



Report for the City of Greensboro

*What is happening to prevent the American Dream in our
lowest income neighborhoods?*

*A deep investigation into homeownership, lending patterns,
and socioeconomic trends at the city, neighborhood and
census levels*

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I. INTRODUCTION AND MOTIVATION FOR THIS STUDY

Across the United States, cities are finding economic growth is not affecting all its citizens equally. In North Carolina cities like Greensboro, Winston-Salem and Charlotte, some of their neighborhoods are recovering at different rates from the long-term effects of the 2008-2010 Great Recession. The Federal banking legislation that followed, known as the Dodd-Frank Banking Act (2010), promoted a stronger banking system, but higher compliance costs have led to unintended consequences. As [documented in our previous research](#), bank lending to the lowest income groups has dropped, making it harder for those to acquire a home than in previous years. Other factors also play a role in differential rates of economic mobility, such as transportation options, access to good health care, internet and education.

Without a better understanding of the deeper economic forces at work, cities will need creativity and innovative new tools to develop long-term solutions to basic problems like jobs, purchasing a first home, transportation and much more. Otherwise, the division between the lowest and highest income areas in our cities will continue, a consequence of differential rates of recovery and opportunity. A deep dive into the data is necessary for cities like Greensboro to reverse these trends and allow its citizens equal access to the economic ladder.

To that end, this project seeks to provide objective data and tools for government officials, residents, businesses, and nonprofits. Data that is presented in a clear fashion can help provide solutions to specific challenges faced by the city of Greensboro. Without objective data, it is difficult, if not impossible to make sound decisions. The report thus serves as a springboard for the city to collectively decide on priorities using data and graphic tools as a way to create informed choices.

To further investigate and explore these trends, we have presented a number of different variables for the City of Greensboro that will no doubt stimulate many questions for discussion. From changes in homeownership, renter trends, poverty, and income per capita, these are among the dozens of trends that can now be investigated at the *city level* using the output of this report.

In addition, the report presents an Opportunity Index Tool (web-based) that we have built expressly for the City of Greensboro, showing the broad variation across the city at the *census tract level* (which typically houses around 2,000 residents). Our development of this index allows statistical information to be transformed into visually appealing local maps, with a band of colors representing different levels of housing affordability, economic opportunity, or neighborhood vitality. These maps allow for quick ascertaining of which areas are prospering, and which are in need of help and/or investment. Though overall city averages are helpful, there is broad variation within the city. Without census tract data, those differences will be invisible.

We have tailored this index to best suit the City of Greensboro's needs, with deeper dives available into prosperity, health, housing and education. In addition, we created additional interactive and web-based maps that go beyond the stated project deliverables, by including home transaction data such as mortgage denial rates as well as crime rates. All are available

online for interested Greensboro or other parties to investigate the changes and differences across the city's census tracts.

Our goal is to arm the City of Greensboro with data so it may make concrete recommendations on how to reverse many of these long-term trends that are unequal in terms of groups' upward economic mobility. Homeownership has long been a part of the quintessential American dream, and many people move to, or stay in the city of Greensboro in order to one day acquire their own residence.

Our report indicates that despite areas of new vibrancy in the city, there are serious areas of concern regarding homeownership trends. The number of small dollar mortgages (< \$100,000) and mortgages costing between \$100,000 and \$200,000 have been steadily falling since 2008, which is not all explained by inflation. Meanwhile, our data indicate a rise in home mortgages greater than \$200,000, reflecting national trends. More expensive homes are being built, while the number of inexpensive homes are shrinking. Nearly 1 in 4 residents who rent are "rent-burdened" meaning they spend more than 30% of their income on rent. The number of families on food stamps and experiencing the federal level of poverty rate is increasing. Increasingly, the inexpensive homes are being bought by cash, making it more difficult for low to middle income prospective homeowners.

The price of residing in a Greensboro home, whether renting or owning, is remaining at about the same level of affordability, at least as a proportion of average incomes. A rent-burdened household is one that spends more than 30% of its income on rent. From 2009 to 2021, the number of rent-burdened households grew by 23% in Greensboro, but households overall grew at about the same rate so the proportion in the city remained the same.

In addition, the levels of overall economic prosperity, housing, health and education are not evenly spread across the city, and the differences can be vast from one neighborhood to the next. These differences are readily observable with the tools that have been built for this project.

Our report adds to past research done by the city in some important ways:

- 1) We include decade-long or more trends that give a better understanding of the dynamic processes and structural impediments involved with a host of economic challenges and opportunities around housing and economic mobility.

- 2) The creation of the City of Greensboro's new Opportunity Index and its offshoots will enable any interested party to further examine trends at the census tract level. Moreover, it is constructed to be easily transformable given new data or insights, as well as highly visual.

- 3) The report also stands out for its potential accessibility, with an outline that allows one to jump quickly to any data of interest, as well as any interactive map. We have created easy guideposts for the reader so that this report, though highly detailed, can be navigated without problems. This is done through live links in the outline mode to the left of this document, in Google Docs. It is now up to the city and its residents to decide how to use these tools in order to improve economic mobility and opportunity across all income levels.

OVERVIEW

II. METHODS. Create a working definition for the City of Greensboro using census tracts. Since census tracts are like individual jigsaw pieces that can sometimes lay over both city and outlying county areas, we worked with Greensboro officials to select census tracts that are most representative of the city. We also lay out areas of particular interest, including Zone 1 and the city's Reinvestment Area, again using census tracts to create working definitions.

III. DATA. Describe the datasets used for this survey, carefully detailing the variables from the following sources: American Community Survey, the Home Mortgage Disclosure Act, ATTOM, and Zillow.

IV. RESULTS. Detail results of trends related to trends in homeownership, home value, poverty variables, and lending trends. We focus on the Zone 1 and Reinvestment Area, outlining trends there as well along the same lines. We also examine two case studies, using Glenwood and Scott Park as a means of further investigation

V. METHODOLOGY: OPPORTUNITY INDEX. Explains how the index was created and can be interpreted for each census tract.

VI. GUIDE TO INTERACTIVE MAPS. Provides links to all the maps used in the report, including the opportunity index and its components, along with home transaction data.

II. METHODS

In this section, we describe the methodologies used throughout the study. First, we describe our use of census tracts to approximate the city of Greensboro. Second, we describe our approach to standardizing the census tracts across time. Third, we describe our approach to approximating Greensboro's Zone 1 area and the city's Reinvestment Area with the use of census tracts.

Census Tracts

Our key geographic unit of analysis is the census tract. Census tracts are geographic boundaries maintained by the United States Census Bureau. Census tracts are a widely used geographic unit of analysis in academic and empirical literature because they are standardized and have a wide array of data available. Census tracts are commonly used as proxies for neighborhoods, though they tend to be larger than the colloquial meaning of a neighborhood.

Standardizing Census Tracts Over Time

Though census tracts have consistent boundaries, they often change from one Decennial Census to next as populations change. Without correctly standardizing census tract level data, comparisons across Decennial Census measures can be challenging. Standardizing census tract data tends to be easier when the standardization process goes from newer to older tract

boundaries. For example, standardizing 2020 census data to 2010 data tends to be easier than from 2010 to 2020. New censuses tend to add new census tracts, which are often further divisions of earlier census tracts. Regrouping previously divided tracts is easier than parsing because parsing requires additional assumptions on the way counts ought to be distributed. There are a variety of methods to standardize census tract data over time. We take a very simple approach, which we describe further below.

Defining the City of Greensboro, N.C.

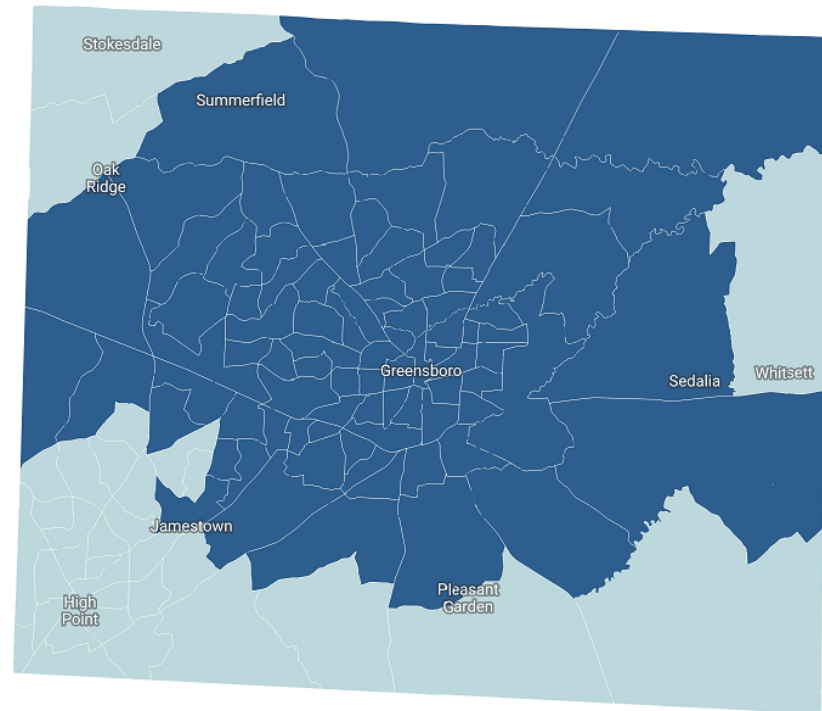
To analyze changes in Greensboro's underlying neighborhoods (census tracts), we first needed to identify the census tracts that comprise the city. We coordinated with Dana Clukey, city planner of Greensboro, to identify this set. The steps involved multiple iterations because census tracts do not perfectly align with literal city boundaries. Therefore, aligning a set of census tracts with the city boundaries is an approximation.

We began the identification process by first considering the city as the set of census tracts that contained a *piece* of the city limits, regardless of how small the piece was. The census tracts identified with this process are shown in Figure 1. The figure contains a map of Guilford County, N.C. with the 2010 census tract boundaries. The dark blue census tracts are considered the city of Greensboro (following the first identification process), and the light blue tracts are not. According to the 2010 census tract boundaries, there were 119 census tracts in Guilford County. Of the 119 tracts, 86 were considered part of Greensboro.

Figure 1

Census tracts that comprise the city of Greensboro

Census tract are for the 2010 Census

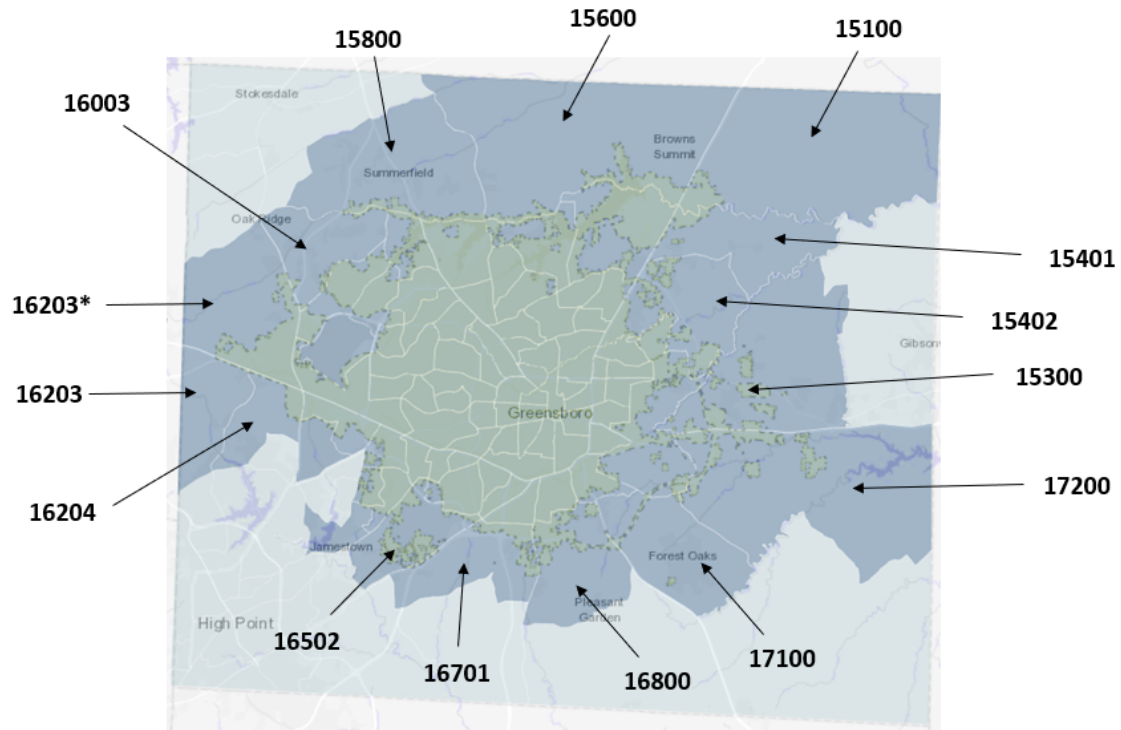


Map: Center for the Study of Economic Mobility (CSEM) • Source: Planning Department of the City of Greensboro

Based on this definition of Greensboro, however, several census tracts were included in the city definitions that contain very small amounts of the city limit. Some of these tracts are quite large, too, which could bias the city-level estimates. These census tracts include 15100, 15401, 15600, 15800, 16003, 16203, 16204, 17100, 17200 and possibly also include 15300, 16201, 16502, 16201, 16701, and 16800 (see Figure 2 below).

Figure 2 contains the same boundary from Figure 1, but with an overlay of the current Greensboro boundary (in yellow). It is apparent that the first identification process overestimates the size of Greensboro by a considerable amount.

Figure 2. Excess Census Tracts in the Greensboro City Limits

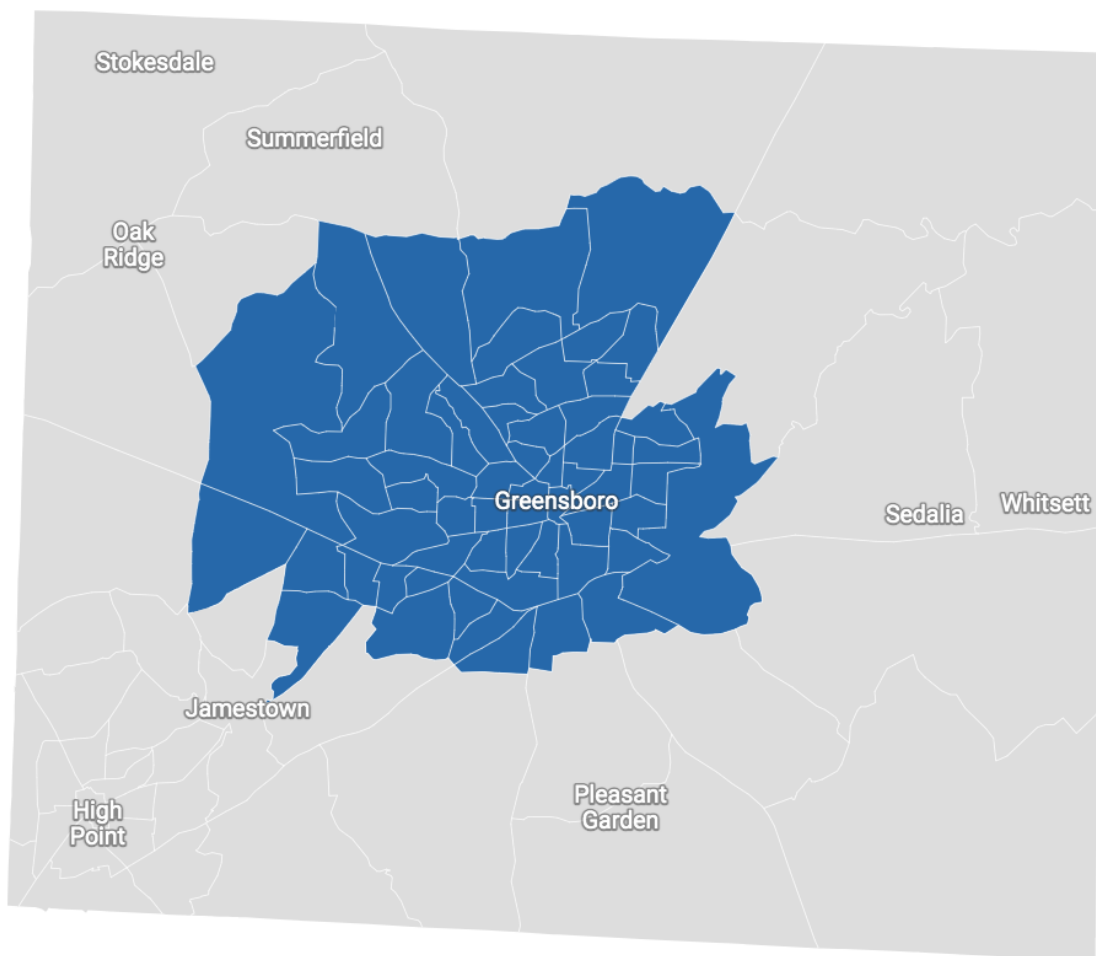


To better approximate the set of census tracts that comprise Greensboro, we removed the excess census tracts and only census tracts with larger proportions (over 50%) of the city limits within their boundaries. Figure 3 shows the new set of tracts (using the 2010 boundaries)

Figure 3.

Census Tracts that Comprise the City of Greensboro

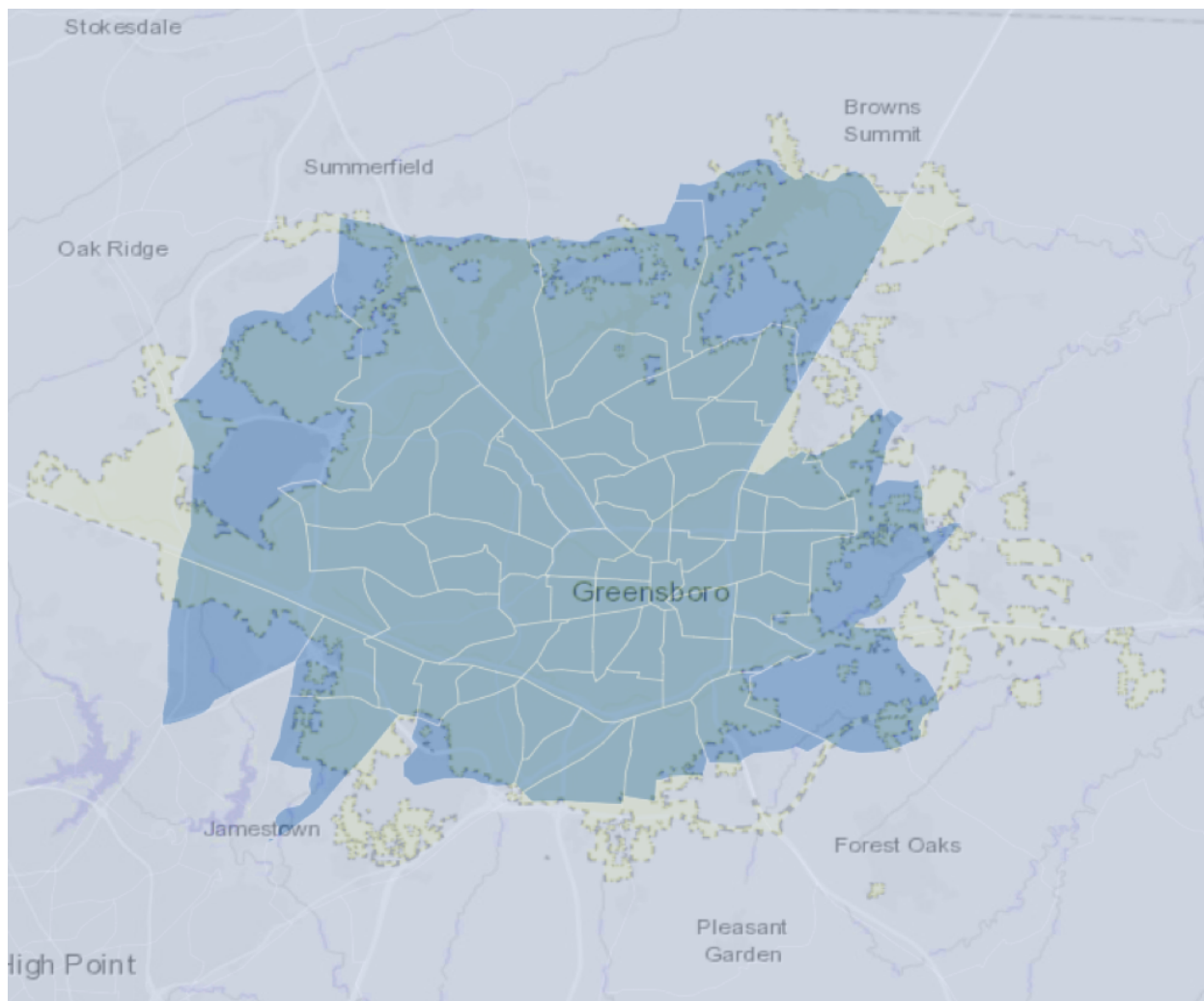
Census tracts follow the 2000 Census boundaries



Map: Center for the Study of Economic Mobility • Created with [Datawrapper](#)

Figure 4 overlays the new set of census tracts with a map of Greensboro's city limits to show that the two are more closely aligned than the one presented earlier (Figure 2). Though there are clearly yellow areas that are not included in the final set, the space we do not capture is significantly smaller than the excess space that we removed.

Figure 4. New Set with City-Limit Overlay



Standardizing Greensboro's Census Tracts

In Guilford County, N.C. in 2010, there were 119 census tracts. As of the most recent census (2020), the county has 126 census tracts and for the 2000 Decennial Census, there were 98 census tracts. County boundaries rarely change, so in Guilford County's case, from 2000 to 2020, the county got further sliced into smaller census tracts.

Since we want to analyze Greensboro, and the tracts within Greensboro over time, we needed to standardize the census tracts so that comparisons across time were valid. We decided to standardize the census tract boundaries to the 2000 definitions. Standardizing the 2020 to the 2010 list is straightforward, as only 6 of the census tracts in 2010 were split in two for the 2020

census tracts. To standardize the 2020 to 2010, we simply added the split census tracts back together.

Standardizing pre-2010 census tract boundaries to 2010 is more difficult since a lot more tracts were affected with the new tract boundaries. This would typically require adjusting, for example, 2000 tract-level values using some type of areal interpolation method, which has several major drawbacks. The primary drawback is that the method assumes that people and houses are evenly distributed across a census tract's land space.

In our case, we adjusted 2010 and 2020 tracts to fit the 2000 boundaries because in Greensboro, census tracts were simply divided from one census to the next. Therefore, we were able to simply aggregate census tract values to the correct 2000 combination to approximate a more accurate adjustment. Table 1 shows how the tracts connect from census year to the next, which is the key used to standardize our data over time as tract boundaries changed. The rows in the table are highlighted if their boundaries changed.

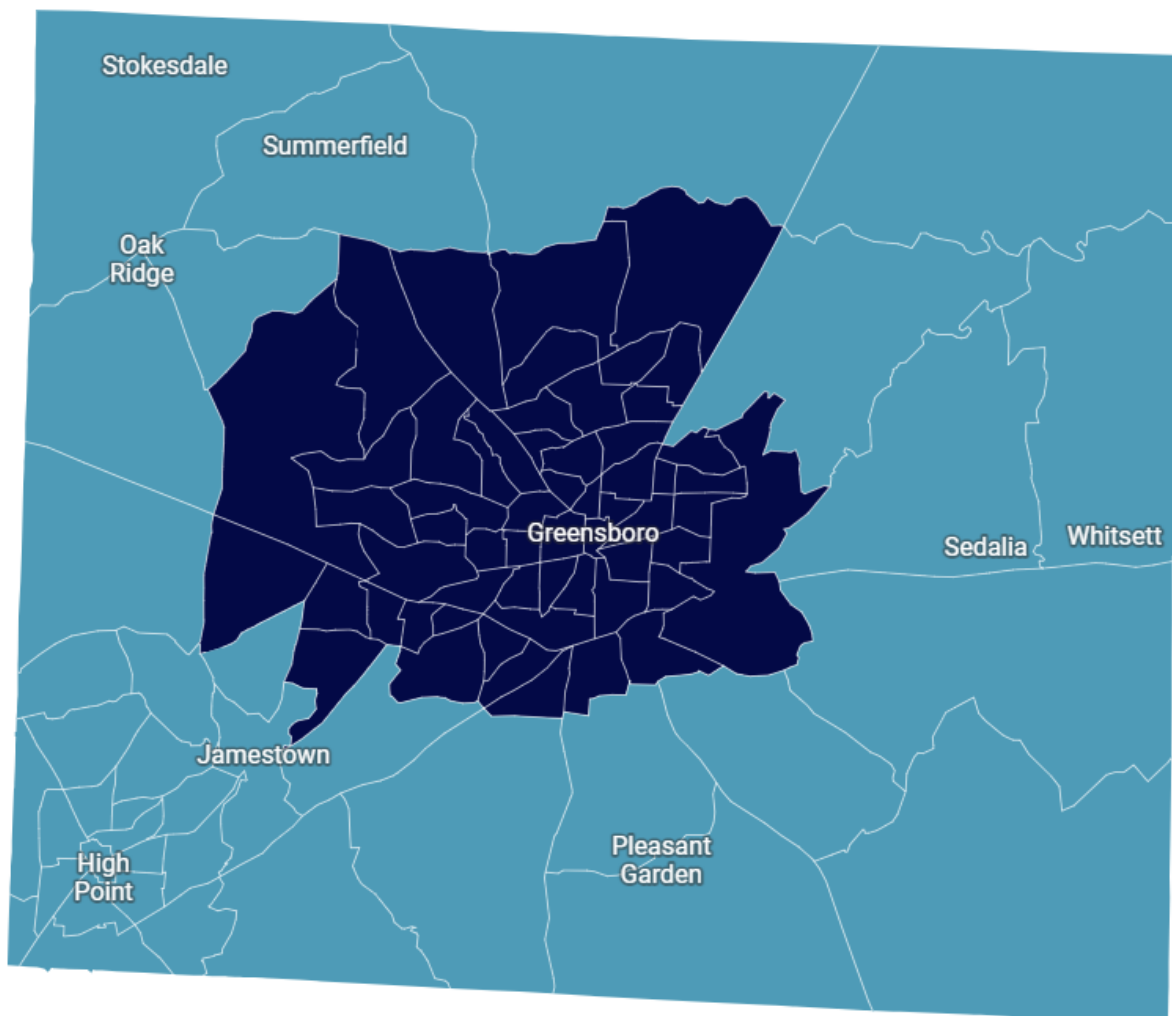
Table 1. Tract Boundaries Key, Over Time

Census Tracts in 2020	Census Tracts in 2010	Census Tracts in 2000
10100	10100	10100
10200	10200	10200
10300	10300	10300
10401	10401	10401
10403	10403	10403
10404	10404	10404
10500	10500	10500
10601	10601	10601
10602	10602	10602
10701	10701	10701
10702	10702	10702
10800	10800	10801
10800	10800	10802
10900	10900	10900
11000	11000	11000
11101	11101	11101
11102	11102	11102
11202	11200	11200
11201	11200	11200
11300	11300	11300
11400	11400	11400
11500	11500	11500
11601	11601	11601
11602	11602	11602
11904	11904	11904
11905	11905	11905
12503	12503	12503
12504	12504	12504
12505	12505	12505
12511	12511	12506

12510	12510	12506
12508	12508	12508
<i>Table 1 continued</i>		
12509	12509	12509
12619	12601	12601
12618	12601	12601
12604	12604	12604
12607	12607	12607
12608	12608	12608
12621	12609	12609
12620	12609	12609
12610	12610	12610
12611	12611	12611
12612	12612	12612
12617	12617	12617
12703	12703	12703
12704	12704	12704
12705	12705	12705
12706	12706	12706
12707	12707	12707
12803	12803	12803
12804	12804	12804
12805	12805	12805
15500	15500	15500
15705	15705	15701
15704	15704	15701
15707	15707	15702
15706	15706	15702
15703	15703	15703
16007	16007	16002
16006	16006	16002
16005	16005	16002
16009	16009	16004
16008	16008	16004
980100	980100	16004
16011	16011	16004
16010	16010	16004
16101	16101	16101
16103	16103	16102
16102	16102	16102
16406	16406	16403
16405	16405	16403
16503	16503	16503
16506	16506	16504
16505	16505	16504

The final set of census tracts that comprise our definition of Greensboro, according to the 2000 tract boundary definitions, are shown in the map contained in Figure 5.

Figure 5. Greensboro Defined with 2000 Census Tract Boundaries



Other Key Regions within Greensboro

There are regions within the city of Greensboro that are particularly important for local policy makers and officials. After consulting with Dana Clukey and Eunika Smalls, Assistant Director of Housing and Neighborhood Development for the city, we identified two specific regions of the city to further explore. These two regions, which are subsets of the set of tracts comprising Greensboro, are referred to as “Zone 1” and “Reinvestment Area.”

Greensboro’s Zone 1

Figure 6 contains a map of the city of Greensboro, with Zone 1 and Zone 2 highlighted (Zone 1 in yellow and Zone 2 in green). Zone 1 hugs the eastern and southeastern sections of the city. Defining Zone 1 with census tracts has similar challenges as defining the city of

Greensboro. Our best approximation for Zone 1, using 2000 census tract boundaries, is shown in Figure 7 further below.

Figure 6. Map of Greensboro's Zone 1 and Zone 2¹

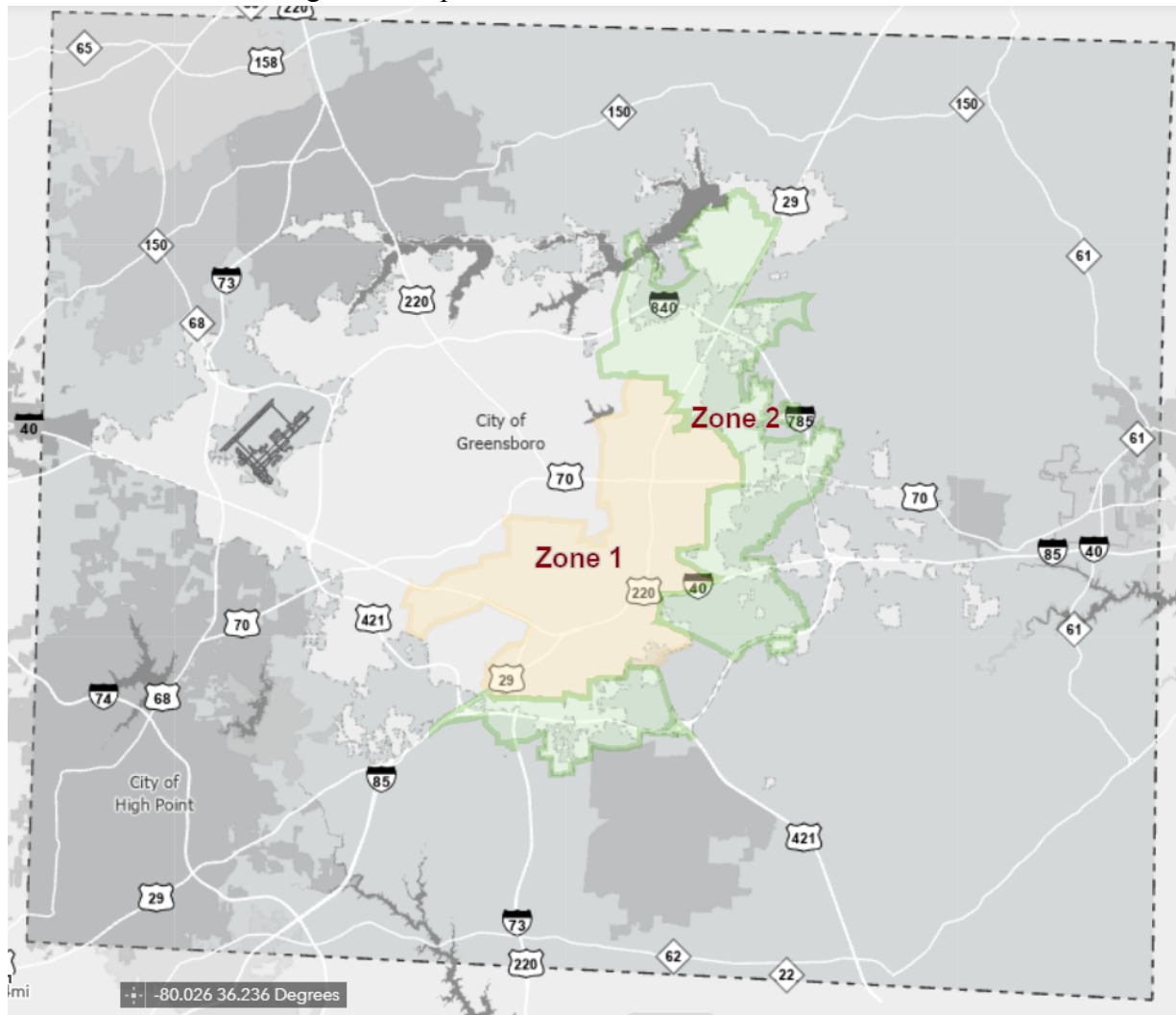
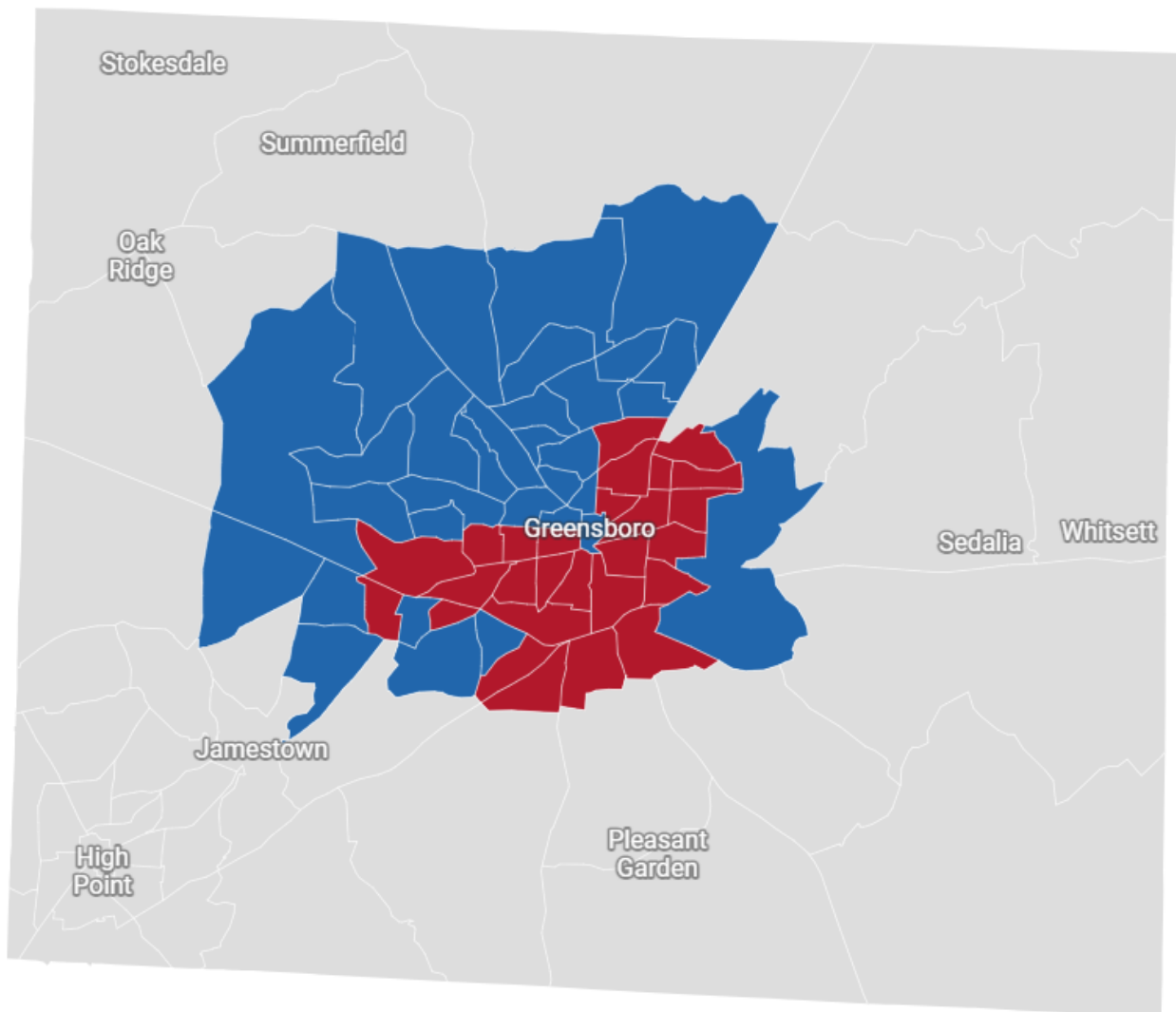


Figure 7 highlights the subset of census tracts, within the overall set of tracts that define the city, that define Zone 1 (in red).

¹ This is a screenshot from the following page:

<https://online.encodeplus.com/regs/greensboro-nc-comp/sub-map5.aspx#:~:text=Greensboro's%20Redevelopment%20activities%20include%3A&text=Eastside%20Park%20Redevelopment%20Plan,Heritage%20House%20Redevelopment%20Plan.>

Figure 7. Greensboro's Zone 1, Defined with 2000 Census Tract Boundaries



Greensboro's Reinvestment Area

Figure 8 contains a map of the city of Greensboro, with the city's reinvestment (or redevelopment) areas highlighted in green. The reinvestment area appears on the eastern half of the city, directly east of the city center. The best approximation for Greensboro's Reinvestment Area, using 2000 census tract boundaries, are shown in Figure 9 further below.

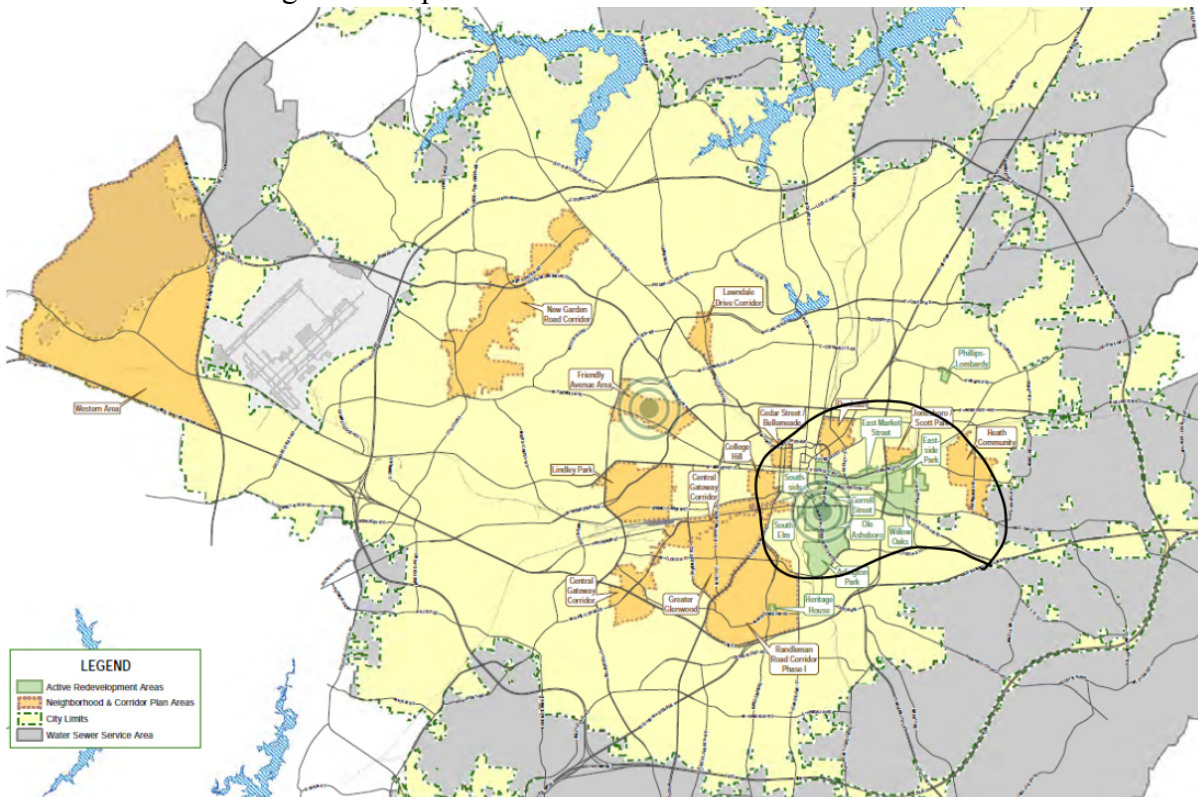
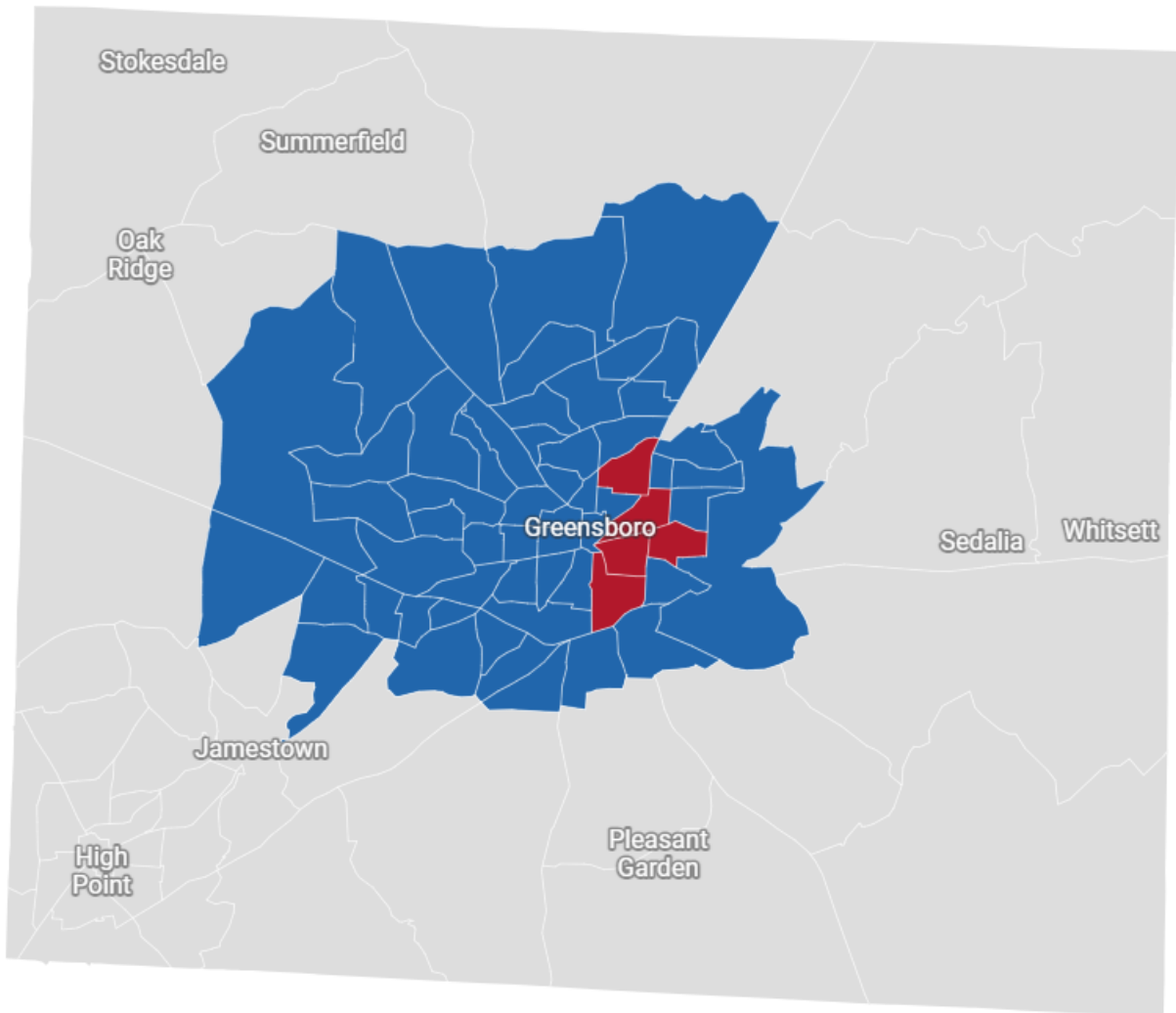
Figure 8. Map of Greensboro's Reinvestment Area²

Figure 9 highlights the subset of census tracts, within the overall set of tracts that define the city, that define the reinvestment areas (in red).

² Screenshot grabbed from here:

<https://online.encodeplus.com/regs/greensboro-nc-comp/sub-map5.aspx#:~:text=Greensboro's%20Redevelopment%20activities%20include%3A&text=Eastside%20Park%20Redevelopment%20Plan,Heritage%20House%20Redevelopment%20Plan.>

Figure 9. Reinvestment Tracts, according to 2000 boundaries



III. DATA

In this section, we describe the key data sources, along with the steps taken to prepare the datasets for analysis.

American Community Survey (ACS) Data

We use data from the American Community Survey (ACS) to measure demographic, economic, and socioeconomic trends occurring in Greensboro and the city's underlying census tracts. The ACS is a widely used source of data for academics and policymakers. The specific ACS data we used are census tract level estimates from the ACS's 5-Year estimates. These estimates are produced using a rolling and weighted sampling process. For example, the ACS 5-Year 2015-2019 file contains estimates for a census tract produced from a stratified and weighted sample of residents over a 5-year period. The last year in the interval is typically considered the year in which the estimates apply. So, the 5-year estimates for 2015-2019 are

typically assigned to the year 2019, and values for 2005-2009 are typically assigned to the year 2009. We incorporated the 5-year estimate files from 2005-2009 to 2017-2021. We downloaded ACS data from the IPUMS NHGIS databases, specifically for variables related to homeownership, income, poverty, home values, rent, vacancies, among others.

Home Mortgage Disclosure Act Data

For our analysis of lending trends occurring in Greensboro, we used data from the Home Mortgage Disclosure Act (HMDA). HMDA data is widely used to examine mortgage markets across many different academic disciplines. Many lenders are required by law to record and submit data related to mortgage applications to the Consumer Finance Protection Bureau (CFPB). Application-level records include information related to the applicant's race, the purpose of the loan application, the type of house the applicant is applying for the loan to buy, the applicant's income and gender, among many other details. Furthermore, application records also denote the outcome of the loan, for example, whether it led to an origination or a denial.

To collect data for Greensboro, we first collected application data for the entire state of N.C. from 2007 to 2021. We then filtered the dataset based on whether the applications were for the purpose of buying a home as a principal dwelling place. We kept application records for all loan and home types.

For years 2007-2011, HMDA census tract information is based on the 2000 census definitions. For 2012 – 2021, they use census 2010 definitions. Therefore, we standardized the 2010 tract definitions to the 2000 definitions using the key shown in Table 1 (shown earlier).

ATTOM Home Transaction Data

We use property transaction data from ATTOM. This dataset contains residential transaction data for all home transactions in the state of N.C. from 2003 to 2020. The transaction records contain information related to the buyer, seller, property characteristics, mortgage information, location, etc. For our purposes, we were primarily interested in small dollar home transactions, cash-related transactions, and investor activity. The specific steps we took to process and prepare the data are described in detail in the APPENDIX.

Zillow

We use various datasets from Zillow, specifically home value estimates at the neighborhood level for several neighborhoods in Greensboro, specifically the Glenwood and Scott Park neighborhoods. Zillow provides monthly home value estimates for these two neighborhoods. To convert them to annual estimates, we simply took the mean home value across the 12 months in a year. Furthermore, we adjusted the home values for inflation using the Bureau of Labor Statistics' Inflation Calculator.

Greensboro Police Department Crime Data

We use crime data from the Greensboro Police Department. Crime numbers for drug-related crimes, violent crimes, simple assaults, and vandalisms were provided at the census tract levels for the full year of 2022 and the time frame of January 1-March 31, 2023. For our

analysis, we only used data for 2022. We converted the data to the 2000 census tract boundaries. To convert the crime numbers to rates, we divided the crime numbers by the census tract's population estimates for 2021, and then multiplied the result by 1,000 to get a crime rate estimate per 1,000 residents.

IV. RESULTS

In this section, we present numerous statistics and descriptive results related to a wide range of variables, which come from four sources: the American Community Survey (ACS), HMDA ATTOM, and Zillow, as previously discussed. First, we present results at the overall Greensboro city-level, which has an array of socioeconomic variables in section A. Section B has lending trends, using HDMA data, and section C has cash purchases, using ATTOM data.

Next, we present results for Greensboro's Zone 1 area and the city's Reinvestment Area location, using the same sources of data. Finally, we present results related to several well-known neighborhoods in the city. For each of these sets of results, we include data related to demographics, economics, and socioeconomics, and trends related to the lending and housing market.

A. City of Greensboro: Demographic, Economic, and Socioeconomic Trends (ACS data)

Homeownership

Greensboro's homeownership rate has been declining since 2009 (see Table 2). In 2009, the homeownership rate was around 56.3%. As of 2021, the rate was around 50.9% even though the number of owner-occupied homes was steady over the decade. The homeownership rate in Greensboro in 2021 was around 15 percentage points lower than the homeownership rate in the entire state of N.C., which was 65.9%. Hence, the growth in the number of renter-occupied homes was the primary driver of the declining homeownership rate from 2009 to 2021.

Table 2. Homeownership Rate in Greensboro, N.C.
From 2009 to 2021

Year	Households	Owner-Occupied Households	Homeownership Rate (%)
2009	106,248	59,819	56.30
2010	107,965	59,823	55.41
2011	108,480	59,932	55.25
2012	109,984	60,002	54.56
2013	111,669	59,464	53.25
2014	113,412	59,233	52.23
2015	114,054	59,079	51.80
2016	114,626	58,234	50.80
2017	114,824	58,660	51.09
2018	115,374	58,979	51.12
2019	115,777	58,957	50.92
2020	117,680	59,119	50.24
2021	117,409	59,797	50.93

Note: 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

Homeownership by Race

As of 2021, the homeownership rate among white households was around 65%, for black households it was around 34%, for Asian households it was around 58%, and for Hispanic households around 46.9% (see Table 3 below). Since 2009, the homeownership rate for white households declined by 2.3 percentage points, and the rate for black households declined by 5.3 percentage points. The decline among white households was largely driven by the decline in the total number of white homeowners relative to the total number of white households. For black households, there was a growing number of homeowners, but this growth was outpaced by the growth in the number of black renters. The homeownership rate among Hispanic households grew after 2015 (by over 12 percentage points), and for Asian households, the rate grew after 2014 (by 8 percentage points).

Table 3. Homeownership Rates (%) by Householder's Race in Greensboro Census Tracts (2021)

Year	White	Black	Asian	Hispanic
2009	67.36	39.45	56.17	46.48
2010	68.12	37.94	53.18	40.06
2011	68.21	38.12	51.95	35.98
2012	66.97	37.88	54.71	34.86
2013	65.72	36.72	54.96	36.12
2014	65.12	35.45	50.44	34.17
2015	64.63	35.56	50.50	34.61
2016	63.99	33.93	52.03	38.23
2017	63.90	33.99	54.11	36.74
2018	64.04	33.95	53.65	39.18
2019	64.42	33.49	53.16	39.41
2020	64.21	32.81	55.23	45.70
2021	65.03	34.23	58.25	46.85

Note: 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

Rent and Cost Burdened Households

A rent or cost-burdened household is one that spends more than 30% of its income on rent or a mortgage, respectively. An extremely rent-burdened or cost-burdened household spends more than 50% on rent or a mortgage, respectively. From 2009 to 2021, the number of all households grew by about 23%, from 44,185 to 54,475. The number of rent-burdened households grew at the same rate of 23%, from 22,243 to 27,410 households. In other words, as a share of total households, rent-burdened households continue to comprise about half of all households. In some more positive developments, the number of households that were extremely rent-burdened rose by just 8.5% during the same time frame, from 11,229 to 12,182. As a share of total households, this category fell from 25.4% to 22.4% (see Table 4 and Figure 10 below).

Table 4. Rent Burdened Households in Greensboro, N.C.

Years	Renter Households ⁺	Burdened Renter Households ⁺⁺	Extremely Burdened Renter Households ⁺⁺⁺	% Burdened	% Extremely Burdened
2009	44,185	22,243	11,229	50.34	25.41
2010	45,910	23,026	11,338	50.15	24.70
2011	46,110	23,143	11,245	50.19	24.39
2012	47,196	23,764	11,492	50.35	24.35
2013	49,215	25,324	12,206	51.46	24.80
2014	51,143	26,085	12,587	51.00	24.61
2015	51,721	26,266	12,202	50.78	23.59
2016	52,908	26,350	12,407	49.80	23.45
2017	52,994	26,513	12,253	50.03	23.12
2018	53,281	26,513	12,516	49.76	23.49
2019	53,550	26,255	12,338	49.03	23.04
2020	55,360	27,429	12,367	49.55	22.34
2021	54,475	27,410	12,182	50.32	22.36

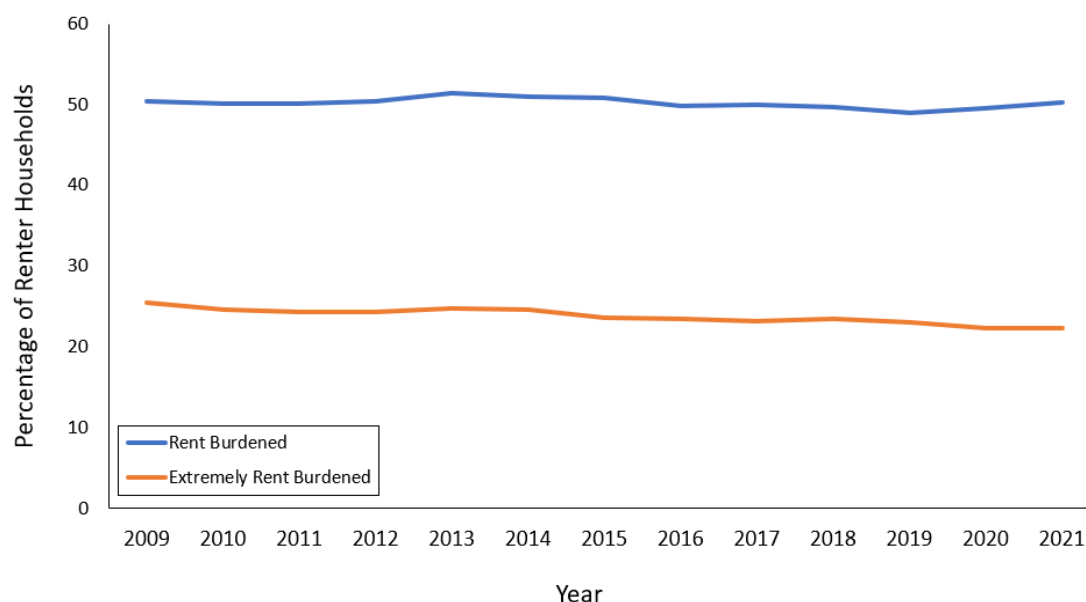
Note: 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

⁺ These include renting households with available income data.

⁺⁺ These include renting households, with available income, that spend over 30% of their monthly income on rent payments.

⁺⁺⁺ These include renting households, with available income, that spend over 50% of their monthly income on rent payments.

Figure 10. The Percentage of Rent Burdened and Extremely Rent Burdened Households in Greensboro, N.C. from 2009 to 2021



The percentage of homeowners who were cost-burdened in Greensboro declined by over 7 percentage points from 2009 to 2021. The overall decline was driven by homeowners with mortgages, while the percentage of cost-burdened homeowners without a mortgage remained steady. (see Table 5 and Figure 11 below).

Table 5: Percentage of Homeowners who are Cost-Burdened in Greensboro, N.C.

Year	All Homeowners	Homeowners with a Mortgage	Homeowners without a Mortgage
2009	27.99	32.83	12.34
2010	29.16	34.28	13.18
2011	28.35	33.32	13.12
2012	28.75	34.15	13.11
2013	28.08	33.64	13.00
2014	26.92	32.28	12.85
2015	25.07	30.26	11.73
2016	23.77	29.31	10.03
2017	22.47	27.42	10.26
2018	21.94	26.72	10.48
2019	20.95	25.39	10.49
2020	20.07	24.31	11.09
2021	20.37	24.32	12.34

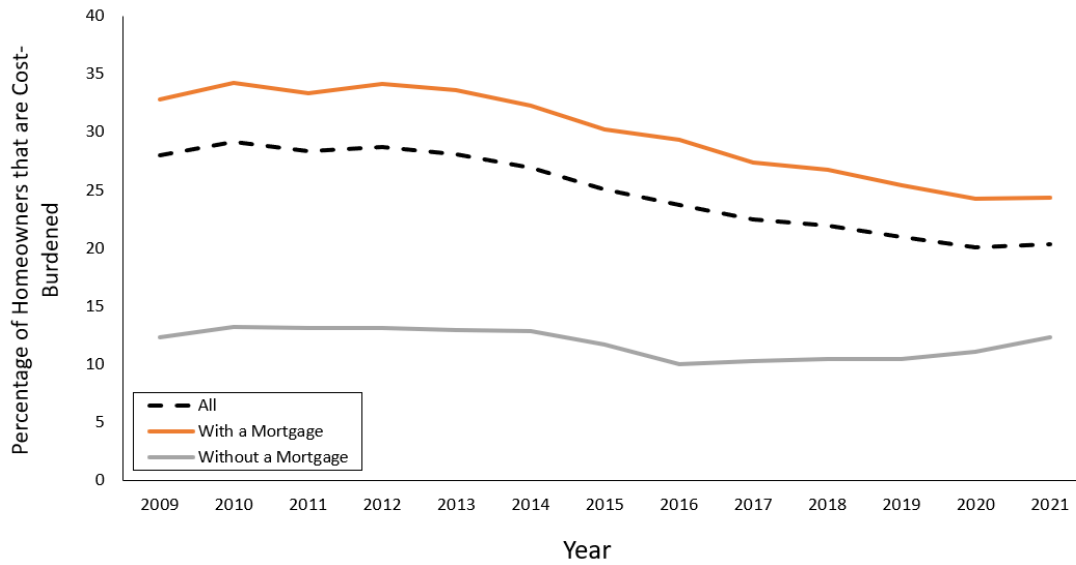
Note: 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

⁺ These include homeowners with available income data.

⁺⁺ These include homeowners, with available income, that spend over 30% of their monthly income on home payments.

⁺⁺⁺ These include homeowners, with available income, that spend over 50% on their monthly income on home payments.

Figure 11. Cost-Burdened Homeowners in Greensboro, N.C. from 2009 to 2021



Home Value

The value distribution of Greensboro's owner-occupied housing stock shifted towards higher valued homes, with a shrinking share of homes comprising lower-valued homes. The shift was being driven by homes valued over \$200,000 (see Table 6 and Figure 12).

Table 6. Value Distribution of Owner-Occupied Homes in Greensboro, N.C.
Census Tracts from 2009 to 2021

Year	TOTAL	Less than \$100k	\$100k to \$200k	\$200k to \$300k	\$300k to \$400k	\$400k to \$500k	Over \$500k
2009	59,819	14,044	28,203	9,597	3,683	1,915	2,377
2010	59,823	13,940	28,061	9,591	3,959	1,912	2,360
2011	59,932	13,762	27,971	9,895	4,181	1,990	2,133
2012	60,002	14,323	27,237	10,145	4,181	1,912	2,204
2013	59,464	14,203	26,548	10,227	4,284	1,859	2,343
2014	59,233	14,296	26,284	10,136	4,297	1,913	2,307
2015	59,079	14,645	25,439	10,674	3,992	1,911	2,418
2016	58,234	14,277	24,795	10,386	4,136	2,026	2,614
2017	58,660	13,939	25,081	10,346	4,217	2,323	2,754
2018	58,979	13,857	25,109	10,369	4,350	2,418	2,876
2019	58,957	13,256	24,822	10,889	4,597	2,353	3,040
2020	59,119	12,155	24,592	11,203	5,310	2,643	3,216
2021	59,797	11,613	23,925	12,016	5,753	2,818	3,672

Note: N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates. Home values are nominal.

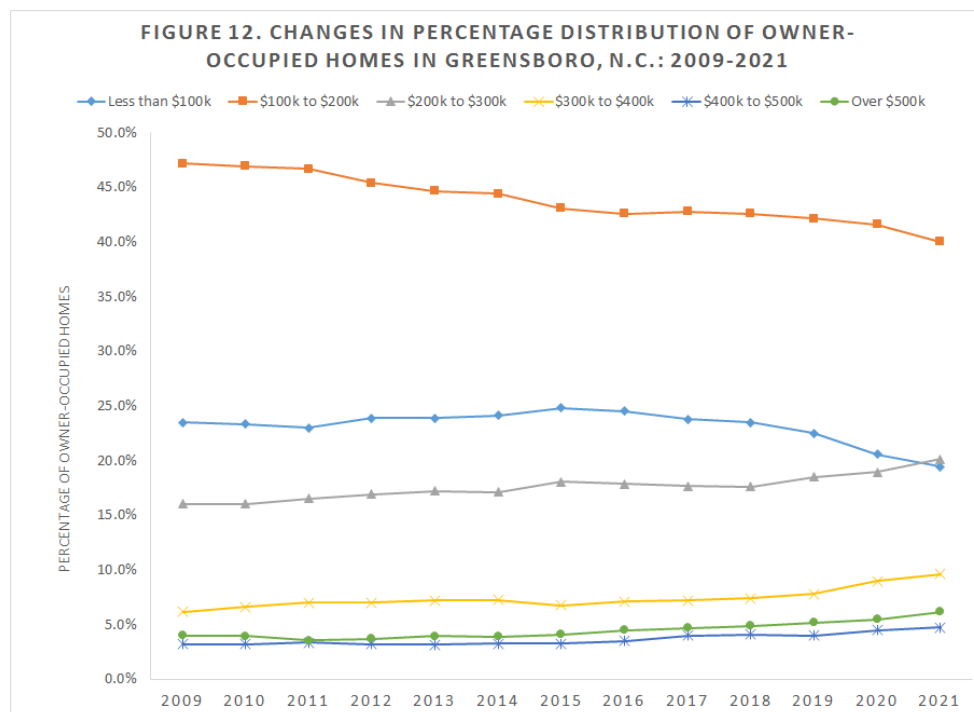


Table 6.1. Percent Distribution of Owner-Occupied Homes in Greensboro, N.C.

Census Tracts from 2009 to 2021

Year	TOTAL	Less than \$100k	\$100k to \$200k	\$200k to \$300k	\$300k to \$400k	\$400k to \$500k	Over \$500k
2009	100.0%	23.5%	47.1%	16.0%	6.2%	3.2%	4.0%
2010	100.0%	23.3%	46.9%	16.0%	6.6%	3.2%	3.9%
2011	100.0%	23.0%	46.7%	16.5%	7.0%	3.3%	3.6%
2012	100.0%	23.9%	45.4%	16.9%	7.0%	3.2%	3.7%
2013	100.0%	23.9%	44.6%	17.2%	7.2%	3.1%	3.9%
2014	100.0%	24.1%	44.4%	17.1%	7.3%	3.2%	3.9%
2015	100.0%	24.8%	43.1%	18.1%	6.8%	3.2%	4.1%
2016	100.0%	24.5%	42.6%	17.8%	7.1%	3.5%	4.5%
2017	100.0%	23.8%	42.8%	17.6%	7.2%	4.0%	4.7%
2018	100.0%	23.5%	42.6%	17.6%	7.4%	4.1%	4.9%
2019	100.0%	22.5%	42.1%	18.5%	7.8%	4.0%	5.2%
2020	100.0%	20.6%	41.6%	18.9%	9.0%	4.5%	5.4%
2021	100.0%	19.4%	40.0%	20.1%	9.6%	4.7%	6.1%

Vacancies

In Greensboro, N.C., as of 2021, the number of vacant housing units was around 13,601 or 10.4% of the city's entire housing stock. The housing vacancy rate declined by around 1 percentage point from 2009 to 2021 (see Table 7 below).

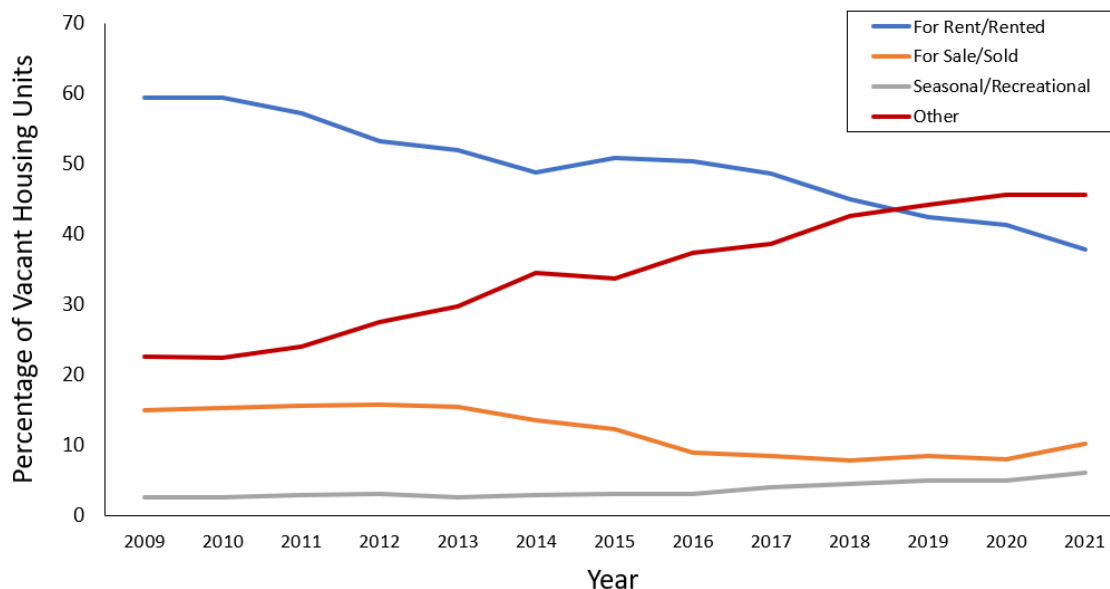
Table 7. Vacancies in Greensboro, N.C. Census Tracts from 2009 to 2021

Year	Total Housing Units	Vacant Units	Vacancy Rate (%)
2009	1199,04	13,656	11.39
2010	122,096	14,131	11.57
2011	122,862	14,382	11.71
2012	124,579	14,595	11.72
2013	125,874	14,205	11.29
2014	126,603	13,191	10.42
2015	127,570	13,516	10.59
2016	128,480	13,854	10.78
2017	129,414	14,590	11.27
2018	130,160	14,786	11.36
2019	130,994	15,217	11.62
2020	130,964	13,284	10.14
2021	131,010	13,601	10.38

N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

Vacant houses are vacant for a variety of reasons. In 2021, around 38% of the vacant housing units in the city were rented or for-rent. Around 10.3% of the vacant housing units were sold and yet to be occupied or were for sale. Around 45.6% of the vacant units were vacant for an unknown reason (see Figure 13).

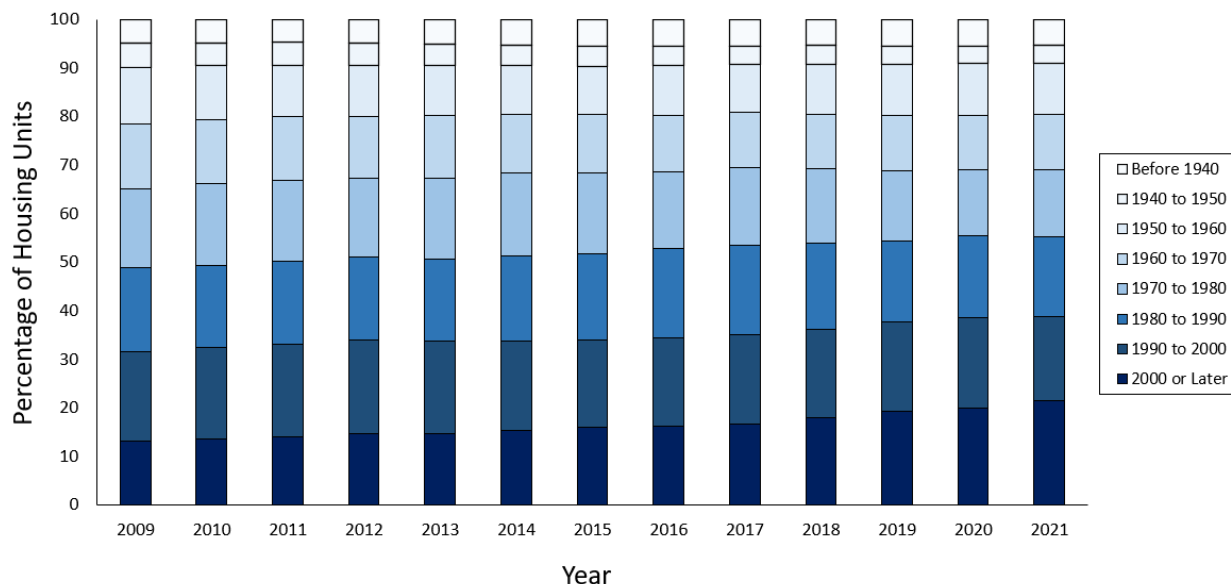
Figure 13. Percentage of Vacant Housing Units, by Reason for Being Vacant, in Greensboro, N.C. Census Tracts from 2009 to 2021



Year Built

Figure 14 shows the year-built distribution of Greensboro’s housing stock. As of 2021, around 30% of the city’s housing stock was built prior to 1970.

Figure 14. The Year Built of Housing Units in Greensboro, N.C. Census Tracts from 2009 to 2021

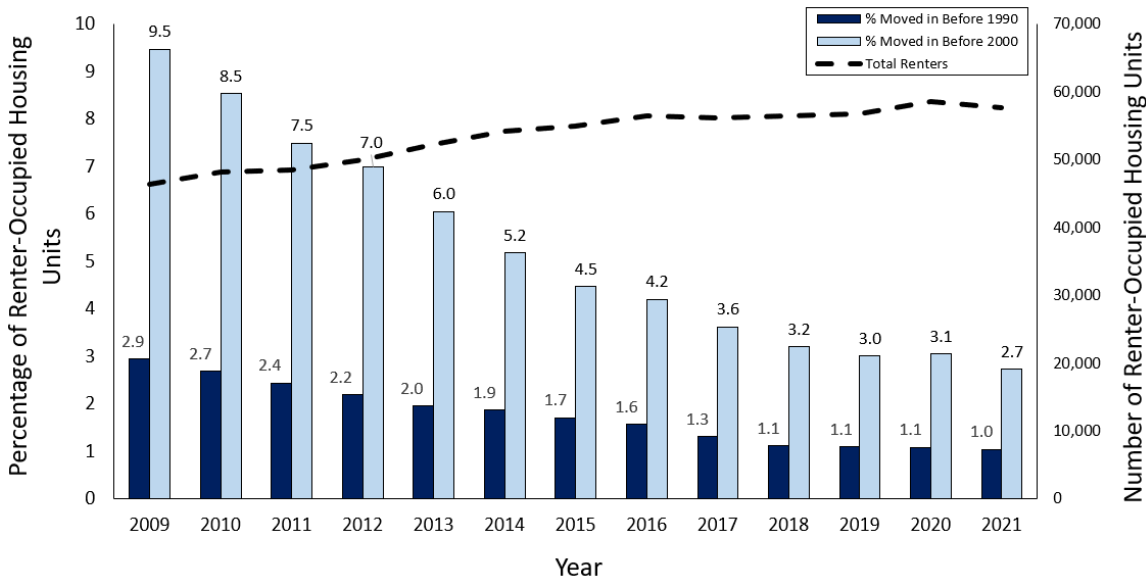


Tenure

Figure 15 shows the percentage of renter-occupied housing units in Greensboro that were occupied by a household which has lived in the same unit since before 1990 or before 2000. As

of 2021, around 1,571 renter households have rented the same unit since at least 2000 (at least 22 years as of 2022).

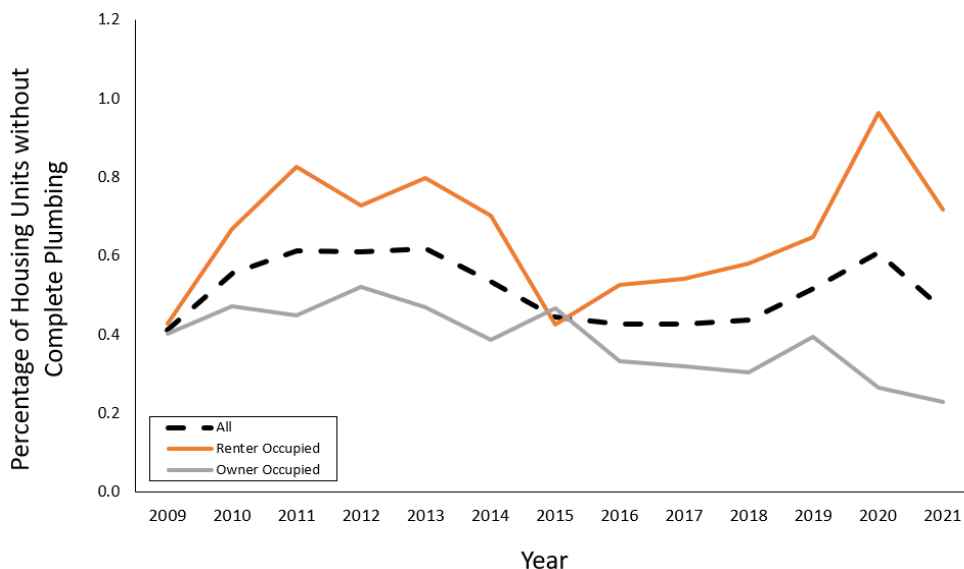
Figure 15. Tenure of Renter Households, from 2009 to 2021



Complete Plumbing

Figure 16 graphs the percentage of occupied housing units without complete plumbing in Greensboro, N.C. from 2009 to 2021. For both owner and renter occupied housing units, the percentage with incomplete plumbing is quite low, though it tends to be higher for renter-occupied units. The percentage for owner-occupied units without complete plumbing have been declining since 2012, while the percentage of renter-occupied units has been increasing since 2015.

Figure 16. Percentage of Occupied Housing Units without Complete Plumbing in Greensboro, N.C. from 2009 to 2021



Poverty

The poverty rate among families in Greensboro has increased since 2009, when it was 11.9%.³ As of 2021, the rate has increased by nearly 1.4 percentage points to around 13.3%. The total number of families in poverty has increased from 7,296 to 8,776 (see Table 8).

Table 8. Family Poverty Rate in Greensboro, N.C. from 2009 to 2021

Year	Number of Families	Families Below the Poverty Line	Family Poverty Rate (%)
2009	61,327	7,296	11.90
2010	61,884	7,751	12.53
2011	61,264	7,644	12.48
2012	62,333	8,437	13.54
2013	63,875	9,415	14.74
2014	64,966	9,314	14.34
2015	65,759	9,289	14.13
2016	66,070	9,720	14.71
2017	65,825	9,183	13.95
2018	65,892	8,674	13.16
2019	66,397	9,115	13.73
2020	66,082	9,049	13.69
2021	66,037	8,776	13.29

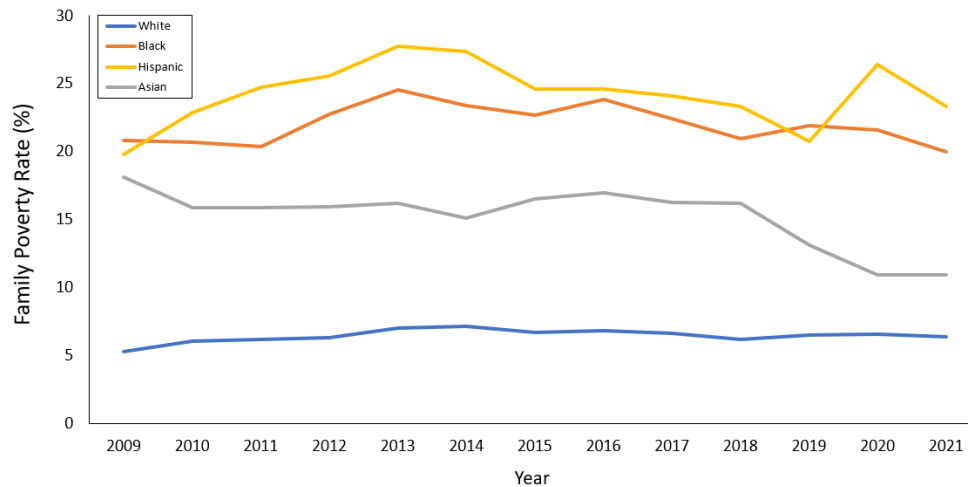
Note: N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

Poverty by Race

As of 2021, the poverty rate among white families in Greensboro was around 5%, for black families it was around 21%, for Hispanic families it was around 23%, and for Asian families it was around 10%. The poverty rate for black families has been slightly declining since 2013. For white families, the poverty rate has been steady since 2013 (see Figure 17).

³ The U.S. Census Bureau determines various poverty lines as measures of need for each person depending on the size of their family and the ages among the family members (How the Census Bureau Measures Poverty, n.d.). These thresholds, which are dollar amounts based on gross incomes, are updated for inflation each year (How the Census Bureau Measures Poverty, n.d.). The poverty thresholds are measured as the cost of a minimum food diet in 1963, multiplied by 3 and adjusted for size of the family (How is Poverty Measured? n.d.). Numerous studies and reports have used this measure of poverty (Chetty, Hendren, and Katz, 2016).

Figure 17. Family Poverty Rate by Householder's Race in Greensboro, N.C. from 2009 to 2021



Income Per Capita

Over the last 13 years, real income per capita (IPC) fell and then rose in Greensboro, N.C. In 2009, real IPC was around \$26,632. It fell to around \$23,976 in 2014, and then climbed to \$26,019 in 2021 (see Table 9).

Table 9. Real Income Per Capita in Greensboro, N.C. from 2009 to 2021

Years	Population	Income Per Capita (\$)*
2009	257,986	26,632.69
2010	263,116	25,961.29
2011	264,792	25,279.29
2012	267,760	24,861.93
2013	272,199	24,570.39
2014	275,745	23,976.62
2015	278,781	24,220.47
2016	282,232	24,764.48
2017	285,095	25,185.67
2018	286,945	25,020.07
2019	288,852	25,475.41
2020	291,310	26,154.29
2021	290,218	26,019.23

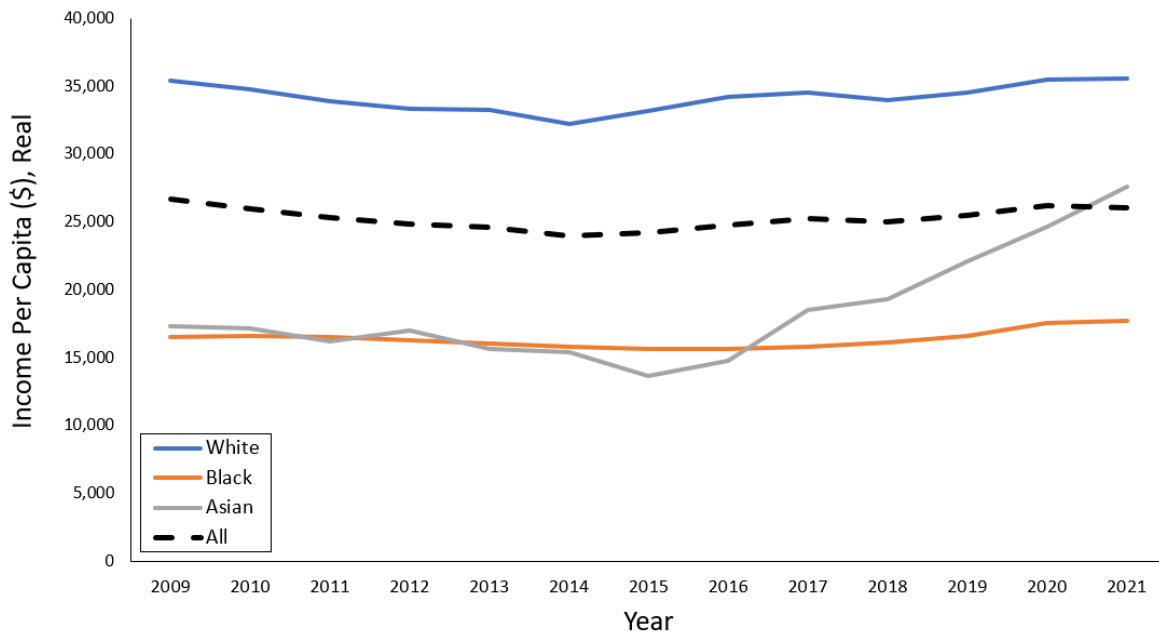
Note: N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

*Adjusted for inflation, to 2010 dollar values.

Income Per Capita by Race

Real ICP has been increasing for whites, blacks, and Asians in Greensboro, N.C. since 2015 (see Figure 18). From 2009 to 2014, real ICP for whites fell by 9.1% but from 2014 to 2021, it increased by 10.3%. From 2010 to 2015, real ICP for blacks fell steadily by 5.7% but from 2014 to 2021, it increased by 13.2%. Real ICP for Asians has been the most volatile. Real ICP for Asians remained fairly steady from 2009 to around 2014, where it then declined. From 2015 to 2021, however, real income per capita increased for Asians by 79.5%.

Figure 18. Real Income Per Capita, by Race, in Greensboro, N.C. from 2009 to 2021



Racial and Ethnic Populations

Since 2009, the population has increased annually, on average, by around 0.98% (see Table 10). The population of the city declined, for the first time, in 2021. The non-Hispanic white population declined by over 9% from 2009 to 2021. The non-Hispanic black population increased by 27.4% from 2009 to 2021. The non-Hispanic Asian population increased by over 63.6% from 2009 to 2021. The Hispanic population increased by 46.4% from 2009 to 2021. In 2009, 51.5% of Greensboro's residents were white, 36% were black, and 6.3% were Hispanic. As of 2021, 41.5% of Greensboro's residents were white, 40.8% were black, and 8.2% were Hispanic.

Table 10. Population and Race in Greensboro, N.C. from 2009 to 2021

Year	Population	White (%)	Black (%)	Hispanic (%)	Asian (%)	Biracial (%)	American Indian or Native Alaskan (%)	Native Hawaiian, or Pacific Islander (%)	Some Other (%)
2009	257,986	51.45	36.01	6.33	3.72	1.53	0.54	0.03	0.39
2010	263,116	49.00	37.45	7.06	4.12	1.59	0.48	0.01	0.29
2011	264,792	48.11	38.12	7.11	3.92	1.90	0.50	0.01	0.31
2012	267,760	47.61	38.42	7.03	4.18	1.94	0.42	0.01	0.39
2013	272,199	47.10	38.53	7.14	4.26	2.12	0.35	0.05	0.44
2014	275,745	46.82	38.85	7.25	4.08	2.04	0.36	0.05	0.55
2015	278,781	46.10	39.63	7.31	4.09	1.90	0.35	0.05	0.56
2016	282,232	45.86	39.70	7.38	4.26	1.95	0.33	0.06	0.47
2017	285,095	45.74	39.75	7.21	4.46	2.03	0.35	0.06	0.39
2018	286,945	45.22	39.57	7.47	4.68	2.13	0.42	0.06	0.44
2019	288,852	44.67	39.17	7.73	5.04	2.44	0.40	0.07	0.47
2020	291,310	42.87	40.26	7.82	5.32	2.59	0.42	0.04	0.67
2021	290,218	41.47	40.78	8.24	5.41	3.11	0.32	0.05	0.63

Note: N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates.

All racial groups, except for the group Hispanic, are Non-Hispanic.

Food Stamps/SNAP

The number of households receiving SNAP/food stamps has increased by over 93% from 2009 to 2021 (see Table 11). The average annual growth rate was 5.3%. In 2009, 8.9% of Greensboro's households were on SNAP/Food stamps, and as of 2021, 15.5% were on SNAP/Food stamps.

Table 11. Households Receiving Food Stamps in Greensboro, N.C. from 2009 to 2021

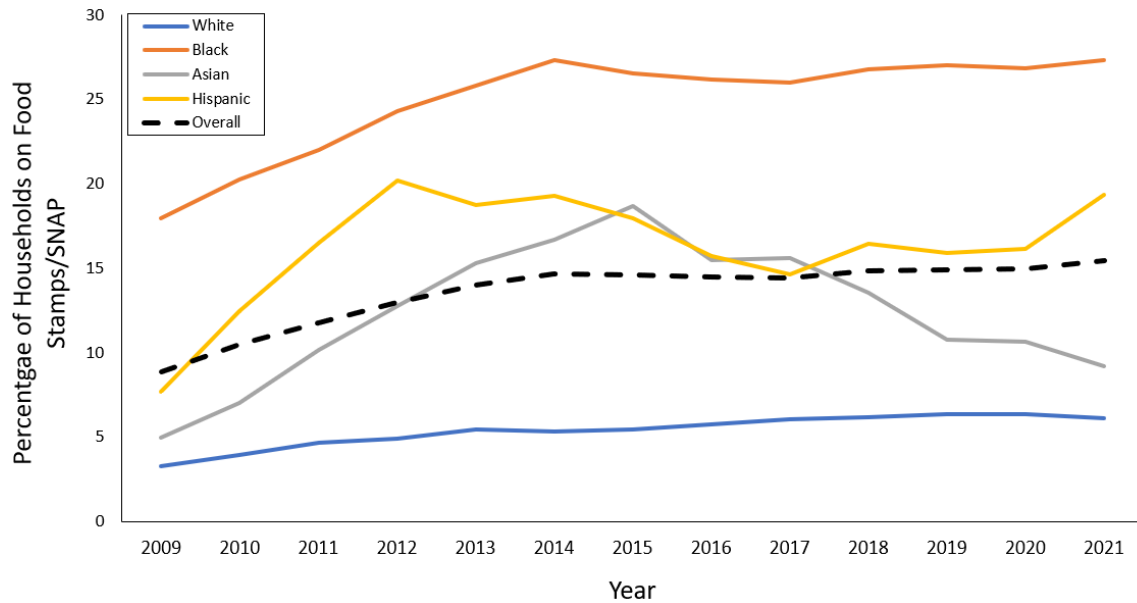
Year	Total Households	Households Receiving SNAP/Food Stamps	Household SNAP/Food Stamp Participation Rate %
2009	106,248	9,407	8.85
2010	107,965	11,337	10.50
2011	108,480	12,776	11.78
2012	109,984	14,280	12.98
2013	111,669	15,630	14.00
2014	113,412	16,664	14.69
2015	114,054	16,654	14.60
2016	114,626	16,596	14.48
2017	114,824	16,604	14.46
2018	115,374	17,115	14.83
2019	115,777	17,272	14.92
2020	117,680	17,621	14.97
2021	117,409	18,187	15.49

Note: N = 59 census tracts, according to the 2000 Census boundaries, comprise the city of Greensboro. Data come from the census tract level ACS 5-Year Estimates. The large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

Food Stamps/SNAP by Race

SNAP/Food stamp participation rates vary significantly by race (see Figure 19). SNAP participation has increased among black and white households, while rates have declined for Asian households since 2015. The number of white households receiving SNAP/food stamps increased by 75.9% from 2009 to 2021 (2,063 to 3,629 households), the number of black households receiving SNAP/food stamps increased by 92.3%, the number of Asian households receiving SNAP/food stamps increased by 209.9%, and the number of Hispanic households receiving SNAP/food stamps increased by 262.3%. As of 2021, 6.1% of white households were receiving SNAP/Food stamps, 27.3% of black households were receiving SNAP/Food stamps, 9.2% of Asian households were receiving SNAP/Food stamps, and 19.4% of Hispanic households were receiving SNAP/Food stamps.

Figure 19. Household SNAP/Food Stamp Participation Rate, by Householder's Race, in Greensboro, N.C. from 2009 to 2021

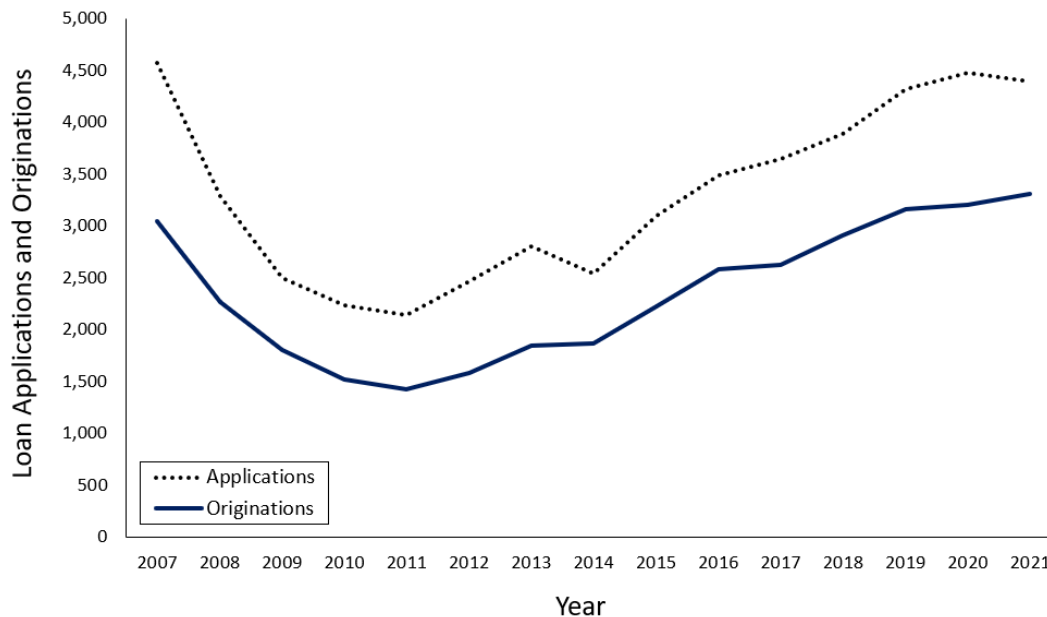


Note: The large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

B. City of Greensboro: Lending Trends (HMDA data)

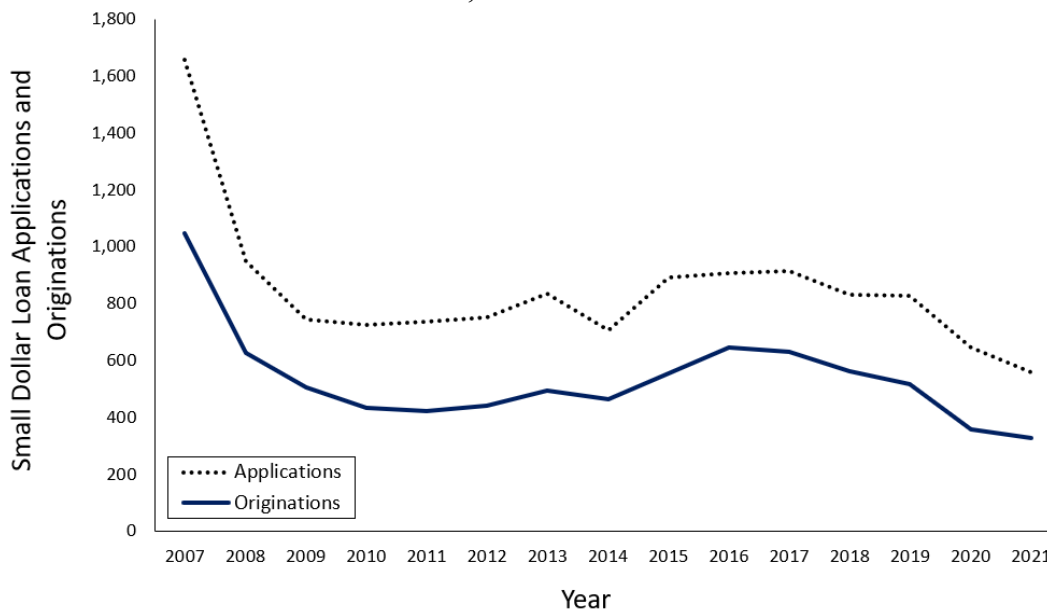
Lending trends have changed over the last several decades in Greensboro, N.C (see Figure 20). From 2007 to 2011, loan originations declined from 3,050 to 1,428 (-53.2%). The trend changed in 2011, where originations increased, from 2011 to 2021, by 131.5% (Source: HMDA).

Figure 20. Mortgage Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



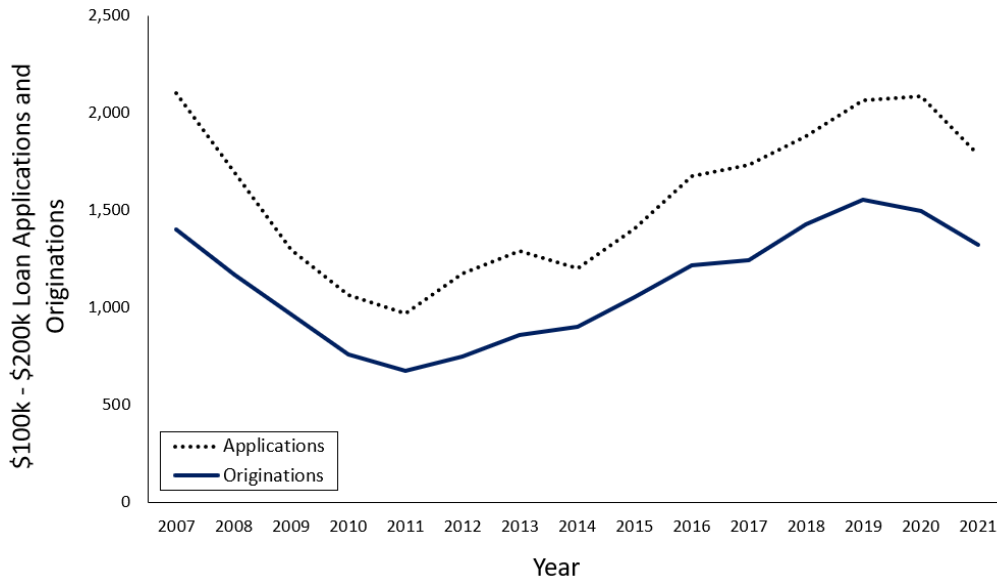
Small dollar loans (loans for less than \$100,000) have declined in Greensboro, N.C, plummeting from 2007 to 2009 by 56.1% (see Figure 21). From 2010 to 2016, small dollar loan originations slowly rose but then declined after 2016. From 2007 to 2021, small dollar loans declined by 66.3%.

Figure 21. Small Dollar Mortgage Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



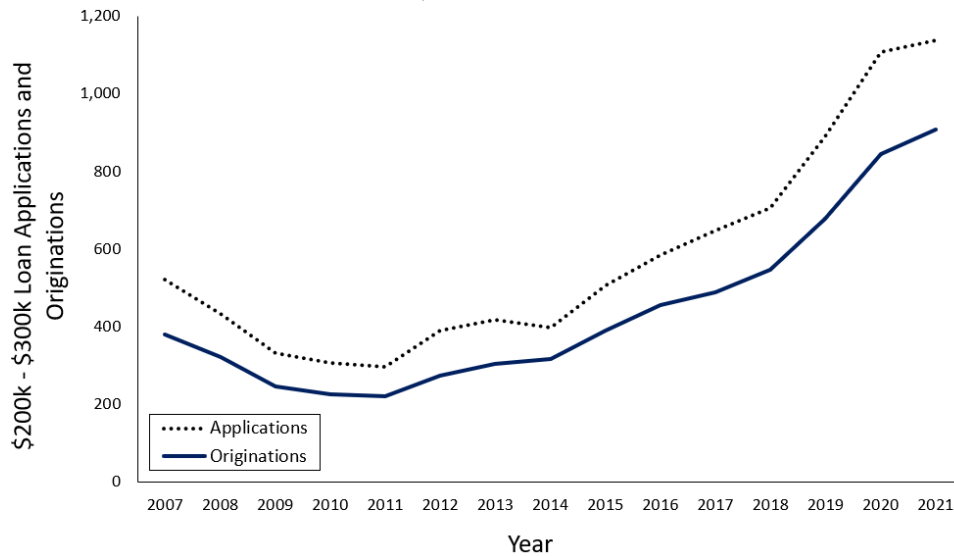
Originations for loans between \$100,000 and \$200,000 fell from 2007 to 2011 (by 51.9%), but then steadily increased from 2011 to 2019 (average annual percentage growth rate was 11.1%). From 2019 to 2021, however, the trend reversed and originations declined (see Figure 22).

Figure 22. \$100,000-\$200,000 Mortgage Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



Mortgage loans between \$200,000 and \$300,000 have been climbing since 2011 in Greensboro, N.C (see Figure 23). From 2011 to 2021, the average annual growth rate was 15.4%. From 2007 to 2021, the number of loans between \$200,000 and \$300,000 grew by 138.7%.

Figure 23. \$200,000-\$300,000 Mortgage Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



Mortgage loans between \$300,000 and up have been climbing exponentially since 2009 in Greensboro, N.C (see Figure 24). From 2009 to 2021, the average annual growth rate was 20.0%. From 2007 to 2021, the number of loans between \$300,000 and up grew by 240.5%.

Figure 24. \$300,000 and Over Mortgage Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021

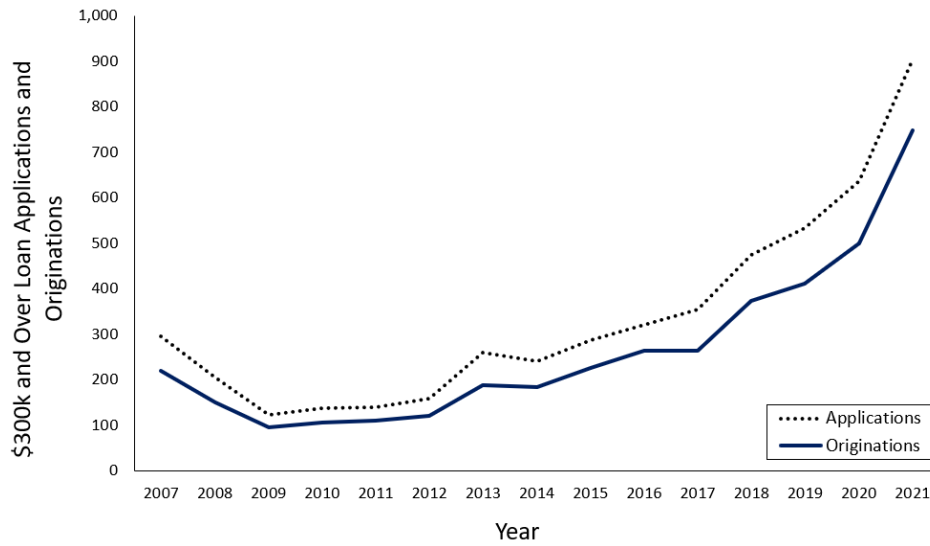


Figure 25 graphs the percentage of completed loan applications that were denied, by the size of the loan being applied for, in Greensboro, N.C. from 2007 to 2021. The higher the loan size tends to be, the lower the percentage of applications that are denied. The highest percentage of applications that are denied are for small dollar loans. On average, from 2007 to 2021, over 20% of all completed small dollar loan applications are denied, while only 6.5 percent of loan applications for loans over \$300,000 are denied.

Figure 25. Percentage of Completed Loan Applications that were Denied, by Loan Size, in Greensboro, N.C. from 2007 to 2021

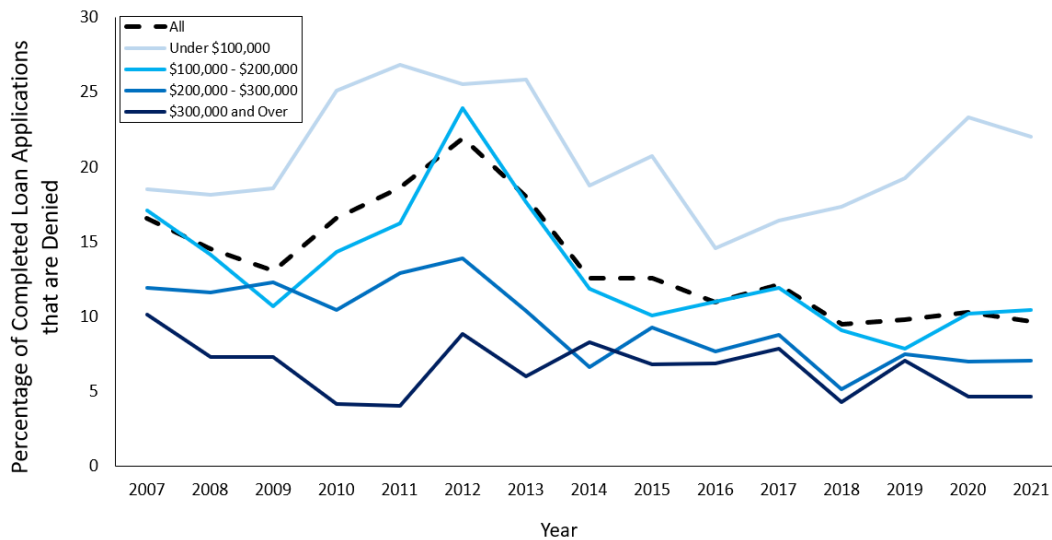
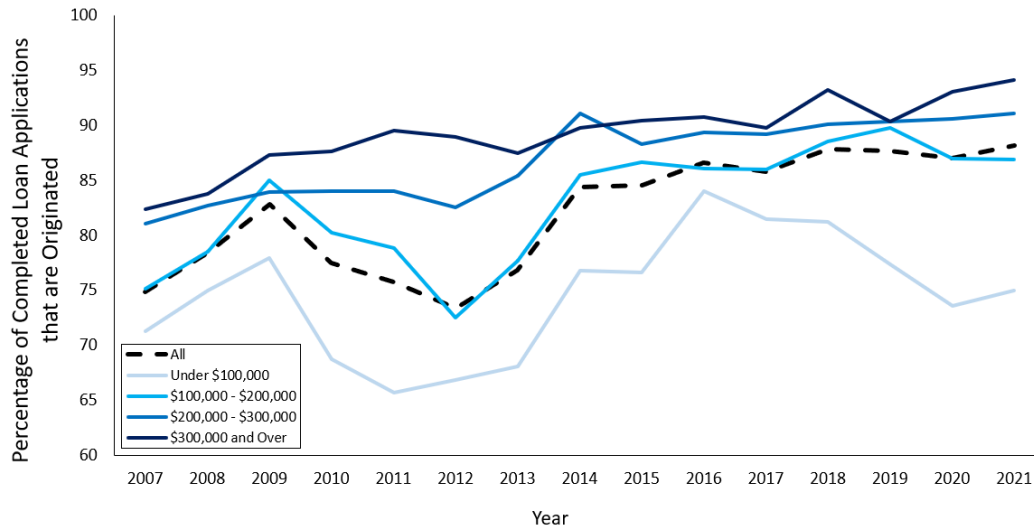


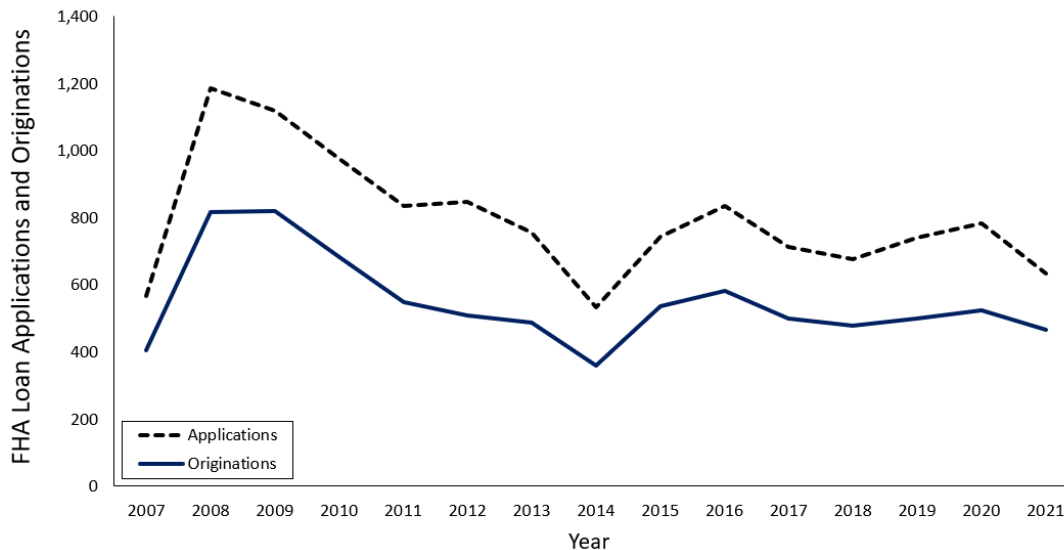
Figure 26 graphs the percentage of completed loan applications that were originated, by the size of the loan being applied for, in Greensboro, N.C. from 2007 to 2021. The higher the loan size tends to be, the higher the percentage of applications that are originated. The lowest percentage of applications that originated are for small dollar loans.

Figure 26. Percentage of Completed Loan Applications that were Originated, by Loan Size, in Greensboro, N.C. from 2007 to 2021



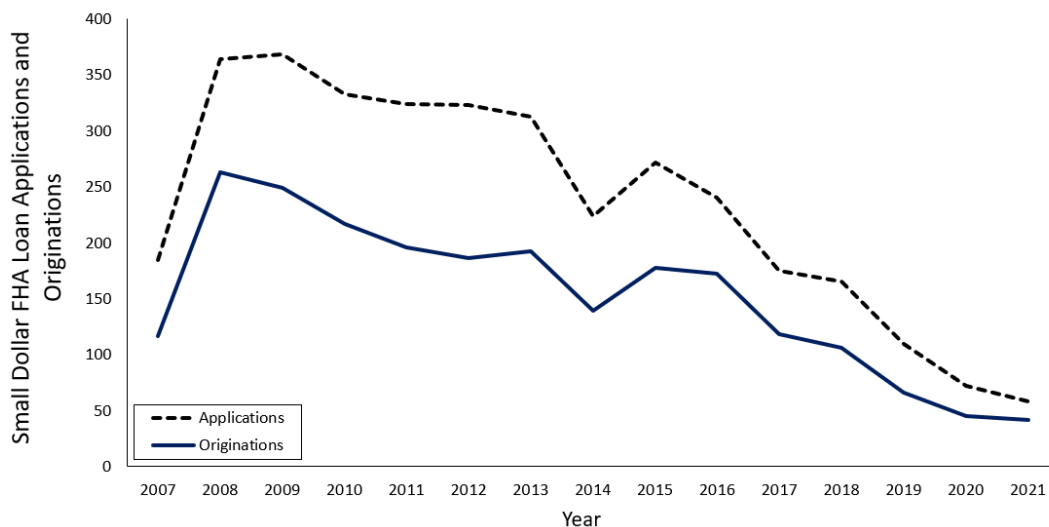
The number of FHA loans rose from 2007 to 2009 (over 102%), and then steadily fell from 2009 to around 2013 (average -14.8% per year) where it leveled off and remained steady until 2021 (see Figure 27).

Figure 27. The Number of FHA Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



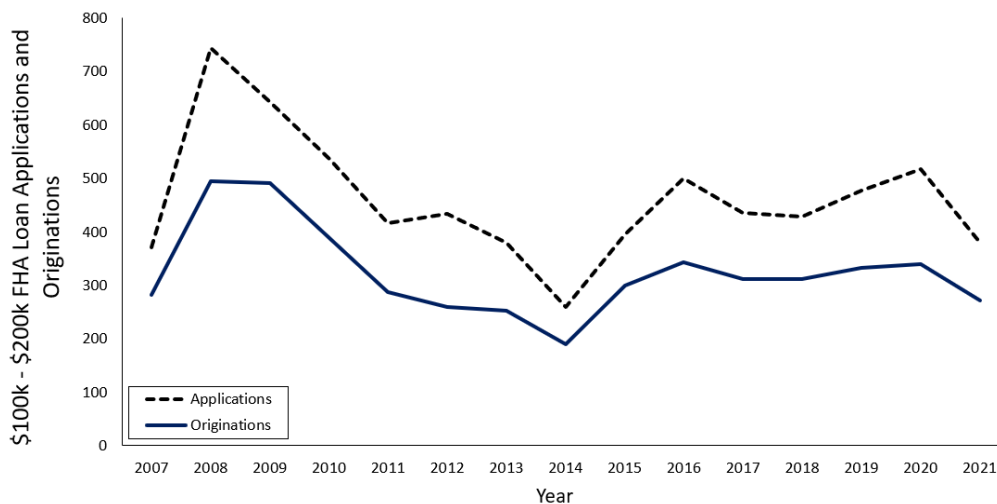
The number of small dollar FHA loans rose from 2007 to 2009, and then slowly fell from 2009 to around 2016 (see Figure 28). The rate of decline steepened from 2016 to 2021.

Figure 28. The Number of Small Dollar FHA Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



The number of FHA, between \$100,000 and \$200,000, loans rose from 2007 to 2008, and then slowly fell from 2008 to around 2014 (see Figure 29). The rate then leveled off from roughly 2016 to 2021.

Figure 29. The Number of \$100,000 - \$200,000 FHA Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021



The number of FHA, between \$200,000 and \$300,000, loans rose from 2007 to 2009, and then slowly fell from 2009 to around 2014 (see Figure 29). The rate then began to steadily climb from there until 2021.

Figure 39. The Number of \$200,000 - \$300,000 FHA Loan Applications and Originations in Greensboro, N.C. from 2007 to 2021

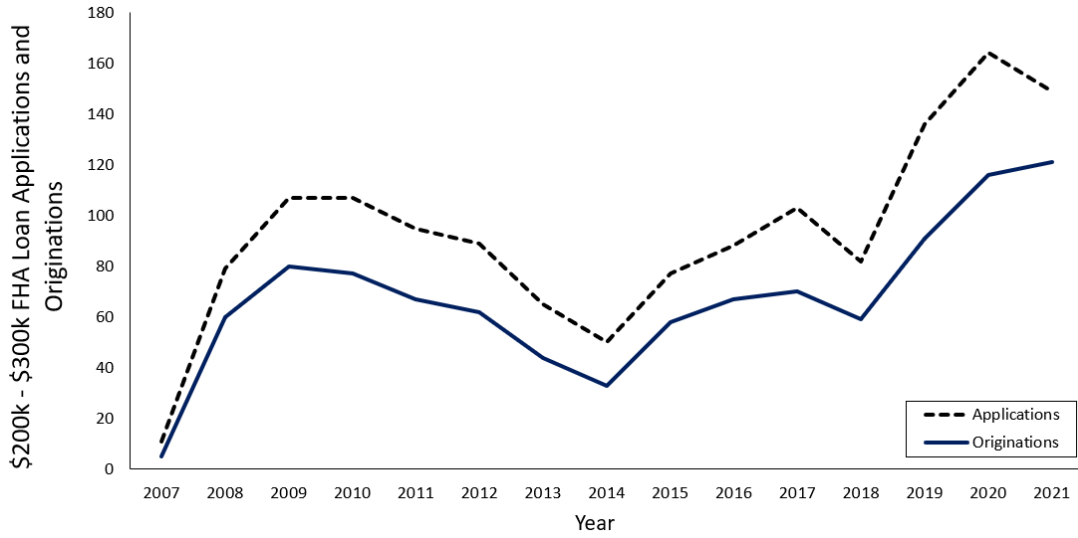
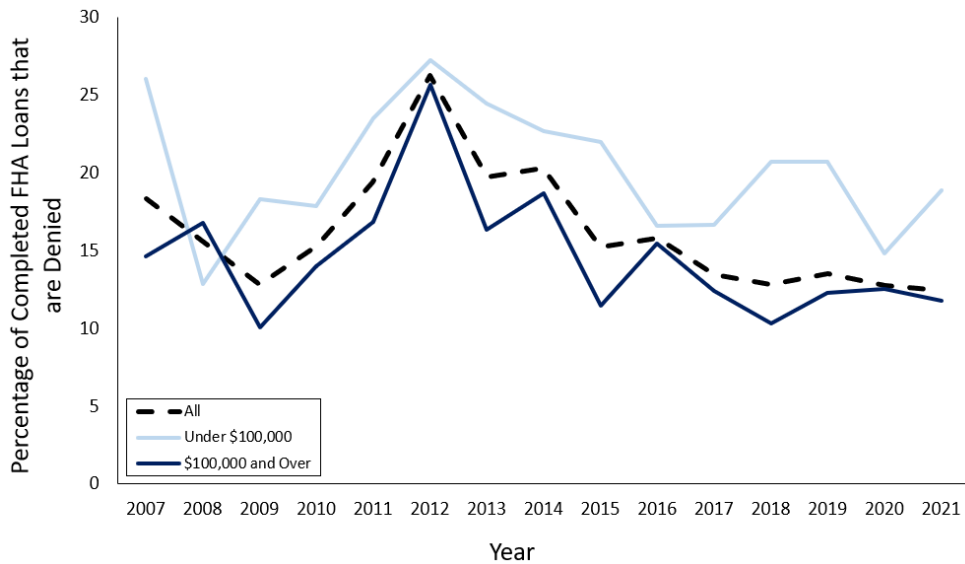


Figure 31 shows the percentage of completed FHA loan applications that were denied, by the size of the FHA loan. Other than in 2008, completed small dollar FHA loan applications have been denied at a higher rate than larger FHA loan applications.

Figure 31. The Percentage of Completed FHA Loan Applications that were Denied, by Loan Size, from 2007 to 2021 in Greensboro, N.C.



C. City of Greensboro: Cash Transactions (Source: ATTOM data)

A steady and growing number of residential homes have been purchased with cash in Greensboro, N.C. Since 2007, the average annual percentage increase in the number of homes

purchased with cash was 9%. From 2006 to 2021, the number of properties purchased with cash increased by 198.3%.

Figure 32. Number of Residential Properties Transacted, by Purchase Method, in Greensboro, N.C. from 2004 to 2020

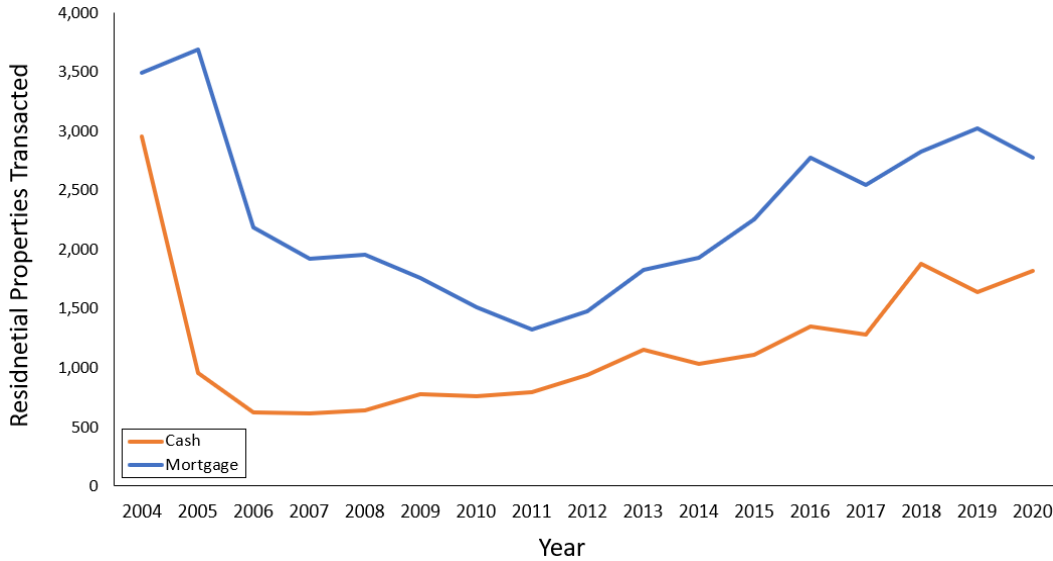
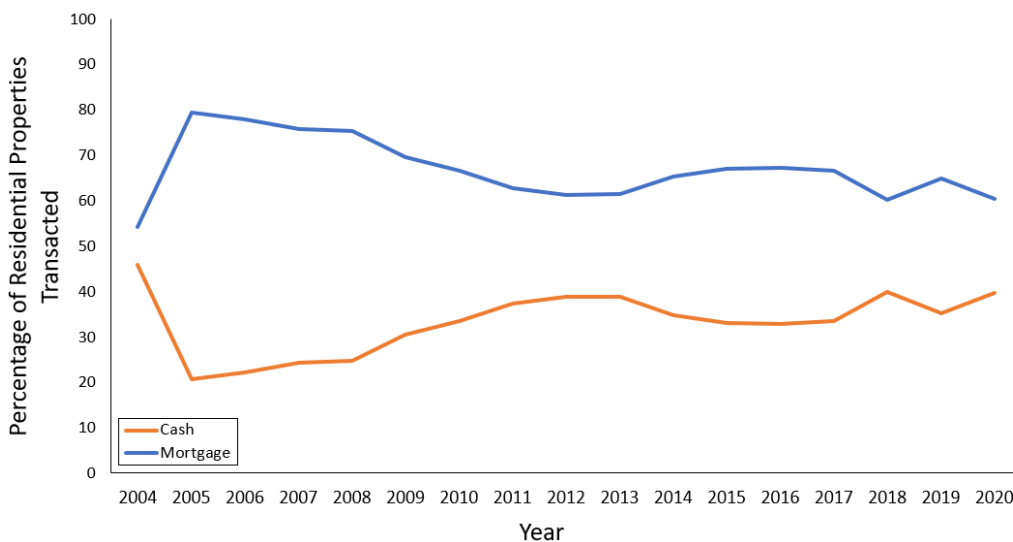


Figure 33 plots the percentage of all homes purchased with cash versus a mortgage in Greensboro, N.C. The percentage of homes bought with cash increased from 2005 to 2011 and leveled off until 2019, where it started to rise again.

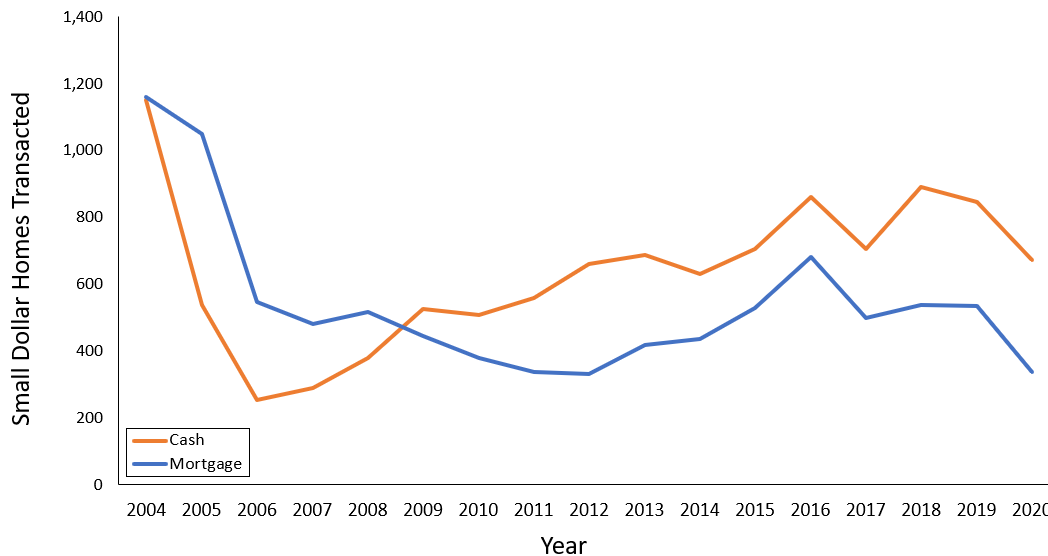
Figure 33. Percentage of Residential Properties Transacted, by Purchase Method, in Greensboro, N.C. from 2004 to 2020



A steady and growing number of small dollar residential homes have been purchased with cash in Greensboro, N.C (see Figure 34). From 2006 to 2018, the average annual percentage

increase in the number of homes purchased with cash has been around 12.21%, while for mortgages it was only 1.31%.

Figure 34. Number of Small Dollar Residential Properties Transacted, by Purchase Method, in Greensboro, N.C. from 2004 to 2020



The distribution has shifted noticeably over the last two decades (see Figure 35). In 2004, roughly 50% of small dollar residential homes in Greensboro were purchased with a mortgage and the other 50% with cash. After transactions leveled off between 2006-2008, cash became the more frequent method to purchase small dollar homes. In 2008, 42.28% of small dollar home transactions were made in cash, and 57.72% were made with a mortgage. As of 2021, 66.53% of small dollar home transactions were made in cash, and 33.47% were made with a mortgage.

Figure 35. Percentage of Small Dollar Residential Properties Transacted, by Purchase Method, in Greensboro, N.C. from 2004 to 2020

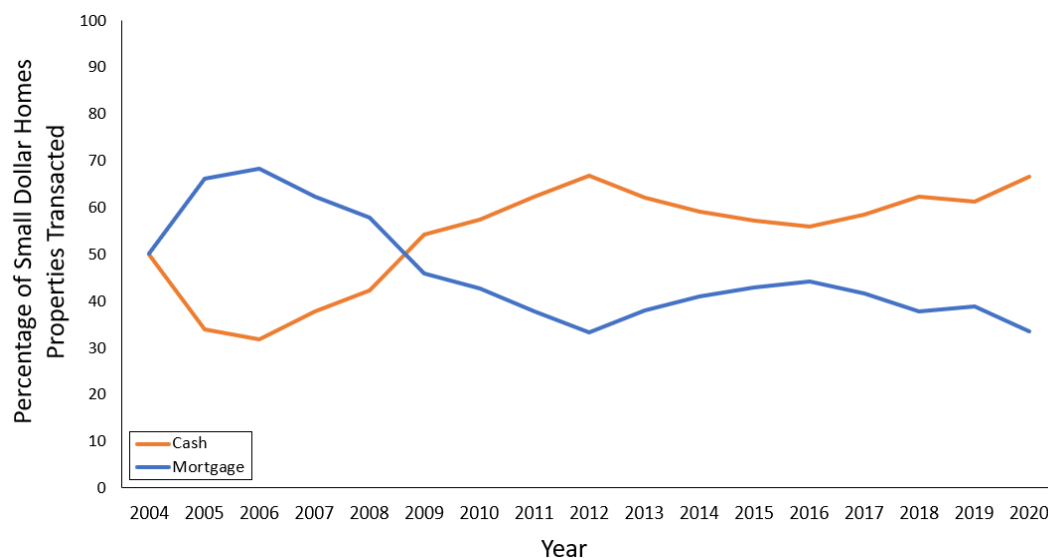
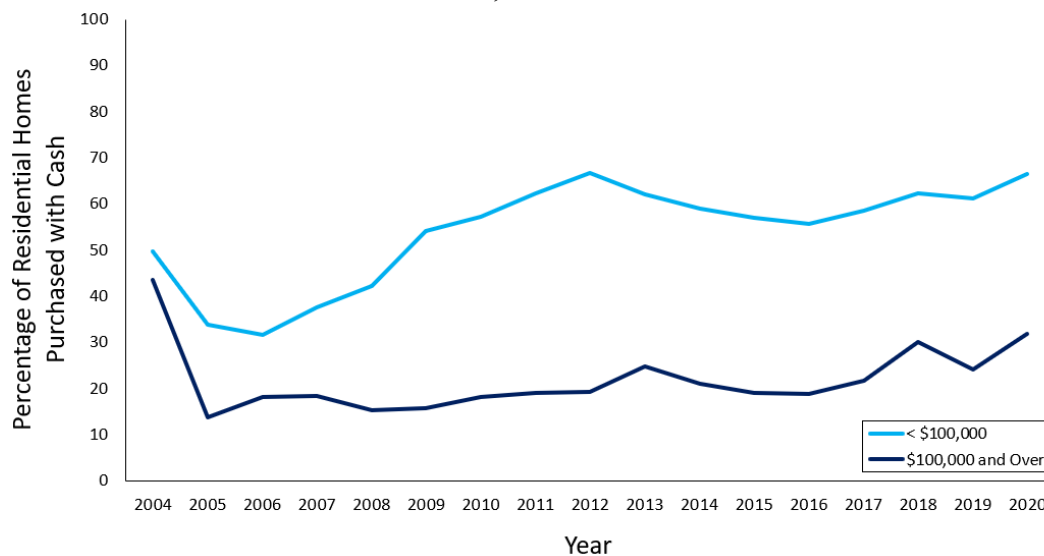


Figure 36 plots the percentage of small-dollar properties (< \$100,000) and non-small-dollar properties (\$100,000 and above) purchased with cash in Greensboro from 2004 to 2020. Both have been increasing, though the rate of increase for small dollar properties from 2006 to 2012 was noticeably steeper.

Figure 36. Percentage of Properties Purchased with a Mortgage or Cash, by Sale Price, in Greensboro, N.C. from 2004 to 2020



D. Greensboro's Zone 1

Socioeconomic Trends (ACS data)

Homeownership Rates

Homeownership rates in Greensboro's Zone 1 census tracts have been declining since 2009 (see Table 12). The homeownership rate was 47.40% and as of 2021, it was 39.38%. The decline is largely driven by a decline in the number of owner-occupied households in the census tracts, by around 1,000. The homeownership rates in Zone 1 census tracts tend to be lower than the rate at the overall city. As of 2021, the homeownership rate in Zone 1 was around 11 percentage points lower than the overall rate at the city level.

Table 12. Homeownership Rates in Greensboro's Zone 1
Census Tracts from 2009 to 2021

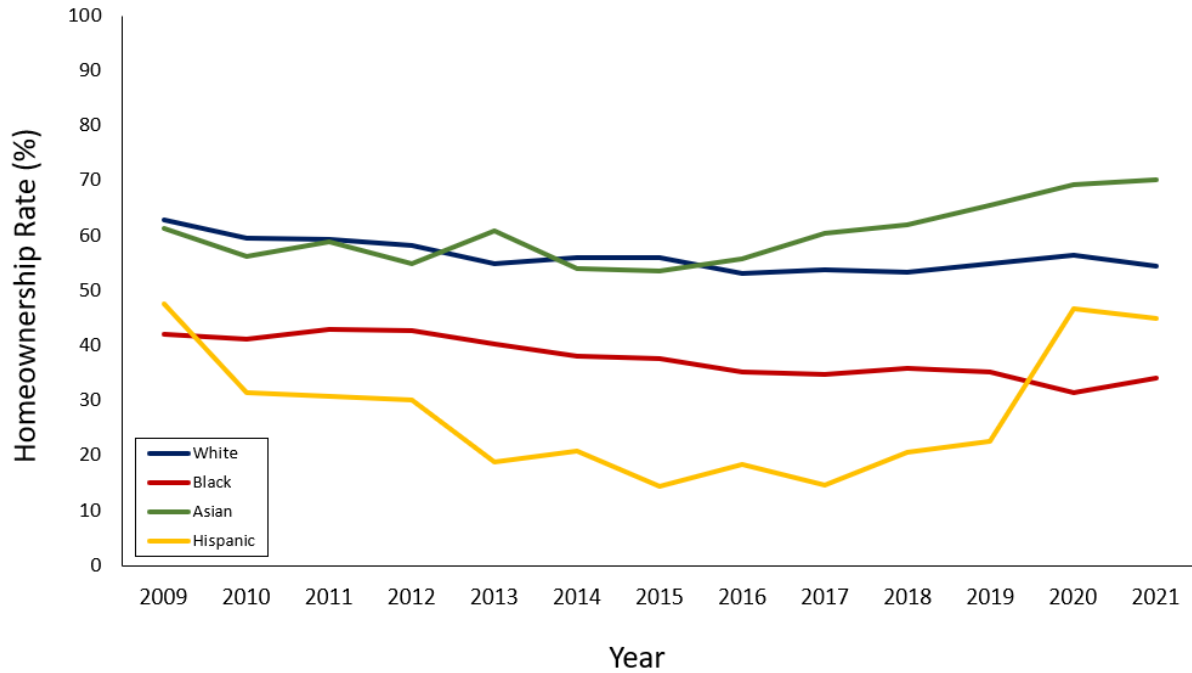
Year	Households	Owner-Occupied Households	Homeownership Rate (%)
2009	24,553	11,637	47.40
2010	25,404	11,637	45.81
2011	25,579	12,062	47.16
2012	25,727	11,992	46.61
2013	26,126	11,557	44.24
2014	26,514	11,341	42.77
2015	26,470	11,139	42.08
2016	26,436	10,492	39.69
2017	26,052	10,430	40.04
2018	26,226	10,735	40.93
2019	26,383	10,652	40.37
2020	27,015	10,202	37.76
2021	27,050	10,652	39.38

Note: 19 census tracts, according to the 2000 Census boundaries, comprise Greensboro's Zone 1.

Homeownership Rates by Race

Like at the overall Greensboro level, homeownership rates across racial groups vary (see Figure 37). Homeownership rates among white householders have declined by nearly 10 percentage points from 2009 to 2021 even though the number of white households in Zone 1 has remained fairly stable. As of 2021, the homeownership rate among white households in Zone 1 is around 11 percentage points lower than the rate at the city level. The number of black households has increased by around 10.39% from 2009 to 2021. The homeownership rate has declined from 42.13% to 34.16%, primarily due to the growth in the number of black households that are renting. The black homeownership rate in Zone 1 is roughly the same as that at the city level. From 2009 to 2021, the Asian homeownership rate increased by around 9 percentage points (from 61.34% to 70.21%) in Zone 1. As of 2021, the Asian homeownership rate in Zone 1 tracts is nearly 12 percentage points higher than the rate at the overall city level.

Figure 37. Homeownership Rates by Race in Greensboro's Zone 1
Census Tracts from 2009 to 2021



Cost Burden

In Zone 1 tracts, the number of rent-burdened households has increased by around 23.3% from 2009 to 2021, but the percentage of renters that are burdened has remained roughly the same. The percentage of rent-burdened households peaked in 2012 at 60.3% and then slowly declined from there. As of 2021, the percentage of rent-burdened households is around 5 percentage points higher in Zone 1 relative to the overall city level.

Table 13. Rent Burdened Households in Greensboro's Zone 1 Census Tracts

Years	Renter Households ⁺	Burdened Renter Households ⁺⁺	Extremely Burdened Renter Households ⁺⁺⁺	% Burdened	% Extremely Burdened
2009	12,338	6,894	3,252	55.88	26.36
2010	13,085	7,618	3,478	58.22	26.58
2011	12,703	7,576	3,528	59.64	27.77
2012	12,857	7,750	3,624	60.28	28.19
2013	13,437	8,095	3,993	60.24	29.72
2014	14,050	8,368	4,084	59.56	29.07
2015	14,163	8,274	3,898	58.42	27.52
2016	14,727	8,445	4,096	57.34	27.81
2017	14,530	8,518	4,062	58.62	27.96
2018	14,532	8,375	4,071	57.63	28.01
2019	14,636	8,417	4,288	57.51	29.30
2020	15,673	8,750	4,017	55.83	25.63
2021	15,322	8,436	3,706	55.06	24.19

Note: 19 census tracts.

⁺ These include renting households with available income data.

⁺⁺ These include renting households, with available income, that spend over 30% of their monthly income on rent payments.

⁺⁺⁺ These include renting households, with available income, that spend over 50% of their monthly income on rent payments.

Figure 38. Rent Burdened Households in Greensboro's Zone 1 Census Tracts

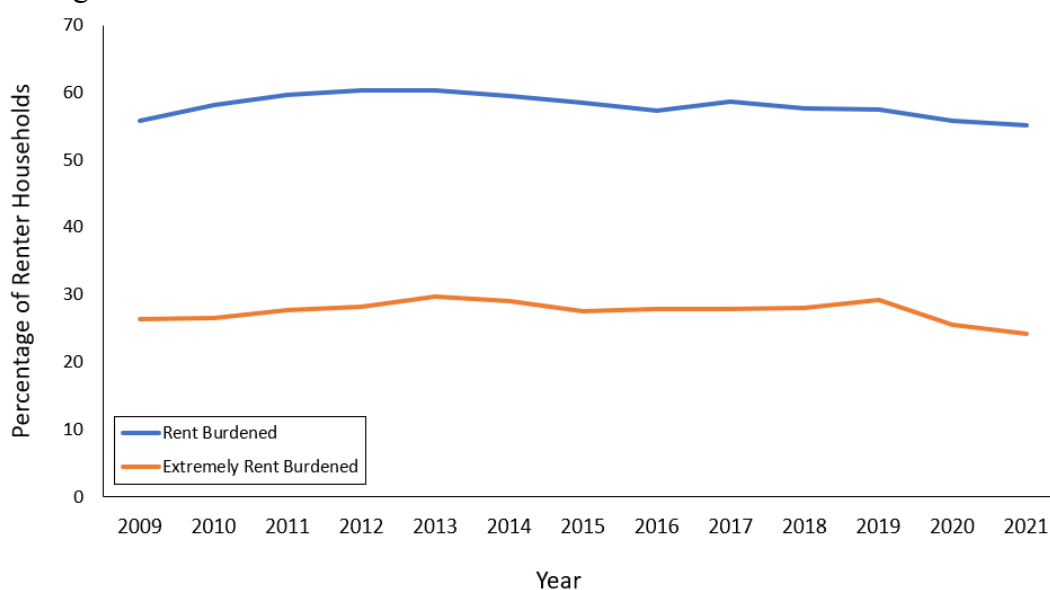


Table 14 contains the percentage of homeowners in Zone 1 that are cost-burdened, by whether they have a mortgage or not (also graphed in Figure 39). The percentage of homeowners who are cost-burdened has been declining from 2009 to 2021. As of 2021, the percentage had declined by around 11 percentage points. Those with mortgages are primarily driving this trend.

Table 14: Percentage of Homeowners who are Cost-Burdened
in Greensboro's Zone 1 Census Tract

Year	All Homeowners	Homeowners with a Mortgage	Homeowners without a Mortgage
2009	37.52	43.77	20.10
2010	38.13	43.74	22.43
2011	36.64	41.96	21.83
2012	36.64	43.23	19.24
2013	35.47	43.57	17.11
2014	32.63	39.92	15.68
2015	31.52	38.54	15.12
2016	31.22	39.05	12.76
2017	29.21	36.49	13.03
2018	29.28	36.66	14.37
2019	28.01	34.25	16.02
2020	26.88	34.30	15.57
2021	26.61	32.90	17.83

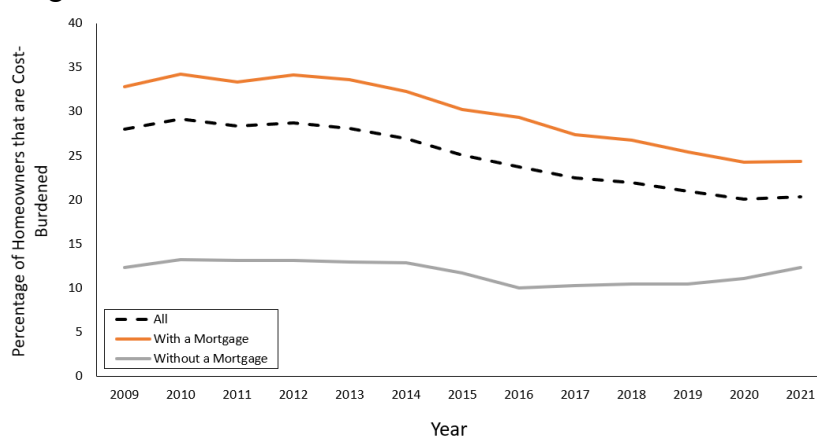
Note: 19 census tracts.

⁺ These include homeowners with available income data.

⁺⁺ These include homeowners, with available income, that spend over 30% of their monthly income on home payments.

⁺⁺⁺ These include homeowners, with available income, that spend over 50% on their monthly income on home payments.

Figure 39: Percentage of Homeowners who are Cost-Burdened in Greensboro's Zone 1 Tracts



Home Value Distribution

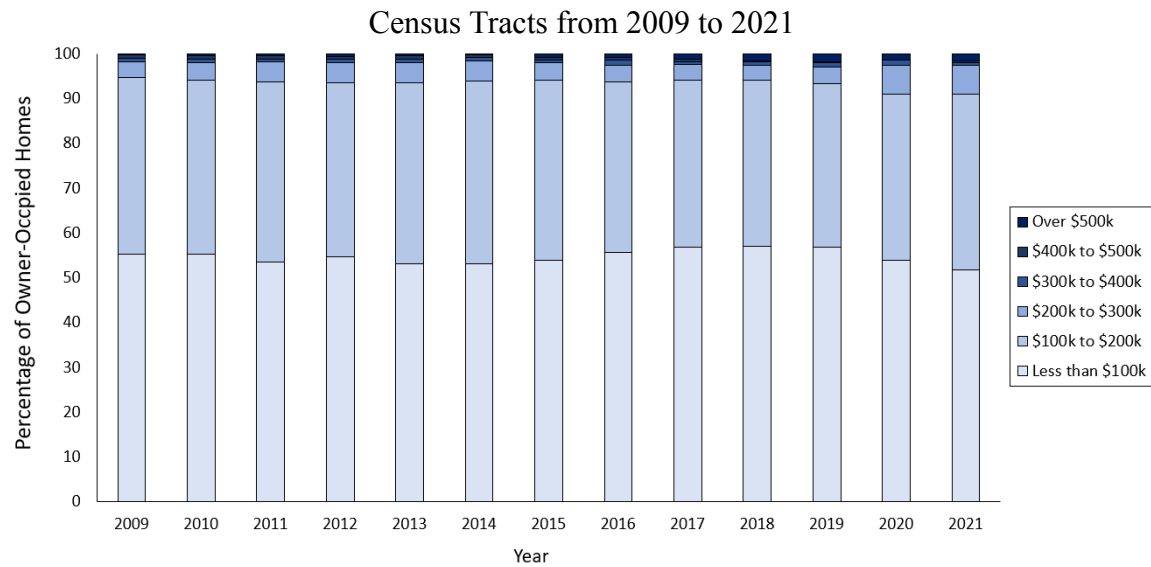
The value distribution of owner-occupied homes has been quite steady in Greensboro's Zone 1 census tracts over the last decade (see Table 15). Over the last 12 years, on average, 54.7% of owner-occupied homes were valued at less than \$100,000 and 38.8% of owner-occupied homes were valued between \$100,000-\$200,000.

Table 15. Value Distribution of Owner-Occupied Homes in Greensboro's Zone 1 Census Tracts from 2009 to 2021

Year	TOTAL	Less than \$100k	\$100k to \$200k	\$200k to \$300k	\$300k to \$400k	\$400k to \$500k	Over \$500k
2009	11,637	6,430	4,598	402	86	86	35
2010	11,637	6,441	4,500	471	88	90	47
2011	12,062	6,458	4,842	554	72	76	60
2012	11,992	6,546	4,666	547	92	73	68
2013	11,557	6,130	4,681	527	91	71	57
2014	11,341	6,026	4,630	515	67	67	36
2015	11,139	6,003	4,480	436	73	58	89
2016	10,492	5,831	4,001	393	112	62	93
2017	10,430	5,917	3,908	351	72	49	133
2018	10,735	6,113	4,000	349	84	14	175
2019	10,652	6,062	3,880	389	118	7	196
2020	10,202	5,507	3,772	665	115	0	143
2021	10,652	5,508	4,194	677	58	48	167

Note: N = 19 census tracts. Home values are nominal

Figure 40. Value Distribution of Owner-Occupied Homes in Greensboro’s Zone 1



Vacancies

Since 2009, the number of “vacant” housing units has increased by around 7%. As of 2021, 13.2% of housing units are vacant. It is important to note that vacant does not mean abandoned.

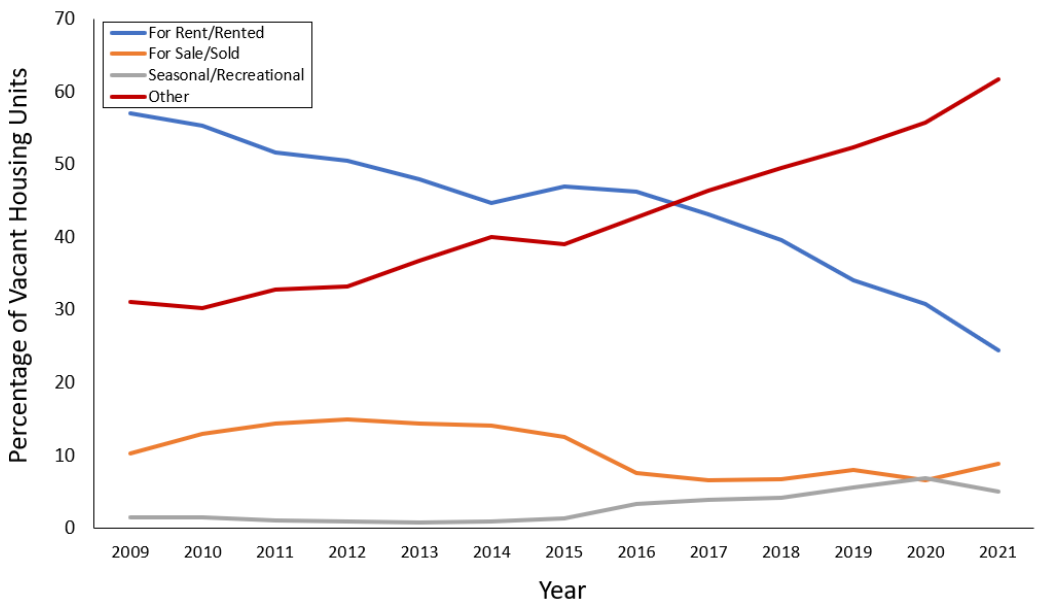
Table 16. Vacancies in Greensboro’s Zone 1 Census Tract from 2009 to 2021

Year	Total Housing Units	Vacant Units	Vacancy Rate (%)
2009	28,373	3,820	13.46
2010	29,361	3,957	13.48
2011	29,445	3,866	13.13
2012	29,976	4,249	14.17
2013	30,161	4,035	13.38
2014	30,184	3,670	12.16
2015	30,210	3,740	12.38
2016	30,424	3,988	13.11
2017	30,404	4,352	14.31
2018	30,641	4,415	14.41
2019	30,991	4,608	14.87
2020	30,932	3,917	12.66
2021	31,162	4,112	13.20

N = 19 census tracts

There has been noticeable growth in the number of vacant properties recorded as “Other” in Greensboro’s Zone 1 tracts (see Figure 41). Since 2009, the number has increased 113.5%.

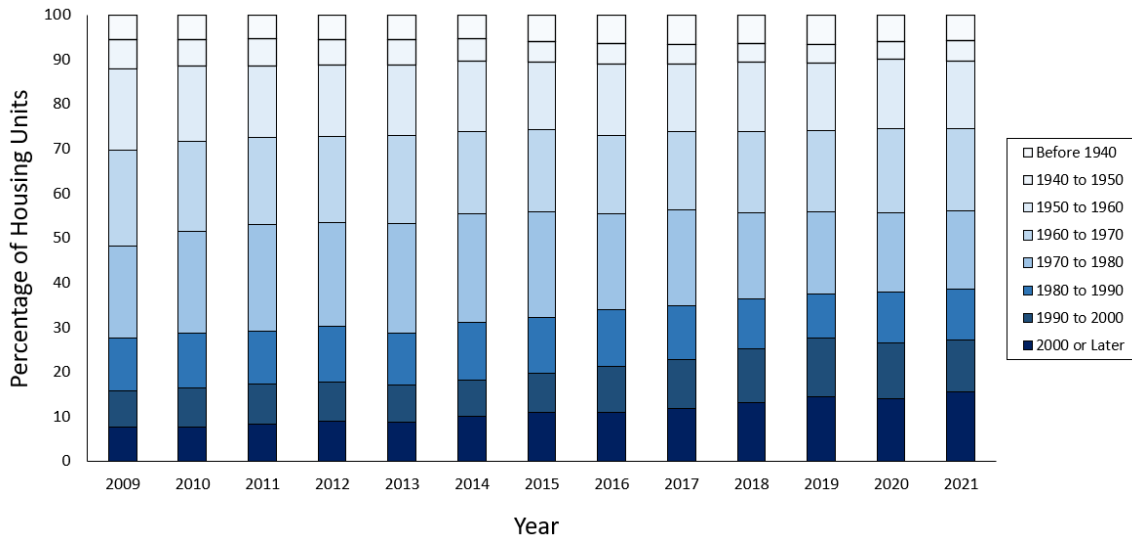
Figure 41. Vacancies in Greensboro’s Zone 1 Census Tract, by Vacancy Type, from 2009 to 2021



Year Built

Figure 42 graphs the year-built distribution of housing units in Greensboro’s Zone 1 from 2009 to 2021. As of 2021, over half of the housing stock is over 50 years old.

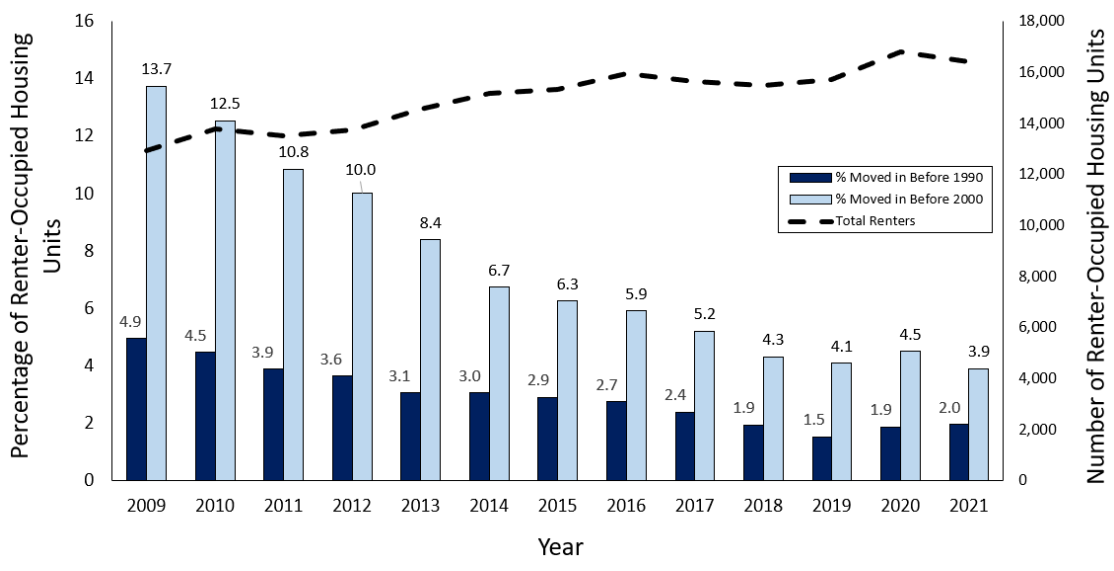
Figure 42. Distribution of Year-Built for Housing Units in Greensboro’s Zone 1 Census Tracts from 2009 to 2021



Tenure

Figure 43 shows the percentage of renter-occupied housing units in Greensboro’s Zone 1 that were occupied by a household which has lived in the same unit since before 1990 or before 2000.

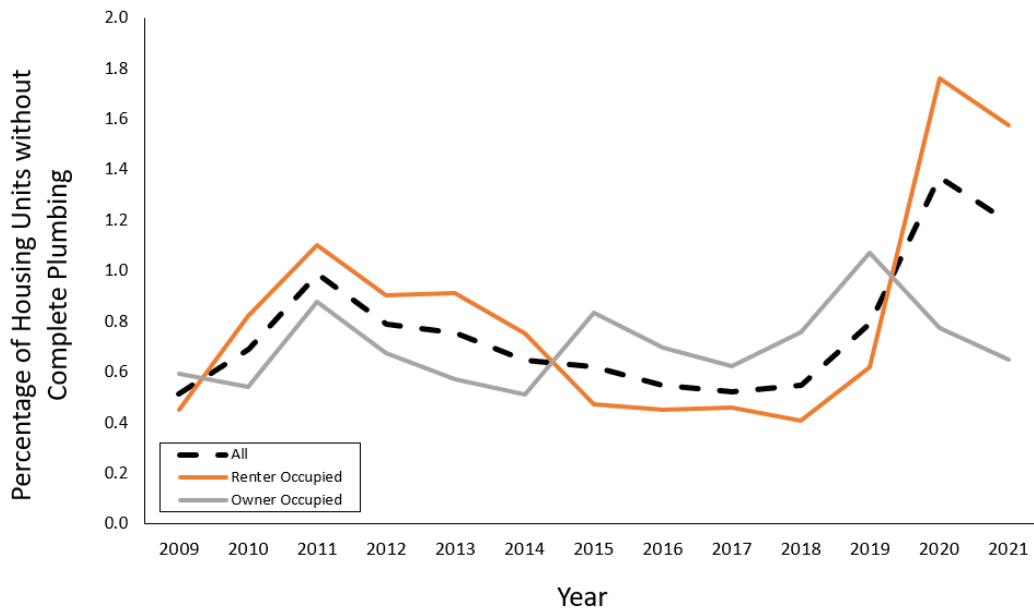
Figure 43. Percentage of Renter Households, by the Year when they Moved in, from 2009 to 2021 in Greensboro’s Zone 1 Tracts



Complete Plumbing

Figure 44 graphs the percentage of occupied housing units without complete plumbing in Greensboro’s Zone 1 census tracts from 2009 to 2021. Since 2018, there has been a large spike in the percentage of renter-occupied housing units without complete plumbing in Zone 1. In 2018, the percentage was around 0.4%, and as of 2021, the percentage was around 1.6%.

Figure 44. Percentage of Occupied Housing Units with Incomplete Plumbing in Greensboro's Zone 1 Census Tracts from 2009 to 2021



Poverty

Since 2009, the average annual growth rate in the number of families in poverty has been 2.3% (see Table 17). Between 2009 to 2021, the number of families in poverty increased by 25.6%. As of 2021, the family poverty rate in 2021 was around 25%, which is 12 percentage points higher than the overall city-level family poverty rate.

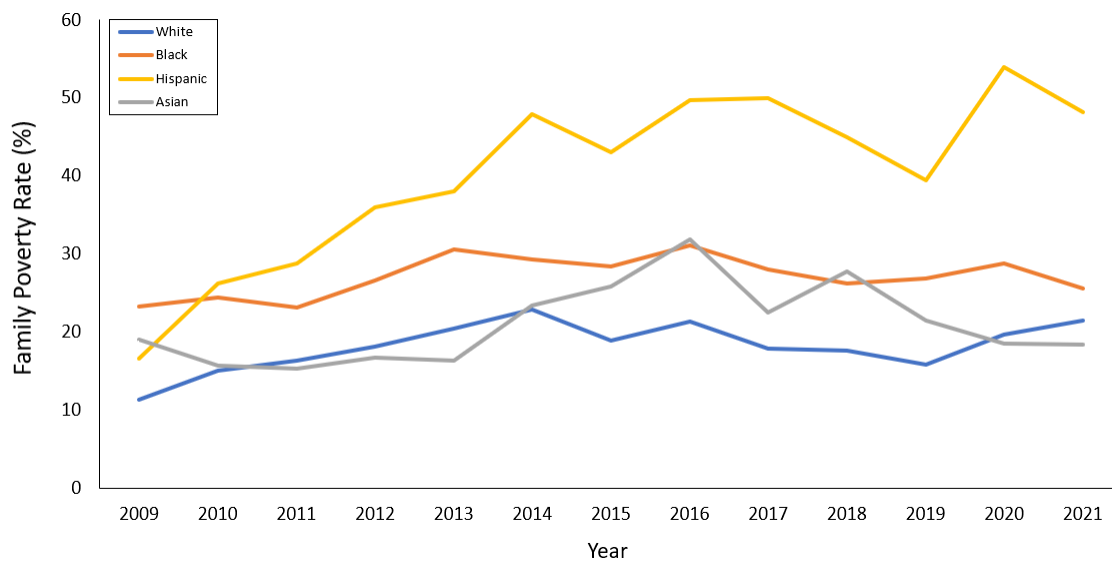
Table 17. Family Poverty Rate in Greensboro's Zone 1 Census Tracts from 2009 to 2021

Year	Number of Families	Families Below the Poverty Line	Family Poverty Rate (%)
2009	14,650	2,994	20.44
2010	14,764	3,318	22.47
2011	14,938	3,309	22.15
2012	14,966	3,740	24.99
2013	15,425	4,360	28.27
2014	15,486	4,383	28.30
2015	15,583	4,182	26.84
2016	15,744	4,631	29.41
2017	15,535	4,077	26.24
2018	15,431	3,884	25.17
2019	15,515	3,870	24.94
2020	15,228	4,056	26.64
2021	15,041	3,761	25.00

Note: 19 census tracts

In Greensboro's Zone 1 census tracts, poverty rates among white families tend to be lower than black, Hispanic, and Asian families (see Figure 45). Poverty rates among Hispanic families have been increasing.

Figure 45. Family Poverty Rate by Householder's Race in Greensboro's Zone 1 Census Tracts from 2009 to 2021



Income Per Capita

Real income per capita in Greensboro's Zone 1 census tracts declined and then increased from 2009 to 2021. From 2009 to 2014, real income per capita declined from \$16,415 to \$14,328. It then rose to \$16,456 as of 2021. This is nearly ten-thousand dollars lower than income per capita at the city-wide level

Table 18. Income Per Capita in Greensboro's Zone 1 Census Tracts from 2009 to 2021

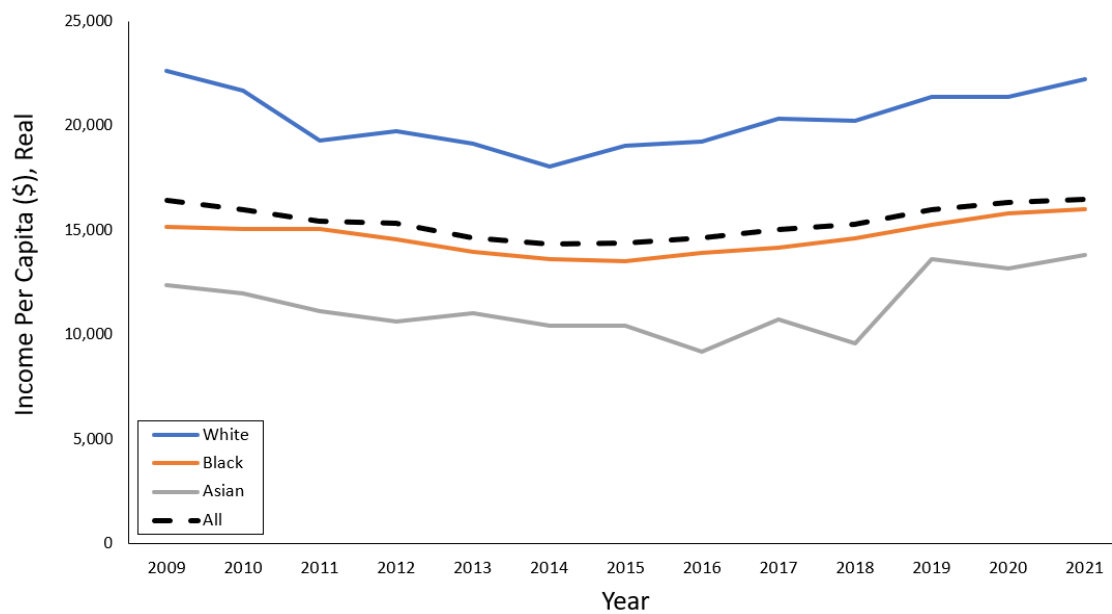
Years	Population	Income Per Capita (\$) *
2009	60,700	16,415
2010	62,473	15,989
2011	63,311	15,421
2012	63,418	15,294
2013	65,020	14,630
2014	65,868	14,328
2015	66,125	14,395
2016	67,720	14,622
2017	66,744	15,015
2018	67,257	15,248
2019	67,281	15,989
2020	68,325	16,299
2021	67,500	16,456

Note: 19 census tracts.

*Adjusted for inflation, to 2010-dollar values.

Real incomes per capita declined from 2009 to 2014-2016, but then increased from there until 2021. The income per capita among white residents tends to be the highest in Zone 1, while it is the lowest for Asians (see Figure 46).

Figure 46. Income Per Capita, by Race, in Greensboro's Zone 1 Census Tracts from 2009 to 2021



Race/Ethnic Populations

Greensboro's Zone 1 census tracts are inhabited primarily by black residents (see Table 19). As of 2021, 65.3% of Zone 1's residents are black, 13.8% are white, and 12.2% are Hispanic. The percentage of residents that are black in Zone 1 is around 20 percentage points higher than the percentage at the overall city level.

Table 19. Race and Ethnicity in Greensboro's Zone 1 Census Tracts from 2009 to 2021

Year	Population	White (%)	Black (%)	Hispanic (%)	Asian (%)	Biracial (%)	American Indian or Native Alaskan (%)	Native Hawaiian, or Pacific Islander (%)	Some Other (%)
2009	60,700	18.56	66.86	7.48	3.63	2.01	0.95	0.06	0.45
2010	62,473	16.94	67.78	8.13	4.21	1.91	0.74	0.00	0.30
2011	63,311	16.91	66.80	8.82	4.49	2.28	0.54	0.00	0.14
2012	63,418	16.54	67.27	8.74	4.56	2.26	0.51	0.00	0.11
2013	65,020	16.65	66.24	9.43	4.84	2.29	0.34	0.12	0.08
2014	65,868	16.90	66.62	9.52	4.25	1.90	0.38	0.08	0.36
2015	66,125	16.83	66.41	9.63	4.48	1.91	0.29	0.09	0.35
2016	67,720	16.30	65.91	10.25	4.68	2.15	0.28	0.09	0.35
2017	66,744	16.24	66.43	9.85	4.29	2.36	0.30	0.11	0.42
2018	67,257	15.11	65.83	10.71	4.13	3.00	0.60	0.04	0.59
2019	67,281	15.49	64.96	10.74	3.82	3.84	0.66	0.03	0.46
2020	68,325	13.76	66.26	10.95	3.44	3.26	0.69	0.02	1.61
2021	67,500	13.80	65.30	12.21	3.01	3.64	0.57	0.03	1.44

Note: 19 census tracts.

All racial groups, except for the group Hispanic, are Non-Hispanic.

Food Stamps/SNAP

The number of households receiving SNAP/Food stamps in Zone 1 has increased substantially over the last decade (see Table 20). Since 2009, the number has increased by 80.0%. As of 2021, the percentage of households receiving SNAP/Food stamps is 30.3%, which is around 15 percentage points higher than that at the city level.

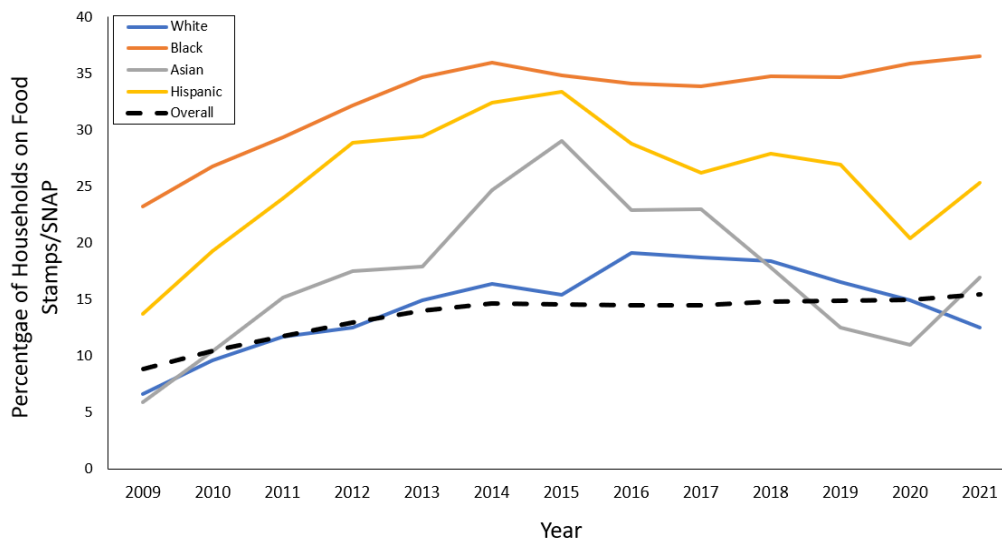
Table 20. SNAP/Food Stamp Participation Rates in Greensboro's Zone 1

Census Tracts from 2009 to 2021			
Year	Total Households	Households Receiving SNAP/Food Stamps	Percentage of Households Receiving SNAP/Food Stamps
2009	24,553	4,552	18.54
2010	25,404	5,600	22.04
2011	25,579	6,265	24.49
2012	25,727	6,880	26.74
2013	26,126	7,613	29.14
2014	26,514	8,180	30.85
2015	26,470	7,936	29.98
2016	26,436	7,908	29.91
2017	26,052	7,766	29.81
2018	26,226	7,936	30.26
2019	26,383	7,804	29.58
2020	27,015	8,072	29.88
2021	27,050	8,195	30.30

Note: The large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

SNAP/Food stamp participation rates vary across households by race in Greensboro's Zone 1 census tracts (see Figure 47). From 2009 to 2014, participation rates increased for all households, with the largest occurring among Asian households. From 2016 to 2020, participation rates declined among white, Asian, and Hispanic households, but they increased for black households.

Figure 47. SNAP/Food Stamp Participation Rates by Householder's Race in Greensboro's Zone 1 Census Tracts from 2009 to 2021

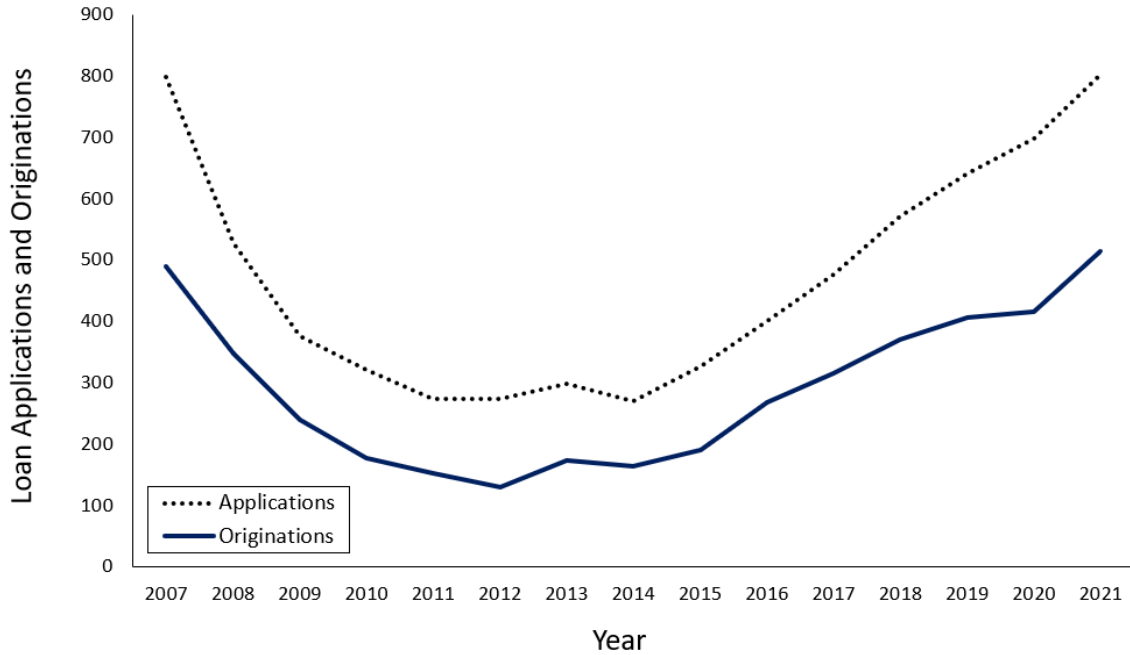


Note: The large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

Zone 1 Census Tracts: Lending Trends (HMDA data)

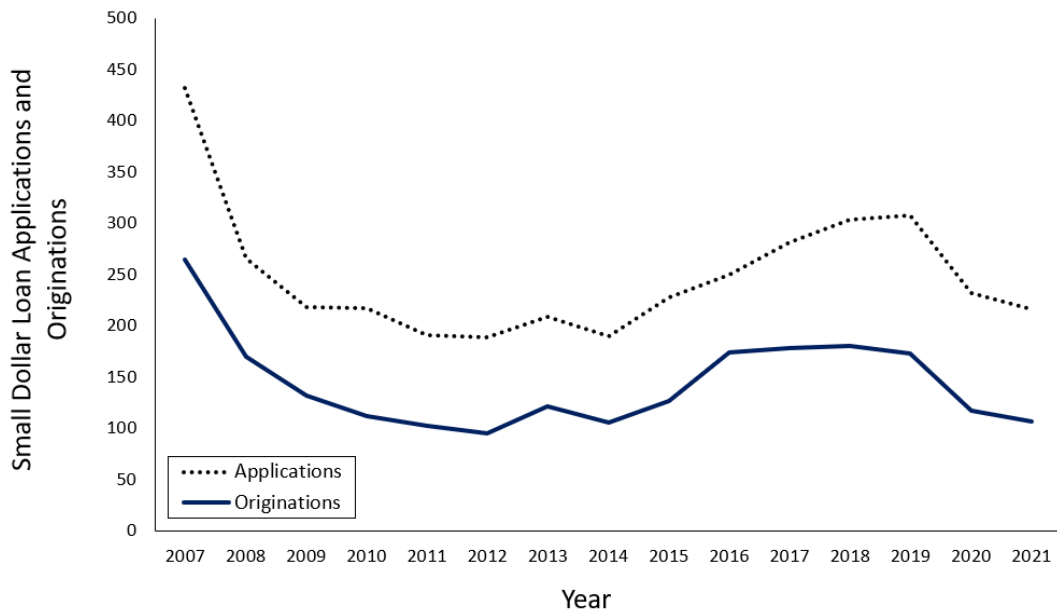
Loan applications and originations have fallen and risen in Zone 1 tracts from 2007 to 2021 (see Figure 48). They steadily declined from 2007 to 2012. The trend reversed in 2012, and they have been increasing since. There has been a widening gap between applications and originations since around 2016.

Figure 48. Loan Applications and Originations in Greensboro's Zone 1 Census Tracts from 2007 to 2021



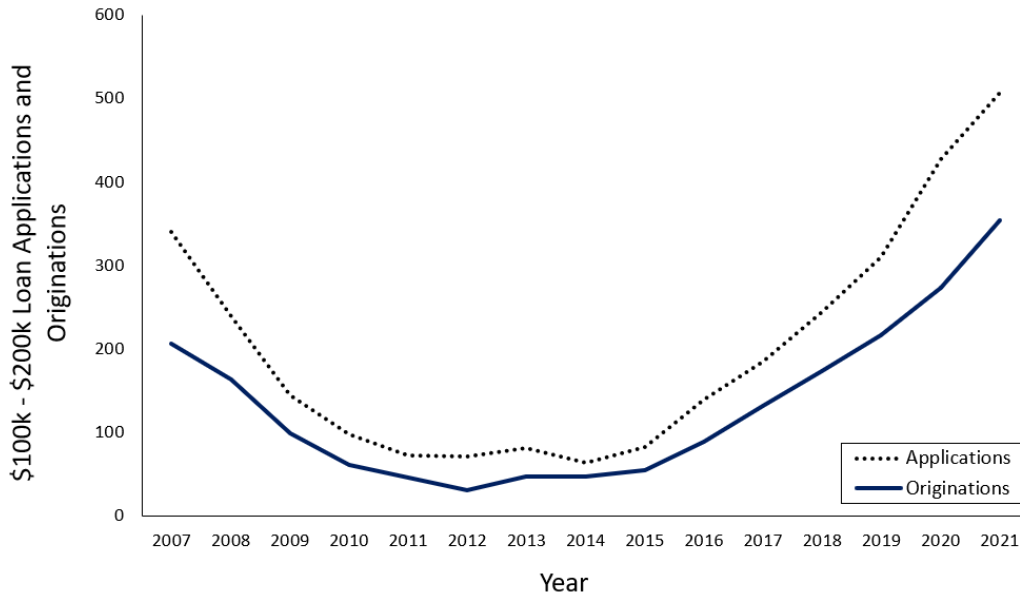
Small dollar loan applications and originations have fallen and risen in Zone 1 tracts from 2007 to 2021 (see Figure 49). From 2007 to 2012, they fell sharply. They were stable until 2014, where they rose and then stabilized at a higher level from 2016 to 2019. From then until 2021, they declined.

Figure 49. Small Dollar Loan Applications and Originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021



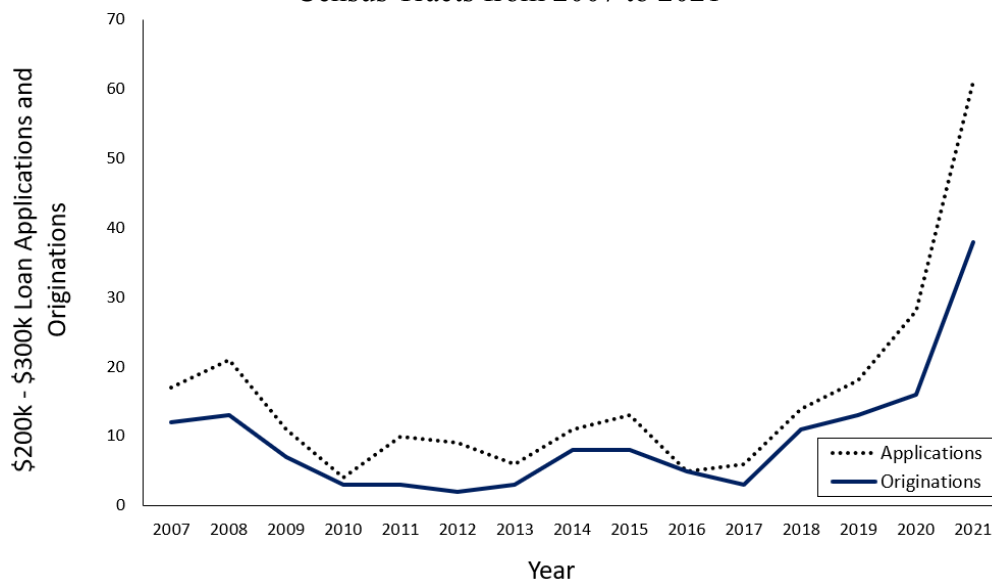
Loan applications and originations for loans between \$100,000 to \$200,000 fell sharply from 2007 to 2012, and then began increasing sharply since 2015. Applications and originations for these loans surpassed their 2007 levels around 2018 and have been continuing to climb since.

Figure 50. \$100,000-\$200,000 Loan Applications and Originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021



Loan applications and originations for loans between \$200,000 to \$300,000 were quite low between 2007 and 2017. Originations never exceeded 15 over this time frame. Starting around 2018, applications and originations for these loans began to climb rapidly. In 2021, there were around 40 loan originations for loans between \$200,000 and \$300,000.

Figure 51. \$200,000-\$300,000 Loan Applications and Originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021



There were only around 6 originations of loans \$300,000 and over in 2007 and this number dropped to 1 in 2008. The number never exceeded 2 until around 2017, when the number of originations began to climb rapidly. As of 2021, there were 16 loan originations for loans \$300,000 and over.

Figure 52. \$300,000 and Over Loan Applications and Originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021

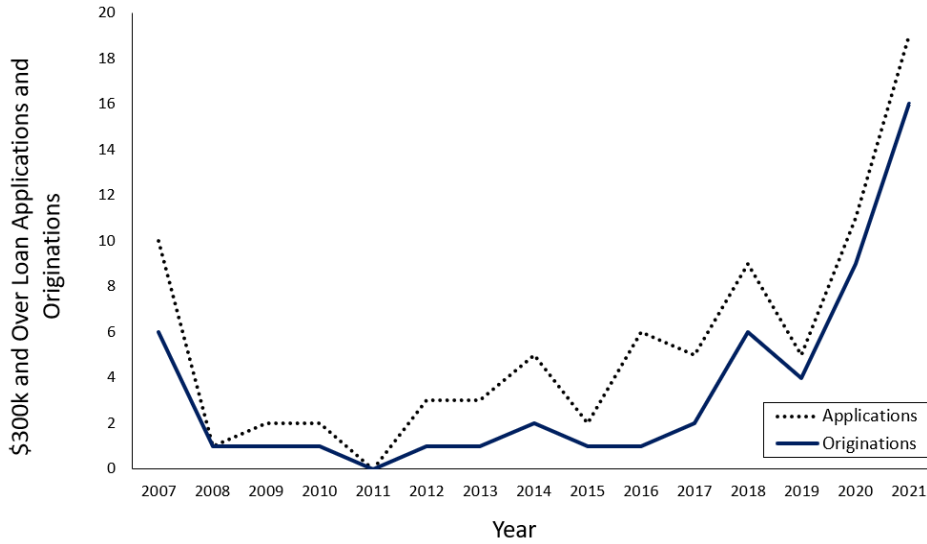


Figure 53 plots the percentage of completed loan applications that were denied, by size, in Greensboro’s Zone 1 census tracts from 2007 to 2021. The percentage of denied small dollar loan applications has exceeded the percentage of larger loan applications that were denied in all but two years (2012 and 2016). For small dollar loan applications, the percentage denied has been increasing since 2016, while the percentage denied for larger loans has been slightly decreasing.

Figure 53. Percentage of Completed Loan Application that are Denied, by Size, in Greensboro’s Zone 1 Census Tracts from 2007 to 2021

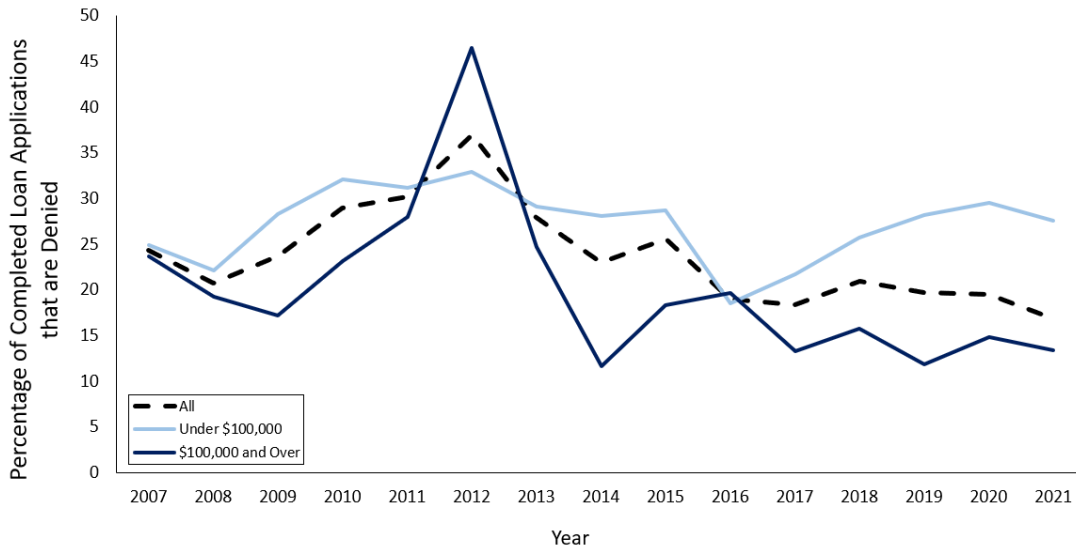


Figure 54 plots the number of FHA loan applications and originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021. FHA loan applications and originations fell from 2008 to around 2014, when the trend reversed. They have been steadily increasing since.

Figure 54. Percentage of Completed Loan Application that are Originated, by Size, in Greensboro’s Zone 1 Census Tracts from 2007 to 2021

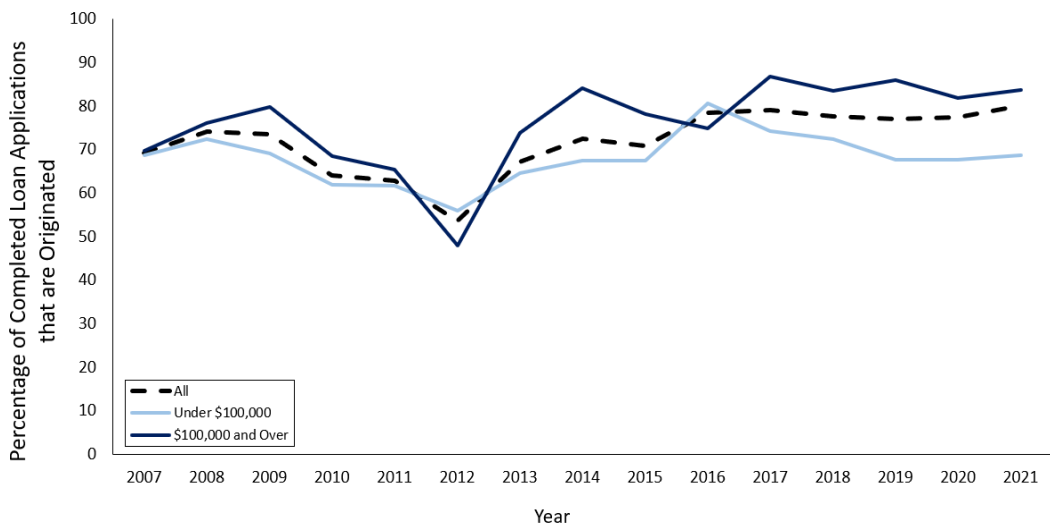


Figure 55 plots the number of small dollar FHA loan applications and originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021. Small dollar FHA loan applications and originations have been steadily declining over the entire time frame, except for only a few years. In 2009, there were around 120 applications and as of 2021, there were around 40.

Figure 55. Small Dollar FHA Loan Applications and Originations in Greensboro’s Zone 1 Census Tracts from 2007 to 2021

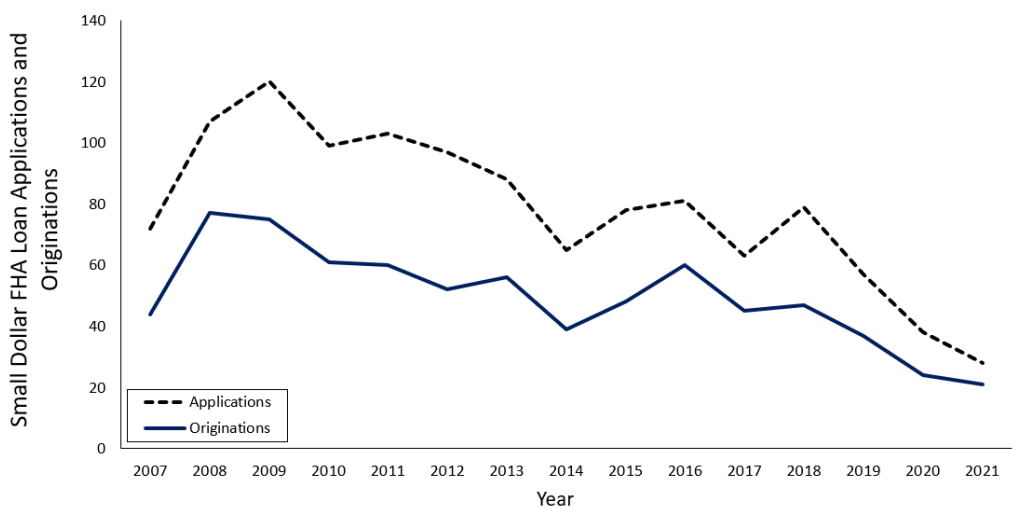


Figure 56 plots the number of FHA loan applications and originations for loans between \$200,000 and \$300,000 in Greensboro's Zone 1 Census Tracts from 2007 to 2021. Both fell sharply from 2008 to around 2014. They then began to sharply increase.

Figure 56. \$100,000 - \$200,000 FHA Loan Applications and Originations in Greensboro's Zone 1 Census Tracts from 2007 to 2021

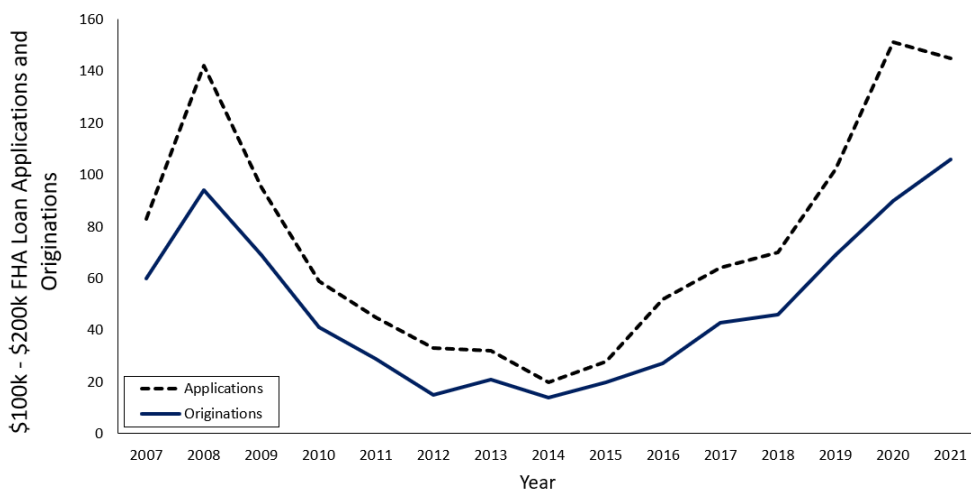
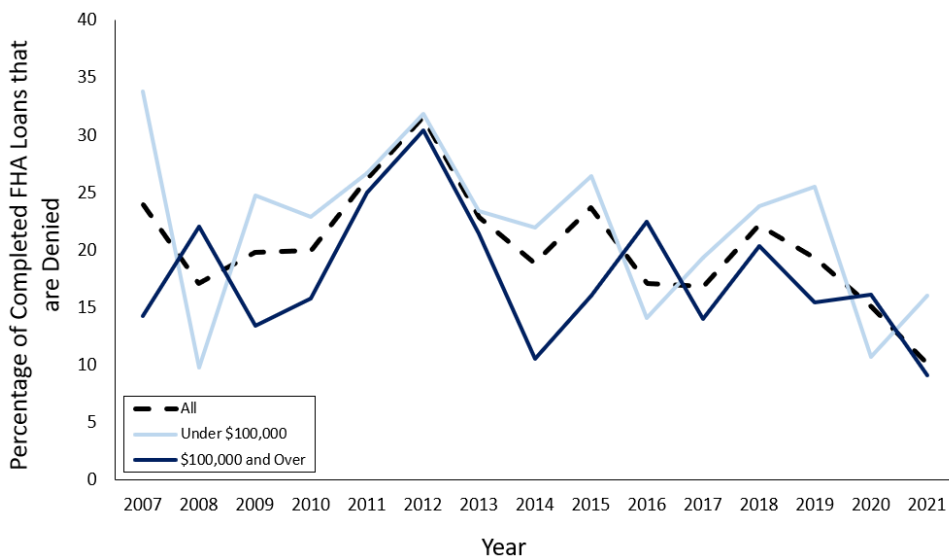


Figure 57 plots the percentage of completed FHA loan applications that were denied, by size, in Greensboro's Zone 1 census tracts from 2007 to 2021. Other than for a few years, the percentage of completed small dollar FHA loan applications that were denied has exceeded those for larger loans.

Figure 57. Percentage of Completed FHA Loan Applications that were Denied, by Size, in Greensboro's Zone 1 Census Tracts from 2007 to 2021



Zone 1: Cash Transactions (ATTOM)

Figure 58 plots the number of properties purchased with cash or a mortgage in Greensboro's Zone 1 census tracts from 2004 to 2021. The number bought with cash fell sharply from 2004 to 2006, and then have been steadily increasing since. The number bought with a mortgage fell sharply from 2004 to 2012, and then have been steadily increasing since. Figure 59 converts to percentage of property transactions, which indicates a flattening of trends since 2010.

Figure 58. Property Transactions, by Method of Purchase, in Greensboro's Zone 1 Census Tracts from 2004 to 2021

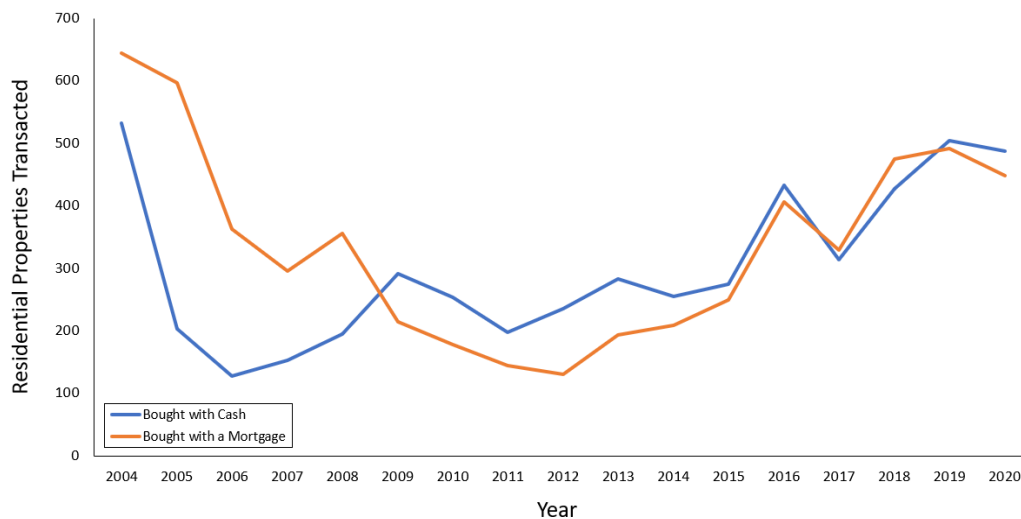


Figure 59. Percentage of Property Transactions, by Method of Purchase, in Greensboro's Zone 1 Census Tracts from 2004 to 2021

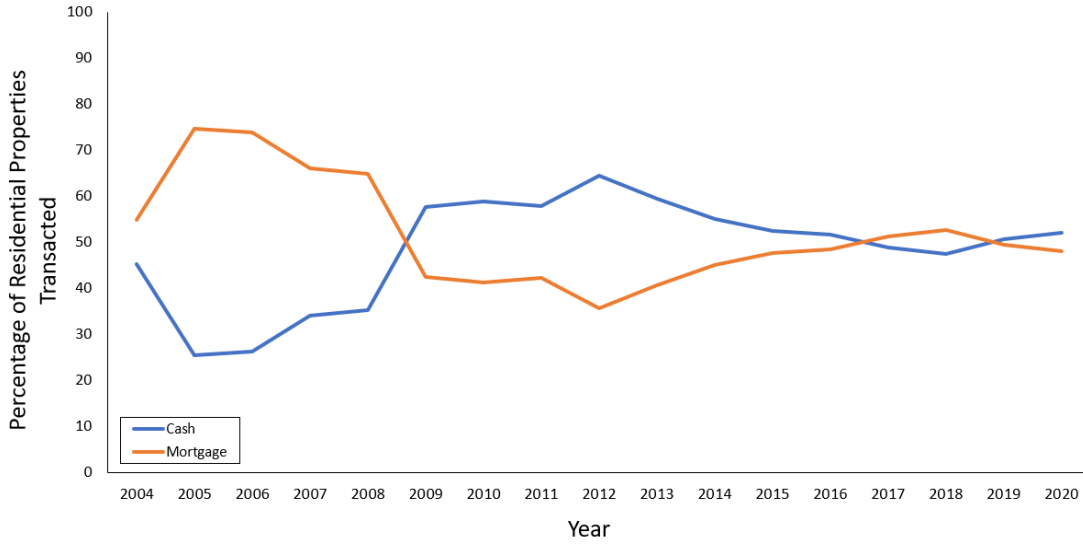


Figure 60 plots the number of small dollar properties purchased with cash or a mortgage in Greensboro’s Zone 1 census tracts from 2004 to 2021. The number bought with cash fell sharply from 2004 to 2006, and then have been steadily increasing since. The number bought with a mortgage fell sharply from 2004 to 2012, and then have been steadily increasing since. Figure 61 indicates similar trends as Figure 59.

Figure 60. Small Dollar Property Transactions, by Method of Purchase, in Greensboro’s Zone 1 Census Tracts from 2004 to 2021

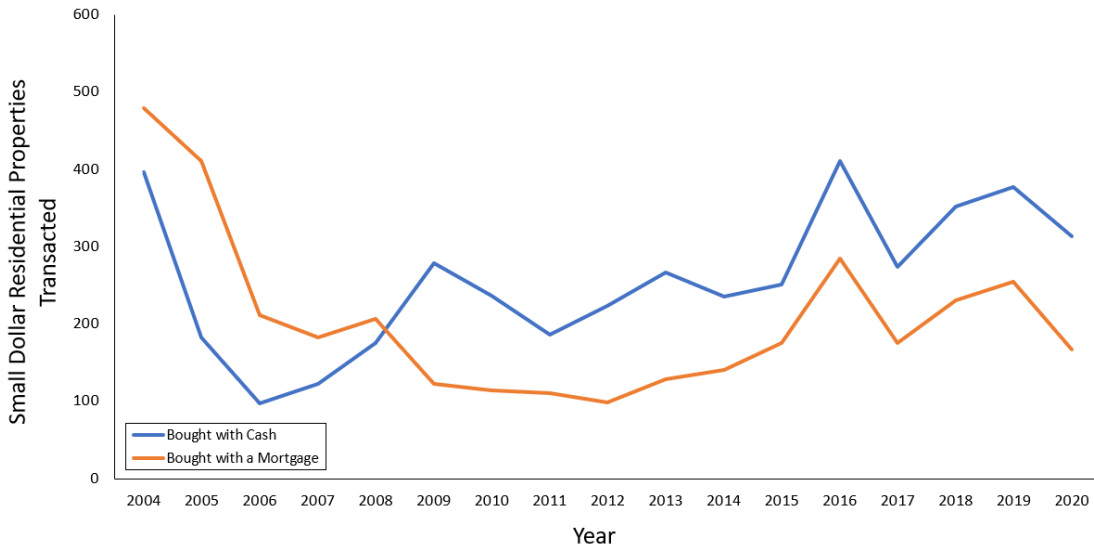
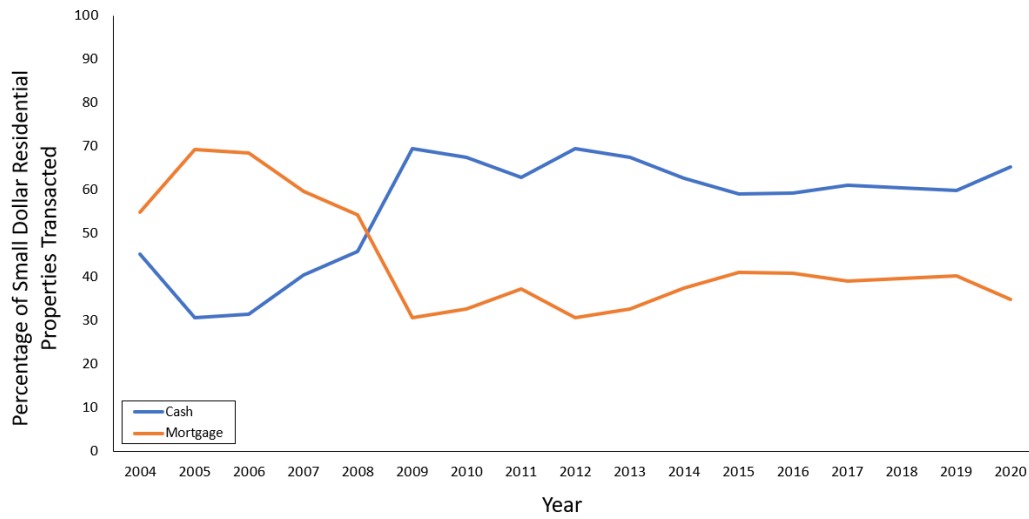


Figure 61. Percentage of Small Dollar Property Transactions, by Method of Purchase, in Greensboro's Zone 1 Census Tracts from 2004 to 2021



E. Greensboro's Reinvestment Areas

Homeownership Rates

Homeownership rates in Greensboro's Reinvestment Area tracts fell from 2009 to 2016, when they began to climb again. As of 2021, the homeownership rate in the Reinvestment Area is around 34.70%, up over 5 percentage points since 2016. In 2021, the homeownership rate in the Reinvestment Area is around 16 percentage points lower than the rate at the overall city level.

Table 21. Homeownership Rate in Greensboro's Reinvestment Area

From 2009 to 2021			
Year	Households	Owner-Occupied Households	Homeownership Rate (%)
2009	5,802	2,218	38.23
2010	6,103	2,328	38.15
2011	6,120	2,232	36.47
2012	6,292	2,215	35.20
2013	6,530	2,119	32.45
2014	6,313	2,078	32.92
2015	6,389	2,094	32.78
2016	6,455	1,979	30.66
2017	6,501	2,106	32.40
2018	6,468	2,155	33.32
2019	6,509	2,156	33.12
2020	6,924	2,456	35.47
2021	6,904	2,396	34.70

Note: 5 census tracts, according to the 2000 Census boundaries, comprise the city's Reinvestment Area.

Homeownership rates vary substantially by race in Greensboro's Reinvestment Area tracts. Homeownership rates among white households steadily declined from 2009 to 2014, along with the number of white homeowners. As of 2021, the white homeownership rate is around 44%, which is around 21 percentage points lower than the white homeownership rate at the city level. Both have started climbing again since 2017. Black homeownership rates, and the number of black homeowners, have been quite volatile over this time frame. The number of black households and black homeowners has been declining steadily since 2017, though the black homeownership rate is the highest it has been in the last decade (80.97%). The homeownership rate among Asian households has been steadily climbing since 2015, and as of

2021, the Asian homeownership rate is around 70% (compared to the Asian homeownership rate at the city level which is 85.25%) though the number of Asian homeowners is declining. There has been a surge in the number of Hispanic households and homeowners living in the Reinvestment Area. From 2016 to 2021, the number of Hispanic households grew by 754.55% (from 66 to 564 households) and the number of Hispanic homeowners at an extremely high rate too. As of 2021, the Hispanic homeownership rate is around 58% (around 12 percentage points higher than the rate at the city level).

Figure 62. Homeownership Rates, by Householder's Race, in Greensboro's Reinvestment Area from 2009 to 2021

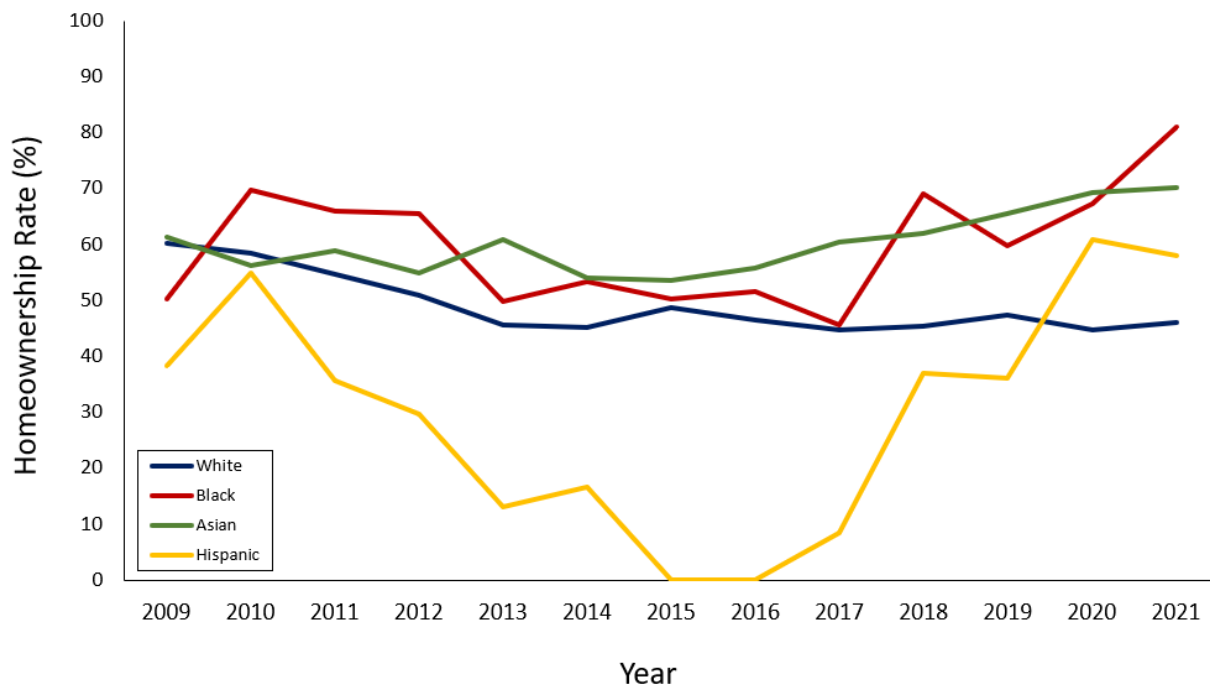


Table 22. Homeownership Rates (%) by Householder's Race
in Greensboro's Reinvestment Area

Year	White	Black	Asian	Hispanic
2009	60.22	50.31	61.34	38.35
2010	58.46	69.80	56.22	54.79
2011	54.56	66.04	58.78	35.71
2012	50.87	65.57	54.93	29.66
2013	45.69	49.68	60.83	13.04
2014	45.20	53.26	53.88	16.55
2015	48.60	50.22	53.53	0.00
2016	46.36	51.61	55.64	0.00
2017	44.74	45.64	60.48	8.50
2018	45.33	69.09	61.87	36.99
2019	47.45	59.79	65.39	36.02
2020	44.69	67.35	69.35	60.84
2021	46.06	80.87	70.23	57.98

Cost Burden

Though the percentage and number of rent-burdened households has been steady over the last decade, there have been some slight trend changes. As of 2021, the percentage of rent-burdened households in the Reinvestment Area tracts is 12 percentage points higher than that at the overall city level. Furthermore, as of 2021, the percentage of extremely rent-burdened households in the Reinvestment Area tracts is around 9 percentage points higher than that at the overall city level.

Table 23. Rent Burdened Households in Greensboro's Reinvestment Area.

Years	Renter Households ⁺	Burdened Renter Households ⁺⁺	Extremely Burdened Renter Households ⁺⁺⁺	% Burdened	% Extremely Burdened
2009	3,468	2,149	1,326	61.97	38.24
2010	3,614	2,297	1,367	63.56	37.83
2011	3,700	2,409	1,430	65.11	38.65
2012	3,700	2,557	1,312	69.11	35.46
2013	3,968	2,545	1,166	64.14	29.39
2014	3,785	2,398	1,205	63.36	31.84
2015	3,822	2,334	1,106	61.07	28.94
2016	3,941	2,393	1,106	60.72	28.06
2017	4,008	2,387	1,249	59.56	31.16
2018	3,898	2,517	1,321	64.57	33.89
2019	3,801	2,507	1,310	65.96	34.46
2020	4,055	2,606	1,390	64.27	34.28
2021	4,041	2,534	1,258	62.71	31.13

Note: 5 census tracts.

⁺ These include renting households with available income data.

⁺⁺ These include renting households, with available income, that spend over 30% of their monthly income on rent payments.

⁺⁺⁺ These include renting households, with available income, that spend over 50% of their monthly income on rent payments.

Figure 63. The Percentage of Rent Burdened and Extremely Rent Burdened Households in Greensboro's Reinvestment Area from 2009 to 2021

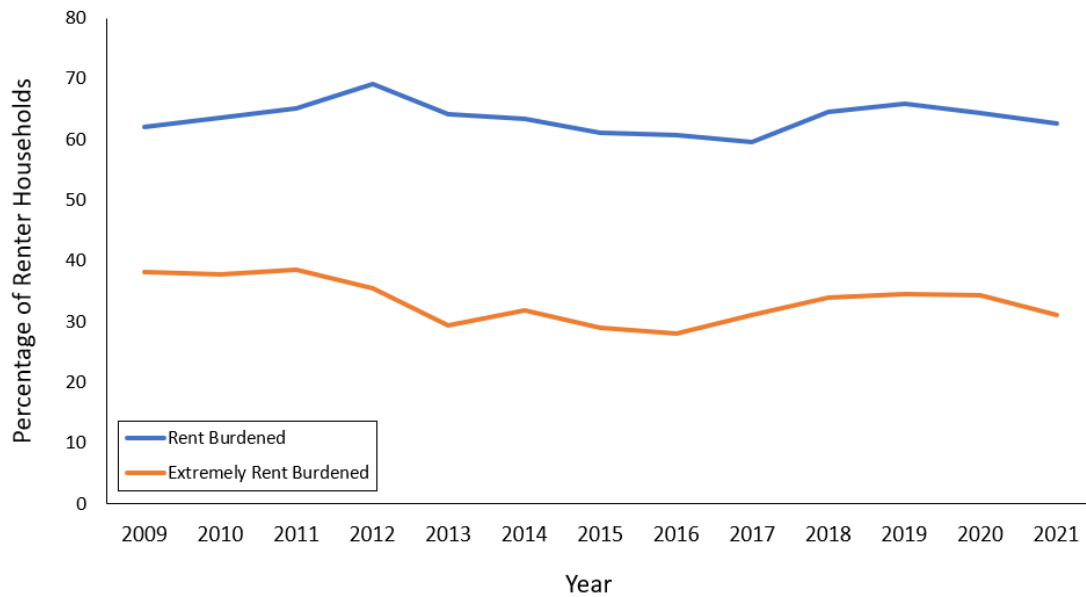


Table 24: Percentage of Homeowners who are Cost-Burdened in Greensboro's Reinvestment Area Tracts

Year	All Homeowners	Homeowners with a Mortgage	Homeowners without a Mortgage
2009	35.81	44.92	22.44
2010	39.49	48.16	25.65
2011	38.85	47.18	23.28
2012	37.92	46.74	21.75
2013	33.81	44.23	17.54
2014	36.24	46.61	18.05
2015	30.28	40.70	11.19
2016	25.84	34.21	9.81
2017	25.23	31.79	14.19
2018	27.88	36.72	14.59
2019	27.27	33.89	16.75
2020	23.16	35.26	13.85
2021	24.14	36.79	15.43

Note: 5 census tracts.

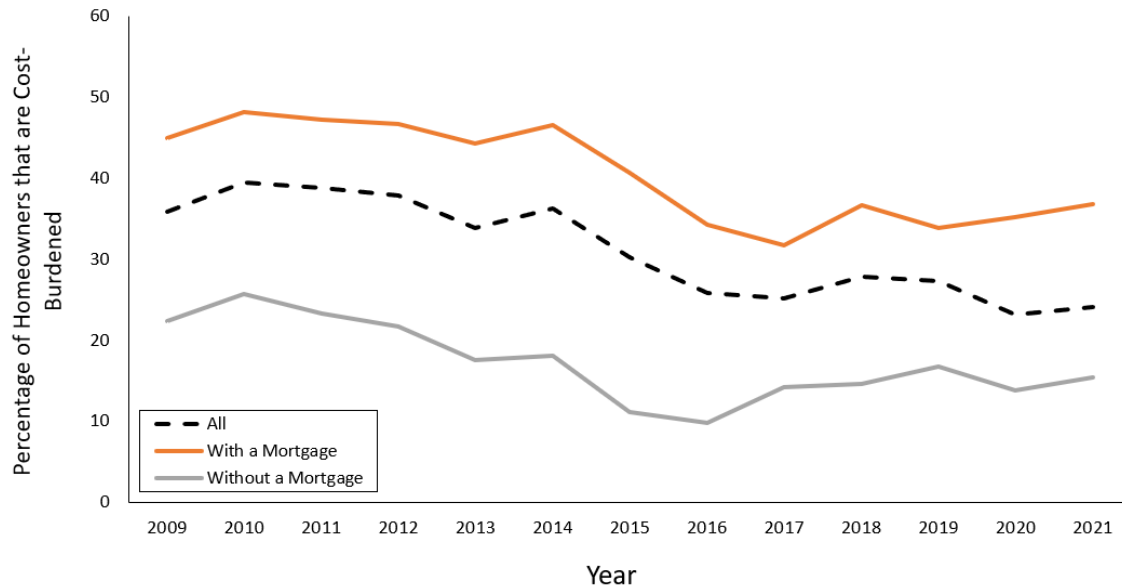
⁺ These include homeowners with available income data.

⁺⁺ These include homeowners, with available income, that spend over 30% of their monthly income on home payments.

⁺⁺⁺ These include homeowners, with available income, that spend over 50% on their monthly income on home payments.

The number of homeowners in Greensboro's Reinvestment Area has been increasing since 2016, with the number and percentage of cost-burdened homeowners showing a downward trend over the same time frame. Furthermore, the percentage declined by around 11 percentage points from 2009 to 2021. As of 2021, the percentage of cost-burdened homeowners was around 24.24%, which is around 4 percentage points higher than the rate at the overall city level. The downward trend is primarily being driven by homeowners with mortgages.

Figure 64: Percentage of Homeowners who are Cost-Burdened in Greensboro's Reinvestment Area Tracts



Home Value Distribution

Over the last decade, the majority of owner-occupied homes have been valued at below \$100,000. For example, in 2009, 65.73% were valued at less than \$100,000 and 27.05% were valued between \$100,000 and \$200,000. The distribution has shifted over time. As of 2021, 48.21% of the owner-occupied homes are valued below \$100,000, 35% were valued between \$100,000-\$200,000, and around 15% were valued between \$200,000-\$300,000.

Table 25. Value Distribution of Owner-Occupied Homes in Greensboro's Reinvestment Area Tracts from 2009 to 2021

Year	TOTAL	Less than \$100k	\$100k to \$200k	\$200k to \$300k	\$300k to \$400k	\$400k to \$500k	Over \$500k
2009	2,218	1,458	600	68	63	0	29
2010	2,328	1,575	626	43	45	8	31
2011	2,232	1,405	689	66	29	14	29
2012	2,215	1,373	712	59	43	9	19
2013	2,119	1,282	715	81	23	18	0
2014	2,078	1,309	648	89	17	15	0
2015	2,094	1,245	695	133	21	0	0
2016	1,979	1,159	668	106	46	0	0
2017	2,106	1,238	704	141	16	0	7
2018	2,155	1,261	808	55	15	0	16
2019	2,156	1,299	719	94	32	0	12
2020	2,456	1,205	806	404	28	0	13
2021	2,396	1,155	839	358	16	0	28

Note: N = 5 census tracts. Home values are nominal

Figure 65. Value Distribution of Owner-Occupied Homes in Greensboro's Reinvestment Area Tracts from 2009 to 2021



Vacancies

The housing vacancy rate in Greensboro’s Reinvestment Area tracts fell and then climbed again from 2009 to 2021. As of 2021, the vacancy rate is 17%, which is around 7 percentage points higher than the vacancy rate at the overall city level.

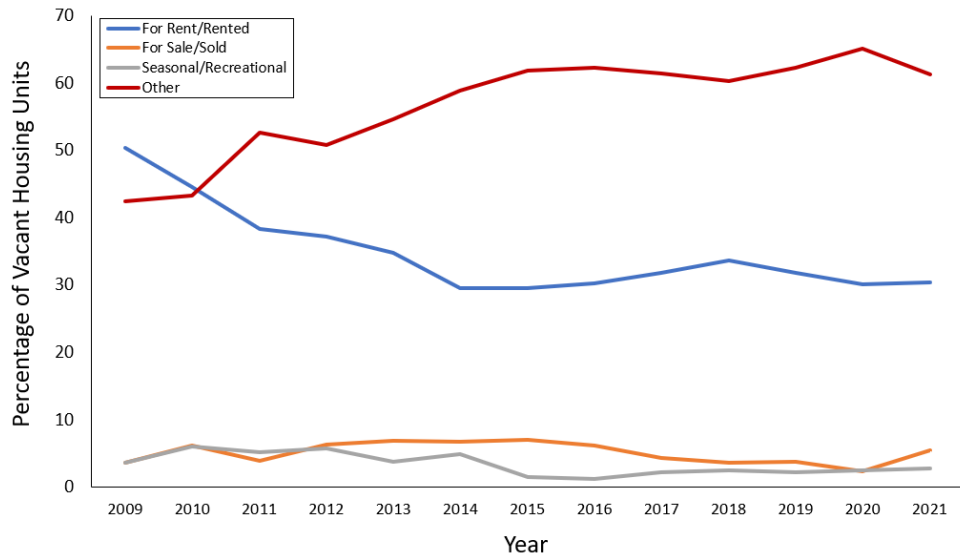
Table 26. Vacancies in Greensboro’s Reinvestment Area Tracts from 2009 to 2021

Year	Total Housing Units	Vacant Units	Vacancy Rate (%)
2009	7,151	1,349	18.86
2010	7,469	1,366	18.29
2011	7,330	1,210	16.51
2012	7,459	1,167	15.65
2013	7,556	1,026	13.58
2014	7,361	1,048	14.24
2015	7,481	1,092	14.60
2016	7,817	1,362	17.42
2017	7,950	1,449	18.23
2018	8,001	1,533	19.16
2019	8,019	1,510	18.83
2020	8,225	1,301	15.82
2021	8,318	1,414	17.00

N = 5 census tracts

Vacant units, categorized as “Other” having been climbing over the last decade in the city’s Reinvestment Area. From 2009 to 2021, the number rose by around 51% (compared to the growth rate at the city level which was around 101%).

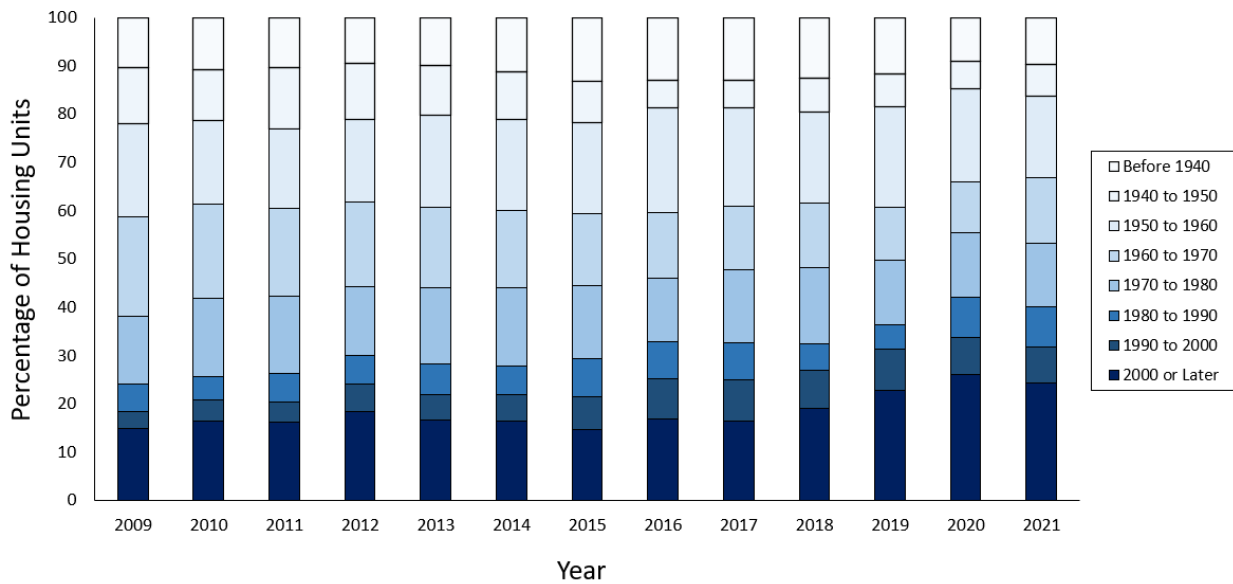
Figure 66. Vacancies in Greensboro’s Reinvestment Area Tracts from 2009 to 2021



Year Built

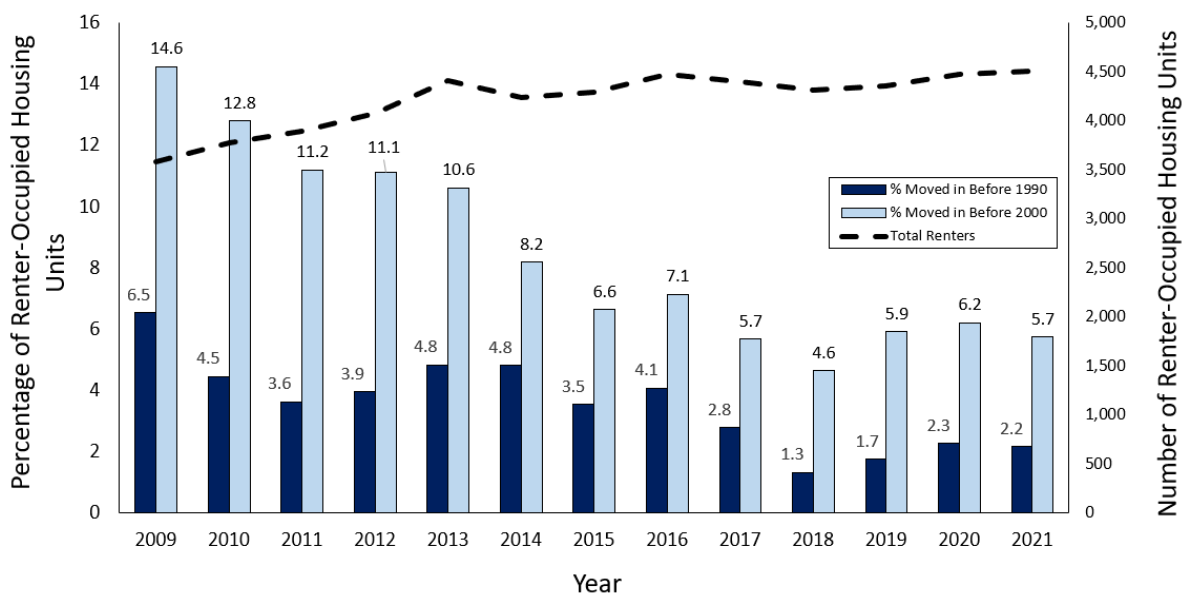
Figure 67 shows that as of 2021, around 60% of the homes in Greensboro’s Reinvestment Area tracts were built prior to 1980.

Figure 67. Year-Built Distribution of Housing Units in Greensboro’s Reinvestment Area from 2009 to 2021



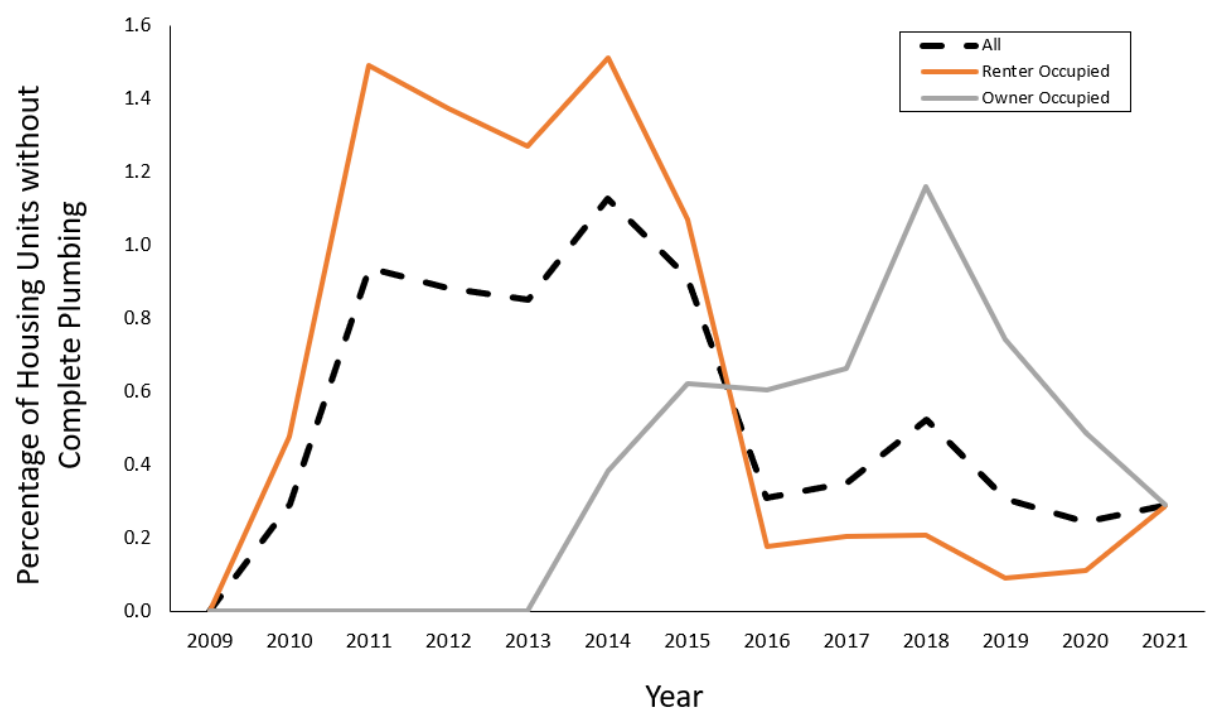
Tenure

Figure 68. Percentage of Renters who Moved-In Before 1990 or 2000 in Greensboro’s Reinvestment Area from 2009 to 2021



Complete Plumbing

Figure 69. Percentage of Owner-Occupied and Renter-Occupied Homes with Incomplete Plumbing in Greensboro’s Reinvestment Area Tracts from 2009 to 2021



Poverty

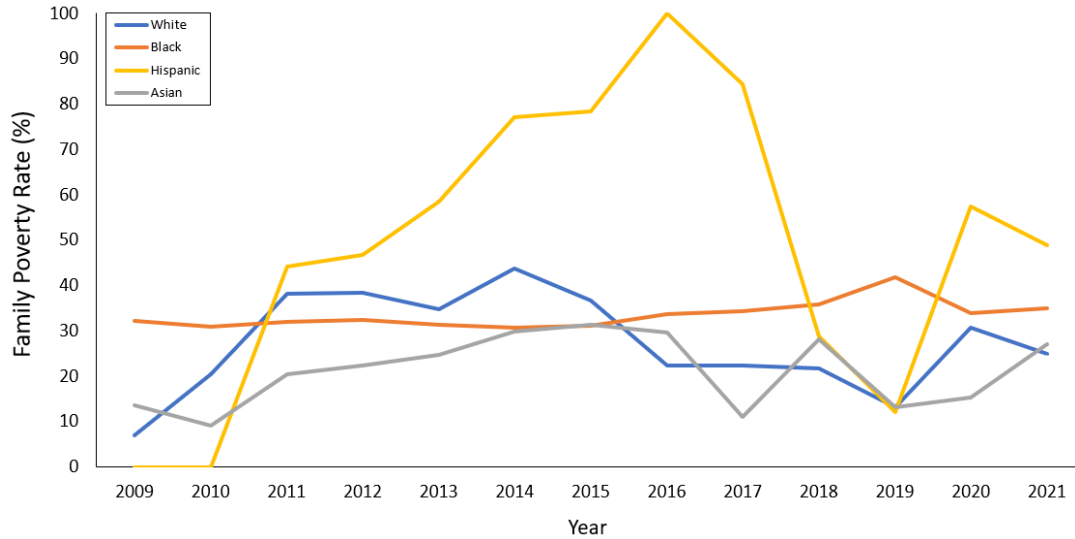
The number of families in poverty have climbed over the last decade in Greensboro's Reinvestment Area, though from 2019 to 2021 the number has declined along with the poverty rate. As of 2021, the family poverty rate was 31.2% which is nearly 20 percentage points higher than the rate at the overall city level. From 2009 to 2021, the number of families in poverty grew by 26.6% compared to growth in families, which was 18.3%. The growth in poverty exceeded the rate at the overall city level by around 6 percentage points.

Table 27. Family Poverty Rate in Greensboro's Reinvestment Area Tracts from 2009 to 2021

Year	Number of Families	Families Below the Poverty Line	Family Poverty Rate (%)
2009	2,977	868	29.16
2010	3,082	920	29.85
2011	3,146	1,051	33.41
2012	3,391	1,176	34.68
2013	3,458	1,145	33.11
2014	3,611	1,186	32.84
2015	3,645	1,181	32.40
2016	3,651	1,222	33.47
2017	3,619	1,157	31.97
2018	3,538	1,192	33.69
2019	3,588	1,283	35.76
2020	3,374	1,070	31.71
2021	3,522	1,099	31.20

Note: 5 census tracts

Figure 70. Family Poverty Rate in Greensboro's Reinvestment Area Tracts, by Householder's Race, from 2009 to 2021



Income Per Capita

Real income per capita in Greensboro's Reinvestment Area has declined and then risen over the last decade. From 2009 to 2012, real per capita income fell from \$11,176 to \$10,300. Incomes began to rise from 2018 to 2021, from \$10,327 to \$13,207. As of 2021, the real per capita incomes in the Reinvestment Area tracts are around 50% of the real per capita income level at the overall city level.

Table 28. Real Income Per Capita in Greensboro's Reinvestment Area from 2009 to 2021

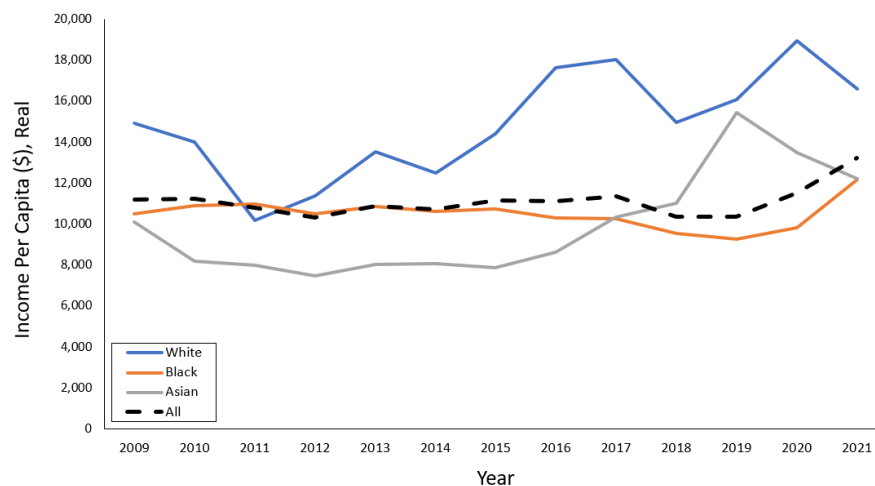
Years	Population	Income Per Capita (\$) *
2009	17,039	11,176
2010	17,484	11,204
2011	17,588	10,763
2012	18,399	10,300
2013	19,139	10,876
2014	19,318	10,708
2015	19,779	11,134
2016	20,605	11,111
2017	21,214	11,325
2018	21,310	10,327
2019	21,068	10,361
2020	21,134	11,503
2021	21,143	13,207

Note: 5 census tracts.

*Adjusted for inflation, to 2010-dollar values.

Real income per capita varies by race in Greensboro's Reinvestment Area tracts. Except for 2011, Real income per capita among white residents has been higher than those among black and Asian residents.

Figure 71. Real Per Capita Income, by Race, in Greensboro's Reinvestment Area Tracts from 2009 to 2021



Race/Ethnic Populations

Greensboro's Reinvestment Area has been, and continues to be, predominantly populated by black residents. From 2009 to 2021, the population has increased from 17,039 to 21,143. As of 2021, the percentage of the population that is non-Hispanic black was 73.47% and 10.91% are non-Hispanic white.

Table 29. Race and Ethnicity in Greensboro's Reinvestment Area from 2009 to 2021

Year	Population	White (%)	Black (%)	Hispanic (%)	Asian (%)	Biracial (%)	American Indian or Native Alaskan (%)	Native Hawaiian, or Pacific Islander (%)	Some Other (%)
2009	17,039	9.44	77.37	0.11	3.20	0.00	0.38	0.67	8.83
2010	17,484	8.89	79.67	0.07	3.56	0.00	0.23	1.77	5.81
2011	17,588	12.50	75.77	0.01	3.56	0.00	0.30	2.02	5.84
2012	18,399	11.40	76.89	0.06	2.76	0.08	0.32	2.16	6.33
2013	19,139	11.10	75.56	0.07	3.74	0.11	0.19	2.72	6.50
2014	19,318	11.41	75.63	0.18	4.16	0.11	0.18	2.76	5.58
2015	19,779	11.22	75.97	0.32	4.78	0.11	0.18	2.41	5.00
2016	20,605	10.78	74.84	0.63	5.62	0.10	0.00	2.97	5.07
2017	21,214	10.00	75.11	0.59	5.29	0.02	0.00	3.05	5.93
2018	21,310	9.54	76.04	0.44	3.99	0.03	0.19	3.02	6.76
2019	21,068	10.46	74.86	0.47	2.94	0.00	0.20	3.22	7.85
2020	21,134	11.35	72.09	0.45	2.34	0.00	0.20	3.43	10.14
2021	21,143	10.91	73.47	0.29	1.95	0.00	0.35	2.90	10.14

Note: 5 census tracts.

All racial groups, except for the group Hispanic, are Non-Hispanic.

Food Stamps/SNAP

In Greensboro's Reinvestment Area, the total number of households has increased by around 19% from 2009 to 2021, while the number of households receiving SNAP/Food stamps has increased by 115%. In 2009, 23.23% of all households were receiving SNAP/Food stamps and as of 2021, this percentage increased to 42.1%.

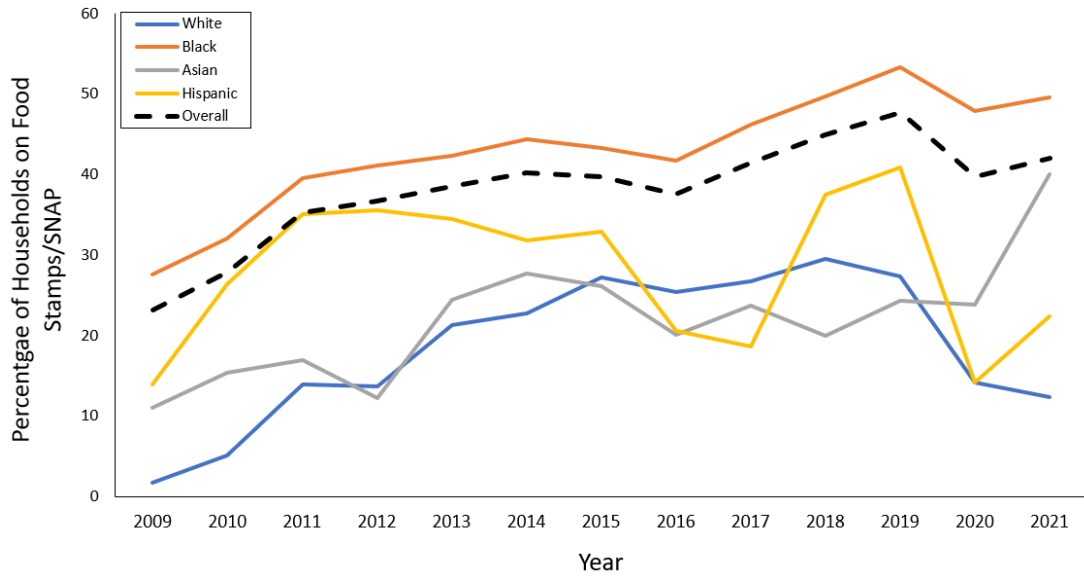
Table 30. Food Stamp/SNAP Participation in Greensboro's Reinvestment Area
Tracts from 2009 to 2021

Year	Total Households	Households Receiving SNAP/Food Stamps	%
2009	5,802	1,348	23.23
2010	6,103	1,706	27.95
2011	6,120	2,159	35.28
2012	6,292	2,312	36.75
2013	6,530	2,515	38.51
2014	6,313	2,539	40.22
2015	6,389	2,538	39.72
2016	6,455	2,429	37.63
2017	6,501	2,695	41.46
2018	6,468	2,910	44.99
2019	6,509	3,105	47.70
2020	6,924	2,751	39.73
2021	6,904	2,903	42.05

Note: This included 5 census tracts. In addition, the large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

SNAP/Food stamp participation rates have tended to increase among white, black, Asian, and Hispanic households from 2009 to 2021. SNAP participation rates has declined sharply since 2018 among white households. The large increase in SNAP participation rates is partially tied to the 2009 American Recovery and Reinvestment Act of 2009 which increased benefits and access to households as well as the 2014 Farm Bill, which increased state-level grants to promote access to SNAP.

Figure 72. Food Stamp/SNAP Participation, by Householder's Race, in Greensboro's Reinvestment Area Tracts from 2009 to 2021



Lending Trends in Greensboro's Reinvestment Area Census Tracts

Figure 72.1 graphs the number of mortgage loan applications and originations in Greensboro's Reinvestment Area census tracts from 2007 to 2021. The number of originations declined from 2007 to 2012 and then began to steadily increase.

Figure 72.1. Mortgage Loan Applications and Originations in Greensboro's Reinvestment Area Tracts from 2007 to 2021

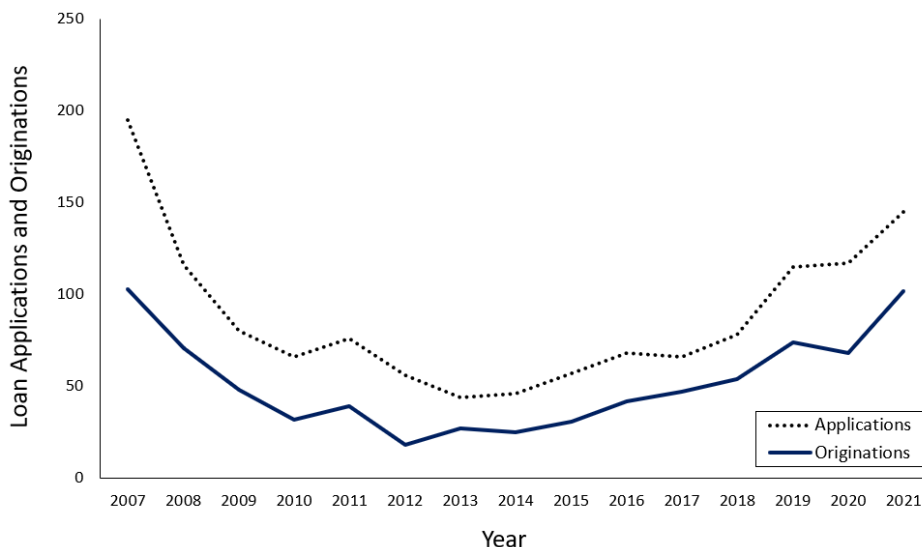


Figure 73 graphs the number of small dollar mortgage loan applications and originations in Greensboro's Reinvestment Area census tracts from 2007 to 2021. The number of originations declined from 2007 to 2012 and then began to increase until around 2018 where the increase leveled off.

Figure 73. Small Dollar Mortgage Loan Applications and Originations in Greensboro's Reinvestment Area Tracts from 2007 to 2021

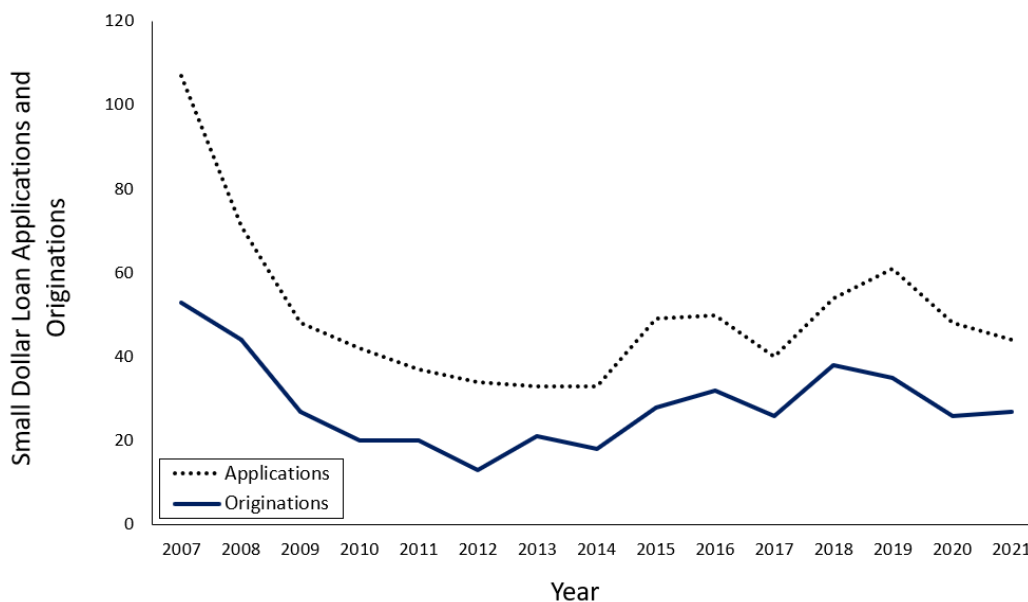


Figure 74 graphs the number of mortgage loan applications and originations between \$100,000 and \$200,000 in Greensboro’s Reinvestment Area census tracts from 2007 to 2021. The number of originations plummeted from 2007 to 2015 and then began to rapidly increase afterwards.

Figure 74. \$100,000 - \$200,000 Mortgage Loan Applications and Originations in Greensboro’s Reinvestment Area Tracts from 2007 to 2021

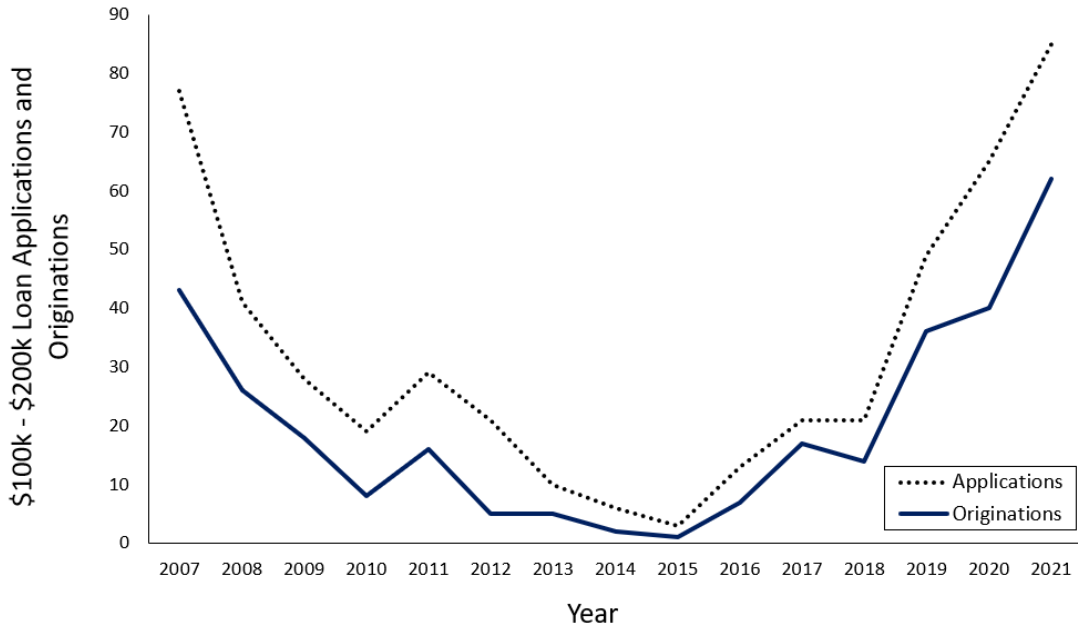
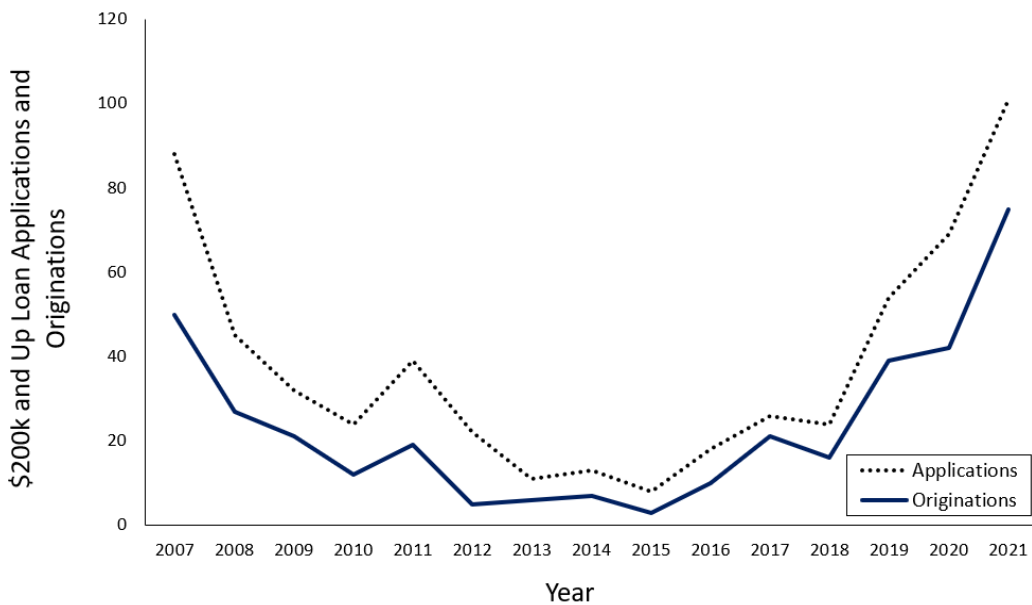


Figure 75 graphs the number of mortgage loan applications and originations between \$200,000 and \$300,000 in Greensboro’s Reinvestment Area census tracts from 2007 to 2021. The number of originations declined from 2007 to 2015 and then began to sharply increase.

Figure 75. \$200,000 - \$300,000 Mortgage Loan Applications and Originations in Greensboro’s Reinvestment Area Tracts from 2007 to 2021



Figures 76 and 77 graphs the percentage of completed loan applications that were denied and originated, in Greensboro’s Reinvestment Area census tracts from 2007 to 2021 by loan size. Both increased from 2008 to around 2012, but then began to decline thereafter.

Figure 76. Percentage of Completed Loan Applications that were Denied, by Loan Size, in Greensboro’s Reinvestment Area Tracts from 2007 to 2021

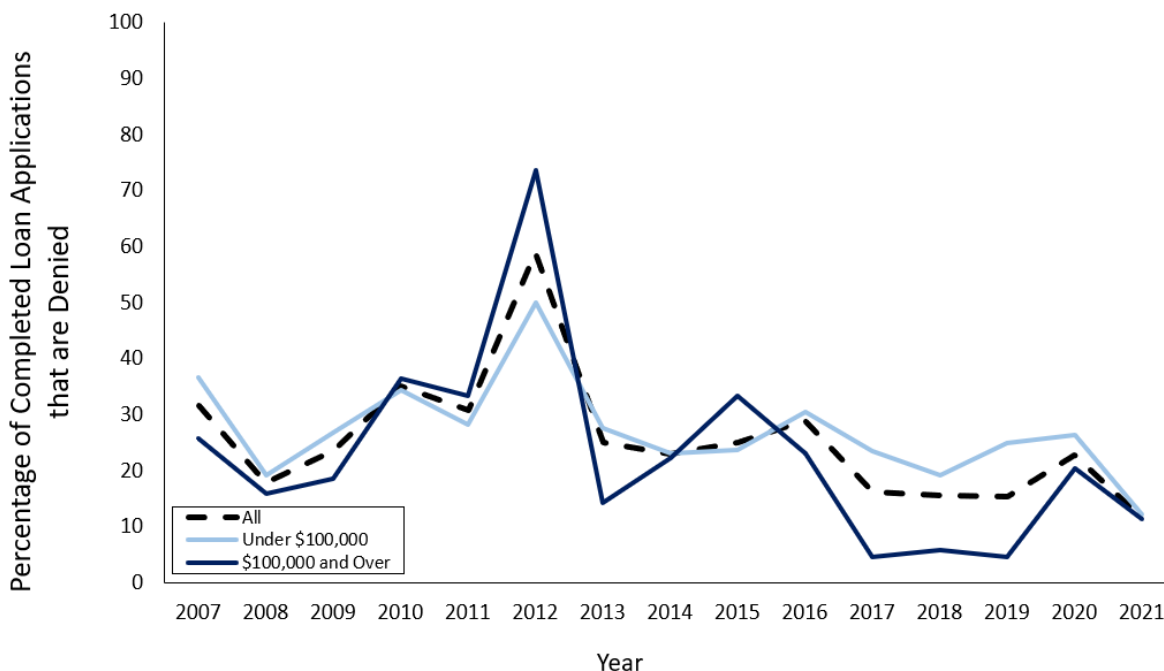


Figure 77. Percentage of Completed Loan Applications that were Originated, by Loan Size, in Greensboro’s Reinvestment Area Tracts from 2007 to 2021

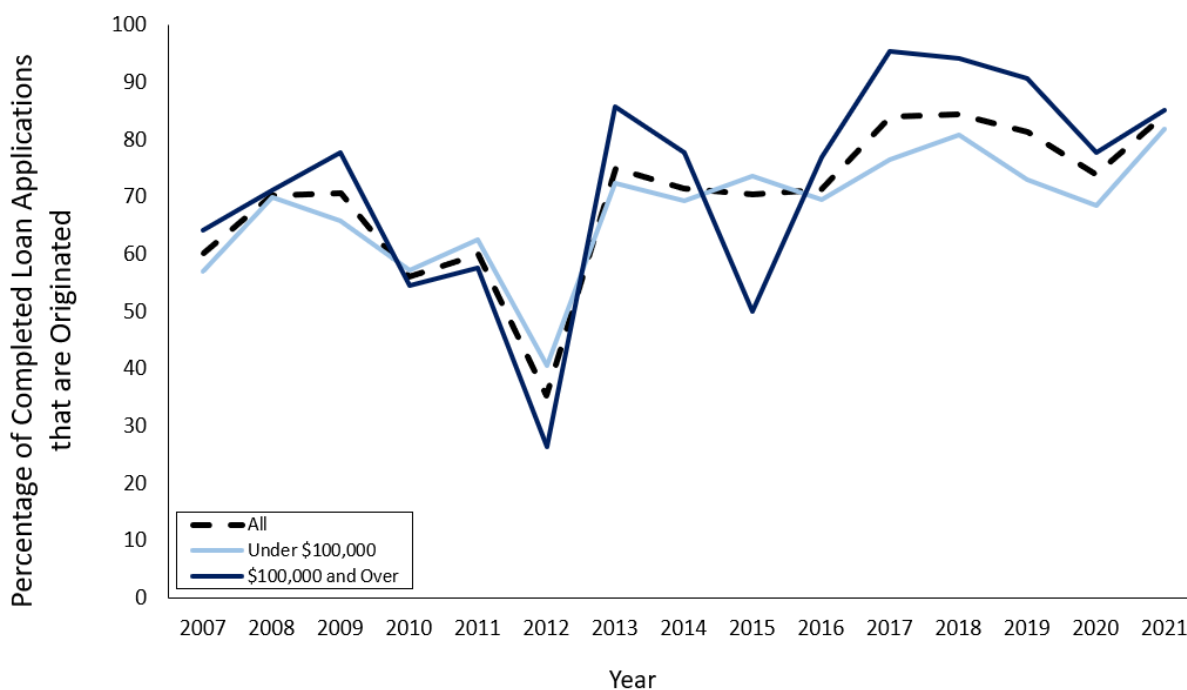


Figure 78 graphs the number of FHA mortgage loan applications and originations in Greensboro's Reinvestment Area tracts from 2007 to 2021. Both sharply declined from 2008 to around 2013, when the trend reversed and they both started to slightly increase.

Figure 78. FHA Mortgage Loan Applications and Originations in Greensboro's Reinvestment Area Tracts from 2007 to 2021

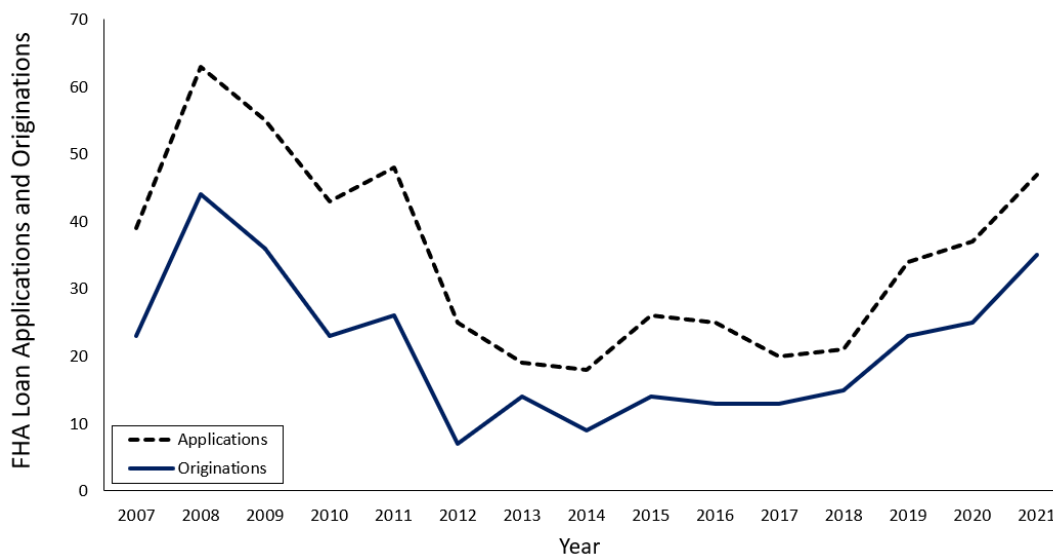


Figure 79 graphs the number of small dollar FHA mortgage loan applications and originations in Greensboro's Reinvestment Area tracts from 2007 to 2021. Both sharply declined from 2008 to around 2013, when the trend flattened out.

Figure 79. Small Dollar FHA Mortgage Loan Applications and Originations in Greensboro's Reinvestment Area Tracts from 2007 to 2021

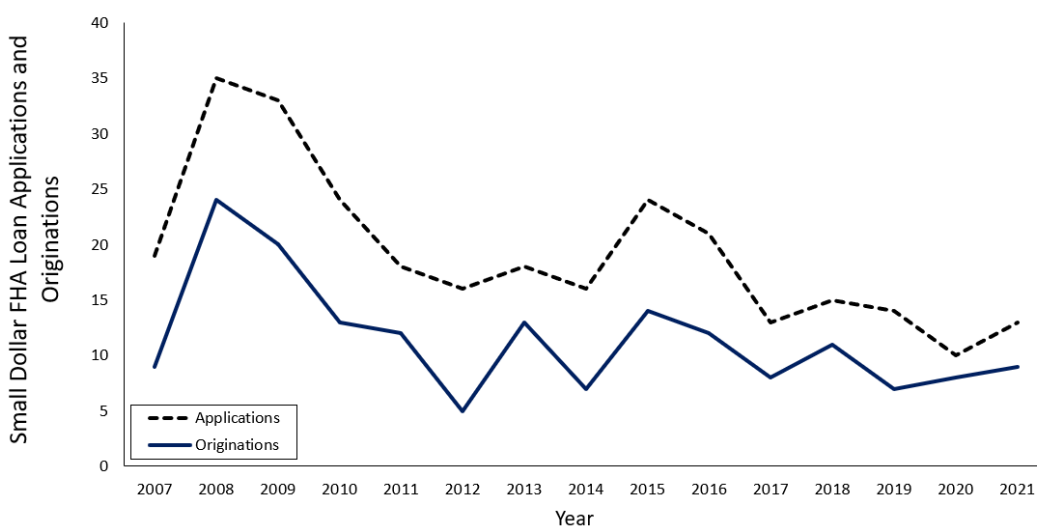


Figure 8 graphs the number of larger FHA mortgage loan applications and originations in Greensboro’s Reinvestment Area tracts from 2007 to 2021. Both sharply declined from 2008 to around 2013, when the trend reversed and both began to sharply increase.

Figure 80. Greater than \$100,000 Mortgage Loan Applications and Originations in Greensboro’s Reinvestment Area Tracts from 2007 to 2021

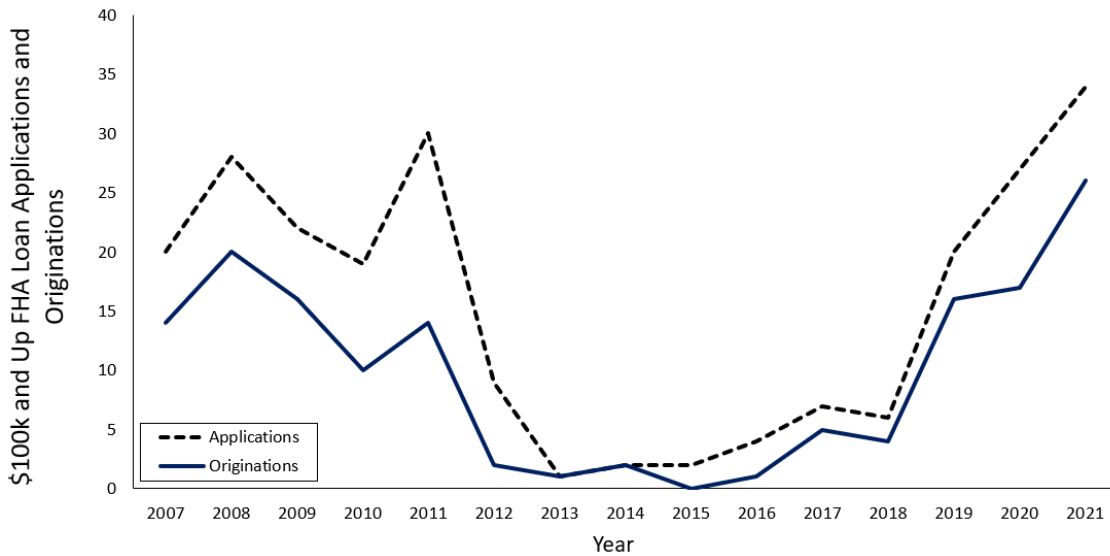
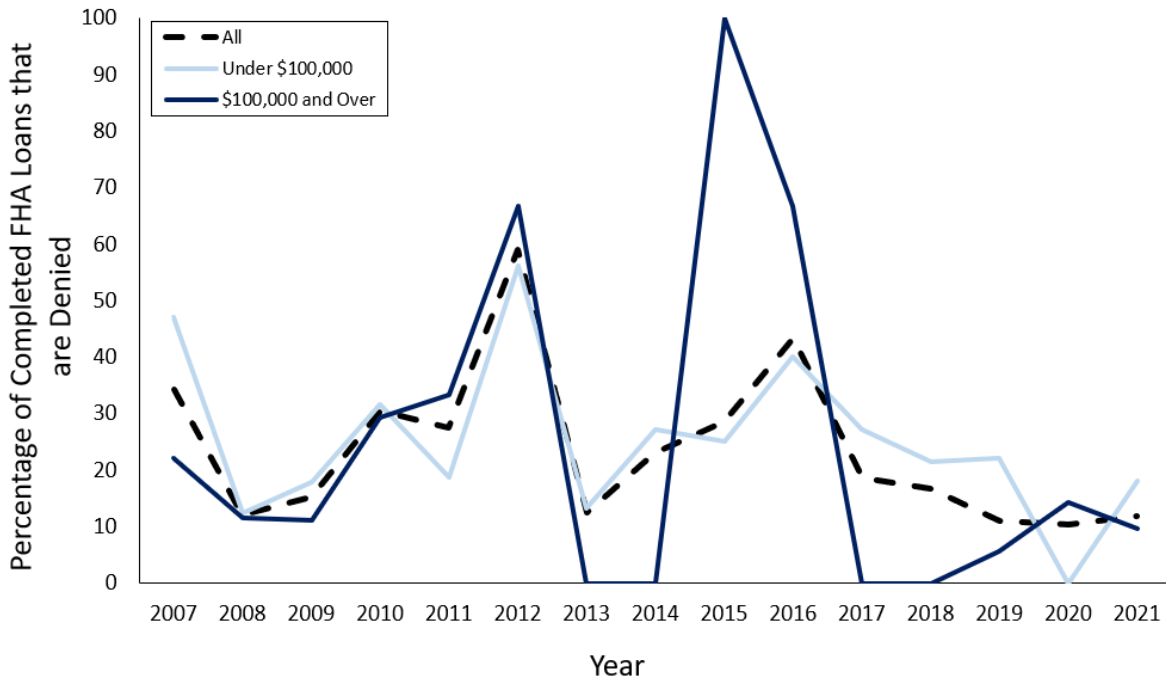


Figure 81. Percentage of Completed FHA Loan Applications that were Denied, by Loan Size, in Greensboro’s Reinvestment Area from 2007 to 2021



Cash Transactions in Greensboro's Reinvestment Area Tracts (ATTOM)

Figure 82 plots the number of properties purchased with cash or a mortgage in Greensboro's Reinvestment Area census tracts from 2004 to 2021. The number bought with cash fell sharply from 2004 to 2006, but has been steadily increasing since. The number bought with a mortgage fell from 2004 to 2012, but also started steadily increasing since.

Figure 82. Number of Residential Properties Purchased, by Purchase Method, in Greensboro's Reinvestment Areas from 2004 to 2021

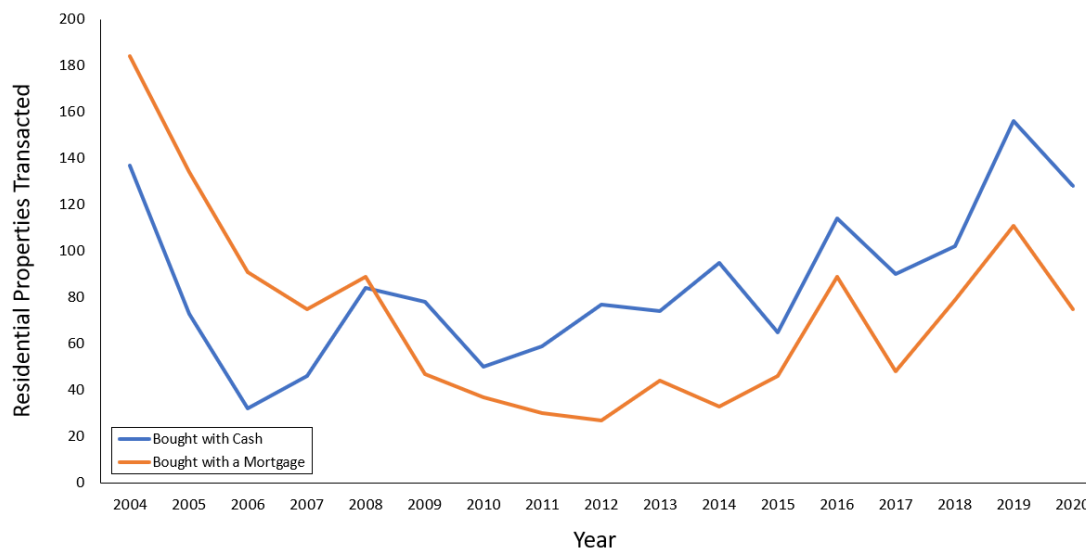
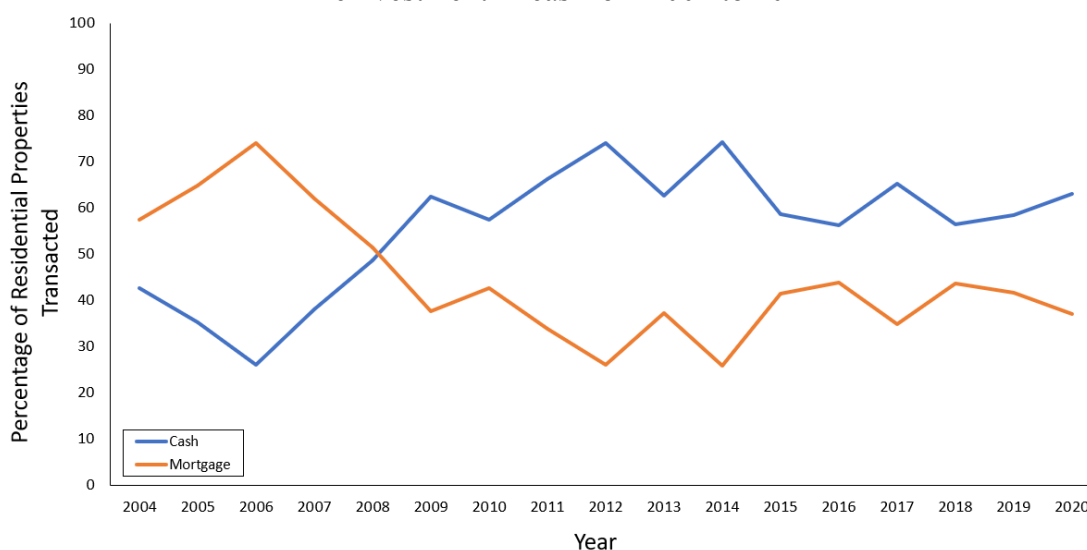


Figure 83. Percentage of Residential Properties Purchased, by Purchase Method, in Greensboro's Reinvestment Areas from 2004 to 2021



Figures 84-86 plot the number of small dollar properties purchased with cash or a mortgage in Greensboro's Reinvestment Area census tracts from 2004 to 2021. The number

bought with cash fell sharply from 2004 to 2006, but began increasing afterwards. The number bought with a mortgage fell from 2004 to 2012, when it also started an upward trend.

Figure 84. Number of Small Dollar Residential Properties Purchased, by Purchase Method, in Greensboro’s Reinvestment Areas from 2004 to 2021

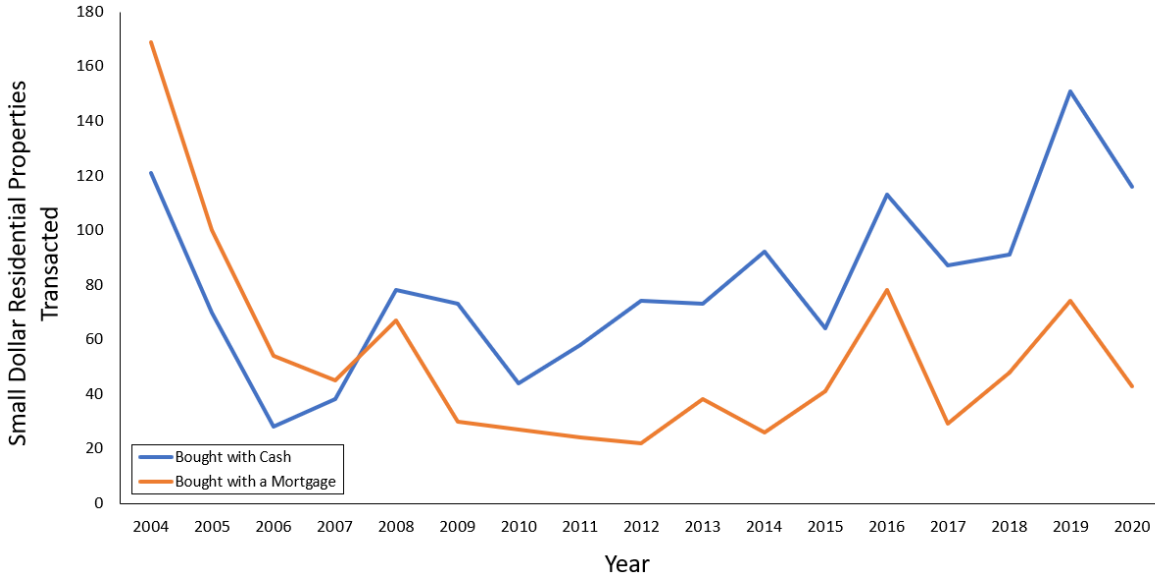


Figure 85 plots the percentage of residential properties bought with cash versus a mortgage in Greensboro’s Reinvestment Area from 2004 to 2020. In 2004, roughly 60% of small dollar homes were bought with a mortgage, instead of cash. By 2020, however, this percentage had dropped to under 30%, with over 70% of small dollar homes being purchased with cash.

Figure 85. Percentage of Small Dollar Residential Properties Purchased, by Purchase Method, in Greensboro’s Reinvestment Areas from 2004 to 2021

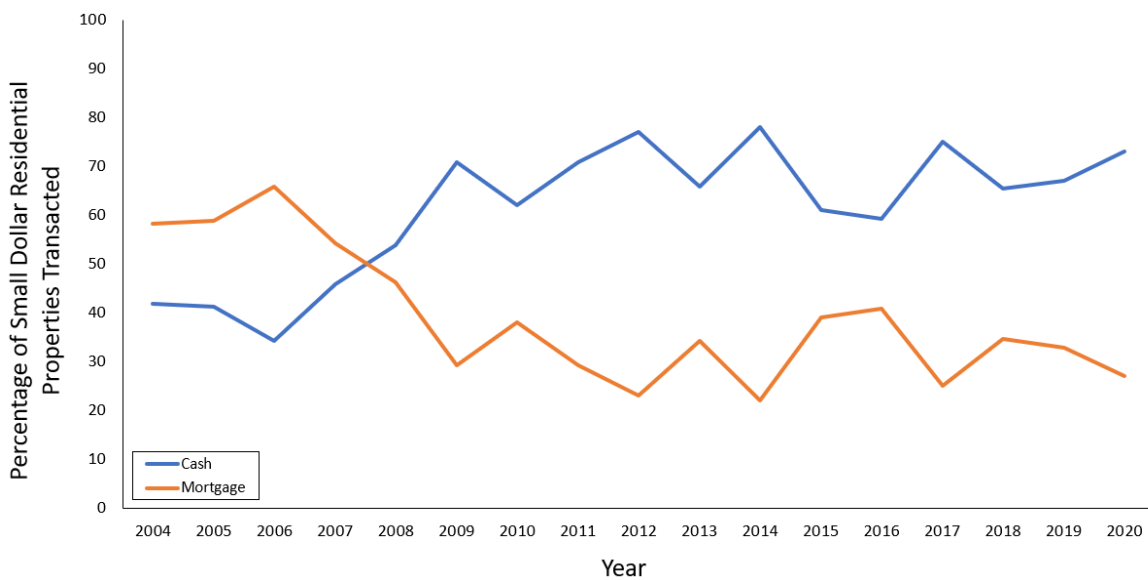
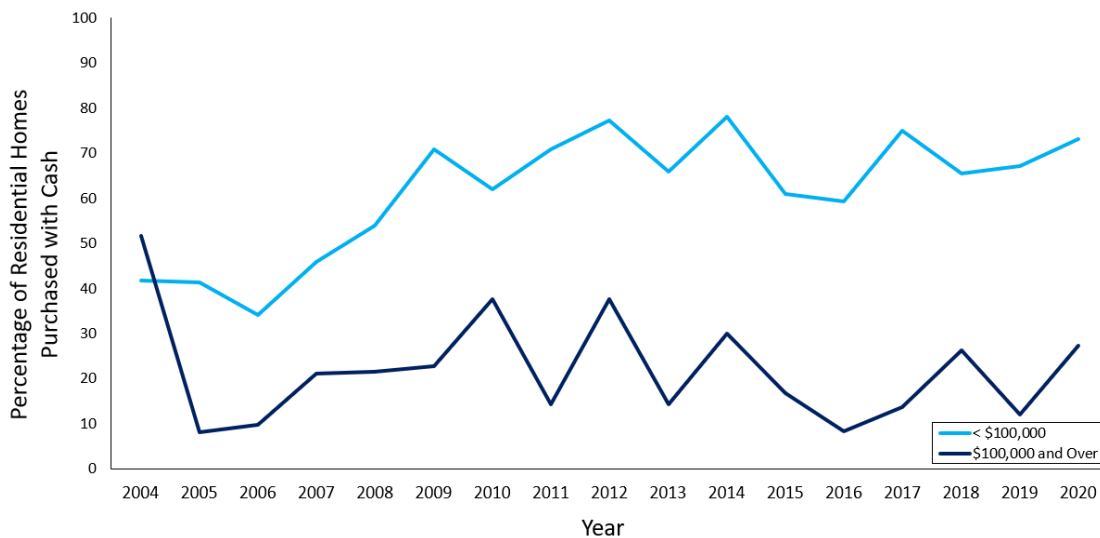


Figure 86 shows the percentage of small dollar homes, versus non-small dollar homes, that were purchased with cash from 2004 to 2020 in the Reinvestment Area census tracts.

Figure 86. Percentage of Residential Properties Purchased with Cash, by Sale Price, in Greensboro’s Reinvestment Areas from 2004 to 2021



F. Case Studies (Zillow data, ACS and HMDA data)

Glenwood Neighborhood in Greensboro, N.C.

The Glenwood neighborhood is in Greensboro’s Zone 1. The neighborhood is approximately located south of W Gate City Blvd, east of Coliseum Blvd, west of S Spring St, and north of I-40. From North to South, Lowell St splits the neighborhood in half and from East to West, W Florida splits the neighborhood again. The boundaries of the neighborhood are shown in Figure 117, which are defined by Zillow.

Figure 117. Zillow Definition of the Glenwood Neighborhood

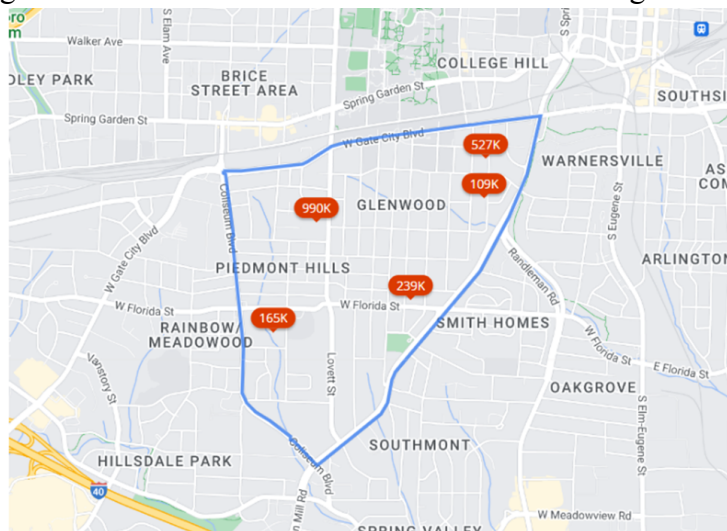


Figure 118 shows the real (inflation adjusted) home values in the Glenwood neighborhood and the overall Greensboro level. Home values are substantially lower in the Glenwood neighborhood, compared to home values at the overall Greensboro level. Though the values trend similarly at both levels, values in Glenwood tend to be around 50% lower than those at the overall Greensboro level.

Figure 118. Real Value of the Typical Home in the Glenwood Neighborhood, Greensboro, N.C. from 2001 to 2021

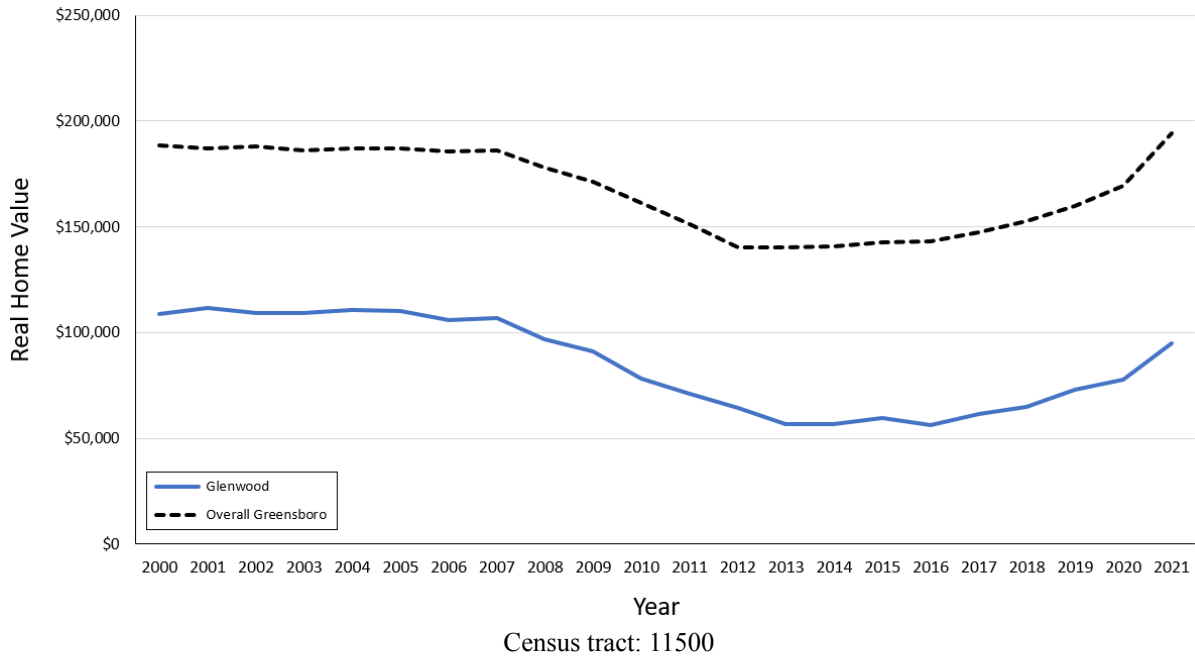


Table 31 shows the homeownership rate in Greensboro’s census tract 11500, which closely approximates the neighborhood of Glenwood. Since 2010, the homeownership rate has increased by nearly 20 percentage points, primarily driven by the growth in the number of owner-occupied homes.

Table 31. Homeownership Rate in Glenwood

Year	Occupied Housing Units	Owner-Occupied Housing Units	Homeownership Rate (%)
2009	1214	442	36.41
2010	1236	390	31.55
2011	1169	413	35.33
2012	1152	415	36.02
2013	1177	426	36.19
2014	1076	398	36.99
2015	1043	485	46.50
2016	1057	473	44.75
2017	1053	513	48.72
2018	1061	528	49.76
2019	1112	549	49.37
2020	1171	580	49.53
2021	1126	564	50.09

Figure 119. Trends in homeownership rates vs. owner occupied housing units: 2009-2021.

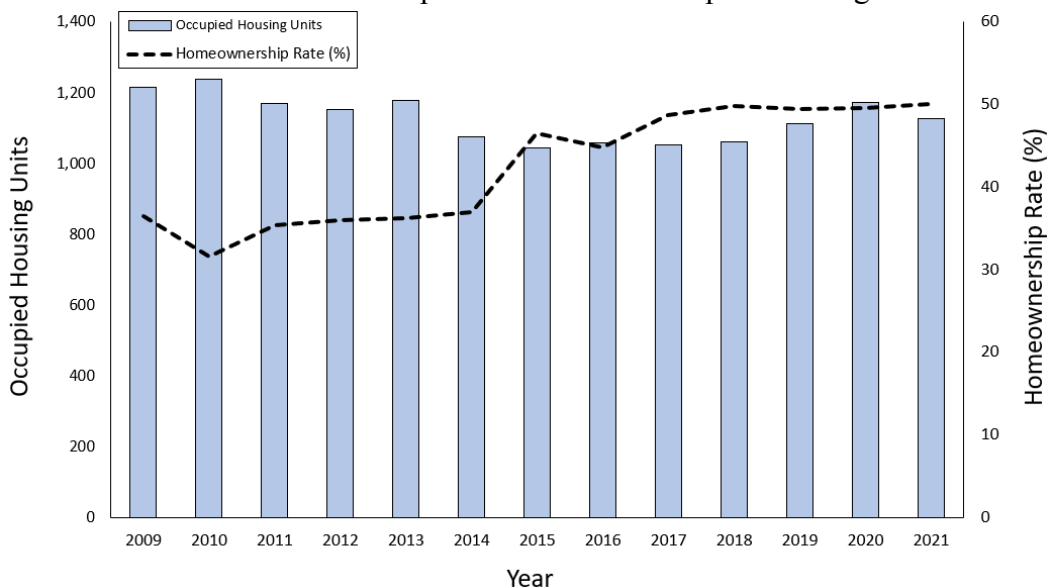


Table 32 shows the real (inflation adjusted) income per capita in Greensboro's census tract 11500. Real income per capita rose from 2009 to 2012, but then fell over the next two years. From 2013 to 2018, it rose from \$13,122 to \$15,603. As of 2020, the real income per capita is \$13,575.

Table 32. Real income Per Capita in Glenwood (Tract 11500)

Year	Income Per Capita (\$)*
2009	12,095.03
2010	12,516.00
2011	13,412.60
2012	14,147.72
2013	13,122.44
2014	13,840.04
2015	14,590.17
2016	14,277.88
2017	14,569.91
2018	15,603.37
2019	13,839.85
2020	14,026.68
2021	13,575.51

Table 33 shows the family poverty rate in Greensboro's census tract 11500. Family poverty rates have been declining over the last several decades. In 2009, the poverty rate was around 43.7%, and as of 2021, the poverty rate was around 20.9%.

Table 33: Poverty Rates in the Glenwood Neighborhood

Year	Number of Families	Families in Poverty	Poverty Rate (%)
2009	646	282	43.65
2010	556	235	42.27
2011	558	196	35.13
2012	463	160	34.56
2013	473	183	38.69
2014	415	117	28.19
2015	434	122	28.11
2016	420	118	28.10
2017	477	99	20.75
2018	461	78	16.92
2019	527	146	27.70
2020	528	136	25.76
2021	559	117	20.93

Table 34 shows the rate of rent burden in Greensboro's census tract 11500. Over the last several decades, the rate of rent burden has risen and fallen between 62% and 74%. The rate has been falling over the last several years. However, the rate of extreme rent burden has been increasing since 2015.

Table 34. Rent Burden in Glenwood Neighborhood

Years	Renter Households ⁺	Burdened Renter Households ⁺⁺	Extremely Burdened Renter Households ⁺⁺⁺	% Burdened	% Extremely Burdened
2009	760	473	295	62.24	38.82
2010	834	593	442	71.10	53.00
2011	756	473	335	62.57	44.31
2012	729	459	272	62.96	37.31
2013	730	498	322	68.22	44.11
2014	639	434	224	67.92	35.05
2015	524	355	145	67.75	27.67
2016	550	383	174	69.64	31.64
2017	494	345	156	69.84	31.58
2018	509	376	170	73.87	33.40
2019	515	366	188	71.07	36.50
2020	545	340	192	62.39	35.23
2021	515	324	216	62.91	41.94

Table 35 shows the rate of SNAP/food stamp participation rates in Greensboro's census tract 11500. The rate has been increasing over the last several decades. In 2009, the rate was 10.5% and has increased by around 20.2 percentage points as of 2020 (now 30.7%).

Table 35. SNAP/Food Stamp Participation Rates in Glenwood Neighborhood

Year	Total Households	Households Receiving SNAP/Food Stamps	SNAP/Food Stamp Participation Rate (%)
2009	1,214	128	10.54
2010	1,236	163	13.19
2011	1,169	182	15.57
2012	1,152	188	16.32
2013	1,177	243	20.65
2014	1,076	227	21.10
2015	1,043	215	20.61
2016	1,057	145	13.72
2017	1,053	224	21.27
2018	1,061	212	19.98
2019	1,112	298	26.80
2020	1,171	275	23.48
2021	1,126	346	30.73

Over 80% of the owner-occupied homes in census tract 11500 are valued below \$100,000 (see Figure 120).

Figure 120. Home Value Distribution in the Glenwood Neighborhood

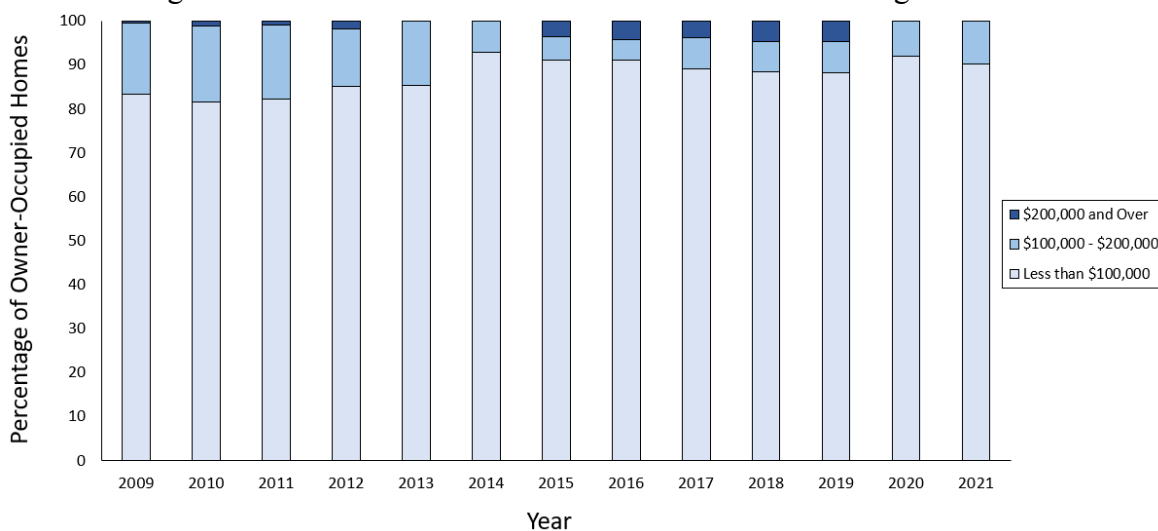


Table 36 shows the rate of housing vacancies in Greensboro's census tract 11500. The rate has varied over the last several decades, between 9.6% and 22%. Over the last 3 years (2019 to 2021) the rate has increased by around 4.2 percentage points. In 2009, the rate was 9.6% and as of 2021, the rate is 19.5%.

Table 36: Housing Vacancy Rate in the Glenwood Neighborhood

Year	Total Housing Units	Vacant Housing Units	Housing Vacancy Rate (%)
2009	1,343	129	9.61
2010	1,400	164	11.71
2011	1,390	221	15.90
2012	1,336	184	13.77
2013	1,413	236	16.70
2014	1,379	303	21.97
2015	1,327	284	21.40
2016	1,316	259	19.68
2017	1,319	266	20.17
2018	1,336	275	20.58
2019	1,314	202	15.37
2020	1,396	225	16.12
2021	1,399	273	19.51

Figure 121 displays the number of loan applications and originations in the Glenwood neighborhood from 2007 to 2021. Both plummeted from 2007 to 2010 and continued a slightly negative trend until around 2014. Afterwards, the trend started to rise and from 2020 to 2021, both jumped.

Figure 121: Loan Applications and Originations in the Glenwood Neighborhood

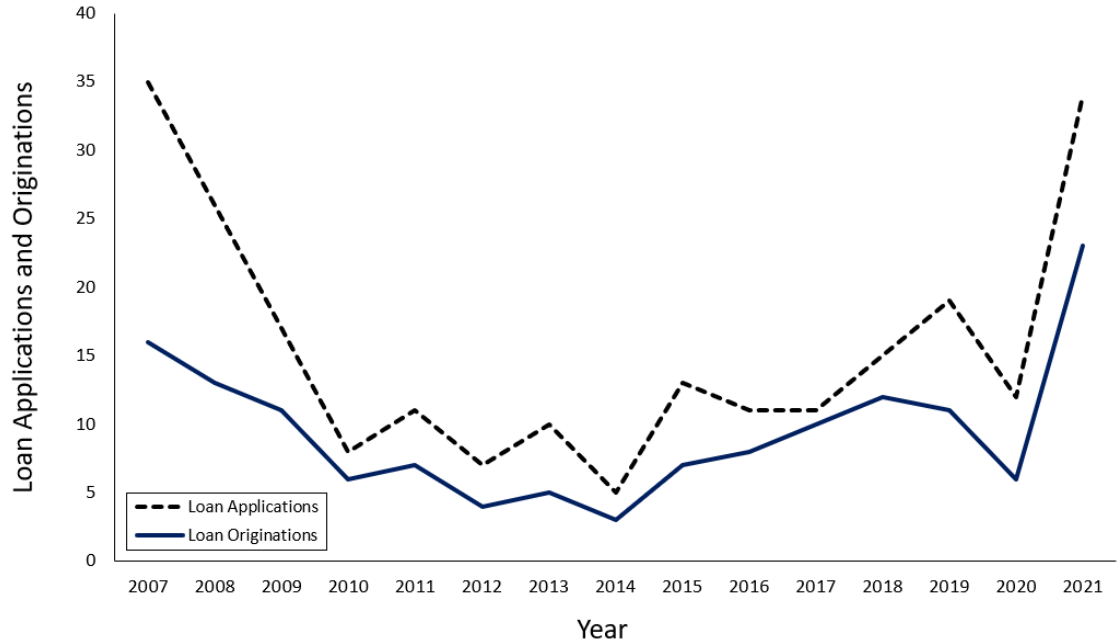


Figure 122 displays the number of small dollar loan applications and originations in the Glenwood neighborhood from 2007 to 2021. Both plummeted from 2007 to 2010 and continued a slightly negative trend until around 2014, similar to the overall trends.

Figure 122: Small Dollar Loan Applications and Originations in the Glenwood Neighborhood

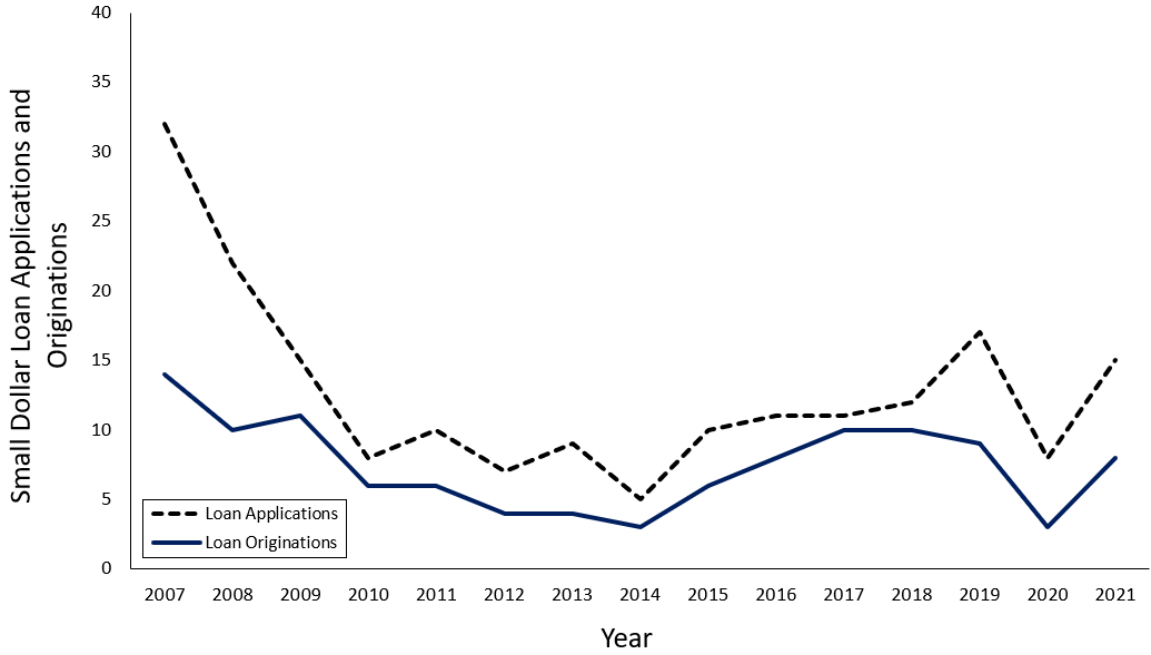


Figure 123 displays the number of residential properties transacted in the Glenwood neighborhood from 2004 to 2020, by the purchase method (mortgage vs. cash). The number, for both, dropped from 2004 to around 2011. The number of cash transactions jumped significantly from 2017 to 2020, while the number of transactions involving mortgages did not.

Figure 123: Residential Home Transactions in the Glenwood Neighborhood from 2004 to 2020, by Purchase Method

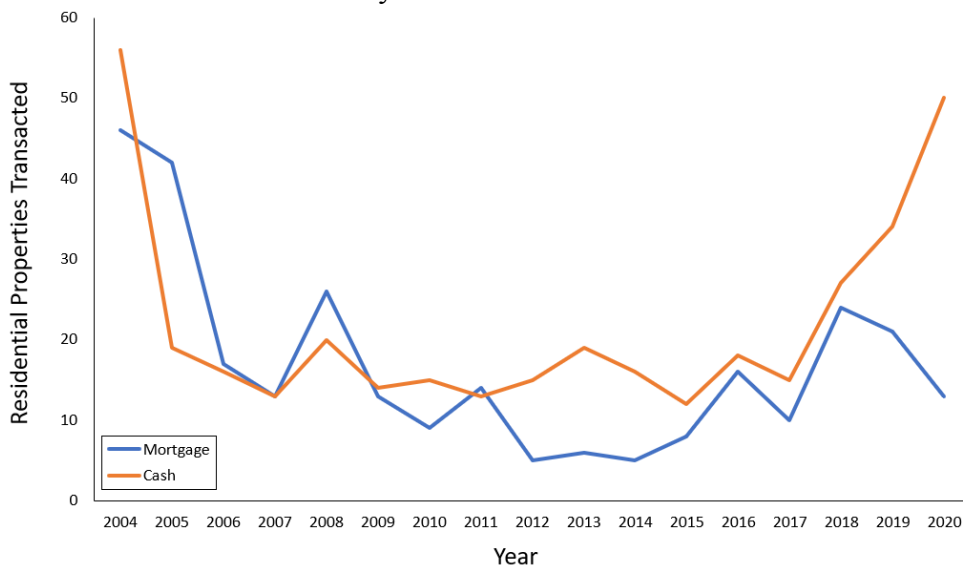
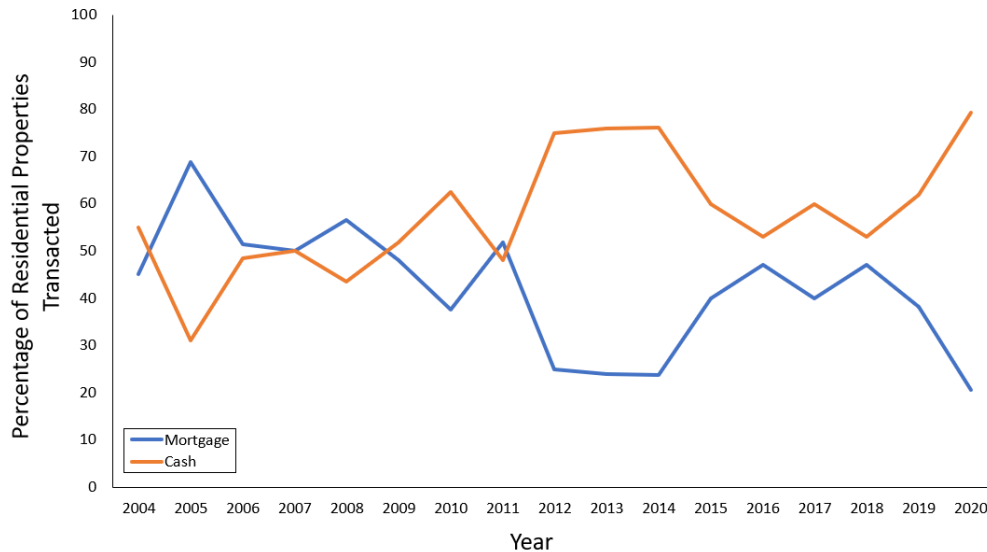


Figure 124 displays the percentage of residential properties transacted in the Glenwood neighborhood from 2004 to 2020, by the purchase method (mortgage vs. cash).

Figure 124: Percentage of Residential Home Transactions in the Glenwood Neighborhood from 2004 to 2020, by Purchase Method



Scott Park Neighborhood in Greensboro, N.C. (Zillow data)

The Scott Park neighborhood is in Greensboro’s Zone 1. The neighborhood is approximately located north of E Market St and East of N.O. Henry Blvd and West of N. English St. and South of E. Bessemer Ave. The boundaries are shown in Figure 125 below

Figure 125. Zillow Definition of the Scott Park Neighborhood

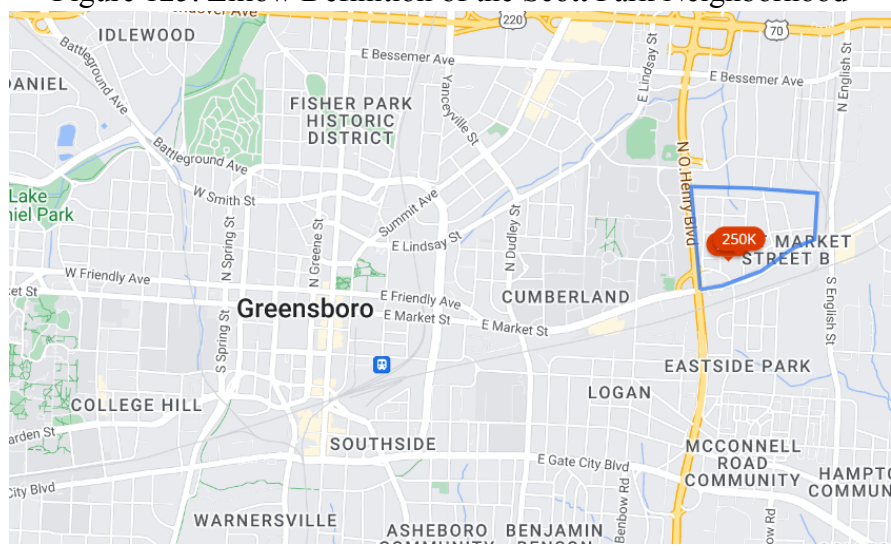
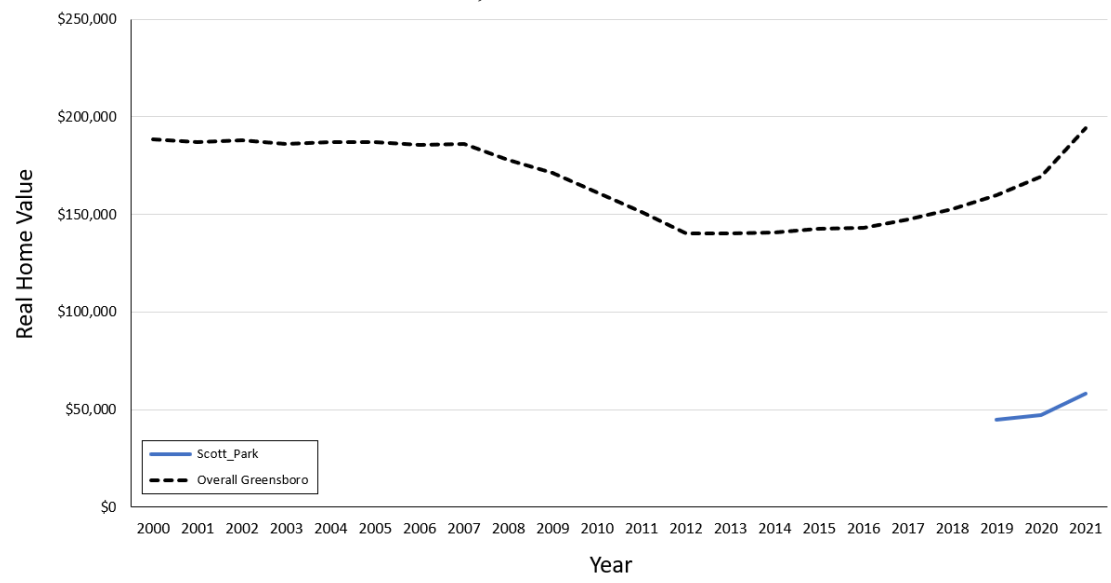


Figure 126 shows the real (inflation adjusted) home values in the Scott Park neighborhood and the overall Greensboro level. Home values are substantially lower in the Scott Park neighborhood, compared to home values at the overall Greensboro level. Though values trend similarly at both levels, values in Scott Park tend to be around 50% lower than those at the overall Greensboro level.

Figure 126. Real Value of the Typical Home in the Scott Park Neighborhood, Greensboro, N.C. from 2001 to 2021



Note: Zillow only provides 3 years' worth of home values for Scott Park.

Table 37 shows the homeownership rate in Greensboro's census tract 11000, which roughly approximates the neighborhood of Scott Park. Homeownership rates declined from 2009 to 2011. It then climbed from 2011 to 2015. As of 2021, the homeownership rate is around 14.3%.

Table 37. Homeownership in the Scott Park Neighborhood, from 2009 to 2021

Year	Occupied Housing Units	Owner-Occupied Units	Renter-Occupied Units	Homeownership Rate (%)
2009	621	104	517	16.75
2010	645	78	567	12.09
2011	630	64	566	10.16
2012	601	64	537	10.65
2013	625	88	537	14.08
2014	554	106	448	19.13
2015	565	108	457	19.12
2016	570	95	475	16.67
2017	542	77	465	14.21
2018	518	68	450	13.13
2019	554	66	488	11.91
2020	560	74	486	13.21
2021	593	85	508	14.33

Note: Census Tract 11500

Table 38 shows the real (inflation adjusted) income per capita in census tract 11000. Real income per capita declined from 2009 to 2012 (from \$6,058 to \$4,942). As of 2021, the real income per capita is \$6,231, which is the highest it has been since 2009.

Table 38. Real income Per Capita in Scott Park (Tract 11000)

Year	Income Per Capita (\$)*
2009	6,058.13
2010	5,276.00
2011	5,127.50
2012	4,941.97
2013	5,401.88
2014	5,126.69
2015	5,391.62
2016	4,869.02
2017	4,952.74
2018	4,808.42
2019	4,902.32
2020	5,737.50
2021	6,231.00

Note: Census Tract 11000

*Income adjusted for inflation, to 2010-dollar values.

Table 39 shows the family poverty rate in Greensboro's census tract 11000. Family poverty rates have risen and fallen over the last several decades. In 2009, the family poverty rate was around 44.9% and as of 2021, it is around 38%.

Table 39. Family Poverty Rate in the Scott Park Neighborhood, from 2009 to 2021

Year	Number of Families	Families in Poverty	Family Poverty Rate (%)
2009	185	83	44.86
2010	223	93	41.70
2011	252	113	44.84
2012	273	103	37.73
2013	298	108	36.24
2014	304	103	33.88
2015	314	121	38.54
2016	302	145	48.01
2017	282	134	47.52
2018	283	130	45.94
2019	306	144	47.06
2020	294	104	35.37
2021	320	122	38.13

Note: Census Tract 11000

Table 40 shows the rate of rent burden in Greensboro's census tract 11000. Rent-burden rates have risen and fallen over the last several decades. In 2009, the rent-burden rate was around 74.6% and as of 2021, it is around 61%.

Table 40. Rent-Burdened Households in the Scott Park Neighborhood,
from 2009 to 2021

Years	Renter Households ⁺	Burdened Renter Households ⁺⁺	Extremely Burdened Renter Households ⁺⁺⁺	% Burdened	% Extremely Burdened
2009	499	372	274	74.55	54.91
2010	540	401	291	74.26	53.89
2011	537	385	291	71.70	54.19
2012	495	352	214	71.11	43.23
2013	478	334	219	69.87	45.82
2014	411	281	179	68.37	43.55
2015	428	308	151	71.96	35.28
2016	427	328	160	76.82	37.47
2017	428	322	181	75.23	42.29
2018	438	323	166	73.74	37.90
2019	450	298	144	66.22	32.00
2020	458	282	131	61.57	28.60
2021	474	289	152	60.97	32.07

Note: Census Tracts 11000

⁺ These include renting households with available income data.

⁺⁺ These include renting households, with available income, that spend over 30% of their monthly income on rent payments.

⁺⁺⁺ These include renting households, with available income, that spend over 50% of their monthly income on rent payments.

Table 41 shows the rate of SNAP/food stamp participation rates in Greensboro's census tract 11000. There has been an upward trend in the SNAP/Food Stamp participation rate over the last several decades. In 2009, the rate was 21.1% and as of 2021, the rate is 39.8%.

Table 41. SNAP/Food Stamp Participation Rates in the Scott Park Neighborhood, from 2009 to 2021

Year	Total Households	Households Receiving SNAP/Food Stamps	SNAP/Food Stamp Participation Rate (%)
2009	621	131	21.10
2010	645	209	32.40
2011	630	236	37.46
2012	601	268	44.59
2013	625	255	40.80
2014	554	209	37.73
2015	565	214	37.88
2016	570	241	42.28
2017	542	245	45.20
2018	518	226	43.63
2019	554	275	49.64
2020	560	214	38.21
2021	593	236	39.80

The home value distribution of owner-occupied homes has shifted upwards since 2011. In 2009 and 2010, nearly 100% of the owner-occupied homes were valued less than \$100,000. As of 2021, only 30% of the owner-occupied homes are valued less than \$100,000 (see Figure 127).

Figure 127: Home Value Distribution in the Scott Park Neighborhood

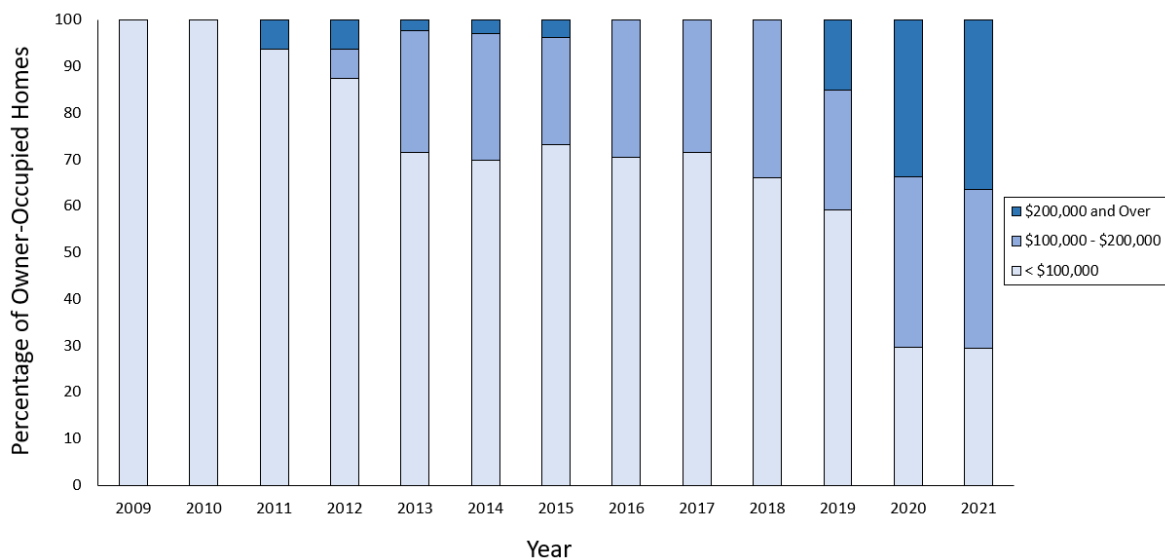


Table 42 shows the rate of housing vacancies in Greensboro’s census tract 11000. In general, there has been an upward trend in the housing vacancy rate. In 2009, the rate was 19.3% and as of 2021, the rate was 26.7%.

Table 42: Housing Vacancy Rate in the Scott Park Neighborhood

Year	Total Housing Units	Vacant Housing Units	Housing Vacancy Rate (%)
2009	769	148	19.25
2010	803	158	19.68
2011	804	174	21.64
2012	743	142	19.11
2013	719	94	13.07
2014	702	148	21.08
2015	723	158	21.85
2016	722	152	21.05
2017	726	184	25.34
2018	735	217	29.52
2019	742	188	25.34
2020	767	207	26.99
2021	809	216	26.70

Figure 128. Total Housing Units and “other” vacancy rates

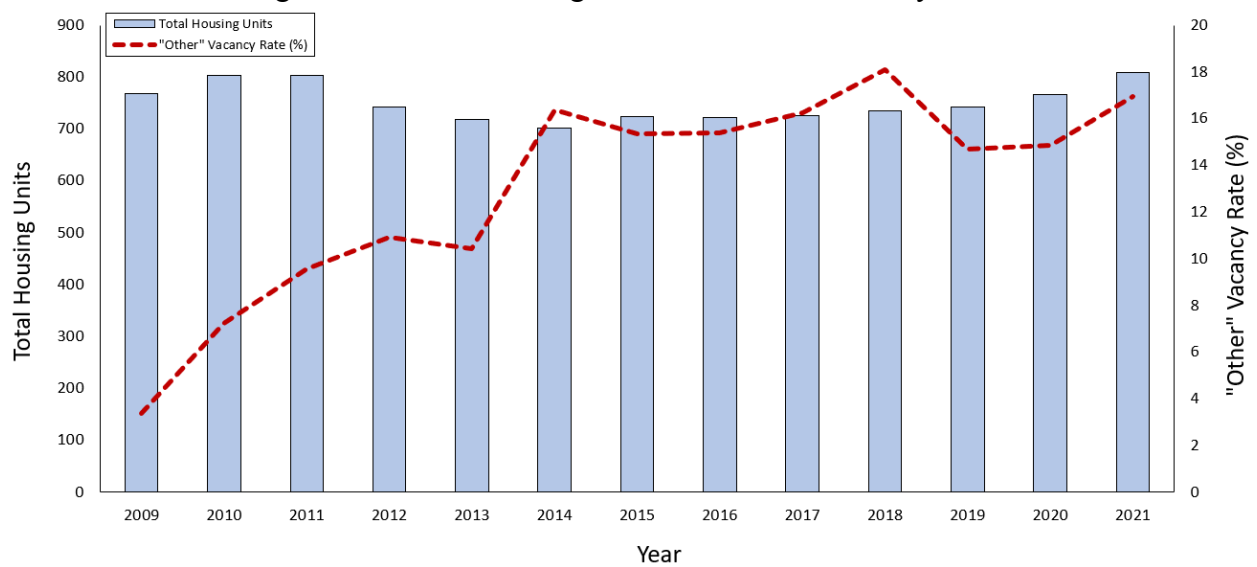


Figure 129 displays the number of loan applications and originations in the Scott Park neighborhood from 2007 to 2021. Both plummeted from 2007 to 2019 and continued a slightly negative trend until around 2016. Afterwards, the trend started to rise.

Figure 129: Loan Applications and Originations in the Scott Park Neighborhood

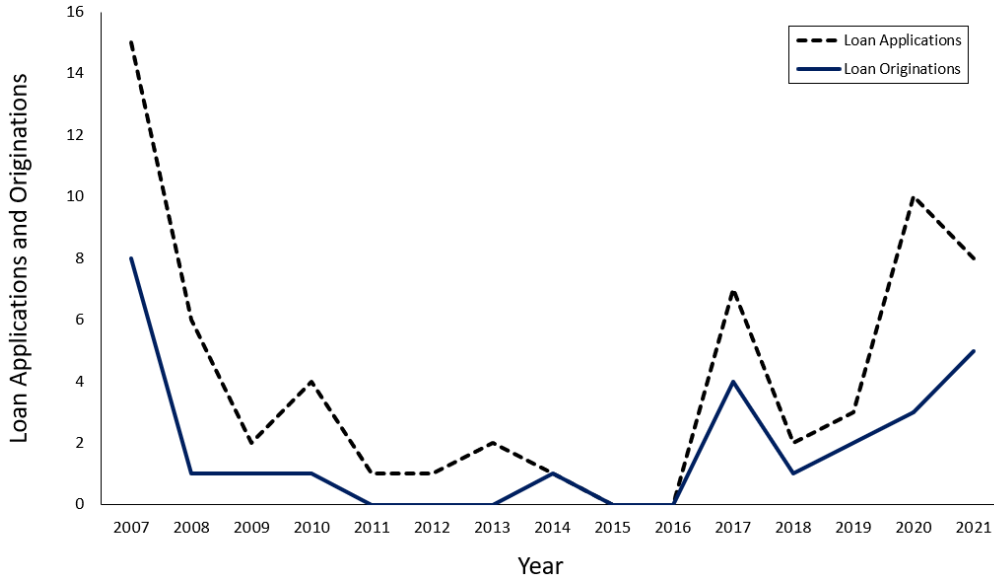


Figure 130 displays the number of residential properties transacted in the Scott Park neighborhood from 2004 to 2020, by the purchase method (mortgage vs. cash). Homes purchased with cash took off in 2009, while those purchased with a mortgage have remained quite low.

Figure 130: Residential Home Transactions in the Scott Park Neighborhood from 2004 to 2020, by Purchase Method

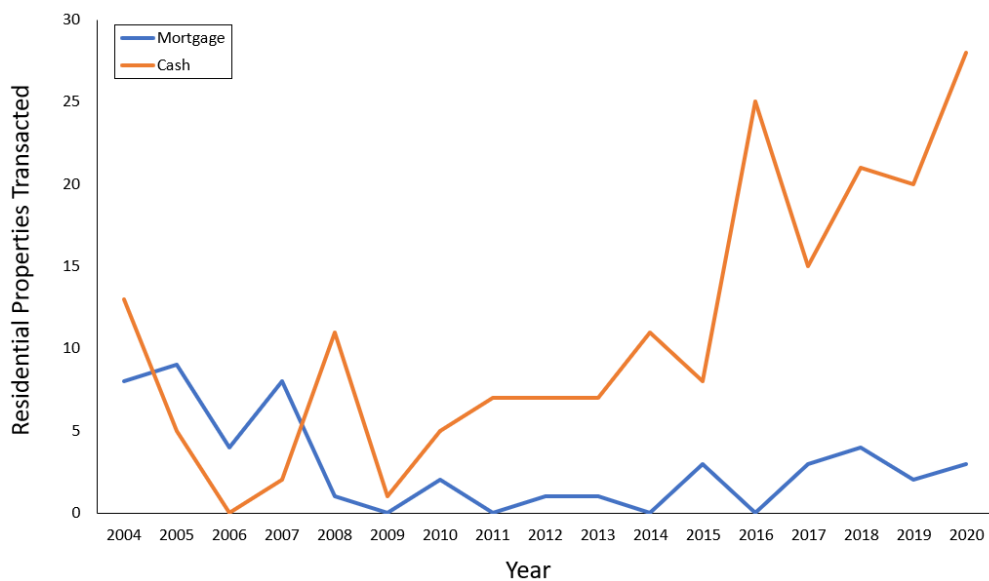


Figure 131 displays the percentage of residential properties transacted in the Scott Park neighborhood from 2004 to 2020, by the purchase method (mortgage vs. cash).

Figure 131: Percentage of Residential Home Transactions in the Scott Park Neighborhood from 2004 to 2020, by Purchase Method

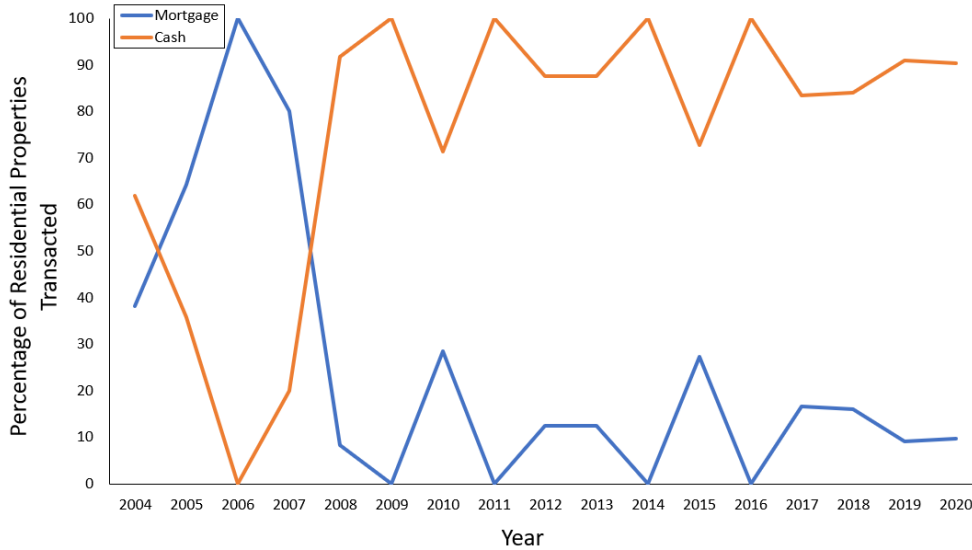


Figure 132 plots the number of small dollar residential properties transacted in the Scott Park neighborhood from 2004 to 2020, by the purchase method. Homes purchased with cash took off in 2009, while those purchased with a mortgage have remained quite low.

Figure 132. Number of Small Dollar Residential Home Transactions in the Scott Park Neighborhood from 2004 to 2020, by Purchase Method

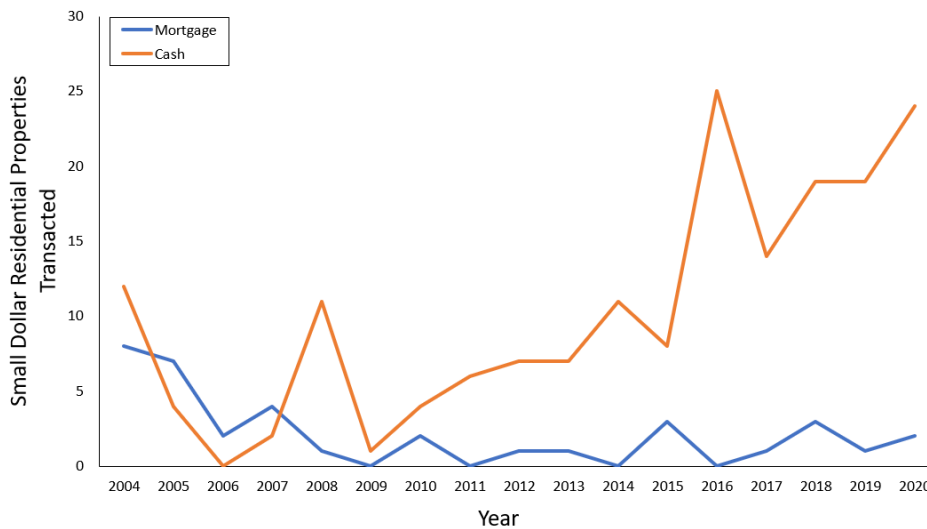
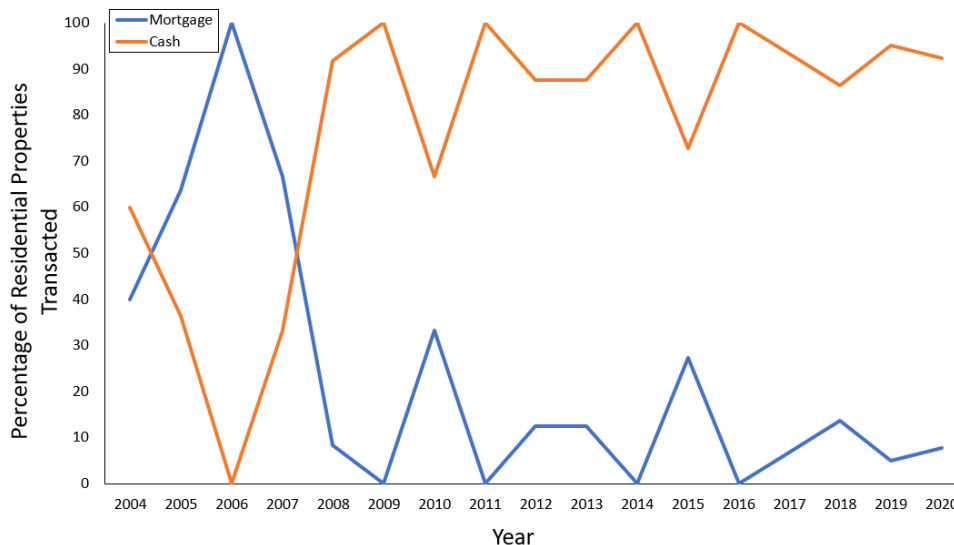


Figure 133 displays the percentage of small dollar residential properties transacted in the Scott Park neighborhood from 2004 to 2020, by the purchase method.

Figure 133. Percentage of Small Dollar Residential Home Transactions in the Scott Park Neighborhood from 2004 to 2020, by Purchase Method



V. METHODOLOGY FOR CREATING THE OPPORTUNITY INDEX

Background and Motivation

In consultation with the city of Greensboro, specifically the Assistant Director of Housing and Neighborhood Development Eunika Smalls, a primary objective of this overall project was to create an initial index measuring access to opportunity across Greensboro's neighborhoods. The goal was to create an index that could guide officials, that was easy to understand, and that could be modified over time with new variables and data. A wide variety of indices exist across different states, counties, and neighborhoods that attempt to measure opportunity. These indices use a variety of methods to quantify opportunity, typically incorporating various economic, socioeconomic, and demographic measures.

One such index, created by the New Hampshire Housing Finance Agency (NHHFA), motivated the initial consideration of creating an index for the city of Greensboro. While a good starting point, the NHHFA index had a limited number of discrete values rather than a rich range of continuous ones. Our index also incorporates some additional measures, as well as being measured as a continuous variable that does not rely on a point system. In this section, we describe the steps taken to create our index, as well as highlighting the results.

Creating the Opportunity Index

To create our opportunity index, we incorporate variables that fall into 1 of 4 buckets (similar to the NHHFA index). These buckets are related to 1) economics, 2) housing, 3) education, and 4) health.

Economic Measures Considered

The current version of the index includes four variables in the set of economic measures. These include: 1) income inequality, 2) unemployment, 3) poverty among workers, and 4) access to broadband internet. These four variables were also included in the NCHHFA index. To measure unemployment, we simply use the civilian unemployment rate. To measure the poverty rate among workers, we measure it as the percentage of full-time workers that are below the federal poverty line.. To measure broadband access, we measure it as the percentage of households with broadband internet. All four variables were collected from the ACS.

Table 43. Variables in Economic Score of the Opportunity Index

Variable	Definition	Year Measured	Source
Income Inequality	Gini index	2019	ACS 5-Year, 2015-2019 Estimate
Unemployment	Percentage of the civilian labor force that is unemployed	2019	ACS 5-Year, 2015-2019 Estimate
Poverty Among Workers	Percentage of full-time workers who are below the federal poverty line	2019	ACS 5-Year, 2015-2019 Estimate
Access to Broadband	Percentage of households with broadband internet	2019	ACS 5-Year, 2015-2019 Estimate

Housing Measures Considered

The index includes four variables in the set of housing measures. These include: 1) rent burden, 2) housing vacancy, 3) homeowner cost-burden, and 4) monthly housing cost. A similar set of four variables were included in the NCHHFA index. We measure rent burden as the percentage of renter households who spend at least 30% of their income on rent payments. We measure housing vacancy as the percentage of housing units that are vacant. We measure homeowner cost-burden as the percentage of homeowners who spend at least 30% of their incomes on housing-related costs. Lastly, we measure monthly housing costs as the median monthly housing costs of households. All four variables were measured using data from the ACS.

Table 44. Variables in Housing Score of the Opportunity Index

Variable	Definition	Year Measured	Source
Rent Burden	Percentage of renter households who spend over 30% of their income rent payments	2019	ACS 5-Year, 2015-2019 Estimate
Housing Vacancy	Percentage of housing units that are vacant	2019	ACS 5-Year, 2015-2019 Estimate
Homeowner Cost-Burden	Percentage of homeowners who spend over 30% of their income on housing-related costs	2019	ACS 5-Year, 2015-2019 Estimate
Monthly Housing Cost	Median monthly housing costs	2019	ACS 5-Year, 2015-2019 Estimate

Education Measures Considered

The index includes three variables in the set of education-related measures, following the NHHFA index. These variables are related to: 1) high school education attainment, 2) post-undergraduate education attainment, and 3) youth disenfranchisement. We measure 1) as the percentage of the population, 25 and older, who have at least a high school level education. We measure 2) as the percentage of the population, 25 and older, who have more than just a bachelor's degree. We measure 3) as the percentage of the population, 16 to 19 years old, who are neither enrolled in high-school, not in the labor force, and not high school graduates. All three variables use data from the ACS.

Health Measures Considered

The index considers 2 variables related to health, which include the following: 1) life expectancy, and 2) disability status. We measure life expectancy using the CDC's estimate of median life expectancy. We measure 2) as the percentage of residents with at least one disability, using ACS data.

Calculating the overall Opportunity Index score

For the variables in each of the four components (economic, housing, education, and health), we compare the census tract's measure to the city average. For example, if in census tract A, 40% of the homes had access to broadband internet, and the city of Greensboro average was 50%, then the internet access variable for census tract A would be $(40/50)*100$, or 80. That means census tract A is 20% below average. An index of say, 105, would mean the census tract is 5% above average in that category.

Some variables measure negative situations, such as unemployment, so larger numbers indicate one is worse off, the opposite of say, internet access. In this case, the variable is inverted to positive in order to create the score. So in the case of unemployment, if census tract A had an unemployment rate of 9.5% and the city-wide unemployment rate was 5.0%, we convert to employment rates of 91.5% for the tract, and 95% for the city. Then, $(91.5/95)*100 = 96$ as the unemployment score. This transformation keeps all variables moving in the same direction, i.e. larger numbers are better off, and smaller numbers are worse off. Then, the component scores are averaged again to produce the overall opportunity index value. In each case, the value is centered around 100, which is the theoretical average value for each component as well as the overall prosperity index.

VI. OVERVIEW OF THE INTERACTIVE MAPS BASED ON CENSUS TRACTS

This document organizes all the interactive GIS maps in one place for the City of Greensboro, with the unit of observation being the census tract. The perimeter of the city is defined using criteria explained in our larger report, and in item 4 below. (Blue underlined items are hyperlinks.) A score of 100 is the census average for Greensboro in that category. A more in-depth [USER GUIDE](#) is also provided as a way to better understand the interpretation of the colors and numbers as well as the use of the interactive maps provided by Datawrapper software.

1. [Opportunity Index](#)- this is an arithmetic unweighted mean of the four components of opportunity: prosperity, housing, education and health indexes. Each index works this way: A score of 100 in any category means it is average for the City of Greensboro's census tracts. Any number less than 100 means the census tract is scoring below average in that category, and vice versa for numbers greater than 100. No statistical weights are used in any computations for the indexes below, that represent the individual components of the opportunity index.

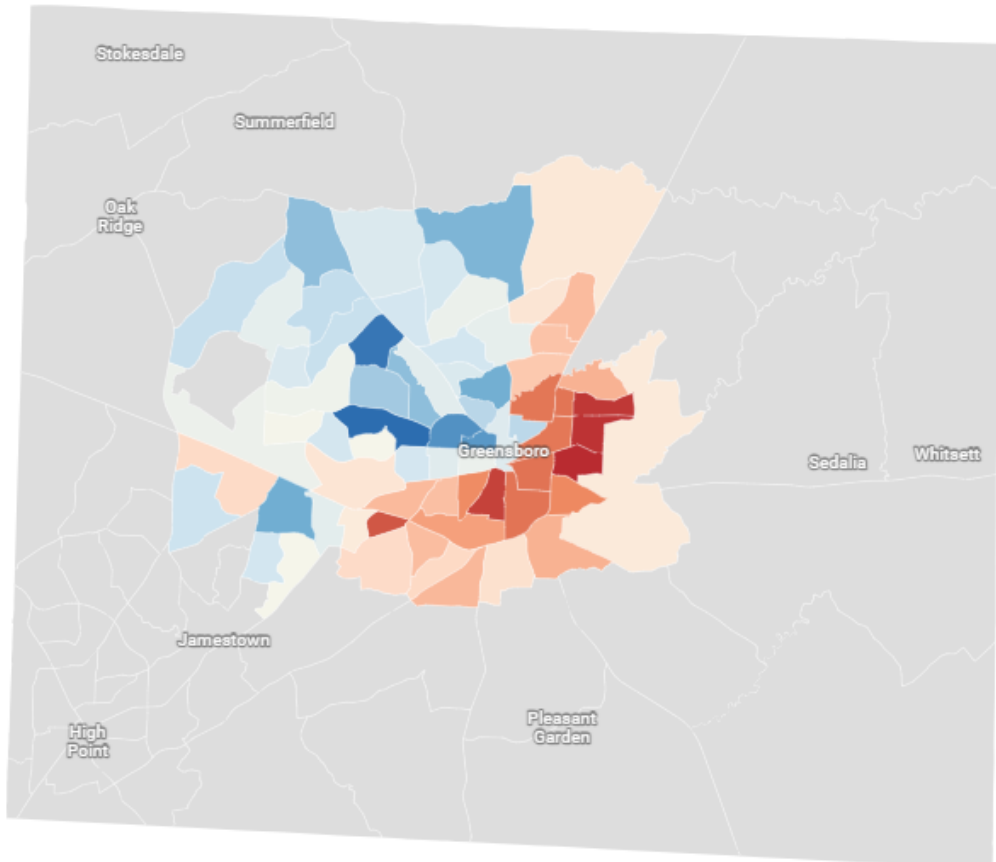
Figure 134 contains a census tract level map of the opportunity index for Greensboro, N.C. Census tracts in the northwestern portion of the city-center tend to have higher opportunity index values compared to the census tracts in the southeastern portion of the city. For example, census tract 12505 has the highest opportunity index value at around 120, which is 20 percentage points higher than the county average. Census tract 11101 has the lowest opportunity index value at around 84, which is 16 percentage points lower than the county average.

Figure 134

Opportunity Index: A Joint Measure of Prosperity, Housing, Education and Health

Higher (bluer) values mean more opportunity and lower (redder) values mean less. Light grey indicates insufficient data.

Low City Mean High



This opportunity index was inspired by New Hampshire's Housing Opportunity index, but expands upon it by using continuous rather than discrete values in its construction, resulting in a more precise evaluations of the areas' opportunities.

Map: Center for the Study of Economic Mobility (CSEM) • Source: U.S. Census; CDC • [Get the data](#) • Created with [Datawrapper](#)

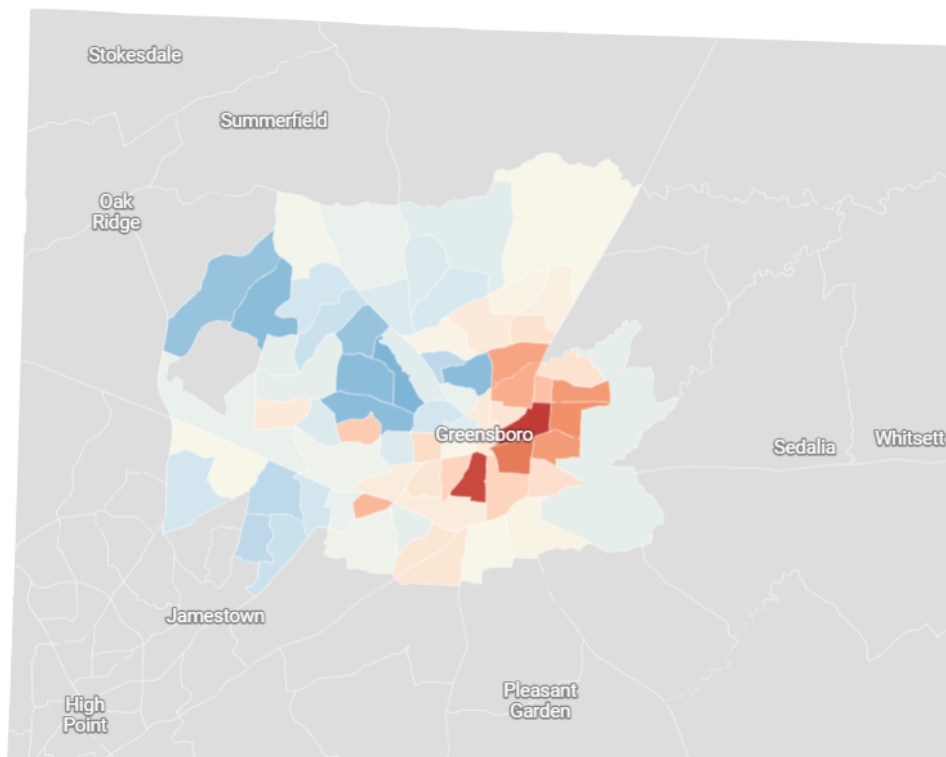
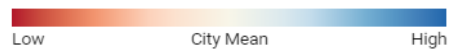
[Prosperity Index](#)- this uses 4 variables to track the relative prosperity of a census tract, including the Gini coefficient (a measure of inequality, unemployment rate, access to broadband and the level of the working poor.

Figure 135 contains a census tract level map of the prosperity sub-index for Greensboro. Census tracts in the northwestern portion of the city tend to have higher prosperity sub-index values compared to the census tracts in the southeastern portion of the city center. Census tract 12509 has the highest prosperity sub-index value at around 115, which is 15 percentage points higher than the county average. Census tract 1100 has the lowest prosperity sub-index value at around 77, which is 23 percentage points lower than the county average.

Figure 135

Prosperity Index

Higher (bluer) values mean more opportunity and lower (redder) values mean less. Light grey indicates insufficient data.



[Housing Access Index](#)- this index tracks the affordability in various areas, based on the rent and cost burden rates, the vacancy rate and the median monthly housing.

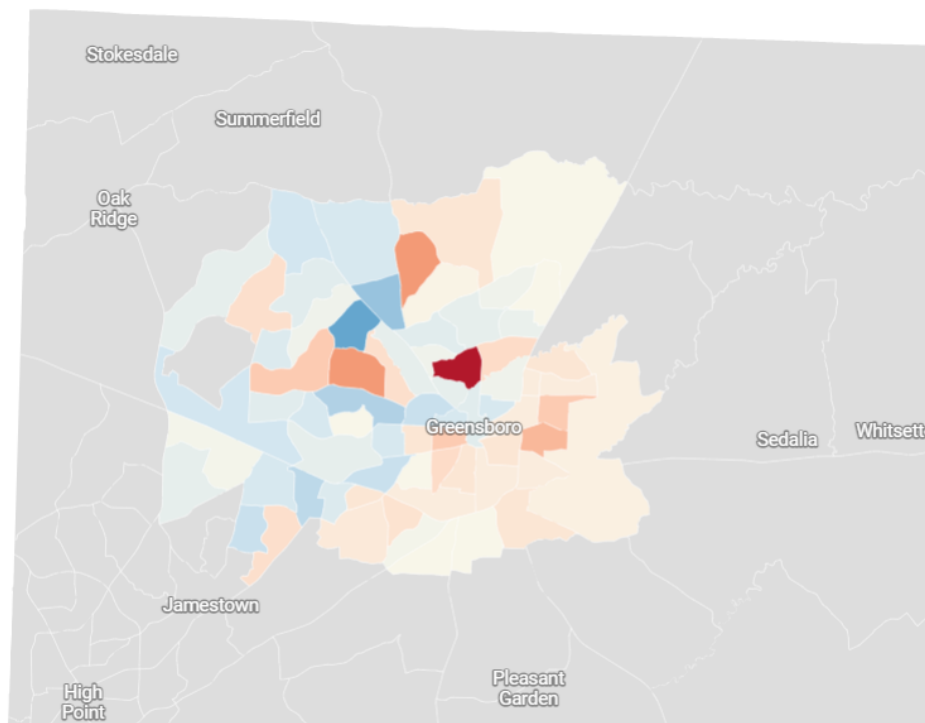
Figure 136 contains a census tract level map of the housing sub-index for Greensboro, N.C. Census tracts in the western portion of the city tend to have higher housing sub-index values compared to the census tracts in the southeastern portion of the city. Census tract 12509 has the highest housing sub-index value at around 117, which is 17 percentage points higher than the county average. Census tract 10404 has the lowest housing sub-index value at around 74, which is 26 percentage points lower than the county average.

Figure 136

Housing Access Index

Higher (bluer) values mean more opportunity and lower (redder) values mean less. Light grey indicates insufficient data.

Low City Mean High



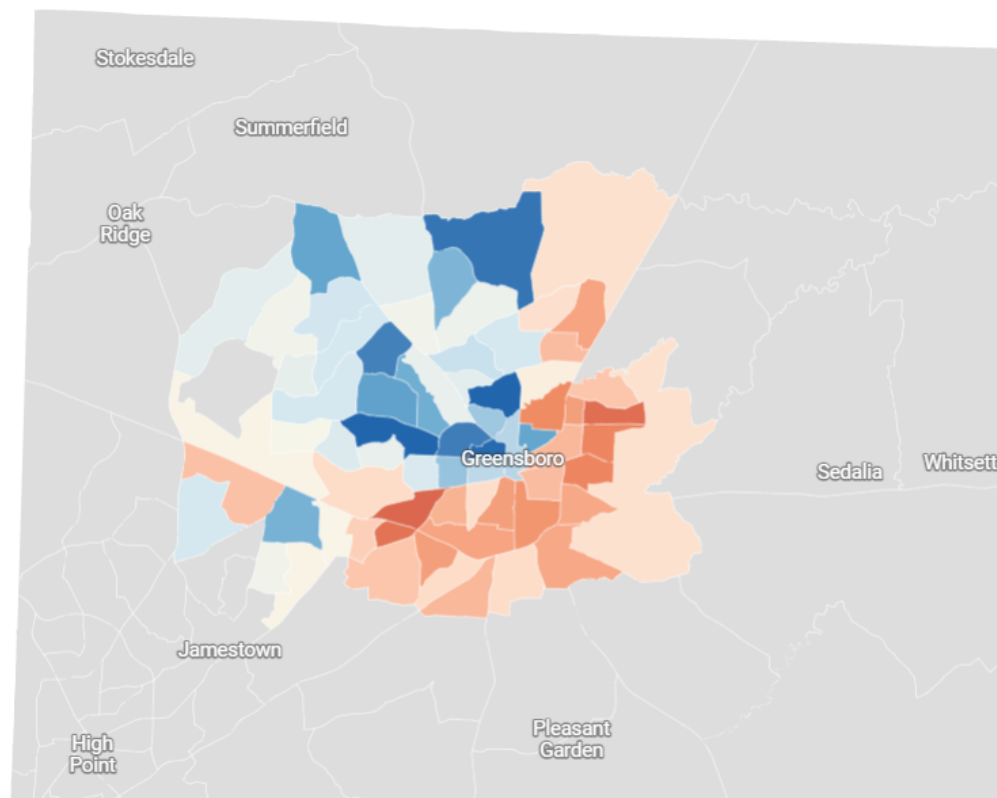
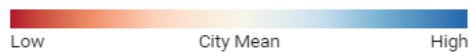
[Education Index](#)-this index tracks the quality of education, by examining high school graduation rates, disenfranchised youth, and graduate level of education.

Figure 137 contains a census tract level map of the education sub-index for Greensboro, N.C. Census tracts in the northern portion of the city tend to have higher education sub-index values compared to the census tracts in the southeastern portion of the city. Census tract 10404 has the highest education sub-index value at around 156, which is 56 percentage points higher than the county average. Census tract 11602 has the lowest education sub-index value at around 61, which is 39 percentage points lower than the county average.

Figure 137

Education Index

Higher (bluer) values mean more opportunity and lower (redder) values mean less. Light grey indicates insufficient data.



[Health Index](#)- this index tracks two health measures: life expectancy and disability rates

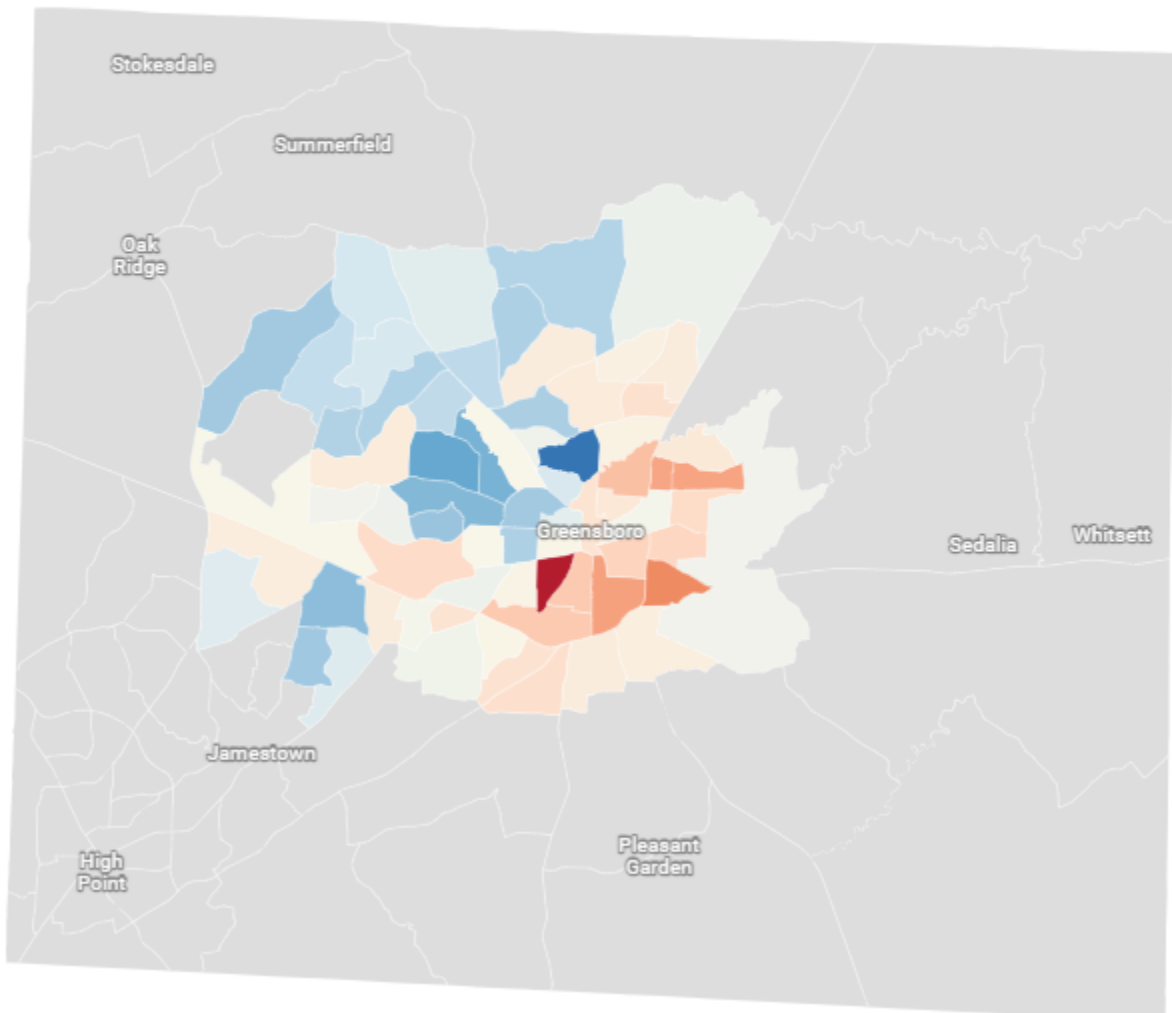
Figure 138 contains a census tract level map of the health sub-index for Greensboro, N.C. Census tracts on the eastern side of the city have slightly lower health sub-index values, compared to the northwestern portion of the city.

Figure 138

Health Index

Higher (bluer) values mean more opportunity and lower (redder) values mean less. Light grey indicates insufficient data.

Low City Mean High

2. Home Transactions- this category tracks the method of purchase (cash vs. mortgage), It also compares small dollar (< \$100,000) homes with all mortgages. ATTOM data is used.

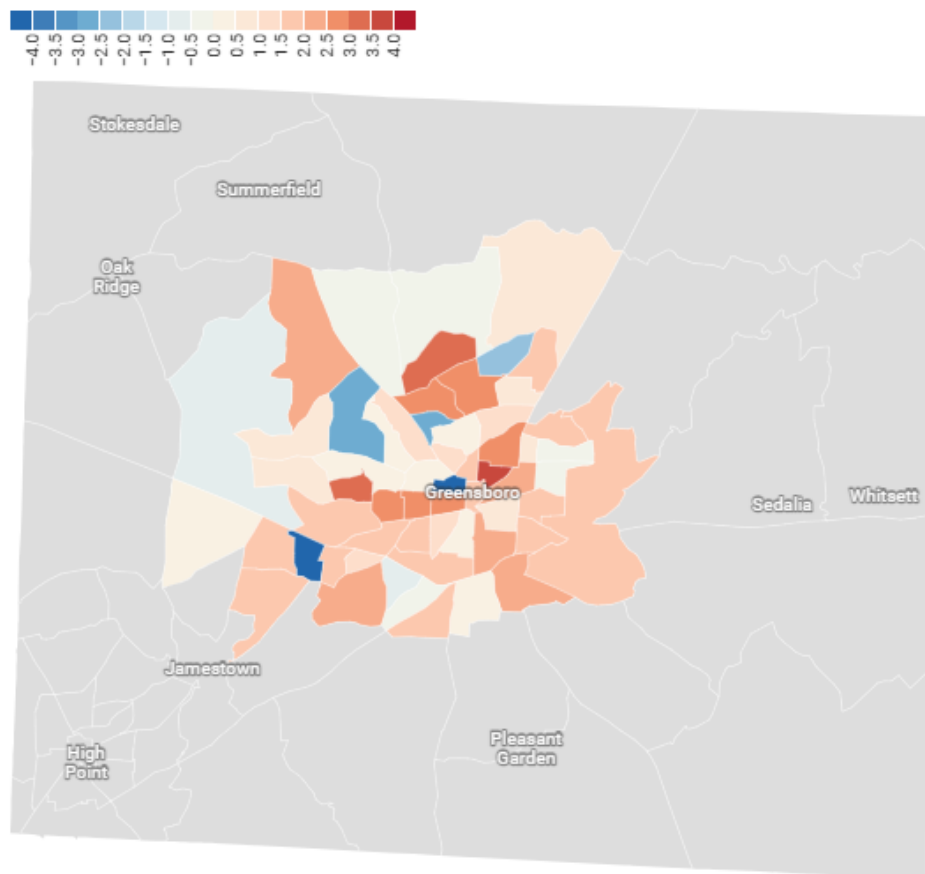
[Average year-to-year change in purchased small dollar homes, bought with cash, 2007-2021\).](#)

-this tracks how purchases of small dollar homes are changing over time, with respect to all cash purchases, and also gives racial information within each census tract.

Figure 139

Average Year-to-Year Change in the Percentage of Purchased Small Dollar Homes Bought with Cash

Average percentage point change in the percentage of purchased small dollar homes bought with cash, by census tract, according to the 2000 tract boundaries, from 2007 to 2021.

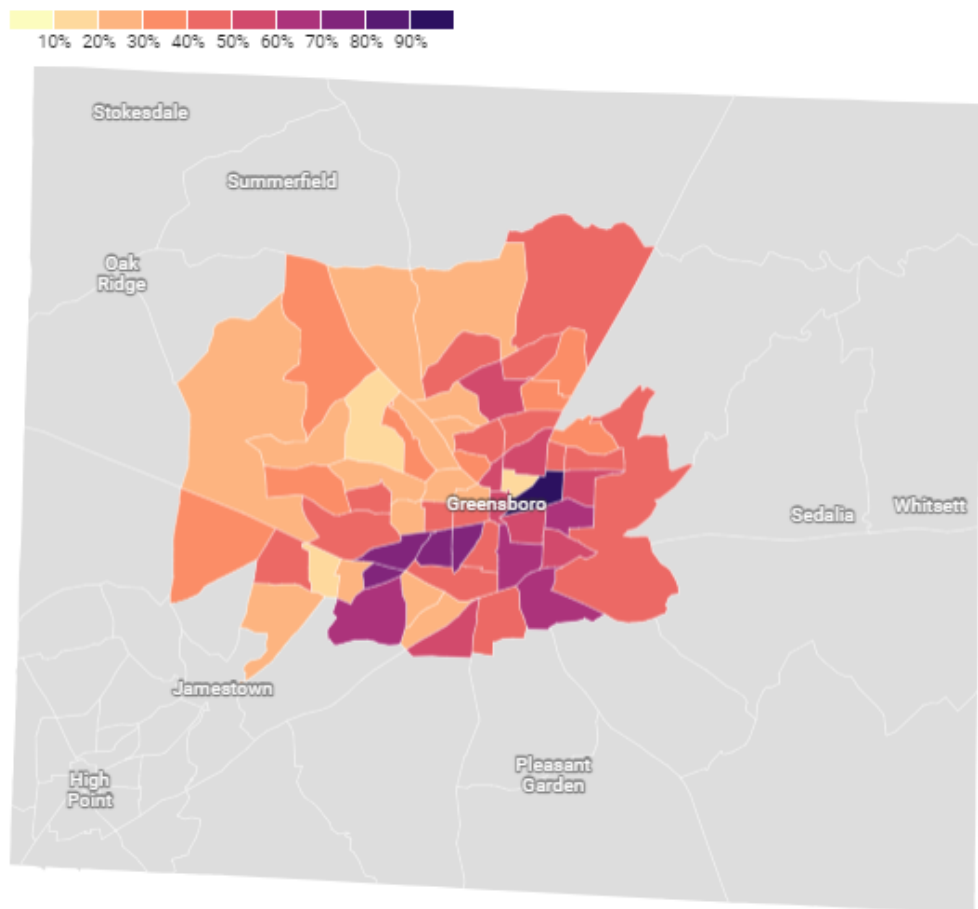


[All purchased homes bought with cash, 2020-](#) This map indicates where cash makes the majority of purchases in the city.

Figure 140

All Purchased Homes Bought with Cash (%), 2020

Percentage of purchased homes bought with cash instead of a mortgage, by census tract, according to the 2000 tract boundaries

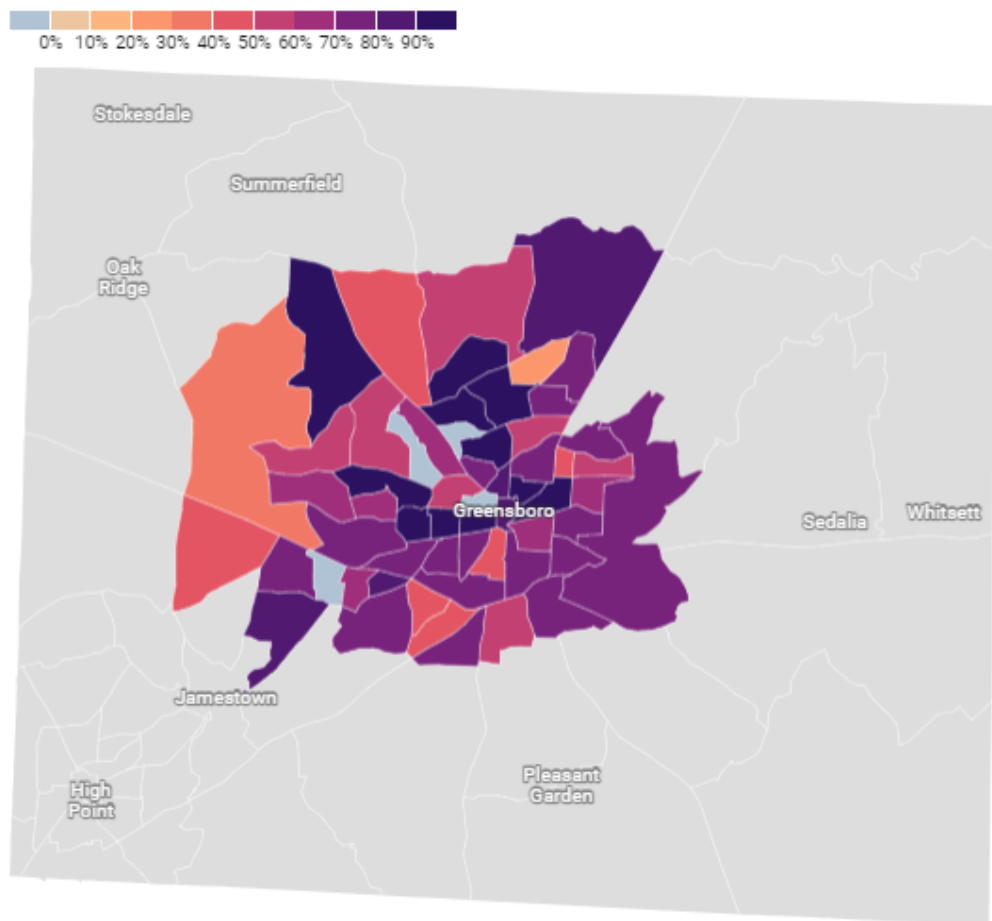


[Small dollar homes purchased with cash, 2020-](#) the indicates what percentage of small dollar homes were purchased with cash instead of a mortgage.

Figure 141

Small Dollar Homes Bought with Cash (%), 2020

Percentage of purchased small dollar homes in Greensboro, NC bought with cash instead of a mortgage, by census tract, according to the 2000 tract boundaries

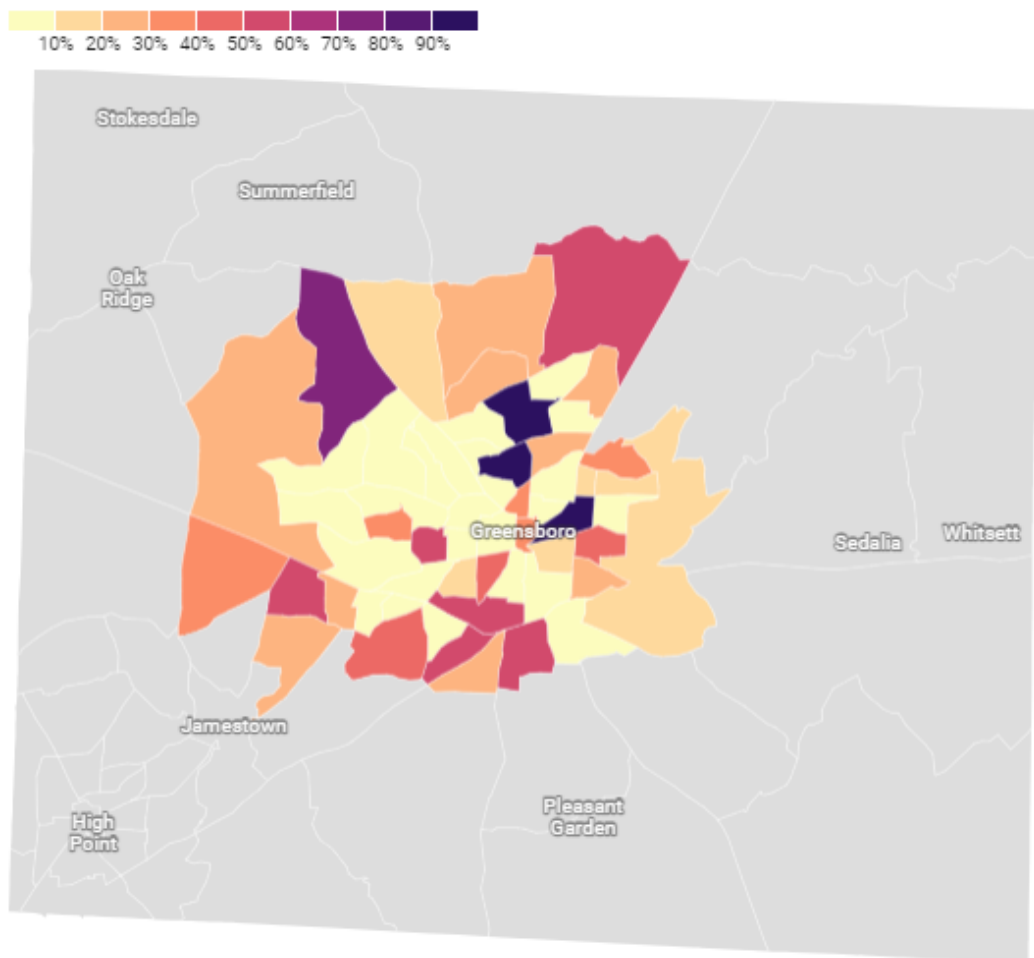


[Small Dollar Mortgage Denial Rates: 2021](#)- this shows the percentage of completed small dollar (< \$100,000) loan applications that were denied.

Figure 142

Small Dollar Mortgage Denial Rates: 2021

Percentage of completed small dollar (< \$100,000) loan applications that were denied in Greensboro, NC, by census tract, according to the 2000 tract boundaries

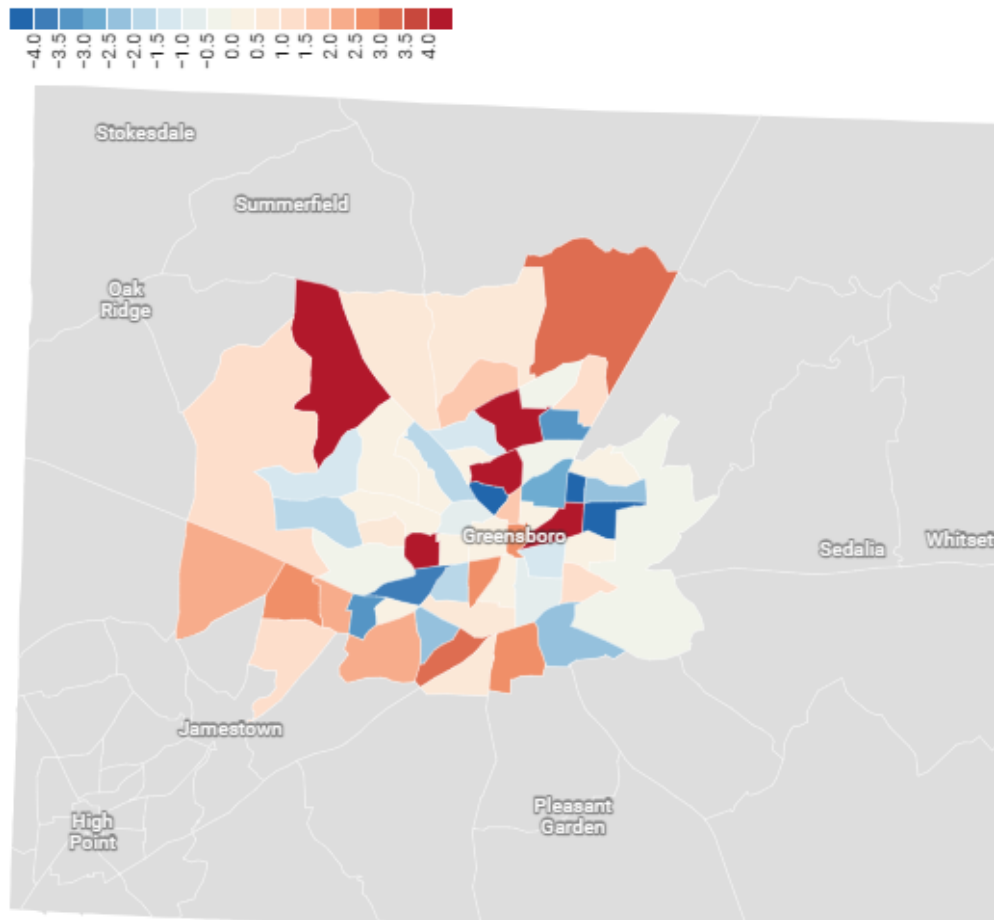


[Small Dollar Denial Rates: 2007 to 2021 \(% change\)](#)- Average percentage point change in the percentage of completed small dollar loan applications that were denied.

Figure 143

Small Dollar Denial Rates: 2007 to 2021 (% change)

Average percentage point change in the percentage of completed small dollar loan applications that were denied, by census tract, according to the 2000 tract boundaries, from 2007 to 2021

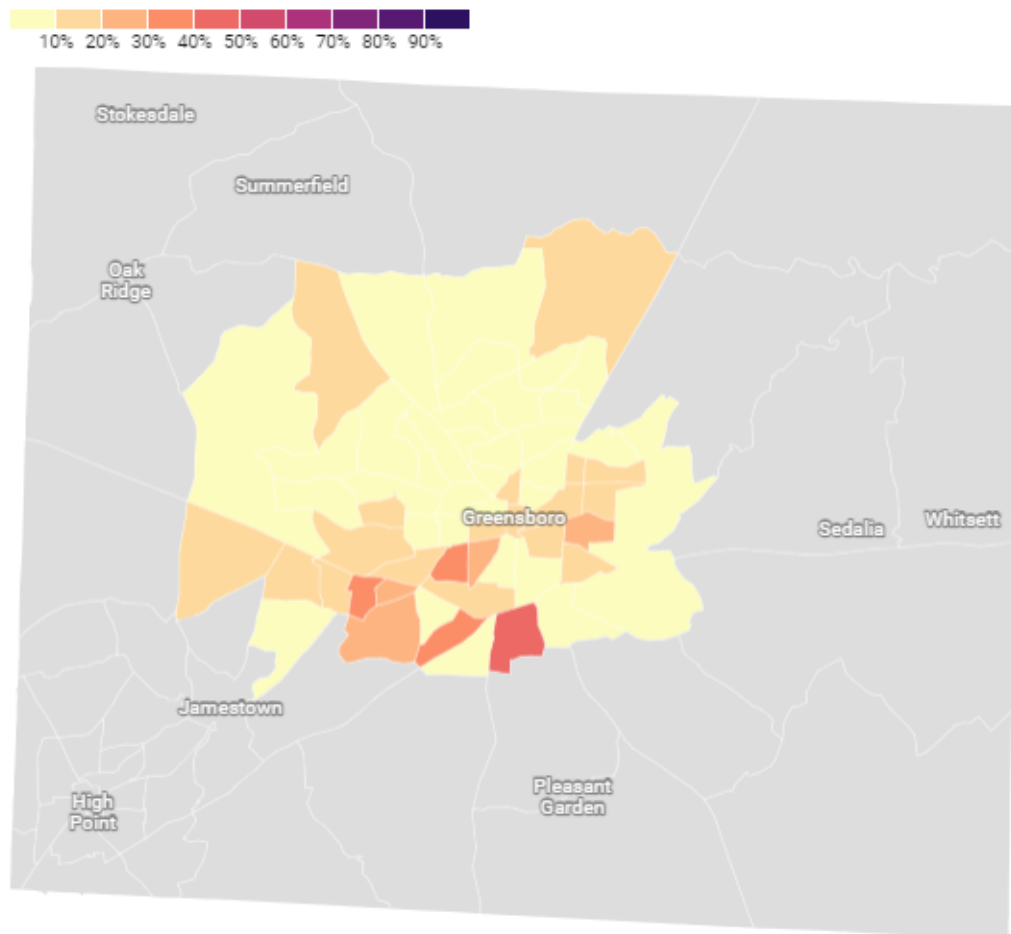


[Mortgage Denial Rates: 2021](#)-Percentage of completed loan applications that were denied.

Figure 144

Mortgage Denial Rates: 2021

Percentage of completed loan applications that were denied in Greensboro, NC, by census tract, according to the 2000 tract boundaries.

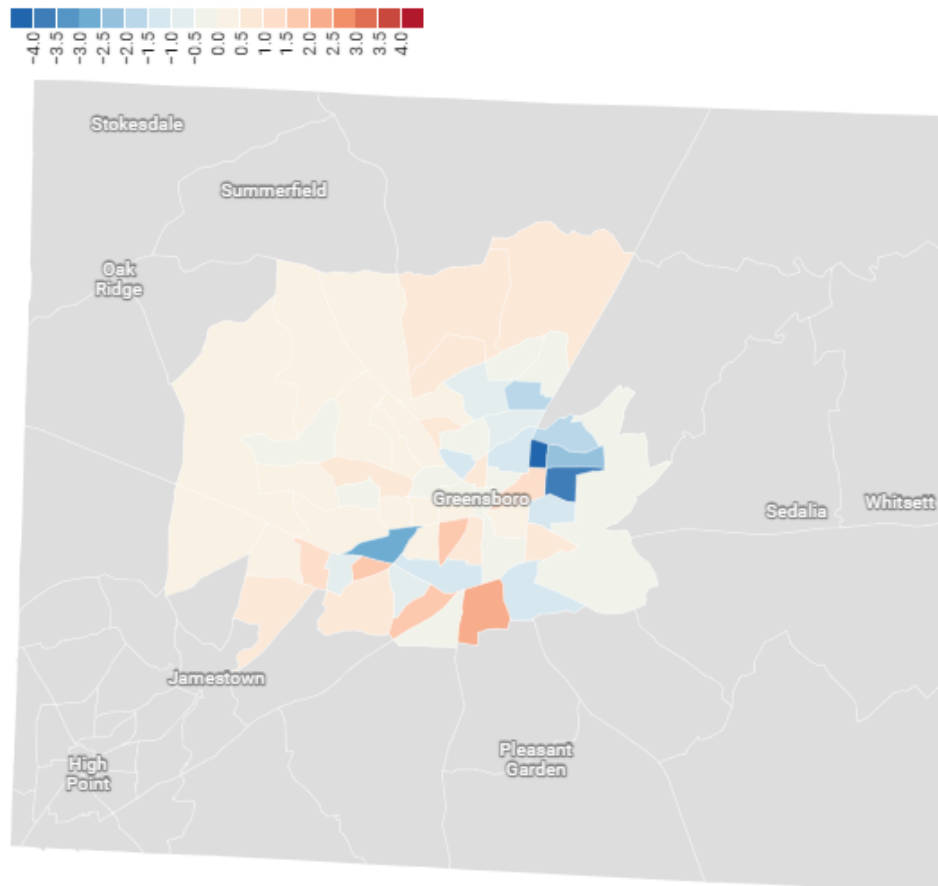


[Mortgage Denial Rates: 2007-2021 \(% change\)](#)- Average percentage point change in the percentage of completed loan applications that were denied, by census tract.

Figure 145

Mortgage Denial Rates: 2007-2021 (% change)

Average percentage point change in the percentage of completed loan applications that were denied, by census tract, according to the 2000 tract boundaries, from 2007 to 2021



3. TYPES OF CRIME ACROSS THE CITY

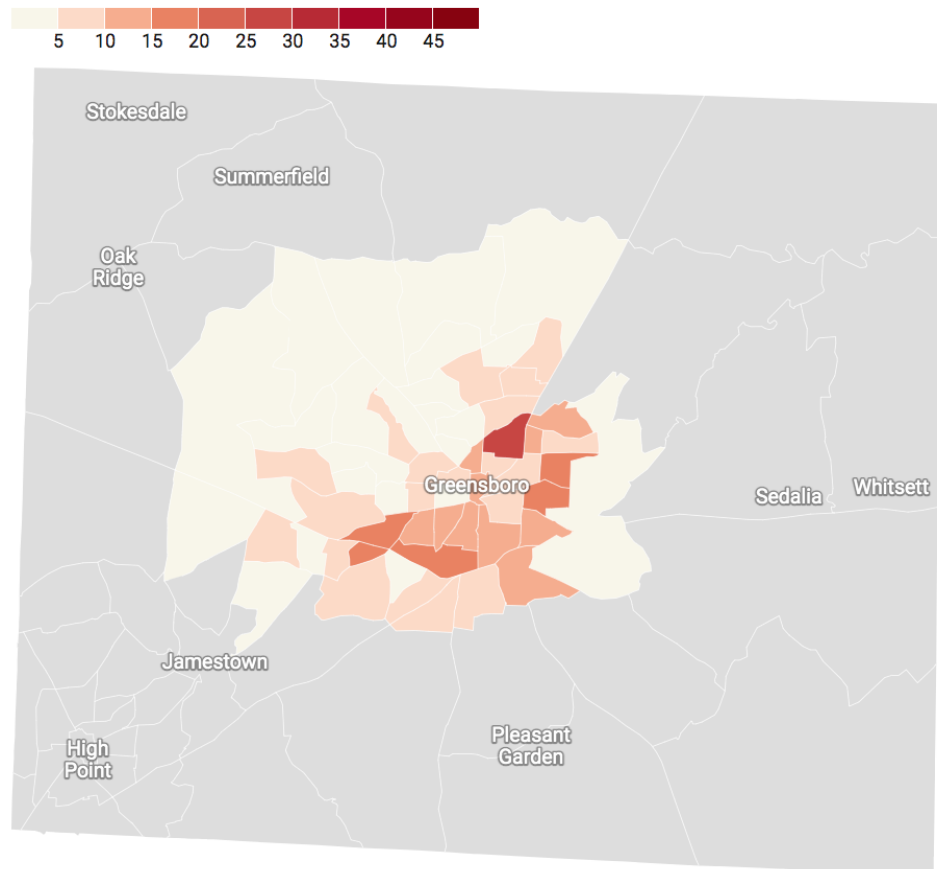
[Violent Crime Rate](#)

Figure 146 contains a census tract level map of violent crime rates in Greensboro, N.C. in 2022. Census tracts in the southeastern portion of the city tend to have higher violent crime rates compared to the northwestern portion of the city. Census tract 10300 has the highest rate in the city at 25.7 violent crimes per 1,000 residents.

Figure 146

Violent Crime Rate Per 1,000 Residents

Violent crime rate per 1,000 residents in 2022, by census tract, according to the 2000 tract boundaries



Map: Center for the Study of Economic Mobility (CSEM) • Source: Greensboro Police Department • [Get the data](#) • Created with [Datawrapper](#)

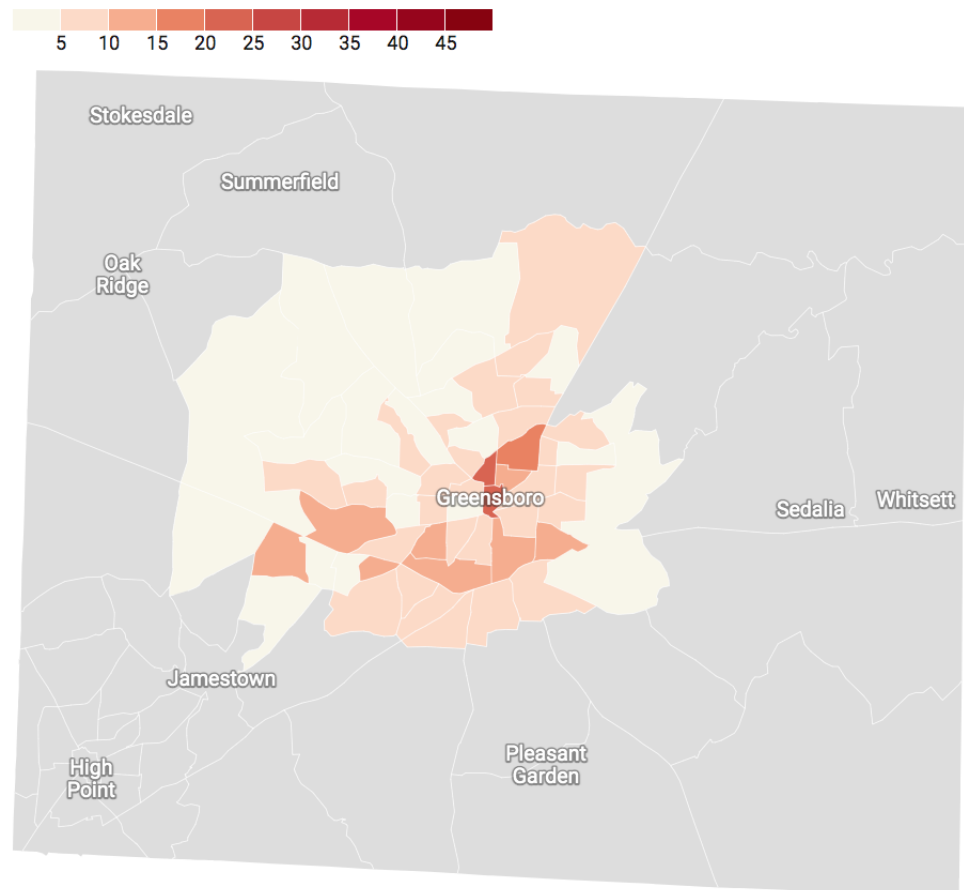
Vandalism Crime Rates

Figure 147 contains a census tract level map of vandalism rates in Greensboro, N.C. in 2022. Like for violent crimes, census tracts in the southeastern portion of the city tend to have higher vandalism rates compared to the northwestern portion of the city. Census tracts 10801 and 10802 have the highest rates in the city, at 21.6 vandalisms per 1,000 residents.

Figure 147

Vandalism Rate Per 1,000 Residents

Vandalism rate per 1,000 residents in 2022, by census tract, according to the 2000 tract boundaries



Map: Center for the Study of Economic Mobility (CSEM) • Source: Greensboro Police Department • [Get the data](#) • Created with [Datawrapper](#)

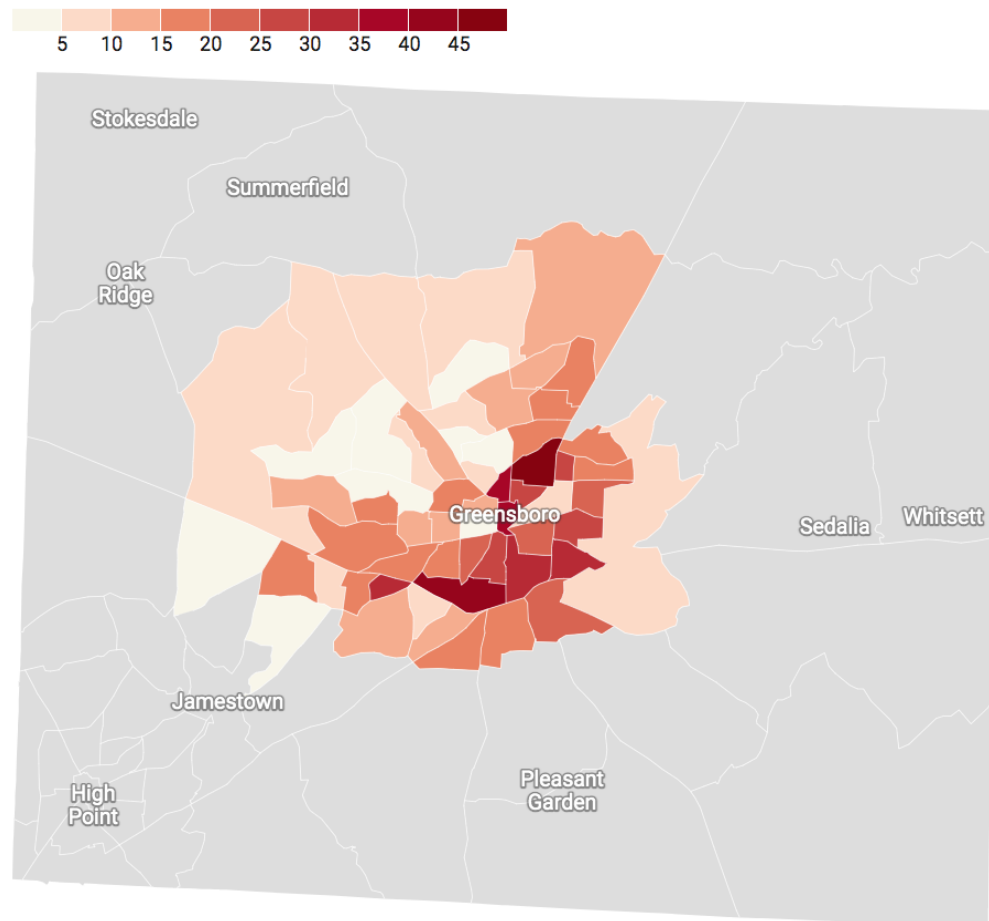
Simple Assault Crime Rates

Figure 141 contains a census tract level map of simple assault rates in Greensboro, N.C. in 2022. Like for violent crimes and vandalisms, census tracts in the southeastern portion of the city tend to have higher simple assault rates compared to the northwestern portion of the city. Census tract 10300 has the highest rate in the city, at 54 simple assaults per 1,000 residents.

Figure 148

Simple Assault Rate Per 1,000 Residents

Simple assault rate per 1,000 residents in 2022, by census tract, according to the 2000 tract boundaries



Map: Center for the Study of Economic Mobility (CSEM) • Source: Greensboro Police Department • [Get the data](#) • Created with [Datawrapper](#)

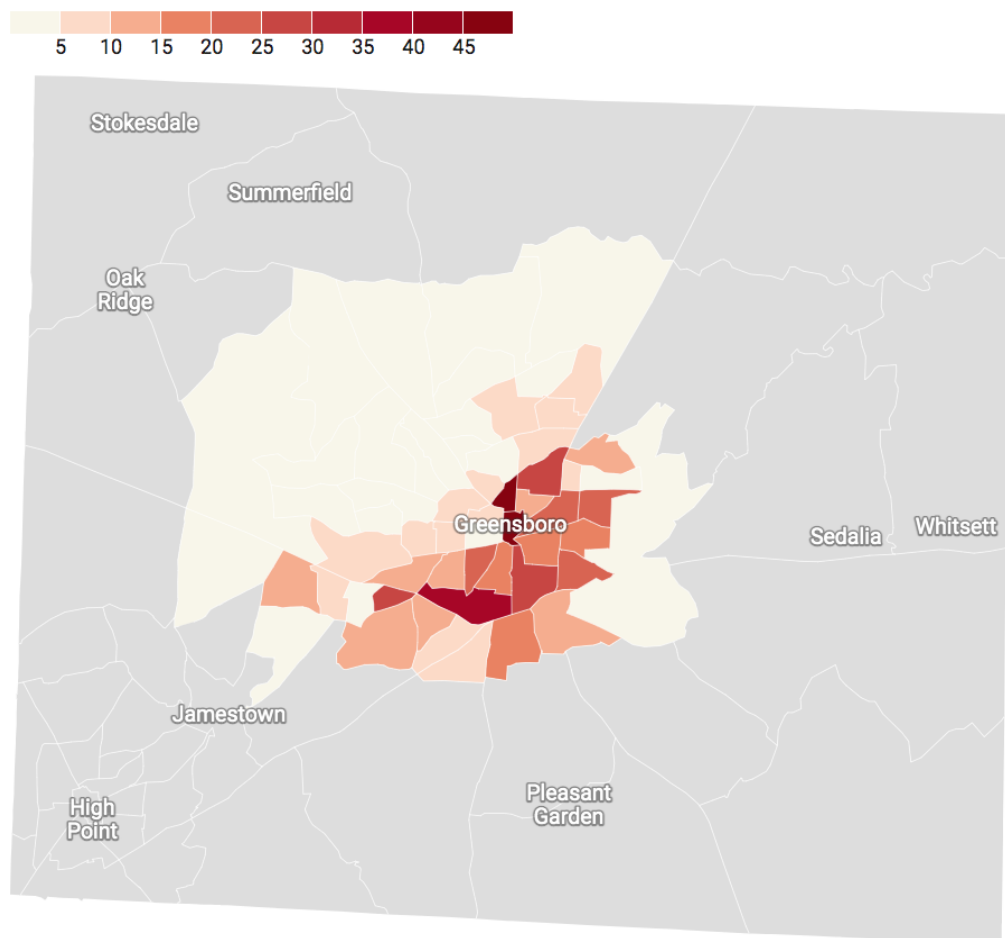
Drug-Related Crime Rates

Figure 142 contains a census tract level map of drug-related crime rates in Greensboro in 2022. Like for the other crimes, tracts in the southeastern portion of the city tend to have higher drug-related crime rates compared to the northwestern portion of the city. Tracts 10801 and 10802 have the highest rate in the city, at 46.5 drug-related crimes per 1,000 residents.

Figure 149

Drug-Related Crime Rate Per 1,000 Residents

Drug-related crime rate per 1,000 residents in 2022, by census tract, according to the 2000 tract boundaries



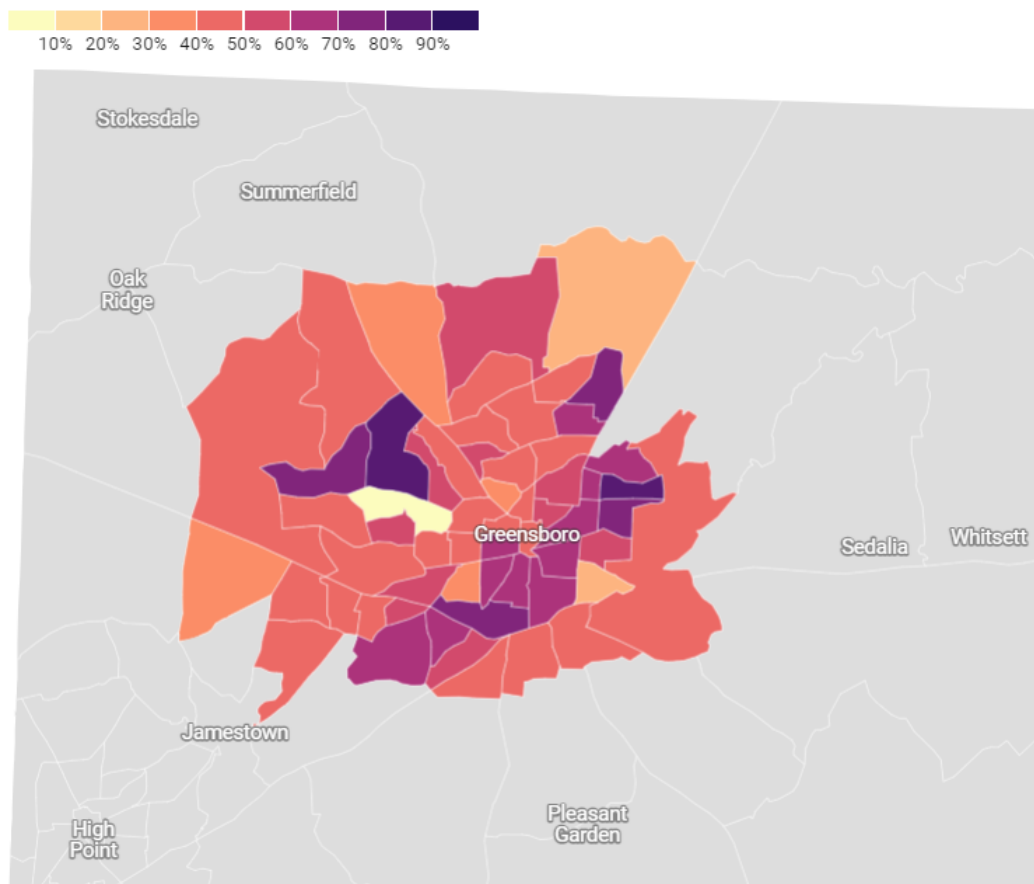
4. SELECTED VARIABLES OF INTEREST

Rent burden in Greensboro

Figure 150

Rent-Burden in Greensboro, N.C. in 2021

Percentage of renter households that are rent-burdened, by census tract, according to the 2000 tract boundaries

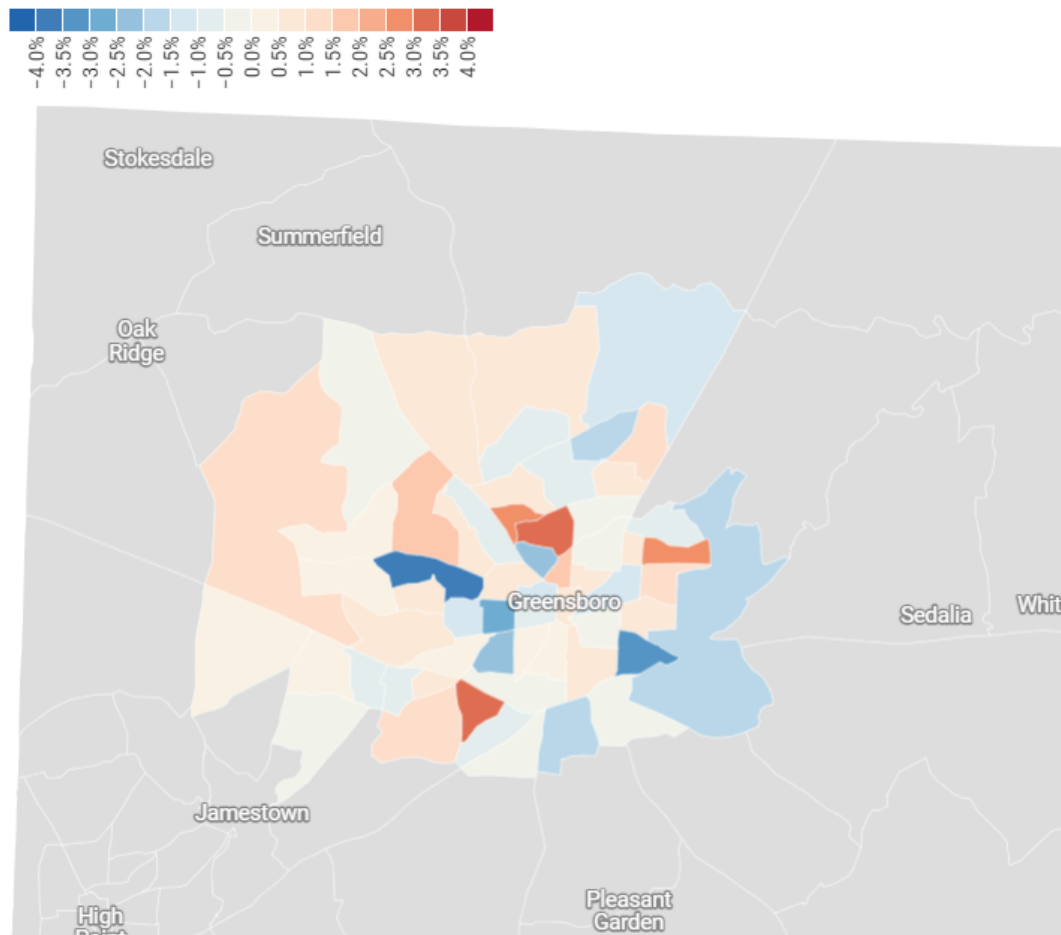


Change in rent-burdened households over time

Figure 151

Change in Rent-Burdened Households Over Time

Average percentage point change in the percentage of rent-burdened households, by census tract, according to the 2000 tract boundaries, from 2009 to 2021

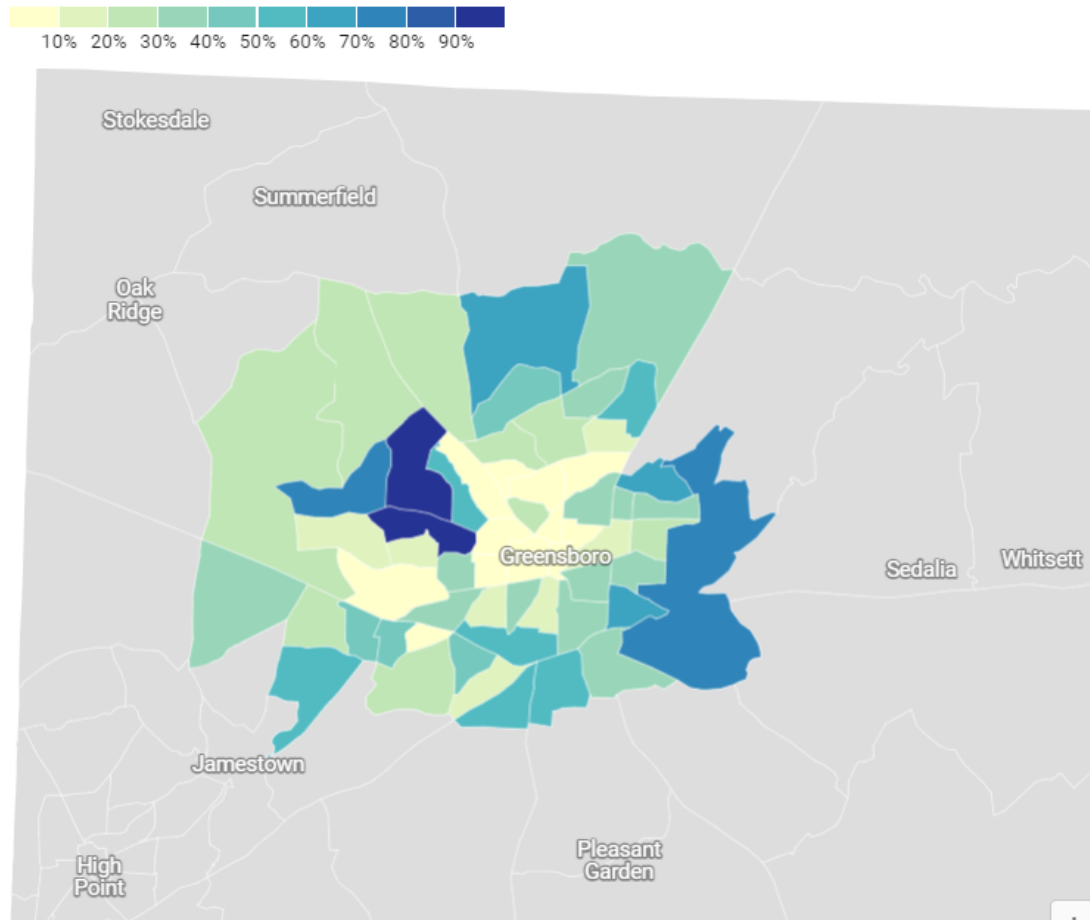


[Black homeownership rates in Greensboro](#)

Figure 152

Black Homeownership Rates in Greensboro, N.C. in 2021

Percentage of black households that are homeowners, by census tract, according to the 2000 tract boundaries

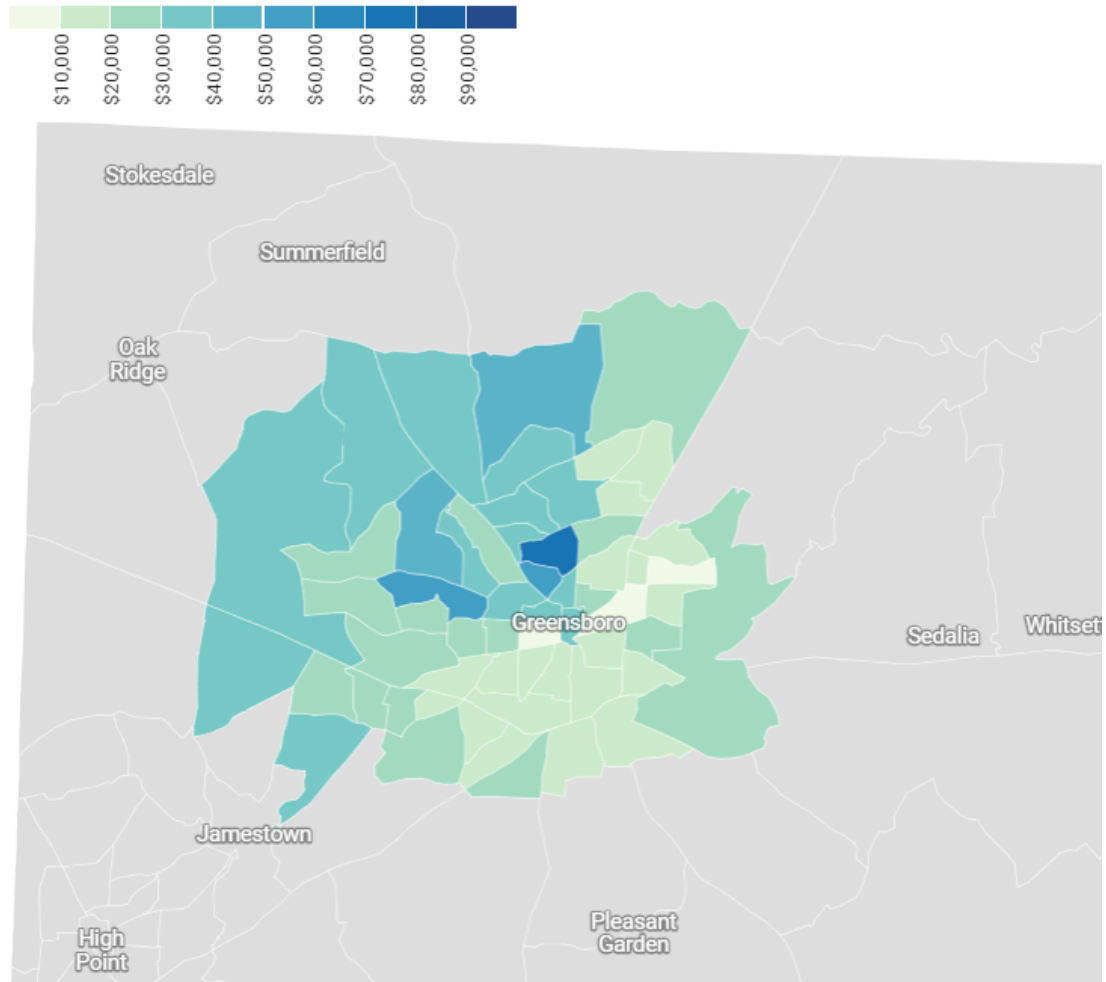


[Real per capita income in Greensboro](#)

Figure 153

Real Income Per Capita in Greensboro, N.C.

Real (Inflation adjusted) income per capita, by census tract, according to the 2000 tract boundaries

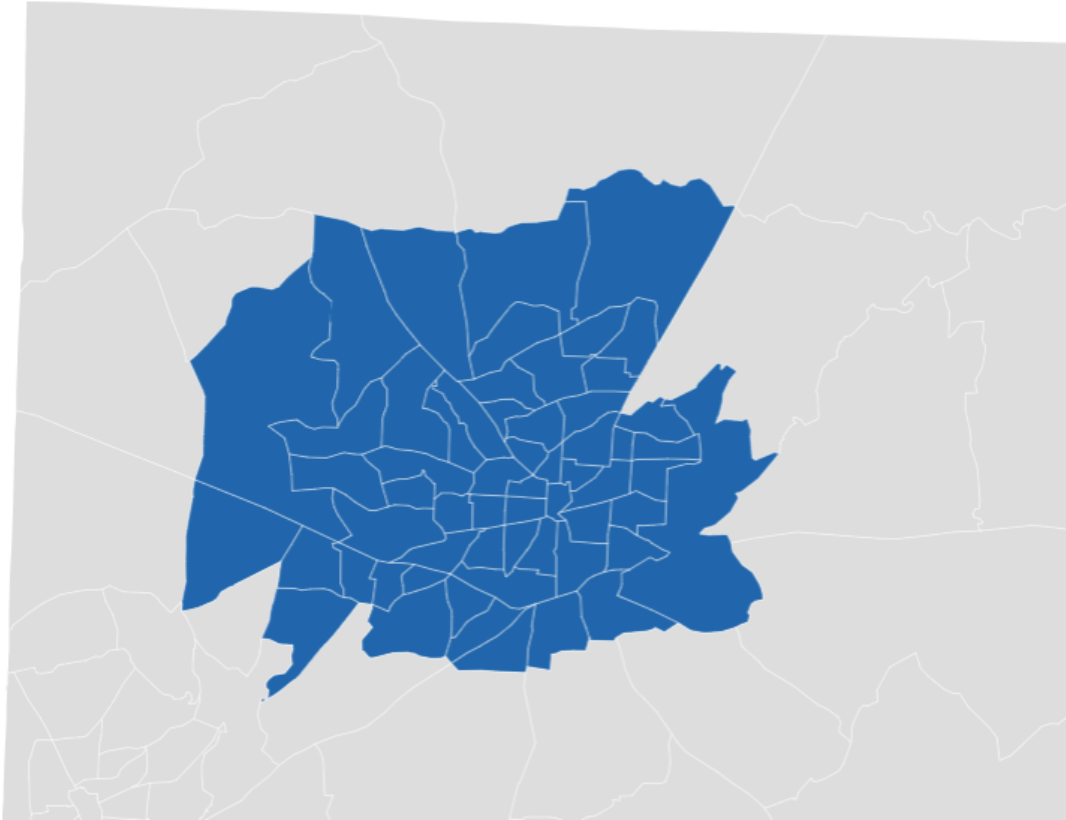


5. Census Tracts Used For The City of Greensboro Study

Figure 154

Census Tracts that Comprise the City of Greensboro

Census tracts follow the 2000 Census boundaries



VIII. APPENDIX

Preparing the ACS Dataset

ACS data were collected and downloaded from the Integrated Public Use Microdata Series (IPUMS) National Historical Geographic Information System (NHGIS) databases. ACS 5-Year estimates were used. The last year in the 5-year range that generated the estimates are used to represent the measurement for *the* year. For example, the estimates from the 2005-2009 5-Year estimates are used to represent the measurements for 2009 and the estimates from the 2006-2010 5-Year estimates are used to represent the measurements for 2010, and so forth. A similar approach has been used in previous research (Chetty, Hendren, Kline, and Saez, 2014). The 5-Year estimate files for 2005-2009, 2006-2010, 2007-2011, 2008-2012, 2009-2013, 2010-2014, 2011-2015, 2012-2016, 2013-2017, 2014-2018, 2015-2019, 2016-2020, 2017-2021 were downloaded and appended to create a panel dataset of census tracts.

Preparing the HMDA Dataset

Home Mortgage Disclosure Act (HMDA) data were downloaded and collected from the Consumer Financial Protection Bureau's (CFPB) public database for the years 2007 through 2021. The files were separately downloaded and appended. All mortgage types were downloaded, which included conventional, FHA, VA, and FSA and RHS loans. Only mortgage applications for the purpose of purchasing a house as a primary dwelling place were considered (Purpose coded as either "Home purchase" and Owner-Occupancy coded as "Owner-occupied as a principal dwelling"). When measuring mortgage application trends, outcomes associated with applications related to "loan originated", "Application approved but not accepted", "Application denied by financial institution", "Application withdrawn by applicant", and "File closed for incompleteness" were considered. When measuring denial rates, we only consider three outcomes in the calculation which are "loan originated", "Application approved but not accepted", "Application denied by financial institution." This is a similar method used in other studies, because it only considers applications that were fully completed, the financial institution made a decision to approve or deny, and then the applicant decides whether to accept the loan.

Preparing the ATTOM Dataset

Processing the Raw Data

We started by filtering the raw data set, which included all transfers within N.C., to only include property transfers for properties that were within Guilford County, N.C. To do this, we use ATTOM's DocumentRecordingCountyFIPs column and specify that it equal 37081, which is Guilford's official FIPs identifier.

Second, we maintained only records that met the following conditions:

1. Records that applied to an actual property transfer from one entity to another.
2. Involved a property that was either a detached house, a townhouse, a condominium, or a modular-type home (and not, for example, a vacant lot).
3. The property was for residential purposes, and not, for example, commercial.
4. The transfer involved a monetary transaction.
5. The transaction was an “arm’s length” transaction, meaning it was a market transfer between an independent buyer and seller.

Correcting Bulk Purchases

There are many instances where a single transaction involved more than one property. For example, there are many instances where one investor purchases another investor’s portfolio of properties in a single transfer. The individual properties in the bulk purchase appear in the raw data as separate records, with the total transfer amount assigned to each individual property. To approximate the actual transfer value of the individual properties in the bulk transactions, then the transfer amounts must be adjusted. The adjusted transfer amount is just the total bulk transfer amount divided by the number of properties within the bulk transaction (hence, the average). The resulting value is used as the individual transfer amount for the properties in the bulk purchase.

To identify bulk purchases, we followed several steps to identify records that met these conditions:

1. Transactions that occurred on the exact same date
2. Transactions that involved the same buyer and seller
3. Transactions that involved the same transfer amount

Individual property transactions that met the three records above were designated as belonging to the same bulk purchase.

Variable Creation

Cash Transaction

To approximate the number of investor purchases, we created a binary variable indicating whether a real estate transaction was made with cash or not (a mortgage). To create this variable, we followed the advice of ATTOM’s data engineering team to create the variable. They recommended the following: if all the columns related to mortgage information are missing, then the transaction was made in cash. Otherwise, the transaction involved a mortgage. This step involved 83 columns.

Transfer Amount Categories

We created several categories designating the approximate sale price of the properties. Our primary interest was for small dollar homes, or homes that sold for less than \$100,000.

Therefore, if the transfer amount was less than \$100,000, then the transaction was identified as a small dollar home transaction.

Preparing the Crime Dataset

CSEM received raw crime data from Eunika Smalls on May 1, 2023. Ms. Smalls received the datasets from Larry Roberts. The datasets were compiled by Dolores Wiley, the Crime Analysis Supervisor for the Greensboro Police Department. Crime numbers for drug-related crimes, violent crimes, simple assaults, and vandalisms were provided at the census tract levels for the full year of 2022 and the time frame of January 1-March 31, 2023. For our analysis, we only used data for 2022. We converted the data to the 2000 census tract boundaries. To convert the crime numbers to rates, we divided the crime numbers by the census tract's population estimates for 2021, and then multiplied the result by 1,000 to get a crime rate estimate per 1,000 residents.

Limitations

There are several limitations associated with our study worth mentioning, particularly around the datasets utilized. First, the socioeconomic, economic, and demographic data used in our study come from 5-year estimates produced by the Census. Therefore, they are an approximate estimate for the statistics in question. Furthermore, the estimates for a given year incorporate data from the preceding 4 years. This could mean that we are unable to fully capture the extent to which trends are occurring. Second, HMDA data is not an exhaustive set of all mortgage loan applications and originations. Furthermore, not all application records contained a census tract. Third, the cash purchase estimates are based on a method suggested by ATTOM's data engineers to capture actual cash purchases. The method is not perfect, meaning that we may miss some cash purchases or count some mortgage purchases as cash purchases. Fourth, though we incorporate some Zillow data into our report, we recognize that Zillow's home value estimates have several drawbacks.

References

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553-1623.

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