stage 1) prevented the advancement through the remaining stages of creating social networks, the building of trusting relationships, collective action, and the incurrence of lasting individual or social benefits. The neighborhood's transient population and severe impacts from widespread foreclosure were simply not conducive to the formation of the bonding and bridging relationships so necessary in building social capital.

In a similar vein, Bajayo (2012) discusses community resilience as reliant upon the networking of resources including economic development, social capital, information

and communication, and community competence. A community with greater pre-stressor resources can protect against and recover from losses, whereas “vulnerable groups (e.g. women, children, the elderly, infirm and poor) who, due to their social and economic dependency, cannot access resources in times of stress. Without access, these groups have limited prospects for resilience and face a probable path of even greater vulnerability and marginalization” (Bajayo 2012, p. 32).<sup>2</sup> Building community capacity also cultivates adaptation to diverse climate change “in times of both fast onset disaster and slow onset climate change” (p. 32). Whether or not a community will adapt is due in part to its degree of social capital, i.e. the “sum of actual or potential resources embedded within social relationships” (p. 32; referencing Coleman, 1998). Although discussions by Leichenko (2011), Norris et al. (2008), and Bajayo (2012) primarily refer to the ability of a community to respond to climate change or disaster, the broader scope of resiliency includes the ability to weather other types of storms - economic, political, and social.

The U.S. Environmental Protection Agency (EPA 2015) acknowledges that sustainable solutions not only protect the environment, but also strengthen communities and foster prosperity. Starter-home neighborhoods are often home to the described vulnerable groups who lack the pre-stressor resources necessary to be resilient. With this in mind, *can certain community elements be deliberately introduced to help build-in resilience?* I believe so, and in fact, I believe they must and through this research, aim to identify such elements. Foster (2012) also makes this point and argues, “resilience performance can be developed through resilience capacity ... through intentional actions to strengthen the means and ends of resilience” (p. 28). Likewise, Davoudi (2012) argues

---

<sup>2</sup> I add here that being a woman is not in itself a vulnerability, but in low-income and workforce housing female-headed households with children are common. This is a recognized vulnerable group often living in poverty.

that resilience can be increased through interventions and ingenuity. I also challenge the notion that resilience necessarily be equated with bouncing back to the pre-stressor state. This assumes that a state of equilibrium existed prior to the stressor event, as traditional market-driven economics would suppose. I am not convinced, however, that such equilibrium does indeed exist in the case of some starter-home neighborhoods. Therefore, to what stability would they subsequently return?

Phillips (2009) defines disaster resilience as concerned with a community's ability to bear up against hazards that continually threaten an area. It places an emphasis on the retrofitting of buildings, prohibiting rebuilding in environmentally sensitive areas, and strengthening local codes and ordinances to standards geared toward withstanding local hazards. Phillips identifies key principles recommended by FEMA in 2005 meant to reflect local character and build resistance, including the following emphases:

- All recovery is local. A community must be prepared to take ownership and management of the recovery process.
- Involve the public. All residents in disaster-impacted communities must have a way to interact and provide input on future development.
- Projects must stem from what local people believe are the most important efforts.
- Include mitigation efforts to build disaster-resilient communities and reduce risk.
- Integrate mitigation into decisions on recovery policy and investments.
- Build partnerships – at the state, local, and federal levels. Include a broad and connected network of public, private and nonprofit entities.

FEMA suggests that communities move beyond a baseline level of recovery and adapt to a new normal, post-disaster period in consideration of economic, infrastructure, and housing strategies. In regard to housing, FEMA recommends that communities ask, “Has permanent housing been developed in light of the new realities of the community’s socio-



economic conditions? Does planning for new housing support the community's vision for workforce or affordability?" (FEMA 2011, p. 10). Sometimes disasters wipe away older, more affordable neighborhoods and after being replaced with brand new construction, they may no longer provide these options. The starter-home model presents an option for post-disaster recovery housing able to address workforce and affordable housing needs because it can be built quickly. Additionally, FEMA does not fund the reconstruction of multifamily housing. Therefore, a goal of this research is to help inform the way new neighborhoods are developed to give those residents struggling to rebuild their lives a resilient model that contributes positively to that process.

I liken the impacts of the Great Recession and foreclosure fallout on some starter home neighborhoods to a slow-motion hurricane. Economic disaster came quickly, riding in on the storm surge created by the housing bubble. Economists provided some early warning signs of the approaching storm, but they were largely ignored (Bezemer 2009). Once ashore, the storm stalled rather than moving on, producing a flood of foreclosures. Left in its wake are many socially and economically devastated communities significantly affected by subprime mortgages, predatory lending practices, and high rates of unemployment. Some communities were stressed to the breaking point; many others continue struggling to bounce back. This research is therefore, an investigation of the factors present that contributed to the instability within starter-home neighborhoods leaving them especially vulnerable to the additional stressor of economic recession and high foreclosures (See Appendix B for a summation of the research design). These themes are developed in the following sections and viewed in the Charlotte context.

## 2.2 City and Town Planning in Search of Utopia.

U.S. Census Bureau statistics released in December 2012 estimated the American population would cross the 400 million mark in 2051 and reach 430.3 million by 2060 (US Census 2012a). Many academics foresee America's future urban form as shaped by transportation policy and investment, with a trend in cities for an outward spread of low density, land-intensive patterns marked by central-city underperformance and decay, increased blight in inner-ring suburbs, falling urban densities, and rising travel distances (Voith, 2000; Forkenbrock et al. 2001; Nelson et al., 2004; Carlson and Dierwechter, 2007; Brookings 2010; Vojnovic & Darden 2013). Of this new growth, 80 percent is expected to occur in metropolitan areas where greenfield development is twice the rate of actual population growth (Carlson and Dierwechter, 2007). A continuation of existing patterns of low-density, outward growth equates to more suburban sprawl, with roots that can be traced back to the opening decades of the twentieth century.

Influential planners and designers of the early 1900s ushered in a wave of suburbanization in search of Utopia, and in doing so, aided in the transformation of the twentieth century landscape. This interest in Utopias is attributed to Ebenezer Howard (1850-1928) and his influential book *Garden Cities of To-morrow*, published in 1902. Howard, who had no training in urban planning or design, proposed a pivotal town-planning paradigm that came to be known as the Garden City Movement (Newton 1971). This movement marked a paradigm where future growth was planned for in a specific way, in specific locations, with a specific morphology. Like many of his contemporaries of the Industrial Revolution era, Howard opposed urban crowding, high density, and "unhealthy" cities. In contrast, garden cities would combine the best economic and

cultural elements of city and country and avoid their worst through self-contained, new cities built for a population of 32,000 people on 6,000 acres. This plan was meant to discourage metropolitan sprawl and encourage the preservation of open space. Garden cities (i.e. suburbs) were to be separated by greenbelts and connected by radial boulevards emanating from a central city of 58,000 people – all part of a network tied together by rail (Figure 4).

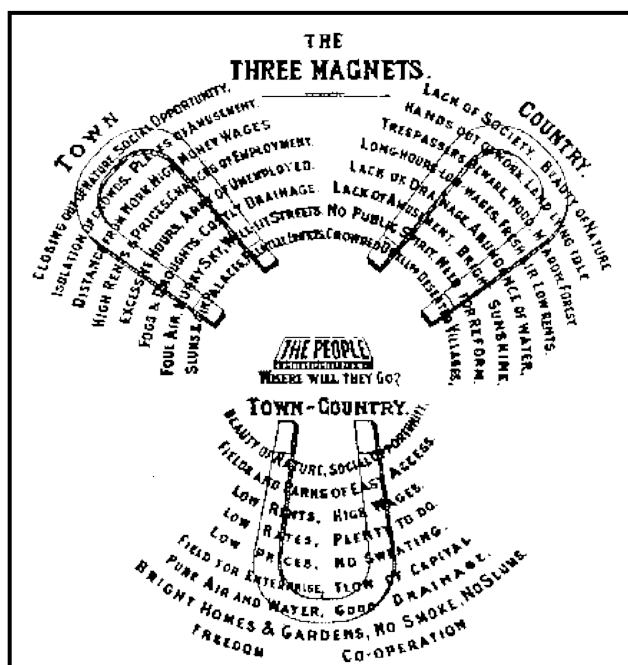


FIGURE 3: Ebenezer Howard's 3 magnets diagram that addressed where people would go - 'Town', 'Country', or 'Town-Country'. Source: Wikipedia, public domain.

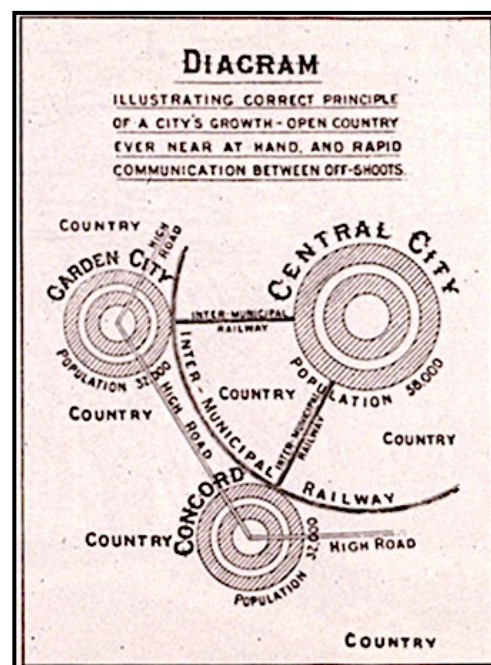


FIGURE 4: Ebenezer Howard's diagram illustrating his Garden City model of town planning. Source: Wikipedia, public domain.

Howard's plan contained three 'magnets' meant to attract people and establish places for them to "go" (Figure 3):

- Town (the location for high wages, opportunity, and amusement)

- Country (the area preserved for natural beauty, low rents, and fresh air)
- Town-country (a combination of both)

Once a garden city reached its predetermined capacity a new one would be built using the same model.

In 1890, landscape architect Frederick Law Olmsted (1822-1903) was appointed to lead the design of the World's Columbian Exposition (also called the Chicago World's Fair), held to celebrate the 400<sup>th</sup> anniversary of Columbus' arrival in the New World. The Fairgrounds were brought to life by Olmsted, Vaux and architect Daniel Burnham (1846-1912) to represent the ideal city. The Exposition opened in 1893 and is recognized as a significant event in American industrial history and the arts and architecture worlds. It is said to have marked America's Renaissance as it stirred up an unprecedented public interest in civic design (Newton 1971). Called "The White City," over 200 new structures were built amongst a Venice-like arrangement of canals, lakes, and lagoons. Any sign of poverty or disease was cleanly erased. It featured mostly classical architecture along with the very first Ferris wheel (Figs. 5 and 6). Here the world also first experienced an electrified city. The new Westinghouse Company illuminated the entire Fair through street and building lighting. The Fair attracted over 27 million visitors, or half of the U.S. population, included 47 different nations, and lasted for six months. It exemplified a true "urban utopia" brought to life and inspired a lingering dedication to the classical ideal, setting the stage for ensuing movements in urban design.



FIGURES 5 (left) and 6 (right): At the 1893 Chicago's World's Fair (also called the World's Columbian Exhibition), attended by half of the U.S. population. A gleaming "White City" delighted visitors to grand architecture and an exciting world of the electrified city. Buildings line the Grand Basin in a Venice-like city along the shores of Lake Michigan. Photo sources: Wikipedia, public domain.

Similar to England's Garden City Movement in urban planning, America embraced new ideas in urban design as it straddled the closing of the nineteenth century and opening of the twentieth. The Chicago World's Fair had ignited a desire for beauty, order, and formal design, and was reflected in Daniel Burnham's 1909 grand plan for Chicago (Newton 1971). Burnham's plan marked the beginning of The City Beautiful Movement in America based on the ideals of classical architecture. In later years, Modernism superseded the City Beautiful movement while city planning itself shifted towards a more politically- and scientifically-based ideology.

In the early 1920s, the modernist Swiss architect Le Corbusier (1887-1965) espoused an urban vision of the "tower in the park" that was far from the classical structure of the White City. Le Corbusier's plan for the ideal city called for the end of the street and urban slums, replacing them with ultra high-density skyscrapers connected either below ground or in the air. Le Corbusier's severe, concrete structures and others

inspired by them were built all over the world as Modernism took hold. It would fall out of favor after a few decades, however, replaced by Postmodernism ideas. Leading writers, planners, and designers of pre-WWII thinking in America (including Lewis Mumford, Clarence Stein, Le Corbusier and Benton MacKaye) saw *technology*, i.e. the automobile, electricity, telephone, and radio, as transformers of the industrial city into a decentralized region of Garden City-inspired “New Towns.” Along with efficient farming techniques and factory mass-production, these advances clearly demarcated the Victorian, old-fashioned society from the new, modern one.

Americans were fascinated with what “the future” would look like, and images of complex machines and space-mobiles were common. Le Corbusier referred to the home as a “machine for living,” and introduced Modernist-designed houses that included garages planned for adequate turning radii to accommodate the automobile. Stein purported that “dinosaur cities” would fade away, and a new, advanced society in union with nature would emerge. Mumford envisioned cities decentralizing into boundless, “anti-city” regions (Calthorpe and Fulton, 2001). The ideas promoted by these and other leading figures can be thought of as the early seeds of suburban growth.

At the 1939 World’s Fair, a one-acre exhibit displayed by General Motors called “Futurama,” (Fig. 7) began what has been called the “war against the city.” This combination ride/exhibit brought to life Le Corbusier’s vision of a “radical restructuring and destruction of the old central city” (Hanlon et al., 2010 p.39). Inside GM’s Futurama experience, mesmerized spectators were carried along a moving pathway that wound its way through the huge model depicting a Utopian vision of a 1960s American metropolis.



FIGURE 7: At the 1939 World's Fair, attended by nearly 45 million people, these visitors to GM's Futurama exhibit sat in traveling chairs where they "toured" a model panorama of the country as it might appear in 1960, experiencing the "sensation of traveling hundreds of miles" and seeing the future as if from a low-flying airplane. Source: US Department of Transportation Federal Highway Administration.

Automated highways connected city and countryside through an expanse of suburbs – new concepts at that time. A narrator touted the benefits of separated land-uses and the clearing of old businesses and slums to make way for the city of the future (*Wired*, 2007).

In 1934, Frank Lloyd Wright (1867-1959) unveiled “Broadacre City,” his Utopian vision of a continuous fabric stretching across the nation made from a multinucleated, inhabited landscape. The building blocks of Wright’s ideal city were single-family homes on one-acre lots with a car-oriented design of freeways and feeder roads. Ultimately, Wright’s small house with a carport became more or less the standard in American suburban development in the 1950s (Mumford 1961). In the United States, the decentralization of cities did indeed occur as foretold, with record-level suburban

development occurring post-WWII and in the early years of the baby boom. The post-WWII suburban boom was an entirely different modifier of both the American landscape and its culture in terms of scale and the magnitude of its impact. The historic period marks a very distinct shift in America's development patterns and before proceeding further, I turn to a discussion of the evolution of the suburban model itself.

## 2.2 Tracing Suburban Expansion in America

In the earlier years of human settlements, a neighborhood wasn't much larger than a person's walk to meet daily needs. Life was measured in footsteps, not in miles, as food, water, and shelter had to be close by for survival. In early American towns and cities, the general population could easily access town centers for visits to the market, pleasure or business trips, and walks back home with one's goods were manageable. A pedestrian-centric limit was a necessity – a neighborhood would only be as large as the distance its residents were willing to walk. This changed before the turn of the twentieth century when ferries, streetcars, and commuter trains helped form suburban enclaves, known as streetcar suburbs, to most large American cities (Fig. 8). With the expansion of non-pedestrian transportation modes, mixed-use neighborhoods were planned around stops along these lines (Hanlon et al. 2010). Once disembarking the trolley or train, a person would then walk to his final destination. (Contemporary Transit-Oriented Development (TOD) is modeled after the streetcar suburb development pattern and is discussed in Section 8.3).





FIGURE 8: Streetcars serving a suburb of Seattle, Washington. Stores, apartments, and row houses were typically built along streetcar lines, which allowed people to live away from the city and still access jobs. Photo: Wikimedia Commons, c. 1911.

America's first formally planned suburban form is seen in the Chicago rail suburb of Riverside. The new suburb was designed in 1869 by Frederick Law Olmsted and his partner Calvert Vaux (1824-1895), a pair well-known for their design of New York City's Central Park. Riverside was built around a curvilinear pattern of lots and roads to encourage slower traffic through the residential area. A small commercial area surrounded its rail station, and it was connected to Chicago by a new built form – a wide, tree-lined “parkway.” Other design elements introduced by Olmsted in Riverside included tree-lined streets and walking trails, parks and common areas throughout, underground utilities and drainage, curb and gutter, and a vast, centrally located park along the Des Plaines River. These enduring amenities are in stark contrast to the mid-century Levittowns and similar suburban models discussed in later paragraphs.

In 1925, Park and Burgess of the “Chicago School” published their influential book, *The City*, the first description of the expansion of America’s cities. They presented it as a process that was best illustrated as a set of concentric circles with the central business district at its center (Fig. 9). The zones surrounding the CBD were labeled numerically and progressed as follows (p. 50):

- I) “The Loop” – the central business district
- II) The transition zone (including factories) and an “area of deterioration”
- III) Homes for industrial workers with easy access to work
- IV) The residential area with “high-class apartment buildings or of exclusive ‘restricted’ districts of single family dwellings”
- V) The “commuters zone” – suburban areas/satellite cities beyond city limits (a 30 to 60 minute ride to the CBD).

Park and Burgess’s concentric circles model became the accepted standard for describing urban and suburban patterns, and they likened it to the phenomenon of *succession* in plant ecology. The authors also posited that the process of city expansion occurred not only in physical growth and businesses, “but also in the consequent changes in the social organization and in personality types” (p. 53). Indeed, the stratification of society by class and social position are evident in the descriptions Park and Burgess assigned to each of the urban zones. For example, the third area is described as a zone for those “who have escaped from the area of deterioration” (p. 50). “Restricted,” “bright light,” and “high-class” districts are also referenced, as well as the transition zone containing slums, the ghetto, and first generation immigrants.

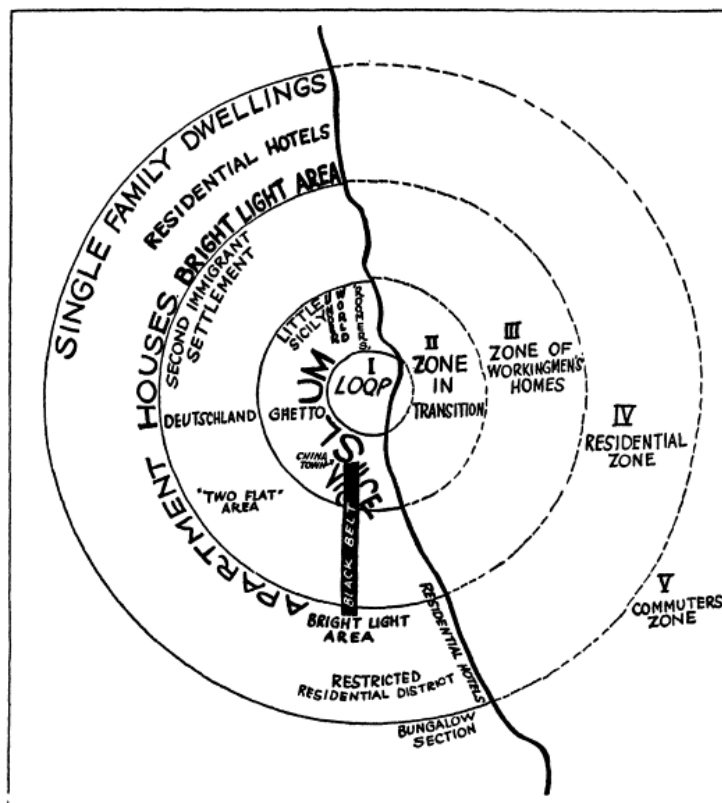


FIGURE 9: Park and Burgess's (1925) illustration of urban areas and the typical processes of the expansion of the city. The chart represents an ideal construction typology of city expansion occurring radially from its central business district.

The arrival of the automobile changed the *scale* of land development, doing away with the limiting factor of a walkable neighborhood as the organizing principle of urban and suburban land use patterns. The distance one could travel by car – not foot - became the new standard of measurement. A mass exodus from urban areas by American industries was underway in the 1920s as factories updated their facilities and relocated on less expensive land away from city centers. Many of their workers followed. Additionally, the introduction of use-separated zoning laws in the 1920s and the growing dominance of the private automobile combined as powerful shapers of suburban development.

Detroit's development history matches this pattern and provides a useful example. Historian and Detroit-native Amy Kenyon referred to Henry Ford's negative view of cities, including his well-known declaration, "We shall solve the city problem by leaving the city" (Kenyon, 2013). Ford (and later Chrysler and General Motors) built automobile factory plants in new suburban locations including its headquarters in Dearborn, Michigan. Ford's plants drew workers from distant locations, especially the South, as Northern industrialists began to hire blacks from the South during the World War I years. Word spread quickly through newspapers, word of mouth, and informal black community networks that jobs were available in the North with more favorable living conditions. "Thousands of black southerners looked to industrial work, rather than landownership in their hopes to enjoy the prerogatives of American citizenship" (Grossman 1994, 31). The moving north between 1916 and 1920 began a long-term shift in Black American settlement known as the Great Migration, with the vast majority settling in cities. "Even though northern towns and cities afforded African Americans new opportunities, de facto segregation was the unwritten rule" (Bolles 1994, 59). Generations of slavery and oppression had to be un-learned.

Ford was careful to separate black workers from white; both on the factory floor and in the new suburban neighborhoods he helped create. In efforts to deal with the racial divide among Ford's workers, low-cost cottages were built in 1921 in the suburban town of Inkster for Blacks working at the Rouge plant in Dearborn. The towns of Dearborn and Dearborn Heights remained open only to whites. Kenyon (2013) called this a process of "Separating and segregating – suburban Detroit was, and largely remains, closed to black [residents]." By the late 1950s, 23 new suburban municipalities

and 25 automotive plants had been established in Detroit's suburbs. Vojnovic & Darden (2013) contend that "disconnected road networks, urban decentralization, and [discriminatory] restrictive covenants" led to highly segregated, isolated enclaves in Detroit suburbs, while "the decentralization of residents, businesses, and their tax base, facilitated urban decline" (p.92).

Segregation in the suburbs by race and class as demonstrated in Detroit has long been an observed characteristic of the American suburban model. Park and Burgess (1925) described this in a matter of fact way as:

This differentiation into natural economic and cultural groupings gives form and character to the city. For segregation offers the group, and thereby the individuals who compose the group, a place and a role in the total organization of city life. Segregation limits development in certain directions but releases it in others. These areas tend to accentuate certain traits, to attract and develop their kind of individuals, and so to become further differentiated. (p. 56).

White populations in Northern cities felt threatened by The Great Migration and increasing segregation spawned a new "residential pattern, the ghetto... [that] expanded into one large, dense, very black city within a city" (Perry et al., 2013 p. 405 referencing Wilkerson 2010). These things added to the white flight momentum. Vojnovic and Darden also (2013) confronted this issue as one emanating from discrimination, both in race and class, that resulted in a distortion of urban form and,

...generating resource inefficient human activities. Racial and class conflicts shape urban form as one population sub-group, largely white and upper-income, attempts to distance itself from another sub-group that is largely black, lower income, and considered a threat. The result is excessive suburbanization, as whites seek homogenous urban environments and use space to increase the distance between themselves and blacks, a decentralization process known as white flight... (p. 88)

They link racial segregation at the root of decentralization and its resulting environmental degradation. "Environmental, social, and racial equality are inherently coupled" (p. 89).

Chronopoulos (2014) writes that knowledge gained at the neighborhood level can be applied on a larger scale, often the approach of social scientists. Chronopoulos argues this is only valid if “racial segregation is factored in the equation” (p. 391). However, in “hypersegregated” American communities there is little racial tolerance. Spaces where racial tensions are suspended, such as some public or semi-public places, are described as “islands of civility in a sea of racial segregation” (p. 391, referencing Elijah Anderson).

Low priority was placed on the need to set aside land for parks and public spaces in favor of revenue-producing, taxable businesses and residential property development as the nation rebuilt itself following the Great Depression and two World Wars. The American economy shifted from wartime production to domestic goods, services, housing, and infrastructure. Jobs were plentiful and parents of the first Baby Boomers pursued the “American Dream” of owning their own home in the suburbs, equipped with modern appliances and financed by newly created federal mortgage programs

To demonstrate the speed with which the suburbs were built, Hanlon et al. (2010) compared the number of new homes being constructed before and after WWII. They recorded, “in the thirty-year period from 1890 to 1920, the total number of housing starts across the U.S. ranged between 250,000 to 400,000 a year. In the 1950s alone, more than 15 million houses were constructed” (p. 220). The post-WWII era marked a radical change in America’s landscape in which former farmland and open space were replaced by sprawling, mass-produced suburban developments (Nelson et al. 2002).

The most well known of America’s early suburbs are the Levittowns constructed in New York, New Jersey, and Pennsylvania as shown in Figure 10. Levittowns were the vision of Abraham Levitt and his sons William and Alfred, who were interested in

building not just houses, but entire communities. The Levittown housing model was based on efficiency, long-term financing, and row after row of identical homes. It was the birth of “starter-homes” in America, the current manifestation of this model being the subject of this research. Levitt was known as the “Henry Ford of housing,” and in 1950, “*Time Magazine* estimated that Levitt and Sons built one out of every 8 houses in the United States” (PA Museum, 2003). Between 1952 and 1957, homes in Levittown were built with “such assembly line speed the company raised as many as 40 homes a day. ‘We are not builders. We are manufacturers,’ Levitt proudly declared at the time” (Perkins 2002). The Levittowns drew some criticism, though. Lewis Mumford described the homogeneous development model in 1952 as “a one-class community on a great scale, too congested for effective variety and too spread out for social relationships ... Mechanically, it is admirably done. Socially, the design is backward” (PA Museum, 2003).

Robust economics, demographics, and emerging technologies were highly influential in the growing post-war dominance of the “car-dom,” but new public policies and investments were also pivotal. The creation of the Interstate Highway system by President Eisenhower in the 1950s, the abandonment of most trolley systems, and the huge amounts of money invested in the building of roads secured the automobile’s prominent position in newly created suburbs. Jobs, markets, schools, parks, and civic buildings – the places needed most – could no longer be reached on foot or by trolley. Suburban residents began to commute to such destinations by automobile.



FIGURE 10: The mass expanse of new suburban sprawl can be seen in the aerial photo above. This Levittown is near Philadelphia, Pennsylvania and was constructed several years after the Levittown in New York. Source: Rollins College (2013). Photo: Margaret Bourke-White, October 1957.

Newly constructed highways gave suburbs easy access to the city, but they also served as a mechanism for the emancipation of the suburbs from their cores (Mumford 1961). “Rather than bringing middle-class people back, the new roads made it easier for them to escape” (Hanlon et. al 2010, p. 42). Harvey (1987) describes distance as “both a barrier to and a defense against human interaction,” (p. 268) and the exodus of the middle class to the suburbs fits this description. Much of the construction of America’s first-ring suburbs is attributed to the new, but predominantly white-only, government mortgage programs and policies of the time (Nelson et al. 2002). Federally supported mortgages were tied to the credit-worthiness of neighborhoods as depicted on inventory maps prepared by local banks and realtors. Poor, minority and immigrant neighborhoods were



“red-lined” on local maps and loans in these areas were not allowed. Kneebone and Berube (2013) wrote, “from 1945 to 1959, approximately 90 percent of all FHA and VA mortgages were for suburban homes, yet fewer than 2 percent went to African Americans,” (p. 8). These practices embedded segregation by race and class into the national fabric with cities populated mainly with poor minorities, and suburbs home to the middle-class and wealthy Whites. The legacy of segregated housing, described by Park and Burgess in 1925, is still evident in many cities, including Charlotte.

In their book, *Cities and Suburbs: New metropolitan realities in the US*, Hanlon et al. (2010) offer a succinct description of the shift happening in post-WWII America:

The pace of change was rapid. In little more than a generation after the Second World War, the US became a predominantly suburban nation. While the earlier suburbanization involved elites as well as lower-income groups, postwar suburbanization, in contrast, was largely, although not completely, a middle-class phenomenon. The class-based nature of suburbanization was not simply that the middle-class groups moved to the suburbs. The middle-class was created during the very process of suburbanization. The suburbs embodied the *new* middle-class: they were not just a place to stay; they were a socioeconomic moment of cultural expressions and political manifestations. A core set of national icons of family, status, and normality were crystallized, formulated, and centered around the single-family dwelling in the suburbs (p. 38, original emphasis).

The race to the suburbs was not only fueled by housing, but also by jobs (Raphael and Stoll 2010). Between 1950 and 1980, the suburban population grew from 40 percent to 60 percent of the metropolis while the suburban share of metropolitan employment grew from 30 percent to 50 percent (Hanlon et al., 2010). The suburbs became increasingly independent, complete with their own jobs, homes, schools, shopping, and entertainment (Wilson 2011; Vojnovic & Darden 2013). I am calling this period “*America’s PTSD – Preamble to Sprawl Development*,” an allusion to the shock that soldiers often suffer after wartime experiences known as PTSD, or Post-Traumatic Stress Disorder. Symptoms of

PTSD often surface years after the wartime experience, and in this way, America's PTSD manifested in the decades that followed.

In addition to the changes in the built environment, the tolls taken on the natural environment as a result of such rapid development were profound. Hanlon et al. (2010) summarize these effects as follows. Approximately one-third of new houses in the mid-1950s were built using septic tanks, often poorly constructed and leaky. These systems posed a serious hazard to public health and groundwater supplies. New housing was commonly located on floodplains, wetlands, and other environmentally sensitive lands with no consideration of the ecological implications, or regulations to mitigate negative effects. The new suburbs brought wide-scale destruction of farms, forests, and the denigration of streams as open space was converted to developed land.

The 1961 Housing Act was passed as pressure from groups like the Sierra Club, the Nature Conservancy, and the Trust for Public Lands raised awareness and public concern for the preservation of open space. The Act provided funding to acquire land and parks, and in the 1960s, local ordinances began to address ways of reducing environmental impacts from development. This led to a restriction on the use of septic tanks, prohibiting housing in environmentally sensitive lands, and the adoption of new measures to curb soil erosion and stormwater runoff.

During this time concern for the effects of postwar suburban development and urban decay were also coming into focus. President Lyndon B. Johnson (1908-1973) declared a "War on Poverty" in his State of the Union Address in January 1964, which was followed by the enactment of the Economic Opportunity Act of 1964. In this speech, Johnson made the point that "very often, a lack of jobs and money is not the cause of

poverty, but the symptom.” The modernist vision of a sterile urban environment swept clean of blight first introduced in 1893 at the Chicago World’s Fair, and then reintroduced more than 40 years later in the GM Futurama exhibit, was ultimately realized in the public housing projects of mid-twentieth century America. Multiple high-rise apartment buildings, typically clustered together, served to concentrate the poor in many urban cores. The middle class reacted with ‘white flight’ to the new suburbs, leaving cities and the poor behind (Vojnovic & Darden 2013).

Added to troubles in our housing developments, widespread social strife in the 1960s signaled a decline for many American cities when healthy, intact urban communities were leveled in the name of ‘urban renewal’ and highway expansion. New interstate highways bifurcated cities across America in places as diverse as Nashville, Syracuse, and Birmingham, with swaths cut primarily through inner city, minority – and especially Black – low-income communities (Hanlon et al., 2010). For example, Birmingham’s interstates were “curved and twisted to bisect several black neighborhoods rather than taking a more direct route through some predominantly white neighborhoods” (Wilson 2011, p. 12). Charlotte was among those cities affected by the routing of urban expressways through central cores as a means to rid cities of ‘blighted’ neighborhoods through its construction of Interstates 77 and 85.

Lady Bird Johnson, First Lady during her husband’s presidency from 1963-69, is widely known as a tireless advocate for the beautification of America and the conservation of its natural resources. She worked to introduce The Highway Beautification Bill into legislation, which became known as “Lady Bird’s Bill.” It was aimed at preserving America’s natural beauty and called for the preservation and

beautification of cities and the removal of junkyards and billboards along the nation's highways (Carlin, 2005). Her beautification efforts in the Nation's Capital reached from the National Mall to public housing projects (Lady Bird Johnson Wildflower Center). She was a major player in the 1966 White House Committee on Natural Beauty, the proceedings of which became the foundation for the 1966 National Historic Preservation Act. She described the issue of beautification in a 1967 speech at the Yale Political Union as follows:

The word "beautification" doesn't really convey the full sweep of the concept. It embraces all of these questions: How can we rebuild the core of our cities? How can we create new towns, pleasant and functional? How can we bring order rather than chaos out of our highways and transit systems? How can we provide parks and open space to let our cities breathe and our people relax? How can we control the waste we pour into our air and water? To me, in sum, "beautification" means our total concern for the physical and human quality of the world we pass on to our children (Carlin, 2005 p. 86).

Fifty years after Lady Bird posed these questions, we find ourselves still seeking answers to them. Other important legislative actions were passed in the decade of the 1960s, culminating in 1970 with the formation of the Environmental Protection Agency.

The decade of the 1970s was also one marked by change as Postmodernism replaced modernism, not only in architecture, but also in social structure. Distinguished geographer David Harvey reflected on the social changes occurring and wrote:

What is remarkable about cultural and intellectual life since 1972 is how it, too, has been radically transformed in ways that appear to parallel these political-economic transformations. Consider, for example, the practices of 'high modernity of the international style' as practiced in 1972. Modernism had by then lost all semblance of social critique (Harvey 1987, 261).

By 1972, modern architecture's *zeitgeist* had worn thin. It seemed as bland as the corporate power it represented. Postmodernism, on the other hand, embraced cultural

tradition, the messiness of everyday life and the commerce that came with it. It looked to vernacular design, local history, traditions and materials while rejecting modernism's alliance with capital accumulation based on a stodgy, Fordism rationale of functionality and efficiency (Harvey, 1987). In essence – it was a return to being human and contextual. In 1972, the Pruitt-Igoe Housing development was imploded; an event Harvard professor of social policy Christopher Jencks called the “symbolic end of modernist architecture and the passage to the post-modern” (in Harvey 1987, p. 260). The Pruitt-Igoe tower had been built to house low-income families, modeled after Le Corbusier's modernist vision of the ‘tower in the park.’ But Pruitt-Igoe was deemed an unlivable environment, and subsequently became the ultimate example of mid-century America's failed Urban Renewal planning efforts.

Without a clear idea of what the transformed landscape should look like, unchecked sprawl development led to a myriad of unsustainable development patterns. Suburban expansion patterns in the U.S. emerged as a hodge-podge assemblage of unrelated projects and big-box retail, interstates, and cookie-cutter subdivisions. This is in marked contrast to healthy, planned growth. Suburban growth outpaced the growth in population and incremental-type planning approaches are inadequate in addressing rapid change. It is difficult – if not impossible – to achieve planned growth without regional forms of government. Project-by-project development is typical where land use policy is regulated at the municipal level, and this creates a hindrance to coordinated development on a larger scale.

In the absence of an agreed-upon definition of the term “suburb,” Hanlon et al. (2010) built upon Park and Burgess's (1925) concentric-circle model of American

industrial city growth. They also considered other ensuing zone and sector models to trace the “historical evolution of metropolitan form” (p. 86), recreated in Table 1.

Metropolitan areas in America can be said to generally follow one or more of the types identified in the chart. Scholars have used land use models to study and describe the spatial arrangements and socioeconomic characteristics of urban areas. Hanlon et al. (2010) constructed an updated composite model to illustrate a “spatial template” of contemporary metropolitan America (Fig. 11). The model allows for regional variation, such as Sunbelt “boomburbs,” or “suburbs in crisis” and “areas of concentrated poverty” in the Rustbelt.

TABLE 1: Charting metropolitan form (recreated from Hanlon et al. 2010).

Form	Other Names	Era
Central cities	Downtown; Urban center; Central business district	19 <sup>th</sup> and early 20 <sup>th</sup> centuries
Early suburbs	Bedroom suburbs; Streetcar suburbs	Early 20 <sup>th</sup> century to 1950s
Exurbs	Far-out suburbs; Fringe suburbs	1970s to 1990s
Edge cities	Fringe development; Satellite City; Suburban business districts	1970s to 1990s
Edgeless cities	Low-density office parks; Office sprawl	1980s to 2000s
Megalopolis	Global city region; Mega region	1960s to 2000s
Boomburbs	Accidental cities; Booming suburbs	2000s
Metroburbia	“Metroburbia USA”	2000s
The New Metropolitan Reality	21 <sup>st</sup> century metro model	2000s

The metropolitan forms are explained as:

- Central cities – original concentric-circles model with CBD
- Early suburbs – typically mixed used residential and commercial areas, built near streetcar lines; deliberately planned with political structure; dramatic growth

- Exurbs – “outer city,” inside the metropolitan area, but outside the central city; driven by economic decentralization to the suburbs
- Edge cities – located on the metropolitan fringe; decentralized form, urban functions; employment and shopping hubs; lacks transit accessibility; more than 5 million square feet of office space
- Edgeless cities – highly dispersed office cluster, no clear boundaries, less than 5 million square feet of office space
- Megalopolis – an almost continuous stretch of urban and suburban areas
- Boomburbs – large scale, have grown spatially through the process of annexation; lack a downtown center or metropolitan edge; primarily in the South and West
- Metroburbia – multi-nodal metropolis with a polycentric form; contain multiple “realms”
- New Metropolitan Reality – embodies processes of the political, economic, social, and spatial dynamics of contemporary metropolis; a composite model.

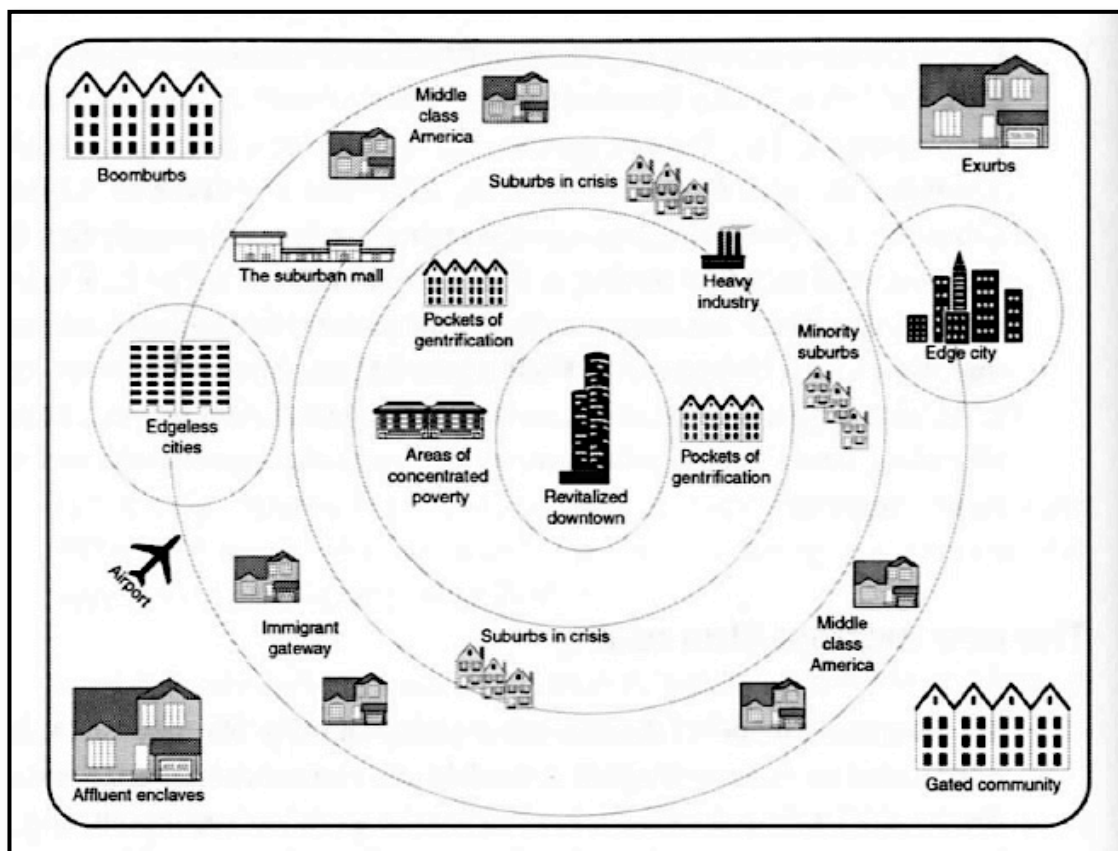


FIGURE 11: Hanlon's "New Metropolitan Reality Model."

From the mid-twentieth century onward, the rise of the metropolis through expanding suburbs increasingly replaced the city and transformed it into an urban donut in many places – a plump, suburban ring surrounding an empty center. Income earned in central city industries like finance, insurance or real estate, is often taken out and spent in the suburbs. This results in a declining central city with less to offer its suburbs, creating a downward pull on the region. Diminishing tax revenue from lost business and residents translate into lower levels of service in the city into a circular cycle, making outer suburbs even more attractive destinations.

Savitch et al. (1993) provided strong foundational evidence of the benefits suburbs reap from a vital core city that is densely populated and prosperous, and the tendency of cities to be more prosperous when they include a greater proportion of their metropolitan population. Savitch's results were later echoed by Voith (1998) who related the rise in city growth and suburban growth in “income, house-price appreciation, and population, especially in areas with large central cities” (p. 447). These variables self-adjust to achieve a locational equilibrium as the forces of urbanization and suburbanization operate simultaneously, promoting urban concentration and the rise of centrifugal forces (Hanlon et al. 2010). One pushes together, the other pulls them apart. The authors reaffirmed, however, that, “city and suburban fortunes covary... Suburbs that surround healthy cities tend to be healthier than those that surround sick cities” (p. 352). They concluded that the dependency between cities and suburbs is not based on distance between national regions, but rather is “tied to proximity within regions” (p. 352).

Detroit and its many suburbs as previously discussed present an example of the negative effects of severing city and suburb ties. Despite the evidence supporting the



interdependent suburb-city relationship, outward expansion into the suburbs continues, seemingly cemented into place by zoning ordinances that mandate separated land uses and infrastructure funding that is allocated only for new development. But, even given their growing independence, the fact remains that suburbs still need cities. As the oft-quoted, former Louisville Mayor Jerry Abramson declared, “You can’t be a suburb of nowhere” (Adams et al., 1996).

Contemporary society has transitioned from an industrial orientation to a knowledge-based economy. The previous decline in manufacturing was mirrored in declining cities as jobs and innovation moved to the suburbs. But, as Voith and Wachter (2009) point out, “there is little manufacturing left to lose” (p. 118). Cities have now become highly desirable places to live, both because of their cultural and entertainment offerings, and the jobs they offer in the knowledge-based industries. Along with the rising demand has also come rising costs for housing, and this has led to high rents and high-priced upscale redevelopment projects in many urban cores. The flipside of the revival of city living has been the displacement of the poor and disadvantaged into suburban locations.

Nelson (2013b) foresees a “suburban resettlement movement” happening in America, as some 40 million more households will be created by 2040. Nelson sees this movement driven by retiring Baby Boomers, “seeking mature suburban communities that meet their needs better than newer suburbs but at prices they cannot find in many central cities” (p. 397). It will also include young professionals and immigrants favoring these first- and second-ring suburbs. Additionally, Nelson argues that diminished incomes and energy supplies will contribute to the suburban resettlement movement. Forsyth (2013)

sees much of the coming growth happening in suburban areas dominated by lower income families and lacking good infrastructure. But, as Forsyth points out, these areas will also be home to people wanting to improve their homes and communities. Such new “opportunistic suburbs” can be seen as neighborhoods of innovation. Filion (2013) disagrees with these opinions, however, and instead asserts that change in suburban patterns are much less likely to change due to the deeply embedded role of the automobile as the most efficient way to connect “between large mono-functional zones” (p. 412).

Although issues surrounding growth, physical form, conservation, and the environmental consequences of development patterns are increasingly part of America’s political conversation, there has yet to be a substantial shift away from highly land-consumptive growth. In the U.S., the distance between the wealthy and non-wealthy continues to grow, a divide that expanded rapidly with the Baby Boomer Generation. In fact, Boomers redefined the lifestyle, consumption patterns, and values of each new life stage they entered (Florida, 2008), including the move to the suburbs. It is a striking phenomenon: wherever Boomers flocked, prices rose and businesses changed in response to meet their needs. As Boomers now begin to enter retirement, the housing market is again reflecting their life stage through a growing demand for more urban locations, townhomes and condominiums. Of those that still prefer single-family homes, they want them on smaller lots (Nelson 2009).

Resistance and discontent with slum clearance, sprawl, automobile pollution, and traffic congestion were subjects of criticism and activism in the 1940s and 1950s, even while the suburbs were being built en masse. We must acknowledge, however, that

neither the car nor the suburban development model is going anywhere. As we confront these issues, we must focus on solutions informed by not only knowledge of the past, but with an eye toward future challenges and opportunities. One of the most pressing of these challenges is the dramatic increase of poverty in the suburbs (discussed in Section 4.1).

#### 2.4 Humanistic Geography and the Social and Spatial Construction of Space

Humanistic geographic theory seeks to answer the question, “How do people shape, and reshape, the spaces they use?” It emerged in the 1970s as “a response to what were seen as the dehumanizing effects of both positivism and structural Marxism” (Gregory et al., 2009, p. 357); a discontent with spatial analysis and positivism; and embraced the idea that cultures give meaning to their environments. The focus of humanistic geography is on human agency – the capacity for human beings to make choices – and is keenly interested in the geography of everyday life.

Humanistic geography’s worldview rests on three basic pillars: recognizing individual dignity; the elevation of “others” over “me”; and acknowledging that people exercise free will. This active view of human agency is described by Ley (1980) as an extension of possibilism – where man is a master of everywhere possibilities and is judge of their use. It is in stark contrast to deterministic processes, and views place as something that is socially produced as a function of life’s experiences. Those aligned with this theory sought to overcome the distance between researchers and the “creative and chaotic flux of everyday life” that analytic methods had constructed (Entrikin and Tepple, 2006 p. 31). From a humanistic perspective, geographic regions are viewed as providing the contextuality for events to happen in time, space and place – not just as an assemblage of agglomeration economies, but as including the functional dependencies

bound up in the “ongoing dynamic of humans making the earth their home” (Tuan, 1991). Kitchin (2006) also wrote that it must include the complexities of people and their lives using in-depth, qualitative studies.

During the critical decade of the 1970s, society was wrestling with many serious problems and people were mobilizing in substantial ways to bring about change. The war in Vietnam, the environmental crisis, civil rights, women’s rights, and an energy crisis – all were important issues that carried significant and far-reaching implications, but yet were dominated by grass roots movements. It was during this time the individual found their voice and felt empowered. In contrast, many activities that geographers were engaged in lacked a societal application. Rather, they were mostly technical in nature, peripheral, and not viewed as impacting people’s lives. Geographers and other social scientists began to wonder if scientists should have a “social agenda.” If not, then where was the good in the science? From this questioning came a concern for the structure and geography of everyday life and the rise of humanistic geography (Dyck & Kerns 2006, Entrikin & Tepple 2006). I adopt a theoretical approach from humanistic geography in the study of starter-home neighborhoods and outline the underlying concepts in the following paragraphs.

As described by Entrikin and Tepple (2006), humans are “geographical agents... [who] draw on their experiences, attitudes, and beliefs, as well as their moral and aesthetic judgment, in making decisions that shape their environments” (p. 31). Actions and choices that humans make (as intentional agents) are not just based on efficiency, such as time or distance, but on values and personal interpretations (E&T, 2006) that are bound up in an individual’s geography. Humanistic geography approaches present a

relevant framework for examining the sprawling growth patterns that result from people choosing to live in areas far from their jobs or central cities, despite the cultural draw of downtown or a shorter commute from closer-in suburbs. People often choose outlying locations because they provide the things they value most: good schools, less crime, lower densities, bigger houses on bigger lots, and the like (Perry et al. 2013). It is clear that our settlement patterns have changed both society and the landscape around us. The actions taken as free will agents are the result of how we organize and change our space as we create “worlds out of nature (Tuan, 1991)” (in Entrikin & Tepple 2006, p. 31). This is also consistent with Alonso’s (1960) classic “bid-rent” theory which holds that land prices decrease as distance away from the central business district (CBD) increases.

Urban geography, as a subset of human geography, is primarily concerned with “the spatial patterns and processes associated with urban areas” (Cadwallader, 1996, p. 1). It also investigates the spatial distribution of land values and population density. Given these emphases, aspects of urban geography are also particularly applicable to research surrounding suburban growth. Research in urban geography has typically employed “an empirically based, hypothesis-testing approach to social science” (p. 1). Within urban geography, the behavioral approach changed the model of human beings from one of ‘economic man’ acting with perfect knowledge, to one of the individual making decisions “within a social psychological context” (p. 3), accepting less than optimal outcomes based on incomplete knowledge. “[T]he behavioral approach is heavily oriented toward *consumer preferences* and the demand side of the economy” (p. 4). These factors play major roles in people’s location choices and preferences, which translate into spatial development patterns.

Also applicable to this research are contributions to humanistic geography made by feminist geographers, specifically through the introduction of the concept that “both researchers and participants are appreciated for their *situated knowledges* and *partial perspectives*” (England, 2006 p. 288). *Situated knowledge* means that there is no one, objective truth; everyone’s knowledge and understanding of the world is conditioned upon their own experience (class, gender, location, etc.). It is determined in part by the environment, places, and spaces where they interact. It is further marked by the context where it is produced and who produced it, and how that knowledge is shared and disseminated. In addition, knowledge is always partial – a person never fully knows everything about anything. This perspective is an important part of a study of communities as the situated knowledge can differ from one community to another. For instance, residents may believe that exhaust from a factory is not harmful to themselves or their town in general (a partial perspective). However, residents living adjacent to the same factory would likely have a very different opinion – one based on their own knowledge that is *situated* in their neighborhood and life experience.

Ley (1980) makes the point that there can be no geography of the moon, for there are no people there. Geography is, in fact, the study of earth as the home of man – and so the plan must be for people, not objects. The public housing Pruitt-Igoe tower previously mentioned, although technically efficient, failed in experience, due in part because it lacked a theoretically active role for human agency in its abstracted space. From its example we learn that geographic theory and research methods must keep man as the central human agent – freely acting in real time and space.

For economists, interests of space are tied to the dominance of particular sectors of economic activity and its structure. Economic space relies on rational behavior, access to good information, and a system of many buyers and sellers. Economists view spatial interaction to be about the flow of goods, services, or people from one place to another with markets that assume stability. Logan and Molotch (1987) build a case that the Chicago school of human ecology heavily influenced academic pursuits in urban economics and urban geography that reified, “a vision of place as market-ordered space, to which human activity responds” (p. 8). People, however, build attachments to a *particular* place, family, and friends. Their loyalties are not to sectors, but to places, and it is there that a sense of belonging and ideas about how to behave in society are formed (Higgins & Savoie, 1995). These loyalties are the underlying roots of community, and within spaces a theoretical pluralism develops in geography and the economic elements in public policy, which seek a normative model.

Economic and political aspects of space deal primarily with transportation costs, the resource endowment of a location, and the class structure present. This is in contrast to geographic analysis that relies heavily on field study of the interested population and its relationship to the physical environment in order to gain a deeper knowledge – one not based on presumed universal laws of human environment (Higgins & Savoie, 1995). The authors describe geographic analysis as concerned with the interactions between a multitude of factors: the relationship between space and time; how events in one place impact other places; how knowledge and information are diffused in space; the effects of polarization and cumulative causation; and the overlap between spatial heterogeneity, occupational structures, socio-cultural disparities, and politics. This is consistent with

Logan and Molotch (1987) who argue that the fundamental attributes of all commodities, but particularly of land and buildings (space), are the social contexts through which they are used and exchanged. The sharpest contrast is between residents, who view the purpose of place to meet their needs, while business views it as a place for financial return. This can create great conflict over which should take priority – people or profit. To Logan and Molotch, it is this conflict that “closely determines the shape of the city, the distribution of people, and the way they live together” (p. 2).

To Marxist-inspired geographer David Harvey (1985), it is the powerful, cumulative outcomes of capitalism that produce urbanism. In a capitalistic society, efficiency demands the speed with which capital circulates to continue to get faster and faster if it is to generate a profit. The system builds roads, airports, factories, neighborhoods, and the like; reaching out into the countryside to construct the transportation and communication systems that allow access to new networks and markets, and thus providing for the flow of capital. This pattern is manifested in the rapid growth of Charlotte, the proliferation of starter-home neighborhoods, the greatly built up transportation networks including I-485 and the expanded airport, and a revitalized Center City. A sophisticated credit system is also an integral piece of such a system that allows “money to circulate in space independently of the commodities for which that money is an equivalent” (Harvey 1985, 606). The easy, new alternative forms of financing available during the housing boom period facilitated a tremendous increase in home buying and selling to a much broader group, including new ‘non-traditional’ homeowners.

According to Harvey, an eventual *overaccumulation* of goods causes a system to



become inefficient and fragile, which reduces profit and produces capital that cannot be absorbed elsewhere. At some point, a *spatial fix* kicks in to resolve the problems of the overaccumulation created by a system's constant expansion, as it derives its very existence through extending its reach. Harvey defines the spatial fix as,

... capitalism's insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring. The parallel with the idea of a "technological fix" was deliberate. Capitalism, we might say, is addicted to geographical expansion much as it is addicted to technological change and endless expansion through economic growth. (Harvey 2001, 24)

This 'creative destruction' is said by many to define capitalist systems that inherently seek their own equilibrium. A disruption is needed to allow the creation of new sources of capital. In some national markets such as Las Vegas and Phoenix, the feverishness of new construction itself was creating the demand for housing, not actual growth or differentiation of capital. In Charlotte, this "growth without growth" (Gottlieb 2002) phenomenon was also happening as population grew dramatically, but without economic advancement as jobs and income in the area continued dropping (Chesser 2013). From this perspective, the Great Recession can be seen as a spatial fix in response to the overaccumulation of new houses, new neighborhoods and companies during the housing boom. Harvey's explanation of overaccumulation and the spatial fix, written prior to the Great Recession, is particularly telling:

Overaccumulation, in its most virulent form (as occurred in the 1930s, for example) is registered as surpluses of labor and capital side by side with seemingly no way to put them together in productive, i.e. "profitable" as opposed to socially useful ways. If the crisis cannot be resolved, then the result is massive devaluation of both capital and labor (bankruptcies, idle factories and machines, unsold commodities, and unemployed laborers). p. 26

Nelson (2009) reported that developers had flooded the market by 2007 with some 2 million more homes than was needed, leading to a dramatic decrease in prices and

ultimately to mass foreclosures.

Harvey (1987) provided seminal insight into the social and spatial construction of space tied to class polarization. The urban process, through spatial practices and the accumulation of capital, has led to “ghettoization” in some parts and “consumption palaces” in others. Harvey reminded that “[d]ifferent classes construct their sense of territory and community in radically different ways” (p. 269), even if through similar spatial practices. There is a stark contrast in the ways low-income versus affluent communities are constructed. Harvey astutely observed that low-income populations find themselves “trapped in space” because they lack power. Such communities may display an intense attachment to their ‘turf’ as a way to control space in the absence of ownership. Institutional entities, such as police or education, are often viewed as “an agency of repressive control” and not as a benefit (p. 270). In contrast, affluent communities “command space through spatial mobility and ownership of basic means of reproduction (houses, cars, etc.)” (p. 271). Aesthetic appeal and accessibility (through money) are desired in the built environment, and the state is seen in a beneficial way, i.e. keeping out undesirables.

Harvey (1987) considered 1972 a watershed year, not only as it marked the transition to the post-modern following the demolition of Pruitt-Igoe tower, but also noting that it marked a dramatic increase in the “informal sector in American cities” (p. 272). This informal sector was an entrepreneurial response to impoverishment in low-income neighborhoods through illegal practices such as prostitution and drug trafficking. In affluent neighborhoods, the converse was seen in a distinct increase in displays of wealth and ornamentation, referred to as symbolic capital.

Similar to Harvey, Logan and Molotch (1987) interpret land market processes from a Marxist-influenced point of view. They see the economic and political standing of a neighborhood as determined through a class stratification system that affects residents' quality of life and opportunities available to them. They write that "neighborhoods organize life chances [and] ... places create communities of fate... we must consider the stratification of individuals in order to understand the distribution of life chances" (p. 112). To Logan and Molotch, the land market is a "*social phenomena*, governed not by natural laws of competition, supply and demand, but by inequalities of wealth, ownership, and power" (p. 109, editor's introduction; original emphasis).

Given the complex interaction between humans and their environment, the most effective approach to the geographic analysis of the role of space must be an interdisciplinary one (Higgins and Savoie, 1995). This introduces a level of complexity that is missing from a singular interpretation – whether that is viewed through economics, social science, or political science. Such a broad approach also helps inform policy by revealing a better understanding of what is truly needed. Traditional disciplines have varying interpretations and methodologies in the way in which they interpret how space and place interact, which is at the core of any geographic analysis. For example, anthropologists generally focus on societies, but not the physical environment with which they interact. Geographers can underestimate the underlying social, cultural, and political structure and focus too much on spatial dynamics. Sociologists have a more comprehensive view, but often don't include the economic, political, market structures, and trade policies inherent in place (Higgins and Savoie, 1995). Therefore, I situate this study of starter-home developments within human geography and other diverse fields of

theory to provide grounding for the research, including planning, architecture, economics, public policy, and sociology.

## 2.5 Born This Way?

My research project concerns spatial patterns of growth in America, a nation with a relatively short built history. Because of this, our cities and suburbs do not look like those in Europe or Asia. American occupation of space has largely happened during the time of ‘modern man,’ and our settled areas reflect this. Human geographer and Harvard professor Brian J.L. Berry (1975) reached back nearly 200 years to the writings of the Frenchman de Crèvecoeur who long ago asked, “Who, then, is the American?” Berry applied de Crèvecoeur’s eighteenth-century national characteristics to twentieth-century American society and his view of the aging metropolis, which he described as “an effluent, an inevitable discard with no enduring value” (p. 175). What was the reason for Berry’s negative view? The answer to de Crèvecoeur’s question, Berry argued, lay in the deeply embedded cultural traits of the Americans he observed: *the love of newness; the desire to be near nature; the freedom to move at will; the pursuit of individualism; America as a great melting pot; a tendency to violence; and the American’s manifest sense of destiny*. Perhaps these qualities, first described by de Crèvecoeur in the 1780s, still apply to Americans today.

Berry quotes Hoyt (1939) as he places Americans’ *love of newness* in the context of filtering and housing, with the constant outward movement of neighborhoods creating zones of transition around a city as people moved up to new housing. This left the oldest and cheapest houses behind to be occupied by the poorest families, or often left vacant, thereby eroding neighborhoods and rendering them obsolete. In theory, removing

housing at the lowest end (or least desirable) should balance supply and demand – a process known as filtering. Moving from one ‘zone’ to another creates room for the lower zone to move up. However, the effect is usually one of leapfrogging – creating a vacancy chain reaction in the center as growth booms in the periphery. We see this displayed in American cities everywhere, from Dallas to Pittsburg to Birmingham.

Berry’s description of our desire for *nearness to nature* plays into the belief that cities are the place of social ills. This has been a prevailing pattern from early Greek and Roman civilizations where the wealthy built country estates to escape the disease and crime of the crowded cities. Preindustrial American cities were no different - the poor were pushed out of urban peripheral areas to make room for large estates, factories, and higher standards of living. The wealthy began to move outward to escape the disease, stench, and overcrowding of industrial cities (Hanlon et al., 2010). Higher incomes allowed some to act on their desire to be close to nature and put distance between themselves and the lower-class masses.

Our *freedom to move* in America is one deeply ingrained within our national “frontier spirit.” Berry described Americans as “the world’s most mobile people” (p. 177), and in quoting policy planner Morrison (1974), calls this mobility an effective migration and an “*assortative* mechanism, filtering and sifting the population as its members undergo social mobility” (p. 177). This filtering allows the vacancy chain reaction (leapfrogging) to take place over time. Our desire to move has not diminished; the typical 21<sup>st</sup> century American moves eight-to-ten times in a lifetime.

The frontier spirit is also expressed in Americans’ sense of *individualism*, which Berry states is seated in a tradition of privatism. Americans have always been marked as

a people in search for opportunity, with an “I can make or break it on my own,” view on life. The individual drive for economic gain and prosperity, rather than a collective pursuit, has defined our capitalist economy. This ideology has drawn people to our shores from all corners of the earth, as “The American Dream” has been exported all around the globe. Immigrants have largely settled our country - a fact that brings a mixing of cultures accelerated over time with the result typically described as a *melting pot*. Such an assimilation of people is never easy, though, and America is not really the ‘blended stew’ often thought (Booth 1998; Hirschman 1983; Tandon 2013), but more of a tossed salad (Smith 2012). The mixing has instead produced turf struggles, conflict and deeply held segregations (Ahmed 2014). Contemporary immigration is overwhelmingly from Latin America and the large numbers are propelling the nation toward a minority-majority status (Brookings 2013c).

The result of much of this conflict has been *violence*, the manifestation of “the struggle to succeed, the fight to win” (Berry, 1975 p. 175). A culture of violence exists in many American cities as groups have fought to compete. Crime and violence is a way of life in many central cities and deteriorating ghettos as they struggle to control turf (Berry, 1975; Harvey 1987). Competition, especially for space, has fueled many aspects of urban development (Logan and Molotch, 1987). And yet, despite these imperfections and societal flaws, an overriding *sense of destiny* remains. Americans are also defined by an understanding that “we are all in this together.” This has been demonstrated many times throughout our history, from the American Revolution to the 1960s War on Poverty, and in our national unity following the bombing of Pearl Harbor in 1942; and more recently, the three-pronged terrorist attacks on September 11, 2001.

The evidence of the influence of these cultural attributes in the social and spatial structure of U.S. metropolitan areas is obvious. Our desire for newness and to be near nature, freedom to move, and individualistic spirit have led to sprawling growth, especially following WWII. Leapfrog development continually pre-empts the urban edge with far-flung subdivisions and retail hubs having pushed farther and farther into the surrounding natural environment. One has only to look at the metropolitan areas of Phoenix and Las Vegas, which have disregarded the significant environmental constraints of deserts, extreme temperatures, and the lack of natural water sources, as examples of over-consumers of land and resources. Our individualistic spirit has kept us from embracing regional policies and more sustainable forms of growth to the detriment of many American cities. We have ignored the overwhelming evidence of the interdependence of suburbs and cities.

Savitch et al. (1993) describe the erroneous view of self-sufficiency as an impoverished idea that has been selectively applied to the harm of both central cities and suburbs. They provide data linking jobs and incomes in an intertwined fate, rising and falling together. Voith (1998) also points out that exclusionary zoning practices in suburbs make fiscal disparities across jurisdictions worse. Cities in decline are forced to reduce amenities, which in turn causes more out-migration and the reinforcing of suburban growth. In some of the most severely impacted cities, such as Detroit or St. Louis, the city has all but been abandoned to impoverished populations and decaying buildings left behind. It is hopeful, though, that a sense of common destiny will reemerge and society will embrace regional cooperation and more sustainable development patterns.

## CHAPTER 3: THE CHARLOTTE CONTEXT

### 3.1 Charlotte Rising

Charlotte, North Carolina, is built on a history of textile mills that began operating just after the turn of the nineteenth century, slowly growing into an industry with its supporting mill towns. After 1880, though, the proliferation of mills exploded, and the state's production began to surpass longstanding mills in the Northeast (Goldfield 2000). The low-wages that non-unionized North Carolina workers were accustomed to attracted wealthy mill investors to the state, which built bigger and larger mills in dispersed locations while developing the water-powered plants to run them. Subsistence farmers were recruited by labor agents and urged to leave their farms for a better life at the mills and to return later and recruit their friends. The state's 'inconvenient geography' of mountains, marshes, an interior location, and limited trade routes also worked to isolate it from the ravages of the Civil War, and Charlotte emerged unscathed. Suppliers to mill owners took advantage of the isolation to build their own businesses by providing the necessary goods. Also owing to its inaccessibility, fledgling banks and finance companies arose to meet the needs of local entrepreneurs and industrialists and a tradition of banking took root in the state.

North Carolina's geography also led to its cities developing as far-flung service centers, in contrast to typical Northeastern and Midwestern closely knit, industrial urban centers. The state's industrialization was essentially an anti-urban process, the impact of



which is still felt. Its geographic isolation and inconvenient location resulted in the lack of a dominant or primate city able to reach a point of critical mass attractive to outside investment. A legacy of poverty has thus permeated North Carolina's history, from its early years of subsistence farming, followed by low-wage mill employment and mill village dependency, to the current malaise of persistent unemployment. The state experienced rising income and falling unemployment relative to the country as a whole in the 1990s, but offshore jobs and two devastating hurricanes dealt painful blows to the state's businesses and agriculture industry. The closing of textile plants in rural areas and the corresponding loss of jobs were devastating to small town and county economies (Barwick 2004).

The city of Charlotte grew in the style of a regional center, and its form has been largely modeled after suburban employment and residential growth. Charlotte has been called "a place of grits and stock cars" (*San Francisco Examiner*, 1998), and "the city that always sleeps" (*Atlanta Journal Constitution*, 1994). There were no residential options downtown until the 1980s, when local business leaders and officials united and set a course to steer Charlotte clear of the empty-center donut model of urban development that had stunted growth in other cities. Substantial private and public investment was concentrated in the reinvention of Uptown Charlotte for the express purpose of "reconfiguring the image of the city [and] curtailing its sprawl in order to focus activity in the center city area" (Smith and Graves, 2003 p. 186). The easing of federal regulations on interstate banking created an opening for the shrewd acquisition and merging of multiple financial institutions located in North Carolina (Furuseth et al. 2015). Led by fourth-generation local banker Hugh McColl, the president of North

Carolina National Bank (which later became Bank of America), Uptown Charlotte underwent a physical and cultural makeover in order to attract a new executive and professional workforce who were used to an urban lifestyle and its accompanying accouterments. “Great banks need great cities,” McColl often said, and this sentiment provided the impetus to propel Charlotte onto the national and international financial scene. Victorian-era homes were ‘imported’ from other parts of the city and region to build a “new historic” walkable neighborhood. The imported homes were relocated into the Fourth Ward district surrounding Uptown and refurbished (Smith and Graves, 2005). Below-market mortgage rates and subsidized loans spurred the rehabilitation of Uptown neighborhoods. Partnerships between municipalities and utility companies were formed to facilitate infrastructure improvement. Professional sports teams, stadiums, and art museums were added in Uptown as part of Charlotte’s boosterism approach to building a contemporary, New South city. The growth was aided by a ‘city as growth machine’ mentality that was all-systems-go for new development (Sorensen et al. 2014). The transformation of Charlotte into a global, New South city enabled it to garner the title of host city for the 2012 National Democratic Convention

Low-density, suburban sprawl development has dominated Charlotte’s growth, peaking in the 1990s. It has been highly land consumptive growth, as Yang (2008, referencing Murray, 2004) found that “to accommodate every 100 new residents, Charlotte lost 49 acres of rural land, compared to 10 acres lost in Portland” (p. 311). Over this growth period, Charlotte transformed from an “Old South” to a “New South” city – marked by large increases in minority and immigrant populations – and is now known as a new 21st Century Immigrant Gateway city. New Gateway cities like

Charlotte differ from historic gateways marked by ethnic enclaves. Instead, they are rapidly growing cities with new economies, have interior locations with little or no immigration traditions, and are largely characterized by suburban settlement. Charlotte's turning point with Bank of America's meteoric rise provided a large service-based economy with a need for workers across an occupational spectrum. Minority and immigrant settlement patterns within Mecklenburg County form a crescent of suburban locations around the Center City (see Fig. 29).

U.S. Census Bureau estimates Mecklenburg County's 2014 population at just over one million people, up by a 10.1 percent change from April 2010. Major infrastructure projects were needed to accommodate the fast-growing region, and their construction has changed the physical landscape of the County as well as its urban pattern. The first leg of a new light rail system opened in November 2007, one of five primary transportation corridors included in a long-range, integrated transit and land-use plan. The 9.6-mile Blue Line connects Uptown Charlotte to Pineville, a small city southwest of Charlotte near the county border. The Blue Line was inserted into the older urban and suburban fabric containing "landscapes of urban condos, restaurants, factories and strip shopping centers alternating with small patches of woods, highway overpasses, and older brick-clad manufacturing districts" (Currie 2013). The Blue Line Extension (currently under construction) will extend the rail from Uptown Charlotte another 9.3 miles and connect to the UNC Charlotte campus.

A second major transportation project in Mecklenburg County is the construction of the I-485 loop, a 67-mile long outer belt freeway. The I-485 loop has had a significant impact on Charlotte through economic development, traffic congestion, environmental

impacts, and a prolonged construction period that is trying for residents. UNC Charlotte urban design professor David Walters (2010), a long time Charlotte resident and social commentator, describes some of these impacts:

However, at the very same time as the city, the state of North Carolina, and the federal transportation authorities were investing over \$400 million in the South Corridor light rail line, nearly three times that amount was being spent on Charlotte's outerbelt freeway, I-485. This sixty-seven-mile ring highway, still many years from completion despite nearly two decades of construction, has opened up vast new areas for suburban development, almost always in conventional auto-dominated forms of separated uses— office parks, shopping centers, residential subdivisions, and apartment compounds. This growth is spreading into surrounding counties at a faster rate than either planning or local politics, with their very inefficient system of fractured and competitive municipal jurisdictions, can manage. The Charlotte region has thus created a confusing situation for itself: at the same time that it's establishing a new *centripetal* pattern focusing on the thriving city center, it is hard at work building an opposing *centrifugal* suburban pattern of continual expansion at the periphery, thereby creating tensions and conflicts in development policies and politics. (p. 222-3).

These projects have spurred very different types of development – urban village, condos and retail clustered around the Blue Line while metropolis-type, suburban development has followed the I-485 loop. “We invested a lot of money and continue to invest a lot in the opening of 485,” Leigh Rounds, a local executive for a major national developer in Charlotte, was quoted as saying in 2003. “Clearly, it is the reason we bought this land” (Tannenbaum 2003). The new development that followed the construction of the loop is evident, and it has been named as one of the most powerful drivers of growth in Mecklenburg County, along with the airport, UNC Charlotte, and banking (Prince 2004). Voith (2000) discusses the determinants of metropolitan development patterns and argues that increased land values are associated with large investments in transportation infrastructure. These investments also “have significant effects on the relative

attractiveness of local communities... Communities fortunate enough to be net recipients of public funds for infrastructure will have an advantage in competing for people and firms, and communities that fail to receive transportation investments and pay taxes or user fees spent in other communities will be at a disadvantage (p. 78). The significance of this pattern is further examined in the spatial analysis contained in Section 6.5.

### 3.2 The Proliferation Of Starter-Home Neighborhoods In Charlotte

The Charlotte context shares similarities with other “sunbelt” and post-1980s urban growth areas in patterns that differ from the pre- and early-industrial growth of cities like Detroit and the rust belt era. This also points to major shifts in the global economy that Detroit suffered from, but also initially benefitted Charlotte (until the recession of the 2000s). Spillover effects brought reinvestment into nearby older districts such as NoDa and Southend, but the classic gentrification pattern also emerged with pricey new condominiums and refurbished homes. Home prices and rents rose sharply, making outlying neighborhoods even more financially attractive. Similar to many other booming areas, Charlotte’s rapid growth fueled tremendous reactionary sprawl, making it an excellent place to study the starter-home phenomenon. In its typical fashion, starter-home neighborhoods are located on inexpensive, readily available land in suburban fringe areas. They were built in abundance during the pre-Recession housing boom and bust cycle in a building frenzy reminiscent of the post-WWII boom.

From 1990 to 2000, Charlotte’s population grew by 36.6 percent sparked by the successful redevelopment efforts of Uptown Charlotte and the planned, determined efforts of McColl and other key individuals in public and private positions of power. An expanding agglomeration economy brought substantial financial success to Charlotte,

drawing workers and investors of all kinds. The region flourished with growth in every aspect of housing development. Newly located professional workers tended to settle in expensive neighborhoods located either close to Center City or in upscale suburban neighborhoods. More blue collar and service jobs were also added in support of the growing white-collar industries, and new housing was needed for these workers as well. Many in the latter group found affordable homes in the swelling peripheral areas of the city of Charlotte and Mecklenburg County, which were rapidly filling up with new “cookie cutter” subdivisions, a.k.a. starter-homes (Figure 13).

In the 1980s, census tracts in the outer-most areas of the county typically had populations of 500 or less. By 2010, their populations had grown to between 3,000 and 5,000, with some above 5,000 (Fig. 14). The region continues to grow, and by May 2014 had become the 16<sup>th</sup> largest city in the U.S. (Bell 2014). During the 1990 era of rapid growth in Charlotte (Figs. 15 and 16), developed land area reached 41.4 percent in 1996, a big jump from 18.1 percent in 1985 (Michael, 2011). To house its burgeoning population, the decade produced 20.9 percent of all existing housing in the city of Charlotte (2011 American Community Survey 5-year estimate), its peak decade for residential growth (Fig. 12). Another 16.0 percent were built from 2000 to 2004, and 8.5 percent were built in 2005 or later (ACS 2012). Thus, 25 percent of Charlotte’s homes were built from 2000 to 2011, roughly equivalent to the starter-home time period of this study, and more than 45 percent of homes were built since 1990. The 2000 to 2010 decade opened at the highest point of the number of single-family subdivisions approved, and lots developed, but from this peak, residential development fell sharply from 2000 to 2002 by just over 69 percent.

From the 2000-2002 drop, land development in Mecklenburg County rebounded in two “speed bumps,” occurring in 2002 to 2004, and again between 2005 and 2007. These reversals were then followed by a downward trend for the remainder of the decade as the Recession set in. When the housing and banking industries crashed, unemployment in Charlotte soared. As the second largest financial center in the U.S. (following only New York City), Charlotte felt the recession in a profound way. The glut of new housing being built could not be sustained and home prices fell quickly. Instability in the banking industry, preceded by the decline of the textile mill industry, produced stubbornly high local unemployment and foreclosure rates. These impacts left deep scars on many Charlotte neighborhoods.

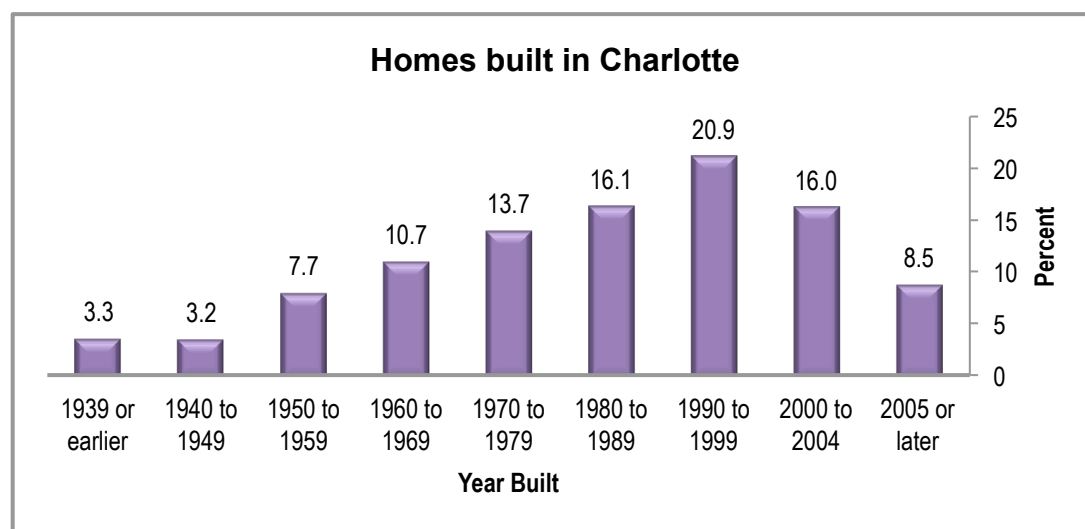


FIGURE 12: Percentage and age range of homes built in Charlotte (city), N.C., based on 2007-2011 American Community Survey Five-Year Estimates, U.S. Census Bureau.

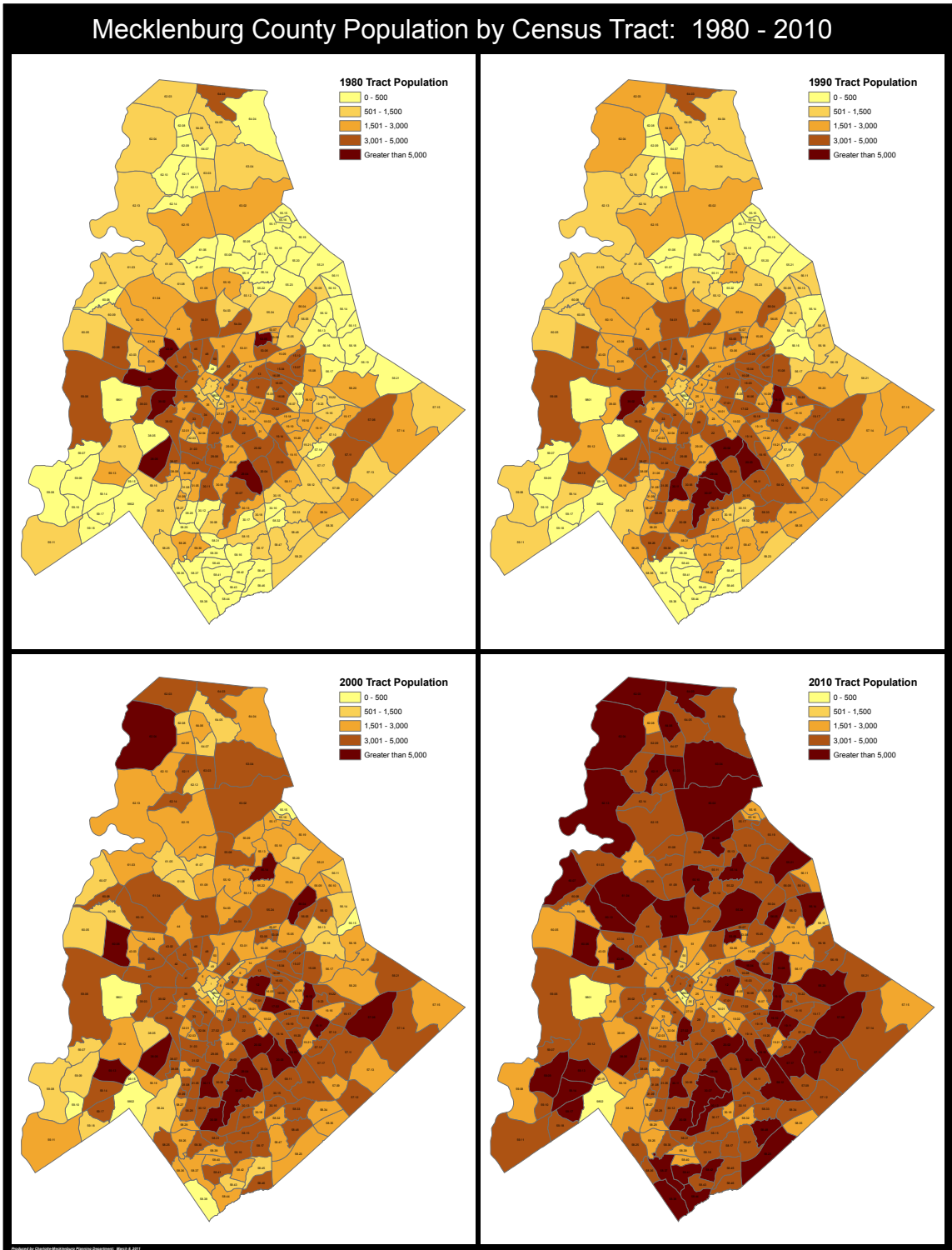
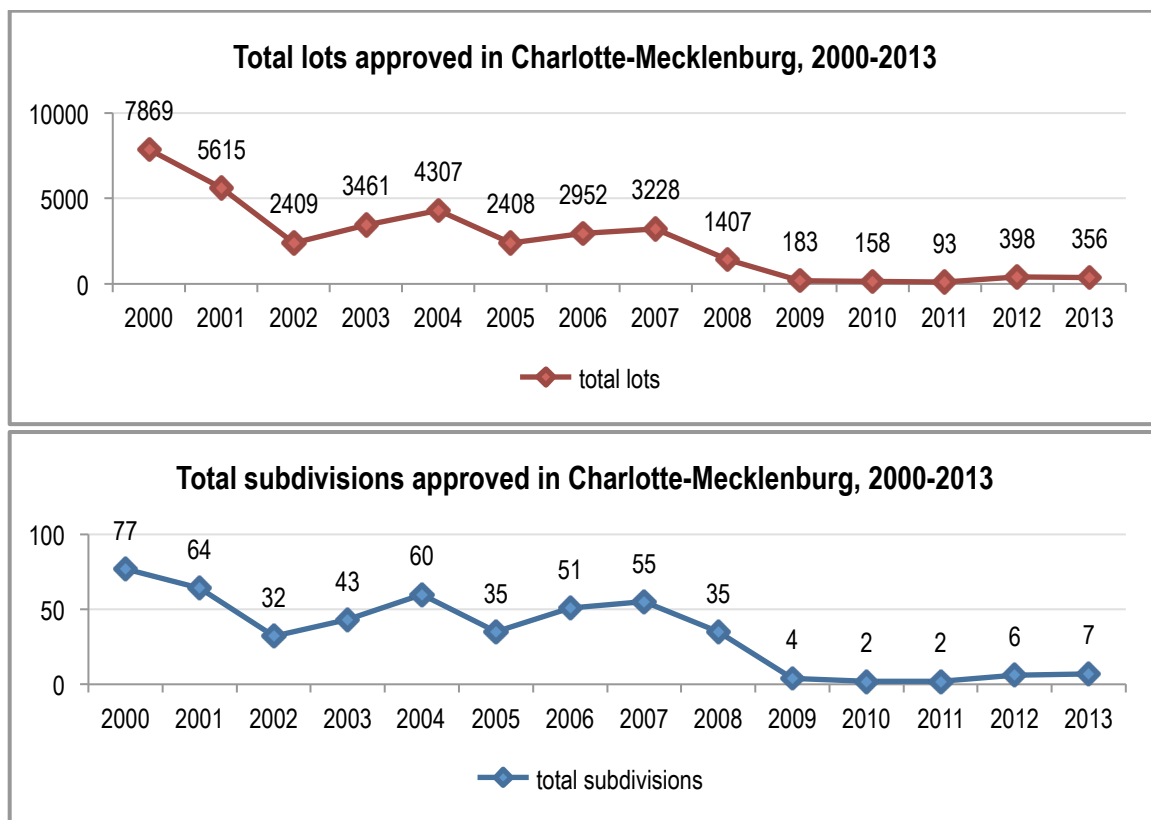


FIGURE 13: Population distribution in Mecklenburg County, 1980 to 2010. Source: Charlotte-Mecklenburg Planning Dept.





FIGURES 14 and 15: Residential units approved by the Charlotte-Mecklenburg Planning Department, 2000 to 2013, by total lots and total subdivisions. Graphs by the author, data source: Charlotte-Mecklenburg planning department.

Not all types of growth are good, and in Charlotte, the revived Uptown and growth in its many prospering suburbs and outlying towns was offset by growth in the number of the suburban poor. Between 2000 and 2011, the suburban poor ballooned from 65,982 to 140,760 – a 113.3 percent increase (Brookings 2013b). Many families in poverty (along with their children) live in suburban starter-home neighborhoods using Section 8 vouchers. These themes will be explored in Chapter 4 from both the national and local levels.



FIGURE 16: Starter-home communities were built in abundance throughout Charlotte's peripheral suburbs, as shown in the aerial image above. Photo: Nancy Pierce.

### 3.3 Starter-Home Neighborhoods: Creating Landscapes of Vulnerability?

I am part of the Charlotte Action Research Project (CHARP), an action-research based partnership between the University of North Carolina at Charlotte (UNCC) and challenged neighborhoods in the Charlotte area. It matches students with service learning opportunities in partner neighborhoods to develop mutually beneficial relationships. CHARP has studied several disadvantaged Charlotte neighborhoods extensively while implementing action plans to help affect positive change in them. CHARP has had success in many neighborhoods using participatory action research, but consistent, forward progress for the neighborhood of Windy Ridge has proven elusive; the neighborhood seems to have slipped through a variety of safety nets. (A case study of Windy Ridge is presented in the following section). CHARP's neighborhoods share similar demographics in income, race, educational attainment, etc., but they differ in that

Windy Ridge is new construction while other CHARP partner neighborhoods are older, established neighborhoods. This discrepancy became the inspiration for this research and led me to question if the basic concept of a starter-home neighborhood is itself “building-in” non-resilience from inception, and thereby creating *landscapes of vulnerability*.

Although the research I present here is of an empirical nature and differs from the typical action-based research utilized by CHARP, it shares a common perspective as originating from the lived experiences of the residents of CHARP’s partner neighborhoods.

The Great Recession and sub-prime mortgage crisis of the 2000s devastated many newly constructed neighborhoods. From a social perspective, the factors contributing to the difficult issues facing residents of starter-home neighborhoods are those previously described by Bajayo (2012) as the lack of “collective efficacy,” or the characteristic that moves residents to action because they believe their collaborative action will lead to positive change. Collective efficacy deteriorates under stress and acts counter to community resilience. A lack of trust and personal relationships, and therefore social capital, are often missing in starter-home communities. A core reason for this is likely due to the very high turnover rate of residents – both in homeowners and tenants – that prevents social capital from forming. High foreclosure rates brought on by the steep decline in home values, combined with fallout from the economic recession, created a *landscape of vulnerability* in many starter-home developments.

Calthorpe and Fulton (2001) document HUD’s acknowledgment of its own negative legacy from urban renewal projects in the introduction to HUD’s Consolidated Planning Handbook:

We suggest that the guiding concepts of Consolidated Planning can remedy a long list of past mistakes, including programs that fractured and isolated social

services, destroyed community history and identity (both architectural and institutional), isolated income groups, family support systems, and housing types, created ‘no man’s land’ open space and buffers, permitted freeways and major roads to dissect neighborhoods and isolate communities, failed to coordinate transit investments with new housing and jobs, dispersed civic facilities and destroyed community focus, displaced small local businesses, and damaged natural systems (p. 246).

Even though the starter-home neighborhoods being examined here are private developments, they display many of the problems noted by HUD as failures of urban renewal projects. As indicated in the map of Section 8 housing voucher locations (Figure 18), their distribution is extensive in the peripheral areas dominated by single-family development, while vouchers used in multifamily and public housing developments are clustered near the central city area. High numbers of residents using Section 8 vouchers present major challenges to neighborhoods, even though they were originally conceived as a way to alleviate concentrated poverty by dispersing low-income housing throughout a community. In theory, vouchers allow families to reap the benefits of living in non-subsidized neighborhoods and public project housing. However, when residents using Section 8 vouchers cluster closely together, a neighborhood can become an isolated, de-facto public housing project – but without any of the supporting services that typically accompany low-income housing (Sorensen et al., 2014). The concentrated poverty pocket is merely shifted to another location.

### 3.4 Windy Ridge: A neighborhood built to fail

In this section, I present a summation of the in-depth case study of Windy Ridge, a neighborhood of 133 homes built between 2002 and 2004. It has been dubbed “a neighborhood built to fail” and could be considered one of the most distressed communities in Charlotte (see Sorensen, Gamez and Currie, 2014). The Charlotte Action

Research Project (CHARP) has studied the neighborhood extensively and implemented several action plans to help turn the neighborhood around. Although CHARP has seen success in many neighborhoods, consistent, forward progress for Windy Ridge has proven elusive; the neighborhood seems to have fallen through the cracks.

The Great Recession and sub-prime mortgage crisis of the 2000s devastated many newly constructed neighborhoods like Windy Ridge. Its 38-acre site of former industrial land located in northwest Charlotte (Fig. 17) required a rezoning for development as a residential neighborhood. It is surrounded by active railroad tracks, heavy manufacturing plants, numerous environmental hazards, and three former Superfund hazardous-waste disposal sites (Figure 54). There is a singular way in and out that is often blocked by trains for long periods of time.



FIGURE 17: Windy Ridge Vicinity Map. The subdivision is located in Northwest Charlotte, within Mecklenburg County. Uptown is Charlotte's Central Business District. Source: Apple Maps, customized by author.

From its outset, Windy Ridge was marketed to investors (most of whom were not local). They were snatched up quickly in the boom years of the early 2000s as new homes flooded the market. Windy Ridge's homes, built with low quality construction and materials, went up in rapid succession along the closed-loop streets, which are punctuated only by short, cul-de-sac stubs. Flooding, mold, and erosion are the legacy that poor development left behind (Fig. 18). It is textbook sprawl worsened by environmental injustices (Fig 19).

During the housing bust, home prices in Windy Ridge plummeted. Homes that originally sold for about \$108,000 fell to \$35,000 to \$40,000 where they have remained. A domino-like effect of foreclosures, followed by high rates of crime, vandalism, and a number of vacant homes, continue challenging the neighborhood. A survey of home sales in November 2013 found that only 33 of the 133 homes were owner-occupied (25 percent), which included four original owners and ten co-owned with Habitat for Humanity (Sorensen, Gamez and Currie, 2014).

Problems in Windy Ridge were evident within just a few short years. By 2007, the three-year old subdivision had 81 homes in foreclosure (Chandler and Mellnik, 2007). Charlotte's planning director, Debra Campbell, was quoted in the *Charlotte Observer* as saying, "Within five years we're reaching the need for revitalization strategies that used to take a neighborhood 25 years to reach," (Chandler and Mellnik, 2007). Our in-depth case study records the startling findings that explain many of the neighborhood's woes.

The data confirm that homes in Windy Ridge were indeed targeted to investors in "package deals." Our examination of the original owners found that 96 of the 133 homes were sold as part of a multiple set (72 percent), and the remaining 37 homes (28 percent) sold to a unique buyer. This is a conservative estimate, as it is possible that investor groups may have deeded homes in separate names. A total of seventeen different individuals or corporations currently own multiple

properties in the neighborhood. Another trend that has persisted in Windy Ridge is that of non-local owners. The addresses of current property owners indicate that more than a third are from outside the Charlotte area, representing 12 different states including such far-away places as Hawaii, New York and Texas... An overwhelming majority of homes (103 of 123) when sold by the original owners were for a loss that averaged \$42,126—representing a 40 percent drop in value. These losses happened quickly, as the average time between when the homes were originally bought from the builder to the first resale was only 2 years and 9 months. But, when considering that 85.4 percent of these resales were tied to foreclosure or distressed sales<sup>3</sup> the short duration of ownership is explained. (Sorensen et al. 2014, 18)

Originally, Windy Ridge appeared to be an opportunity to own (or rent) a home and a share of the American Dream. It possessed the symbolic characteristics of single-family homes, one's own yard, and a suburban ideal that signified social mobility, decency, and safety (Purcell 2001, McKee 2011). Residents became attached to the ideal living situation that Windy Ridge offered until reality set in and their dream became an illusion. The troubled community was also featured in a 2008 *Atlantic Monthly* article entitled, "The Next Slum" that documented the plight of suburban starter home communities across the nation. The following excerpt captures residents' lived experience.

At Windy Ridge, [v]andals have kicked in doors and stripped the copper wire from vacant houses; drug users and homeless people have furtively moved in. In December, after a stray bullet blasted through her son's bedroom and into her own, Laurie Talbot, who'd moved to Windy Ridge from New York in 2005, told *The Charlotte Observer*, "I thought I'd bought a home in Pleasantville. I never imagined in my wildest dreams that stuff like this would happen" (Leinberger, 2008).

The myriad social, economic, and environmental challenges facing Windy Ridge leads one to question the wisdom of its initial rezoning that paved the way for the development of a neighborhood built to fail.

---

<sup>3</sup> Distressed sales are defined here as a loss of more than 25 percent.





FIGURE 18: A street view of Windy Ridge, a troubled starter home community in Northwest Charlotte. Boarded up vacant homes, and drainage problems resulting from extensive erosion are evident. Google Maps image, Sept. 2011.

From a social perspective, what factors contribute to the difficult issues facing residents of challenged communities like Windy Ridge? Why are they so different from other neighborhoods? Drawing from the previous discussion of resilience and social capital, it is the collective efficacy, trust, and bridging and bonding networks that are missing in neighborhoods like Windy Ridge. The high turnover rate of residents – both in homeowners and tenants – prevented needed social capital from forming (Rohe 2004).

Previous research in Windy Ridge done by CHARP in 2010 found a staggering 77 properties (of 133) had changed owners four to six times, and twelve properties had changed owners seven to eleven times. “In fact, more than 600 transactions<sup>4</sup> have occurred in this single neighborhood since its first homes were sold in the spring of 2002 up through November 2013” (Sorensen et al. 2014, p. 17). High foreclosure rates

---

<sup>4</sup> Corrective deeds and transfers where grantee and grantor were the same name are not included in the count of transactions.



brought on by the steep decline in home values, combined with fallout from the economic recession, have, in effect, created a revolving door to Windy Ridge. Residents also face significant health risks due to the many surrounding uses with documented environmental hazards and violations. These uses were preexisting to the neighborhood's construction, which raises issues of environmental and social justice. Windy Ridge was placed adjacent to several LULUs (Locally Unwanted Land Uses), and are described as follows:

The intensive industrial uses and heavy rail surrounding the residential neighborhood puts residents at risk for exposure to numerous environmental hazards (Figure 5). At Windy Ridge, there are four former superfund or hazardous waste disposal sites in close proximity, two of which are within one-half mile.<sup>5</sup> Interestingly, the formerly wooded area now home to Windy Ridge once provided a buffer from surrounding industrial uses for Todd Park, the existing neighborhood to the west. With this buffer gone, the Union Carbide Battery superfund site now sits within 1,000 feet of residential uses, and adjacent to Windy Ridge. (p. 13-14)

Reflections on the conditions in, and the surrounding context of, Windy Ridge point to clear violations of environmental justice through its purposeful siting in a pre-existing industrial district. The environmental justice movement emerged in the 1980s as a nexus of an awareness of environmental hazards to people and the natural environment, civil rights activism, calls for social justice for disadvantaged populations, and the way in which these concerns intersected with land use practices, was championed. Civil protests led to two landmark studies, the first in 1983 commissioned by the Government Accounting Office and the second in 1987 by the United Church of Christ's Commission for Racial Justice. The studies found that minority populations were disproportionately impacted by nearby siting to environmental hazards. It was shown that "three out of

---

<sup>5</sup> Windy Ridge's other neighbors include Chemway Industrial Park and several other heavy industrial sites. The property is bounded on the south and a section of the east side by active railroad lines.

every five African-Americans and Hispanic-Americans nationwide were living in communities with uncontrolled waste sites. Race was the most significant variable in the distribution of commercial hazardous waste facilities – more important than home ownership rates, income, and property values” (Arnold 2007, p. 2). Clark et al. (2014) found that in large urban areas, non-Whites experience 38 percent higher exposure to nitrogen dioxide (NO<sub>2</sub>) than Whites. Windy Ridge was rezoned from industrial to residential uses with the knowledge that it would attract low-income minority families.

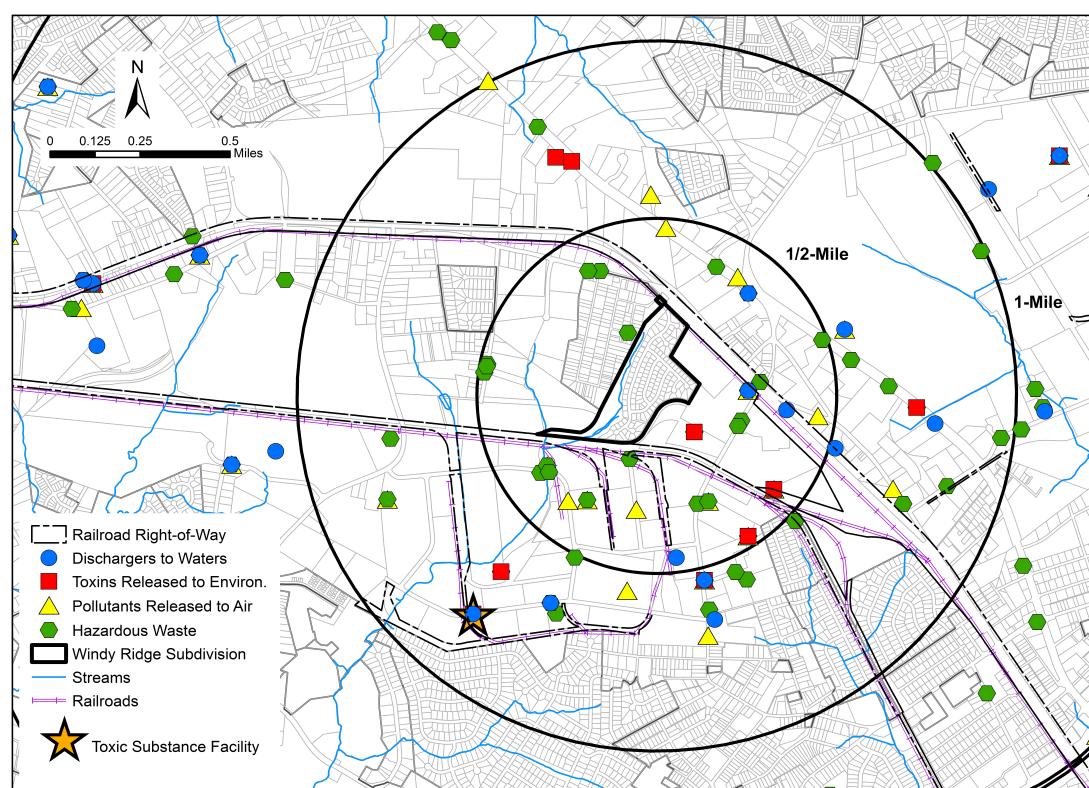


FIGURE 19: A plan view of the Windy Ridge subdivision (in the center of image) shows its surroundings environmental hazards and violations within 1/2- and 1-mile radii. Data source: U.S. Environmental Protection Agency.

A wooded stream buffer separates the Windy Ridge property from a single, well-established, but poor Black neighborhood. All other surroundings were/are heavy manufacturing and industrial uses. Currently, the County is planning its new 50-acre “Compost Central and West Mecklenburg Recycling Center” approximately one mile west of the neighborhood. The County’s website<sup>6</sup> lists its reason for choosing this site as being “located in the appropriate I-2 zoning category,” an acknowledgement of the intended purposes of this district.

In a review of earlier CHARP research documents, the concerns expressed by residents of Windy Ridge found their place in the broader context of starter-home neighborhoods across the Charlotte area. CHARP researchers conducting the door-to-door survey in 2010 sought to understand the lived experiences of the neighborhood’s residents in their own words. When asked why they chose to move to Windy Ridge, responses shed light on the struggle those of low-income face in providing shelter for themselves and their families. Price was obviously a big factor, where responses included, “couldn’t get much cheaper,” or, “this was what I could afford,” and “we found this house on the socialserve.com website” (a nonprofit website for locating affordable housing). Other comments (reproduced below) pointed to the pressure that people of all demographic groups felt to buy a house during the boom years, or the need to locate renters for the income properties of outside investors:

*This was the first place we were approved.*

*My other house went into foreclosure, and I found this quickly.*

*I was recruited by the property management company.*

---

<sup>6</sup><http://charmec.org/mecklenburg/county/LUESA/SolidWaste/Compost%20Central%20Relocation/Pages/default.aspx>

*The deal here was just too good to pass up.*

*My wife chose the neighborhood – it was perfect for a first-time homebuyer.*

Many residents moved into Windy Ridge (and similar neighborhoods) optimistic about their future, anticipating a happy, suburban life free from crime. They “saw the potential to plant things, and decorate the inside” of their dream homes, and one respondent even “saw this as an up-and-coming neighborhood.” An Associated Press (2011) article printed in *The Mecklenburg Times* also made note of this sentiment:

Early arrivals recall a neighborhood full of potential. Chris Youmans, who moved in with his wife in 2004 with a rent-to-own deal, said he was encouraged to see other black, working-class families in nearby houses. Joana Madruga, an Atlanta investor who bought four houses, recalls the homes and newly seeded lawns as beautifully kept.

Unfortunately, the reality for Windy Ridge homeowners and others across Mecklenburg County is their choice of starter-home neighborhoods proved to be a bitter disappointment.

## CHAPTER 4: THE CHANGING ECONOMIC LANDSCAPE

### 4.1 The Rise of Suburban Poverty

The U.S. has experienced a major shift in populations from cities in the colder climates (the 'Frostbelt') to cities in warmer climates (the 'Sunbelt'). Within this rearrangement of people, two competing movements have also influenced urban development. The first is America's move to the suburbs, often characterized as "white flight" and previously discussed. The second urban movement is the in-migration trend of moving back to the city (Florida 2008) and close in locations (Nelson 2013b). Younger urbanites embrace the city and its lifestyle, valuing the energy and culture it offers. This anti-movement could be interpreted as the opposite of the first move as the children of the suburbs reject its cul-de-sac ridden, isolated lifestyle in favor of a vibrant, well-connected urban one. Retired Baby Boomers are seeking to downsize and look to close-in locations that afford more independence for aging adults.

Within the moving and resorting happening in America, a major trend emerging now is what Richard Florida calls the "Means Migration to the Means Metros." The mass relocation of highly skilled, highly educated, and highly paid people to a few metropolitan regions is dramatically changing the global landscape. "Places that bring together diverse talent accelerate the local rate of economic evolution" (Florida 2008, p. 96). As more 'smart' people cluster together and form denser connections between themselves, the evolution gets faster and faster. Florida calls this the *multiplier effect* of

the clustering force at work. The clustering force concentrates talent within specific regions while simultaneously sorting it by work and careers. These are the “means metros,” usually located around a major university thus sharing in its creative energy and have a head start in economic development and attraction over other cities or regions.

As described by many planners, sociologists, and geographers (including Richard Florida), the middle-class continues its push outward into new suburban development, or inward into gentrified urban core locations. In metropolitan areas across America, Baby Boomers continue to redefine *where* the ‘good life’ is found. Once again, those with few resources are left behind – but now in the older suburbs containing both aging populations and aging infrastructure. It seems a closed-loop system: by the time those of lower socioeconomic status “arrive,” the middle- and upper-middle class have already moved on to a new choice destination. Poverty, which has traditionally been found in urban, inner-core communities, is diffusing more and more into the suburbs, once thought to be the symbol of an idyllic life free from the ills of the city (Mumford 1961). “Low-income residents have long been a part of suburban development, from those who were among the first to suburbanize more than a century ago in pursuit of cheaper land at the outskirts of urban areas, to members of emerging immigrant enclaves, to residents of blue-collar communities who went to work providing services in more affluent neighboring suburbs,” (Kneebone and Berube, 2013 p. 9).

The decade of the 2000s recorded a rise in the proportion of the U.S. population living below the poverty line, and by 2005, for the first time the majority of the nation’s poor lived in the suburbs. “Western cities and Florida suburbs were among the first to see the effects of the ‘Great Recession’ translate into significant increases in poverty

between 2007 and 2008,” (Kneebone and Garr, 2010 p.11). By 2008, the poor population in the suburbs of America’s largest metro areas grew by 25 percent, nearly five times the rate of primary cities, and housed almost one-third of the nation’s total poor. “By 2010, one in three Americans was poor or near poor, meaning that 104 million people lived below twice the federal poverty line—23 million more than in 2000 (an increase almost the size of the population of Texas),” (Kneebone and Berube, 2013 p. 10). The authors also write that suburban residents living in poverty grew to about 16.4 million people in 2011 – more than double the growth rate of urban poverty, and an increase of almost 64 percent since 2000. The authors also stress the fact that, “Poverty did not trade one location for the other but instead affected both cities and suburbs as it grew” (p. 20). The significant shift in the geography of American poverty seems likely to continue, as a lack of affordable housing in many major metropolitan areas has created a nomadic poor, constantly uprooted in search of reasonable rents.

Gene Nichol (2013), the Boyd Tinsley distinguished professor at the UNC School of Law and director of the school’s Center on Poverty, Work and Opportunity, examined changes in poverty in North Carolina’s metropolitan areas and reported:

Charlotte’s general poverty rate in distressed areas was 42.3 percent, up from 31 percent. The child poverty rate rose from 38 percent to an astounding 54 percent. This helps explain why the Charlotte-Mecklenburg school district reported nearly 5,000 homeless students last year and the U.S. Conference of Mayors concluded Charlotte had the third-steepest increase in family homelessness in America.

Nichol also noted that, “Statewide, concentrated poverty tracts tripled between 2000 and 2010. Two-thirds of the afflicted neighborhoods, the N.C. Justice Center has reported, are now urban.” These numbers reflect the increasing shifts in population moving from rural to metropolitan areas in search of work and opportunity.

The maps in Figure 20 illustrate the dramatic growth of poverty in Mecklenburg County during the 2000-decade. Tracts with poverty rates between 21 and 45 percent, and above 45 percent intensified along the I-85 and I-77 corridors, especially in the low-wealth suburban crescent surrounding Charlotte’s Center City. By contrast, poverty rates in the wealthy wedge and peripheral areas remained largely unchanged.

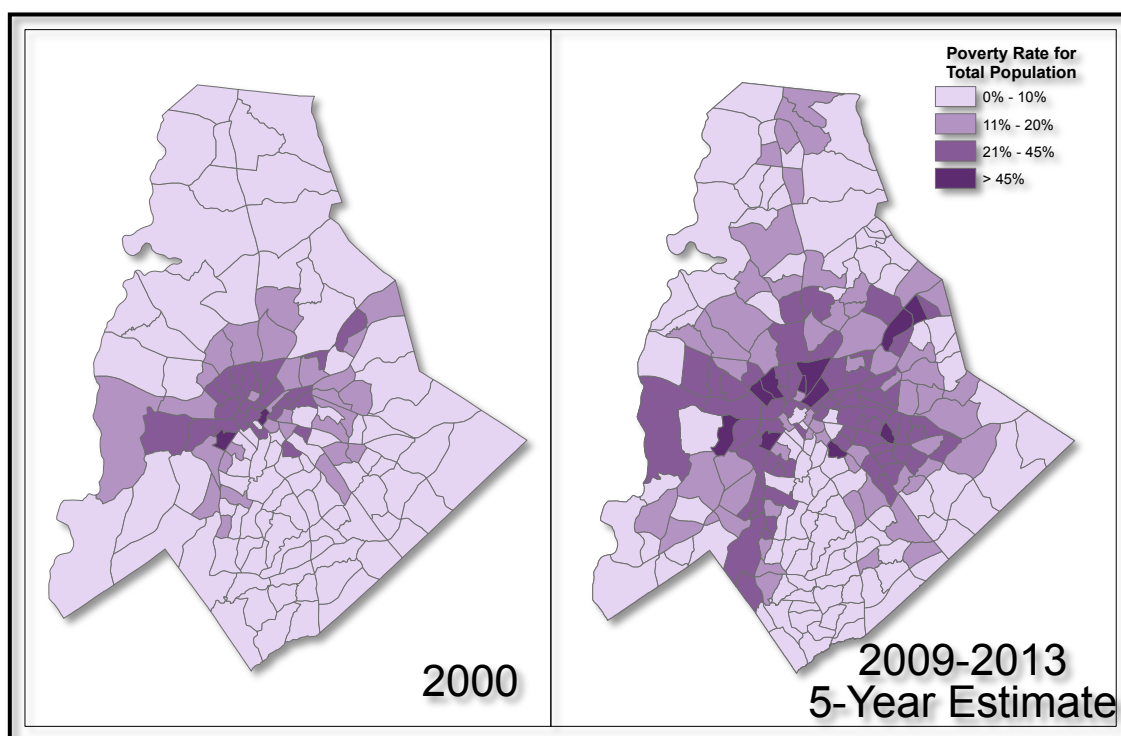


FIGURE 20: Maps of poverty rates in Mecklenburg County from 2000 to 2013. Source: Charlotte-Mecklenburg County Planning.

Florida also discusses a rather disturbing phenomenon characterizing our society. A deep segregation across virtually every economic and social dimension is occurring – something he calls “The Big Sort.” It is a divide between human capital and education. We have reached a point where the current generation is not significantly more educated than their parents. The typical high school graduate now heads off to college, not to



work, learn a trade, or serve in the military. This is a significant shift from the previous two generations and has served to widen the gap between those with higher education and those without, resulting in a loss of status for skilled labor. The Big Sort is also dividing along class lines, with a powerful overlay to race and location. Minorities, including African Americans and Hispanics, have much lower rates than whites of both high school graduation and college education, which are tied to lower wages. Additionally, the United States has a significant prison population, high in minorities, who are not represented in unemployment numbers. Also added to this uncounted number are those who are not seeking work. For example, the actual jobless rate for black, male high school dropouts in their twenties was 65 percent in 2000, and 72 percent by 2004. In contrast, the number for whites is 34 percent, and for Hispanics it is 19 percent. And as of the year 2000, thirty-four percent of black dropouts in their late 20s were in jail. These statistics are indicative of the stark contrasts of the young American experience divided sharply along racial lines.

Compounding these problems, in times of economic downturn children feel the negative effects disproportionately. Child poverty rates are typically higher than the general population, as many children live in single-earner or immigrant households where income losses can plunge a family into poverty (Berube and Kneebone 2006; Gabe 2012). At a rate of more than 25 percent, the U.S. has the highest rate of children living in a single parent household than any other developed country. This is noteworthy, as single-parent families are significantly more likely to live in poverty (Kornbluh, 2012; Gabe 2012). “Children living in single female-headed families are especially prone to poverty. In 2011 a child living in a single, female-headed family was over four times

more likely to be poor than a child living in a married-couple family. In 2011 among all children living in single female-headed families, 47.6% were poor. In contrast, among children living in married-couple families, 10.9% were poor,” (Gabe 2012, p. 6-7).

Stability is needed for healthy child development, but starter home communities are, by their very design, set up for a transient population that moves in and out as their incomes dictate. The National Center for Children Living in Poverty reports that “children living in low-income families are twice as likely as other children to have moved in the past year and three times as likely to live in families that rent a home” (NCCP, 2013).

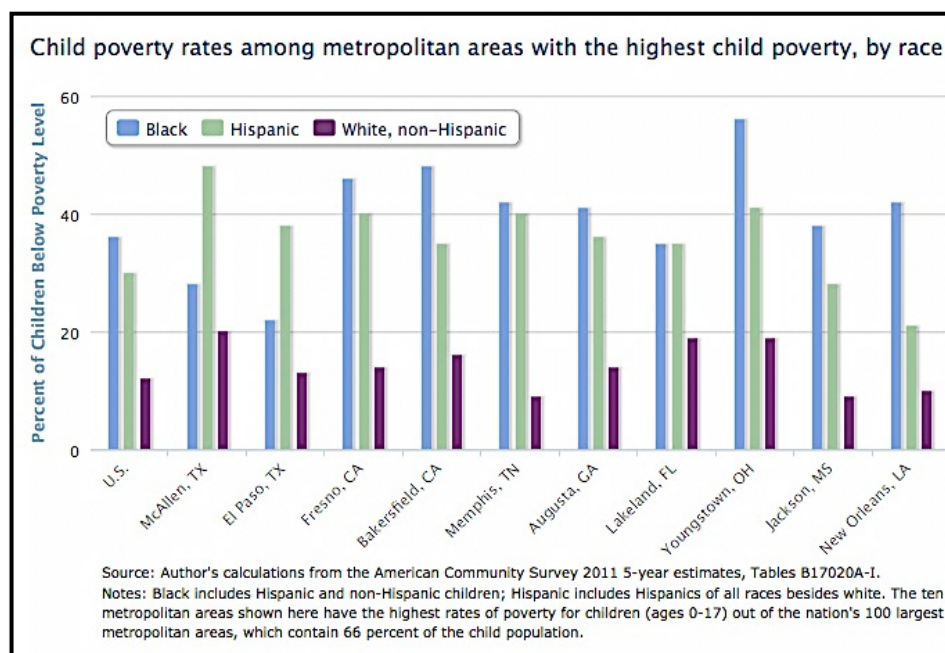


FIGURE 21: Chart of child poverty rates in selected metropolitan areas. Source: Sarah Edelstein, Urban Institute 2013.

Child poverty is not only a problem in large cities. Research by the Center on Labor, Human Services, and Population at the Urban Institute reports that,

... the areas with the 10 worst poverty rates are not even among the 50 largest metro areas. For overall child poverty, McAllen takes the top spot, followed by El Paso, Texas, where a third (35 percent) of children live in poverty... If you were to spend a day in McAllen, Texas, every other child you saw would be living in poverty. The McAllen metropolitan area's child poverty rate is an astounding 47 percent (Edelstein, 2013).

Poverty rates are also typically higher for minority children, as is the case in the ten smaller metropolitan areas shown in the chart (Fig. 21). The U.S. has one of the highest rates of child poverty and third highest single parent household poverty rates among developed nations at just under 50 percent, behind only Luxembourg and Japan (Kornbluh 2012). By 2005, child poverty rose by at least 3.4 percentage points in the South, as compared to 1.6 percentage points in the overall population. "Based on 2011 American Community Survey (ACS) data, poverty rates were highest in the South (with the exception of Virginia), extending across to Southwestern states bordering Mexico (Texas, New Mexico, and Arizona)," (Gabe 2012, p.10).

In the Charlotte Metro area, child poverty rates in the suburbs rose from 10.9 percent in 1999 to 14.1 percent in 2005 (Berube and Kneebone 2006), even though the country as a whole and the Charlotte region were experiencing boom years. That rate continued to increase over the 2000 to 2010 decade, as the area moved into the recession. Even though Mecklenburg County's child poverty rate is lower than the state's overall, it rose at a more dramatic rate. In 2011, the UNC Charlotte Urban Institute reported, "one in five children in Charlotte-Mecklenburg is living in poverty, an increase of 49% between 2008 and 2010. That means that in the last two years, almost 16,000 more children are living in poverty ... [and] African-American and Hispanic children are five times more likely to live in poverty than white, non-Hispanic children," (Loftis 2011).

As shown in Table 2 below, poverty rates in Mecklenburg County increased significantly during the recession years. In fact, 2013 findings by the Brookings Institute indicate that Charlotte’s District 12 had the largest percentage change of suburban poverty of all congressional districts in the nation (Berube et al. 2013). In 2000, the district had a suburban poor population of 621 but had increased to 4,740 by 2011 – an astounding 663% increase.

TABLE 2: Poverty rates in Mecklenburg County, 2008 to 2010 according to the U.S. Census Bureau, American Community Survey. Source: UNCC Urban Institute (Loftis, 2011).

Mecklenburg County	2008		2009		2010		Change from 2008 - 2010
	#	%	#	%	#	%	%
Residents in Poverty	91,961	10.5%	125,976	14.0%	138,893	15.3%	51.0%
Children in Poverty	32,721	13.9%	46,465	19.8%	48,672	21.2%	48.7%
<i>By Race</i>							
White Children in Poverty	11,125	8.7%	15,585	12.1%	14,473	12.4%	30.1%
African American Children in Poverty	16,828	22.6%	19,587	27.7%	26,154	33.2%	55.4%
Asian Children in Poverty	727	7.6%	1,089	10.7%	2,176	20.8%	199.3%
Other Children in Poverty	1,783	13.5%	5,940	48.3%	3,828	38.2%	114.7%
Multi-Racial Children in Poverty	2,258	24.9%	4,200	34.4%	1,604	12.6%	-29.0%
<i>By Ethnicity</i>							
White, Non-Hispanic Children in Poverty	5,447	5.0%	7,500	7.0%	6,153	6.6%	13.0%
Hispanic/Latino Children in Poverty	8,678	24.5%	14,639	39.5%	13,832	35.9%	59.4%

The suburbanization of poverty is mirrored in higher rates of poverty in suburban schools. The maps in Figure 22 show the change in high-poverty, high-minority schools in the Charlotte-Mecklenburg Schools system (CMS). The diffusion of poverty into the suburbs is evident, but there is more to understand about this pattern. Since 1970, CMS was under a mandatory busing regulation to desegregate its schools. The landmark decision *Swann v. Charlotte-Mecklenburg Schools* that created the mandate was overturned in 1997, and CMS was forced to discontinue its desegregation efforts. “In the

fall of 2002, a race-neutral school choice plan was instituted. What followed was essentially a reversal of desegregation” (Simmons & Apaliski 2010). The 2001-02 school year was the last year of race-based busing and the transition to high-poverty, high-minority schools was rapid. Following this change, CMS students within contiguous boundaries were assigned to their neighborhood school by default (Billings et al. 2014). Because Charlotte’s neighborhoods are highly segregated, local schools reflected the same segregation.

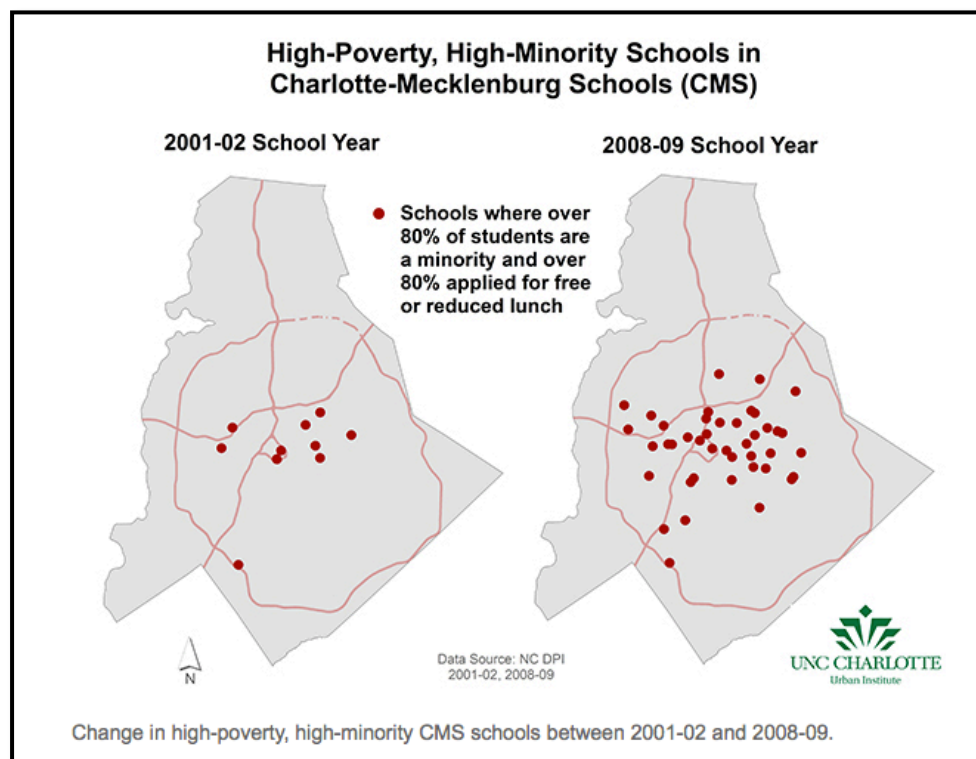


FIGURE 22: Map of change between 2001 and 2009 in the spatial distribution of Charlotte-Mecklenburg high-poverty, high-minority schools. Source: UNC Charlotte Urban Institute.

From the maps, the dramatic increase from 10 high-poverty, high-minority schools in 2001 to 42 by 2008 is clear, as is their obvious absence in the wealthier north,

south, and Matthews-Mint Hill areas. UNC Charlotte Professor of Education Roslyn Mickelson (2001) conducted a longitudinal study on this Charlotte phenomenon and with the study, demonstrated how segregated education impairs Blacks' academic outcomes and maintains the racial gap in academic achievement. Billings et al. (2014) compared students' performance before and after the new boundary changes and school reassignments. They found that as a result of the policy change, Whites and minorities scored lower on high school tests when assigned to schools with more minority students; high school graduation and college attendance rates declined for whites; and crime increased for minority males. Liebowitz & Page (2014) also studied the impact of the *Swann* decision as related to household residential decisions. They concluded that, "for those who moved, the legal decision made white families with children in the Charlotte-Mecklenburg Schools substantially more likely than they were during desegregation to move to a neighborhood with a greater proportion of white residents than their own neighborhood" (from abstract). They also report that higher performing students in White families were more likely to move to a better performing school zone, whereas high performing non-White students' families "are much less likely to move a more non-White zone" (693). These findings illustrate the importance of school performance in neighborhood choice and the strong interaction between the two.

Harvard University's *Equality of Opportunity Project* released findings in January 2014 showing the chances to be very low for children growing up in poverty in Charlotte to rise to affluence. Charlotte ranked last in upward mobility of the top 50 largest cities in the U.S. (Chetty et al., 2014). Specifically, the data show that children of Charlotte's lowest five percent in family income had a slim 4.4 percent chance of reaching the top 5<sup>th</sup>

percent tier. This is in comparison to Atlanta (ranked 48<sup>th</sup> at 4.5 percent), Raleigh (43<sup>rd</sup> at 5.0 percent), and at the top of the list, two California cities (San Jose at 12.9 percent and San Francisco at 12.2 percent).

The increased use of Section 8 portable housing vouchers and rampant predatory lending practices leading up to the Great Recession provided a gateway into newly constructed starter-home neighborhoods for two particular types of homebuyers: investor-owners capitalizing on the convenience of the assured, steady rents afforded by Section 8 voucher holders; and lower-wage, working class families attracted by their affordability and easy financing. I turn now to a discussion of low-income housing, home to our nation's poor and low-wage working class and a common component of starter-home neighborhoods, and Section 8 voucher use and investor owners.

#### 4.2 Low-Income Housing and Investor-Owners

By the late 1800s, American cities were growing rapidly as the churning factories of the industrial revolution generated jobs, which in turn created explosive growth in urban housing. The typical industrial neighborhood was heavily populated with immigrants and conditions were often deplorable. Tenement housing was constructed to house urban dwellers, but it was largely unsanitary, crowded and filled with disease. In cities like Chicago, early housing reform centered on the issues of public health and welfare. There, Jane Addams and her contemporaries laid the groundwork for housing reform with the establishment of Hull House, marking the dramatic transformation of American cities through public housing. Hull House was visionary in the services it offered, which included kindergarten and day care, music and art classes, citizenship training, and an employment bureau. Many others were drawn to Hull House and joined

Addams thereby creating a launching pad for political activism and lobbying for a variety of new social programs, child labor laws, and the establishment of juvenile and immigrants' rights (Garb 2003).

In the 1930s, several housing acts were passed, first establishing the Federal Housing Administration and providing mortgage insurance on loans (1934), then enacting slum-clearance and the construction of public housing projects (1937). The U.S. Department of Housing and Urban Development (HUD) was officially established in 1965 as part of President Lyndon B. Johnson's Urban Development Act and was aimed at solving problems in urban areas. From its earliest years, public housing prohibited "elaborate or extravagant design or materials" (Housing Act of 1949, p. 4, from Heathcott, 2012). Thus, austere high-rise buildings were placed amid sterile settings, typically clustered together in monotonous, architectural rigor. This mid-century approach proved a disaster, as many public housing projects served to concentrate poverty in urban core areas by isolating residents within man-made concrete islands, effectively cut-off from the prospering suburbs.

Today, HUD characterizes housing as affordable "if a low- or moderate-income family can afford to rent or buy a decent quality dwelling without spending more than 30 percent of its income on shelter," and also as "workforce housing" for moderate-income families (HUD 2005, p. 1). HUD's stated mission is to "increase homeownership, promote community development, and expand access to decent affordable housing without discrimination." This mission, with its emphasis on "homeownership" and "community development," differs from HUD's early goals of providing project-based apartment housing. Section 8 vouchers (formally called Housing Choice Vouchers) are a



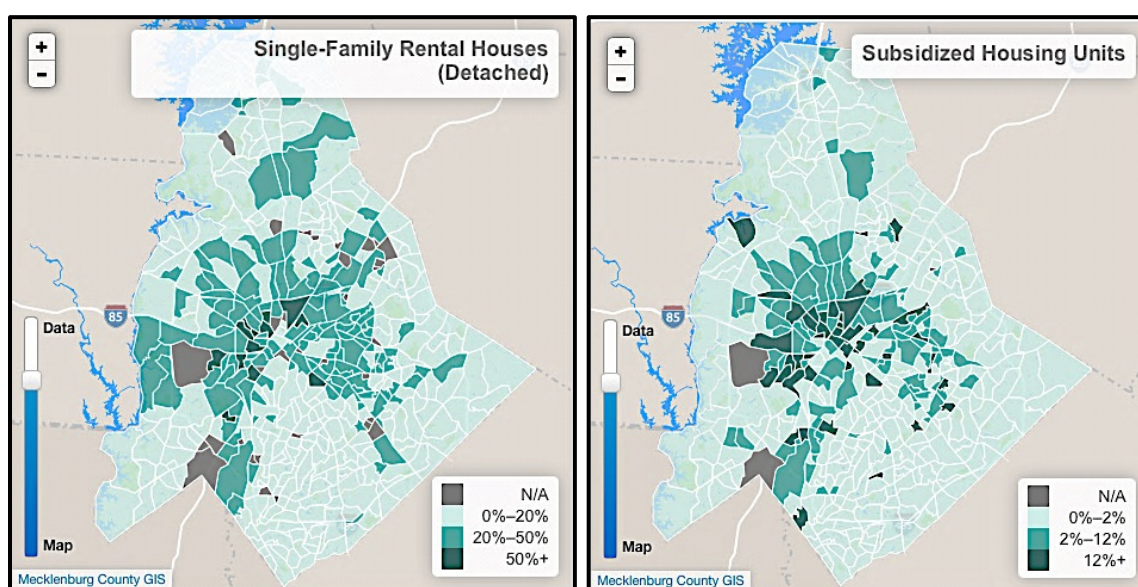
federal program that began with the Housing and Community Development Act of 1974. They provide qualifying low-income families with portable rental subsidies meant to allow them to live in the neighborhood of their choice by renting from a landlord who will accept the vouchers. The voucher program is a purposeful move to blend public housing with significant private involvement. The Charlotte Housing Authority (2013) presents the following voucher background information confirming this approach:

The HCD Act represented a significant shift in federal housing strategy from locally owned public housing to privately owned rental housing. Under the Certificate program, federal housing assistance payments were made directly to private owners of rental housing, where this housing was made available to lower-income families. Eligible families were able to select housing in the private rental market. (pp. 1-8 and 1-9)

According to Vale and Freemark (2012), vouchers surpassed conventional public housing by 1994 and are now about twice its size. They reported in 2012 that 76 percent of voucher recipients were those with extremely low income (below thirty percent of area median income), plus an additional twenty-one percent of voucher holders with very low incomes, those between thirty and fifty percent of the area median income (see note 6, p. 399). HUD's reduction in public support for voucher recipients, coupled with suburban locations marked by poor access to transportation, jobs, and basic amenities, only serves to exacerbate the problems that those in poverty face. During the boom years, investors were drawn to suburban starter-home communities as they presented opportunities to purchase inexpensive homes (often bought in multiples) as rental income properties. The steady stream of income provided by vouchers presented an attractive option for such investors, particularly those that did not reside in the local area.

In 1992, Congress initiated the HOPE VI program to reinvent public housing tower projects as mixed-income neighborhoods. The program is based on the design

principles of the New Urbanism, which reduced high-rise densities by creating human-scaled environments designed to blend into adjoining neighborhoods (Goetz, 2012). Drawing from these examples, the design and siting elements of low-income neighborhoods is crucial to their ultimate success or failure, and this applies to starter-home developments as well. Section 8.3 presents a discussion of design and planning strategies, including New Urbanism.



FIGURES 23 and 24: Single-Family Rental Houses and Subsidized Housing Units in Mecklenburg County. Areas with high percentage of single-family rentals (left) are also those with high percentages of subsidized housing units (right). Source: 2012 Charlotte-Mecklenburg Quality of Life Study.

In Charlotte suburbs, the share of housing choice voucher recipients was 49.0 percent in 2000, falling to 45.7 percent in 2008, reflecting the boom years before the housing crash (Brookings 2013a). As of March 2008, the Charlotte Housing Authority administered 4,681 Section 8 vouchers. This number dropped to 3,992 households containing 11,446 residents in March 2009. Of these Section 8 households, 92.6 percent

were female headed. The 2010 Quality of Life (QofL) Study identified a total of 173 neighborhoods in Charlotte with housing units selected by voucher holders. The vouchers are concentrated in several neighborhoods, though, east and west of downtown.

Detailed reports of Charlotte's subsidized housing programs were prepared by the Center for Urban & Regional Studies at the University of North Carolina at Chapel Hill. These reports provided important findings and are discussed here (UNC 2011). About half of Section 8 units in Charlotte are located in just twenty-two neighborhoods, with 20 percent of the total found in six neighborhoods. By 2013, the number of Section 8 vouchers managed by CHA had risen to 5,400, surpassing the 2008 pre-recession level. The spatial distribution of Section 8 vouchers (Fig. 25) is similar to that of the starter-home neighborhoods studied in this research (see map in Fig. 39). The rise in suburban poverty has been extensively documented, and given the lingering effects of the Great Recession, is a trend likely to continue into the foreseeable future (see Kneebone and Berube, 2013; Kneebone and Garr, 2010; Brookings 2013b).

The map in Fig. 25 shows that of tracts with the highest concentrations of Section 8 vouchers used for public housing or Hope VI projects, there are none in the highest category (121-160), only 3 of 8 in the second highest category (81-120), and 8 of 19 in the third highest category (41-80). The numbers suggest a pattern of Section 8 vouchers more concentrated in privately owned rental properties. Zielenbach's (2006) study of Section 8 voucher programs in Baltimore, Philadelphia, and Washington, D.C. also found that high concentration tracts of Section 8 vouchers tended to be "considerably worse off economically than low concentration tracts" (p. 15), indicating a concentration of poverty connected to the clustering of Section 8 renters.

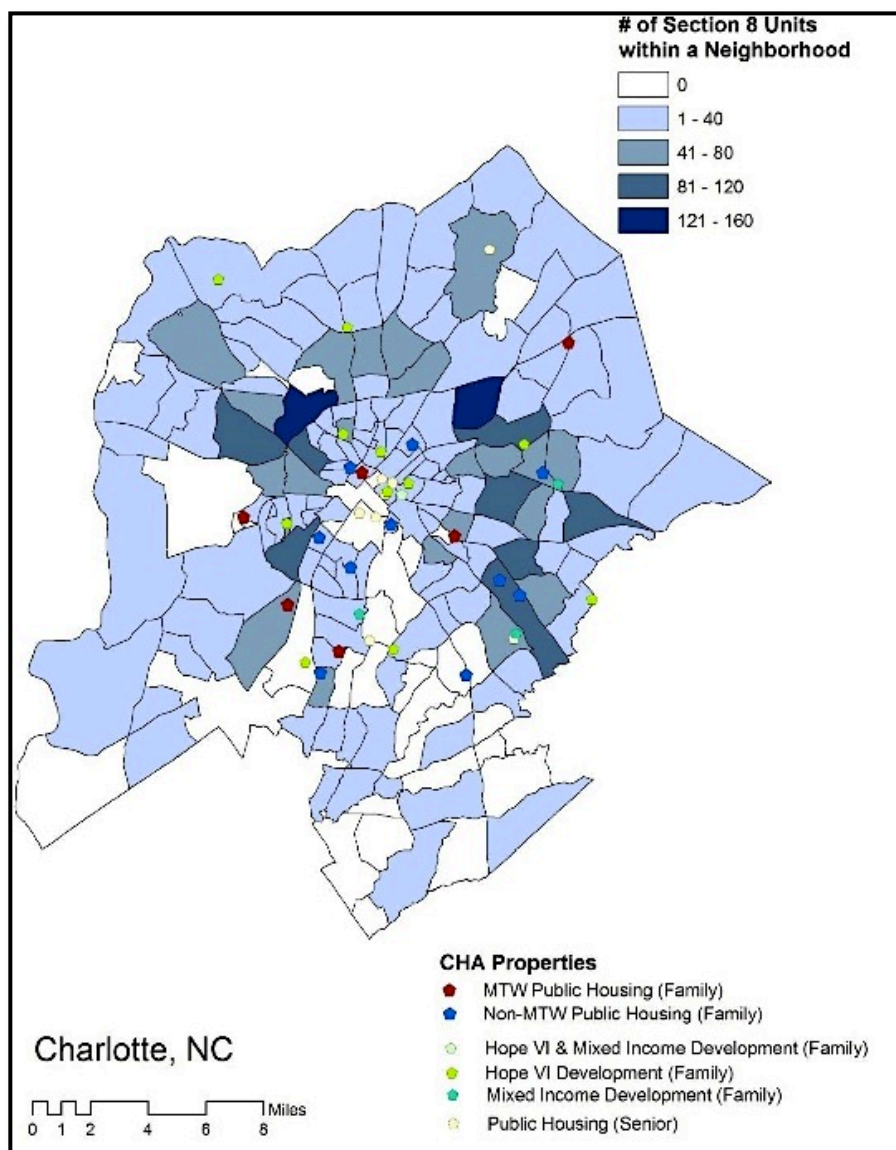


FIGURE 25: Map of the concentration of Section 8 units in Charlotte's neighborhoods. Source: 2011 Charlotte Housing Authority report by UNC Chapel Hill.

Anecdotal reports of a high incidence of marketing to investor-owners in Charlotte starter-home neighborhoods for the purpose of relying on Section 8 renters for guaranteed income seem to be confirmed by local and national news coverage. The local newspaper *The Mecklenburg Times* included an Associated Press (2011) article on this phenomenon and reported,

Many investors signed up tenants with federal Section 8 vouchers, given to low-income families to cover rent in the private market. Keith Wesolowski, who bought five houses, said a sales agent presented the subdivision as “newly constructed houses you can use as rental properties and here’s Section 8. Here you go.”

The article also quoted homebuilder W. Freeman Barber Jr., developer of the Windy Ridge starter-home neighborhood included in this study, as offering “volume discounts to investors who bought multiple homes ... Volume was good, so if somebody wanted to buy more than one house we were more than willing to sell it to them.” This owner-investor trend did not go unnoticed by residents, as expressed in the following quote by a starter-home resident.

Luther Rankin, a former city street maintenance worker who has lived in the subdivision since 2003, recalls being mildly surprised by the age of the property owner who arrived in a new BMW to show him a rental. Only later did Rankin realize his landlord owned four others. “Who gives that kind of money out to at most a 30-year-old unless your daddy is Donald Trump?” Rankin says.

These themes are more fully developed in a detailed discussion of the Windy Ridge neighborhood previously discussed in Section 3.4.

The Washington Post also wrote about the trend of investor-owners and Section 8 vouchers (with a focus on Charlotte) in its article entitled, “Housing vouchers a golden ticket to pricey suburbs” (McCrummen 2011). In the later- and post-recession years, investors were buying foreclosed homes to use as rental properties.

[A]s housing prices keep slipping and the economy remains shaky, there’s been another shift as more landlords view the approximately 2 million American families with a Section 8 voucher — which essentially subsidizes fair-market rent for people who can’t afford it — as among the best ways to fill an empty house.

“It’s guaranteed money,” said David Benham, who owns several rental properties and is a founder of the Benham REO Group, which sells bank foreclosures to investors in 35 states. “It has a great accountability program with the renters. I love Section 8. I wish every one of my properties was Section 8.” (McCrummen 2011)

The article goes on to describe a scene at the Charlotte Housing Authority where the writer accompanied Liza Jackson, a single mother new to Charlotte, looking for housing (Fig. 26). She moved to Charlotte because she could get a larger home here using her voucher.

...[Liza and her family] were at a briefing at the Charlotte Housing Authority office, a normally dreary place that was bustling like a booming real estate firm. By 8 a.m., more than two dozen hopeful people were streaming in, having taken overnight buses from New York, Baltimore, New Jersey and elsewhere, where they lived in public housing, or run-down neighborhoods, or places they hoped to escape.

“I want to be around all this fresh air,” said Evelyn Lifsey, who was moving from a Staten Island public housing project. “My moving truck is on standby.”



FIGURE 26: A family looking for Section 8 rentals in Charlotte’s neighborhoods. Source: The Washington Post.

It may be possible for the Section 8 voucher program to provide benefits for both neighborhoods and low-income families. In difficult economic times voucher holders can help add stability to foreclosure-impacted neighborhoods by occupying vacant homes that may otherwise attract crime while supplying income needed by owners to make house payments and avoid possible foreclosure.

In a trend similar to Charlotte's, Immergluck (2012) found that a large majority of the low-value homes in the Atlanta metropolitan area of Fulton County, Georgia "were purchased by small investors, and purchases of foreclosed homes in low-income neighborhoods were dominated by investor-buyers" (from abstract). Immergluck's study of REO (real-estate owned) properties in 2008-2009 also determined that in low-income neighborhoods more than 63 percent of sales went to likely investors, and in moderate-income neighborhoods, it was more than 38 percent. These rates were much higher than middle- and high-value REOs in the same period. REO sales were also found to concentrate in lower income neighborhoods. In 2011, the Charlotte City Council approved an affordable housing policy intending to diffuse, and not concentrate, affordable housing. The policy says that no neighborhood can have more than 15 percent of its housing as subsidized (Ramsey 2011). Councilman Warren Cooksey was of the opinion that this stigmatizes affordable housing neighborhoods and makes them "unstable." The evidence from these studies tends to support this statement and the idea of limiting the amount of Section 8 rentals and investor-owned properties within a neighborhood.

RealtyTrac (2015) analyzed the sales of single-family homes between 2012 and 2014 to identify trends in sales to institutional investors, defined by RealtyTrac as any

entity purchasing more than ten properties in a calendar year. The four largest institutional investors in the nation are Invitation Homes (owned by Blackstone), American Homes 4 Rent, Colony American Homes, and Fundamental REO. These corporations are backed by Wall Street and private equity and have been buying homes in mass quantity across the U.S. In RealtyTrac's report, "Where Wall Street is Most Likely to Be Your Landlord," Mecklenburg County topped several lists:

- The U.S. County with the third highest number of institutional investor purchases at 8,852.
- One of the counties with populations of 100,000 or more having the highest percentage of institutional investor purchases, which also included Atlanta, Houston, Phoenix, Dallas, Jacksonville, FL, and others.
- The county with the second highest number of purchases (2,548) by the top four institutional investors following only Maricopa County, Arizona, with Harris County, Texas third on the list.

RealtyTrac also described Charlotte as a very attractive market to investors due to a high demand for rentals and good potential for gains when selling these properties in the future. From 2005 to 2010, Charlotte's growth rate in single-family renter households grew by 25.60 percent (Shmit 2012) and RealtyTrac reported that one of every nine homes in Charlotte in 2013 had been sold to institutional investors. Local and national media discussed this trend in various outlets. Investors want the same characteristics in a home that many families want: newer properties (those built in the 1990s or later are ideal) in stable, middle-class neighborhoods with good schools. Vinyl villages—homes with brick facades on the front and vinyl siding elsewhere—are popular. So are houses with a minimum of three bedrooms and two-and-a-half baths, priced between \$40,000 and \$250,000. The less-expensive homes tend to have been neglected or are in distressed



neighborhoods, which can mean more work upfront but larger profits when the housing market improves. (Singe 2014)

Charlotte-area real estate officials say the investors appear to be especially interested in middle-class neighborhoods in good school districts. Anthony Moore, co-owner of Charlotte-based real estate company Pike Properties, said the investors seem to want homes built around 1995 or later.

“Oftentimes they like ... what we call ‘vinyl village’ here, the newer-built homes on slab with vinyl siding,” he said. “A lot of times they really won’t even look at the properties very hard. They’ll literally just buy sight unseen.” (APM 2014)

“A lot of these buyers are West Coast buyers,” said Chad Tate, owner of Charlotte-based Opening Doors Properties. “They can buy a house here for \$50,000 that rents for \$750 a month.” (APM 2014)

Institutional investor sales figures in Mecklenburg County show the substantial extent of their influence, including: 17.70 percent of all sales in 2012; a total of 8,852 homes purchased between 2012 and 2014; and institutional investors own 276,301 single-family homes in the county, equating to 3.20 percent of the total housing stock (RealtyTrac 2015). With big institutional and corporate investors buying multiple properties, their deep pockets make it harder for families to purchase homes. “You can’t compete with a company that’s betting on speculative future value when they’re playing with cash” (Gottesdiener 2013).

The “vinyl villages” mentioned describe the starter-home model, and the average price paid by institutional investors for a home between 2012 and 2014 was \$125,480, within the price criteria of this starter-home study. The institutional investor Blackstone has a strong presence in the Charlotte metropolitan area, where about 5 percent of its properties are located (Figure 27). The share represents approximately 2,000 houses with about half of those in Mecklenburg County (Dayen 2013).

[Blackstone] Sales have been distributed widely across the county, though they've tended to cluster in the crescent stretching from the Steele Creek area, north to Huntersville, then following interstate 485 in eastern Mecklenburg County. Perhaps nowhere are the sales more concentrated than Steele Creek's Planters Walk neighborhood, where investors have bought at least 30 homes in a community of about 700, the property records show. Purchase prices have ranged from about \$110,000 to \$175,000.

Homeowners there are only now starting to become aware of the sales. "All they're looking at is the bottom line. What is that going to create?" Asked David Gersdorff, 43, from his front step last month. He's lived in Planters Walk for 13 years: "are they even going to give a crap about the neighborhood? And what's that going to do to the value of my house?" (APM 2014)

In Dayen's (2013) article, mention is made of the "crescent pattern" of lower wealth surrounding the city center, running along the I-485 Loop, and also including the group of starter-home neighborhoods studied here. The Steele Creeke neighborhood of Planters Walk referenced in the article is one of the included neighborhoods. The maps included in Figure 27 show the locations of investor properties in Mecklenburg County owned by Blackstone. The insets show detailed views of two areas in North and Northwest Charlotte, revealing clusters of Blackstone-owned properties in the same neighborhoods. This pattern increases a neighborhood's vulnerability should an owner of multiple properties enter bankruptcy, have those homes go into foreclosure, neglect or abandon the properties, or decide to put the properties up for sale at the same time.

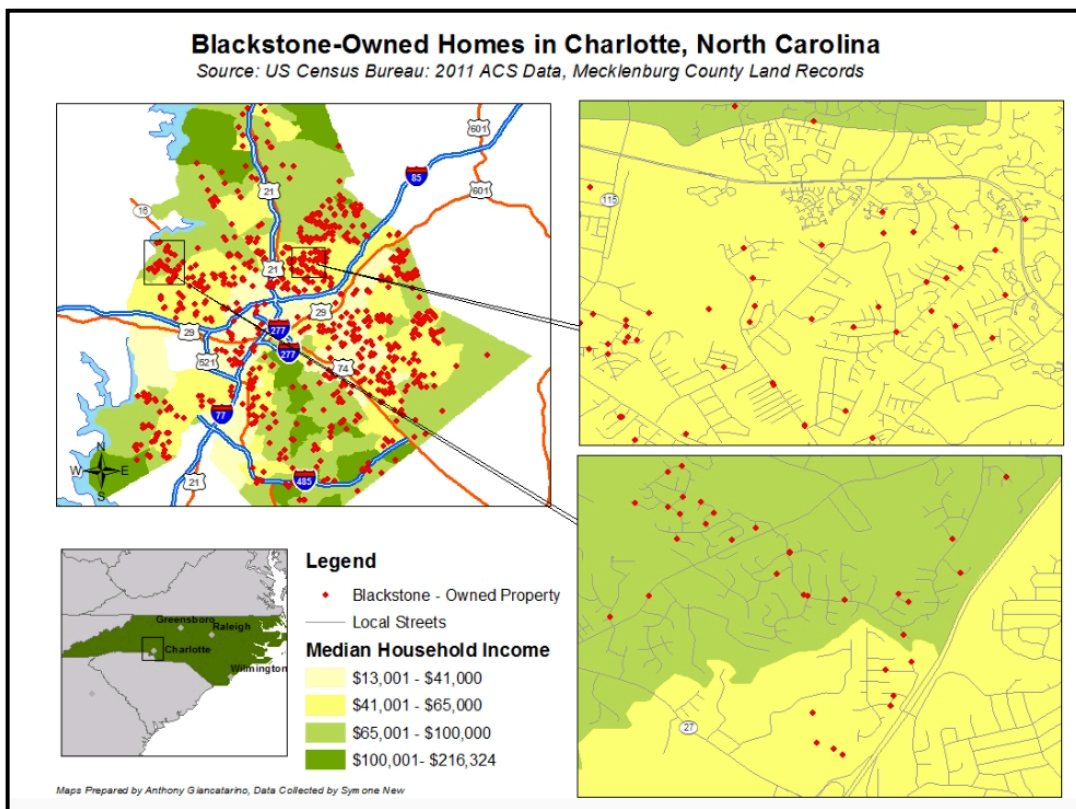


FIGURE 27: About 5% of Blackstone's properties, about 2,000 houses, are located in the Charlotte metro area. Of those, just under 1,000 (pictured above) are in Mecklenburg County. (Map by Anthony Giancattarino, research by Symone New.) In Dayen (2013).

Data show that rates of investor-homeownership grew during the 2000-decade. According to RealtyTrac (2014), home sales nationwide to institutional investors (those entities buying ten or more properties in a calendar year) held steady at about one percent from 2001 to 2003, but jumped sharply in 2004, climbing to over six percent by 2014 (Fig. 9). Over the same time period, sales using conventional loans declined from seven percent to four percent, and home sales to investors as cash purchases grew from four to six percent. Sales to investor-owners will come from all sectors of the housing market, including starter-homes, older existing homes, and multi-family units.

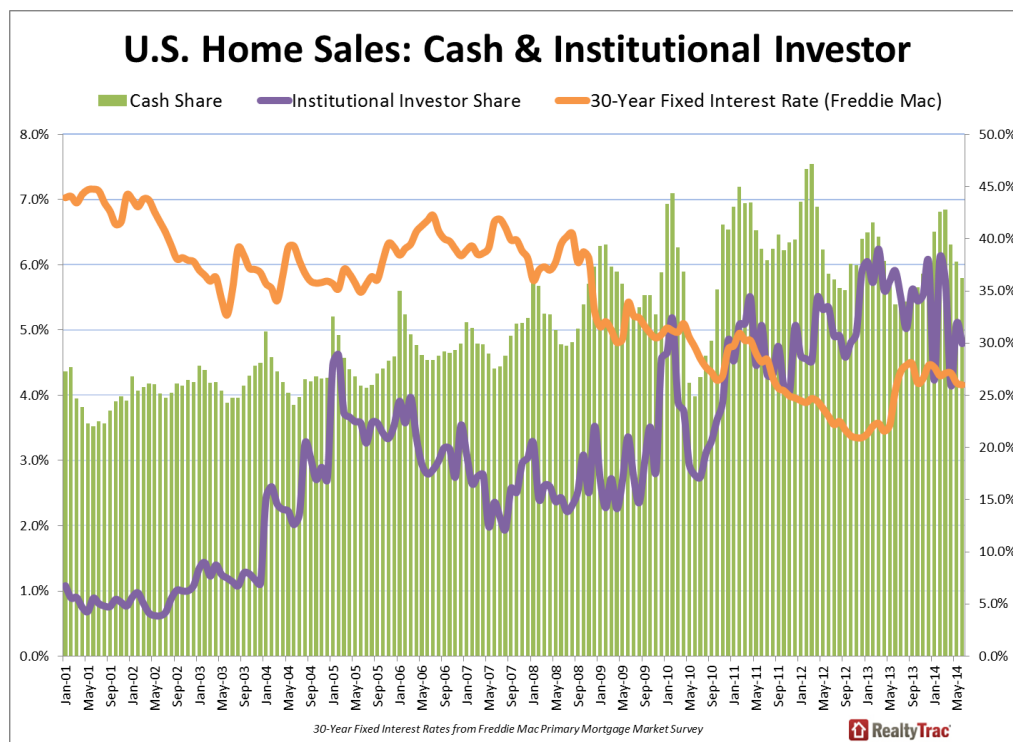


FIGURE 28: Investor homeowner trends since January 2001. Source: RealtyTrac (2014).

The acquisition of mass quantities of rental properties by institutional investors is a matter of great concern. Could these institutions become “too big too fail?” The nation-wide (and even globally) devastating consequences of the collapse of mega-corporations such as Lehman Brothers, General Motors, and Enron should provide sobering lessons.

One of the hottest trends in the financial sector is known as “REO-to-rental.” Over the past couple years, hedge funds, private equity firms and the biggest banks have raised massive amounts of capital to buy distressed or foreclosed single-family homes, often in bulk, at bargain prices. Their strategy is to convert them to rental units for a while before reselling them when prices appreciate. For the institutional investor the eventual goal is to sell their homes. (Dayen 2013)

Should a large “dump” onto a market of these rental properties happen at once, it could produce over-saturation with “the potential to unleash a new wave of declining home

prices,” (Dayen 2013, quoting housing data analyst Michael Olenick). Immergluck (2012) noted such a dumping of REO properties by lenders that occurred in 2008 as the foreclosure crisis and its widespread effects spread. In some REO-to-rental markets like Phoenix, investors have caused a run-up in prices as the number of foreclosure properties left available are dwindling. These trends resemble those leading up to the mortgage crisis of the Great Recession. Dayen (2013) cautions that the Phoenix market may be showing signs of danger, and provides this definition of a textbook bubble:

“...’speculation chasing an appreciating asset’.... This is precisely what we have in reo-to-rental.” The signs of the times are often hard to read, and uncertainty can veil what may later be seen as obvious. Dayen continues, “The big run-up in prices there could collapse as demand collapses, depressing prices and putting the recovery in jeopardy. And any economic downturn would increase rental vacancies and send this entire market reeling. We may not only have a bubble, but already the beginnings of a bust.”

Dayen also points to a major sign that the REO-to-rental practice resembles a speculative bubble: the “REO-to-rental has become a new asset class. Real estate investment trusts (REITs), [a] kind of a mutual fund for real estate that eliminates tax liability for the issuers, have been established as a conduit for capital formation.” REITs are offering higher rates on return in a market with few investable assets for institutional investors. This makes REITs an attractive option. Dayen is even more concerned that,

Wall Street has begun to explore the option of securitizing the rental revenue, much in the way that they used mortgage-backed securities to ramp up capital in the bubble years. Three separate REO-to-rental trusts appeared on the market, under the administration of Wells Fargo, in the past couple months. These are non-public offshore trusts that are unregistered with the SEC, and in all likelihood have no credit ratings, as the rating agencies have this time shied away from rating an unproven product. But they’ve attracted enough interest to move forward. Data from the Federal Reserve Bank of New York shows that

securitization inevitably leads to riskier behavior.

A full investigation into the extent of the investor-owner phenomenon in starter-home neighborhoods is beyond the scope of this research project. It is an element that must be acknowledged, however, and represents an area for future research. Lessons learned from the Recession must not be forgotten, but should be applied to future housing and development trends to work towards a resilient future.

#### 4.3 The Effects of Foreclosures

The factors contributing to the Great Recession of the 2000s are numerous and complex. One way that the Great Recession differed from previous recessions in America was the run up in real estate prices facilitated by easy credit. In all other postwar recessions, “real estate prices remained stable at the national level, even though there were significant drops in areas that had experienced booms” (Aliber 2012).

Another major contributor was the widespread failure of large financial institutions requiring billions of dollars of federal money to avoid complete collapse. Poor, and in many cases unscrupulous, lending practices with relaxed standards and unconventional ‘creative mortgages’ created a pool of at-risk mortgages. Professor emeritus Robert Aliber of the University of Chicago, an expert in financial crises, found that,

Countrywide and Washington Mutual had been extremely aggressive in extending mortgage credit after 2000 as each battled to become the nation's dominant mortgage lender. They weakened their credit standards and became inventive at developing new kinds of mortgage loans that reduced the interest payments that borrowers were required to pay in the first few years, allowing home buyers to take on debts that were large--much too large--relative to their incomes.

The run up in prices with the promise of quick profits enticed Americans to jump onto the real estate bandwagon at an unprecedented scale. Aliber describes an economic

euphoria that permeated the land as it did in the years of the 1920s before the Great Depression. The expectation was that real estate prices would always appreciate. Government sponsored lenders bought and sold mortgages and also supplied “half of the nation’s mortgage money” (Aliber 2012). Freddie Mac and Fannie Mae aggressively purchased mortgages from Countrywide and Washington Mutual, two financial institutions with many high-risk borrowers. Declining real estate prices started in late 2006, and combined with rising interest rates led many developers to ‘dump’ their properties. This drove prices further downward and added to the rising numbers of underwater mortgages. Homes began to flood the market as buyers tried to limit their losses, and as Aliber put it, “the race to the bottom was on.” Mass foreclosures soon followed.

Steven Horwitz, professor of economics at St. Lawrence University, faults governmental interventions and monetary policy, and not the market, for producing “unsustainable growth that had to end in a bust” (Horwitz 2012, p. 65). An expanding money supply and artificially low interest rates caused the Federal Funds rate to fall below zero, “implying that people were being paid to borrow” (p.66). To Horwitz, the unintended consequences of government action through expansionary monetary policy and the bolstering of the housing market led to the housing bubble and resulting bust.

Predatory lending practices, considered a segment of the subprime market, are seen as contributing to the foreclosure crisis (Swanstrom 2012) and were a problem in North Carolina. These practices included such things as high interest rates and closing costs, heavy prepayment penalties, and high loan-to-value ratios. Harvey and Nigro (2004) examined the effect of North Carolina’s anti-predatory lending laws adopted in

mid-1999, the first such state-level legislation to address the problem. Their analysis found that “volumes of both subprime mortgage applications and originations declined significantly” (p. 453) following the enactment of the law when compared to a control group of four other southeastern states. However, the decline was attributed to a reduction in aggressive marketing, rather than lower denial rates – meaning that lenders did not make approval criteria more stringent, as would be expected.

Mortgage fraud was not uncommon, and one of these types of fraud involved recruiting sellers to buy homes at inflated prices from cooperating builders. Mortgage brokers would falsify loan applications (Ludden 2011). Numerous federal investigations into racketeering and bank fraud are ongoing, with millions of dollars stolen from lenders, HUD, and homeowners in the Charlotte area. Mortgage fraud was also common in refinancing practices where lenders charged homeowners exorbitant fees to refinance properties that were often overvalued.

Subprime mortgages using variable interest rates proved problematic for those with limited incomes and fewer resources, the market most attracted to these types of loans. Mortgage payments were initially affordable, with interest rates often lower than fixed-rate loans (Ludden 2011). When interest rates rose, mortgagees could not keep up with their increased monthly house payment. Exotic mortgages were implemented in areas with very high housing costs and incomes, with low interests that would jump after a few years. It was intended that homeowners would refinance before rates rose to keep payments at affordable. Once the housing bubble burst, new loans at lower rates could not be attained and homes would eventually foreclose. Other types of alternative loans included interest-only loans that also relied on the premise that the one would either be



sold or refinanced within a few years. New construction homes frequently offered no down payment financing that appealed to lower income and first time homebuyer groups. Sellers (e.g. builders) provided the down payment but the costs were hidden in “higher costs to the buyer at closing” in order to “reimburse” the seller (Ludden 2011, p. 28).

Waddell et al. (2011) discuss a cohort effect of foreclosure whereby those who know someone who defaulted on a loan are 82 percent more likely to do so, and areas with a high frequency of foreclosure weakens social pressure not to default (p. 4). They also found that prime mortgages are more likely to go into default due to a trigger event, such as job loss or illness. Such was the case in Charlotte where unemployment rates rose higher and faster than anywhere else in the state due to the banking and mortgage crisis. In Charlotte, the majority of its mortgages were prime, with only 14 percent as interest-only, and subprime loans accounting for just over 5 percent of lending. As nearly one-fifth of area mortgages, though, these loans are not insignificant. Lower credit scores, which are more often linked to default on subprime mortgages, typically accompany economically fragile families with few credit options. These fragile families are vulnerable to predatory lending and often turn to starter-home communities where the proliferation of relaxed lending practices makes homeownership possible to those unable to obtain credit elsewhere.

Charlotte’s foreclosure rate of prime, non-interest only loans stayed above the national averages throughout the period of January 2005 through December 2009 (Figure 29). But in 2011, CNN reported the Charlotte metro to be one of ten foreclosure hotspots in the nation (CNN, 2011), and as of December 2012, the U.S. Bureau of Labor Statistics reported Charlotte’s unemployment rate still at 9.4 percent. Between 2007 and 2010,

joblessness in Charlotte suburbs more than doubled (Brookings 2013a), and lingering unemployment has kept the local economy down in some places. The Charlotte metropolitan area had the highest foreclosure rate in North Carolina at the end of 2012, with 2.68 percent of prime loans in foreclosure and another 2.88 percent more than 90 days past due (Feik et al., 2012). The numbers for subprime loans were much higher, with 9.46 percent more than 90 days past due, and another 8.46 percent in foreclosure.

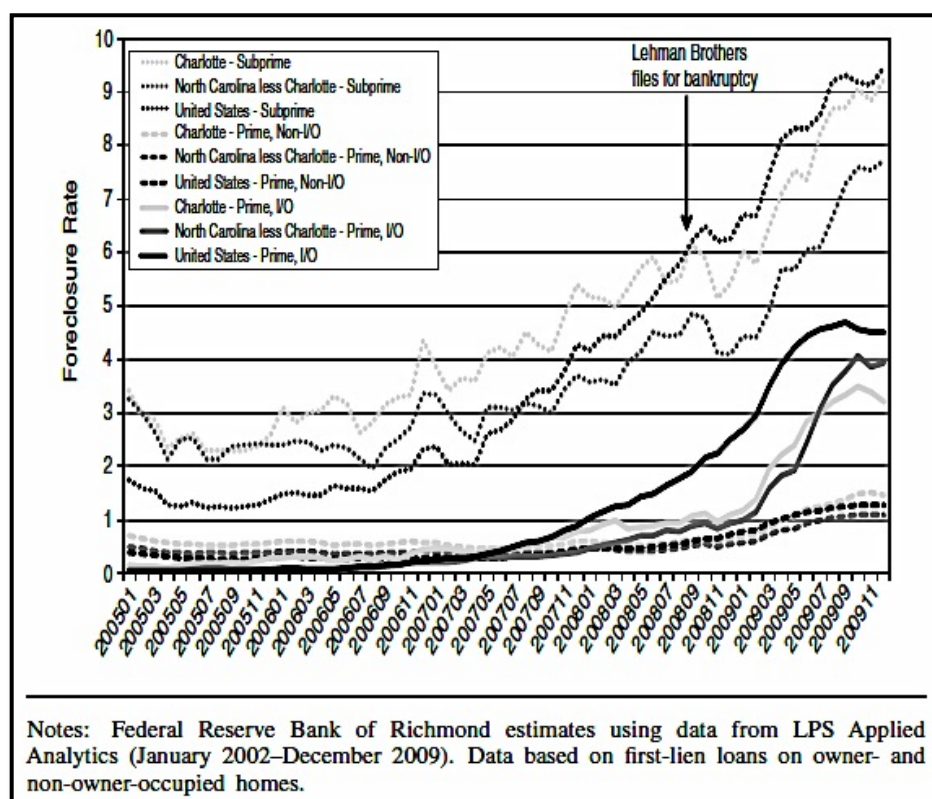


FIGURE 29: Foreclosure Rates by Loan Type, Charlotte, NC. Source: Waddell et al. (2011).

Immergluck (2011) describes two phases in the development of high-risk mortgage lending in the United States. The smaller, first occurrence came in the late 1990s and focused on the refinancing of existing loans, over and over again. The second,

beginning in 2001, combined subprime first purchase, refinance, and alternative (or “exotic”) mortgage loans (p. 246). The use of subprime loans (which include interest-only, adjustable rate loans, and 40-year balloons) expanded in the 2000s, accounting for seven percent of the national mortgage market in 2004, then mushrooming to 29 percent of the market by 2006. Immergluck (2011) writes that in the first subprime boom, “the concentration of subprime loans in minority neighborhoods resulted in large increases in concentrated foreclosures,” (p. 247, referencing Bunce et al. 2001; and National Training and Information Center 1999). Rates of foreclosure on these loans followed suit, rising from 5.8 percent of foreclosures in 1998 to 9.2 percent in 2000, and by 2008 reaching 17.0 percent (p. 248).



FIGURE 30: A typical starter-home community in Charlotte. High foreclosure rates on this street of over 15 percent (three times the national average) are not evident on the surface or through casual observation. Source: Google Maps.

Analyses by Agarwal et al. (2012) confirm the clustering of foreclosures where, “increases in the local foreclosure rate (using the concentration of foreclosures in the ZIP code as a proxy) raises the probability of borrower default,” and “higher concentrations of the more aggressive mortgage products (hybrid ARMS and no- or low-documentation loans) did increase the probability of borrower default,” (p. 20). Lehnert and Grover (2008) show higher densities of foreclosed properties occurring in a doughnut pattern, with higher rates in central city neighborhoods and outlying suburban or exurban communities (in Immergluck 2009, p. 410).

The Center for Responsible Lending (CRL 2008) ranked North Carolina fourteenth in the nation with the highest impacts from foreclosure spillover, with price declines valued at \$851 million (or \$920 million in 2014 dollars). Several studies document the negative impacts that foreclosures have on neighboring property values, especially when clustered (see Immergluck 2009; CRL 2008; Apgar and Duda, 2005; Bianco 2008; Crump et al. 2008). The spillover effects from foreclosure are felt locally, reaching beyond the immediate neighborhood and foreclosure hotspots. Swanstrom (2012) notes three local spillover effects from foreclosure as “declining property values, crime and social disorder, and local government fiscal stress and deteriorating services” (p. 65). Municipalities – whether cities, counties, or school districts – lose tax revenue from abandoned homes and declining property values. In an examination of Federal Housing Administration foreclosures, Moreno (1995) estimated average city costs of \$27,000 and neighborhood costs of \$10,000 for each foreclosure. These costs equate to over \$41,400 and \$15,300 (respectively) in 2014 dollars, and are associated with things such as the demolition of abandoned or vandalized properties, and the increased costs for

fire and police services (King 2009). Cities have also employed a variety of expensive legal approaches to address foreclosure fallout (McKinney 2010).

Other non-governmental agencies often invest considerable time and money into failing neighborhoods. In Charlotte, the City was joined by such organizations, including the nonprofit lender Center for Community Self-Help that came in and focused on the starter-home community of Peachtree Hills. In Peachtree Hills, significant investment was put into finishing sidewalks, increased police and building code enforcement, and a new playground. The Center also bought and rehabilitated thirty homes. Donnetta Collier and Evan Covington-Chavez, coordinators of the Center for Community Self-Help's Peachtree Hills portfolio, were interviewed in an Associated Press (2011) article and described their efforts in the neighborhood:

The worst is a two-story with windows missing and holes punched in the drywall. But the same floor plan sparkles around the corner, where a chandelier hangs in the dining room and Collier has stocked an upstairs tub with olive oil chamomile bath soap.

"It's a great starter house. It really is. You've just got to find the right people," Collier says.

But Self-Help, which expected a commitment of a few years, now expects a turnaround to take longer. Attendance at homeowners meetings has dropped off. And home prices are falling.

"The goal is to stabilize the neighborhood," Covington-Chavez said. "We started that happening and it felt really good to see we were able to make a difference, but then the second wave of foreclosures came in and sort of knocked us back down to reality."

Individual homeowners also experience foreclosure spillover effects in a variety of ways. For example, one homeowner who bought a home in Windy Ridge as a personal residence, plus an additional three as investment properties, described difficulties within just months of taking title when, "somebody broke in and ransacked three of her houses" (Associated Press 2011). After another Windy Ridge landlord went

into foreclosure, their tenants “lost roughly \$5,000 of rent that was supposed to give them an equity stake” towards the purchase of their home (Associated Press 2011).

An in-depth series of articles published in *The Charlotte Observer* over several months in 2007 and 2008 revealed the startling trend of high foreclosure clusters in the Charlotte area. The *Observer* reported that two-thirds of foreclosures in Mecklenburg County were “concentrated in a swath of starter-home neighborhoods mostly north of uptown Charlotte ... with pockets in the east and southwest,” (Chandler and Mellnik, 2007). It was also reported that about 7,000 homes were foreclosed upon in those areas between 2003 and 2007. Overall, 81 percent of Charlotte foreclosures were valued under \$150,000 while only one percent was valued over \$500,000 (Fig. 32). This not only impacts homeowners, but foreclosure for investor-owners means eviction for their tenants. Thus, those in lower- and modest-income groups felt the brunt of foreclosures at a dramatically higher rate than their upper income counterparts. This is consistent with the sales histories of starter home communities I explored in this research, where the majority had been through at least one foreclosure, with many properties experiencing multiple foreclosures in the 2000 to 2010 time period (Fig. 30).

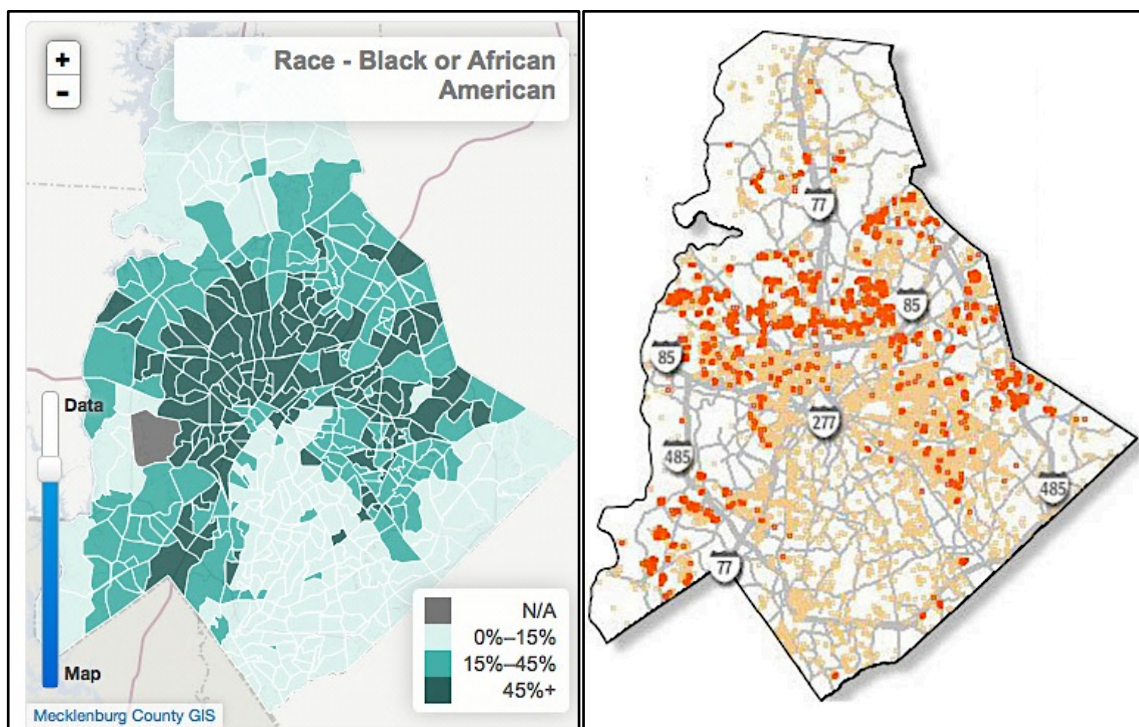


FIGURE 31: Map of Black or African American population in Mecklenburg County. Map source: Mecklenburg Co. Quality of Life Dashboard.

FIGURE 32: The 13,000+ circles on this map represent Mecklenburg single-family home foreclosures and other distressed sales from 2005 through late 2009. Source: The Charlotte Observer July 2010.

Charlotte-Mecklenburg government offices also state that between 2005 and late 2009, more than 13,000 single-family home sales were from distressed sales or foreclosures (Fig. 32). The national and Charlotte area financial pictures began showing tenuous signs of improvement in 2013, and by the end of its first quarter, underwater mortgages (where the amount owed exceeds home values) made up just 13 percent of all residential properties in the Charlotte region. This is much lower than the one-in-five rate nationwide (Stabley 2013).

Unemployment in Mecklenburg County had also declined to 7.7 percent as of October 2013. Market volatility and the number unaccounted for in unemployment

figures make it difficult to predict, though, if these improvements will continue and by how much. UNC Charlotte economist John Connaughton foresees slowing economies for both the U.S. and North Carolina in his June 2014 quarterly state forecast.

Connaughton points to two major factors for the decline. First, the federal government began reducing the amount of mortgage-backed securities and US Treasury bonds in January 2014, from \$85 billion to \$45 billion per month. “This ‘tapering’ has had an effect on mortgage rates, just as the residential real estate market was beginning to show signs of life. This has slowed home sales and home prices during the last two months” (Connaughton 2014, p.5). The second factor is an aging baby-boom work force that as they retire, are reducing the work force, spending less, and collectively “reducing potential GDP and lowering economic growth.”

Immergluck (2010) links higher densities of repossessed bank-owned properties (REOs) in central city neighborhoods with racial and spatial concentrations of subprime lending. He concludes that, “on average, suburban communities located far from job centers have bigger problems with concentrated REO properties than do other suburban areas,” (p. 410). Immergluck (2010) also concludes that “the percentage Black coefficient is positive and significant ... zip codes with greater Black populations are expected to have experienced more REO growth,” (p. 27). An analysis by the Pew Research Center, a leader in social and demographic trends, examined the wealth gap between Whites, Blacks and Hispanics, and found that

...the bursting of the housing market bubble in 2006 and the recession that followed from late 2007 to mid-2009 took a far greater toll on the wealth of minorities than whites. From 2005 to 2009, inflation-adjusted median wealth fell by 66% among Hispanic households and 53% among black households, compared with just 16% among white households. (Pew 2011)



The Pew analysis also reports all homeowners – White, Black and Hispanic – lost value in their home equity during the recession, with Hispanics hit the hardest. “Among white homeowners, the decline was from \$115,364 in 2005 to \$95,000 in 2009. Among black homeowners, it was from \$76,910 in 2005 to \$59,000 in 2009.” From the maps in Figs. 30 & 31 the distribution of foreclosure and distressed sales in Mecklenburg County aligns closely with the areas of high Black populations.

Read & Tsvetkova (2012) performed a cross-disciplinary meta analysis of “housing affordability and the negative social consequences that can result from failing to ensure appropriate housing options are available for low and moderate income families” (p. 3). They document research findings that show children of homeowners were 13 percent more likely to graduate from high school and 6 percent more likely to go to college than children of renters; scored 7 to 9 percent higher on standardized tests; had lower rates of behavioral problems; and noted the well established “linkages between student mobility, housing quality, and academic outcomes” (p. 12). Homeownership also reduces exposure to property and violent crime, increases the development of social capital, and contributes to better health due to better-maintained properties.

#### 4.4 HUD and Private Land Development

Samuel R. Pierce, Jr., Secretary of HUD from 1981 to 1989, created the public-private partnership Joint Venture for Affordable Housing as one of his first tasks in office. The goal of the Venture was to reduce cost impacts from building and land use regulations. HUD released a report of this endeavor in 1986 prepared by the National Association of Homebuilders. It described the results of five years of working with,

...builders and local government officials in more than 30 communities all across the nation to demonstrate that regulatory reform does reduce housing costs. In

project after project, builders have reported cost savings of 20 percent and more through the effective use of innovative site planning, site development and building construction practices. (HUD 1986)

Conferences, workshops, demonstrations, and publications were used by builders to “learn from other builders; successful ideas are copied and used in new ways by other builders in many different areas of the country” (iii). The report contained two demonstration community case studies, one each in Charlotte and Greensboro that had been built following the new program. I examine the Charlotte case study as an archetype of starter-home neighborhoods that followed on a very large scale in ensuing years.

Lynton Place is Charlotte’s HUD affordable housing demonstration project and was originally proposed with 139 primarily vinyl-clad homes originally priced from \$58,000 to \$65,000. It was built on a 59-acre site “available at a not-fully-rezoned price” (p. 13) off Arblemarle Road in Southeast Charlotte. The property was subsequently rezoned to R20-MF Innovative Development, which is similar to a Planned Unit Development (PUD) zone that allows for higher densities and non-standard site requirements. “For the demonstration, the city allowed additional variances to reduce housing costs. These include expedited processing time, increased manhole spacing, surface stormwater drainage, no curbs and gutters, narrower street paving, and no sidewalks” (p. 5). Savings amounted to over \$8,700 per unit, or 15 percent. The development also includes a park with walking trails, ponds, and a clubhouse with swimming pool. The original plan called for 160 condominium units as a way for the builder to recoup costs, but half were replaced with additional single-family homes on zero-lot line lots bringing the total number of detached homes built to 192.

The developer also reported saving approximately 300 trees from the site for later

transplanting. The City's expedited approval process for Lynton Place was achieved through the "cooperation of newly elected Mayor Harvey Gant and City Manager Wendell White [which] was crucial to speeding Lynton Place through the administrative process. Carol Loveless, Assistant City Manager, was specifically assigned to "fast-track" the application through the city and city-county departments" (14). The numerous variances allowed the developer to increase the number of single-family homes to 149, as compared to 90 units if built to the existing standards. The developer's target market were heads of households under 35 with a mortgage ratio consideration so "buyers could now afford to incur debt up to 32% of income instead of the normal standard 28%" (p. 13). The photo in Figure 33 shows an example of a typical home after construction and in Figure 34 homes as they appear in the neighborhood now.

I analyzed the Lynton Place neighborhood using public records<sup>7</sup> to see how it had aged. I found that the average initial sales price of \$83,000 was much higher than that originally proposed of approximately \$60,000. After 30 years, about one-quarter of homes are still owned by the original purchaser (43 of 192). During the recession, 46 homes were foreclosed (24 percent), six of those having two or three each. More than half (26 of 46) of the homes in Lynton Place that foreclosed are now owned by investors. A total of 47 homes in the neighborhood are currently rentals (one-fourth), and of homes sold in 2013 or 2014, the average price was approximately \$80,000. While Lynton Place suffered high foreclosures during the Recession, homes prices did increase during the 2000-decade to an average of \$98,000, but fell back to pre-recession prices where they have remained.

---

<sup>7</sup> <http://vc.charmeck.org>



FIGURE 33: Typical new home when originally built in the 1980s in the Lynton Place community. Source: “The Affordable Housing Demonstration. Two Case Studies.” HUD 1986.



FIGURE 34: Homes in the Lynton Place community as they currently appear. Source: Google Maps, Image Oct. 2011.

The Lynton Place example demonstrates the struggle low-income neighborhoods continue to face in achieving home value appreciation. In its 1991 report on affordable housing, HUD identified regulatory barriers as a significant hindrance to accomplishing their mission of increasing homeownership. This position was reaffirmed in its 2005 report, reiterating that regulatory barriers and public process requirements are the major contributors to increased costs in construction, reduced supply, and higher rents. These findings spurred initiatives aimed at reducing regulations and expediting development processes. This focus may also have played a role in the proliferation of starter-home neighborhoods built during this same time period, and in the decade leading up to it as seen in the HUD affordable housing demonstration projects previously discussed. HUD publications included how-to manuals for builders, such as its *Marketing the MADE-to-Last Home* booklet (HUD 1999), prepared in conjunction again with homebuilders and drawing on their experience to teach other builders. The *MADE-to-Last Home* booklet describes how to build, design, and market entry-level housing, as well as assist with its financing. Within this booklet, builders are told:

Many first-time homebuyers do not realize they can afford a home and continually postpone home-buying decisions. The belief that you must have a large down payment to get into a home is still very common among many potential first-time homebuyers. Builders must equip themselves with the knowledge to dispel these myths. Builders should be familiar with the myriad of financing sources available and take steps to educate potential buyers. (p. 19)

Here, HUD tells land developers to help homebuyers with home purchase decisions, and to act in an advisory role concerning easy financing. Many builders do, in fact, offer package financing for homes on builder-owned lots, thereby enabling higher sales volumes by selling to those unable to obtain conventional mortgages.

The HUD *Made-to-Last* booklet also presents builders with the benefits of non-

conventional lending of “Builder Innovative Financing” in Appendix A; and “Key Concepts for Streamlining Land Development” in Appendix B. The “Pay Grow” Contract is highlighted as an alternative to conventional mortgages with specific advantages for buyers, builders, and lenders. Steps builders can take to minimize land development costs are also outlined. Excerpts from these appendixes are as follows (with emphasis added):

#### APPENDIX A (EXCERPT): EXAMPLE OF BUILDER INNOVATIVE FINANCING

The “Pay Grow” Contract was developed in 1975. Since then about 1,000 new homes have been sold under this plan. Its original objective was to stimulate sales during the 1974-75 recession by **reducing the down payment, eliminating buyer closing costs, a temporary price discount and payments of interest only during the first five years.** In the “Pay Grow” contract the legal title of the property is placed in trust. The buyer is the trust beneficiary and therefore the beneficial owner. This feature gives all parties the ultimate protection against liens, judgments, or inability to make payments. The legal title in trust cannot be directly assailed.

##### Buyer Advantages:

1. As little as 9% down payment.
2. **No closing costs.**
3. **Beginning low monthly payments due to temporary discount and interest only payments.**
4. No risk to the buyer due to the turnback feature.
5. Permits buyer to purchase a home much sooner than usual and participate in its appreciation as well as having its use.
6. 100% of the buyer’s payments is income tax deductible during the first five years.
7. Permits buyer to receive credit for improvements of the property, thereby encouraging improvement.
8. **Offers an important advantage to the short-term owner who must move often. Because of sales and transfer costs and short term limited appreciation, this buyer is often in a position to lose money and is therefore reluctant to buy.**

##### Seller/Builder Advantages:

1. **Increases his market beyond conventional ownership limitations.**
2. Is its own “profit center.”
3. Is a vehicle for a builder to hold on to his homes through several ownerships

- and thereby profit from the long range appreciation and inflation.
4. Is a tax shelter without appreciable reduction in cash flow.
  5. Substantially reduces the cost of property ownership change because of no remortgage or title transfer costs beyond the first.
  6. Provides a hedge for bad economic periods.
  7. Provides a less costly and manageable means of interest subsidy than interest rate buy down programs.
  8. Enables level production and sound growth.

Lender Advantages:

1. Foreclosure proof-loan. Because legal title is in trust, it is unassailable by either buyer or seller creditors.
2. More secure loan. The buyer and the builder are both obligated to make payments on the loan.
3. In case of payment difficulty with the buyer, the builder is on the spot to monitor and service the loan.
4. In case the buyer must be evicted for lack of payment (which can be done quickly), the builder has the means and motive to renovate, care for and resell the property.
5. With one original loan and closing, the property can pass through several ownerships without additional closing and remortgaging costs.
6. Interest rates can be adjusted to market on subsequent sales of each home.
7. Price can be adjusted to market at each subsequent transaction.
8. Builder has a substantial equity in each property thereby tending to assure his initial and continued concern with the quality of the house and the transaction.

#### APPENDIX B (EXCERPT): KEY CONCEPTS FOR STREAMLINING LAND DEVELOPMENT

Over the years numerous task forces and commissions have investigated how streamlining and better coordinating the approval process for new homes might minimize land development costs. Builders and developers working to achieve more effective, efficient can use the list below, and less costly approval processes in their own municipalities.

1. **Central permit information desk/One-stop permitting:** All requirements and permits for land development should be initiated from a single central location.
2. **Ordinance checklists and approval process flow charts:** Ordinances should spell out where to submit applications, which agency has the final approval authority, and what the steps are for the various types of applications.
3. Pre-application conferences
4. Interdepartmental review committees with designated coordinator and

simultaneous reviews.

5. Create a hierarchy or rank projects
6. Specify time frames/limits for reviews, inspection of constructed improvements, and release of performance bonds or guarantees
7. **Minimize the need for multiple public hearings:** The public does not typically need two and three opportunities to comment on a proposed project. A single hearing held by the Planning Commission or equivalent body can provide public perspective that can be evaluated along with other relevant criteria in deciding whether to approve or deny an application.
8. Update ordinances on a regular basis.
9. **Simplify and reduce the number of zoning districts.**
10. Allow and encourage innovative techniques.

Sample floor plans, home designs and lot layouts are supplied in the HUD booklet and bear striking resemblances to actual starter-homes built in Charlotte and observed in my investigation (Fig. 35). Other recommendations from the HUD booklet are in widespread use and consistent with the starter-home neighborhoods in my research project. They are a documented, foundational part of the starter-home model and include: low or no down payments and closing costs; deeds to homes placed in trust; targeting to short-term owners; exotic (i.e. interest-only and adjustable rate) mortgages; one-stop permitting; and checklist planning. The Charlotte-Mecklenburg Planning Department has adopted the one-stop, expedited planning approval process wherein a subdivision plan is automatically accepted if a developer has already been approved to build a similar one in another jurisdiction, like Raleigh, for example. The planning review process is circumvented in such instances.

Based on what we see on the ground, it appears a practice was established for developing starter-home communities that was extended to become the norm through the HUD demonstration projects and the *Made-to-Last* booklet. Writing in 2009, *Forbes* columnists allude to HUD's influence in the home building industry.



In 1992, Congress gave a new affordable housing “mission” to Fannie and Freddie, and authorized the Department of Housing and Urban Development to define its scope through regulations. Shortly thereafter, Fannie Mae, under Chairman Jim Johnson, made its first “trillion-dollar commitment” to increase financing for affordable housing. (Wallison and Pinto 2009).

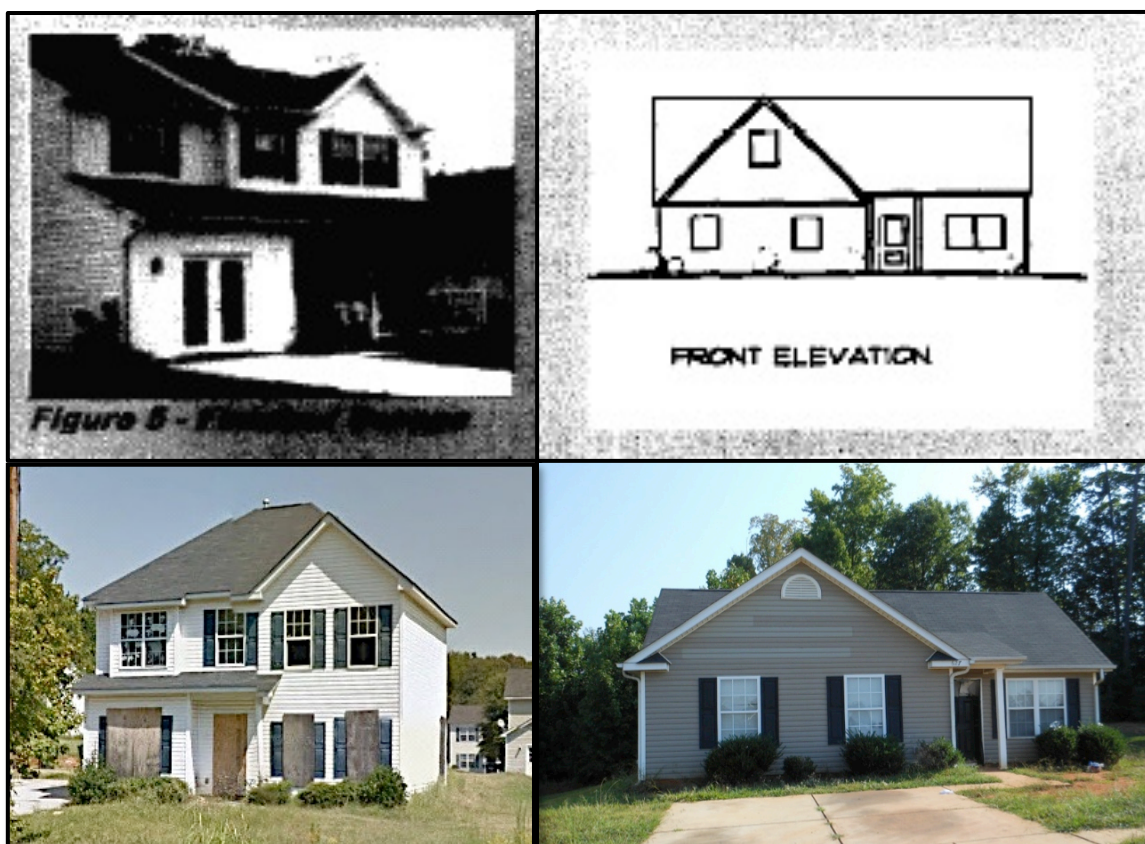


FIGURE 35: Images in the top row show sample house designs included in HUD’s “Made-to-Last” booklet. Photos in the bottom row depict homes built in two different Charlotte starter-home neighborhoods included in the research project. Photos: Google Maps, 2011 (left) and Melissa Currie, 2013 (right).

The HOPE VI program was subsequently created in 1993, and as of 2001, HOPE VI grants represented “an investment in excess of \$4.5 billion in Federal funds ... [and was] used to leverage an additional \$7.6 billion in local funds” (HUD 2001). That leaves a lot of money on the table from HUD’s “trillion-dollar commitment” to be utilized

through organizations like Fannie Mae and Freddie Mac that builders may have tapped into to construct starter-home neighborhoods as affordable housing options. The degree to which HUD's publications, policies and how it went about implementing those policies either influenced, or was influenced by, the starter-home building model cannot be ascertained; but the similarities are so conspicuous they cannot be ignored and suggests an area for future research.

In the years leading into the Recession, increasing pressure to buy a home came from many sources: changing societal norms, peer pressure, heavy marketing by builders and realtors, Fannie Mae, and a consumerist public not wanting to 'miss out'. All economic groups felt this pressure, which reached near mania proportions in the 2000s. The message was repeated over and over, "why rent when you can own a home for less?" – a stigmatization of non-homeowners and a shift in social norms that drove many lower- and working-class families to enter the ranks of homeownership (Wallison & Pinto 2009). Builders and developers have adopted mass marketing strategies including direct mail and door-hangers to recruit new homebuyers. In my own experience, I continue to receive at least one of these advertisements every week at my apartment in Charlotte (see Figure 36). Typical sales pitches from these door hangers include \$0 closing costs and out of pocket expenses, as little as \$500 down, marketing to first time buyers, and a strong emphasis on low monthly payments – as if advertising a rent or car payment – and not the actual sales prices of the homes.

As the financial crisis in the mid-2000s unfolded, it became obvious that sub-prime mortgages were a major contributor to the crash (Denning 2011; *The Economist* 2013). These mortgages allowed homebuyers to "buy" homes they could not afford with



## CHAPTER 5: BUILDING A RESEARCH FRAMEWORK

The scientific method has been an accepted form for scientific inquiry since the 17<sup>th</sup> century, consisting of “systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses” (New Oxford American Dictionary). The scientific method is used to investigate certain observations and acquire new knowledge, which is organized into a body of knowledge (theory). Geographers often attempt to apply the scientific method directly to social issues existing in space in the same way that natural phenomena are examined. But, just because two things occur in the same place at the same time doesn’t mean one caused the other Kitchin (2006). This presents a challenge for spatial and systematic study. What are the underlying relationships, causes, and influences that are an integral part of observed phenomena? Turning to a familiar example, factors like property value or the frequency of a park’s usage depend on both the actual (and perceived) notion of how safe a person feels in a space. This is similar to the public’s aversion to brownfield development. The public is generally averse to risk and fears the unknown, and thus property’s value will be adversely impacted. Whether some environmental toxin actually contaminated a property or if it is just believed to have done so, the result is the same.

Research methods in geography are themselves a study in “change over time,” a study that applies both to what geographers do, and how they do it. Methods employed by geographers have long been a reflection of the theoretical foundation embraced in a

particular era, and the major shifts that have occurred in geographic theory have largely centered on changing methods, such as description, categorization, scientific methods, and spatial analysis (Kitchin 2006). It seems a logical next step to *augment*, rather than supplant, geography's relatively recent (and perhaps most sweeping) revolution of the implementation of quantitative methods (Burton 1963). Such an augmentation flows naturally from the mixing of qualitative and quantitative data, particularly in geographic research that is concerned with people and place. As geographers, we view "places" as not only the physical space occupied; places are also socially produced as a function of life experiences, both the good and the bad (Entrikin & Tepple 2006). The mixing of methods creates an avenue to account for human agency within geographic research, recognizing free will, subjective and situational knowledge, and human interactions. It also allows power relations and researcher bias to manifest. These are all important types of information that can provide a deeper understanding of the observed phenomenon. Such an approach asks "*how, to what extent, and why?*" – not just more superficial inquiries of "*where?*" or "*what?*" (Bradshaw and Stratford 2010).

To view qualitative methods as the *opposite* of quantitative methods is a flawed dichotomy, however. They are research methods that differ from one another as "related to the conceptual frameworks from which they have been derived. In elucidating human experiences, environments, and processes, qualitative methods attempt to gather, verify, interpret, and understand the general principles and structures that quantitative methods measure and record" (Winchester 2010, p. 23). The multidimensional nature of this research calls for a multidimensional approach able to examine elements of the physical design of space, the characteristics of its residents, and the organizations that govern it.

Statistical and observational analysis of these elements can only tell part of the story. The residents themselves must tell the rest, and this can only happen if they are asked.

I turn to Rodaway's (2006) "lifeworlds" humanistic approach as an excellent example of how an authentic knowledge of everyday life is sought by examining how people shape and reshape the spaces they use in their own homes and neighborhoods. Rodaway employed humanistic research strategies in his work, calling them an 'epistemology of the heart' that yielded an experiential knowledge. In addition to background research, such an approach employs qualitative, people-centered methodologies. This data is added through the extensive case study conducted in the Windy Ridge starter-home neighborhood and results from resident surveys of several starter-home neighborhoods (see Appendix B for Survey Guide). Such a mixed-methods approach is especially appropriate in human geography studies. Therefore, I use a combination of qualitative methods in this research, including document analysis, resident surveys, remote and on-site analysis (e.g. ground-truthing), and case study.

Burawoy's (1998) *reflexive science* approach "embraces not detachment but engagement as the road to knowledge...and deploys multiple dialogues to reach explanations of empirical phenomena" (5). Using both quantitative and qualitative methods together further allows the relative strengths of a particular method to overcome the limits of others (James 2006). The totality of this research project is itself an extended case study of Charlotte's starter-home neighborhoods and land development process. Case studies are meant as "theory building exercises" (James 2006, 294) and the project is intended to be adaptable to other local markets to determine if Charlotte is a unique case, or if there is a generalizable implication about the starter-home construction model.

This does not mean that “token replicability” is implied, as Burawoy states, but that the research method is relevant. Flyvbjerg (2006) notes that “power and rationality shape each other and form the urban environment” (219), and this observation is certainly applicable in this study. An examination of institutional power as expressed through housing and zoning policy is included in the research as they directly exercise control over urban form, those who build it, and the people living and moving through it. There is information relevant to the research that cannot be ascertained without the local knowledge that comes from neighborhood residents. This gives rise to the use of surveys to help fill in the gaps. From a critical realist framework, the survey information provides “clues to the underlying structures, causal mechanisms and discourses” (Winchester 1999, 66) of starter-home resilience. Physical elements of starter-home neighborhoods must also come from observation, and in this study, a mix of remote and on-site analysis is combined to generate this layer of data.

Balazs and Morello-Frosch (2013) demonstrate the ways in which community-based participatory research (CBPR) has contributed to science through the “3 R’s,” or rigor, relevance, and reach. I intend to apply the “3 R” principles in this study, although the methods I use are different. The heart of CBPR is to engage communities with academics in a collaborative approach that shares power in the research process. Local knowledge is valued, and the research seeks “to democratize knowledge production in ways that transform research from a top-down, expert-driven process into one of co-learning and co-production. This approach entails infusing local, community-based knowledge with tools and techniques from disciplinary science, often constructively improvising and shifting the research process to better address community-identified

concerns” (p. 1-2). The authors applied such a CBPR approach to environmental health studies in California communities and present the case studies as examples of CBPR’s contributions to science through the 3Rs. They write,

*Rigor* refers to the practice and promotion of good science—in the study design, data collection and interpretation phases of research. *Relevance* refers to whether science is asking the right questions. For environmental health, relevant research emphasizes appropriate causes of exposure and elucidates opportunities for action or change. *Reach* encapsulates the degree to which knowledge is disseminated to diverse audiences and translated into useful tools for the scientific, regulatory, policy and lay arenas (p. 2, original emphasis).

Although I have not been directly engaged in CBPR in this research project, I was prompted through the experiences in Windy Ridge and those of other CHARP team members that are. The challenges CHARP neighborhood partners face and rewarding relationships built through CBPR have helped me recognize structural issues at work within communities. I also share the goals of environmental and social justice inherent in CBPR public health research, whose purpose is to influence land use policy so as to improve the quality of land development and the health of citizens. Adding the Windy Ridge in-depth case study, document analysis, and resident surveys to the quantitative analysis brings valuable perspectives to the data, while aiding in the triangulation of the research – a critical way to assure rigor in scholarship. Each of the 3 R’s are important to qualitative research if it is to be viewed as ‘scientific enough’ for acceptance in the academy. As maintained by Guba (1981), “Relevance without rigor is no better than rigor without relevance” (in Lather 1986, p. 189).

Baxter and Eyles (1997) embrace this structure for qualitative research and further identify four criteria to ensure its rigor. These criteria are *credibility*, *transferability*, *dependability*, and *confirmability*. The authors write, “Triangulation is one of the most



powerful techniques for strengthening credibility. It is based on convergence: when multiple sources provide similar findings their credibility is considerably strengthened” (p. 514). Common triangulation techniques I have undertaken with my research include the use of multiple sources, methods, and theories. The survey and case study data yield verbatim quotations and active participation in the study, helping ensure rigor and relevance. Multiple data sources consulted include:

- The 2012 Charlotte-Mecklenburg Quality of Life Study
- U.S. Census Bureau Data
- Remote- and on-site assessment of the physical characteristics of the study neighborhoods (Ground-truthing)
- Qualitative data gathered through case studies and surveys
- Document analysis of land use policy and HUD publications

Diverse fields of theory were also explored to provide an interdisciplinary grounding for the research, including geography, planning, architecture, resilience theory, and sociology. This research adds to the conversation in resilience literature (that has focused on a larger-scale perspectives) addressed at the neighborhood level, which is less studied and understood. The project also has implications for planning, urban design, and land use practice through the examination of already built developments to glean lessons that can be applied to future neighborhoods.

Stakeholder input strengthens the research’s *confirmability* (defined by Baxter & Eyles, 1997) as the extent to which biases, motivations, interests or perspectives of the inquirer influence interpretations); as well as its *dependability* (defined as the minimization of idiosyncrasies in interpretation and variability tracked to identifiable

sources). The research ensures its *transferability* (defined by B&E as fitting within contexts outside the study situation) as it is designed for replication in other cities using locally based data and definitions.

*Relevance* is achieved through community involvement, where feedback can inform changes that might be needed to help assure the research questions are *relevant* to pressing policy issues important to starter-home neighborhoods in the Charlotte area.

*Reach* is achieved through publications and presentations of my research, and by developing a theoretical set of criteria that can be used in the assessment of potential developments and as a predictor of their future success and problems. Planners and policy makers can use this tool to assist them in land use decisions leveraged by resident's voices.

### 5.1 Research Questions and Hypotheses

Starter-home neighborhoods have an important role to play in providing workforce and affordable housing, but good community planning is still needed to create healthy, resilient neighborhoods. Mixed-use and mixed-income developments are part of the theoretical frameworks of several urban design theories (see Section 6.3), but in everyday practice the marketplace and policy climate allow for single use areas to be built without regard to urban design theories. Based on the review of literature and observations over the course of my professional career, I hypothesize the following:

1. The Great Recession revealed vulnerabilities within starter-home neighborhoods that impacted home values.
2. Some of those neighborhoods remained stable, following the overall trend of the Charlotte market, whereas some did not. The neighborhoods can be divided into two groups based on their ability to maintain home values in line with the local market.

3. There is a group of specific factors that impacted the resilience of these two groups in different ways and contributed to the instability or stability of some neighborhoods.

The purpose of this study is to evaluate research results to identify and describe predictors of stability and instability, and thus resilience, in starter-home neighborhoods. In addition to an expanded understanding of neighborhood-level community resilience, this research will enable the development of recommendations for subdivision review processes that promote more resilient starter-home developments. The research proceeded in the following manner:

- 1.) Assembled a database of starter-home sales meeting the defined criteria;
- 2.) Devised a mechanism to divide starter-home neighborhoods into two subgroups: stable and unstable based on a local threshold to determine the presence or absence of the disproportionate effect described above
- 3.) Examined the change over time during the 2000 decade in order to capture the effects of the Great Recession on the starter-home neighborhoods identified in this study;
- 4.) Assessed the stable and unstable groups using statistical modeling to identify which factors are significant in both groups;
- 5.) Conducted a policy review of the Charlotte-Mecklenburg zoning ordinances using discourse analysis;
- 6.) Conducted remote and on-site analysis of the 60 starter-home neighborhoods using a windshield survey I developed for this project;
- 7.) Conducted surveys with 30 residents to gain a variety of perspectives on starter-home development in Mecklenburg County during the 2000 decade; and
- 8.) Described the results in the dissertation including reflections on policy implications.

## 5.2 Defining starter-home neighborhoods

In order to undertake this research, a definition for starter-homes is first established. The starter-home criteria is determined by local real estate markets. What is

considered a starter-home in the San Francisco area (one of the most expensive markets in the U.S.) will differ greatly from one in the Greensboro, North Carolina area, for example. In the Charlotte, Mecklenburg County area, such developments are characterized thus: nearly identical homes priced at \$150,000 or less; neighborhoods lacking housing choice (i.e. no mixed housing types such as condominiums along with single-family detached houses); and lacking a range of house price points and square footages or sizes. The research is limited to neighborhoods built between the years 2000 and 2010. This decade is chosen to capture the effects of the Great Recession as the stressor event on starter-home community resilience.

In accordance with this definition of starter home neighborhoods, apartment and other multifamily developments are not included in the analysis, nor mixed-use neighborhoods containing commercial/retail spaces or a mix of housing types with varying price points, such as entry-level homes with move up opportunities to larger ones. Only neighborhoods located within the limits of Mecklenburg County are included in this analysis.



FIGURE 37: Patterns of starter-home neighborhoods are easily discernable in the aerial view using Google Maps. Once a potential study neighborhood was identified, a closer inspection ensures the neighborhood meets other starter-home criteria, such as only residential uses with single-family detached houses.

### 5.3 Data and Methods

As previously discussed, I employ rigorous, mixed research methods including statistical analysis, case studies, surveys, remote and on-site analysis, and policy review to examine the economic, social, and physical patterns present in starter-home neighborhoods. I include both the context of starter-home neighborhoods and the experiences of their residents. This approach will help provide the insight needed to enhance the approval process and construction of new neighborhoods in the future while demonstrating additional rigor in geographic research.

The starter-home neighborhoods included in my research were first identified through a visual analysis of satellite imagery of Mecklenburg County using Google Maps. This facilitated the assessment of the overall neighborhood to ensure that it did not contain mixed uses (such as a combination of multifamily and single-family homes or commercial uses). The cookie-cutter pattern of these neighborhoods makes them easy to distinguish in aerial view (Figure 37). Once a potential neighborhood is identified, individual home sales prices and the year built are obtained using Zillow ([www.zillow.com](http://www.zillow.com)), a home and real estate online searchable database. A benefit to using the Zillow database (tied directly to the Mecklenburg County tax rolls and sales records) is that each home's record includes its sales history, which allowed me to eliminate those neighborhoods where homes initially sold for more than \$150,000 or were built prior to 2000. Additionally, Zillow displays the homes meeting the specified criteria on a dynamic map, which allows a simple exploration of the neighborhood sales data at street level (Figure 38). Neighborhoods that meet the starter-home definition form the foundation of the database.

Once qualifying starter-home neighborhoods were identified, their stability was assessed based on the degree that home values were retained since originally built. To do this, a threshold was determined based on the local market trend over the study time period. The Standard & Poor's/Case-Shiller Home Price Indices are "the leading measures of U.S. residential real estate prices, tracking changes in the value of residential real estate both nationally as well as in 20 metropolitan regions" (S&P Dow Jones Indices 2014). The Case-Shiller Index includes the Charlotte Metro as one of the 20 regions it tracks, and therefore was used to set the threshold determining stability or instability.

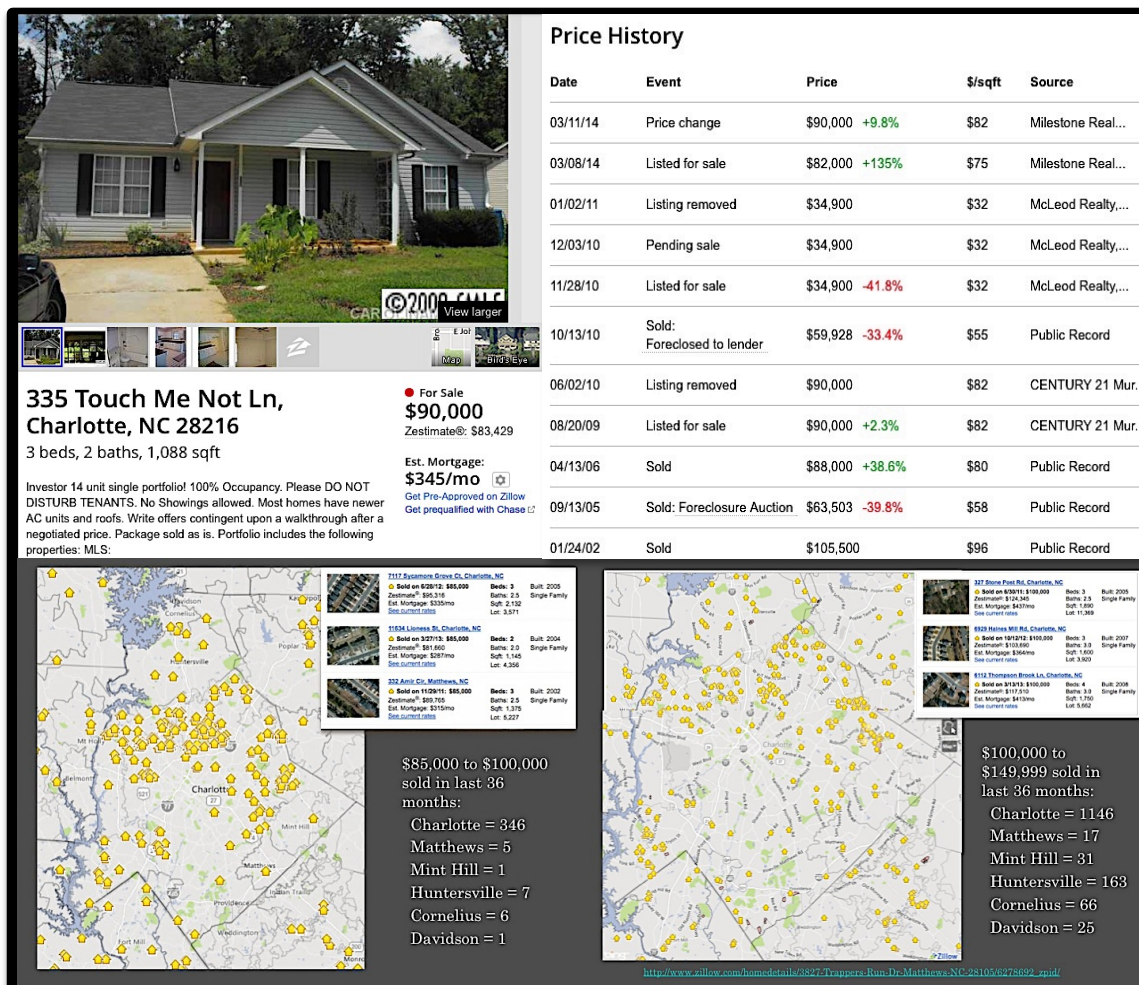


FIGURE 38: Examples of starter-home search results using Zillow. On the left, the price history is shown of one property. Note that the description identifies the home as one a 14-home, single investor owned portfolio. On the right, examples of search results meeting starter-home criteria shows the “crescent” pattern around the central Charlotte-Mecklenburg area, with a noticeable lack of starter-homes in the southerly “wedge.”

The percentage change in value for homes within a neighborhood is calculated as the difference between the median initial sales price and the median of the most recent sales prices. The percentage change is used to operationalize resilience at the neighborhood level. Neighborhoods categorized as unstable have not followed local market trends while the stable fall within it. The Case-Shiller Index identified the average change in



Charlotte's home prices as negative 15.4 percent since the Recession's peak in August 2007 to April 2013, the point at which data gathering for this investigation began (Fig. 39). Based on this threshold, a community is considered "stable" if the median home value lost is less than or equal to 15 percent; all others are considered "unstable." This determining criterion resulted in 17 neighborhoods coded as stable and 43 as unstable. The ability to maintain stability in home value after sustaining economic shock from the Great Recession is an appropriate proxy for neighborhood resilience. It is an indicator of economic viability, identified in the body of literature as needed for community resilience. By using local market values and sales trends as the basis for my research project, it is possible to replicate this study in other locations to determine if the phenomena observed is unique to Charlotte, or presents results that are generalizable to other metropolitan areas.

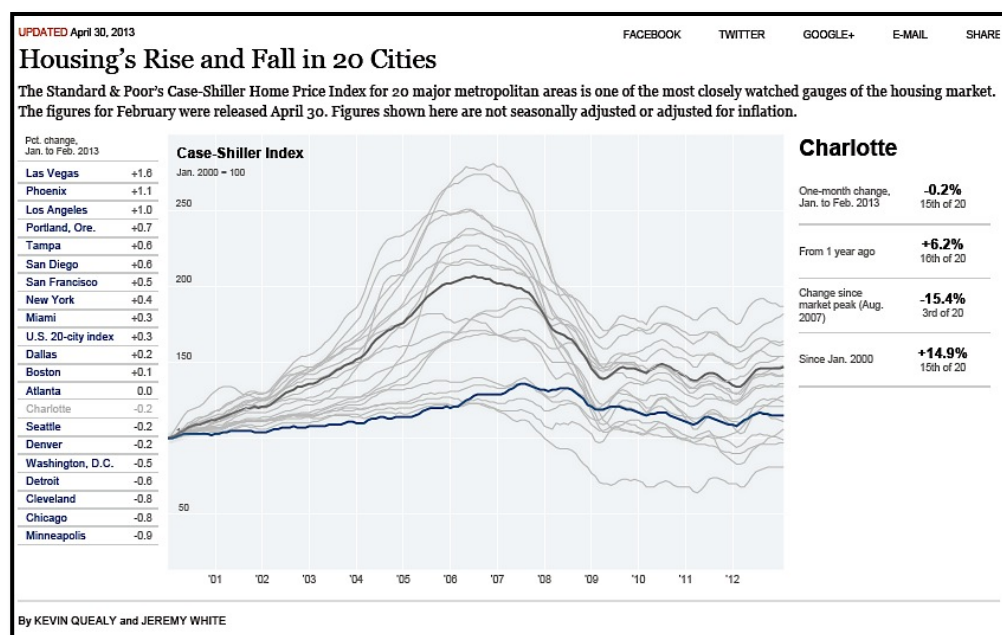


FIGURE 39: Graph of Standard and Poor's Case-Shiller Home Price Index showing Charlotte's housing trends since 2000 (in blue) as part of twenty major U.S. metropolitan areas. Source: K. Quealy and J. White, NY Times.



A minimum of the five most recent sales meeting the limiting criteria are chosen as representative of each neighborhood, and the median initial and current sales prices are computed, along with the corresponding year built. This information forms the database of the more than 980 starter home sales across Mecklenburg County. Data points in neighborhoods that otherwise meet the criteria but contained fewer than five sales, or are in addition to the five most recent, are included in the overall sales database and reflected in the graph of home sales (Fig. 42). Mapping and spatial statistics using ArcGIS reveal the geographic implications of their locations.

The location map (Fig. 40) shows the spatial distribution of the study neighborhoods, with a noticeable (and often referenced) crescent and wedge pattern. The “crescent” envelops the lower wealth, first ring suburbs around the central business district, and the “wedge” houses wealthy South Charlotte (Fig. 41). This wedge contains many of Charlotte’s most expensive and older neighborhoods, an area predominantly urbanized prior to 2000. When applying the search criteria, potential locations did not fall within this area.

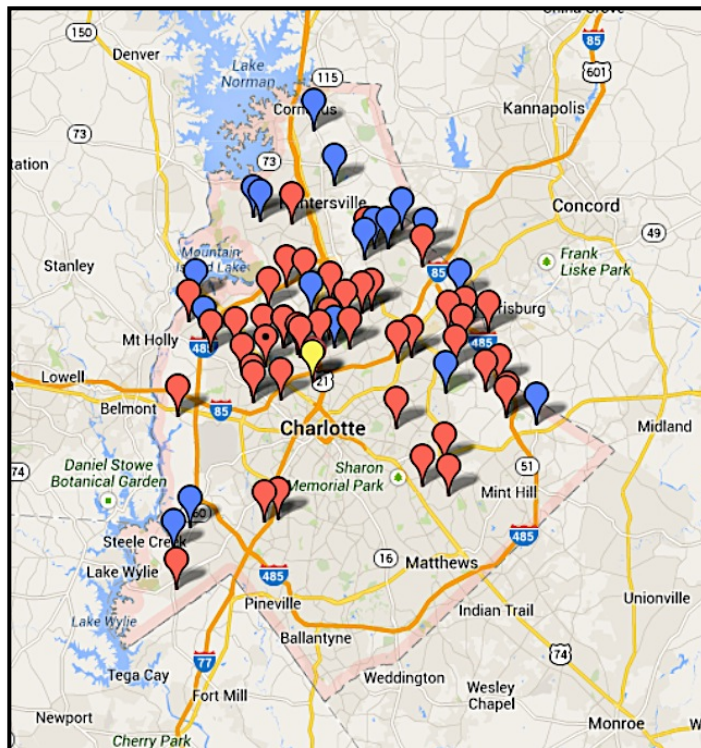


FIGURE 40: Locations of the 60 starter home study communities in the Charlotte-Mecklenburg area. Blue = stable; Red = unstable. Windy Ridge is shown with a black dot in the center. Source: Google Maps, customized by the author. [Note: Yellow marker in center is a placeholder only.]

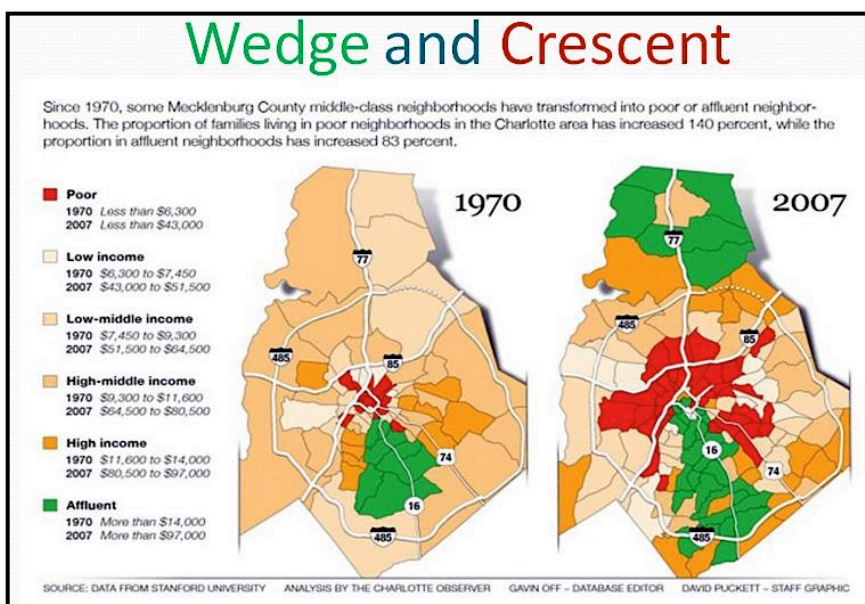


FIGURE 40: Diagram of Mecklenburg Co.’s “Wedge and Crescent” wealth distribution changes from 1970 to 2007. Source: K. Quealy and J. White, NY Times. (WFAE 2013)

## 5.4 Justification for the Research

To assess if starter-home neighborhoods were disproportionately impacted by the recession, their sales trend was compared to the local market. Monthly median home sales data beginning in January 2000 for both the City of Charlotte and overall Mecklenburg County were used to create the needed baseline comparison trends. The three sales trends, Mecklenburg County, the City of Charlotte, and the study starter-home neighborhoods were then graphed for comparison (Fig. 42).

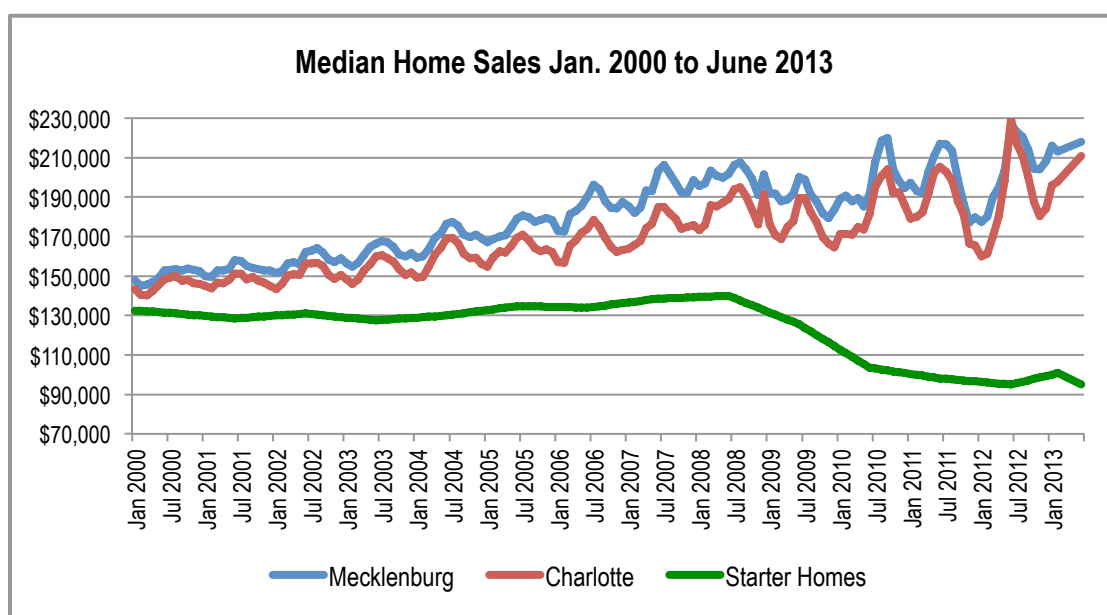


FIGURE 42: Median Home Sales for the Charlotte Area, Jan. 2000 to June 2013. Data obtained from Zillow sales histories. Graph by the author.

The graph shows median home sales data for Charlotte (in red) and Mecklenburg County (in blue) as obtained from Zillow, and the starter home trend line (in green) generated from the median sales prices for each year of the database I built for this research. Median sale prices in the City of Charlotte are lower than those within

Mecklenburg County as a whole, and starter-home neighborhood sales are below both the Charlotte and Mecklenburg medians. The trends follow a similar, generally upward path until mid-2008, which approximates the peak of sales values in starter-home neighborhoods. From this point onward, prices declined sharply while those in Charlotte and Mecklenburg County continued in an overall upward direction.

What is striking from the data is the lack of rebound in starter home sales prices. Initial median prices in the three categories in 2000 differed by approximately \$15,000. By December 2013, the differences between median sales prices had distanced substantially and are as follows: Charlotte at \$210,800; overall Mecklenburg County at \$218,000; and starter homes at \$96,108. Starter home median sales were 54 percent lower than the Charlotte median and 56 percent lower than the county median (Table 3). The comparison of the overall change in median sales prices from 2000 to 2013 shows that there are stark differences between the markets.

In 2000, the starter-homes were selling for about \$15,000 less, approximately 10 percent, than the City and County homes. By mid-2013, however, the difference was around \$115,000 – an astounding divide. Charlotte and Mecklenburg County homes passed through the deepest part of the recession and have been steadily rebounding. Their markets have posted substantial, overall positive growth. Prices in starter-home neighborhoods, however, are still in recessionary lows, having dropped by over 26 percent in the same time period with no rebound. The startling findings became the driving force for my research project. Why was such a phenomenon occurring? Did all starter-home neighborhoods fare the same, or was there a group within this subset that

remained consistent with the local trend? And, for future research, is it a trend happening in other places besides Charlotte?

TABLE 3: Median Home Values and change over the time period January 2000 to December 2013.

	Charlotte	Mecklenburg Co.	Starter-Homes
Median price sold at start of 2000	\$ 143,300	\$ 147,800	\$ 129,983
Median price sold, June 2013	\$ 210,800	\$ 218,000	\$ 96,108
Overall percent change	+ 47.11%	+ 47.50%	- 26.1%

## CHAPTER 6: DATA ANALYSIS

### 6.1 Statistical analysis

All data was measured at the neighborhood-level with the first four variables (YrBuilt, InitialSale, CurrentSale, PctValChg) based on sales records personally gathered using Zillow. All remaining variables and associated data were obtained from the 2012 Charlotte-Mecklenburg Quality of Life Study<sup>8</sup> (QofL). The QofL dashboard is a free, open-source, online interface. The QofL database is a valuable tool to evaluate various conditions in Charlotte's neighborhoods. It was first launched in 1993 and is now updated biannually. The QofL database is managed jointly by Charlotte-Mecklenburg municipalities and UNC Charlotte. The 2012 QofL database breaks the entire county down into 464 neighborhood profile areas (NPA)s using 2010 Census block group geography and input from residents as to how they define their neighborhood boundaries. Each NPA is measured using 83 variables within 8 dimensions, including character, economics, education, engagement, environment, health, housing, and safety (see Table 4 for a complete list). The sales data points were aggregated by geographic location and matched to the corresponding NPAs using street addresses. This totaled 60 NPAs and the corresponding neighborhood-level data was then extracted (see Appendix A for a complete list of the NPAs included in this study). The 60 starter-home NPAs represent a total population of 154,767 people, 57,482 total acres, and 59,154 total housing units.

---

<sup>8</sup> <http://maps.co.mecklenburg.nc.us/qoldashboard/>

TABLE 4 - List of Variables and Descriptions with county averages where applicable.  
Data source: 2012 Charlotte-Mecklenburg Quality of Life Study.

UNITS	VARIABLE	DESCRIPTION	CO. MEAN
date	YrBuilt	Starter-home median year of construction	n/a
\$	InitialSale	Starter-home median initial sales price	n/a
\$	CurrentSale	Starter-home median current price	n/a
%	PctValChg	Percent change initial median to initial current	n/a
1,0	Stable	1=Stable; 2=Unstable	n/a
Number	population	Population in the NPA	1986
years	median_age	Median age within NPA	35.32
acres	area	Area of NPA	752.26
%	developed_land	Percent of developed land in the NPA	85.41
du/ac	residentialdensity	Number of housing units per acre in the NPA	1.98
years	age_death	Average age of death within the NPA	67.22
dollars	singfamprop_val	Average tax value (includes SFD, condos, townhomes)	196,906
Date	year_built	Average year built (single family housing)	1979.37
Sq. Ft.	commercial_perm	(total sq. ft. new and renovated commercial Buildings)	50,067
Date	commercialyr_blt	Average year built (commercial)	1983
Therms	gas_consumption	Average monthly gas consumption	53.52
Sq. Ft.	heated_sqft	Average sq. ft. of single family homes	2027.68
%	commute_time	Percent adult workers with >=30 min commute	34.85
%	drive_alone	Percent 16yrs or older driving alone to work	76.2
%	dropout_rate	Percent dropouts in CMS	3.16
%	chgresprop_value	Change in residential Property Value	1.08
%	impervioussurfac	Percent of impervious surface in the NPA	18.51
%	Unexc_absences	Percent CMS students with 10 or more unexcused abs	10.95
%	transitproximity	Percent housing units w/in a half mile of a transit stop	77.1
%	rental_units	Percent of single-family rental dwellings	19
%	foodstamps	Percent of population receiving FNS	17.36
%	foreclosures	Percent of residential foreclosures	1.39
%	employed6_mos	Pct Workforce 16-64 working < 26 weeks in past year.	9.46
\$	medHHincome	Median household income	61,973
%	grocerystores	Pct housing units w/in half mile of chain grocery store	38.19
%	medicaid	Percent population receiving Medicaid	13.08
Number	housingunits	Total single and multifamily housing units	858.43
%	part_time	Percent working 35 hours or less	48.45
Number	new_bldg_permit	New residential building permits	19.96
Number	struct_inloodplan	Number structures completely or partially in floodplain	24.22
Number	water_consump	Avg CCF (100 Cubic Feet) water consumed single-fam meters	7.13
per capita	fire_calls	Number calls divided by population	0.026
%	births_to_adolesc	Percent of births to females under age 19	4.43
%	growth_3_5	Percent CMS students in 3-5 showing growth in End of Grade	60.02
%	growth_6_8	Percent CMS students in 6-8 showing growth in End of Grade Percent CMS students in 6-8 showing growth in End of Grade	63.07
%	proficient_9_12	Pct of CMS students 9-12 proficient End of Grade testing	72.21
%	proficient_6_8	Pctof CMS students 6-8 proficient in End of Grade testing	66.36

TABLE 4 (cont.)

UNITS	VARIABLE	DESCRIPTION	CO. MEAN
%	proficient_3_5	Pct of CMS students 3-5 proficient in End of Grade testing	67.52
Number	Res_reno_permits	Number of renovation permits for residential buildings	12.55
%	NHealthchoice	Percent of juvenile population receiving NCHC for (NPA)	6.18
%	treecanopy	Percent of tree canopy in NPA	47.99
index	bicyclefriendly	Score 1-3, 1= least bicycle friendly	1.448
Number	energyconsump	Kilowatts used average monthly	1140
%	adopt_astream	Percent of eligible streams maintained by AaS program	8.12
Sq. Ft.	Comm_bldg_sf	SF of developed commercial space (excl. church, school)	693,568
index	streetconnectivity	Ratio of links to nodes w/in street network	1.189
rate	juvenileincidents	Arrests under 16 div. by total juv. Pop. Rate per 100,000	1585.9
miles	streetsadopted	Miles adopted for street litter cleanup	0.62
Number	nuisanceviolatns	Number of nuisance calls in the NPA	121.33
Number	animalcontrol	Number of calls for animal control in the NPA	101.22
Number	residents_on_committ ees	Number residents serving on appointed city, town, and/or county boards, committees and commissions	0.77
Number	neighborhoodorgs	Number of neighborhood organizations registered in NPA	1.4
avg	codeviolations	Number of housing units with code violations	4.36
%	near_publicoutdoor_re creation	Percent units within ½ mile of a public outdoor recreational area	72.15
%	near_medicaid_or_fre e_clinic	Percent housing w/in 1/2 mi of provider or free clinic	17.92
rate	propertycrime	Property crime per 100,000 population	4435.6
%	residentialrecyc	Percent who participate in recycling program at 1/quarter	58.33
%	sidewalks	Percent of paved streets w/sidewalk on at least one side	41.55
rate	violentcrime	Violent crime per 100,000	514.52
%	registeredvoters	Percent registered voters in 2010 election	71.72
%	voterparticipation	(Not given)	
%	white	Percent White population in the NPA	54.89
%	black	Percent Black population in the NPA	31.85
%	asian	Percent Asian population in the NPA	4.62
%	grouppopulation	Percent living in group quarters	1.67
%	otherpopulation	Percent some other race	5.98
%	neighborhdschool	Percent of students attending neighborhood schools	75.42
%	owneroccupied	Percent of homes that are owner-occupied in the NPA	60.49
%	neardrugstore	Percent housing w/in 1/2 mi of pharmacy	28.45
Number	publictransit	Number weekday boardings of transit (incl. bus & light rail)	165.35
%	residentialvacant	Percent vacant houses	9.076
%	no_HSdiploma	Percent age 25 or older without HS diploma	12.2
\$	rent	Median gross rent (2010 inflation adj.)	947.76
%	privateschools	Percent of K-12 in private schools	14.38
Number	preschoolprogms	Number of preschool programs for ages 0-5	1.35
Number	schoolageprogms	Number of programs for ages 5-12	1.39
%	subsidizedhousg	Percent of subsidized housing units	4.65
%	wastegeneration	Res. solidwaste diverted landfills by recycling/yard waste	35.61
%	res_vacant_rate	Rate of residential vacancies	9.08
%	Res_tree_canopy	Percent of tree canopy in residential areas only	50.55
%	Hispanic	Percent Hispanic population in the NPA	11.7
%	SFD_rental	Percentage of detached single-family rental dwellings	19
Number	vacant_parcel	total vacant parcels zoned single-family less than 3 acres	47.71



A statistical model was built using the QofLdata, the sales price and year built data, and County means for each variable (when applicable) to establish a baseline for comparisons. IBM SPSS Statistics software, version 21, and Microsoft Excel were used to compile and analyze the statistical model and to produce descriptive statistics, correlations, tests for significance, and regression analyses. Missing values were present within some measurements on a handful of test variables. Such values were imputed using averages of the adjoining NPAs (when available) where fewer than ten observations were missing. Otherwise, missing values were supplied with the mean when there was insufficient information from adjoining NPAs. Other variables with a high occurrence of missing data were eliminated from further analysis, including: “commercial permits,” “new\_bldg\_permits,” and “structures\_in\_floodplains.” Outliers were not included in the analysis so results would be better matched to the data. An in-depth assessment of the data’s descriptive statistics formed the first level of analysis, and was examined in two ways: the starter-home group of 60 NPAs overall by comparison to county data; and a within groups comparison of the stable and unstable starter-home NPAs. Descriptive statistics of the overall data are shown in Table 5.

## 6.2 Comparison of Starter-Home NPAs Overall to Mecklenburg County Means

As was demonstrated in the graph of home sales (Fig. 41), starter-home neighborhoods differ substantially from the local market. I examined the dataset to identify other differences and similarities as a subset (Table 5) compared to county averages (found in Table 4) and discuss in additional detail those that are more relevant to this study.

TABLE 5: Overall descriptive statistics of the 60 NPAs identified in the 2012 Charlotte-Mecklenburg Quality of Life Study.

Overall Descriptive Statistics N = 60									
Variable	Min	Max	Mean	Std. Dev.	Variable	Min	Max	Mean	Std. Dev.
YrBuilt	2000	2008	2003.12	2.13	proficient_3_5	42.4	96.6	60.85	11.45
InitialSale	91500	150000	129883	12134.4	Res_reno_perm	1	25	6.78	4.71
CurrentSale	35000	141000	95616.7	26819.8	NHealthchoice	1.2	11.3	6.63	2.41
PctValChg	-69.07	8.2	-26.99	18.38	treecanopy	31.6	70.6	49.76	10.19
Stable	0	1	n/a	n/a	commercibldgsf	625	4033936	648108	947330
groc_stores	1.3	54.9	22.09	13.38	juvenileincidents	0	4893	832.22	1021.41
SFD_rental	6.8	32.9	16.96	6.11	nuisanceviolatio	2	1443	157.11	193.78
developed_land	47.8	98.6	79.33	11.32	animalcontrol	43	547	140.16	81.30
res_density	0.2	5	1.38	1.00	res_oncommitte	0	4	0.47	0.94
SF_prop_value	45578	274970	121922.4	38309.5	neighborhoodorgs	0	5	1.25	1.31
year_built	1959	2004	1991.22	10.55	codeviolations	0	15	4.09	4.05
commercialyrbt	1961	2003	1984.41	10.17	near_outorrec	0	100	61.56	34.78
heated_sqft	1081	2812	1774.20	349.20	Near_rmedicdor_free_clinic	0	78.1	6.44	15.72
commute_time	9.6	77.2	37.95	12.74	propertycrime	899	14302	3311.6	2287.05
drive_alone	43	93.1	77.29	11.67	Residentialrecyc	25.5	83	54.37	11.95
dropout_rate	0.4	9.3	3.37	2.07	sidewalks	12.6	90.2	42.02	17.81
chg_respropval	-4.4	1.3	-1.08	1.59	violentcrime	0	2157	384.58	477.30
impervioussurfc	2	29.9	12.50	7.00	registeredvoters	30.1	96.6	69.70	12.59
unexcusabsenc	3.3	22.7	11.61	4.57	voterparticipa	23.2	54.1	40.62	6.42
transitproximity	0.2	100	55.00	35.73	White	3.5	91.3	38.89	20.66
rental_units	6.8	60.7	19.03	9.82	Black	4.9	92.6	45.45	20.69
foodstamps	3.8	47.8	20.54	10.25	Asian	0.3	7.8	3.27	1.76
foreclosures	0.5	3.7	1.87	0.82	otherpopulation	0.2	31.4	8.40	7.22
employed6_mo	0.6	26.6	8.68	6.03	neighborhdscho	52.2	95.4	73.34	9.98
medHHincome	27216	109031	54719.9	17955.9	owneroccupied	17.6	93.4	69.89	19.00
medicaid	1.1	36.3	16.14	8.32	neardrugstore	0	85.4	10.17	20.22
housingunits	300	4229	985.90	642.04	Pubtransitboard	0	231	38.24	57.47
part_time	25.5	77	47.56	9.34	no_HS_diploma	0	42.8	14.81	11.22
births_to_adole	0	18.8	5.36	4.12	rent	450	1593	999.53	261.43
growth_3_5	44	74.4	56.06	7.24	privateschools	0	28.6	7.99	7.72
growth_6_8	42.2	76.7	61.33	7.82	preschoolprogr	0	6	1.88	1.51
growth_9_12	35	80.8	58.58	11.24	schoolageprog	0	6	1.97	1.56
proficient_9_12	33.3	95.4	65.86	11.91	subsidizdhousg	0	12.9	2.68	3.68
proficient_6_8	27.7	92.6	58.27	11.67	wastegeneration	17.2	46.5	29.86	6.66
Hispanic	2.7	42.3	15.06	9.97	Res_vacnt_rate	3.9	20.5	8.69	3.92
vacant_parcel	3	306	81.70	72.40	Res_tree_canop	13.3	67	47.78	12.68
Median_Age	22	48	32.1	4.283					

The starter-home NPAs as an overall group were found to be *similar*<sup>9</sup> to county averages in the following ways:

*Land Development Characteristics.* Average year built of commercial buildings, percentage of overall tree canopy, tree canopy in residential areas, and presence of sidewalks on at least one side of public streets.

*Resident Characteristics.* Percentage of registered voters, Asian populations, driving alone to work, those working part-time and those working less than 6 months over the past year, percentage of children attending neighborhood schools, students showing growth in grades 9 to 12, dropout rates, the number of neighborhood organizations, unexcused absences, percent children receiving NC Health Choice, and the numbers of preschool and school-aged programs.

*Housing Characteristics.* Percentage of single-family rental homes, number of units with code violations, and residential vacancy rates.

The similarities show that in many ways, it appears starter-home neighborhoods overall are like a typical residential neighborhood in Charlotte, with residents commuting to work and sending their children to local schools. But, the starter-home neighborhoods varied in many areas from the County averages. Table 6 highlights areas where there are *differences* between starter-home and county averages and to what degree. My examination shows that starter-home NPAs have higher percentages of minorities than the county overall, and there is actually quite a close balance of White and Black populations. Thus, a Black or Hispanic person is more likely to find themselves living in a starter-home neighborhood. These statistics may also account for the higher average of

---

<sup>9</sup> Similar: in percentages, the tolerance is a difference of 2.5 percentage points or less.

adults without high school diplomas as lower education levels are correlated with higher percentages of minorities (McDaniel & Kuehn, 2013; Aud et al. 2013).

TABLE 6: Comparison of selected variables from the 60 overall starter-home NPAs to county averages. Source: 2012 Charlotte Mecklenburg Quality of Life Study

Variable	Starter-Home NPAs	County Avg.	Difference
Median Household Income	\$ 54,720	\$ 61,973	11.7% less
White Population	39%	55%	16 pct.pt.
Black Population	45%	32%	13 pct.pt.
Hispanic Population	15%	12%	3 pct.pt.
Heated square footage of homes	1,774	2,028	12.5% smaller
Owner-occupied homes	70%	60%	10 pct.pt.
Single-family rental units	17%	19%	2 pct.pt.
Homes w/in half-mile of transit	55%	77%	22 pct.pt.
Homes w/in half-mile of grocery	22%	38%	16 pct.pt.
Homes w/in half-mile of outdoor rec	62%	72%	10 pct.pt.
Homes w/in half-mile of Medicare provider or free clinic	6%	18%	12 pct.pt.
Homes w/in half-mile drug store	10%	28%	18 pct.pt.
Vacant parcels zoned residential	82	48	71% more
Commercial buildings sq. ft.	648,108	693,568	6.5% less
Property crime per 100,000	3,312	4,436	25% fewer
Violent crime per 100,000	385	515	25% fewer
Population receiving food stamps	21%	17%	4 pct.pt.
Population receiving Medicaid	16%	13%	3 pct.pt.
Births to adolescents	5.4%	4.4%	1 pct.pt.
Adults w/out HS diploma	15%	12%	3 pct.pt.

As expected, median incomes are lower and home sizes are smaller in starter-home NPAs. This makes homes less expensive, thus drawing those of lower incomes. Rates of owner occupancy are higher than county averages by approximately 9.4 percentage points. This is likely due to the selection process of the research project itself, as it is centered on newly constructed starter-home neighborhoods. With Charlotte's sprawling metropolitan growth pattern and homogeneous land uses, starter-home

neighborhoods dominate some NPAs with commercial or multifamily development less prevalent. This would equate to a higher rate of homeownership (on average) within starter-home NPAs. Charlotte has a high demand for rental units and accordingly, over 31 percent of housing units in the County are multifamily (U.S. Census 2015). The numerous universities, large retail and service industries create this demand; therefore, apartment complexes and rental units tend to locate near those large hubs, such as UNC Charlotte. These types of NPAs do not meet the selection criteria. The statistic of 71 percent more vacant parcels zoned for residential use in starter-home NPAs verses the County average is indicative of some starter-home NPAs locations in exurban areas.

The data also show, however, that starter-home NPAs are consistently below county averages in measures of student growth and test proficiency (Table 7). This reflects poorer performing schools located near starter-home neighborhoods, and would likely have a negative effect on home values and resale potential. The starter-home model attracts many young families and the quality of schools their children will attend is important (Jacobson & Szczesek 2013). In particular, a facet of educational performance that must be accounted for is the spatial distribution of Charlotte-Mecklenburg Schools (CMS) and their differing performance. For example, although CMS high school graduation rates average 75 percent, the schools are weighted on the extremes, with clusters of schools having near 100 percent graduation rates, and others with rates between 55 and 65 percent (Lewis et al., 2012). As discussed previously, high-poverty high-minority schools are largely concentrated in inners suburbs surrounding Uptown, corresponding to the rising poverty rates in the same crescent area.

Based on this study's findings, children in starter-home neighborhoods showing

academic growth and proficiency range from 27.7 to 42.4 percent at the bottom ends, alarmingly low levels of educational performance. On the highest ends, growth and proficiency range from 74.4 to 96.6 percent. This is a very wide disparity. Of great concern are those students at the lowest levels in grades 9 to 12, where only one-third achieved growth and proficiency. These low proficiency rates in high school are also reflected in dropout rates. Forty-three of all 60 starter-home NPAs (72 percent) exceed Mecklenburg County's average dropout rate of 3.16 percent while ten have dropout rates of 1.0 percent or less. For adults without high school diplomas, the rate climbs as high as 42.8 percent, with a quarter of 60 starter-home NPAs above 25 percent.

TABLE 7: Comparison of means within the 60 NPAs to Mecklenburg County averages of educational performance variables. Source: 2012 Charlotte Mecklenburg Quality of Life Study.

Variable	Starter-Homes	Co. Avg.	Difference
Showing Growth_3 to 5 grade	56%	60%	4 pct.pt.
Showing Growth_6 to 8 grade	61%	63%	2 pct.pt.
Showing Growth_9 to 12 grade	58.6%	59.0%	--
Proficient grades 9 to 12	66%	72%	6 pct.pt.
Proficient grades 6 to 8	58%	66%	8 pct.pt.
Proficient grades 3 to 5	61%	67%	6 pct.pt.
Children attending neighborhood school	73%	75%	2 pct.pt.
Children attending private school	8%	4%	4 pct.pt.

### 6.3 Comparison Between Starter-Home Groups: Stable and Unstable

The second level of analysis examines the two groups within starter-home NPAs themselves. In the following paragraphs, the economic, physical and social environments of the NPAs will be examined to understand what the data reveals about starter-home neighborhoods. The map in Figure 43 shows the spatial distribution of the 17 stable and

43 unstable NPAs within Mecklenburg County. The descriptive statistics are shown in Table 8 and grouped according to stable (n=17) and unstable (n=43) neighborhoods.

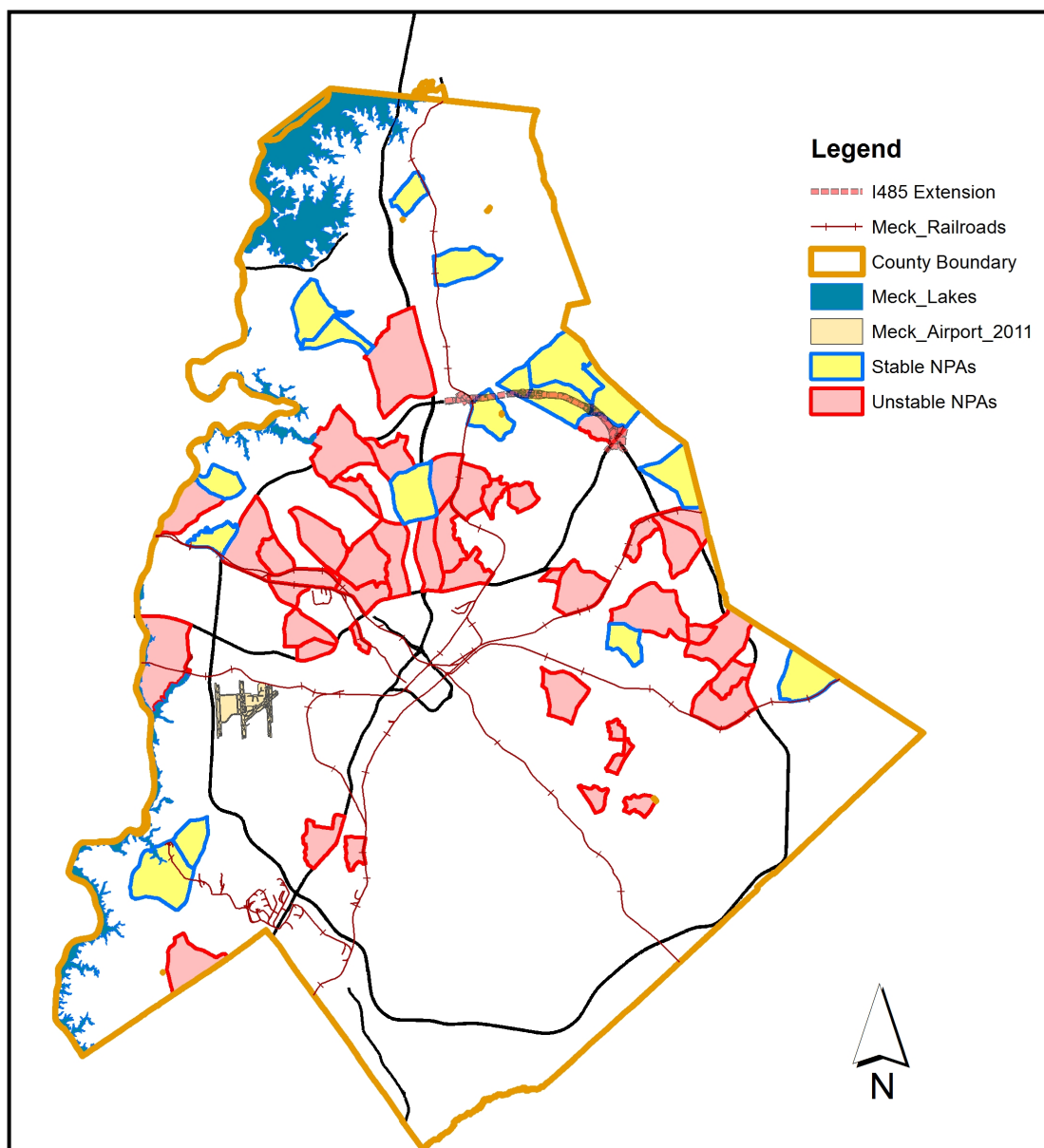


FIGURE 43: Map of stable (17, in yellow) and unstable (43, in red) starter-home NPAs using 2012 Charlotte-Mecklenburg Quality of Life data.

TABLE 8: Descriptive statistics of the starter-home NPA data grouped by stable and unstable neighborhoods. Note: Marked\* variable data compiled by author.

Variable	Unstable (N=43)				Stable (N=17)			
	Min	Max	Mean	StdDev	Min	Max	Mean	StdDev
YrBuilt	2000	2008	2003.4	2.173	2000	2007	2002.41	1.906
InitialSale	91500	150000	128476.5	12869	114500	150000	133441	9456.95
CurrentSale	35000	118000	83383.72	21003	97500	141000	126559	8665.0
PctValChg	-69.07	-15.38	-35.70	13.57	-14.85	8.2	-4.96	6.515
SMEAN(animlcntr)	43	547	147.91	86.587	48	315	120.57	64.201
SMEAN(asian)	0.3	7.6	3.181	1.622	0.6	7.8	3.48	2.104
births_to_adolescscs	0	18.8	6.674	3.754	0	11.7	2.041	3.037
black	7.5	92.6	50.8	18.983	4.9	80	31.918	19.008
chg_resprop_value	-4.4	1.3	-1.393	1.714	-2	1.2	-0.3	0.865
SMEAN(codeviola)	0	15	4.82	4.338	0	9	2.26	2.454
SMEANcombltdgsf	625	3328638	642159.5	893631	2192	4033936	663152.5	1101220
SMEAN(com_yrblt)	1961	2003	1982.67	9.617	1969	2003	1988.82	10.472
commute_time	9.6	77.2	37.8	13.683	23.8	56.1	38.324	10.338
developed_land	48.1	98.6	80.802	10.930	47.8	92.2	75.594	11.746
SMEAN(driv_alone	43	92.2	76.66	12.425	58.5	93.1	78.876	9.669
SMEAN(dropout_rt	0.4	9.3	3.483	2.124	0.5	7.7	3.079	1.971
SMEAN(empl6mo)	2	21.7	8.479	5.285	0.6	26.6	9.185	7.757
SMEAN(foodstmp)	6.4	47.8	23.78	9.690	3.8	23.1	12.349	6.412
SMEAN(foreclosur)	0.5	3.7	2.017	0.833	0.6	3	1.488	0.676
SMEAN(groc_stor)	1.3	54.9	21.261	13.280	2.7	54.8	24.2	13.813
growth_3_5	44	74.4	55.574	7.434	46.6	67.7	57.3	6.797
growth_6_8	42.2	76.7	62.149	7.987	45.2	73.2	59.271	7.191
growth_9_12	35	80	57.444	11.133	38.1	80.8	61.441	11.315
heated_sqft	1081	2525	1662.44	302.17	1634	2812	2056.88	302.479
SMEAN(hispanic)	2.7	42.3	17.18	10.679	3.7	20	9.694	4.976
housingunits	300	3313	943.02	540.16	481	4229	1094.35	858.321
impervioussurface	3.9	29.9	13.605	7.165	2	24.6	9.688	5.8331
SMEAN(juvenileinc	0	4893	914.09	1085.4	0	3004	625.13	831.31
medHHincome	27216	90641	48189.19	14927	51189	109031	71238.6	14122.3
Median_Age	22	48	32.26	4.924	28	35	31.76	1.954
medicaid	6.7	36.3	18.947	7.706	1.1	17.6	9.053	5.005
SMEAN(NChalthc)	3.9	11.3	7.192	2.017	1.2	11	5.206	2.795
nearmedicorfreeclinic	0	78.1	7.116	17.579	0	32.8	4.724	9.791
near_puboutdr_rec	0	100	66.165	33.835	0	97.5	49.924	35.435
neardrugstore	0	85.4	12.119	22.767	0	35.9	5.224	10.515
neighborhoodschools	52.2	89.5	70.128	7.101	54.4	95.4	81.453	11.727
SMEAN(neigh_orgs)	0	5	1.17	1.326	0	5	1.47	1.262
no_HSdiploma	0	42.8	17.663	11.406	0	23	7.582	6.717
SMEAN(nuisc_viola)	5	1443	169.98	218.26	2	429	124.56	108.83
otherpopulation	0.2	31.4	9.977	7.765	0.4	11.3	4.4	3.207
owneroccupied	17.6	90.4	66.223	20.115	52	93.4	79.159	11.872
part_time	25.5	77	48.74	9.163	26.3	65.9	44.576	9.376



TABLE 8 (cont.)

Variable	Unstable (N=43)				Stable (N=17)			
	Min	Max	Mean	StdDev	Min	Max	Mean	StdDev
preschoolprograms	0	6	2.116	1.515	0	5	1.294	1.359
privateschools	0	24.8	6.551	6.824	1.7	28.6	11.635	8.823
proficient_3_5	42.4	77.9	56.442	8.548	50	96.6	71.994	10.381
proficient_6_8	27.7	71.3	55.284	9.996	45.8	92.6	65.812	12.466
proficient_9_12	33.3	85.7	62.77	10.662	52.4	95.4	73.671	11.595
propertycrime	943	14302	3848.42	2465.4	899	3591	1953.76	774.367
SMEAN(pubtransit)	0	231	46.57	59.237	0	193	17.18	48.065
registeredvoters	30.1	96.6	67.251	13.224	58	89.6	75.876	8.301
rent	450	1583	967.93	277.63	856	1593	1079.47	200.547
rental_units	6.8	60.7	21.447	10.400	7.4	21.8	12.912	4.043
residential_density	0.2	5	1.491	1.112	0.4	2.4	1.082	0.576
residentialrecycling	25.5	77	50.693	9.636	37.5	83	63.653	12.455
SM(resrenopermit)	1	20	5.98	4.262	1	25	8.8	5.281
Resid_tree_canopy	13.3	67	49.586	12.147	21.1	67	43.224	13.236
SMEAN(resid_vac)	4.3	20.5	9.302	4.044	3.9	14.9	7.141	3.196
SM(residoncomitte)	0	4	0.36	0.811	0	4	0.76	1.176
school_age_progs	0	6	2.3	1.567	0	4	1.12	1.219
SMEAN(SFDrental)	6.8	32.9	18.5673	6.078	7.4	21.8	12.9118	4.043
sidewalks	12.6	90.2	39.014	16.468	14	89	49.606	19.297
singlefamprop_valu	45578	158627	107714.6	27732	98987	274970	157860	38448.6
subsidizedhousing	0	20.2	3.395	3.933	0	9	0.853	2.127
transitproximity	5.1	100	63.219	34.294	0.2	99.9	34.194	31.277
treecanopy	31.9	70.6	50.312	9.705	31.6	69.9	48.376	11.523
unexcusedabsence	5.9	22.7	12.695	4.578	3.3	14.8	8.847	3.297
vacant_parcel	9	306	86.5349	77.890	3	187	69.4706	56.391
violentcrime	0	2157	469.42	534.97	0	532	170	143.413
voterparticipation	23.2	54.1	39.472	6.734	34.5	51.4	43.512	4.546
wastegeneration	17.2	46.5	28.281	6.401	22.3	45.4	33.841	5.699
white	3.5	70.7	31.967	15.432	11.7	91.3	56.394	22.222
year_built	1959	2004	1989.07	11.415	1983	2002	1996.65	4.936

A careful examination of the descriptive statistics provides a trove of valuable information regarding starter-home neighborhoods. The two starter-home groups are similar in many ways socially (Figure 44), but not in their physical environments. The descriptive statistics shown in Table 8 help illuminate the differences between the two groups, which characterize stable neighborhoods generally as having higher mean

incomes, lower density, higher percent White, more than two times fewer adults without high school diplomas, and three times fewer subsidized units within their NPAs than unstable neighborhoods.

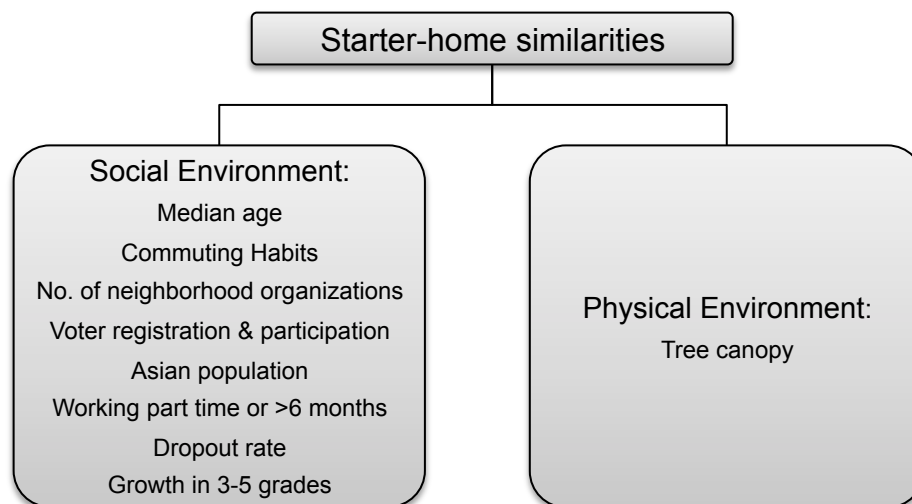


FIGURE 44: Similarities between stable and unstable starter-home NPAs using 2012 Charlotte-Mecklenburg Quality of Life data.

Firstly, the difference in the mean initial sales price between the groups was relatively small with the stable group just 3.9 percent higher than the unstable. But where there are differences between the groups, they can be substantial. There was a larger difference in the minimum initial sales price, which was 25 percent higher in the stable neighborhoods (Fig. 45). This indicates that homes in the stable NPAs began at a higher price point overall than those in the unstable NPAs. This is explained by the larger homes in the stable group, which were 395 square feet larger. Where those home values are now is a very different story. Current sales in some unstable neighborhoods are as low as \$35,000 having sustained a near 70 percent loss in value (Fig. 46). The current mean sales price in the unstable neighborhoods is about \$83,300 and in the stable

neighborhoods the current mean is about \$126,500, a 52 percent difference. The highest mean increase in value in any of the starter-home NPAs was just above 8 percent, a far cry from the local market’s gain of over 47 percent.

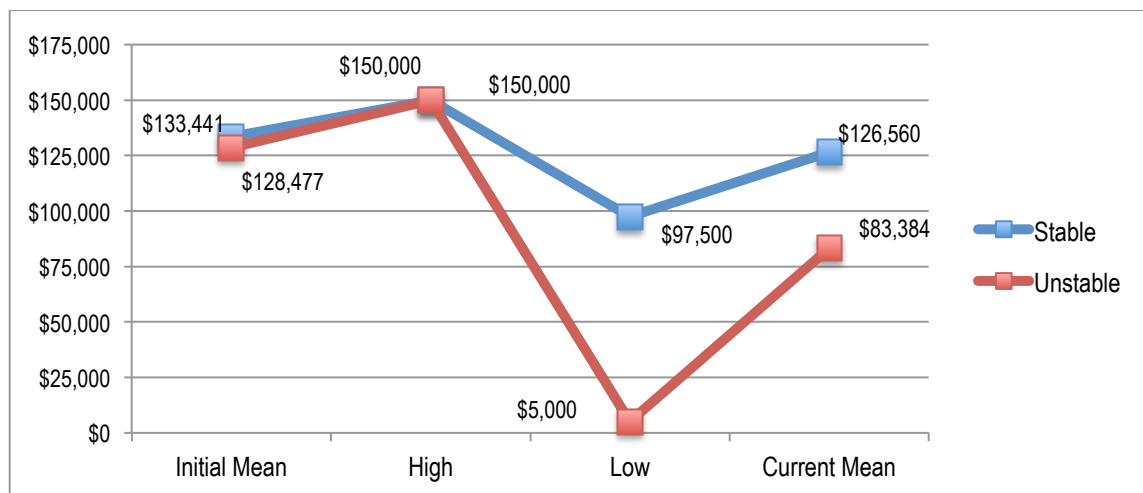


FIGURE 45: Comparison of Stable and Unstable sales trends over study period. Data from overall sales data collected 2000 to 2014.

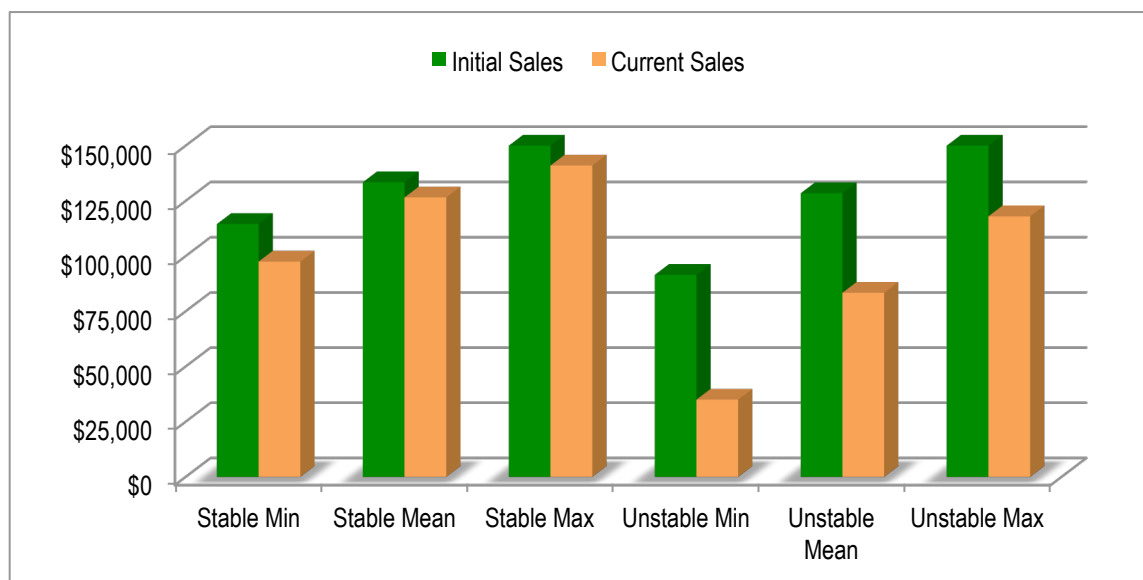


FIGURE 46: Comparison of Stable and Unstable sales trends of initial and current sales data. Compiled from overall sales data collected 2000 to 2014.

Mean current prices in unstable neighborhoods were expected to be lower, as the decline in the most recent sales prices forms the mechanism for determining stability and instability. But the large gap between current values highlights the very different markets at play, as the means between the initial sales of the two community types were only separated by \$4,964. Similarly, the current minimum values differ by \$62,500, with stable neighborhood values two-thirds higher than the unstable. When examining the sales records gathered, eleven homes within the study neighborhoods were sold in 2012 and the first quarter of 2013 for prices ranging from a low of \$5,000 to \$35,000. An additional 68 homes were sold for between \$35,001 and \$70,000. These 79 sales represent one-quarter of all starter-homes sold during this time period, when less than half sold for greater than \$100,000. The figures indicate that starter home sales prices are still significantly depressed. The mean change in value (between median initial sale and current sale) is also substantially different. While both community types had a mean loss in value, those in stable communities lost an average of 4.96 percent compared to a 35.70 percent loss in unstable communities.

The draw of low- and moderate-income families to starter-home neighborhoods is evident when comparing the median incomes of the 60 study communities to the Charlotte median income of \$65,036 for a family of four. Within the 60 starter-home communities, again there are clear differences between the stable and unstable. Mean incomes of unstable communities were lower by more than \$23,000, or 32 percent. More than two-thirds (41 of 60) of the neighborhoods fell below the Charlotte median, leaving the remaining 19 above it. Twelve of those above the Charlotte median were in stable and seven were in unstable neighborhoods. The lowest median household income of

\$27,216 is just \$4,776 above the current poverty level established by the U.S. Census Bureau of \$22,350 for a family of four. At the opposite end, the highest median income of \$109,031 is four times the lowest income. These findings are consistent with the perception that families with lower incomes dominate starter-home communities, but they are also attractive as workforce housing. Residents in starter-homes also tend to be younger, having a median age of 32.1, as compared to the County mean of 35.3 years of age. Figure 47 presents a brief summary of the differences between stable and unstable starter-home neighborhoods.

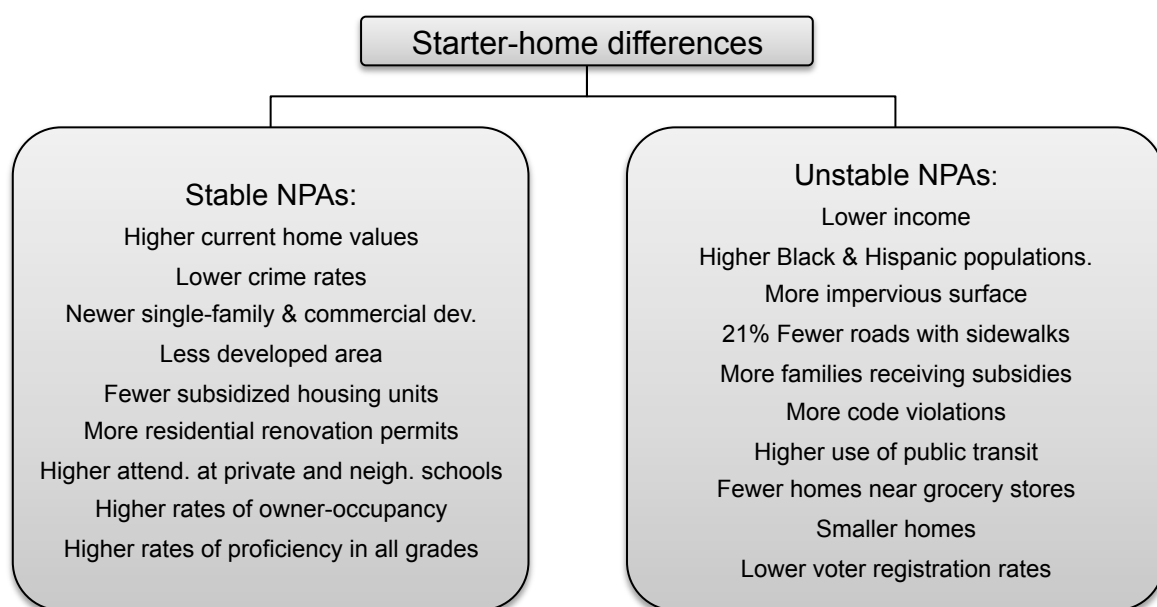


FIGURE 47: General characteristics of differences in stable and unstable starter-home communities in the Charlotte area.

*Land Development Characteristics.* The average property values of all single-family homes within the NPAs of stable neighborhoods are \$50,000 higher, or 47 percent, than unstable NPAs. Aside from the residential aspects of the neighborhoods,

commercial development within NPAs of unstable neighborhoods is older and there is much less of it. The oldest was built in 1961 and the average year built is 1983, as compared to NPAs in stable neighborhoods where the oldest was built in 1969 and the average year built is 1989. An average of over 1,085,000 square feet of new and improved commercial development was permitted from July 2010 to June 2011 in the stable NPAs. This is considerably more than that in unstable NPAs, where an average of only 25,500 square feet of commercial development was permitted over the same period. These numbers indicate much higher levels of recent business investment in the stable NPAs, while the lack of it in the unstable NPAs seems to mirror the absence of rebound in starter-home housing values.

*Housing Characteristics.* Sizes of starter-homes tend to be larger in the stable NPAs where they average 2,057 square feet, on par with the county average of 2,028 square feet. However, homes in the unstable average 1,662 square feet. Initial home prices also reflected this difference, as the minimum home price in stable NPAs was \$23,000 higher, and the mean \$5,000 higher, than the unstable NPAs. This fact may have played a role in attracting more homeowners to the stable neighborhoods, as opposed to investors, in the first place. This also accounts for the higher rates of owner-occupancy and lower rates of rental units observed in stable NPAs. Additionally, rates of subsidized housing are more than three times higher in unstable neighborhoods, with seven of the unstable NPAs having rates above 10 percent up to a maximum of 20.2 percent. Conversely, of all stable NPAs the maximum is 9.0 percent. The average rate of owner-occupied homes is 13 percentage points higher in the stable NPAs, and 15 percent of single-family housing in stable NPAs are rentals, as compared to 20 percent of the

housing stock in the unstable. Average rents are also higher in the stable group by \$185. In summary, stable NPAs are characterized as having larger homes, higher rents and rates of owner occupancy, and fewer subsidized housing and rental units than their counterparts in unstable neighborhoods.

*Built Environment Characteristics.* The study starter-home neighborhoods do not exist as islands; therefore, the contexts in which they are found have a great influence on the quality of life for residents, as well as their home values. It is well established in the literature that low-income neighborhoods are often situated in “food deserts,” so called as their isolated locations lack grocery stores nearby where fresh food can be obtained (Morland et al. 2002; Galvez et al. 2008). This concept has been extended to describe “health deserts,” due to the lack of readily accessible health care providers and drug stores, and similarly a lack of parks and recreational areas (Princetl et. al. 2003). The QoFL study measures the percentage of homes within one-half mile of basic services, including transit stops (bus or light rail), chain grocery stores, free clinics or health care providers that accept Medicaid, public outdoor recreational areas, and drug stores. It is important that such services be located near low-income neighborhoods so that residents can access them without relying on a personal vehicle, i.e. walking or via public transportation. Table 9 compares the percentage of homes within one-half mile of community amenities in stable and unstable NPAs to the county averages. From this and the previous comparisons, the research shows that starter-home neighborhoods as a whole are not near grocery stores, drug stores, or those health care providers geared toward low-income families. In all categories, starter-home neighborhoods are well below the county averages for nearness to these key community amenities; indicative of their inherent

“sprawl DNA” that mandates the separation of land uses. Unstable NPAs also have fewer sidewalks, with 39 percent of public roads having sidewalks on at least one side as compared to 50 percent with sidewalks in the stable NPAs (Fig. 48).

TABLE 9: Comparison to county averages of proximity to community amenities grouped by stable and unstable neighborhoods.

Amenity	Unstable	Stable	Co. Avg.
% of homes near transit	63.2	34.2	77
% of homes near chain grocery store	21.3	24.2	38
% of homes near public recreation space	66.2	50.0	72
% of homes near Medicaid provider or free clinic	7.1	4.7	18
% of homes near drug store	12.1	5.2	28

The data also indicates that homes in unstable NPAs have greater access to community amenities than in stable NPAs, with the exception of nearness to grocery stores. In the Charlotte area, this is explained by their locations. Only three (of 17) stable NPAs are located inside the I-485 loop, as compared to 36 (of 43) of the unstable (refer to map in Figure 43). This part of the Charlotte area is more intensely developed, denser, and closer to Center City than the newer areas outside the loop. The construction of I-485 was a big economic driver in Mecklenburg County bringing new housing, office, hotel, and retail development on a large scale within its corridor as previously discussed.

As de Crèvecoeur observed hundreds of years ago, Americans have a love of newness and the new construction outside the I-485 loop created a strong outward pull. New homes, businesses, roads and neighborhoods also meant new residents, and therefore new schools. This made it more difficult to attract homeowners to move to



neighborhoods inside the loop where there are more high poverty neighborhoods, as well as poor performing/high poverty schools. These factors contribute to the difficulty in maintaining and improving home values and, therefore neighborhood instability.

*Social Environment.* It is often said the number one rule when choosing to buy a home is “location, location, location.” One of the most important factors in location is the home’s school district (Bell 2009). Even for those buyers without children, school districts are still factored into the equation as a consideration for resale potential (Ely & Teske 2015). School performance is below the county average for the starter-home NPAs as a whole, and there are meaningful differences between the stable and unstable groups in these categories.

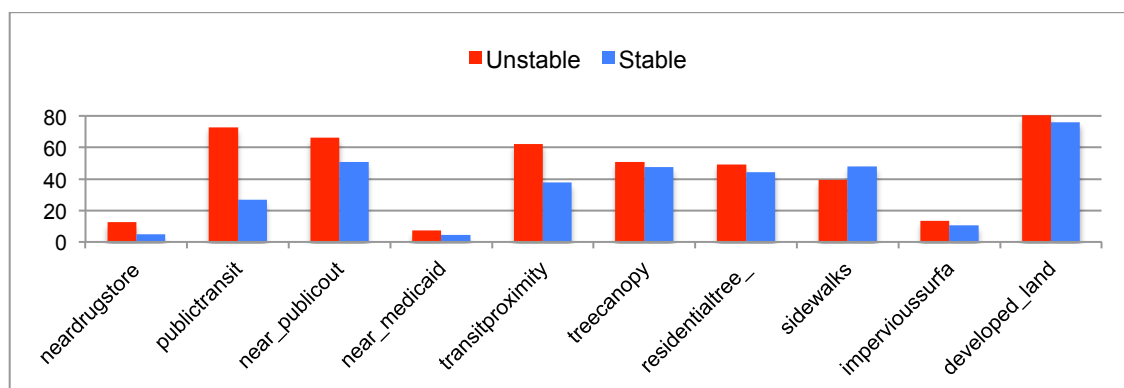


FIGURE 48: Percent of homes within one-half mile of neighborhood amenities and physical aspects for starter-home NPAs using 2012 Charlotte-Mecklenburg Quality of Life data.

Within the study neighborhoods, the means of the stable group are higher (or better) in all educational measurements than the unstable (Table 10). The largest gap exists in the percent of children achieving proficiency in grades 3 to 5. This finding supports the spatial dispersion of high-poverty, high-minority schools in Mecklenburg

County that has been occurring since 2001. As families with greater resources have filtered outward into newly built neighborhoods, the demographic makeup and, therefore academic performance, of local schools has followed suit. More stable neighborhoods are co-located with better performing schools, hence a higher percentage of children attending their neighborhood school. The large difference between the two groups in respect to the percent of adults without high school diplomas (10 percentage points higher) is indicative of higher percentages of minority populations, which also helps explain the lower proficiency and growth rates in schools located in unstable neighborhoods. The higher percentage of children attending neighborhood schools in stable NPAs can be attributed to better schools in the newly constructed areas outside the loop. Higher rates of private school attendance can also be a factor of the higher incomes in stable neighborhoods as opposed to those in unstable neighborhoods with lower incomes and lower rates of private school attendance.

TABLE 10: Comparison of educational performance in the 60 starter-home NPAs as per the 2012 Charlotte Mecklenburg Quality of Life Study, grouped by stable or unstable.

Variable	Unstable	Stable	Difference
Showing Growth_3 to 5 grade	56%	72%	16 pct.pt.
Showing Growth_6 to 8 grade	62%	59%	3 pct.pt.
Showing Growth_9 to 12 grade	57%	61%	4 pct.pt.
Proficient grades 9 to 12	63%	74%	11 pct.pt.
Proficient grades 6 to 8	55%	66%	11 pct.pt.
Proficient grades 3 to 5	56%	72%	16 pct.pt.
Unexcused absences from school	13%	9%	6 pct.pt.
Adults without high school diploma	18%	8%	10 pct.pt.
Births to adolescents	7%	2%	5 pct.pt.
Children attending neighborhood school	70%	81%	11 pct.pt.
Children attending private school	7%	12%	5 pct.pt.

Code violations in the unstable are about twice as numerous (4.8 reports as compared to 2.3) – pointing to poorer home maintenance and unkempt lawns, potentially from vacant and foreclosed homes. A large difference in crime rates between the two groups is not an unexpected result (Table 11). Crime tends to follow foreclosures and vacancies, and this has proven to be the case within the starter-home NPAs. Like many of the variables measured in this study, crime rates also cluster at high and low ends with thirteen NPAs having rates of violent crime less than 100 per 100,000 people and four above 1,000 per 100,000. In the NPA with the highest rate of violent crime it is 2,157 incidents per 100,000 people. Violent crime rates take a big jump at around the 500 per 100,000 mark (roughly equivalent to the County average of 514.52), which encompasses the thirteen NPAs with the highest rate. Of property crime, there are again thirteen NPAs that exceed the county average of 4,435 per 100,000, many of which are the same top thirteen NPAs with the highest rates of violent crime. It is important to note, however, that the mean crime rates in both starter-home groups are below the county average.

TABLE 11: Comparison of crime rate variables in the 60 starter-home NPAs grouped by stable and unstable. Source: 2012 Charlotte Mecklenburg Quality of Life Study.

Variable	Unstable	Stable	Difference
Code violations avg. per NPA	4.82	2.26	113%
Juvenile incidents per 100,000	914	612	33%
Property crime per 100,000	3,848	1,954	49%
Violent crime per 100,000	469	170	64%

In sum, the largest observed differences between starter home stability and instability can be described in measures of race, income, crime, education performance,

neighborhood school attendance, home values, owner occupancy, and house size. A closer examination of the racial makeup of the 60 study communities revealed more diversity than the statistical means indicate (Table 12). Twenty-nine NPAs are majority Black, seventeen are majority White, one is majority Hispanic, and thirteen are racially split (defined here as communities with a difference of ten percent or less between the two dominant races). Although unstable neighborhoods are predominantly majority Black, of the majority White and racially split groups, each is half stable and half unstable.

An interesting comparison is made between the stable NPAs and the County means to try and understand whether or not the starter-home model itself is problematic even when removing the unstable group. Ways in which the stable group is similar to County means are residential density, size of homes, dropout rates, those employed less than six months, proficiency in 9-12 and 6-8 grades, White, Black, Asian, and number of preschool programs. The stable starter-homes fair poorer than the County in the following areas: proximity to grocery stores, transit, and outdoor public areas, Medicaid providers, and drug stores; lower single-family home value; showing growth 3-5 and 6-8 grades; percent of commuters traveling more than 30 minutes to work; fewer residential renovation permits and commercial square feet; and residential tree canopy.

The stable starter-home NPAs are better than County averages in SFD rentals, newer commercial development, less impervious surface, unexcused absences, median household income, lower rate of working part time, fewer births to adolescents, proficiency grades 3-5, growth 9-12 grades, crime, sidewalks, subsidy recipients, more

students attending neighborhood schools, more owner-occupied homes, fewer adults without high school diplomas, higher rent, subsidized units, and residential vacancy rates.

TABLE 12: Racial makeup of the 60 study starter-home neighborhoods in the Charlotte area.

MAJORITY BLACK		MAJORITY WHITE		RACIALLY SPLIT		MAJORITY HISPANIC	
NPA	Stable	NPA	Stable	NPA	Stable	NPA	Stable
39	1	413	1	155	1	71	0
299	0	405	1	231	1	<b>1</b>	TOTAL
58	0	422	0	232	1		
237	0	447	1	332	1	0	STABLE
209	0	446	1	277	1	1	UNSTABLE
103	0	35	0	180	0		
227	0	136	1	360	0		
273	0	225	1	54	0		
152	0	372	1	389	0		
377	0	289	0	234	0		
282	0	229	0	280	0		
330	0	267	1	48	0		
165	0	195	1	111	1		
199	0	27	0	<b>13</b>	TOTAL		
258	0	348	0				
156	0	266	0	6	STABLE		
113	0	14	0	7	UNSTABLE		
190	0	<b>17</b>	TOTAL				
141	0						
211	0	9	STABLE				
242	0	8	UNSTABLE				
117	0						
125	0						
173	0						
158	0						
260	1						
160	0						
5	0						
123	0						
<b>29</b>	TOTAL						
2	STABLE						
27	UNSTABLE						

Split = less than a 10% difference between 2 or more majority races.

This comparison reveals that residents living in stable starter-homes are more likely to have higher incomes; children attending neighborhood schools with better

school proficiency; and fewer residents receiving government subsidies than County averages. Stable starter-home neighborhoods are more likely to have higher rates of owner-occupancy; fewer amenities or recreation areas close by; lower mean property values, crime, subsidized units and vacancy rates than the County averages.

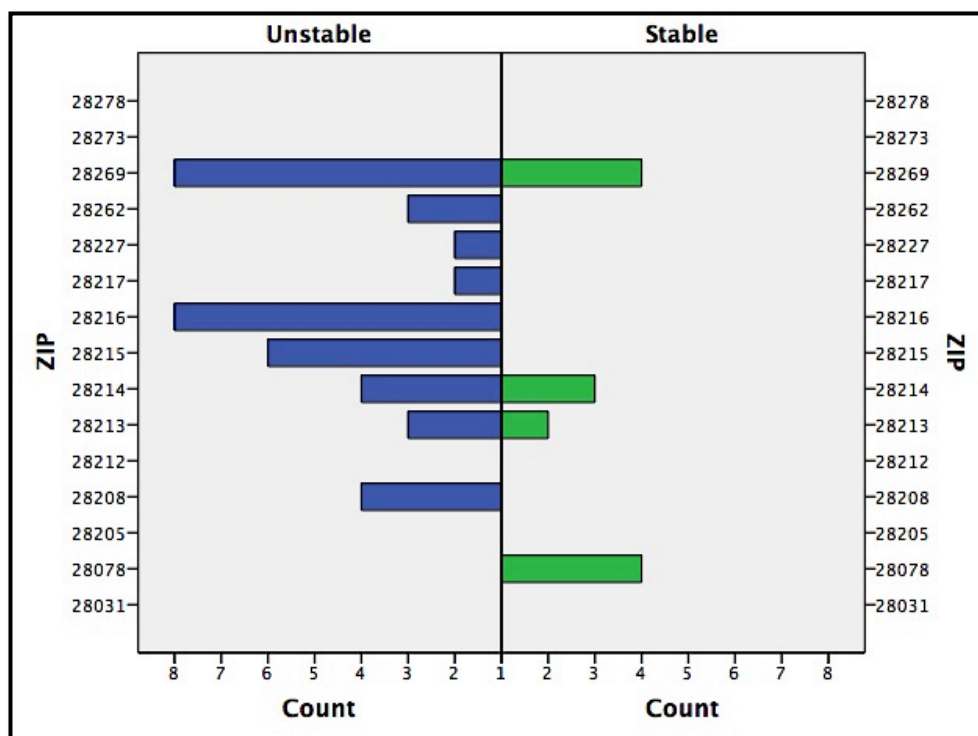


FIGURE 49: Frequency of starter-home NPAs within Mecklenburg County ZIP codes. Data source: 2012 Charlotte-Mecklenburg Quality of Life Study.

The data also show that 47 percent of the total unstable NPAs are within three ZIP codes: 28269 (North Charlotte), 28216 (Northwest Charlotte), and 28215 (East Charlotte), as seen in Figure 49. All three of these NPAs are inside the I-485 loop. The majority of the stable NPAs (accounting for 62 percent) are within two ZIP codes: 28269 (North Charlotte) and 28078 (Huntersville). The ZIP code 28269 has the highest number in both stable and unstable groups, but the number of unstable is twice that of the

unstable. Figure 50 shows the levels of public assistance within Mecklenburg County by zip codes, with the three zip codes within the unstable NPAs noted above as corresponding to the range of highest numbers of recipients.

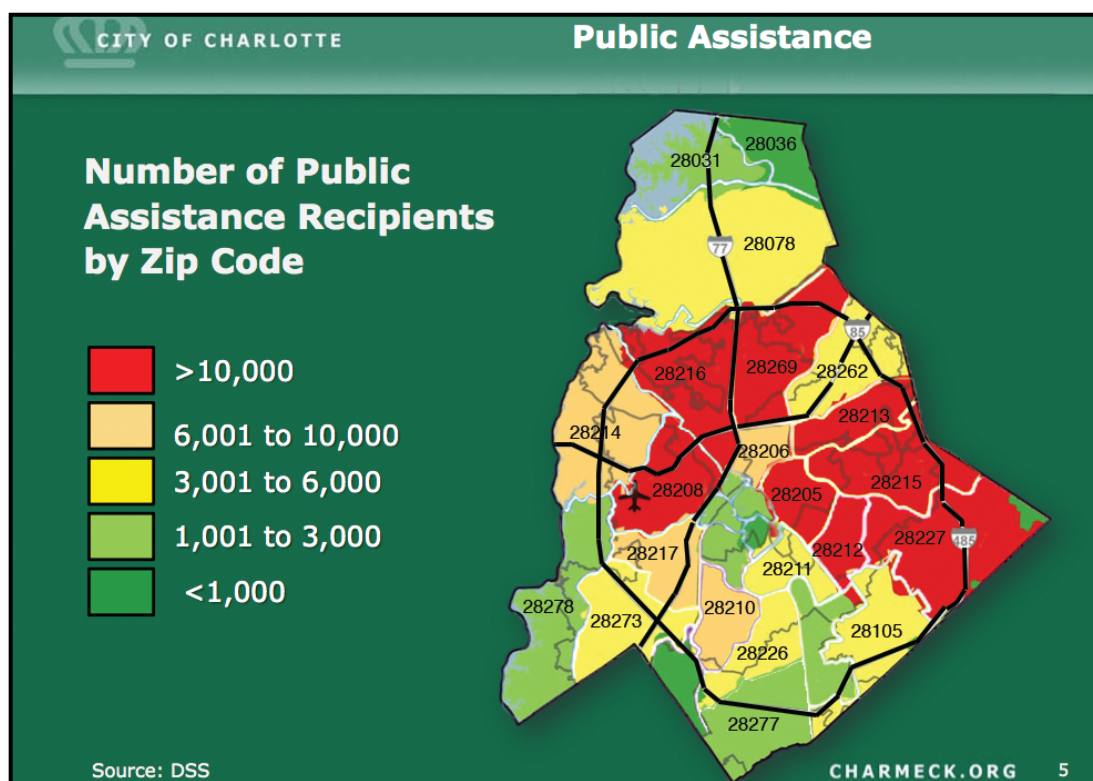


FIGURE 49: 2012 Levels of public assistance within Mecklenburg County by zip code and number of recipients. Source: Charlotte-Mecklenburg Department of Social Services. Customized by author.

#### 6.4 Statistical Modeling

An initial correlation analysis of the variables was performed to determine those variables with a statistically significant correlation to the dichotomous dependent variable “Stable,” with 1=stable and 0=unstable. The results are shown in Table 13, and include 18 independent variables with a negative correlation and 20 independent variables with a positive correlation that are statistically significant. Cohen’s effect sizes are used for

categorization, with Pearson's coefficient ( $r$ ):  $r = 0.10$  (small effect);  $r = 0.30$  (medium effect); and  $r = 0.50$  (large effect). Variables lacking a significant correlation to "Stable" are shown in Table 13.

TABLE 13: Variables found to be not significant in correlation with the dichotomous dependent variable "Stable" using Z-scores.

Characteristics	Variables
Physical elements	developed land, tree canopy, commercial building SF, near public outdoor recreation, grocery stores, drug stores, and medicaid/free clinic provider, residential tree canopy, vacant parcels, use of public transit
Employment	commute time, drive alone, employed less than 6 months, working part time
Education	dropout rates, growth in 3-5, 6-8, and 9-12 grades, number of preschool programs
Housing	rents, residential density, residential vacancy rate
Social	Asian, number of neighborhood organizations, residents on committees
Crime/Violations	animal control calls, nuisance violations, juvenile incidents

In general, the largest observed effects on starter-home values stem from median household income, education measures, size of homes, percent of rental units in the NPA, and percent White. The variables having the largest *negative* correlation with stability include higher percentages of: those receiving food stamps and Medicaid assistance, and births to adolescents. By contrast, the variables with the strongest positive correlation to stability are higher levels of: Median household income, home values in the NPA, student proficiency in elementary school, White population, home size, and attending local schools. Rates of foreclosure, violent crime, rent, voter participation, commercial year built, sidewalks, and private school attendance within the NPAs had weak associations with stability.



TABLE 14: Correlation analysis of the dichotomous variable “Stable” using Z-scores.

Correlation Analysis to variable "Stable"			
Negative correlation		Positive correlation	
Variable	Pearson Corr	Variable	Pearson Corr
Impervious_surface	-.254*	sidewalks	.270*
Violent_crime	-.285*	residential_reno_permit	.272*
code_violations	-.287*	commercial_yr_built	.275*
foreclosures	-.292*	voterparticipation	.286*
		privateschools	.299*
subsidizedhousing	-.314*	owneroccupied	.309*
Hispanic	-.341**	registeredvoters	.311*
transitproximity	-.369**	Chg_residprop_value	.312*
school_agedprograms	-.345**	Year_built	.326*
otherpopulation	-.351**	wastegeneration	.379*
NChhealthchoice	-.374**	proficient_6_8	.410**
property_crime	-.376**	proficient_9_12	.416**
unexcusedabsences	-.382**	residentialrecycling	.493**
no_highschooldiploma	-.408**		
black	-.415**		
SFD_rental	-.421**		
foodstamps	-.507**	heated_sqft	.513**
births_to_adolescents	-.511**	neighborhoodschools	.515**
medicaid	-.540**	white	.537**
		medHHincome	.583**
		singlefamilyprop_value	.595**
		proficient_3_5	.617**
** Correlation is significant at the 0.01 level (2-tailed).			
* Correlation is significant at the 0.05 level (2-tailed).			

The correlation analysis (Table 14) demonstrates effects and directional relationships in the sample that occur together. In order to identify variables of a predictive nature, a logistic regression analysis is called for. Binary logistic regression is a statistical method used to predict the likelihood of membership in one of two groups (“stable” or “unstable” in this case) from the chosen independent variables. It is necessary

to minimize the number of predictor variables so as to obtain the most parsimonious model and increase its accuracy, especially in light of a relatively small  $N$  value of 60 in this project.

Tests for significance are very sensitive to sample size. Larger samples are more likely to produce significant associations, and in small samples only the strongest associations will be identified as significant. Therefore, an alpha value of 0.10 is chosen, acknowledging that standard errors will be larger in smaller data sets. There is not a consensus of the recommended minimum number of cases per predictor for logistic regression, but 10 or 15 cases per independent variable are common guides. This equates to between four and six potential predictors for this project's model.

Participation-related variables such as voting or recycling are not predictive in nature; levels of government subsidies, dropout rates, and others like them – although correlated – are basically measuring the same thing and can be represented by a singular variable such as median household income. Therefore, these types of variables were eliminated from the list of potential independent variables. Property values can be leading or lagging indicators and are closely related to the dependent variable (stable), which is tied to change in home value, and were also excluded. Education proficiency, income and race are interpreted here as primarily descriptive in nature and observed as a result of a neighborhood becoming stable or unstable, and are viewed as moderators or control variables. Exploratory models were tested at each stage of variable reduction until the model would continue beyond a first step (20 iterations). At that point, a forward stepwise (Likelihood Ratio) binary logistic regression was conducted from the reduced list of independent variables to predict the binary dependent variable “Stable.” A

final model was reached using five independent variables to ascertain the likelihood that neighborhoods were resilient after sustaining a shock, which in this research was the Great Recession (Table 15). In the first step, the variables “medianHHincome” and “White” representing demographics were entered to control for race and income. In step two, the remaining three variables were entered and can be more generally categorized as neighborhood-scale physical character (house size, rates of renovation/maintenance), and social character (attendance of neighborhood schools).

TABLE 15: List of independent variables used in the logistic regression model and their descriptions. Source: 2012 Charlotte Mecklenburg Quality of Life Study.

Variable Name	Description
medianHHincome	Median household income of each Neighborhood Profile Area (NPA).
White	Percentage of Neighborhood Profile Area (NPA) population self-identified as White or Caucasian population.
Heated_sqft	Percentage of NPA population self-identified as White or Caucasian.
Residential_reno_permits	Number of renovation permits for residential buildings for each Neighborhood Profile Area (NPA).
neighborhoodschools	Percentage of Charlotte-Mecklenburg School (CMS) students attending neighborhood schools for each NPA.

Logistic regressions first compute a model that contains only the constant with no predictors included (the “null model”) for use as a comparison. This initial model showed that 71.7 percent of cases overall could be correctly classified by simply assuming that all cases were “stable.” In step one, the variables medHH\_income and White were entered which improved the model and explained 85.0 percent of the variation. At this point, the model was much better at predicting an “unstable” classification than “stable.” Both variables were found to be significant: medHHincome

( $p=.004$ ), and White ( $p=.024$ ). The variables heated\_sqft, neighborhoodschools, and residentialreno\_permits were entered in the next step, which further improved the model to correctly classify 86.7 percent of overall cases and an improvement to correctly predict the stable category from 64.7 percent to 76.5 percent (Table 18). This confirms that the addition of the three variables in Step 2 improved the model's overall ability to predict the cases as belonging to their observed (actual) categories.

Results from the stepwise binary logistic regression show the probability of the model chi-square (40.602) was highly significant with  $p<.001$  (Table 16). Therefore, the null hypothesis that there is no difference between the model containing only a constant and the model with the independent variables added was rejected. The explained variation in the dependent variable "Stable" is 70.6 percent (Nagelkerke  $R^2$ ) and a relationship between the independent variables and the dependent variables was supported (Table 17).

TABLE 16: Omnibus Tests of Model Coefficients.

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	10.833	3	.013
	Block	10.833	3	.013
	Model	40.602	5	.000

TABLE 17: Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	30.927 <sup>a</sup>	.492	.706
a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.			

In logistic regression, if the estimated probability of the group assignment occurring is greater than or equal to 0.5 (better than a 50/50 chance), the event is classified as occurring (e.g., “stable”). Conversely, if the probability is less than 0.5, the event is classified as not occurring (e.g., “unstable”). The effectiveness of the model was then assessed by comparing the predicted classifications to the actual (observed) classifications (Table 18).

TABLE 18: Classification Table of model prediction.

Classification Table <sup>a</sup>					
	Observed		Predicted		
			Stable		Percentage Correct
	Unstable	Stable			
Step 1	Stable	Unstable	39	4	90.7
		Stable	4	13	76.5
	Overall Percentage				86.7
a. The cut value is .500					

The effectiveness of logistic regressions can also be measured in terms of *sensitivity* and *specificity*. Sensitivity reports the percentage of cases correctly predicted by the model to be positive (e.g. yes for “stable”), or true positives. Specificity reports the percentage of cases correctly predicted to not have the observed characteristic (e.g., no for “unstable”), or true negatives. In this model 76.5 percent of stable neighborhoods were correctly predicted as stable and 90.7 percent of unstable neighborhoods were correctly predicted as unstable. The *positive predictive value* is a measure of model’s ability to correctly predict a true positive, i.e. the percentage of correctly predicted cases as stable compared to the total number of cases predicted as stable. In this case, this is

$100 \times (13 \div (4 + 13))$ , which is 76.4 percent. That is, of all cases predicted as stable, 76.4 percent were correctly predicted. Similarly, the *negative predictive value* measures the model's ability to correctly predict a true negative, and is calculated as a percentage of correctly predicted cases as unstable compared to the total number of cases predicted as unstable. In this case, this is  $100 \times (39 \div (39 + 4))$ , which is 90.7 percent. That is, of all cases predicted as unstable, 90.7% were correctly predicted. Therefore, the model is better at predicting unstable than stable.

Another common way to assess the adequacy of a logistic model is with the "Hosmer and Lemeshow goodness of fit test," an indicator of how *poorly* the model predicts the categorical outcomes as a whole. The result of this test is statistically significant if the model is a *poor* fit. As indicated in Table 19, the Hosmer and Lemeshow test is not statistically significant ( $p = .512$ ), verifying the model is a good fit. After determining the goodness of fit of the model, the results can then be interpreted.

TABLE 19: Hosmer and Lemeshow goodness of fit test results.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	7.235	8	.512

The contribution of each independent variable to the model and its statistical significance is shown in Table 20. The Wald test was used to determine the statistical significance for each independent variable in the model. The probability of the Wald statistic for four of the five independent variables was found significant, and therefore the null hypothesis that the  $b$  coefficient is equal to zero for median household income, heated square feet, neighborhood school attendance, and residential renovation permits is

rejected. None of the standard errors (S.E.) are greater than 2.0, indicating that the model does not exhibit problems with multicollinearity.

TABLE 20: Logistic regression predicting neighborhood stability based on heated square footage, attending neighborhood schools, and residential renovation permits, holding median household income and White constant.

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	white	.014	.035	.168	1	.682	1.014	.947	1.086
	medHHincome	.000	.000	4.110	1	.043	1.000	1.000	1.000
	heated_sqft	.004	.003	2.580	1	.108	1.004	.999	1.010
	neighborhoodschools	.135	.067	4.056	1	.044	1.145	1.004	1.306
	residentialreno_permit	.383	.163	5.535	1	.019	1.466	1.066	2.017
	Constant	-27.620	9.121	9.170	1	.002	.000		
a. Variable(s) entered on step 1: heated_sqft, neighborhoodschools, residentialreno_permits.									

Of the control variables, medianHHincome remained significant ( $p=.043$ ) but White ( $p=.682$ ) did not. Additionally, the results indicate that heated\_sqft ( $p = .108$ ), neighborhoodschools ( $p = .044$ ), and residential\_renopermits ( $p = .019$ ) added significantly to the model and its prediction. The  $B$  coefficients in the regression equation predict the probability of a neighborhood being classified as stable and represent the change in the log odds that occur for a one-unit change in an independent variable when all other independent variables are kept constant. For instance, the log odds change for “heated\_sf” is .004, which is the increase in log odds (as the  $B$  coefficient is positive) for

house size, indicating that for each increase in one unit in each of the predictor variables, the NPA was: house size, 0.4 percent ( $1.004 - 1.0 = .4$ ); percent attending neighborhood schools, 14.5 percent; and residential renovation permits issued, 46.6 percent; more likely to be coded as stable. The model yields the following regression equation:

$$\log(p/1-p) = -27.62 + 0.004(\text{heated\_sqft}) + 0.135(\text{neighborhood\_schools}) + 0.383(\text{res\_reno\_permits})$$

where  $p$  = the probability of a neighborhood being stable.

To be characterized as a useful model, the accuracy rate should be 25 percent higher than the by chance accuracy rate. The minimum classification accuracy rate for the model was calculated to be at least 74.26 percent. The actual accuracy rate for predicting group membership is 88.3 percent, and therefore is sufficient to characterize the logistic regression model as useful.

In summary, a logistic regression was performed to ascertain the effects of heated\_sf, number of residential\_renovation\_permits, and percent of children attending neighborhood schools after controlling for income and race on the likelihood that a neighborhood would be stable after sustaining a financial shock. The binary logistic regression model was shown to be statistically significant,  $\chi^2(5) = 43.402, p < .0001$ . The model explained 73.9 percent (Nagelkerke  $R^2$ ) of the variance in stability and correctly classified 88.3 percent of cases. Sensitivity was 82.4 percent, specificity was 90.7 percent, positive predictive value was 77.8 percent and negative predictive value was 92.9 percent. Based on this analysis, two predictor variables are statistically significant at the  $p < .05$  level, one is significant at the  $p < .10$  level, and all are associated with an increased likelihood of neighborhood stability.



## 6.5. Spatial Analysis

Another chief consideration of the research project is the spatial distribution of starter-home neighborhoods. Many are located on the urban-rural fringe or in disadvantaged locations far from services and amenities where land is less expensive to purchase. Others fall in undesirable locations marked by elements of environmental injustice that often house vulnerable populations with limited options. Geographic mapping and spatial statistics using ArcGIS aid in understanding the geographic implications of the starter home communities.

U.S. Census Bureau data at the census tract level is used to generate maps and statistics to help paint a picture of starter-home community contexts. Data from the 2000 census decennial and the 2011 1-yr ACS Estimate are useful for constructing a time series comparison. These years are chosen because changes in the unit of analysis and the extents of geography between the 2000 and 2012 QoL differ, meaning they cannot be compared directly. The analysis reveals how the neighborhood context and demographics have changed over the study period (Figs. 51-56). This information provides greater insight into the starter-home model and how the neighborhoods changed relative to income, distribution and ethnicity over the 2000 decade. For example, did a community begin as a low-income area and remain so throughout the 2000-decade, or did it transition into a higher income category? The following series of maps reflect the rapid growth experienced in Charlotte, and the outward spread of development. The temporal information gained provides deeper understanding of the starter-home model and demonstrates how it interacts with its surrounding context.

The study neighborhoods were located in 32 census tracts in 2000 and contained a total population of 202,527. By 2011, the number of census tracts had increased to 48 and contained a total population of 225,361. The statistics of the census tracts containing the starter home neighborhoods (Table 21) indicate the largest increases over the study period in Black and Hispanic populations. Of the 32 tracts, 14 experienced a flip in racial majority, with 13 majority White transitioning to majority Black; and one majority Black transitioning to majority Hispanic. The settlement pattern also reflects the trend of increasing poverty and lower incomes within suburban neighborhoods as previously discussed. Maps depicting change in the Hispanic and Black populations (Figs 51 -54) over the 2000 to 2011 study period reveal the dramatic change in Mecklenburg County's minority populations. Within the study tracts, the average Black population increased from 31.7 percent to 42.6 percent (Figs. 53 & 54) and the average Hispanic population doubled from 7.5 to 15.2 percent (Figs. 51 & 52). These groups represent the greatest increases, with the average Asian population increasing only slightly from 3.3 to 4.4 percent. In contrast, the average White population within the tracts containing the study neighborhoods decreased from 56.1 percent to 41.5 percent (Figs. 54 & 55). The county's average share of Black population is 31.85 percent, and an average of 11.7 percent Hispanic, indicating that the areas containing the study starter-home NPAs have higher numbers of minority residents than does the county, on average. The exception is the share of Asian population that remained below 5 percent in all but 12 NPAs.

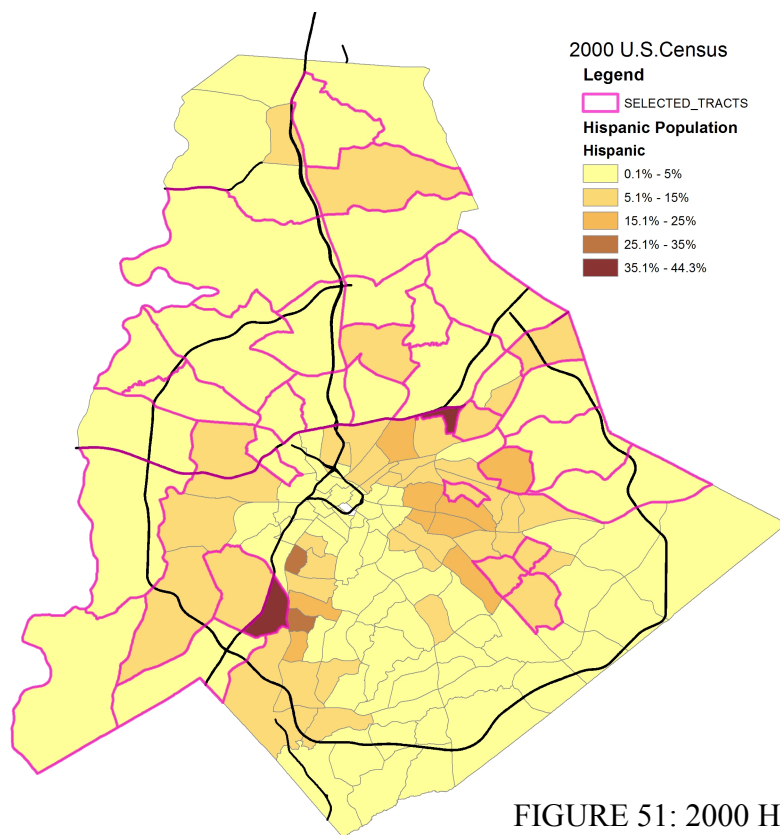


FIGURE 51: 2000 Hispanic population.

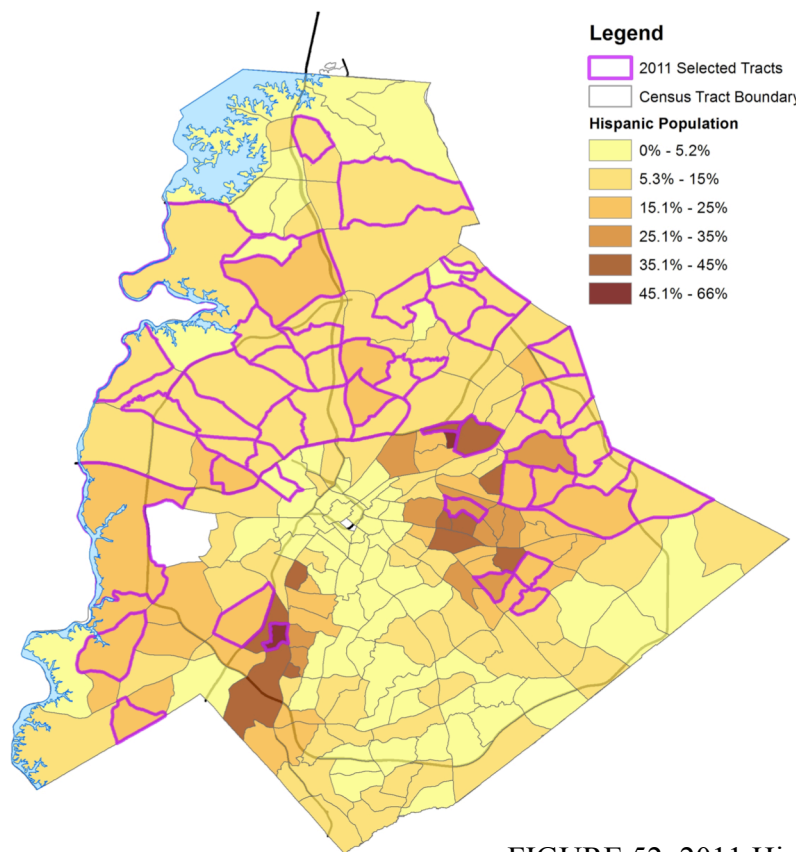


FIGURE 52: 2011 Hispanic population.

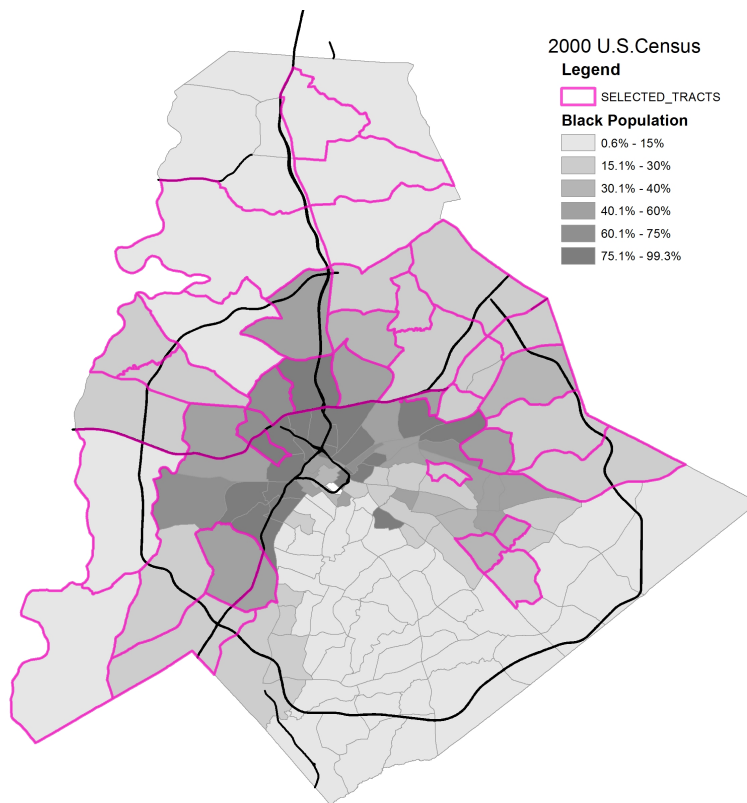


FIGURE 53: 2000 Black population.

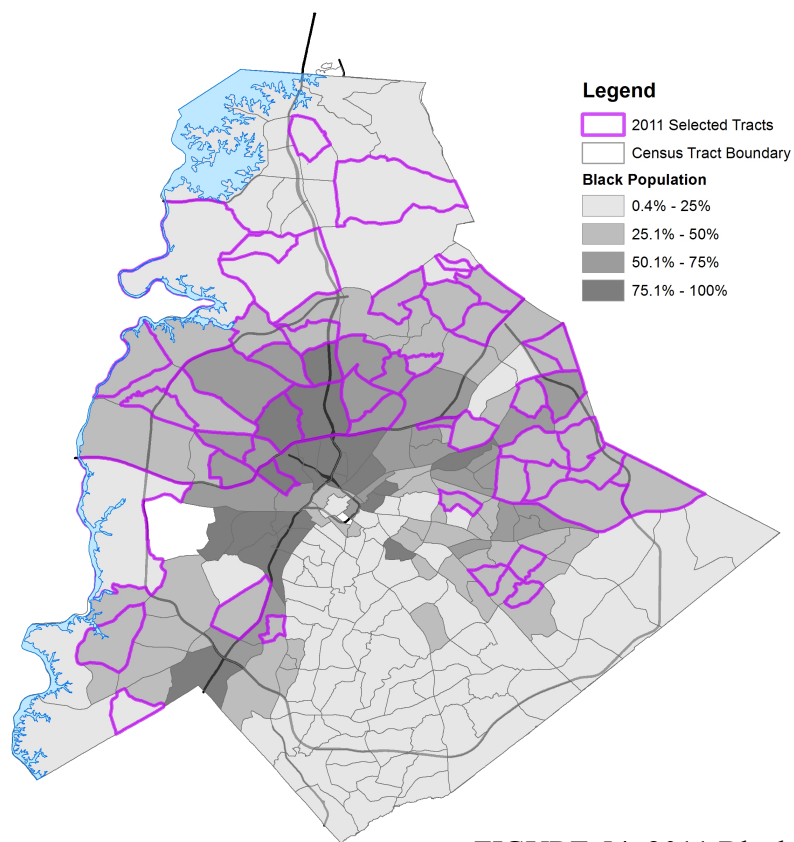


FIGURE 54: 2011 Black population.

This trend is also reflected in the White population, with an average population of 54.89 percent in the study tracts, 13.39 points above the County average. The tracts outside Charlotte's 'crescent' remained predominantly White (Figs. 55 & 56). The maps illustrate a noticeable moving out of White populations from the crescent. The large gains in the Hispanic population that occurred in some census tracts led to a near-even distribution across the three dominant racial groups. These gains occurred primarily in the extreme east and west areas of the county, as evident in the maps. Smith and Furuseth (2004) describe this trend as "the new Latino immigrant and settlement geographies" (from abstract) in the southwest and eastern parts of Mecklenburg County. Latino migrants to Charlotte primarily bypassed the urban core and fringe areas in favor of more affordable maturing suburbs with a high share of rental units.

When comparing median incomes, 14 tracts showed a decrease, 8 tracts remained relatively flat, and 10 tracts experienced an increase in median income. Two tracts experienced a decrease in median income greater than \$9,250, and one decreased by more than \$27,000. On the upper end of NPAs where incomes increased two additional tracts showed more than a \$20,750 increase in median income. Comparing the 2011 5-Year ACS data, the median household incomes for the starter home communities range from \$18,602 (a figure well below the poverty level) to the highest at \$130,102. Of the sixty communities, 20 are above the county median income of \$61,973 and 40 are below.

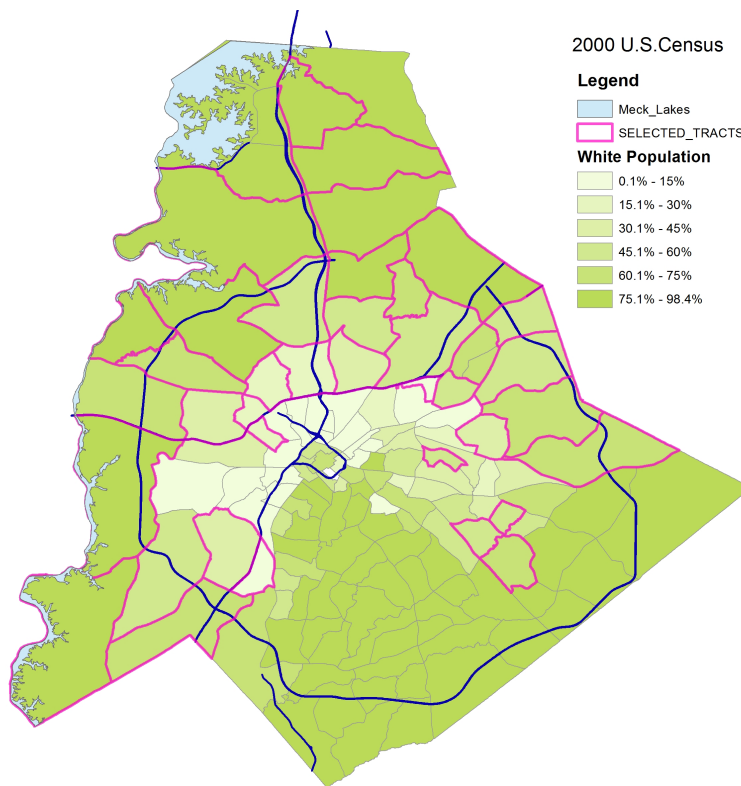


FIGURE 55: 2000 White population.

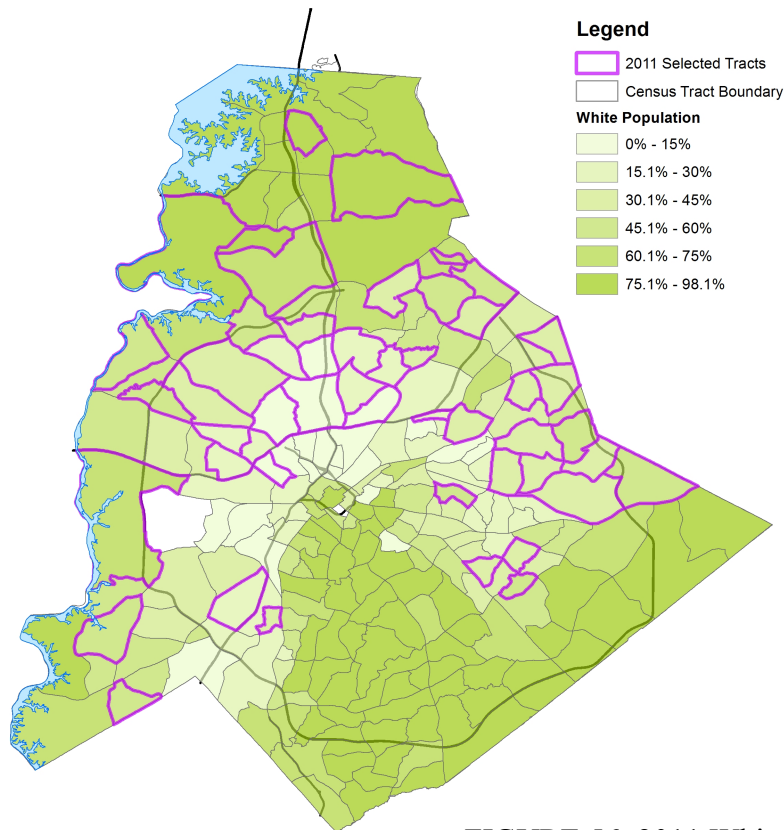


FIGURE 56: 2011 White population.

The map in Figure 57 shows the proximity of starter-home NPAs to LULUs – locally unwanted land uses – in Mecklenburg County. It is evident that the unstable NPAs are disproportionately located along railway lines and interstates, and near the airport. The environmental hazards identified by the EPA are also densely clustered around these transportation corridors and surround many unstable NPAs in Northwest and East Charlotte, including the NPA containing Windy Ridge. In general, the hazards are located within the Charlotte ‘crescent’ and much less dispersed in the ‘wedge’ and northern part of the County.

The pattern of stable NPAs located outside the I-485 loop is also evident. These locations display the “fortunate” conditions described by Voith (2000) as the beneficiary of the billion-dollar plus economic development infusion that spurred new construction. The newer suburban locations outside the loop are more appealing to families that have sufficient resources and can choose more stable, and thus higher priced neighborhoods. The spatial distribution of the unstable starter-home groups represents primarily infill development and despite closer proximity to Uptown, they were not able to maintain home value. It seems contrary to common market understanding, especially given the development boom and cultural revolution happening in Uptown. This suggests that inserting new construction starter-home housing into existing, and already challenged neighborhoods does not necessarily have a positive impact on the neighborhood. Rather, the surrounding ills of the challenged neighborhood exert a negative influence on the new homes. This can leave homeowners who buy such homes “trapped in space,” as described by Harvey.

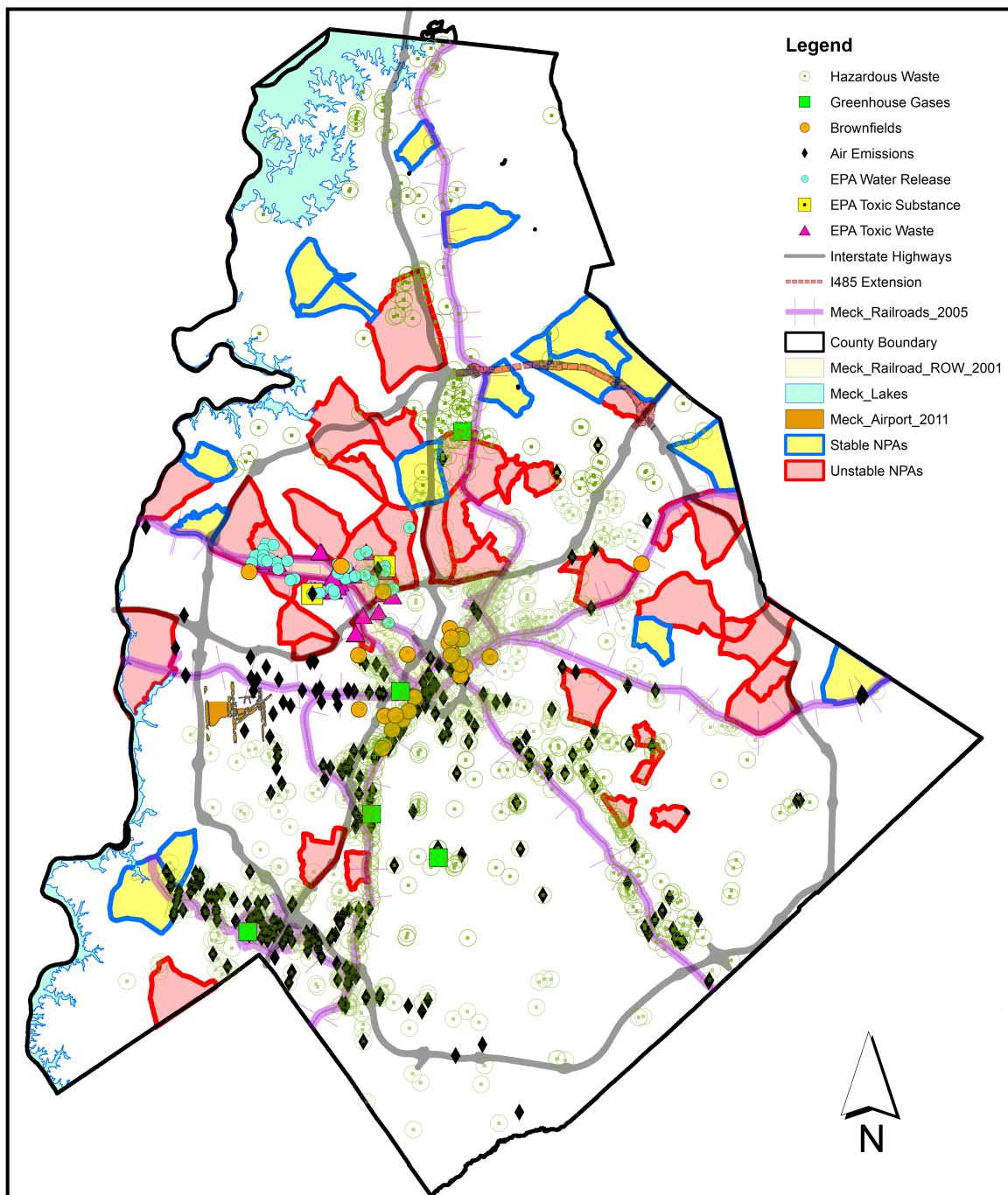


FIGURE 57: Map of stable and unstable NPAs showing proximity to railroads, highways, and environmental hazards. Data source: 2012 Charlotte Mecklenburg Quality of Life Study and U.S. Environmental Protection Agency.



TABLE 21: Analysis of census tracts in Mecklenburg County, 2000 and 2011.

NEIGHBORHOOD - 2000	NEIGHBORHOOD - 2011	%BLACK 2000	%BLACK 2011	%WHITE 2000	%WHITE 2011	%HISP 2000	%HISP 2011	%ASIAN 2000	%ASIAN 2011	\$ MEDIAN INCOME 2000	\$ MEDIAN INCOME 2011
Matlea	Matlea	44.3	49.6	31.5	31.4	19.1	20.2	3.2	2.5	42,456	55,649
Smithton	Smithton	23.5	29.3	59.4	39.3	11.4	35.3	3	3.8	47,202	37,616
Brookchase	Brookchase	26.8	30.8	53.3	46.8	13.9	26.5	4	2.4	38,333	37,687
Fowler Springs	Fowler Springs	38.2	41.1	46	33.8	9	32.2	4.8	5.3	44,155	44,928
Sycamore Grove	Sycamore Grove	31.7	38.3	57.1	42.7	6.5	21.0	3.4	2.1	52,609	52,109
Lady Liberty	Lady Liberty	51.3	46.2	34.3	29.6	7.5	25.0	4.7	6.5	37,863	44,495
Squirrels Foot	Squirrels Foot	46.9	25.4	14.1	32.8	35.6	66.0	2.5	1.3	22,740	30,336
Kadey	Kadey	76.3	83.2	19.4	12.9	2.4	3.2	0.3	1.0	27,868	18,602
Gooseberry, Reid Park, Summit Hills	Summit Hills	47.3	64.6	38.3	18.4	9.2	8.4	3.8	7.7	41,471	41,280
	Gooseberry, Reid Park		60.4		20.5		21.7		3.5		41,589
McAllister, Palm Breeze	McAllister, Palm Breeze	62.3	75.6	28.9	13.5	3.8	8.9	3.4	2.5	35,000	34,856
	Kingville	47	55.0	5.1	18.6	44.3	36.0	2.5	1.5	31,633	32,782
Braden	Meadow Knoll, Braden	79	81.2	16.7	9.7	1.8	7.3	1.5	1.7	39,514	37,283
Red Shed, Nevin Glen, Meadow Knoll	Nevin Glen, Red Shed	58	56.1	31.9	22.9	3.2	17.5	5.1	6.0	38,774	43,889
	Nevin Brook		74.5		13.5		10.5		3.1		37,988
Hedge Maple	Hedge Maple, Shining Oak	16	42.6	76	44.3	3	10.9	3.8	4.2	75,837	69,150
Henderson Oaks, Brandie Glen, Michaw	Henderson Oaks	30.9	55.9	56.9	26.2	6.3	23.9	4	1.9	46,843	43,160
	Brandie Glen		61.5		24.7		11.0		4.1		53,375
Meadowmont, Appledale, Stowe Acres, Shining Oak	Meadowmont	16.6	16.3	75.3	74.2	2.2	3.7	4.6	5.4	80,201	130,102
	Shining Oak		33.9		46.6		6.9		13.7		78,980
	Appledale		28.9		59.9		7.1		5.4		83,213
	Stowe Acres		40.3		32.2		6.1		21.8		98,922
Lowen	Lowen	27.8	43.9	59	31.6	3.3	7.4	8	18.1	50,671	53,261
Reigate	Reigate	26.5	44.6	57.7	39.6	8	12.3	5.8	4.2	52,755	72,387
Olsen, Katie Creek, Underwood	Olsen	32.4	48.6	56.3	35.6	3.5	14.0	6.3	5.8	62,872	64,700
	Katie Creek, Underwood		54.8		33.0		10.3		4.5		71,866
Gardenia, Brookstead Meadow, Meadowfield	Meadowfield	27.6	39.4	63.9	37.0	3.1	29.7	3.4	2.4	57,391	53,650
	Gardenia		42.8		45.9		9.4		3.5		65,662
	Brookstead Meadow		45.1		42.3		12.6		2.8		54,120
Starflower, Silvercrest, Stewarts Crossing	Starflower, Stewarts Crossing	20.9	44.4	72.1	38.5	3.6	20.1	1.9	1.7	60,320	50,397
	Silvercrest		32.9		57.3		8.8		2.0		78,092
Tibble Creek	Tibble Creek	17.1	29.6	69.5	51.1	7.1	21.3	4.3	4.1	57,313	56,802
McGarry	McGarry	9.7	13.0	83.6	63.1	2.6	21.0	2.7	7.3	43,411	34,936
Steele Meadow, Orchard Grass	Steele Meadow, Orchard Grass	7.7	33.3	86.6	46.9	1.7	15.7	2.8	8.6	71,832	68,737
Jerpoint Abbey	Jerpoint Abbey	29.2	23.7	60.5	58.0	4.6	18.4	4.5	7.3	59,036	70,268
Red Tallen, Bitter Creek	Bitter Creek, Red Tallen	17.3	39.4	77.8	51.3	1.8	6.5	1.7	3.1	62,750	77,750
Long Paw, Meadecroft, Bristle	Long Paw, Meadecroft	18.4	43.1	75	50.1	3.2	5.6	2.1	1.9	48,328	66,299
	Bristle		49.9		36.8		13.2		2.2		54,334
Day Lilly, Belmont Stables, Verese	Verese	8.2	50.3	88.5	39.2	1.3	7.1	1.5	3.0	56,232	59,167
	Belmont Stables		36.6		53.5		9.2		3.4		71,486
	Day Lilly		45.5		39.1		13.6		5.7		55,464
Darwick, Icon	Darwick	48.2	64.7	46.3	23.7	2.7	11.5	1.7	2.4	55,883	71,315
	Icon Way		80.0		11.7		10.0		0.6		48,217
Prairie Rose, Walden Lea, Glencreek	Prairie Rose	7.6	11.3	86.5	83.0	3.3	5.3	1.2	1.8	71,761	92,571
	Glencreek		7.6		87.2		4.7		1.7		82,868
	Walden Lea		13.3		72.5		15.6		1.1		44,577
Twelvetreets	Twelvetreets	7.9	4.9	84.8	88.3	5.3	8.7	1.1	2.1	69,330	90,089
Heritage Green	Heritage Green	10.3	9.8	83.4	81.6	4.2	10.6	1.3	2.1	60,500	65,506
	<b>AVERAGES</b>	<b>31.7</b>	<b>42.6</b>	<b>56.1</b>	<b>41.5</b>	<b>7.5</b>	<b>15.2</b>	<b>3.3</b>	<b>4.4</b>	<b>51,340</b>	<b>58,802</b>

The statistical and spatial analyses presented thus far have revealed a big part of the starter-home picture, but there is more to learn through the painting of the rest. The discussion will now move to that which could not be learned from a numerical analysis.

Residents' voices are added to further ground the research in the lived experiences in the neighborhoods through the use of door-to-door surveys. The information gathered through the surveys enriches the understanding and aids in the interpretation of the data when data is unclear or contradictory. The surveys are discussed in the following section.

## 6.6 Resident Surveys

An important source of data comes from surveys that were conducted during the Fall 2014 and Spring 2015 semesters. Including surveys within a research project provides in-depth information pertaining to participants' experiences and viewpoints of the particular topic being studied (Turner, 2010). The survey guide and a waiver for consent forms were submitted to, and approval gained from the UNC Charlotte Institutional Review Board (IRB) prior to implementation to assure proper conduct of the surveys. The survey instrument is included in Appendix C. I employed a semi-structured survey design that included a schedule of standard questions that allowed flexibility for the natural flow of conversation to occur. Questions included both open-ended types and those answered on a 5-point Likert scale. Survey discussions were documented by taking notes by hand and subsequently used for post-analysis and inclusion in written results. Survey results are used to combine with the other data collected to provide a rich, well-rounded array of information for analysis. This approach allowed me to garner perspectives directly from those living in starter-home developments in Mecklenburg County, thus giving context to the data.

Residents from both stable and unstable study neighborhoods were surveyed either by telephone or by door-to-door (the vast majority) to provide a representative sample. A total of 30 surveys were obtained, with 17 coming from unstable and 13 from

stable neighborhoods to represent a spectrum of stability. In general, two surveys per neighborhood were gathered and the sample includes the top five stable and bottom five unstable neighborhoods. Although the number of surveys taken may seem small, they are not the main focus of the research. Rather, they help clarify the findings and provide another layer to the data. The number of surveys gathered was sufficient to provide the insight into the lived experience of residents that I was seeking.

All surveys were analyzed to identify emergent themes and issues, thereby providing the context needed for placing other data gathered. Methodology outlined by Weston et al. (2001) was adapted and applied within this project, and implemented as follows. I first identified four overarching categories to form the backbone of a coding system – the Economic, Social, Physical, and Relational characteristics of starter-home neighborhoods. These are common categories used in the literature relating to community resilience. All transcripts were evaluated in search of themes that emerged more than twice in relation to each of the four categories. Identifying words were used as markers of the four categories and became the project's Codebook (Table 22). Subcodes were also developed for each code when a finer level of demarcation was needed. After an initial sample of interviews were coded, results had been evaluated to determine the robustness of the codes and if they were able to answer the research questions. Themes, codes and subcodes were added/deleted as appropriate. Coding continued until all surveys had been evaluated. An analysis of the results identified common characteristics, relationships, and experiences in the study neighborhoods.

Resident surveys were included in the research project to learn things that can only come from the perspectives of those living in the neighborhoods. These include

reasons why a resident chooses to move to a particular neighborhood, what things are liked/disliked about the neighborhood, residents' feelings of safety, and the social dimensions of a neighborhood.

TABLE 22: Overarching categories used to evaluate community resilience in resident surveys.

ECONOMIC	SOCIAL	PHYSICAL	RELATIONAL
Price	Schools	Location	Friends
Shopping	Safety	Design of Homes	HOA
Income	Outdoor life	Streets	Police
Transportation	Age group	Open space	Youth
Homeownership		Trees	Privacy
		Conditions	Owners/Renters

From an economic perspective, slightly more than half of survey respondents are homeowners and 11 of the 16 homeowners used conventional financing. Three owners have adjustable rate mortgages and one used builder financing. Of the four non-conventional mortgagees, all are located in unstable neighborhoods. This finding follows that in the literature of subprime and alternative mortgages prevalent in lower-income neighborhoods and with minorities and the role they played in the foreclosure crisis – a contributing factor to decreased home values. A basic assumption with starter homes is the transiency associated with the development model of a stepping-stone, first home. However, when reviewing the survey responses I found that residents had lived in their homes on average for 5 years and 3 months and more than one-third had no plans to move. The number of times moved in the previous five years was also lower than expected. Four residents in stable neighborhoods reported having lived in their homes for over ten years, as did four in the unstable neighborhoods. These findings suggest more of

a sense of longer-term tenure than expected (Table 23), which could be attributed to the effects of the Recession where the loss in personal wealth and job stability made people reluctant to move, change jobs, or put their homes up for sale. Nevertheless, many residents expressed satisfaction with their homes. This may be a sign of place attachment that forms with a resident and their home, but does not extend to the neighborhood (Sorensen et al., 2015 research forthcoming). In these cases, the home may act as a buffer to an undesirable neighborhood.

TABLE 23: Survey data related to housing tenure.

ECONOMIC CHARACTERISTICS		Unstable	Stable
Length of residence in home (months)	Average	5yr 3mo	5yr 3mo
Number of moves in last 5 years	Average	1.0	1.1
How long are you planning to live here?	Less than 5 years	10	6
	Don't plan to move	6	5
Would you recommend a friend buy a home in the neighborhood?	yes	14	13
	no	3	0

Residents made several comments about renters (including Section 8 voucher holders) in both stable and unstable neighborhoods, with references made to investor-landlords owning multiple properties within a neighborhood. One renter recounted the advertisement she answered for her home read, “No Section 8 renters,” but that there were many voucher-holders in the neighborhood. I verified this observation by checking rental ads on CraigsList Charlotte and found several that stipulated either Section 8 renters were or were not accepted. One homeowner added that investor-owners do not maintain their properties to standards required by neighborhood covenants, but renters aren’t aware of the HOA rules. Another pointed out that because of numerous renters in the neighborhood, upkeep of lawns and homes was not consistent.

Of the thirty residents surveyed, all but three would recommend to a friend to buy a home in their neighborhood. One-half of the respondents have incomes below \$65,000 (roughly equivalent to the median County income), but one-third have incomes above \$85,000 including five above \$100,000 – well within middle-class levels (Table 24). These income splits are weighted on the stable and unstable ends, however, with seven households having incomes below \$35,000. In general, those respondents working outside the home are traveling ten to fifteen miles to get to work. But a large number (13 of 30) are traveling more than 20 miles to work, which points to fringe locations away from employment centers.

TABLE 24: Survey data related to socio-economic and transportation characteristics.

SOCIAL CHARACTERISTICS		Unstable	Stable
Children under age 18 at home	Average	1.5	1.1
Age Range	Under 50	12	7
	Over 50	4	6
Income Range	Under \$35,000	7	0
	\$35,000 to \$65,000	6	2
	\$65,000 to \$85,000	1	2

ECONOMIC CHARACTERISTICS		Unstable	Stable
Income Range	\$85,000 to \$100,000	2	3
	Over \$100,000	0	5
Main form of transportation	car	15	12
	bus	2	1
AdultNumber1 distance to work (miles)	Average	9.0	14.1
	20 or more	6	3
AdultNumber2 distance to work (miles)	Average	11.9	10.0
	20 or more	2	2

Social indicators are measured to reveal relationships and ties (social capital) within the neighborhoods using the subcodes identified as schools, safety, outdoor life, and age groups. When examining the results of the surveys very interesting patterns

emerged. Of all respondents, the age group of “30s” had the highest number (10), similar to the median age of 35.3 of residents in Mecklenburg County. Splitting the age groups by those under 50 and over 50, the stable group was roughly split (7 under, 6 over) and the unstable are predominantly younger (12 under, 4 over). In the statistical analysis using QofL data, it was established that three-quarters of children in the study NPAs attend neighborhood schools. Of the thirty resident surveys gathered, seven respondents had no children at home, and therefore did not rate their neighborhood schools. Of the remaining 23, the majority (14 of 23) rated them as either “good” or “excellent,” and nine were rated as either “very poor,” “poor,” or “fair.” The rankings were not evenly distributed, however, as schools in the unstable neighborhoods received seven of the nine lower rankings, compared to only two rankings of “fair” from the stable. One resident also commented that the school her children attended was very overcrowded.

Another important social factor is safety, and residents were asked whether or not they feel safe in their neighborhood, and what makes them feel safe (Table 25). Only one respondent reported feeling unsafe and attributed this to people trespassing on his property and jumping over his fence. Some comments made by residents suggest they feel their neighborhood is unsafe, however, and take measures to assure their own safety. Four residents reported they feel safe because they have a gun or guns, and three feel safe because they have watchdogs. Other comments made regarding feeling safe include:

*I don't hear a lot of police cars coming through, so I think it's safe.*

*I wouldn't walk here alone after dark, but it's okay to leave things outside.*

*There are no gunshots in the neighborhood.*

*I know everyone on my street.*

The sentiment was overwhelmingly positive toward feeling safe, though, with the most common response attributed to feeling safe (16) as “neighbors watching out for each other.” The second most common (10) is attributed to police presence in the neighborhood by either regular or random patrols, and quick police response when called.

TABLE 25: Survey data related to neighborhood safety.

SOCIAL CHARACTERISTICS		Unstable	Stable
Do you feel safe in your neighborhood?	Yes	16	13
	No	1	0
What makes you feel safe/unsafe	Police presence	7	3
	Low crime in the neighborhood	3	5
	Neighbors watching out	7	9
	Have a dog(s)	3	
	Possess a gun(s)	3	1
	Alarm system/security	2	2
	Lighting		2

Two surveys were gathered in Windy Ridge (both with renter families), and issues of safety remain paramount there with numerous vacant homes and streets still in poor condition. The first resident described many home break-ins and vandalisms, including her own home the day before she moved in. Homes on her street had been vandalized multiple times. The second resident described an environment of frequent crime, stating, *“We need a police station nearby. In fact, the police should camp out here.”*

The third category of survey data is related to the physical design of the neighborhoods and homes. Data gathered from the QofL survey and discussed previously indicated that starter-home NPAs had less access to amenities as compared to county averages. Therefore, I included questions in the survey to specifically find out about the nearness to amenities and resident’s opinions about them (Table 26).



Responses indicate the unstable neighborhoods are further from all the key amenities included in the survey than are the stable neighborhoods; and in particular, grocery stores, medical or dental services, drug stores, banks, childcare, and entertainment venues are generally not nearby. Results from the surveys differ from the statistical analysis from the QofL data. I attribute this to the difference between the aggregated results from the QofL that is taking a much larger area into account, as opposed to the surveys that are on a much smaller scale and reflect direct responses about a specific neighborhood.

TABLE 26: Survey results of the proximity of amenities to starter-home neighborhoods.

PROXIMITY TO AMENITIES				
UNSTABLE	< 1 MILE	1 TO 2 MI	3-5, 5+ MI	N/A
Groceries	4	5	8	
Medical/dental care	2	1	14	
Child care	5	1	6	5
Shopping - not food	4	4	9	
Entertainment	0	1	16	
Gas Stations	9	5	3	
Drug store	4	6	7	
Banking	3	5	9	
Places of worship	10	3	4	

PROXIMITY TO AMENITIES				
STABLE	< 1 MILE	1 TO 2 MI	3-5, 5+ MI	N/A
Groceries	5	8		
Medical/dental care	5	8		6
Child care	5	0	1	
Shopping - not food	4	4	5	
Entertainment	3	3	7	
Gas Stations	8	4	1	
Drug store	8	5		
Banking	6	6	1	
Places of worship	6	5	2	

When asked which goods or services residents felt were the most important to have close to a neighborhood, the most common response was a grocery store (16 of 30

surveys). In the unstable neighborhoods, a preference for grocery stores (7) was equal to a preference for health related services, either medical (3) or a drug store (4).

Respondents did not differ, however, in their shopping habits as 87 percent say those amenities nearby are either their first choice or are used often (Table 27). This demonstrates a symbiotic relationship between residential and commercial uses located near each other. Residents want and support a variety of commercial and service uses convenient to their neighborhood. Additionally, the frequency with which residents expressed the importance of a nearness to drug stores and medical services (11 of 30 responses), coupled with lower incomes, supports the idea that starter-home neighborhoods are home to vulnerable populations (i.e. the elderly, infirm, or children) as theorized in earlier chapters.

TABLE 27: Survey results of resident preferences and frequency of use of amenities close to starter-home neighborhoods.

ECONOMIC CHARACTERISTICS		Unstable	Stable
What goods/services are most important to have close to a neighborhood?	Grocery store	7	9
	Drug store	4	1
	Medical services	3	3
	Schools	3	
How often do you use the amenities closest by?	Never/occasionally	2	2
	Often/1st choice	15	11

Other outcomes of physical design are expressed in homeowner preference – why do people choose to move to a particular neighborhood? Related to this initial question are those surrounding what characteristics of a neighborhood and its houses do residents like (Table 28) or dislike, and are there things the neighborhood is missing that would make it better? (Table 30). “Location” is named as a top reason for both the initial choice

of the neighborhood and what residents like best about it (which can also provide a reason for residents to want to stay). Location includes proximity to work, school, shopping, or major highways.

The neighborhood's overall appeal is also named as important to homebuyer preference, but was named much more frequently in stable (7) than unstable (2). These responses confirm the preferences for aesthetics that higher income people display as previously discussed (Harvey, 1987).

TABLE 28: Survey results of resident preferences for neighborhood choice and what residents like about their neighborhood.

PHYSICAL CHARACTERISTICS		Unstable	Stable
Main reason chose neighborhood	Location	5	5
	Price	3	2
	Schools	2	3
	Friends/Fam	2	4
	"nice" house/neighborhood	2	7
	Available	2	
Three things you like best about your neighborhood	Quiet	12	4
	Safe	7	5
	Close Work/School	4	1
	Close Shopp/Hwys	6	5
	"Nice"/Clean	5	3
	Teens not hang out	2	
	People watching out	2	1
	Friendly/Close knit		8
	Well Kept		2
	Park		2
	Ability to be active		2
	Family oriented		4

Residents also rated the condition of their neighborhoods and the houses in them similarly to the results in the student remote and on-site analysis exercise (discussed in the following section). Residents rated the conditions of stable neighborhoods and houses as good or excellent in 23 of 26 responses, as compared to 19 of 34 in the unstable. The effectiveness of homeowners associations was also ranked much higher in stable neighborhoods; a finding tied to how well kept is the neighborhood. An effective HOA was named by one resident as something missing that would enhance his neighborhood, while another conversely noted that their HOA had installed a small park in the neighborhood because there was not one put in originally.

The responses of “Available” and “Price” point to fewer choices for residents when choosing where to live, particularly for those in unstable neighborhoods. These responses are similar to those from Windy Ridge residents in the 2010 survey pointing to the few options available to them as the reason they chose to move to Windy Ridge. In this study, one of the two responses of “price” as the reason for choosing the neighborhood in the stable category reported he bought the home because it was a good deal as it had been in foreclosure. I expected price to be cited more frequently as a factor in deciding where to move to, but it was only named five times out of thirty responses.

Asking residents about what they dislike about their neighborhoods, and what they think is missing that might enhance it, provides a counter balance to those attributes they prefer (Table 33). More than half of respondents in stable neighborhoods could not name anything about their neighborhood they didn’t like, or that was missing that would make it better. Several residents in unstable neighborhoods echoed this sentiment. This indicates that many residents are very happy with their choice in a starter-home

neighborhood, reinforcing the idea that they can provide a good, affordable environment to raise a family.

TABLE 29: Survey results of resident opinions on the condition of their neighborhood, other homes, and the effectiveness of their homeowners association (HOA).

Unstable			
LEIKERT QUESTIONS	Very Poor/Poor/Fair	Good/Excellent	N/A
Condition of yards, streets, open spaces	8	9	
Effectiveness of HOA	4	3	10
Overall condition of houses	5	10	
Stable			
Condition of yards, streets, open spaces	3	10	
Effectiveness of HOA	3	7	3
Overall condition of houses		13	

TABLE 30: Survey results of things residents dislike about their neighborhoods, and what is missing that might enhance it.

PHYSICAL CHARACTERISTICS		Unstable	Stable
What are the three things you like least about your neighborhood?	Youth hanging out/misbehaving	4	
	Crime	3	
	Drainage problems	3	
	Too many cars in yards/on streets	3	3
	Nothing	3	7
	Yards not kept up	2	2
	Poor driveway	2	
	Near Airport/trains/busy hwy.	2	2
	Renters/type of people	2	
	Lack of trees/open spaces	2	
Is there anything missing that you think would enhance your neighborhood?	Park/trail/playground/trees	10	2
	Nothing	5	8
	Streetlights	2	1
	Character	2	

Approximately 60 percent of residents in unstable neighborhoods said that parks, trail access, playgrounds, and trees were missing and would make their neighborhoods better. Other design-related elements that residents are unsatisfied with include drainage problems, poorly designed driveways, a lack of streetlights, and a lack of character. In terms of exterior facades, all unstable neighborhoods are of vinyl siding (17 of 17), as opposed to roughly half of the stable (7 of 13). Numerous studies confirm that street lighting is the most important factor in perceived personal safety, and reduces crime rates (Haans and de Kort, 2012) and should be included in residential neighborhoods.

Residents were also asked what they liked best about their house (Table 31). The two most common responses (10 each) were its size – lots of space; and the layout – particularly a split arrangement of the bedrooms. Having a big yard was also a common answer. These elements all point to the typical draw of the suburban home and the ongoing pursuit of the American Dream.

TABLE 31: Survey results of things residents of starter-homes like best about their house.

PHYSICAL CHARACTERISTICS		Unstable	Stable
What do you like best about your house?	Lots of space	5	5
	Layout/bedroom arrangement	4	6
	Big yard/backs to woods	4	3
	Affordable	2	
	Garage/long driveway	2	
	Location		2

From my own observations of the neighborhoods when conducting the research there were particular physical characteristics that differentiated between the neighborhood types. I found some unstable neighborhoods to be located near ‘nuisances’

such as railroad tracks, environmental waste sites, the airport, and industrial areas. Other differences in unstable neighborhoods included fewer and smaller trees, or none at all; a lack of streetlights; numerous homes with mildew on the exterior siding; visible erosion in yards and along streets, and lack of topsoil. Additionally, a lot of homes were built with either no garage or a one-car garage. Families living in small homes may use garages to make up for a lack of storage. These things combine and contribute to a lack of parking, resulting in many cars parked on streets and in yards, a frequent complaint by residents. Other specific comments made by residents concerning physical elements of their neighborhoods include:

*There are too many cars per house and parking on the street. There's no room in the driveways.*

*The homes are cheaply built.*

*There is a small play area but it only has a sand lot and slide. It's full of ants.*

*I would only recommend this neighborhood for people just starting out.*

*There's a lot of noise from the airport, early morning and late at night.*

*I like that there is a wooded area behind my house that's undeveloped, but the house is not the best quality.*

In stable neighborhoods, I observed more and larger trees, narrower streets, fewer cars on the street, and homes free from mildew. The larger size of the trees present indicates they were installed at a larger diameter given the same relative age of the neighborhoods. The stable neighborhoods also had more double car garages and green spaces, and a general appearance of good upkeep.

The fourth category of analysis is relational, with questions designed to understand relationships within the neighborhood. Residents were asked how many

friends they have in their neighborhood and answers ranged from none to as many as twenty (Table 32). On average, residents in the stable neighborhoods reported having more friends at roughly one and one-half times the number of those in unstable neighborhoods. Eight respondents in unstable neighborhoods replied they had no friends in the neighborhood, in sharp contrast to stable neighborhoods where no respondents reported this. The high numbers of responses attributing safety to neighbors watching out for each other (16 of 30) indicates a sense of trust in most neighborhoods.

In some unstable neighborhoods residents commented they liked the fact that the police *did not* patrol the neighborhood too frequently, meaning with too much police presence they felt like they were “being watched.” Also commented was the feeling that seeing police meant that there was trouble in the neighborhood, and therefore the lack of police presence was associated with a good thing. These observations reflect the same sentiment that Harvey (1987) described in low-income groups’ distrust of authority and the police. At least one resident said he liked that people “kept to themselves” and another liked the neighborhood because there weren’t a lot of “winos and dogs out on the street.”

TABLE 32: Number of friends reported in the neighborhood.

RELATIONAL CHARACTERISTICS		Unstable	Stable
How many friends do you have in the neighborhood?	Average	3.6	6.3
	No friends	8	0
	1 to 3	4	3
	4 to 8	1	7
	9 to 12	3	2
	13 or more (high of 20)	1	1



Problems with youth hanging out is listed in four responses (all in unstable neighborhoods) as an undesirable trait of the neighborhood, and twice named as something positive if they *weren't* hanging out. It seems ironic that responses like “family-oriented” and “families with other kids” have positive associations for young children to play together, but negative associations for teenagers.

Other things that stand out when reviewing the responses are the differences between what the stable and unstable neighborhoods' residents listed as preferences and what they like best about their neighborhood. “Safe” and “quiet” are important neighborhood attributes to residents, and likely indicative of the choice of a suburban location and desire for privacy. Stable responses tended to prioritize social relationships – friends, family, parks and activity, and a close-knit neighborhood. The unstable neighborhoods' top priorities are safe and quiet (which can also encompass “teens not hanging out” and “people watching out”), and close to shopping or highways. Considering that stable neighborhoods have more friends, these findings reveal a higher level of social capital in stable neighborhoods, and a lack of it in the unstable.

#### 6.7 Site Analysis of Existing Conditions in Starter-Home Neighborhoods

The physical appearance of a neighborhood and the houses within it is one of the chief factors when deciding to buy a home. In addition to my own observations of the neighborhoods through on-site visits, I was able to supervise work done with UNCC students during the Fall 2013 semester to examine the identified starter home neighborhoods as a class project for GEOG 4000/5000 Neighborhood Planning Seminar. This course contained a mix of ten graduate and undergraduate students and was taught by Dr. Janni Sorensen. Working in groups of two, the students used remote means to

assess a set of randomly assigned study neighborhoods using online tools such as Google Earth, and County or City databases (Virtual Charlotte, Polaris 3G, and County departmental web pages). All students used a survey instrument tool I devised (Appendix D: "Windshield Survey") as a reference for use in neighborhood assessment. I consulted with the University's Internal Review Board (IRB) offices to assure compliance for the Windshield Survey. The Windshield Survey instrument provided standard guidelines for students to use when gathering information about each neighborhood, including such things as the condition of streets and homes, number of vacant houses, what types of businesses or community assets surround the neighborhoods, nearby transit stops, etc.

Additionally, each team selected two of their assigned neighborhoods (one each stable and unstable) for on-site assessment and "ground-truthing" using the same windshield survey instrument. This was completed as a team drove or walked through the neighborhood gathering data. Observations included things like the presence or absence of street trees, sidewalks, condition of homes and lots, and so forth. To assess the condition of neighborhood streets, students were instructed to look for specific things such as the presence of curb and gutter, potholes, erosion, and evidence, or the lack, of regular maintenance. The spreadsheet I prepared for students to tally the required observations and a matrix for scoring street conditions are contained in Appendix E. Data collected through these instruments was aggregated and categorized as either stable or unstable. The data was analyzed carefully for commonly reported themes, observed conditions and the like. The aggregated results from the windshield survey are discussed in the following paragraphs.

The two neighborhood types were found to be similar in some physical elements, but substantially different in other ways. Stable neighborhoods had more than three times the number of open spaces and neighborhood watch programs than did the unstable, and more than one-and-one-half times the number of neighborhoods with street trees. The condition of streets in stable communities was also substantially better than in unstable communities. Tables 33 and 34 present a summary of the windshield survey results.

TABLE 33: Summary of existing conditions found in Charlotte area stable and unstable starter-home communities using a Windshield Survey.

	Stable n=17	Unstable N=43	Stable Ratio Or %	Unstabl e Ratio Or %	Notes	
Number of Vacant Houses	20	46	1.54	1.70	5 stable not evaluated	15 unstable not evaluated
Number of Houses for Sale	47	123	2.61	2.93	2.61 per stable community	2.93 per unstable community
Number of Open Spaces	26	18.5	1.44	0.45	1.44 open spaces per stable	0.45 open spaces per unstable
Has Sidewalks	16	39	88.9%	92.9%	Stable with no sidewalks = 2	Unstable with no sidewalks=3
Has Street Trees	13	19	72.2%	45.2%	Stable with no street trees= 5	Unstable w/no streetTrees=23
Transit Stops Nearby	3	38	0.17	0.90	Stable with no stops = 15	Unstable with no stops = 23
Community Resources Avail.	18	9	1.29	0.26	4 stable not evaluated	8 unstable not evaluated
Neighborhood Watch Program	7	4	0.64	0.19	6 stable not evaluated	14 unstable not evaluated
Signs of Home Security	17	8	0.94	0.19	7 stable not evaluated	21 unstable not evaluated

To assess the condition of neighborhood streets, students were instructed to look for such things as the presence of curb and gutter, potholes, erosion, and lack of

maintenance (Table 35). On the surface, access to transit (which includes rail, bus, and express bus lines) appears to be high for unstable neighborhoods at 0.90 stops per neighborhood, and very low for stable communities at 0.17 stop each, on average. However, results gathered from the windshield surveys show that 23 unstable neighborhoods had no access to transit, which is more than 55 percent of the total unstable; and 15 of the 18 stable neighborhoods also had no access to transit. These results are different than what was indicated by the QofL data analysis but more accurately describes the actual conditions on the ground.

TABLE 34: Condition of streets found in Charlotte area stable and unstable starter-home communities using a windshield survey.

Condition Of Streets	Good	Fair	Poor	Avg Good	Avg Fair	Avg Poor	Notes
STABLE, n=17	13	0	2	76.5%	0.0%	11.8%	1 not evaluated
UNSTABLE, n=43	23	3	9	65.7%	8.6%	25.7%	7 not evaluated

TABLE 35: Matrix of guidelines to assess street conditions found in Charlotte area stable and unstable starter-home communities.

STREET CONDITION ASSESSMENT		
GOOD	FAIR	POOR
Adequate street width and drainage provided for; curb and gutter present. No signs of adjacent erosion or uneven, warped pavement. Streets clear of parked cars in travel lanes; shoulders well maintained.	No apparent erosion but may or may not have curb and gutter. Minimal parking in travel lanes. Few signs of cracks or potholes in pavement. Shoulders maintained in most areas.	Streets contain potholes, cracked and/or warped pavement, and/or no curbs. Drainage is poor. Erosion is evident adjacent to roadways, excessive parked and/or non-working cars blocking travel lanes. Weeds and/or dying grass in shoulders.

Evaluations of the windshield surveys completed by the GEOG 4000/5000 students provides some very interesting observations. Two emergent themes that were especially dominant in both stable and unstable neighborhoods included the lack of open space, gathering spots, or playgrounds; and the lack of nearby commercial amenities. Following these two dominant themes, others that occurred often were (in descending order): neighborhood isolation and automobile dependency; cul-de-sac or dead end streets; small lots and crowding; undesirable adjacent uses; the presence of nicely landscaped entrances and community signs; and problems with erosion and clay throughout the neighborhood. Insightful observations from the surveys and subsequent student presentations included comments about disconnected sidewalks that didn't go anywhere and numerous cars parked on the streets. The students noted positive observations although there was more emphasis placed on the negative. Positive attributes included such things as well-maintained houses or streets, and the presence of trees throughout the neighborhood. The observations made by the student groups align closely with comments made by residents of Windy Ridge in the 2010 previously conducted interviews, where the lack of open space and places to gather was of great concern with 84 percent of residents expressing a desire for open space in the neighborhood. Other themes that occurred in both the 2010 survey in Windy Ridge and the 2013 analysis presented here included automobile dependency, surrounding industrial uses, erosion throughout the neighborhood, and the sense of the neighborhood being a temporary place to live until somewhere better could be found. The adjacent uses nearby and surrounding starter-home communities and how they impacted residents was also a recurrent theme in the windshield surveys. Additionally, some comments pointed toward

environmental justice issues similar to those that Windy Ridge residents face due to surrounding industrial uses.

One of the GEOG 4000/5000 team members reflected from first-hand experience about life in a starter home community:

*As a current resident of one of these neighborhoods, I can speak from personal experience that it is quite isolating to live in one of these starter home communities. There is no interaction between neighbors, as the only reason to go to the neighborhood is to be in your home. There is rarely any open space for community interaction. I couldn't help but think what a big difference quality playgrounds or gardens would have on neighborhood life. Additionally, the lack of public transit and connectivity is a big burden for residents. Life in these starter home communities demands the possession of a personal vehicle. Without one life would appear rather challenging.*

This reflection was written by a resident living in one of the unstable neighborhoods that is a part of this research. This was completely coincidental, and I had no advance knowledge of where the student lived.

In Chapter 8, I combine the statistical, spatial, survey, and site analysis data and consider from a holistic perspective what a stable and unstable starter-home neighborhood looks like. Each of these perspectives holds a piece to this puzzle, and all are needed to see a complete picture.

## CHAPTER 7: CHARACTERISTICS OF STABLE AND UNSTABLE NEIGHBORHOODS

The data analyses in the previous chapter showed that there are both stable and unstable groups in starter-home neighborhoods. In the following paragraphs I highlight characteristics from the study neighborhoods to offer a general description of each type.

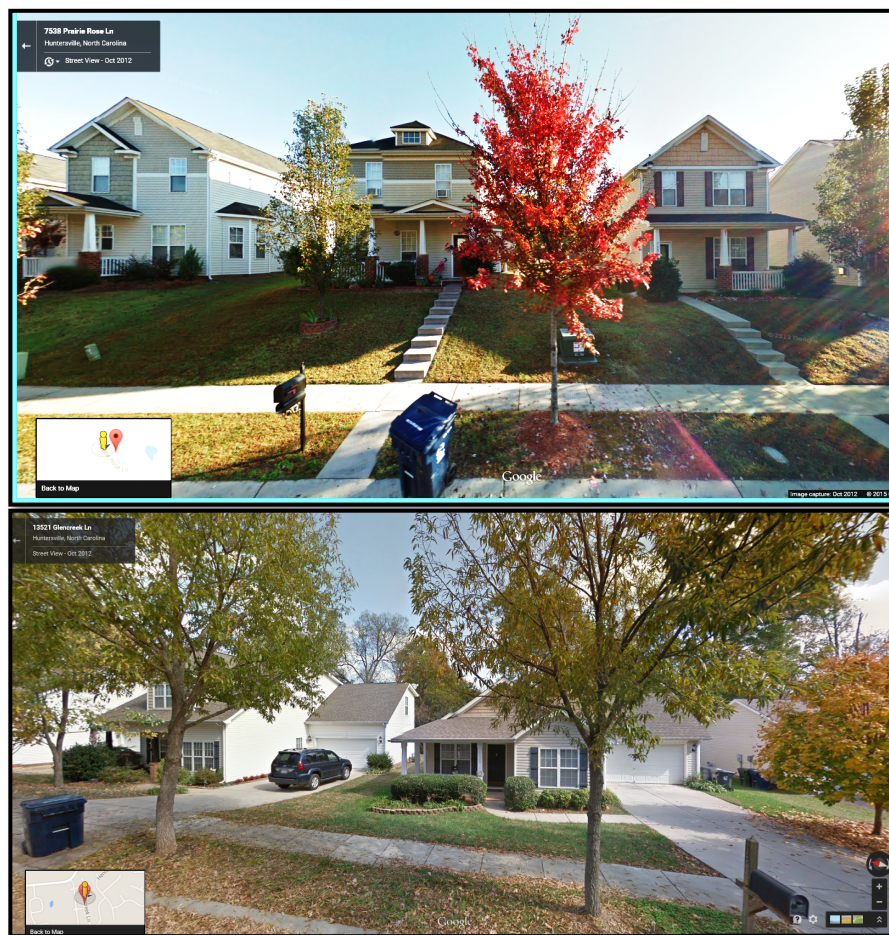
### 7.1 What Does a Stable Starter-Home Look Like?

Stable starter-home neighborhoods have some characteristics that were not unexpected. As the starter-home typology is marketed to those of low- and lower-middle incomes, the median household incomes of the stable group are in the higher range of this target market and are predominantly White. Higher rates of owner-occupied homes were also not surprising as the affordability of the homes and decent incomes are conducive to homeownership. Stable neighborhoods have more variety in the housing types and facades, bigger houses, and streets are narrower and tree-lined. Sidewalks are more plentiful, as are open spaces and playgrounds. The overall quality of the construction in the neighborhoods is better, with fewer cars in yards and parked on streets, and homes are well kept. Home values and rents are higher, and stable neighborhoods display greater levels of social capital through more friendships, neighbors watching out for each other, and opportunities for public interaction through parks, sidewalks, and opportunities for outdoor activity.

The contexts of stable neighborhoods have newer homes and commercial development, and have good access to nearby amenities including grocery stores and

shopping. They are located within areas that are more affluent and typically in exurban locations free from environmental hazards.

The following photos (Figs. 58 & 59) are examples from two different stable neighborhoods included in the study. Both are in the town of Huntersville (NPAs 446 & 447, 28078 zip code). The neighborhood in the top image had a mean home value loss of 5.49 percent over the Recession period and had a mean household income of \$88,000. The neighborhood in the bottom image had a mean home value gain of 1.19 percent over the Recession period and had a mean household income of \$66,000.



FIGURES 58 & 59: Examples of stable starter-home neighborhoods showing more variety in housing styles, façade treatments, and community design features (garages behind homes in the top image and in front of homes in the bottom image). Google Maps.



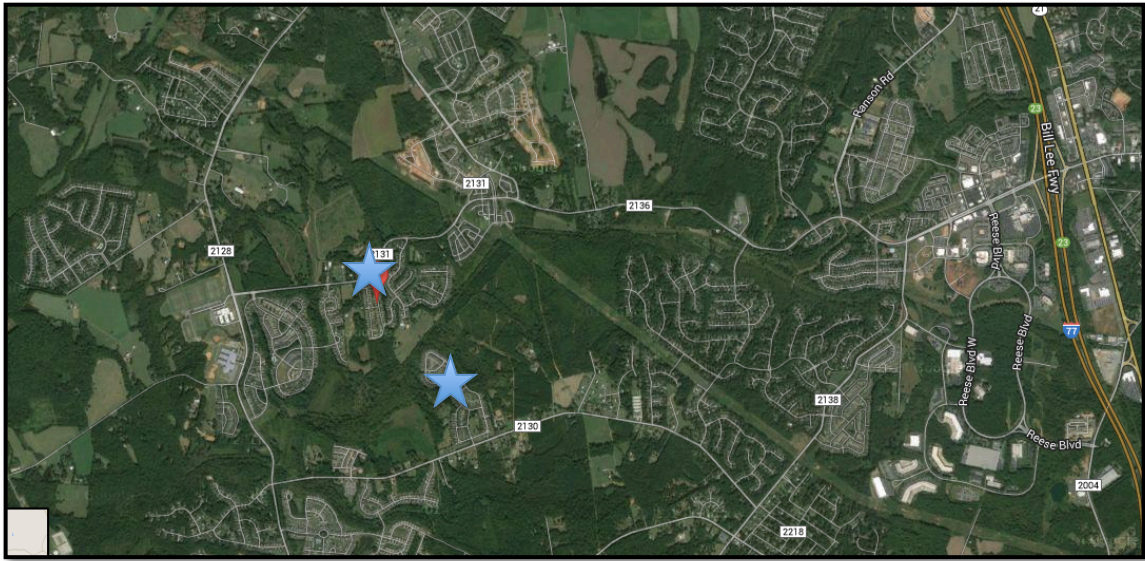


FIGURE 60: Locations of stable starter-home NPAs 446 and 447 in the town of Huntersville, NC. Their exurban location is evident in the aerial image. Google Maps.

The aerial image (Fig. 60) shows the location of the two stable neighborhoods shown in the photos in Figs. 58 & 59. The NPAs are well outside the I-485 loop, and away from I-77 visible on the right side of the photo. The context is dominated by single use residential development amid exurban greenfield undeveloped land.

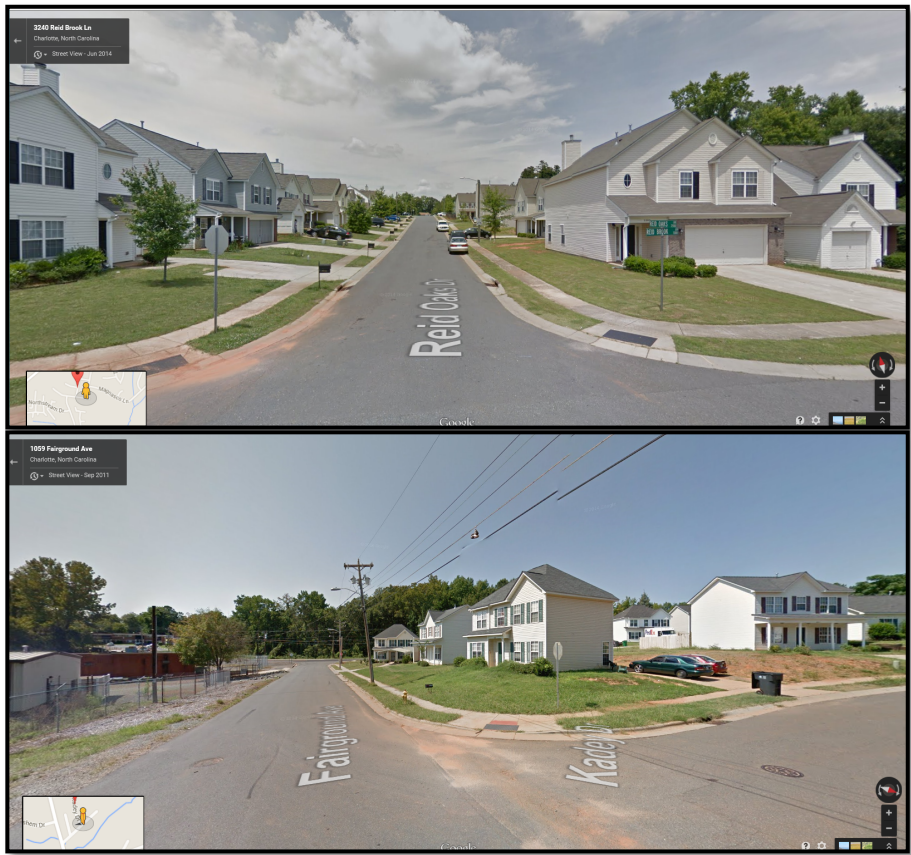
## 7.2 What Does An Unstable Neighborhood Look Like?

The unstable neighborhoods in this study have distinctive defining characteristics, as do the stable. Among those are lower incomes, higher minority populations and higher rates of government subsidies and subsidized housing; not unexpected results. The homes in the unstable neighborhood are smaller, were found to be constructed primarily of vinyl siding, and had fewer street trees and sidewalks. Poor construction practices were often evidenced by signs of mildew on home exteriors, widespread clay and erosion. Streets were wider and typically had a lot of cars parked on them.

Unstable neighborhoods were often found located in areas of surrounding LULUs

and conditions of homes and streets were often in poor condition. Higher crime rates and code violations also characterize unstable neighborhoods. They are nearly all located within the I-485 loop and have older infrastructure – including commercial development, schools, and roads. They are located further from community amenities, particularly grocery stores. Surveys indicate lower levels of social capital and fewer housing choices available to them. Fewer friends, public spaces like parks, trails or open space were also reported.

The photos in Figures 60 & 61 are examples from two different unstable neighborhoods included in the study. Both are in the city of Charlotte (NPAs 199 & 5, 28208 zip code) and located inside the I-485 loop. The neighborhood in the top image had a mean home value loss of 48 percent over the Recession period and had a mean household income of \$38,000. The neighborhood in the bottom image had a mean home value loss of 56 percent over the Recession period and had a mean household income of \$25,000. The neighborhood in the bottom photo is located in Enderly Park, an older minority low-income neighborhood with high crime and aging infrastructure. Many industrial uses are located in this area, including a large, abandoned site fenced off with hazardous warning signs posted. Large barrels are visible sitting above ground. A portion of this site can be seen across the street from the starter-home neighborhood. Active rail also runs through the Enderly Park neighborhood and close to the starter-home neighborhood.



FIGURES 61 & 62: Examples of unstable starter-home neighborhoods showing lots and streets with no trees, visible erosion, all vinyl exteriors, and little variety in housing type.

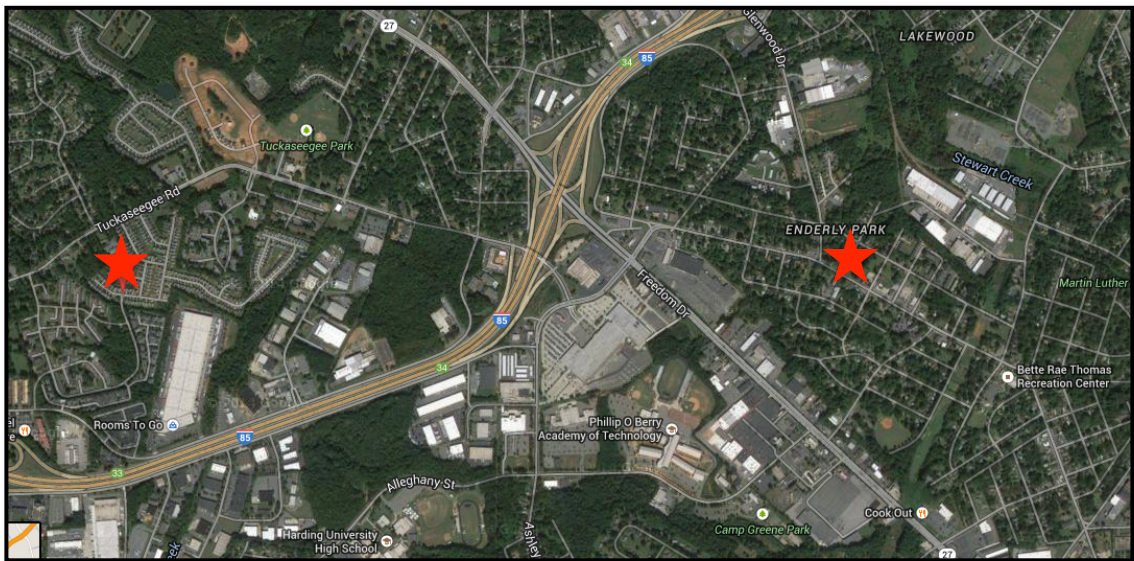


FIGURE 63: Locations of unstable starter-home NPAs 5 and 199 in the city of Charlotte, NC. Their urban infill location is evident in the aerial image. Google Maps.

The aerial image (Fig. 63) shows the location of the two unstable neighborhoods shown in the preceding photos in Fig. 61 & 62. The NPAs are well inside the I-485 loop in urban infill areas dominated by older infrastructure, Interstate 85, rail, large scale industrial, and manufacturing districts.

The neighborhoods depicted here as general examples are not meant to objectify starter-homes or the people living in them. Each neighborhood is unique in its own way, as are its residents. It would be difficult, however, to present the research without introducing this level of detail at some point in the dissertation. In general, the stable neighborhoods in Mecklenburg County are situated within more affluent areas while the unstable are within the lower-wealth Charlotte crescent. From their spatial arrangement, it is clear that there is a class and space intersection. But, there are also stable and unstable neighborhoods that are adjacent to one another, both inside and outside the Loop. This pattern merits more investigation and I suggest future research at this micro-scale for an even deeper understanding of neighborhood-level resilience.

## CHAPTER 8: POLICY ANALYSIS

### 8.1 The Role of Planning in Starter-Home Development

The planning process followed by the Charlotte-Mecklenburg Planning Department is evaluated based on Brooks' (2002) process-based theory of planning: *continuous self-examination of what it is we are doing, how we are doing it, why, for whom, and with what results*. The evaluation included examining texts and multi-media materials from a variety of sources. Texts examined included planning documents, written articles, previous research files, presentations, and public records. Other sources were maps, websites, videos and interviews previously conducted.

Sources were analyzed using a Foucauldian discourse analysis to illuminate the uneven power relationships involved in starter-home development. The strategy of this analysis follows the applicable steps as outlined by Waitt (2010, p. 220):

1. Choice of source materials or texts
2. Suspend pre-existing categories: become reflexive
3. Familiarization: absorbing yourself in and thinking critically about the social context of your texts
4. Coding: once for organization and again for interpretation
5. Power, knowledge, and persuasion: investigate your texts for effects of 'truth'
6. Rupture and resilience: take notice of inconsistencies within your texts



Waitt (2010) describes Foucault's use of the term 'discourse' as concerned with "the production and circulation of knowledge" (p. 218). Knowledge systems, or those things understood as truth by the general public, provide the basis from which people say and do things. This constructionist approach "demands asking questions about the ways in which distinct social 'realities' become neutralized" (p. 218). Constructed knowledges about the location, potential residents, and marketed buyers of starter-homes may influence planning decisions.

Professional planners adhere to a code of ethics defined by a regulating body, as others such as engineers and landscape architects that deal with the public health, safety, and welfare. The principles listed in the American Institute of Certified Planners (AICP)'s code of ethics focus on how planners should perform their duties. The first overarching principle listed to which planners aspire is, "Our Overall Responsibility to the Public" (APA, AICP Code 2009). Within this broad category are eight principles, two of particular applicability here are:

- We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration. We shall urge the alteration of policies, institutions, and decisions that oppose such needs.
- We shall promote excellence of design and endeavor to conserve and preserve the integrity and heritage of the natural and built environment.

What is not so clearly understood is just whom "the public" *is* that planners serve. The public is a diverse body comprised of many different groups, each with their own needs and desires. Brooks (2002) writes that planners most commonly articulate their idea of the public interest as being "concerned with the long-term good of the entire community" (p. 58). This echoes Moore's (1978) assessment: "Zoning purports to provide the public

goods of health, safety, and welfare. It is an attempt to protect citizens from the negative externalities of production and consumption generated by certain land uses” (p. 394).

According to Moore’s and Brooks’ ideals, planners are obliged to judge the impacts of land uses upon the citizenry, whether good or bad, in order to ‘protect’ against those that are harmful. However, planners must also answer the call to faithfully serve their employer and the public – these can be contradictory goals. Their employer (i.e. municipality) wants increased development and higher land values to bolster its tax base. Developers are happy to provide this.

Planning theory, more specifically as espoused by Brooks (2002), provides a useful basis for assessing starter homes. He defines it as “the *process* component of our profession; it guides us through a continuous self-examination of what it is we are doing, how we are doing it, why, for whom, and with what results” (p. 21). Referencing Paul Davidoff, who is credited with introducing the concept of advocacy planning, Brooks asserts that the urban planner cannot be value-neutral. The planner’s values must be made explicit in the process and the course of action taken should affirm them. From this perspective, the planner is “an advocate for what is deemed proper” (Brooks 2002, p. 109). Davidoff’s advocacy planning suggests a change not in what the planner does, but for whom (s)he does it. The planner must provide “solutions to questions about the share of wealth and other social commodities that should go to different classes [which] cannot be technically derived; they must arise from social attitudes” (Davidoff, 1965 p. 306). He urges planners to engage as professional advocates in the work of forming social policy, to be committed to the process of planning and substantive ideas, and to freely express their social objectives. Adopting such a view means assessing starter-home development

and its overall impact upon the greater community – both in its form, and in its implementation – and the role of such neighborhoods in providing affordable (or workforce) housing. The planner must also be prepared to advocate for policy change when permissible development patterns are found to harm fragile populations.

Problems arise, though, when attempting to decide if one alternative is better than another, or even which alternatives to include in an analysis. For example, is a conventional subdivision development, apartment complex, or a Hope VI housing neighborhood the best use of a property? Whose values should prevail? Planning addressed these concerns by the widespread use of strategic planning; an approach adopted from the world of private corporations (Brooks, 2002). Strategic planning is a formulaic, checklist approach that contains the following elements: a mission statement; a strengths-weakness-opportunities-threats analysis; an analysis of issues that need to be addressed; the development of a vision; and actions required to achieve the vision. This style of planning is representative of that practiced by the planning departments of most American cities, including Charlotte-Mecklenburg's.

In this typical top-down planning model, comprehensive and/or strategic plans are written based on goals and objectives intended to guide a community toward an idyllic form of development that serves the 'public good.' These documents, though, have no power of law associated with them. They are merely extended vision statements. It is a community's ordinances that actually carry the weight of law and dictate how development can happen, i.e. zoning, stormwater management, construction standards, or subdivision ordinances. An approval process is in place, with checklists that an applicant (most commonly the developer and his/her engineer) must complete. Checklists



accompany construction plans prepared by an engineer that are reviewed by planning staff to assure adherence to local ordinances. This is a very logical and systematic way to regulate development – but how does it really work in practice? (Rybczynski, 2012) claims that, “the new reality of the last few decades is that developers have replaced city planners as the chief actors in urban development.” That planners are, more or less, ‘powerless’ is a provocative statement, but also one with merit and worth reflecting on.

## 8.2 Document Analysis: The Charlotte-Mecklenburg Zoning Code Examined

In such an approval process, the planner is merely checking for compliance with regulations that are based on *minimum standards*. These are things such as the allowable distance between fire hydrants, minimum distances a building must be set back from the street, and maximum building heights or residential density. Ordinances tend to a *laissez-faire* approach, intentionally devoid of meaningful requirements that place too much restriction on what can be built. Herein lies the disconnect between comprehensive plans (master, strategic, etc.) and ordinances (zoning, subdivision, etc.). The ordinances do not approach the level of specificity needed in order to achieve the desired built form described in a master plan. Nor do they address the overall context within which a proposed development is situated. This allows inferior or undesirable development to happen “by-right,” where property can be developed in any way that is not expressly forbidden in the zoning ordinance. I do not intend to say that by-right development is inherently inferior, only that inferior development that meets minimum requirements cannot be prevented, nor can it be compelled to be made more desirable. It is the rare exception that a developer (who is rightly seeking a profit from investment) goes above and beyond minimum requirements. The road paved with minimums is the easiest,

quickest, and least expensive route to a finished project. And since ordinances are built on minimums, the minimum is most likely to get built. Minimum standards cannot prevent the construction of cookie cutter subdivisions, strip malls, leapfrog developments, and McMansion-style homes placed on too-small lots.

What are deeply embedded in this process are power relationships – how people get (or don't get) what they want. Technical expertise, when used to rationalize policy, equates to the legitimation of power. Those with more power and money dominate the process, and in planning, power relations permeate throughout. Planners (charged to be the mediator between citizen and municipality) must answer to City Hall, which is pressured by developers, who exert pressure on the market, which in turn, drives local economic engines to 'grow, grow, grow'-- all of which give the appearance of an effective local government to the voting public. These things prompt me to question, "Is planning, then, fulfilling its mission to 'seek social justice' and 'promote excellence in design?'" I shall now turn to the role Charlotte's planning process has/had in starter home development to look for answers to these questions. One of the "truths" that must be confronted is the fact that planning in Charlotte is *advisory* only, and the decision making power for planning is held at the City Council level. Planning Commission members are appointed by the City Council (five members), the Mayor (two members) and the Board of County Commissioners (seven members).

Tett and Wolfe (1991) apply discourse analysis to three city plans that illustrate the constructions of an authoritative, unified "voice." The authors identify:

(1) the use of passive, nontransactive grammatical constructions, (2) corresponding suggestions that change is agentless, (3) the use of legality to construct

legitimacy, and (4) simulacrous references to dialog with the public. (p.196)

Their analysis revealed agentless plans and processes that bring about change in the context of formal authorization aimed at a “unitary, homogenous public sphere” (p. 198). The rules and regulations laid out in these city plans provide another layer of legitimacy, delineating the proper behavior of the “knower” in order to affect his/her desired change (p. 198). These perspectives provide a useful framework for analyzing the various planning texts of Charlotte.

Planning and zoning ordinances, which deal with property and development rights, are often among the most controversial local policies. They can pit opposing viewpoints against one another in bitter battles. In Charlotte, “the last major revision of the city-county zoning ordinance was adopted in 1992, after a contentious process that lasted at least six years” (Newsom 2014). The Charlotte-Mecklenburg zoning and subdivision ordinances each begin by defining their purpose as follows:

- The purpose of the subdivision ordinance is for “promoting the orderly development of the city and county” concerning residential streets, utility access, and acquiring “adequate spaces for recreation and school sites; to provide for the distribution of population and traffic in a manner which shall avoid congestion and overcrowding; to protect and enhance environmental quality; and to create conditions essential to health, safety, convenience and the general welfare.” (Subdivision Ordinance, City of Charlotte as amended through Oct. 18, 2006).
- These zoning regulations have been designed to promote the public health, safety, and general welfare. To that end, the regulations address, among other things, the following public purposes: to lessen congestion in the streets, to secure safety from fire, panic and other dangers, to promote health and the general welfare, to provide adequate light and air, to prevent the overcrowding of land, to avoid undue concentration of population, and to facilitate the efficient and adequate provision of transportation, water, sewerage, schools, parks and other public facilities and services. (Zoning Ordinance, City of Charlotte as amended 5/20/06).

The power dynamics contained in the ordinances are evident. Promoting the “general

welfare” and the role of the municipality as the “provider” and “protector” outline its power over the homogeneous public, as described by Tett and Wolfe (1991). Throughout these documents, the public is ‘agentless’ and unseen, vaguely referenced as the recipient of the City’s benevolence. In Section 1.104 Zoning Maps of the zoning ordinance, the power of the municipality is also made clear:

The Zoning Maps shall be reviewed and may be amended from time to time through the amendment process, as provided in Chapter 6 of these regulations, to be consistent with the objectives and policies of the "Generalized Land Plan", district plans, area plans, and other public policies related to land development adopted by the City Council provided, however, that *nothing herein shall limit the authority of the City Council to approve any petition for reclassification of property* in accordance with the procedures set out in the "District Plan General Policies", as the same may be amended from time to time. (Emphasis added).

A rezoning (e.g. the reclassification of a property’s land use designation) is one of the most controversial and political actions involved in land use regulation. Anytime a change to an adopted ordinance or land development plan is proposed, the party requesting the change is at its most vulnerable. At this point, adjacent landowners, public officials, or concerned citizens can voice their concerns and protests to the change. However, the language included in the zoning ordinance cited above gives the City Council unlimited power to approve or deny a rezoning request.

This power was executed in the case of Windy Ridge, where a vacant site zoned for industrial uses and surrounded by other heavy industrial and commercial uses, was granted a rezoning to allow residential development targeted for low-income housing (case study presented in the following section). Although the Zoning Committee recommended that a playground and improved housing design be incorporated into the proposal, the City Council approved the rezoning without including these suggestions. As Windy Ridge moved through the development plan approval process, power relations

surfaced again when the developer proposed non-standard streetlights for the neighborhood. The planning department would not approve the project with the alternate lighting system, and rather than insist that the standard system be installed, the developer was allowed to make the streetlights the responsibility of the homeowners association (HOA)<sup>10</sup>. As the financial crisis worsened and multiple homes in Windy Ridge went into foreclosure, HOA funds supplied by homeowner dues dried up. This meant the power bill for neighborhood streetlights could not be paid, and residents were left in the dark for several years.

Similar power appears to have been exercised in the wealthy Southeast Charlotte neighborhood of Indian Trail, where the developers of this and other “zombie” subdivisions partially built before the recession hit “changed community covenants to allow for smaller homes using different materials... Now, instead of continuing to construct a neighborhood of 2,700- to 4,000-square-foot brick houses that once sold for more than \$400,000, Ryan Homes ... is selling smaller homes clad in fiber cement (a building material that looks like vinyl siding) that will sell for \$180,000,” (Boudin, 2011). In both neighborhoods, unilateral actions made by developers, and allowed by the municipality, had serious consequences for residents.

---

<sup>10</sup> Notes from the May 21, 2008 Charlotte-Mecklenburg Economic Development and Planning Committee meeting included “Residential Pedestrian Lighting Process” on the agenda and Windy Ridge was discussed. Council members were debating whether or not to require pedestrian lights in single-family neighborhoods. Council member Kinsey: “Developers can do what they want to can’t they?” Council member Lassiter: “Yes, and if you will recall, when we drove through Peachtree and Windy Ridge they all had decorative lights. The housing community has been putting in decorative poles at their costs...” Council member Campbell: “For the most part, I think the challenge becomes is it still something that you do voluntarily or do we require it everywhere. ... We hear if from the developers all the time so it is just one additional expense and costs. I hope we think this more in terms of are there other things in a subdivision, for example, when we went through those foreclosure neighborhoods, rather than decorative street lights, I wish that we could have given them trees, grass seed, a lawn mower. They were all dirt yards so I guess it is in the context of if we want to require something that will truly make a difference in the stability and livability of that community, and that is how we have been approaching this. It is not that we don’t want to do this, it is, is it going to be that margin that really stabilizes or retains the community as a competitive neighborhood long-term. Will decorative lights do that? I don’t know.” (ED&PC 2008)

It is appropriate to introduce design and planning strategies that could ameliorate the negative effects of separated land uses and the construction of neighborhoods that are producing environments detrimental to stable families and good quality of life. In the following section, I discuss current design theories that hold promise for accommodating healthy growth and building more resilient communities.

### 8.3 Examining Design and Planning Strategies

One way change will come about in how we build our neighborhoods is through the reform of zoning ordinances and land development processes. Traditional zoning has allowed sprawling growth to happen as it focuses only on minimum standards instead of addressing what urban form a city should take. A re-orienting occurred in urban design practice when architects Elizabeth Plater-Zyberk and husband Andres Duany formed their new architecture and town planning firm of Duany Plater-Zyberk and Company (DPZ) in 1980. Along with other like-minded planners and designers they went on to develop a design theory known as The New Urbanism. This theory is based on the traditional urban and architectural forms found in older towns. The works of Jane Jacobs, the City Beautiful movement, Peter Calthorpe and other influential designers influenced much of its theory.

The New Urbanism is defined as, “a movement in architecture, planning and urban design that emphasizes a particular set of design principles, including pedestrian- and transit-oriented neighborhood design and a mix of land uses, as a means of creating more cohesive communities” (Fulton 1996). The traditional vocabulary of urban design is central to New Urbanism – it is simultaneously a part of the urban past and future. Central to its designs are specific elements such as the boulevard, plaza, perimeter, block,

monument, the pedestrian scale of streets and public places, a mix of uses within developments, and clear centers with well-defined edges. It stresses walkable, mixed-use designs for towns and neighborhoods based on historic town models, rather than relying on traditional, segregated zoning to determine the appropriate land use and building form. It also emphasizes the need for regional and environmentally minded planning, and seeks to counteract sprawl and urban disinvestment (Duany et al. 2000). Duany and Plater-Zyberk began to write and eventually codify much of their practice in numerous books, and the Congress for the New Urbanism drew up a manifesto for their design theories in *The Charter for the New Urbanism*, published in 1983 (CNU 1999). Among some of the most well known designs DPZ has been involved with are the town designs of Seaside and Celebration, Florida, and Kentlands, Maryland. At the time of its development, the new town of Seaside was selected by *Time* magazine in 1989 as one of the Ten "Best of the Decade" achievements in the field of design. It also served as the idealistic setting for the 1988 movie, *The Truman Show*. New Urbanism design has been applied on a wide variety of scales, locations, and ranges in price points.

New Urbanism is just one response to the many problems created by sprawl, but it is perhaps the most comprehensive and lasting one. It is not, however, a panacea or silver bullet that “will solve inner-city disinvestment, suburban traffic congestion, regional air pollution, and the political malaise of the average citizen. The New Urbanism is only a part of the solution” (Fulton, 1996). One of its most frequent criticisms is that many New Urbanism developments have become enclaves for the upper middle class, mostly White neighborhoods. This is not a problem unique to New Urbanism, though, but a result of the higher costs of land development, exclusionary

traditional zoning, and the limited market that can afford to live in any given location (Nelson et al. 2002). It has also been widely used in the design of affordable housing and incorporated as key elements of HUD’s Housing Opportunities for People Everywhere (HOPE) VI program (Hanlon et al. 2010). HOPE VI neighborhoods are built for mixed-income, mixed uses and designed to integrate into existing neighborhoods. They were created to replace tower-based low-income projects and constructed in cities all across the United States.

TABLE 36: Traditional vs. Form Based Code. Source: After LSL Planning, 1000 Friends of Florida.

Traditional Zoning	Form Based Codes
Use-based	De-emphasize use
Districts	Neighborhoods/streets
Emphasis on individual uses of property, rigid use of lot size & building placement	Emphasis on building relationships and on fitting building to its use and surroundings
Segregation of land uses	Mixed Uses
Uniformity in neighborhoods	Diversity in Neighborhoods
Limited ability to effect change	Ability to transform or preserve
Limited design standards	Focus on building/site form
Setbacks	Build-to lines
Focus on site; little on right-of-way	Attention to street & streetscape

New urbanism has continued to evolve and a major shift has been underway over the last decades toward a reform in zoning ordinances that will allow different types of



development, including new urbanism designs. It is called form-based code and is described as addressing “the relationship between buildings and the public spaces that surround them, the form and mass of buildings in relation to one another, transitions between different types and sizes of buildings, and the scale and types of streets and blocks” (*Miami 21*, 2011). Parking is placed at the rear of buildings or along the street, which makes walking along the street more attractive to pedestrians (Table 21).

Another development model that grew out of new urbanism is Transit Oriented Development (TOD), so named for the locating of development adjacent to transit nodes. It is more typically found in major cities, but as suburban areas become more urbanized and are retrofitted for growing populations, transit lines are being inserted and extended in the urban fabric. TODs foster diversity in cities by providing a mix of uses and housing densities easily accessed in a variety of ways.

Form-based code and new urbanism design are having a major impact on the design of our built environment. In 2011, the city of Miami, Florida overhauled the city’s zoning codes through the drafting and adoption of *Miami 21*, a form-based code that uses New Urbanism and Smart Growth principles. This is the first instance of a city adopting form-based code. The visionary *Miami 21* plan is a model for cities looking forward into the 21st century, and earned the 2011 National Planning Excellence Award for Best Practice by the American Planning Association (APA).

Form-based codes use regulating plans that are not based on lots and uses, but rather the location of the lot in relation to an overall plan and the type of street it faces (Dunham-Jones, 2009). Other differences are build-to lines, rather than setbacks, which facilitate “enclosure” within streetscapes by maintaining a more consistent vertical edge

in urban areas (see Table 36). These differences allow space to be shaped by the form desired and not by strictly separated uses or arbitrary zoning lines.

The shift toward form-based codes for city planning represents a reform in urban planning (Talen 2012) via a divergent path away from Euclidean zoning and the sprawl generated by requiring segregated land uses. “Zoning ordinances usually designate specific zones in which only single-family detached residences are allowed; sometimes entire municipalities, or even blocs of municipalities, are zoned exclusively for single-family detached homes” (Nelson et al., 2002, 21). There are several municipalities in Mecklenburg County that have adopted form-based code, including the Towns of Huntersville, Cornelius, and Davidson. The Charlotte-Mecklenburg Planning Department is currently considering form-based code while they are in the process of writing a new zoning ordinance (Newsom 2014).

Another design theory that has gained traction across the U.S. since the 1990s is Landscape Urbanism. It looks to landscape as the basic building block of the contemporary city (Waldheim 2006). It is a response to the deindustrialization and decentralization of cities, and the economic, social and cultural shifts this caused. It seeks to address the left-behind spaces marked by toxicity and/or social pathologies, as industries followed the massive exodus to the suburbs. The Landscape Urbanism movement grew out of an influential group at the University of Pennsylvania exploring the overlap of architecture, landscape architecture, and urban design. Among them are Charles Waldheim (now chair of Harvard’s landscape architecture program), Moshen Mostafavi (now dean at Harvard’s Graduate School of Design) and James Corner (chair of UPenn’s landscape architecture program and principal of James Corner Field

Operations). Corner produced such notable projects as the Fresh Kills Landfill redevelopment and New York City's High Line elevated park. Both are exemplary brownfield redevelopments that addressed issues cities faced from such things as capped landfills, toxic sites, and abandoned railways blighting the urban landscape.

Landscape urbanism projects intend to bring ecology back to the built (human) environment through green infrastructure. Central to Landscape Urbanism are the ideas that design must adapt to the environment it is in, not the other way around, and the urban environment must respect the underlying ecology of its place. It is a natural evolution of the philosophy and ecologically based techniques of Ian McHarg, founder and longtime chair of UPenn's landscape architecture program, which he wrote about in his very influential text, *Design with Nature* (1969). Regardless of what a design theory is called, the successful development plan must strive to create an environment where people interact with, rather than withdraw from, one another by promoting a more public daily life. This is a core value to good urban design.

Other approaches to land development include using Low Impact Development (LID) techniques. LID is a regulatory response seeking better land development practices to enhance property values, respect the environment and benefit both individuals and the community.<sup>11</sup> To achieve these goals, many localities and states adopted standards that combine comprehensive land planning and engineering through LID. It involves such things as nonconventional stormwater management techniques, open space requirements, narrower streets, smaller lot sizes, and reduced setbacks. These elements are well suited to form-based code, new urbanism and landscape urbanism

---

<sup>11</sup> <http://www.lowimpactdevelopment.org/>

designs. Other LID techniques include rain gardens and bioretention methods that use the natural filtering ability of trees, plants and grading to treat stormwater runoff at the point of discharge. LID minimizes the need for expensive, underground stormwater systems tied to remote detention ponds (Currie 2012).

Traditional zoning has created an environment that makes it easier to develop poorly functioning communities than vibrant ones that promote a healthy life. This includes a segment of the starter-home model. Adopting alternative types of design-oriented planning approaches as discussed will go a long way in curbing suburban sprawl and accommodating “smart growth.” Sprawl and inequity are interconnected and both will only increase without purposeful action and policy change. Sprawl exacerbates inequity; growing inequity, in turn, begets more sprawl. It also creates a geographic mismatch – job centers located in affluent, suburban communities or expensive downtowns while prospective employees are located throughout a metropolitan area, including the inner city (Kain 1968; Preston and McLafferty, 1999).

In Charlotte, Mayor Anthony Foxx and the City Council were grappling with the impacts of starter-homes and the differences in the quality of construction and aesthetic appeal in differing neighborhoods. This was a source of discussion at a May 2008 meeting of the Charlotte-Mecklenburg Economic Development and Planning Committee:

Council member Carter: “I think there is one more basic level that I encourage us and that is the grading of these lots. I saw significant erosion that is not controlled when we out to see the last neighborhood. That was totally ... and I was absolutely furious.

Council member Lassiter: “What I would like you to do is broaden this just a little bit, if you want to ... folks let’s have that broad discussion that gets to this point of what makes a neighborhood more viable and attractive and gets some comparative thought about that. We all struggle with the starter home neighborhood and depending on where that is in town, it has a very different look.

It may be questions of how the sidewalks are constructed, it may be questions about what is required in terms of interest, the kinds of things that you might not see based upon where it is built because the price went \$10,000 more or the ... attracted a different purchaser. I think that is a reasonable question. It puts all sorts of pressure on homebuilders, but people are still going to build homes and people will buy homes, and the degree to which we do things in our subdivision ordinance or do things within our zoning code that creates some decision point that we can make policy wise and they reflect the economics of the transaction, I think is a good discussion.” [sic] (ED&PC, 2008)

As society moves forward, Calthorpe and Fulton (2001) call for land development policies that support three interrelated phenomena: the emergence of regionalism, the maturation of the suburbs, and the revitalization of older urban neighborhoods. Regions are made of people with a diversity of ethnicities, ages, interests, economic means, etc. In an increasingly metropolitan existence, cooperation at a regional scale is vital. Suburbs are aging and growing poorer, and older urban neighborhoods are challenged by either decay or gentrification. As Calthorpe and Fulton (2001) observed,

Sprawl has served to isolate... [diverse people] groups from one another, magnifying the increasing inequities among them while minimizing their interactions with one another. For the poor, the inability to break out of their isolated neighborhoods prevents them from entering the economic mainstream. For the wealthy, the insular nature of neighborhood life allows them to ignore the inequities that metropolitan sprawl creates. (p. 39-40).

One of the issues at hand in terms of sprawl and starter-homes is that the starter-home model of a rapidly built neighborhood on inexpensive land (and sold just as quickly with easy move-ins and little or no money down) accelerates the speed with which land is consumed. A community may not fully realize the consequences of trying to provide services and infrastructure to its sprawling footprint until it has advanced to an alarming level. Adopting a regional perspective focused on cooperation between municipalities and citizens can provide many benefits, including more efficient functioning and cost

saving in the provision of services like education, infrastructure, and economic development.

A part of regional land use policy is growth management, and an effective tool for planning and designing for healthy growth are urban growth boundaries (UGBs). Increasingly, UGBs have been used in regional planning efforts to control sprawl development and revitalize central cities. Carlson and Dierwechter (2007) define UGBs as legal and administrative lines in space beyond which only rural growth is allowed. UGBs are intended to preserve natural resources by delineating the extent of allowable development for a specified length of time, generally 20 to 25 years, after which time the boundary is reevaluated and adjusted through legal process as needed. Within the UGB, urban development and infill is encouraged and promoted by focusing growth “in compact communities and centers in a manner that uses land efficiently, provides parks and recreation areas, promotes pedestrian-orientation, and helps communities to conserve natural resources and enable efficient provision of services and facilities” (p. 211). Development outside the UGB is restricted, and land is set aside for agricultural uses, recreation or preservation. UGBs encourage developers to invest in urban infill through the rehabilitation of existing vacant or abandoned sites such as warehouses, empty lots, manufacturing complexes, or old tenement housing; transforming them into new, affordable housing projects, mixed use developments, urban parks, or recreational uses.

A report published in 2003 by the Center for Urban Policy Research, Rutgers University, predicted that “In the next 25 years, the United States will convert 18.8 million acres of land to build 26.5 million new units for housing plus 26.5 billion square feet of new nonresidential space for 49.4 million new jobs” (Burchell and Mukherji

2003). The report also says that approximately one-fourth of this land conversion, or about 2.4 million acres, could be avoided through the use of an urban growth boundary. In addition, the reduced length of roads, water, sewer, and other utilities can significantly reduce costs needed for sprawling infrastructure. Urban containment is a powerful strategy that can be applied to a multitude of issues simultaneously, such as sprawl, inequities in housing and education, uneven taxation, uncoordinated land use policies, sluggish regional or central city economies, and environmental protection. “Typical growth management programs have affordable housing and inclusionary elements that are designed to lower the costs of construction and broaden choices to more housing segments” (Nelson et al. 2002, 22). It has also been shown that inclusionary zoning designed to encourage diverse housing types open to all income groups with affordable options reduces the risk of foreclosure (Nelson 2013).

Critics of Oregon’s growth management program, the most extensive and most studied in the nation, claim that housing costs have increased due to restricted growth and supply caused by the UGB. Perhaps partly in response to this criticism, Portland has been proactive in developing affordable housing, something that is a central element of Oregon’s statewide growth management goals. Studies in this area have been somewhat inconclusive, but more recently have found that market demand, and not land constraints, determine housing prices (Nelson et al. 2002; Hanlon, 2010; Nelson 2013). The trend in the literature tends to support a market-driven influence on property values (Grout et al. 2011; Jun 2006; Jun 2004). Nelson et al. (2004) also report that containment policies capping the outward expansion of urban development are effective tools for central city revitalization.

For communities to reap a resilient harvest, we must plant the seeds of vital cities and suburbs within a healthy environment. A healthy city is more compact, urban, and offers a diverse way of life. It is the evolution of the humane metropolis – one that can meet the hierarchical and fundamental needs of its residents. In order to realize ecological, economic, and social resilience, a shift is needed. Our consumption of natural resources must decrease, our economy must be stabilized, and our social fabric nourished to provide equity and dignity for all.

#### 8.4 Designing for Health

The rapid growth in cities and metropolitan areas means that for many, nearby open spaces and parks may become the basis for how nature is experienced by urbanites, making these spaces of great importance in urban design. Providing for open space has become more difficult due to the lack of available land in urban areas and the insatiable demand for housing in suburban ones. Public spaces, including streets and small parks or plazas, are a vital part of embracing nature in such settings. These neighborhood-scale insertions provide easy, nearby access to nature for a greater number of people, contribute to the overall quality of urban life (Olmsted, 1870; Trowbridge and Bassuk, 2004; Carter 2007), enhance physical and mental health and are an important part of the built environment (Ulrich, 1984; Sullivan & Kuo, 1996; Wells, 2000; Frumkin, 2001; Kuo, 2001; Kaplan and Kaplan, 2003; Frank et al. 2003; Pretty 2004; Frumkin et al. 2004; Pretty et al. 2005; Jackson et al. 2013; Pasanen et al. 2014).

The lack of open spaces, gathering spots, playgrounds, parks, sidewalks, trails, and trees were frequently mentioned by residents and noted through neighborhood observation in starter-home neighborhoods. In suburban areas, the presence of parks,



both large and small, can help neighborhoods be more self-sufficient, balanced communities (not just bedroom communities) by providing recreational space for largely residential areas. It is easier for small parks and public spaces to be an influence on their surroundings in denser areas than more spread out, low-density ones. However, as cities sprawl and reach their physical boundaries, pressure is exerted on suburban areas as they transition into increasingly urban ones. When addressing the sustainability of continued growth, Jacobs (1991) wrote that we cannot “grow our way out of our problems; we will have to solve many of them through informed design and through changes in our behavior and perceived needs” (54). Inserting small parks is a good way to make open space available to the greatest number of people within the built environment.

An increased emphasis has recently been placed on considering health in all policies. An effective way to do this is through the use of Health Impact Assessments (HIA)s for all proposed residential developments and zoning ordinances. HIAs are a relatively new program that perform a function similar to an Environmental Impact Assessment (EIA), the latter of which is required to assess the impacts that a public infrastructure project may have on the environment – for example, will a new highway destroy wetlands; or will a new manufacturing plant produce harmful toxic waste? Likewise, the HIA assesses the risk of a proposed policy or residential development to the public’s health (both mental and physical). The HIA is a useful tool that provides advice for communities to help them make “informed choices about health through community design” (CDC, 2014). The Centers for Disease Control and Prevention provides the following definition and application of HIAs:

The National Research Council defines HIA as a systematic process that uses an array of data sources and analytic methods, and considers input from stakeholders

to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.

HIA is a process that helps evaluate the potential health effects of a plan, project or policy before it is built or implemented. An HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes. HIA brings potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside the traditional public health arenas, such as transportation and land use. (CDC 2014)

In the case of Windy Ridge, the use of an HIA would have had obvious implications regarding the risks to health from the numerous polluters surrounding the neighborhood, which would have alleviated many of the resulting negative impacts on residents.

## CHAPTER 9: DISCUSSION

In this research project I have gathered a substantial amount of data from multiple sources and using multiple methods. As set out in the beginning theoretical and contextual chapters, I chose this approach as the most appropriate to investigate issues surrounding people and place; two subjects that are dynamic and unpredictable on their own, and when taken together, are all the more complex. Once I had established that starter-homes had indeed performed differently than the local market through the Great Recession, the next question was whether or not there was a group within the starter-home subset that had remained stable. It was shown that there were two groups and the data was gathered to ascertain the differences between the groups.

Perhaps the most significant findings from the research project came through the spatial analysis. First was the clustering of unstable neighborhoods near LULUs – including environmental hazards and land use types including railroads, interstates, and heavy industrial and manufacturing. My research contributes to the literature surrounding environmental justice (Arnold 2007; UCCCRJ 1987; Brooks 2002; Rabin 1990) by showing a pattern of siting particular neighborhoods meant for lower-income and workforce families adjacent to preexisting LULUs. Noonan (2008) describes a lack of research on environmental justice using geographic areas other than census units, or measures of quality of life. This research addresses both gaps. Separating residential neighborhoods from noxious industrial uses was one of the original motivations for the

introduction of zoning laws. It is unsettling to find that nearly 100 years later this practice still exists. It is even more disturbing, however, in its discriminatory practice of locating such LULUs near the most vulnerable populations. The second finding is the location of the majority of unstable neighborhoods inside the I-485 Loop, situating these neighborhoods as an urban/suburban infill model. Through this research, it has been demonstrated that the worst location to place new construction starter-home neighborhoods is within predominantly low-income, inner-ring neighborhoods already challenged on a number of fronts. This finding contributes to the literature surrounding race and class discrimination as a hindrance to urban sustainability (Vojnovic and Darden 2013). In these locations, environmental injustices are added to the stress that residents living in poverty already bear. Rather than the new construction acting as a catalyst for positive change, the opposite occurred, and the problems, instability, and disinvestment spread into the new areas. In situations like this, starter-homes take on repackaged, old urban renewal as a new model in the form of a suburban island of infill surrounded by decline. Same mistakes, different typology.

The stability of neighborhoods outside the I-485 loop has spatial implications beyond the spill-over economic advantages associated with the major infrastructure project. Several of these stable neighborhoods are within the town limits of Huntersville or Cornelius. Both of these towns have more progressive, form-based zoning codes that require street trees, open space, sidewalks, and connections to greenways or adjoining developments. Detailed designs of streetscapes are required with new development, and the Town places a high priority on the street as public space. Architectural standards in the town of Huntersville include such things as the prohibition of new construction

“snout houses,” where the garage protrudes more than three feet from the face of the house, thus presenting the garage as an overly dominant feature and obscuring the front door. Active comprehensive and master planning identifies nodes of high activity, transit-oriented development, and mixed-uses for future development. These examples of proactive and progressive planning ordinances are shown in this study to have built-in neighborhood resilience through better design.

While tangible/quantifiable elements such as income, race, education, and levels of public assistance play a major role in describing what a stable or unstable starter-home neighborhood looks like, the social and physical attributes of a neighborhood cannot be ignored. Data analysis and spatial patterns don’t show why they exist or how they change over time. They do not take into account the social and political processes (Kitchin 2006) creating structural forces acting on neighborhoods and those living in them. Structure can be in the form of institutions, i.e. government, markets, schools, churches, banks, or marriage, and its rules may be either implicit or explicit.

The long-held negative perceptions of neighborhoods built for workforce and low-income housing work to lower housing values. The qualitative data gleaned through the analysis of ordinances, policies, resident surveys, and direct neighborhood observations enhanced the knowledge gained from traditional methods of statistical analysis. Cues taken from the statistical analysis informed the questions included in the door-to-door surveys. This new data was then folded back into the overall model for further analysis.

The resident surveys help reveal why a starter-home neighborhood was chosen as a place to live. The new construction nature and good-sized homes were an obvious

draw, plus the perception of a peaceful, safe place to settle in. The analysis showed that starter-homes can offer less crime, good schools, and homeownership to lower income and working families – the things people are willing to trade for in place of closer-in locations (Perry et al. 2013). This is evidenced by findings that starter-homes as a whole are farther from key amenities than county averages. The survey data, however, revealed a different reality for residents in specific neighborhoods than the statistical data based on the NPAs. Residents reported that amenities were much further away from unstable neighborhoods than in stable ones. In all amenity categories included, with the exception of churches and gas stations, basic services and goods were substantially further from the unstable neighborhoods. The analysis also shows that the starter-home NPAs demonstrate the effects of increased suburban poverty including a transition into higher minority populations, poor performing schools and the moving out of white populations. My research contributes to the growing body of literature surrounding the suburbanization of poverty (Kneebone and Berube, 2013; Kneebone Garr 2010; Berube and Kneebone 2006, 2013; Brookings 2013; and many others). It adds new insight through the findings of the prevalence of poverty and white flight in newly constructed neighborhoods – not just in decaying inner suburbs. This type of decentralized pattern violates the “equity requirements” Vojnovic and Darden (2013) call for to advance toward social and urban sustainability.

The cookie cutter construction typology that began with the Levittowns continues to reproduce itself, aided by structural forces pushing for efficiency in homebuilding that focuses on the bottom line to the detriment of the needs of future residents. The starter-home neighborhoods found to be unstable were lacking in several aspects of social

capital – those pre-existing resources necessary for community resilience. My research contributes to community resilience understanding in neighborhoods by demonstrating the differences in NPAs with and without pre-existing resources (Berkes and Ross 2013; Bajayo 2012; Rohe 2004; Brown & Kulig 1996; Foster 2012; Leichenko 2011). The findings also support Davoudi's (2012) view of socioeconomic resilience that an external stressor is not always needed as the system disturbance; it can also come from within. In the context of starter-homes, the lack of social capital creates the stressor, and in Windy Ridge, the neighborhood was collapsing before the effects of the Recession were widely felt in Charlotte. Consistent with resilience theory, this group was unable to sustain the shock when the housing bubble burst and have not recovered. The lack of commercial investment, poor construction practices that accelerated the run-down appearance of some neighborhoods, and poorly performing local schools do not present a context conducive to neighborhood resilience. The three variables found to be the strongest predictors of stability – size of homes, attendance at neighborhood schools, and residential renovation permits – point to neighborhoods experiencing reinvestment, are being maintained, are improving, and are sharing socially through local involvement. The opposite of these characteristics, i.e. a lack of maintenance, smaller homes, and poor schools that are not as well supported by residents, point to neighborhoods with higher rates of investor-owners, renters, and a lack of investment (economically and socially) in the neighborhood. These things translate into non-resilience within a neighborhood.

The research findings also suggest that steps should be taken to strengthen and support local schools. Neighborhood schools are an important link among residents, predict stability and should be accessible to neighborhood families. They provide a way

for people to get to know their neighbors through their children, and can also be used as meeting places for neighborhood activities like adult education programs. Prior to the approval of new developments, adequate capacity in local schools should be assured to meet the needs of the children anticipated with the future development. The strong link between neighborhood schools and stability can reinforce life trajectories, whether for the good or bad. Turning a poorly performing school around can act as a catalyst for change in a neighborhood by attracting more stable families into the neighborhood and motivating those already there to stay. Better-performing school zones can work to promote neighborhood stability, and vice-versa.

The HUD affordable housing demonstration community Lynton Place analyzed herein displays a longevity that has enabled the community to retain value better than some newer starter-home neighborhoods with similar demographics included in this study. If Lynton Place had been built within the 2000 decade, it would have been in the stable group. Although it did not show lasting appreciation, it did not completely crash and current home values are at more stable levels. I attribute this to a few key elements: Lynton Place has more diversity in its housing stock with a mix of one- and two-story homes, a variety of exterior façade treatments, a good diversity in housing models including single- and multifamily, quality open spaces, and two trees planted per lot that have matured and remained healthy. The neighborhood is well kept and appears to be one its residents are proud to call home.

Harvey (2001) deliberately compares the idea of a “technological fix” to the fix needed by a drug addict to get the next high. “Capitalism, we might say, is addicted to geographical expansion much as it is addicted to technological change and endless



expansion through economic growth” (24). If America is addicted to geographical expansion as Harvey purports – and it seems that we are – then the *American Dream* is the high and *sprawl* is the side effect. Would this then make starter-homes its “crack” – the poor man’s cocaine? In the case of some neighborhoods, it well may be, as expressed in the words of one Windy Ridge resident, “You may not be able to afford the real suburbia, but you got a little mock suburbia right here.”<sup>12</sup> The remote and on-site analysis project included here shows that the windshield surveys were performed by undergraduate students under my supervision was successful in helping researchers and planners understand that neighborhood analysis must move beyond a desk, assigned readings, and a computer. Rather, more direct engagement with the neighborhood was needed and was provided in this project using the on-site windshield survey. The door-to-door surveys with residents and the direct observation of neighborhoods added additional layers of richness to the analysis, and all together provide details that could not be ascertained through strictly quantitative means.

High rates of rental and subsidized properties overall, and in some starter-home NPAs very high rates, reflect the vulnerability of starter-home neighborhoods to investor-owners. The research here supports the draw that inexpensive starter-homes possess and the history of being marketed specifically to investor-owners for Section 8 voucher funds. There are many lessons to learn from the boom-and-bust decade of the 2000s, but there seems to already be a return to the status quo in some places. Many experts are urging caution, and voices in the planning and design worlds are joining in. Semuels (2015) alerts to Las Vegas’ ramping up of its building industry and especially on lots left

---

<sup>12</sup> Research conducted by UNC Charlotte CHARP in a focus group with Windy Ridge residents, 2010.

undeveloped in zombie subdivisions, or those partially built prior to the bust, where “little has changed in the home building industry since the recession, especially in Las Vegas, one of the epicenters of the housing bust.” It will be a challenge to change the way we build neighborhoods, get past our ‘leapfrogging’ love for newness and to live close to nature; but not impossible if effective policies are put in place.

## CHAPTER 10: CONCLUSION

In conclusion, my research has examined elements of resilience, equitable housing and social justice through an exploration of “starter-home” neighborhoods built since the year 2000. The Charlotte, North Carolina area provided an initial study location to assess the resilience of the “cookie-cutter,” starter-home model itself through the period of the Great Recession. Many of these (relatively) newly constructed subdivisions were found already distressed with some having required significant reinvestment. Other starter-home neighborhoods remained stable. Using data from the 2012 Charlotte-Mecklenburg Quality of Life Study (QofL), the 980+ sales price data points I collected was aggregated to the Neighborhood Profile Area (NPA) level, the unit of analysis in the QofL database. This produced a total of 60 NPAs that captured the sales data.

Taken as a whole, the data analysis shows the Great Recession impacted starter-home study NPAs more severely than the Charlotte and Mecklenburg County housing markets. Beginning in January 2000 and up until December 2013, the local market posted an overall mean positive increase in home values of 47 percent. This is in sharp contrast to the overall mean loss of 26 percent in starter-home values. Within the 60 starter-home study NPAs, 43 were found to be unstable (72 percent), defined as having lost more than 15 percent of their home value since originally built, a threshold established by the Case-Shiller home price index of an average value lost in Charlotte from the Recession’s peak in 2007 to 2013 first quarter (when data collection began). The

remaining 17, representing 28 percent of the study NPAs, were considered stable.

Starter-home neighborhoods have been marketed to those in the lower echelon of economic status with the urgency and high-pressure sales tactics typically ascribed to car salesmen. The developer often promotes such things as little or no money needed for down payments and closing costs, relaxed credit requirements, and easy move-ins as demonstrated in the HUD material discussed herein. Starter-home neighborhoods commonly house vulnerable populations such as the elderly, children, infirm, and those with lower wealth. These vulnerable populations have fewer resources and less capacity for storage due to lower incomes, making them less resilient initially. Based on the research findings, a resilient starter-home neighborhood can be characterized as having a greater degree of social capital with more friends in the neighborhood, evidence of local investment and maintenance in the neighborhood and its homes, more open spaces and sidewalks, and better performing local schools.

This research project is poised to make substantial contributions to academic scholarship in three primary ways. The first is in community resilience theory at the neighborhood level, and with particular implications for suburban and infill locations. This is an area that has very little published research associated with it and represents a new branch in resilience literature. The second significant contribution of this research is in the use of mixed methods. This project has demonstrated complimentary research methods that expanded the knowledge of the subject through the triangulation of various forms of data. Without the use of one or more of the research methods, the results would likely have been interpreted quite differently. Thirdly, the research enriches our understanding of new construction models in suburban and infill locations, and the

performance of cookie-cutter neighborhoods. These are areas of limited research. My study examined this model from the disparate perspectives of physical design, social relationships, economic impacts, and policy implications. Overall, this research is of interest to a wide variety of disciplines including geography, planning, design, economics, housing and land use policy, sociology, environmental psychology, and public health.

With this research I advocate for changes in how affordable/workforce housing is viewed, and thereby built. I also push for revised land use policy through a set of criteria based on the research results to be used by planners and policy makers when assessing proposed developments. Additionally, these criteria can be an important part of the rebuilding process following community collapse, which can come about from a variety of stressors, thereby introducing an element of resiliency that is missing from the current development model. The starter-home model is an easy turn-to for communities searching for quick ways to rebuild following a major disaster. Thoughtful design practices within starter-home construction can be used to meet this type of need. The broad implications of the research project add to the dialogs of resilience theory, land use and housing policy, community design, foreclosure literature, and planning theory. It also has an applied nature with the potential to impact residential development models, including affordable housing and responses to suburban sprawl.

The diverse methods employed in this study served to reinforce overall research findings through a triangulation of the data. Implications for policy recommendation, disaster planning, and stewardship of the built and natural environments include a more thorough review of rezoning and development proposals, better oversight of construction

practices, and the adoption of zoning ordinances such as form-based codes that encourage (rather than prohibit) mixed-use development, thus placing residential and commercial/retail uses within close proximity of each other. Smart growth approaches and urban design theories have many years of practice, including new urbanism, landscape urbanism, and low-impact development, and if adhered to when initially built can help build resilient features into neighborhoods.

A resilient community is one that is economically, socially, and ecologically sustainable for its citizens and its environment. It promotes the building-in of pre-stressor resources prior to development. This means we do not allow harmful land use practices (i.e. environmental injustices) and prohibit developers from moving forward with “neighborhoods built to fail.” This calls for more deliberate and conscious thought of how land use practice impacts the (suburban/urban) ghetto (Harvey 1987; Wilson 2011). We must expand the dialog surrounding resilience to consider it at the neighborhood level, and how it pertains to suburban locations and urban infill areas. This will allow the further refining of approaches to building more resilient communities overall.

Adopting such a framework will help avoid building certain kinds of predictably unstable environments that end up attracting and/or concentrating “unstable” residents. Poor education outcomes and opportunities, crime, and poverty trends are the result of creating spaces that are not attractive to people who have more choice, and therefore leave this type of neighborhood. This has been happening in Detroit for several decades and the city embodies the characteristics of non-resilience. Pervasive segregation, unequal resource distribution and urban disinvestment pave a pathway to a volatile,

vulnerable community that does not possess the capacity or adaptability to recover from internal or external stressors (Vojnovic and Darden 2013). The suburban starter-home neighborhood of Windy Ridge is not such an exceptional, outlier case that it cannot represent an example from which to draw. After all, it happened in the New South city of Charlotte in a booming economy.

Table 36 presents a “checklist” of sorts that can be used by planners and land use policy makers to guide new residential construction practices toward more resilient neighborhoods. It is based on the research findings of this research and present straightforward, practical guidelines that can be easily implemented at the local level.

TABLE 37: Summation of research results and recommendations. Abbreviations used: DA = Document analysis; WS = Windshield survey; NP = Newspaper articles; PR = Public records; IA = Institute analysis; CS = Case study; OBS = Direct observation

Land Development Recommendation	Results from Quantitative Analysis	Results from Resident Surveys	Results from other sources	Fit of results to the literature
Include a mix of uses in new and re-developments	Stable NPAs have newer and more commercial development & single-family; starter-home neighborhoods are well below county averages for nearness to key community amenities	87% of residents said closest amenities are either their first choice or are used often	WS: A dominant theme in both stable and unstable neighborhoods included the lack of nearby amenities	Mixed use promotes cohesion, options for low and moderate incomes, and limits sprawl (Calthorpe & Fulton 2001); disaster recovery strategies (FEMA 2011; Foster 2012)
Include more variety in housing choice and price point & better construction quality through land use policies	Sizes of starter-homes tend to be larger in the stable NPAs; current mean sales prices in stable NPAs are 52% higher	100% of unstable neighborhoods were all vinyl-clad only vs. 54% of stable; houses made of 'cheap' materials; 100% of stable neighborhoods rated house condition as “good” or “excellent”	WS: 26% of streets in unstable rated poor, 66% good; vs. 12% in stable neighborhoods rated poor and 76.5% rated good; OBS: unstable had erosion, mildew, poor drainage and showed greater signs of deterioration; CS: Lynton Place has more housing variety and held stable through Recession; PR: City Council noted poor condition of some starter-homes	Education benefits for children living in better quality homes (Read & Tsvetkova 2012); mixed uses provide more housing options at different price points (Calthorpe & Fulton 2001); Diversity in housing choice and price reduces the risk of foreclosure (Nelson 2013)

Table 37 (cont.)

Policy Recommendation	Results from Quantitative Analysis	Results from Resident Surveys	Results from other sources	Fit of results to the literature
Require public street lights in neighborhoods	Not included in QofL study.	10% indicated street lights missing in neighborhood & would make it better; crime still a problem in Windy Ridge	PR: Char-Meck does not require pedestrian lighting in single-family neighborhoods; developers can choose decorative lights, but they are 12' high vs. 25' standard height and do not adequately light a street	Street lighting is the most important factor in perceived personal safety, reduces crime (Haans & de Kort 2012); neighborhood attachment promotes feelings of safety (Delisi & Regoli 2000)
Require sidewalks, street trees, play grounds & open space in new development	39% of unstable NPAs have sidewalks, compared to 50% in the stable	60% of unstable neighborhoods named open space, parks, and trees were missing & would improve them	WS: A dominant theme in both stable and unstable neighborhoods included the lack of open space, gathering spots, or playgrounds; OBS: more and larger trees in stable neighborhood	Low-income neighborhoods often lack access to parks and open space (Princetl et al. 2003)
Strengthen & support local schools	Starter-home NPAs are consistently below county averages in measures of student growth and test proficiency; stable NPAs have more than 2x fewer adults without high school diplomas, and 3x fewer subsidized units than unstable	14 of 23 rated local schools as either "good" or "excellent," and 9 were rated as either "very poor," "poor," or "fair." Youth hanging out was a problem in unstable neighborhoods	IA: Following <i>Swann v CMS</i> , dramatic increase from 10, high-poverty, high-minority schools in 2001, to 42 by 2008 in 'crescent.'	School districts affect location choice (Bell 2009; Ely & Teske 2015); Harmful effects from <i>Swann v CMS</i> desegregation of schools decision (Billings et al. 2014; Mickelson 2001)
Do not allow residential development or rezoning for residential uses in heavy industrial or environmental hazard areas	Spatial analysis reveals starter-home NPAs are adjacent to railroads and interstates; and environmental hazards cluster around unstable NPAs in NW and East Charlotte.	"Location" is named as a top reason for initial choice of the neighborhood & what residents like best about it; nuisance uses are also named as things residents dislike	WS: Student's comments point toward environmental justice issues similar to those in Windy Ridge as surrounded by industrial uses and environmental hazards.	Children living in noisy locations have increased behavioral problems, stress, and impaired cognitive performance (Read & Tsvetkova 2012);
Provide social services, amenities and transportation options near neighborhoods built for low-income, workforce & senior housing. These uses should be located in areas designated for residential growth and coordinated with new developments.	Starter-home neighborhoods as a whole are not near grocery stores, drug stores, or health care providers geared toward low-income families	Residents frequently expressed the importance of a nearness to drug stores and medical services (11 of 30), plus lower incomes, supports that starter-home neighborhoods are home to vulnerable populations; 43% of respondents travel 20+ miles to work	WS: Results show that 23 unstable neighborhoods had no access to transit, more than 55 percent of the total in unstable; and 15 of the 18 stable neighborhoods had no access to transit.	Low-income neighborhoods are often situated in "food deserts" (Morland et al. 2002; Galvez et al. 2008) design of built environment impacts physical and mental health (Ulrich, 1984; Sullivan & Kuo, 1996; Wells, 2000; Frumkin, 2001)



Table 37 (cont.)

Policy Recommendation	Results from Quantitative Analysis	Results from Resident Surveys	Results from other sources	Fit of results to the literature
Incorporate health in all policies through the use of Health Impact Assessments applied to land use policy and development processes.	Starter-home NPAs are 12 percentage points below county average access to Medicare provider, and 18 pct. points below co. avg. in access to drug stores; Unstable NPAs have less access to grocery stores than stable, 3x higher rate of births to adolescents, and 2 pct. points higher juveniles using NC HealthChoice	In unstable neighborhoods, a preference for nearby grocery stores (7) was equal to a preference for health related services. Overall, 53% cited grocery first.	IA: Use HIAs to bring potential health impacts and considerations to decision-making process (CDC 2014); CS: impacts of neighborhood design on resident's health in Windy Ridge	Health benefits of homeownership (Read & Tsvetkova 2012); design of built environment impacts physical and mental health (Ulrich, 1984; Sullivan & Kuo, 1996; Wells, 2000; Frumkin, 2001

If we are to realize resilient communities, needed pre-existing resources must be built in from the very start of a new development and prior to a stressor event as was demonstrated by the differences observed in the stable and unstable neighborhoods. The best way to see this happen is through better land use policies. The social and built environments must be taken into account to give social capital every chance of taking root in a neighborhood. Through this research I have identified several elements needed in starter-home neighborhoods to achieve this goal. These include such things as access to amenities; better support of local schools; provision of open space, trees, and sidewalks; a variety in housing choice; mixed-use development; community investment; and good construction quality. Recovery is dependent upon such resources. The data also revealed a group of starter-home neighborhoods, e.g. the “stable,” that exhibited characteristics similar to county averages and the ability to be resilient through the Great Recession. This confirms that the starter-home development model is capable of

providing affordable/workforce housing if principles of good neighborhood planning are adhered to.

This research also confirms other findings in the literature of the increasing spread of poverty into the suburbs (Kneebone and Berube 2013), the widening of the gap between the educated and the working poor (Florida 2008), and the continued habit of racially segregated neighborhoods in outward movement (Vojnovic and Darden 2013). Resilient communities also depend on economic and social stability, consistent with Bajayo (2012), and therefore it is wise to invest in struggling neighborhoods and insist on higher standards for land development practices that do not reproduce sprawl, build disconnected neighborhoods, use poor construction practices, or neglect the need for nature within the human environment. If not, new developments are destined to become the “slums of tomorrow” existing in a landscape of vulnerability.

Areas for future research include a more thorough investigation into the extent of investor-owners (especially institutional-investors) in starter-home neighborhoods, and whether markets in other locations have similar trends in starter-home development. The research revealed an interesting trend where some zip codes contain both stable and unstable neighborhoods. I identify this as another opportunity for future research to more fully understand the differences at a micro-scale level. I see this research project as supportive of public planners and proponents of “smart growth” by contributing to efforts aimed at curbing suburban sprawl through the refinement of local and regional land use policy – the arena in which these changes will occur.

The case study presented in this research project contributes to community resilience theory at the neighborhood level. Charlotte’s land development process and

civic culture encouraged the flourishing of starter-home neighborhoods in boom years, but ultimately the vast majority proved non-resilient to the economic stressor of the housing bust. My results strengthen resilience theory by demonstrating that the lack of pre-existing resources in neighborhoods hindered the development of social capital and community resilience. The proliferation of starter-homes is not limited to Charlotte, as they are readily observed in cities across the U.S. Adapting the study to other markets using local values will determine if Charlotte is a unique case, and I suspect it is not, or if there is a more generalizable implication about the starter-home construction model itself.

Publications from this research can improve community planning by providing policy makers with supporting data to better predict the long-term consequences of policies and plans. The critique of planning practices contained herein is not intended to place the blame of troubled development models solely on the public planner or a planning department – there are too many other forces at play. The boom-years preceding the Great Recession overwhelmed local municipalities across the nation with a flood of development proposals funneled through under-staffed departments, and we must now sift through the debris field left behind. Therefore, I am advocating for thoughtful reflection once again on the part of geographers, designers, planners, and public officials as to why, and for whom, we do what we do.

## REFERENCES

- Adams, Charles F., Howard B. Fleeter, Yul Kim, Mark Freeman, and Imgon Cho (1996). "Flight from Blight and "Metropolitan Suburbanization Revisited." *Urban Affairs Review*. Vol. 31, No. 4. March, 1996.
- Agarwal, S. and B.W. Ambrose, S. Chomsisengphet and A.B. Sanders (2012). *Real Estate Economics*. Spring 2012, Vol. 40(1): 1-22.
- Agpar, W., & Duda, M. (2005). The Municipal Cost of Foreclosures: A Chicago Case Study. *Homeownership Preservation Foundation Housing Finance Policy Research Paper Number 2005-1*. Retrieved online from the Homeownership Preservation Foundation (Washington D.C.) December 3, 2010.  
[http://www.hpfonline.org/content/pdf/Agpar\\_Duda\\_Study\\_Full\\_Version.pdf](http://www.hpfonline.org/content/pdf/Agpar_Duda_Study_Full_Version.pdf).
- Ahmed, Tasmin (2014). "The Melting Pot That Never Was." *The Harvard Crimson*. March 5, 2014. Accessed online 02/21/2015:  
<http://www.thecrimson.com/article/2014/3/5/harvard-not-melting-pot/>
- Aliber, R.Z. (2012). "Great Recession or Mini-Depression? Words may be failing economists and others who characterize the economic downturn that began in 2008 as 'the Great Recession.' 'Mini-Depression' may be more like it." *The Wilson Quarterly*,(1), 52.
- Alonso, W. (1960). "A Theory of the Urban Land Market," *Papers and Proceedings, Regional Science Association*, 6, p. 149-157.
- American Community Survey 5-Year Estimates 2007-2011 (ACS 2012). Selected Housing Characteristics. U.S Census Bureau. Accessed online 06/15/2013:  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_11\\_5YR\\_DP04](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04)
- American Community Survey 1-Year Estimates (ACS 2011). Educational Attainment. U.S Census Bureau. Accessed online 06/28/2013:  
<http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?ft=table>
- American Planning Association (APA 2009). "AICP Code of Ethics and Professional Conduct." Accessed online 03/13/2013. <http://www.planning.org/ethics/ethicscode.htm>
- American Property Managers (APM 2014). "Big investment groups buying up Charlotte homes." April 1, 2014. Accessed online 02/20/2015: <http://apmrentals.net/article/4>
- Arnold, Craig Anthony (2007). *Fair and Healthy Land Use: Environmental Justice and Planning*. The American Planning Association. Chicago, IL.

Associated Press (2011). "Charlotte neighborhood hit by mortgage crisis battles back." In *The Mecklenburg Times*. March 26, 2011. Accessed online 01/30/2015.

<http://mecktimes.com/news/2011/03/26/charlotte-neighborhood-hit-by-mortgage-crisis-battles-back/Numberixzz3QK8RvSfn>

Aud, S., Wilkinson-Flicker, S., Kristapovich, P., Rathbun, A., Wang, X., Zhang, J., & National Center for Education Statistics (2013). *The Condition of Education 2013*. NCES 2013-037. *National Center For Education Statistics*.

Bajayo, Rachael (2012). "Building community resilience to climate change through public health planning." *Health Promotion Journal of Australia* 2012, 23:30-36.

Ballazs, C.L. and R. Morello-Frosch (2013). "The Three R's: How Community Based Participatory Research Strengthens the Rigor, Relevance and Reach of Science."

*Journal of Environmental Justice*. Feb 2013; 6(1): accessed 06/08/2014

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3832061/>

Barwick, J.T. (2004). Meeting the Challenge in Rural North Carolina. *Community College Journal*. June/July 2004, 10-14.

Baxter, Jamie and John Eyles (1997). "Evaluating Qualitative Research in Social Geography: Establishing 'Rigour' in Interview Analysis." *Transactions of the Institute of British Geographers, New Series*, Vol. 22, No. 4 (1997),pp. 505-525.

Bell, Adam (2014). "Census numbers show Charlotte now 16th largest city in U.S. by population." *The Charlotte Observer*. May 22, 2014. Accessed online 02/21/2015:

<http://www.charlotteobserver.com/2014/05/22/4924592/census-numbers-show-charlotte.htmlNumber.VOgjF0LkligNumberstorylink=cpy>

Bell, Courtney (2009). Geography in Parental Choice. *American Journal Of Education*, 115(4), 493-521.

Berkes, Fikret and Helen Ross (2013). "Community Resilience: Toward an Integrated Approach." *Society & Natural Resources: An International Journal*. Volume 26, Issue 1, pp. 5 – 20.

Berry, B.J.L (1975) "The Decline of the Aging Metropolis: Cultural Bases and Social Processes," in G. Sternlieb and J. Hughes (ed.) *Post-Industrial America: Metropolitan Decline & Inter-Regional Job Shifts*, Rutgers: Center for Urban Policy Research, p. 175-185.

Berube, A. and E. Kneebone (2006) "Two Steps Back: City and Suburban Poverty Trends, 1999-2005," *Living Cities Census Series*, Metropolitan Policy Program, The Brookings Institution, February, pp. 1-24.

Berube, A., E. Kneebone, and J. Williams (2013). "Suburban Poverty Traverses the Red/Blue Divide." Metropolitan Policy Program at Brookings. Accessed online 10/15/2014:  
<http://www.brookings.edu/~media/Research/Files/Reports/2013/08/06%20suburban%20poverty/Suburban%20Poverty%20by%20Congressional%20District.pdf>

Bezemer, Dirk (2009). "No One Saw This Coming: Understanding Financial Crisis Through Accounting Models." Munich Personal RePEcArchive (MPRA). Accessed online 02/21/2015: <http://mpra.ub.uni-muenchen.de/15892/>

Bianco, K. (2008). *The Subprime Lending Crisis: Causes and Effects of the Mortgage Meltdown*. Retrieved online March 1, 2010 from Wolters Kluwer Law & Business.  
[http://www.business.cch.com/bankingfinance/focus/news/Subprime\\_WP\\_rev.pdf](http://www.business.cch.com/bankingfinance/focus/news/Subprime_WP_rev.pdf)

Billings, Stephen B., David J. Deming and Jonah Rockoff (2014). "School Segregation, Educational Attainment, And Crime: Evidence From The End Of Busing In Charlotte-Mecklenburg." *The Quarterly Journal of Economics*, 129(1), 435-476.

Bolles, A. Lynn (1994). "From the 'Mystic Years' to the Harlem Renaissance: Art and Community in African America." In *African American Historic Places*, ed. Carol D. Shull, 49-60. New York: The Preservation Press.

Booth, William (1998). "One Nation, Indivisible: Is it History?" First in the series The Myth of the Melting Pot. The Washington Post. February 22, 1998; Page A1. Accessed online 02/21/2015: <http://www.washingtonpost.com/wp-srv/national/longterm/meltingpot/melt0222.htm>

Boudin, Michelle (2011). "There Goes the Neighborhood." Charlotte Magazine published May 2011. Accessed 05/18/2013 online: <http://www.charlottemagazine.com/Charlotte-Magazine/May-2011/There-Goes-the-Neighborhood/>

Bradshaw, Matt and Elaine Stratford (2010). "Qualitative Research Design and Rigour." Chapter 4 in *Qualitative Research Methods in Human Geography*. Iain Hay, ed. Oxford University Press

The Brookings Institution Metropolitan Policy Program (2010). "State of Metropolitan America. On the front lines of demographic transformation." Accessed 2/19/2015.  
[http://www.brookings.edu/~media/research/files/reports/2010/5/09%20metro%20america/metro\\_america\\_report.pdf](http://www.brookings.edu/~media/research/files/reports/2010/5/09%20metro%20america/metro_america_report.pdf)

Brookings (2013). "Confronting Suburban Poverty in America." Metropolitan Policy Program at Brookings. Accessed 06/07/2013 online:

(a) <http://confrontingsuburbanpoverty.org/wp-content/uploads/metro-profiles/Charlotte-NC-SC.pdf>

(b) <http://confrontingsuburbanpoverty.org/action-toolkit/top-100-us-metros/>

(c) <http://www.brookings.edu/blogs/up-front/posts/2013/06/19-us-majority->

minority-population-census-frey. Accessed 02/21/2015.

Brooks, M.P. (2002). *Planning Theory for Practitioners*. Planners Press, American Planning Association: Chicago.

Brown, D., & Kulig, J. (1996/97). The concept of resiliency: Theoretical lessons from community research. *Health and Canadian Society*, 4, 29–52.

Bunce, H., Gruenstein, D., Herbert, C., & Scheessele, R. (2001). *Sub-prime foreclosures: The smoking gun of predatory lending?* U.S. Department of Housing and Urban Development Housing in the New Millennium conference proceedings. Retrieved January 22, 2008, <http://www.huduser.org/Publications/pdf/brd/12Bunce.pdf>

Burawoy, Michael (1998). The Extended Case Method. *Sociological Theory* 16:1 pp. 4-33. March 1998.

Burchell, Robert W. and Sahan Mukherji (2003). “Costs of Sprawl – 2000. What Are the Impacts? What Are the Alternatives?” *Transportation Research News*. Transportation Research Board of the National Academies. Nov.-Dec. 2003, No. 229.

Burton, I. (1963). “The Quantitative Revolution and Theoretical Geography,” *The Canadian Geographer*, 7(4): 151-162.

Cadwallader, M. (1996). “Urban Geography,” Chapter 1 in *Urban Geography: An Analytical Approach*, Upper Saddle River, NJ: Prentice Hall, p. 1-19.

Calthorpe, Peter and William Fulton (2001). *The Regional City. Planning for the End of Sprawl*. Island Press.

Carlin, Diana B (2005). “Lady Bird Johnson. The Making of a Public First Lady with Private Influence.” *Leading Ladies of the Whitehouse*. Edited by Molly Meijer Wertheimer, 71-94. Rowman & Littlefield Publishers, Inc.: Lanham, MD.

Carlson, Tom and Yonn Dierwechter (2007). “Effects of Urban Growth Boundaries on Residential Development in Pierce County, Washington.” *The Professional Geographer*, 59(2) 2007, pp. 209–220.

Carter, Douglas. 2007. Mixing Pedestrians and Vehicles in Retail Mixed Use. *Sustainable Land Development Today*: Nov./Dec. 2007; Vol.3, (10), 37-39.

Centers for Disease Control and Prevention (2014). “Health Impact Assessment.” *Healthy Places*. Accessed online 03/17/2014. <http://www.cdc.gov/healthyplaces/hia.htm>.

Center for Responsible Lending (CRL, 2008). "Updated Projections of Subprime Foreclosures in the United States and Their Impact on Home Values and Communities." *CRL Issue Brief*, Rev. August 2008. Accessed online 08/14/2013: <http://www.responsiblelending.org/mortgage-lending/research-analysis/updated-foreclosure-and-spillover-brief-8-18.pdf>

Chandler, L. and T. Mellnik (2007). "New suburbs in fast decay." *Charlotte Observer*, Dec. 9, 2007.

Charlotte Housing Authority (2013). Housing Choice Voucher Program Administrative Plan for the Housing Authority of the City of Charlotte North Carolina. Accessed online 07/14/2014. [http://www.chanc.org/documents/HCVF%20Administrative%20Plan%20Board%20Approved%2007172013%20\(2\).pdf](http://www.chanc.org/documents/HCVF%20Administrative%20Plan%20Board%20Approved%2007172013%20(2).pdf)

Chesser, John (2013). "Recession in Charlotte, Sun Belt: More people, more poverty." *The UNC Charlotte Urban Institute*. Oct. 3, 2013. Accessed online 03/03/2015: <http://ui.uncc.edu/story/charlotte-population-growth-poverty>

Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez (2014). "Where is the land of opportunity? The geography of Intergenerational Mobility in the U.S." Accessed online 07/16/2014. <http://obs.rc.fas.harvard.edu/chetty/website/v2/Geography%20Executive%20Summary%20and%20Memo%20January%202014.pdf>

Chronopoulos, T. (n.d). Cracks in the Pavement: Social Change and Resilience in Poor Neighborhoods. *Journal Of Urban History*, 40(2), 388-394.

Clark, L. P., Millet, D. B., & Marshall, J. D. (2014). National Patterns in Environmental Injustice and Inequality: Outdoor NO<sub>2</sub> Air Pollution in the United States. *Plos ONE*, 9(4), 1-8.

CNN (2011). "10 foreclosure hotspots." Accessed online 01/24/2013. [http://money.cnn.com/galleries/2011/real\\_estate/1102/gallery.latest\\_foreclosure\\_hotspots/index.html](http://money.cnn.com/galleries/2011/real_estate/1102/gallery.latest_foreclosure_hotspots/index.html)

CNU (1999). Congress of the New Urbanism. *Charter of the New Urbanism*. McGraw Hill Professional; Nov. 22, 1999.

Coleman J.S. (1998). "Social capital in the creation of human capital." *American Journal of Sociology*. 1998; 94:S95-S120.

Connaughton, John (2014). "Babson Capital/UNC Charlotte Economic Forecast. June 3, 2014." UNC Charlotte Belk College of Business and Babson Capital Management LLC. Accessed on line June 10, 2014. [http://belkcollege.uncc.edu/sites/belkcollege.uncc.edu/files/media/June%202014\\_WEBP](http://belkcollege.uncc.edu/sites/belkcollege.uncc.edu/files/media/June%202014_WEBP)



PT.pdf

Crump, J., Newman, K., Belsky, E. S., Ashton, P., Kaplan, D. H., Hammel, D. J., & Wyly, E. (2008). "Cities destroyed (again) for cash: Forum on the U. S. Foreclosure Crisis." *Urban Geography* 29, p. 745-784.

Currie, Melissa (2012). "Urban(isms). Just what are they?" *UNC Charlotte Urban Institute*. Nov. 27, 2012. Accessed online 02/27/2015: <http://ui.uncc.edu/story/new-urbanism-landscape-biophila-park-parking-urban-design-ecology-architecture>

Currie, Melissa (2013). "Charlotte transit stations: realizing development potential?" *UNC Charlotte Urban Institute*. July 20, 2013. Accessed online 04/05/2015: <http://ui.uncc.edu/story/tod-transit-blue-line-charlotte-southend>

Davidoff, Paul (1965). "Advocacy and Pluralism in Planning." In *Readings in Planning Theory*, Scott Campbell and Susan F. Fainstein, eds. Cambridge, MA: Blackwell Pub. Chapter 14.

Davoudi, Simin (2012). "Resilience: A Bridging Concept or a Dead End?" *Planning Theory & Practice*, Vol. 13, No. 2, 299–333, June 2012. An essay in Interface. Applying the Resilience Perspective to Planning: Critical Thoughts from Theory and Practice. Simin Davoudi and Libby Porter, eds.

Dayen, David (2013). "Your New Landlord Works on Wall Street. Hedge funds are snatching up rental homes at an alarming rate." *New Republic*. Feb 12, 2013. Accessed online 02/20/2015: <http://www.newrepublic.com/article/112395/wall-street-hedge-funds-buy-rental-properties>

Denning, Steve (2011). "Lest We Forget: Why We Had a Financial Crisis." *Forbes*. 11/22/2011. Accessed online 02/21/2015: <http://www.forbes.com/sites/stevedenning/2011/11/22/5086/>

Duany, A., E. Plater-Zyberk, and J. Speck (2000). *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. North Point Press: New York.

Dunham-Jones, Ellen (2009). *Retrofitting Suburbia. Urban Design Solutions for Redesigning Suburbs*. (Hoboken, NJ: John Wiley & Sons, Inc.

Dyck, I and R. Kerns (2006). "Structuration Theory: Agency, Structure and Everyday Life," in Aitkin, S. and G. Valentine (2006) *Approaches to Human Geography*, Thousand Oaks: SAGE. Ch. 7, p. 86-97.

*The Economist* (2013). "The origins of the financial crisis." Sept. 7, 2013. Accessed online 02/21/2015: <http://www.economist.com/news/schoolsbrief/21584534-effects-financial-crisis-are-still-being-felt-five-years-article>

Economic Development & Planning Commission (ED&PC 2008). Meeting Summary for May 21, 2008. Charlotte-Mecklenburg. Accessed online 02/27/2015:  
<http://charmeck.org/city/charlotte/focusareas/economicdevelopment/documents/edpsummary52108.pdf>

Edelstein, Sara (2013). "High Rates of Child Poverty Hidden in Smaller Metro Areas." MetroTrends Blog, Urban Institute. February 8, 2013. Accessed online 12/08/13.  
<http://blog.metrotrends.org/2013/02/high-rates-child-poverty-hidden-smaller-metro-areas/>

Ely, Todd L. and Paul Teske (2015). "Implications of Public School Choice for Residential Location Decisions." *Urban Affairs Review* 2015, Vol. 51(2) 175–204.

England, K. (2006). "Producing Feminist Geographies: Theories, Methodologies and Research Strategies," Ch. 26, p. 286-297 in S. Aitkin and G. Valentine, eds., *Approaches to Human Geography*, Thousand Oaks: SAGE.

Entrikin, J.N and J. Tepple (2006). "Humanism and Democratic Place-Making," Ch. 3, p. 30-41, in *Approaches to Human Geography*. Stuart Aitken and Gill Valentine, eds.

Feik, Jamie, Lisa Hearl and Karen Lyons (2012). *Mortgage Performance Summary: Housing Market and Mortgage Performance in North Carolina. 4<sup>th</sup> Quarter, 2012*. The Federal Reserve Bank of Richmond.

FEMA (2011). *Lessons in Community Recovery. Seven Years of Emergency Support Function #14. Long-Term Community Recovery from 2004 to 2011*. U.S. Department of Homeland Security. FEMA. December 2, 2011.

Filion, Pierre (2013). "Optimistic and pessimistic perspectives on the evolution of the North American suburb." Essay in Interface: The Face of Suburbs. *Planning Theory and Practice*, Vol. 14, No. 3, 391-415.

Florida, Richard (2008). *Who's Your City? How the Creative Economy is Making Where to Live the Most Important Decision of Your Life*.

Flyvbjerg, Bent (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*. 2006 12:219-245.

Forkenbrock, D., S. Mathur and L. Schweitzer (2001) *Transportation Investment Policy and Urban Land Use Patterns*, Public Policy Center, Iowa City: University of Iowa.

Forrest-Bank, S., Nicotera, N., Anthony, E. K., Gonzales, B., & Jenson, J. M. (2014). Risk, protection, and resilience among youth residing in public housing neighborhoods. *Child & Adolescent Social Work Journal*, 31(4), 295-314.

Forsyth, Ann (2013). "Suburbs in global context: the challenges of continued growth and retrofitting." Essay in *Interface: The Face of Suburbs. Planning Theory and Practice*, Vol. 14, No. 3, 391-415.

Foster, Kathryn A. (2012). In Search of Regional Resilience. Chapter 2 in *Urban and Regional Policy and its Effects. Building Resilient Regions. Volume Four*. M. Weir, N. Pindu, H. Wial, and H. Wolman, eds. Brookings Institution Press, Washington D.C.

Francois, S., Overstreet, S., & Cunningham, M. (2012). Where We Live: The Unexpected Influence of Urban Neighborhoods on the Academic Performance of African American Adolescents. *Youth & Society*, 44(2), 307-328.

Frank, Lawrence D., Peter O. Engelke and Thomas L. Schmid (2003). *Health and Community Design. The Impact of the Built Environment on Physical Activity*. Island Press.

Frumkin, Howard (2001). Beyond Toxicity. Human Health and the Natural Environment. *American Journal of Preventive Medicine* 20(3): 234-240.

Frumkin, Howard, Lawrence Frank, and Richard Jackson (2004). *Urban Sprawl and Public Health. Designing, Planning, and Building for Healthy Communities*. Island Press

Fulton, William (1996). *The New Urbanism: Hope or Hype for American Communities?* Lincoln Institute for Land Policy: Cambridge, MA.

Furusest, O., Smith, H., & McDaniel, P. (2015). Belonging in Charlotte: Multiscalar differences in local immigration politics and policies. *Geographical Review*, 105(1), 1-19.

Gabe, Thomas (2012). "Poverty in the United States: 2011." *Congressional Research Service Report for Congress*. Published Sept. 27, 2012. Accessed online 05/16/2013: <http://www.fas.org/sgp/crs/misc/RL33069.pdf>

Galvez, M., Morland, K., Raines, C., Kobil, J., Siskind, J., Godbold, J., & Brenner, B. (2008). Race and food store availability in an inner-city neighbourhood. *Public Health Nutrition*, 11(6), 624-631.

Garb, Margaret (2003). "Health, Morality, and Housing: The "Tenement Problem" in Chicago." *American Journal Of Public Health*, 93, no. 9 (Sept. 2003): 1426.

Goetz, E.G. (2012). "The Transformation of Public Housing Policy, 1985-2011." *Journal of the American Planning Association*, Vol. 78:4 (452-463), Autumn 2012.

Goldfield, D. 2000. Chapter 3: "History." *Atlas of North Carolina*. University of North Carolina Press. Chapel Hill.

- Gottesdiener, Laura (2013). "How Wall Street Has Turned Housing Into a Dangerous Get-Rich-Quick Scheme—Again." *Mother Jones*. Nov. 29, 2013. Accessed online 02/20/2015: <http://www.motherjones.com/politics/2013/11/wall-street-buying-foreclosed-homes>
- Gottlieb, Paul D. (2002). "Growth Without Growth: An Alternative Economic Development Goal For Metropolitan Areas." *The Brookings Institution Center on Urban and Metropolitan Policy*. February 2002. Accessed online 03/03/2015: <http://www.brookings.edu/~media/research/files/reports/2002/2/useconomics-gottlieb/gottlieb.pdf>
- Gregory, D. and R.J. Johnston, G. Pratt, and M. Watts (2009). *The Dictionary of Human Geography*, Fifth Edition, Cambridge, MA: Basil Blackwell.
- Grossman, James R. (1994). "From Place to Place: African American Migration & Historic Sites." In *African American Historic Places*, ed. Carol D. Shull, 25-33. New York: The Preservation Press.
- Grout, Cyrus A., William K. Jaeger, Andrew J. Plantinga (2011). "Land-use regulations and property values in Portland, Oregon: A regression discontinuity design approach." *Regional Science and Urban Economics* 41 (2011) 98–107.
- Haans, A., & de Kort, Y. A. (2012). Light distribution in dynamic street lighting: Two experimental studies on its effects on perceived safety, prospect, concealment, and escape. *Journal Of Environmental Psychology*, 32: 342-352.
- Hanlon, B., J. Rennie Short and T.J. Vicino (2010). *Cities and Suburbs. New metropolitan realities in the US*. USA and Canada: Routledge.
- Harvey, D. (1985). "The Geography of Capitalist Accumulation," in *The Urbanization of Capital*, Oxford: Basil Blackwell, pp. 32-61.
- Harvey, D. (1987) "Flexible Accumulation Through Urbanization: Reflections on 'PostModernism' in the American City," *Antipode*, 19: 260-286.
- Harvey, D. (2001). Globalization and the "Spatial Fix." *geographische revue* 2/2001.
- Harvey, K.D. and P.J. Nigro (2004). "Do Predatory Lending Laws Influence Mortgage Lending? An Analysis of the North Carolina Predatory Lending Law." *Journal of Real Estate Finance and Economics*, 29:4, 435-456.
- Heathcott, J. (2012). "The Strange Career of Public Housing. Policy, Planning and the American Metropolis in the Twentieth Century." *Journal of the American Planning Association*, Vol. 78:4 (360-375), Autumn 2012.

Higgins, B. and D. Savoie (1995) "Introduction," Chapter 1 in *Regional Development & Their Theories*, New Brunswick: Transactions Pub. p. 3-18.

Hirschman, Charles (1983). "America's Melting Pot Reconsidered." *Annual Review of Sociology*. 9(397-423).

Holmes, Steven A. (1999). "Fannie Mae Eases Credit To Aid Mortgage Lending." *The New York Times*. Sept. 30, 1999. Accessed online 02/21/2015:  
<http://www.nytimes.com/1999/09/30/business/fannie-mae-eases-credit-to-aid-mortgage-lending.html>

Horwitz, Steven (2012). "Causes and Cures of the Great Recession." *Economic Affairs*, 32(3), 65-69.

Hoyt, H. (1939) *The Structure and Growth of Residential Neighborhoods in American Cities*. Washington DC: Federal Housing Administration.

Immergluck, Dan (2009). "The Foreclosure Crisis, Foreclosed Properties, and Federal Policy." *Journal of American Planning Association* (2011) 26:245-262.

Immergluck, Daniel (2010). "Neighborhoods in the Wake of the Debacle: Intrametropolitan Patterns of Foreclosed Properties." *Urban Affairs Review* (2010) 46(1):3-36.

Immergluck, Dan (2011). "From risk-limited to risk-loving mortgage markets: origins of the U.S. subprime crisis and prospects for reform." *Journal of Housing and the Built Environment* (2011) 26:245-262.

Immergluck, Dan (2012). "Distressed and Dumped. Market Dynamics of Low-Value, Foreclosed Properties during the Advent of the Neighborhood Stabilization Program." *Journal of Planning Education and Research*, 2012 (32):48-62.

Jackson, Richard J., Andrew L. Dannenberg, and Howard Frumkin (2013). "Health and the Built Environment: 10 Years After." *American Journal Of Public Health* 103, no. 9 (September 2013): 1542-1544.

Jacobs, Peter. 1991. De-, Re-In{form}ing Landscape. *Landscape Journal*, 10, 48-56.

Jacobson, S. L., & Szczesek, J. (2013). "School Improvement and Urban Renewal: The Impact of a Turnaround School's Performance on Real Property Values in Its Surrounding Community." *Leadership And Policy In Schools*, 12(1), 89-99.

James, A. (2006). "Critical moments in the production of 'rigorous' and 'relevant' cultural economic geographies." *Progress In Human Geography*, 30(3), 289-308.

- Jun, Myung-Jin (2004). "The Effects of Portland's Urban Growth Boundary on Urban Development Patterns and Commuting." *Urban Studies*, Vol. 41, No. 7, 1333–1348, June 2004.
- Jun, Myung-Jin (2006). "The Effects of Portland's Urban Growth Boundary on Housing Prices." *Journal of the American Planning Association*. Vol. 72, No. 1, Spring 2006.
- Kain, J (1968). "Housing Segregation, Negro Employment and Metropolitan Decentralization," *Quarterly Journal of Economics*, 82(2): 175-197.
- Kaplan, S and Kaplan, R. (2003). Health, supportive environments, and the reasonable person model. *American Journal of Public Health*, 93 (9), 1484-1489.
- Kenyon, Amy (2013). "Detroit's road to ruin." *Financial Times* report: Urban Ingenuity. December 11, 2013. Accessed online 08/14/2014. <http://www.ft.com/cms/s/0/c9add7c4-48aa-11e3-8237-00144feabdc0.html#Numberaxzz3APFG1UHo>
- Kimble, G. (1951) "The Inadequacy of the Regional Concept," In *London Essays in Geography: Rodwell Jones Memorial Volume*, editors L. Dudley Stamp, and S. W. Wooldridge, London: Longmans, Green, 1951.
- King, M. C. (2009). "Recouping Costs For Repairing 'Broken Windows': The Use Of Public Nuisance By Cities To Hold Banks Liable For The Costs Of Mass Foreclosures." *Tort Trial & Insurance Practice Law Journal*, (1). 97.
- Kitchin, R. (2006). "Positivist Geographies and the Spatial Science," Ch. 2, pp. 20-29 in *Approaches to Human Geography*. S. Aitkin and G. Valentine, eds., Thousand Oaks: SAGE.
- Kneebone, E. and E. Garr (2010). "The Suburbanization of Poverty: Trends in Metropolitan America, 2000-2008," *Metropolitan Opportunity Series*, Metropolitan Policy Program, The Brookings Institution, January, pp. 1-24.
- Kneebone, E. and A. Berube (2013). *Confronting Suburban Poverty in America*. The Brookings Institute.
- Kornbluh, Karen (2012). "Why America Has One of the Highest Child Poverty Rates in the Developed World." *The Atlantic*. Published Nov. 12, 2012. Accessed online 05/16/2013: <http://www.theatlantic.com/sexes/archive/2012/11/why-are-so-many-single-parent-families-in-poverty/265078/>
- Kunstler, James Howard (1993). *The Geography of Nowhere. The Rise and Decline of America's Man-Made Landscape*. Touchstone: New York.
- Kuo, Frances E. (2001). Coping with poverty: Impacts of environment and attention in the inner city. *Environment and Behavior*, vol. 33 (1), 5-34.

Lady Bird Johnson Wildflower Center. "Our Environmental First Lady. The Life and Legacy of Lady Bird Johnson." Accessed Aug. 5, 2014.  
[http://www.wildflower.org/environmental\\_first\\_lady/](http://www.wildflower.org/environmental_first_lady/).

Lather, Patti (1986). "Issues of Validity in Openly Ideological Research: Between a Rock and a Soft Place." Chapter 9 in *Turning Points In Qualitative Research: Tying Knots in a Handkerchief*, edited by Y.S. Lincoln and N.K. Denzin. AltaMira Press: Oxford, UK (2003).

Lehnert, A., and M. Grover (2008). "New data analysis helps identify future foreclosure trouble spots." In *Community Dividend*. Minneapolis, MN: Federal Reserve Bank of Minneapolis.

Leichenko, Robin (2011). "Climate change and urban resilience." *Current Opinion in Environmental Sustainability*; Jun 2011, 3:3, pp. 164-168.

Leinberger, Christopher B. (2008). "The Next Slum?" *The Atlantic*. Mar. 1, 2008. Accessed online: <http://www.theatlantic.com/magazine/archive/2008/03/the-next-slum/306653/>

Lewis, Chance and Abiola Farinde (2012). "High school graduation rates in CMS: A focus on the forgotten percentage." UNC Charlotte Urban Institute. August 29, 2012. Accessed online 10/10/2014. <http://ui.uncc.edu/story/cms-high-school-graduation-rate-charlotte-mecklenburg>

Ley, D. (1980). "Geography Without Human Agency: A Humanistic Critique," *School of Geography Research Paper 24*, Oxford University.

Liebowitz, D. D., & Page, L. C. (2014). Does School Policy Affect Housing Choices? Evidence From the End of Desegregation in Charlotte–Mecklenburg. *American Educational Research Journal*, 51(4), 671-703.

Light, Ivan (2004). "Social Capital's Unique Accessibility." in Symposium: Using Social Capital to Help Integrate Planning Theory, Research, and Practice. Judy Hutchinson and Avis C. Vidal, editors. *Journal of the American Planning Association*, Vol. 70. No. 2. Spring 2004, 145-151.

Loftis, Brett (2011). "Middle class status increasingly difficult to attain, and children are the heart of the matter." UNC Charlotte Urban Institute and Council for Children's Rights. Sept. 29, 2011. Accessed online 05/16/2013:  
<http://cfcrights.org/wp-content/uploads/2011/10/Poverty-Data-Press-Release-September-29-2011.pdf>

Logan, J. and H. Molotch (1987). "The Social Construction of Cities," Chapter 1 in *Urban Fortunes: The Political Economy of Place*, Berkeley: University of California Press, p. 1-15.

Ludden, Thomas Morey (2011). "The Impact Of Mortgage Foreclosure On Housing Prices And Homeownership in Charlotte, North Carolina." Dissertation, University of North Carolina at Charlotte.

Lynch, Kevin (1960). *The Image of the City*. Harvard-MIT Joint Center for Urban Studies.

McCrummen, Stephanie (2011). "Housing vouchers a golden ticket to pricey suburbs." *The Washington Post*. June 25, 2011. Accessed online 02/20/2015: [http://www.washingtonpost.com/national/housing-vouchers-a-golden-ticket-to-pricey-suburbs/2011/06/23/AGDNc7kH\\_story.html](http://www.washingtonpost.com/national/housing-vouchers-a-golden-ticket-to-pricey-suburbs/2011/06/23/AGDNc7kH_story.html)

McDaniel, M., & Kuehn, D. (2013). What Does a High School Diploma Get You? Employment, Race, and the Transition to Adulthood. *Review Of Black Political Economy*, 40(4), 371-399.

McHarg, Ian (1969). *Design With Nature*. John Wiley and Sons.

McKee, K 2011, 'Challenging the Norm? The "Ethopolitics" of Low-cost Homeownership in Scotland', *Urban Studies*, vol. 48, no. 16, p. 3399–3413.

McKinney, S. A. (2010). The North Carolina Banking Institute Symposium on the Foreclosure Crisis: Municipalities Fight Effects of Foreclosure with Litigation and Neighborhood Stabilization Program Grants." *North Carolina Banking Institute*, 03/01/2010, Vol: 14, p.257.

Miami21 (2011). "Press Release: City of Miami Receives National Award for Pioneering Zoning Reform." City of Miami Planning Department. [http://www.miami21.org/Media\\_01112011.asp](http://www.miami21.org/Media_01112011.asp). Accessed 02/26/2015.

Michael, Jeff (2011). "Jury still out on smart growth." *Charlotte Business Journal*. Published April 29, 2011, accessed online 05/16/2013: <http://www.bizjournals.com/charlotte/print-edition/2011/04/29/jury-still-out-on-smart-growth.html?page=all>.

Mickelson, R. A. (2001). "Subverting *Swann*: First- and second-generation segregation in the Charlotte-Mecklenburg Schools." *American Educational Research Journal*, 38 (2), 215-252.

Moore, Terry (1978). Why allow planners to do what they do? A justification from economic theory. *Journal of the American Planning Association*, 44 (4): 387-398.



- Moreno, A. (1995) *The Cost-Effectiveness of Mortgage Foreclosure Prevention* (Minneapolis: *Family Housing Fund*).
- Morland K, Wing S, Diez Roux A, Poole C. (2002). "Neighborhood characteristics associated with the location of food stores and food service places." *American Journal Of Preventive Medicine* [serial online]. January 1, 2002;22:23-29.
- Morrison, P.A. (1974) "Toward a Policy Planner's View of Urban Settlement Systems." Unpublished. Santa Monica: The Rand Corp.
- Mumford, Lewis (1961). *The City in History. Its Origins, Its Transformations, and Its Prospects*. Harcourt, Inc. Copyright renewed 1989 by Lewis Mumford.
- National Center for Children in Poverty (NCCP, 2013). "Basic Facts About Low-income Children." Fact sheet published January 2013. Authors: Sophia Addy, Will Engelhardt, and Curtis Skinner. Accessed online 12/08/13. [http://nccp.org/publications/pub\\_1074.html](http://nccp.org/publications/pub_1074.html)
- Nelson Arthur C., Rolf Pendall, Casey J. Dawkins and Gerrit J. Knapp (2002). "The Link Between Growth Management And Housing Affordability: The Academic Evidence." A Discussion Paper Prepared for *The Brookings Institution Center on Urban and Metropolitan Policy*. February 2002.
- Nelson, A. C., R. J. Burby, E. Feser, C. Dawkins, E. Malizia, and R. Quercia (2004). "Urban Containment and Central-City Revitalization." *Journal of the American Planning Association*, 70(4): 411-425.
- Nelson, AC (2009). "The New Urbanity: The Rise of a New America." *Annals of the American Academy of Political and Social Science*, Vol. 626, pp. 192-208.
- Nelson, Arthur C. (2013a). "Zoning Restrictiveness and Housing Foreclosures: Exploring a New Link to the Subprime Mortgage Crisis." *Housing Policy Debate*, Vol. 23, No. 2, 458-459.
- Nelson, Arthur C. (2013b). "The resettlement of America's suburbs." Essay in Interface: The Face of Suburbs. *Planning Theory and Practice*, Vol. 14, No. 3, 391-415.
- Newsom, Mary (2014). "Planners envision new zoning ordinance by 2018." PlanCharlotte.org, UNC Charlotte Urban Institute. Accessed online 02/22/2015: <http://plancharlotte.org/story/charlotte-zoning-ordiance-form-based-udo>
- Newton, Norman T. (1971). *Design on the Land. The Development of Landscape Architecture*. Belknap/Harvard.

Nichol, Gene (2013). "In urban North Carolina, deep pockets of misery are masked." *News & Observer*, Sept. 29, 2013. Accessed online 07/16/2014: <http://www.newsobserver.com/2013/09/29/3239177/in-urban-north-carolina-deep-pockets.html>

Noonan, D. S. (2008). Evidence of Environmental Justice: A Critical Perspective on the Practice of EJ Research and Lessons for Policy Design. *Social Science Quarterly (Wiley-Blackwell)*, 89(5), 1153-1174.

Norris FH, Stevens SP, Pfefferbaum BJ, Wyche KF, Pfefferbaum RL. (2008). "Community Resilience as a metaphor, theory, set of capacities and strategy for disaster readiness." *American Journal of Community Psychology*. 2008;41:127-50.

Olmsted, Frederick Law (1870). Public Parks and the Enlargement of Towns. Essay in *Civilizing American Cities. Frederick Law Olmsted: Writings on City Landscapes*. S.B. Sutton, ed. (1997). New York: De Capo Press, Inc.

The State Museum of Pennsylvania (PA Museum, 2003). "Levittown: Building the Suburban Dream." Crabgrass Frontiers, LEVITT & SONS AND THE POST WWII HOUSING BOOM (exhibit). Accessed online 08/14/2014: <http://statemuseumpa.org/levittown/one/b.html>

Park, Robert E. and Ernest W. Burgess (1925). *The City*. The University of Chicago Press, Chicago.

Pasanen, Tytti P., Liisa Tyrväinen, and Kalevi M. Korpela (2014). "The Relationship between Perceived Health and Physical Activity Indoors, Outdoors in Built Environments, and Outdoors in Nature." *Applied Psychology: Health & Well-Being* 6, no. 3: 324-346.

Perkins, Broderick (2002). "Housing's Historic Levittown Turns 50." *RealtyTimes. Real Estate News and Advice*. Accessed online 08/04/2014. <https://kb.wisc.edu/telepresence/ushistory>

Perry, Nancy, Spencer Crew & Nigel M. Waters (2013). "We didn't have any other place to live." Residential Patterns in Segregated Arlington County, Virginia." *Southeastern Geographer*, 53(4) 2013: pp. 403-427.

Pew (2011). "Wealth Gaps Rise to Record Highs Between Whites, Blacks, Hispanics. Twenty-to-One." Pew Research Center. Social & Demographic Trends. July 26, 2011. Accessed online 03/05/2015: <http://www.pewsocialtrends.org/2011/07/26/wealth-gaps-rise-to-record-highs-between-whites-blacks-hispanics/>

Phillips, Brenda D. (2009). *Disaster Recovery*. 1<sup>st</sup> Edition. CRC Press. Boca Raton, FL.  
Preston, V. and McLafferty, S. (1999). "Spatial Mismatch Research in the 1990s: Progress and Potential," *Papers in Regional Science*, 78: 387-402.

Pretty, Jules (2004). How nature contributes to mental and physical health. *Spirituality and Health International*, vol. 5 (2), 68-78.

Pretty, J, J Peacock, M Sellens, and M Griffin (2005). The mental and physical health outcomes of green exercise. *International Journal Of Environmental Health Research* 15(5): 319-337.

Prince, Adam (2004). "15 years and the some: the impacts I-485 has had on Charlotte." Narkive Newsgroup Archive. Accessed online 03/02/2015:  
<http://misc.transport.road.narkive.com/mM2cp6rP/15-years-and-then-some-the-impacts-i-485-has-had-on-charlotte>

Princetl, Stephanie, Jennifer Wolch, John Wilson, and Travis Longcore. March 2003. "Toward a Sustainable Los Angeles: A 'Nature's Services' Approach." (see Table 1). Los Angeles: University of Southern California, Center for Sustainable Cities.  
[http://www.usc.edu/dept/geography/ESPE/documents/report\\_haynes.pdf](http://www.usc.edu/dept/geography/ESPE/documents/report_haynes.pdf)

Purcell, M 2001, 'Neighborhood activism among homeowners as a politics of space.' *The Professional Geographer*, vol. 53, no. 2, 178-194.

Putnam, R. (1995). "Bowling alone: America's declining social capital." *Journal of Democracy*, 6, 65-78.

Putnam, Robert (2000). *Bowling Alone: The collapse and revival of American community*. New York: Simon & Schuster.

Quealy, K. and J. White (2013). Housing's Rise and Fall in 20 Cities. *The New York Times*. April 30, 2013.  
[http://www.nytimes.com/interactive/2011/05/31/business/economy/case-shiller-index.html?\\_r=0Numbercity/CHAR](http://www.nytimes.com/interactive/2011/05/31/business/economy/case-shiller-index.html?_r=0Numbercity/CHAR)

Rabin, Yale (1990). "Expulsive Zoning: The Inequitable Legacy of Euclid." In *Zoning and the American Dream*, Charles M. Haar and Jerold S. Kayden, eds. APA Planners Press.

Ramsey, Tara (2011). "Despite concerns, Charlotte City Council OKs new policy to disperse affordable housing." *Mecklenburg Times* [Charlotte, NC] 29 Mar. 2011.

Raphael, Steven and Michael A. Stoll (2010). *Job Sprawl and the Suburbanization of Poverty*. Metropolitan Opportunity Series. The Metropolitan Policy Program at Brookings. March 2010.

Read, D. C., & Tsvetkova, A. (2012). Housing and Social Issues: A Cross Disciplinary Review of the Existing Literature. *Journal Of Real Estate Literature*, 20(1), 3-35.

RealtyTrac (2014). "All-Cash Share Of U.S. Home Sales Pulls Back From 3-Year High, Institutional Investor Share Drops To 3-Year Low." RealtyTrac. August 18, 2014. Accessed online 02/21/2015: <http://www.realtytrac.com/news/foreclosure-trends/all-cash-share-of-u-s-home-sales-pulls-back-from-3-year-high-institutional-investor-share-drops-to-3-year-low/>

RealtyTrac (2015). "Where Wall Street is Likely to Be Your Landlord." Accessed online 02/20/2015. <http://www.realtytrac.com/news/realtytrac-reports/where-wall-street-is-most-likely-to-be-your-landlord/>

Reckhow, Sarah and Margaret Weir (2012). "Building a Resilient Social Safety Net." Ch. 7 in *Urban and Regional Policy and its Effects: Building Resilient Regions*, eds. Weir, Pindus, Wial, and Wolman, Vol. 4.

Relph, Edward (1976). *Place and Placelessness*. Pion publishing.

Rodaway, P. (2006). Humanism and people-centered methods. In S. Aitken, & G. Valentine (Eds.), *Approaches to Human Geography*. (pp. 263-273). London: SAGE Publications Ltd.

Rohe, William M. (2004). "Building Social Capital Through Community Development." in Symposium: Using Social Capital to Help Integrate Planning Theory, Research, and Practice. Judy Hutchinson and Avis C. Vidal, editors. *Journal of the American Planning Association*, Vol. 70. No. 2. Spring 2004, 158-164.

Rollins College (2013). "The Racial Make-up of Suburbanization." *ThirdSight History*. Date: November 15, 2013. Accessed online 08/04/2014. <http://social.rollins.edu/wpsites/thirdsight/2013/11/15/the-racial-make-up-of-suburbanization/>

Rybczynski, Witold. 2012. "The dawn of market urbanism: a new and better approach to shaping the places in which we live has emerged just as Americans responding to the rising cost of energy begin to crowd into older suburbs and cities." *The Wilson Quarterly* no. 3: *Literature Resource Center*, EBSCOhost (accessed April 2, 2015).

S&P Dow Jones Indices (2014). S&P/Case Shiller Home Price Indices. Accessed online June 10, 2014. <http://us.spindices.com/index-family/real-estate/sp-case-shiller>

Savitch, H.V., D. Collins, D. Sanders, and J.P. Markham (1993). Ties That Bind: Central Cities, Suburbs, and the New Metropolitan Region. *Economic Development Quarterly*, 7(4): 341-357. November 1993.

Samuels, Alana (2015). "Why Are Developers Still Building Sprawl?" *City Lab* 02/24/2015. Accessed online: [http://www.citylab.com/housing/2015/02/why-are-developers-still-building-sprawl/385922/?utm\\_source=nl\\_daily\\_link5\\_022415](http://www.citylab.com/housing/2015/02/why-are-developers-still-building-sprawl/385922/?utm_source=nl_daily_link5_022415)

- Shmit, Julie. "Home rentals – the new American Dream?" USA Today, 6/6/2012. Accessed online 02/20/2015: <http://usatoday30.usatoday.com/money/economy/housing/story/2012-06-05/are-home-rentals-the-new-american-dream/55402648/1>
- Simmons, Laura & Claire Apaliski (2010). "Mapping de facto segregation in Charlotte-Mecklenburg Schools." UNC Charlotte Urban Institute. Sept. 23, 2010. Accessed online 02/22/2015: <http://ui.uncc.edu/story/mapping-de-facto-segregation-charlotte-mecklenburg-schools>.
- Singe, Kerry (2014). "Investor's Market. How to cash in on Charlotte's low prices." in *Charlotte Magazine*. April 2014. Accessed online 02/20/2015: <http://www.charlottemagazine.com/Charlotte-Magazine/April-2014/Real-Estate-2014/>
- Smith, D.M. (2012). "The American melting pot: A national myth in public and popular discourse." *National Identities* 14, no. 4: 387-402.
- Smith, H.A. and Graves W. (2003). "The Corporate (Re)Construction of a New South City: Great Banks Need Great Cities." *Southeastern Geographer*, 43(2): 185-206.
- Smith, Heather and William Graves (2005). "Gentrification as Corporate Growth Strategy: The Strange Case of Charlotte, North Carolina and the Bank of America." *Journal Of Urban Affairs*, Volume 27, Number 4, pages 403–418.
- Smith, H. and Furuseth, O. (2004). "Housing, Hispanics, and Transitioning Geographies in Charlotte, North Carolina." *Southeastern Geographer*, 44(2): 216-235.
- Sorensen, Janni, Jose Gamez and Melissa Currie (2014). "Windy Ridge: A neighborhood built to fail." *Applied Geography*. Volume 51, July 2014, pp. 8-25. First available online 12 April 2014.
- Sorensen, J., Currie, M.A., Howarth, T.J., and Morrell, E. (2015). "Attachment to Place (or Not) as a Defining Characteristic of Participatory Planning Practice." under revision, *Journal of Planning Education and Research*.
- Stabley, Susan (2103). CoreLogic: Metro Charlotte's 'underwater' mortgages ebb in 1Q. *Charlotte Business Journal*. Published online Jun 13, 2013, accessed 10/01/2013. [http://www.bizjournals.com/charlotte/blog/going\\_green/2013/06/corelogic-charlotte-underwater-mortgages.html?page=all](http://www.bizjournals.com/charlotte/blog/going_green/2013/06/corelogic-charlotte-underwater-mortgages.html?page=all)
- Steiner, A., & Markantoni, M. (2014). Unpacking Community Resilience through Capacity for Change. *Community Development Journal*, 49(3), 407-425.
- Sullivan, W.C. and Kuo, F.E. (1996). Do trees strengthen urban communities, reduce domestic violence? *Technology Bulletin*, Urban & Community Forestry Assistance Program, Report R8-FR 56.

- Swanstrom, Todd (2012). Resilience in the Face of Forclosures: How National Actors Shape Local Responses. Chapter 3 in *Urban and Regional Policy and its Effects. Building Resilient Regions*. Volume Four. M. Weir, N. Pindu, H. Wial, and H. Wolman, eds. Brookings Institution Press, Washington D.C.
- Talen, Emily (2012). Zoning and Diversity in Historical Perspective. *Journal of Planning History*, 11(4), 330-347.
- Tandon, Atul (2013). "America's 'Melting Pot' is Boiling Over." *The Huffington Post*. March 3, 2013. Accessed online: [http://www.huffingtonpost.com/atul-tandon/non-profits-diversity\\_b\\_2869256.html](http://www.huffingtonpost.com/atul-tandon/non-profits-diversity_b_2869256.html)
- Tannenbaum, Fred (2003). "I-485 loops slowly west." *Charlotte Business Journal*. Nov. 24, 2003. Accessed online 03/02/2015: <http://www.bizjournals.com/charlotte/stories/2003/11/24/story6.html?page=all>
- Tett, Alison and Jeanne M. Wolfe (1991). "Discourse Analysis and City Plans." *Journal of Planning Education and Research* 1991, 10:195-200.
- Trowbridge, Peter J. and Nina L. Bassuk (2004). *Trees in the Urban Landscape. Site Assessment, Design and Installation*. John Wiley & Sons.
- Tuan, Y.F. (1991). "A view of geography," *Geographical Review*, 81: 99-107.
- Turner, D. W., III (2010). "Qualitative interview design: A practical guide for novice investigators." *The Qualitative Report*, 15(3), 754-760.
- Ulrich, R.S. (1984). "View through a window may influence recovery from surgery." *Science*, 224, 420-421.
- UNC (2011). *Charlotte Housing Authority's Moving Forward Program*. William M. Rohe, Spencer M. Cowan and Hye-Sung Han: Center for Urban & Regional Studies, University of North Carolina at Chapel Hill.
- United Church of Christ Commission for Racial Justice (1987). *Toxic Wastes and Race: A National Report on the Racial and Socioeconomic Characteristics of Communities with Hazardous Waste Sites*. New York: Public Data Access, Inc.
- U.S. Census Bureau (2012a). "U.S. Census Bureau Projections Show a Slower Growing, Older, More Diverse Nation a Half Century from Now." December 12, 2012. Accessed online 12/08/2013. <http://www.census.gov/newsroom/releases/archives/population/cb12-243.html>
- U.S. Census Bureau (2012b). "Growth in Urban Population Outpaces Rest of Nation, Census Bureau Reports." March 26, 2012. Accessed online 01/24/2013. [http://www.census.gov/newsroom/releases/archives/2010\\_census/cb12-50.html](http://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html)

U.S. Census Bureau (2015). "Selected Housing Characteristics. 2009-2013 American Community Survey 5-year Estimates." *American FactFinder*. Accessed 03/04/2015: <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

U.S. Department of Housing and Urban Development (HUD 1986). *The Affordable Housing Demonstration. Two Case Studies*. December 1986. By NAHB Research Foundation, Inc.

U.S. Department of Housing and Urban Development (HUD 1999). *A Builder's Guide to Marketing Affordable Durable Entry-Level Homes to Last*. Office of Policy Development and Research.

U.S. Department of Housing and Urban Development (HUD 2001). "Successful Transitions. Sustaining Supportive Services beyond HOPE VI." Prepared by: Abt Associates Inc. Rhae Parkes Heather Wood. December 2001. Accessed online 02/22/2015: <http://portal.hud.gov/hudportal/documents/huddoc?id=sustainrpt.pdf>

U.S. Department of Housing and Urban Development (HUD 2005). "Why Not in Our Community?" *Removing Barriers to Affordable Housing*. Office of Policy Development and Research.

U.S. Environmental Protection Agency (EPA 2015). "Sustainability Primer." Accessed online 02/20/2015: [http://epa.gov/ncer/rfa/forms/sustainability\\_primer\\_v7.pdf](http://epa.gov/ncer/rfa/forms/sustainability_primer_v7.pdf)

Vale, L.J. and Y. Freemark (2012). "From Public Housing to Public-Private Housing. 75 Years of American Social Experiment," *Journal of the American Planning Association*, Vol. 78:4 (379-402), Autumn 2012.

Vojnovic, I., & Darden, J. T. (2013). "Class/Racial Conflict, Intolerance, and Distortions in Urban Form: Lessons for Sustainability from the Detroit Region." *Ecological Economics*, 9688-98.

Voith, R. (1998). "Do Suburbs Need Cities?" *Journal of Regional Science*, 38(3): 445-464.

Voith, R. (2000). "The Determinants of Metropolitan Development Patterns," in *Urban Suburban-Interdependencies*, R. Greenstein and W. Wiewel, eds., Cambridge: The Lincoln Institute of Land Policy, p. 71-82.

Voith, Richard P. and Susan M. Wachter (2009). "Urban Growth and Housing Affordability: The Conflict." *Annals of the American Academy of Political and Social Science*, Vol 626, The Shape of the New American City (Nov. 2009), pp. 112-131.

Waddell, S.R., A. Davlin and E.S. Prescott (2011). "A Regional Look at the Role of House Prices and Labor Market Conditions in Market Conditions in Mortgage Default." *Economic Quarterly*, Vol 97 (1):1-43, First Quarter 2011.

Waite, Gordon (2010). "Doing Foucauldian Discourse Analysis – Revealing Social Realities." Chapter 11 in *Qualitative Research Methods in Human Geography*, Iain Hay, ed., Third Edition. Oxford University Press (217-240).

Waldheim, Charles (2006). "Landscape as Urbanism." in *The Landscape Urbanism Reader*. Charles Waldheim, ed., pp. 35-52. Princeton Architectural Press, New York.

Wallison, Peter J. and Edward J. Pinto (2009). "A Government-Mandated Housing Bubble." *Forbes*. 02/16/2009. Accessed online 02/21/2015: [http://www.forbes.com/2009/02/13/housing-bubble-subprime-opinions-contributors\\_0216\\_peter\\_wallison\\_edward\\_pinto.html](http://www.forbes.com/2009/02/13/housing-bubble-subprime-opinions-contributors_0216_peter_wallison_edward_pinto.html)

Walters, David (2010). "Centers and Edges. The confusion of Urban and Suburban Paradigms in Charlotte-Mecklenburg's Development Patterns." in *Charlotte, NC: The Global Evolution of a New South City*. William Graves and Heather A. Smith, eds. University of Georgia Press, 2010.

Wells, N. M. (2000). "At home with nature: The effects of nearby nature on children's cognitive functioning." *Environment & Behavior*, 32, 775-795.

Weston, C., Gandell, T., Beauchamp, J., McAlpine, L., Wiseman, C., & Beauchamp, C. (2001). "Analyzing Interview Data: The Development and Evolution of a Coding System." *Qualitative Sociology*, 24(3), 381-400.

WFAE (2013). "One Charlotte, Or Many? A WFAE Public Conversations Preview." by Julie Rose, April 24, 2013. Accessed online 02/22/2015: <http://wfae.org/post/one-charlotte-or-many-wfae-public-conversations-preview>

Wilson, William Julius (2011). "Being Poor, Black, and American. The Impact of Political, Economic, and Cultural Forces." *American Educator*, Spring 2011, pp. 10-46. Accessed online 04/08/2015: <http://www.aft.org/sites/default/files/periodicals/Wilson.pdf>

Winchester, Hilary P.M. (1999). "Interviews and Questionnaires as Mixed Methods in Population Geography: The Case of Lone Fathers in Newcastle, Australia." *The Professional Geographer*. Vol 51, Issue 1, 1999, pp. 60-67.

Winchester, Hilary P.M. (2010). "Qualitative Research and its Place in Human Geography." Chapter 1 in *Qualitative Methods in Human Geography*. Iain Hay, ed., Third Edition. Oxford University Press (1-22).

*Wired Magazine* (2007). "The Original Futurama" published 11/27/2007. See also *To New Horizons*, embedded video excerpt, courtesy of the Prelinger Archives. Accessed online 01/26/2013. [http://www.wired.com/entertainment/hollywood/magazine/15-12/ff\\_futurama\\_original](http://www.wired.com/entertainment/hollywood/magazine/15-12/ff_futurama_original).



Yang, Yizhao (2008). A tale of two cities: physical form and neighborhood satisfaction in metropolitan Portland and Charlotte. *Journal Of The American Planning Association*, 74(3), 307-323.

Zielenbach, Sean (2006). "Moving Beyond the Rhetoric: Section 8 Housing Choice Voucher Program and Lower-Income Urban Neighborhoods." *Journal of Affordable Housing & Community Development Law*, Vol 16, No. 1 (Fall 2006), pp. 9-39.

Ziersch, A., & Arthurson, K. (2007). "Social Capital and Housing Tenure in an Adelaide Neighbourhood." *Urban Policy & Research*, 25(4), 409-431.

Zolli, Andrew and Ann Marie Healy (2012). *Resilience: Why Things Bounce Back*. Simon & Schuster: NY.

## APPENDIX A: LIST OF STARTER-HOME NEIGHBORHOOD PROFILE AREAS

NPA	Street Identifier	InitialSale	CurrentSale	ValueChg
5	Kadey Drive	118,000	52,500	-55.51%
14	Lowen Road	129,750	87,000	-32.95%
27	Tibble Creek Way/"Glenwood Manor"	121,500	98,500	-18.93%
35	Hathaway Hills/McGarry Trail	130,000	55,000	-57.69%
39	Matlea Ct/Salamander Run Ln "Boulder Creek"	145,500	131,750	-9.45%
48	Meadowfield Rd/Buckleigh	138,000	87,000	-36.96%
54	Lady Liberty Lane	133,250	82,250	-38.27%
58	Sycamore Grove Ct	130,500	75,000	-42.53%
71	Squirrels Foot Ct	140,000	95,000	-32.14%
103	Kingville Dr./Blue Hampton	91,500	42,000	-54.10%
111	Steele Meadow (Steele Creek) "Stowe Creek"	139,500	130,000	-6.81%
113	Verese Ct (Pinebrook)	133,500	84,250	-36.89%
117	Brandie Glen Rd (Scotsborough)	118,500	93,000	-21.52%
123	McAllister Dr.	120,250	54,500	-54.68%
125	"Meadow Hills"/Meadow Knoll Dr.	134,000	80,500	-39.93%
136	Bitter Creek Dr./Long Hill Dr	141,000	130,000	-7.80%
141	Canyon Creek Ln/Hoskins Ridge Ln	99,500	62,000	-37.69%
152	"Mallard Woods"/Stowe Acres Dr	132,000	98,500	-25.38%
155	Reigate Road	150,000	128,000	-14.67%
156	"Brookmere Scotts Run" - Red Tallen Ln/N'woods	129,500	92,000	-28.96%
158	Grassy Patch Lane	127,750	71,500	-44.03%
160	Nevin Brook Rd/Derita	134,000	78,500	-41.42%
165	Green Hedge Ave	136,000	70,000	-48.53%
173	Summit Hills Dr/Eagles Landing	95,000	53,000	-44.21%
180	"Thompson Brook" (Fowler Springs Ln)	140,990	118,000	-16.31%
190	Windy Ridge (Todd Park)	108,000	35,000	-67.59%
195	Appledale Dr	143,500	132,000	-8.01%
199	Macvean Ln/Reid Park Ln	144,000	75,500	-47.57%
209	Wedgewood Redding Glen/Darwick St	138,000	98,000	-28.99%
211	Day Lilly Ln - "Sunset Village"	128,000	102,000	-20.31%
225	Silvercrest Dr - "Woodland Farm"	137,000	125,000	-8.76%
227	Starflower Dr - "Turtle Rock"	130000	110000	-15.38%
229	Stewarts Crossing Dr	121,000	57,750	-52.27%
231	Waverly Lynn Ln "Prosperity"	134,000	124,000	-7.46%
232	Shining Oak Lane	132,500	123,750	-6.60%
234	Smithton Ln/Elsberry	150,000	105,000	-30.00%
237	Graypark Dr/Nevin Glen Dr/Red Shed Ln	121,500	95,000	-21.81%
242	Gardenia St	147,000	92,750	-36.90%
258	Gooseberry Rd	133,000	75,000	-43.61%
260	Icon Way	114,500	97,500	-14.85%
266	Belmont Stables Dr	134,500	102,000	-24.16%
267	Orchard Grass Ct (Planter's Walk)	122,000	132,000	8.20%
273	Asheby (Underwood Rd)	130,000	110,000	-15.38%
277	"Stone Maple"/Hedge Maple Rd	134,500	125,000	-7.06%
280	Henderson Oaks Dr	124,750	69,000	-44.69%
282	Michaw Ct "Cochran Farms"	121,000	83,500	-30.99%
289	Jerpoint Abby Dr/Baltinglass Ct	150,000	112,500	-25.00%

## LIST OF STARTER-HOME NEIGHBORHOOD PROFILE AREAS (cont.)

NPA	Street Identifier	InitialSale	CurrentSale	ValueChg
299	Olsen Ln/Newell/UNCC "Faires Farm"	127,000	90,000	-29.13%
330	Bristle Ln/Hidden Creek Dr (Coulwood West)	141,000	87,000	-38.30%
332	Long Paw Ln/Coulwood West	131,500	125,000	-4.94%
348	Meadcroft Rd (Coulwood West)	108,750	62,000	-42.99%
360	Brookstead Meadow Ct (Brookstead)	126,250	91,000	-27.92%
372	Meadowmont Dr (Highland Crk)	119,000	124,500	4.62%
377	Back Creek Church Road (Katie Ck)	128,000	90,000	-29.69%
389	Brookchase Ln "Windsor Park"	134,000	108,000	-19.40%
405	Heritage Green Dr, Cornelius	134,000	141,000	5.22%
413	Twelvetrees Lane (Huntersville)	127,000	125,000	-1.57%
422	Meadowmere Rd./Walden Lea Dr.	133,500	98,000	-26.59%
446	Prairie Rose Ln (Stonegate Farms, H'ville)	136,500	129,000	-5.49%
447	Glencreek Ln (Huntersville)	126,500	128,000	1.19%

## APPENDIX B: SUMMATION OF RESEARCH DESIGN

Overall Research Question:				
Is the Starter-Home Community a resilient development model?				
Sub Questions	Approaches	Data Needed/Analysis	Data Sources	Supportive Literature
<i>Did the Great Recession disproportionately impact some starter-home developments?</i>	Compare trends in home sales since 2000 of Starter-Homes to Overall City of Charlotte and Mecklenburg Co.; Foreclosure trends	Home Sales Data in Mecklenburg County; Foreclosure data; Analyze using Xcel; generate charts/graphs	Obtain Sales Data from Zillow and Virtual-Charlotte; newspaper articles; Windy Ridge case study	Chetty et al. (2014); Immergluck (several); Moreno (1995); Sorensen et al. (2014); Swanstrom (2012); Waddell et al. (2011)
<i>What role does affordable housing play in starter-home development?</i>	Map locations and distribution of subsidized housing and poverty in Meck. Co.	Locations/data for Section 8 housing; processes for development; data on suburban poverty; GIS mapping	Charlotte Housing Authority; U.S. Dept. of HUD; 2012 Charlotte-Mecklenburg Quality of Life Study; UNC Chapel Hill study	Berube & Kneebone (several); Brookings (2012,2013); Gabe (2012)
<i>What social factors contribute to community resilience or non-resilience?</i>	Gather statistical data in identified neighborhoods; compare to county medians/means	Demographic Info incl. income, race, education, employment, indicators of social capital, health; Model analysis using SPSS	2012 Charlotte-Mecklenburg Quality of Life Study - 80 available variables (total in all dimensions); newspaper articles	Putnam (several); Bajayo (2012); Brown & Kulig (1996,7); CHA (2013); Coleman (1998); Feik (2012); Gabe (2012); Goetz (2012)
<i>How have the identified starter-home neighborhoods changed over the 2000 decade?</i>	Compare neighborhood demographics at beginning of decade to end; Compare/match geographies	Census data from 2000 and 2010 decennial census for Mecklenburg County	US Census Bureau; American FactFinder; zoning maps	Edelstein (2013); US Census Bureau; Coleman & Melnik (2007); Kneebone & Berube (2013)
<i>What role did/does Charlotte-Mecklenburg County Planning play in starter-home development?</i>	Interview planning staff and public officials; resident interviews; critique development process	Planning/zoning ordinances; Development submission process; policy review; qualitative data coding	Planners, Code Enforcement, Elected Officials, starter-home residents; ordinances, department websites	Tett & Wolfe (1991); American Planning Assoc. (2009); Chandler & Melnik (2007)
<i>What physical design elements contribute to community resilience or non-resilience?</i>	Remote and on-site analysis; conduct analysis as a class project	Context analysis; observe condition of lots, streets, houses; critique urban design elements	VirtualCharlotte; Google Earth; Zillow; data from Windshield Survey and neighborhood assessment tool	Hanlon et al. (2010); Calthorpe & Fulton (2001); Putnam
<i>How can stakeholder perspectives, including residents, municipal leaders, officials, and others augment the research?</i>	Community based participatory research; stakeholder interviews; examine statistical data from lifeworld experiences	Quotations, interview results coded from responses, identify emergent themes and insights	Planners, Code Enforcement, Elected Official, Neighborhood Business Services, starter-home residents; local reports; public meetings	Ballazs & Morello-Frosch (2013); Baxter & Eyles (1997)

## APPENDIX C: STARTER-HOME RESIDENT SURVEY

**Neighborhood:** \_\_\_\_\_

Hello. My name is Melissa Currie and I'm a graduate researcher at UNC Charlotte. I am gathering people's opinions about Charlotte neighborhoods. Will you help me with my research by participating in a short survey? ... Thank you. Your opinions can help us understand how neighborhoods can be improved. All answers and comments you make are strictly confidential and have no way of being identified with any particular person. The survey takes about 5 to 10 minutes and you can stop at any time. Ok, let's get started!

Time Started: \_\_\_\_\_ Time Ended: \_\_\_\_\_ Duration: \_\_\_\_\_

\*\*\*\*\*

\*\*\*\*\***A. General Perceptions:** *First, we are interested in knowing your overall feelings about your neighborhood.*

1. In what month and year did you move into your current home? \_\_\_\_\_

2. What was the main reason you chose to move to this neighborhood?

3. How long do you and your family plan to live in this neighborhood?

1) less than 1yr 2) 1 to 5 yrs 3) 5 to 10yrs 4) 10 + yrs 5) don't plan to move 6) unsure

4. How many times have you moved in the last 5 years? \_\_\_\_\_

5. Would you recommend a friend buy a home in your neighborhood? \_\_\_\_\_

6. How many friends do you have in the neighborhood? \_\_\_\_\_

7. What are the **three best things** about living in this neighborhood?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

8. On a scale of 1 to 5, how would you rate the overall condition of yards, streets, and open areas in your neighborhood?

1) very poor 2) poor 3) fair 4) good 5) excellent

9. What are the **three things** you like **least** about living in this neighborhood?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

10. If your neighborhood has an HOA, how would you rate its effectiveness?

1) very poor    2) poor    3) fair    4) good    5) excellent    6) N/A

11. What things are missing from your neighborhood that you think would enhance it?

12. Do you feel safe in your neighborhood?    1.) yes    2.) no    Explain.

13. On a scale of 1 to 5, how would you rate the overall quality of your neighborhood's schools?

1) very poor    2) poor    3) fair    4) good    5) excellent    6) N/A

**B. Housing:** *Next, we would like to know how you feel about housing in your neighborhood.*

14. What do you like BEST about your house?

15. Do you own or rent your home?

1) own    2) rent    **Renters:** 3) HUD/Charlotte Housing Authority?

16. **Owners:** How did you finance the purchase of your home?

1) Conventional loan    2) cash    3) owner/builder financing    4) Adjust. Rate    5) other

17. **Owners:** On a scale of 1 to 5, how satisfied are you with your financing option?

1) very unsatisfied    2) somewhat unsatisfied    3) neutral    4) somewhat satisfied    5) very satisfied

18. **Owners:** How many homes have you purchased in your lifetime? \_\_\_\_\_

19. On a scale of 1 to 5, how would you rate the overall conditions of the houses in your neighborhood?

1) very poor    2) poor    3) fair    4) good    5) excellent

20. Have you or the property owner undertaken home improvement over the last five (5) years?

1) yes    2) no    3) Don't know

21. What is the **main** construction material of the homes in your neighborhood?

1) Brick    2) Siding    3) Stucco    4) Stone    5) mixed – no dominant style

**C. Shopping and Economic Activity:** *Ok. Almost finished! The next set of questions will tell us about the amenities convenient to your neighborhood.*

How close are the following goods and services to your neighborhood?

1) less than 1 mi    2) 1 to 2 miles    3) 3 to 5 miles    4) 5+ miles    5) N/A

22. Groceries: \_\_\_\_\_ Type of Store: \_\_\_\_\_

23. Medical/Dental Care: \_\_\_\_\_

24. Child Care: \_\_\_\_\_

25. Shopping (other than food): \_\_\_\_\_

26. Entertainment: \_\_\_\_\_

27. Gasoline: \_\_\_\_\_

28. Drug Store: \_\_\_\_\_

29. Banking: \_\_\_\_\_

30. Places of Worship: \_\_\_\_\_

31. How often do you use the goods or services located closest to your neighborhood?

1) never    2) once or twice ever    3) occasionally    4) often    5) my 1<sup>st</sup> choice

32. Which goods or services (like those we've discussed) do you consider it most important to be easily available to a neighborhood?

**D. You and Your Household:** *The last set of questions is about your household.*

33. First, what is your age group?

- 1) 20's          2) 30's          3) 40's          4) 50's          5) 60's          6) 70 or more

34. I will state a range of household incomes. Please say "STOP" when I reach the range that your household fits in.

- 1) less than \$35,000          2) \$35,000 to \$65,000          3) \$65,000 to \$85,000  
4) \$85,000 to \$100,000          5) \$100,000 or more

35. How many children under age 18 are in your household? \_\_\_\_\_

36. What is your main form of transportation: car, bus, walk, etc.? \_\_\_\_\_

For those adults who are employed in your household, how far do they travel to work?

37. Adult (1) \_\_\_\_\_

38. Adult (2) \_\_\_\_\_

39. Adult (3) \_\_\_\_\_

*That's it! Thank you very much for participating in my survey. Your time is greatly appreciated and your input is a valuable part of my research project. Again, I assure you that your responses are strictly confidential and have no way of being identified with any particular person. If you have any questions or would like a copy of the completed survey, please email me at mcurrie3@uncc.edu.*



## APPENDIX D: WINDSHIELD SURVEY FORM

Observers \_\_\_\_\_

Weather conditions \_\_\_\_\_ Temperature \_\_\_\_\_

City \_\_\_\_\_ Neighborhood \_\_\_\_\_

Day/Date/Time \_\_\_\_\_

**A. Neighborhood Boundaries**

- What are the boundaries of the neighborhood?
- Are there commercial streets or areas?
- Describe the types of businesses—old or new, blue-collar or white-collar, factories, government or private, large employer or small, etc.
- Does the neighborhood have an identity, a name visible?
- How would you characterize the surrounding neighborhoods?

**B. Housing**

- What is the age of the houses, type of architecture, construction material of houses? How many stories?
- Do houses have space/lawns around them? What is the condition?
- What is the general condition of the houses? Are there signs of disrepair (broken doors, windows, railings)?
- The homes, their yards (e.g. toys visible indicating young children). The type (or lack) of cars - new or used? The care given to cars?
- Are there parked cars in the driveways/streets? Does it appear everyone is at work?
- Are there vacant lots or houses? Boarded up or dilapidated buildings? If so, how many?
- How many houses for sale? For rent?
- Are there streetlights, sidewalks, curbs, gutters, open drainage ditches?
- What is the condition of streets and sidewalks (cracked or unconnected sidewalks, obstructions in the sidewalks, potholes, etc.)?

**C. Open Spaces**

- How much open space is there?
- Are there parks and recreational areas in the neighborhood? Are they lighted?
- Is the open space public or private? Who uses it?
- Is there trash, rubble, or abandoned cars in the open spaces or streets?
- Gathering spots: Does life take place on porches, on street corners, or inside? Are there bars, schools, churches, workout gyms, etc.? What time of day?

**D. Shopping Areas**

- What types of stores are in the area (shopping centers, neighborhood stores, grocery stores, drug stores, laundries, etc.)?
- How many vacant storefronts did you see?
- Are there ethnic stores, or signs that display other than English language?
- Do signs advertise tobacco, alcohol, etc.?

**E. Schools**

- Are there schools in the neighborhood? Are they public or private?
- Are there play areas, sports fields connected to the schools?
- Is graffiti evident in the schools?
- Do the school grounds appear to be well kept?
- Are there school bus stops or crossing guards?

**F. Religion**

- What churches do you see? Who uses the churches?
- Do you see evidence of their use for other than purely religious purposes?

**G. Human Services**

- Where are hospitals and health services located in relation to the neighborhood?
- Are there physician offices, health clinics or centers, dentist offices?
- Are social agencies (welfare, WIC, social services) available?
- Are there senior centers, youth centers and childcare facilities?

**H. Transportation**

- How do people get in and out of the neighborhood (car, bus, train, bike, walk)?
- Are the streets and roads conducive to good transportation and to community life?
- Are the streets in good condition? Are they paved? Gravel? Brick? Dirt?
- Are formal bus stops or public transportation signs visible?
- Is public transportation available? If so, how frequently?
- Is this a high-traffic area? Are speed limit signs or speed zones posted?
- Is there a major highway near the neighborhood? Whom does it serve?

**I. Protective Services**

- What evidence do you see of police, fire, and emergency services?
- Do houses have signs of security systems?
- Is there evidence of Neighborhood Watch programs?

**J. Neighborhood Life**

- Whom do you see on the streets (women, men, mothers with children, teenagers, elderly)?
- What ethnic groups are parts of the neighborhood? Bilingual signs?
- Are there informal gathering places/hangouts? What are they? For whom (teens, men, etc.)?

- Are there social clubs or cultural organizations?
- Is there evidence of interaction among neighbors? (i.e. signs posted advertising community events, walking groups, etc.)
- Is there evidence of homelessness?
- What animals do you see (stray dogs, watch dogs)?
- Are there parks or other recreational facilities in the neighborhood? Public or private?

**K. Design Elements**

- Road network in the community – dead ends, lack of parking
- Variety or sameness in house types
- Amenities – tot lots, neighborhood entrance design features, community pool, etc.
- Street trees/landscape elements within the neighborhood?

**L. Photographs**

- Streetscape – showing full width of street to include houses on each side
- Examples representative of typical home – both good and poor condition
- Examples of neighborhood condition – both good and poor condition
- Open spaces

Immediately after the windshield survey, write a summary of what you saw. What do you suppose are their primary issues and concerns? Who's falling through the cracks? What did you learn? How should we, the greater community, respond?

### APPENDIX E: DATA COLLECTION GUIDELINES FOR NEIGHBORHOOD SITE ASSESSMENT

The Spreadsheet shown below was provided to each student group for on-site and remote assessment. The results recorded were then aggregated to produce overall results for the 60 study neighborhoods.

Starter-Home Community Survey Summary												
NPA	STABLE-0, 1	Neighborhood Name	Number of Vacant Houses	Number of Houses for Sale	Condition of Streets: G/F/P	Number of Open Spaces	Sidewalks: Y or N	StreetTrees Y or N	Transit Stops Nearby	Community Resources Available	Neighbor-hood Watch Program	Signs of Home Security
x												
x												
x												
x												
x												
x												
x												
x												
x												
x												
x												
x												
x												
x												
		<b>TOTALS</b>	0	0		0			0			