THE STATE OF HOUSING AFFORDABILITY AND VULNERABILITY IN HOUSTON:
PRELIMINARY REPORT

NOVEMBER 2018

CITY OF HOUSTON: HOUSING AND COMMUNITY DEVELOPMENT DEPT.
NATIONAL ASSOCIATION FOR LATINO COMMUNITY ASSET BUILDERS

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EXECUTIVE SUMMARY

The City of Houston's Housing and Community Development Department (HCDD) engaged National Association for Latino Community Asset Builders (NALCAB) to conduct a preliminary study of factors that impact housing vulnerability and affordability in Houston. This is a limited scope report is intended to inform the City of Houston HCDD's approach to housing policy and practice and to guide future research on vulnerable populations and affordable housing stock.

This report presents GIS-enabled analyses of the Houston housing market, with a focus on trends in real estate appreciation and neighborhood change, and suggests implications these trends may have for housing affordability and vulnerability. The report begins by identifying important demographic and housing market trends that help to contextualize these analyses. This report also provides recommendations for further investigation and provides working definitions of housing affordability and vulnerability that can be incorporated into the City's housing policy and program documents.

This study relies on publicly available data and secondary sources, including the U.S. Census, U.S. Department of Housing and Urban Development (HUD), City of Houston, private companies and nonprofit research institutions. Further, NALCAB presents analysis of proprietary data purchased from industry-recognized real estate data providers, including CoStar and HouseCanary. NALCAB also applies its own proprietary methodology for measuring neighborhood change.[1]

RELEVANT DEMOGRAPHIC AND REAL ESTATE MARKET TRENDS

- **Houston is experiencing a long-term trend of population growth:** Between 2000 and 2016 the population of the City of Houston grew by approximately 15% (US Census), and is projected to grow by an additional 175,000 additional residents by 2023 (ESRI Community Analyst). This growth requires the production of new housing units affordable to households across the entire income spectrum.

- **Average housing costs are increasing in Houston:** According to Marcus & Millichap, a real estate brokerage and data firm, in the 3rd Quarter of 2018, the average monthly effective rent for multifamily apartments in Houston rose year-over-year by 7.6% to $1,093.[2] The National Association of Home Builders/ Wells Fargo Opportunity Index indicates that the median sale price for a home in the Houston/ Woodlands/Sugarland metropolitan statistical area in Q3 2018 was $241,000, the highest average quarterly sales price since the Index began.

- **Racial and ethnic segregation remains a defining feature of Houston's housing market:** When the predominant race and ethnicity of the population in any given block group in the City of Houston is represented on a map, clear patterns of residential segregation emerge. See **Map A**.

- **An increasing number of households in Houston are facing housing affordability challenges:** Households that earn less than the median income face significant challenges in affording housing,

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1 NALCAB's Guide to Equitable Neighborhood Development for description of methodology pgs. 20-27 https://3ggt5b182jne4b-buo822a8hi-wpengine.netdna-ssl.com/wp-content/uploads/2018/02/END-Toolkit-2.pdf

2 Marcus Millichap – *Multifamily Research, Houston - 3rd Quarter Market Report.*

especially if they require multiple bedrooms for children and/or have significant transportation costs. 46.7% of renter households in Houston were cost burdened in 2015 (paying more than 30% of their income for housing).[3] In the City of Houston, between 2005 and 2017, the median household income increased by 28% and the median home sale price increased by 62%. Today, a household earning the median income in Houston cannot afford the median home sale price in Houston.

ANALYSIS OF REAL ESTATE APPRECIATION AND NEIGHBORHOOD CHANGE

- **The Houston housing market was experiencing broad-based price appreciation in the years leading up to Hurricane Harvey, which has resulted in growing "median home purchase affordability gap":** Based on proprietary data purchased from HouseCanary, between 2011 and 2016, the median rate of appreciation in single-family home values in Houston, aggregated at the block group level, was 46%. As of 2017, there was a median affordability gap of $12,758 between the median household income of $50,896 and the income needed to afford a home sold at the median price of $63,654. See **Chart 1**. This gap was larger for African-American and Hispanic households in Houston, with median incomes of $38,765 and $41,591. See **Chart 2**.

- **After Hurricane Harvey, significant single-family price appreciation has continued or accelerated in some low-income neighborhoods that were already experiencing a well-established trend of appreciation prior to the storm:** There are low-income neighborhoods in Houston that experienced well-established trends of price appreciation prior to Hurricane Harvey, especially in the inner loop and to the far west side of Houston. Many of these neighborhoods continue to experience higher than average appreciation and it is likely that low-income households in these areas are experiencing rising housing costs and/or displacement pressures, or they soon will. See **Map B**.

- **In a subset of neighborhoods, concentrated primarily in the inner loop, real estate appreciation was accompanied by significant demographic change from 2011-2016:** NALCAB's Neighborhood Trend Analysis© identifies census tracts that have experienced changes faster than the city as a whole not only in housing costs, but also in median income, percentage of residents with college degrees, and the percentage of non-Hispanic White residents. 113 census tracts (approximately 15% of Houston's total), primarily located in the inner loop, demonstrated the highest Neighborhood Change Indicator Scores of 3 or 4 for the period 2011-2016. This may be an indicator that displacement due to rising housing costs is occurring and merits further investigation. See **Map C**.

- **After Hurricane Harvey, there has been significant single-family price appreciation in low-income neighborhoods in the eastern half of Houston:** A new trend in single-family price appreciation is emerging in Houston after Hurricane Harvey. While this study does not purport to draw a causal link to the storm, the rates of single-family price appreciation on Houston's eastern half have increased relative to the rest of the City. See **Map D**.

- **A new kind of housing vulnerability may be emerging in neighborhoods outside of the 610 Loop:** Trends of housing price appreciation in many inner loop neighborhoods are well-recognized

3 *"Millions of Americans Burdened by Housing Costs in 2015."* Joint Center for Housing Studies, Harvard University, 2017, www.jchs.harvard.edu/son2017-housing-cost-burdens-table.

in Houston and there is a level of awareness that these housing price pressures are a source of housing vulnerability and may be causing some displacement. A new kind of housing vulnerability may be emerging in neighborhoods that did not experience price appreciation above the City average before the storm, and which did not experience flooding during the storm. There are block groups like this, primarily outside of the 610 Loop, where the trend in single-family price appreciation has changed after the storm and they are now experiencing above average rates of appreciation. See **Map E**.

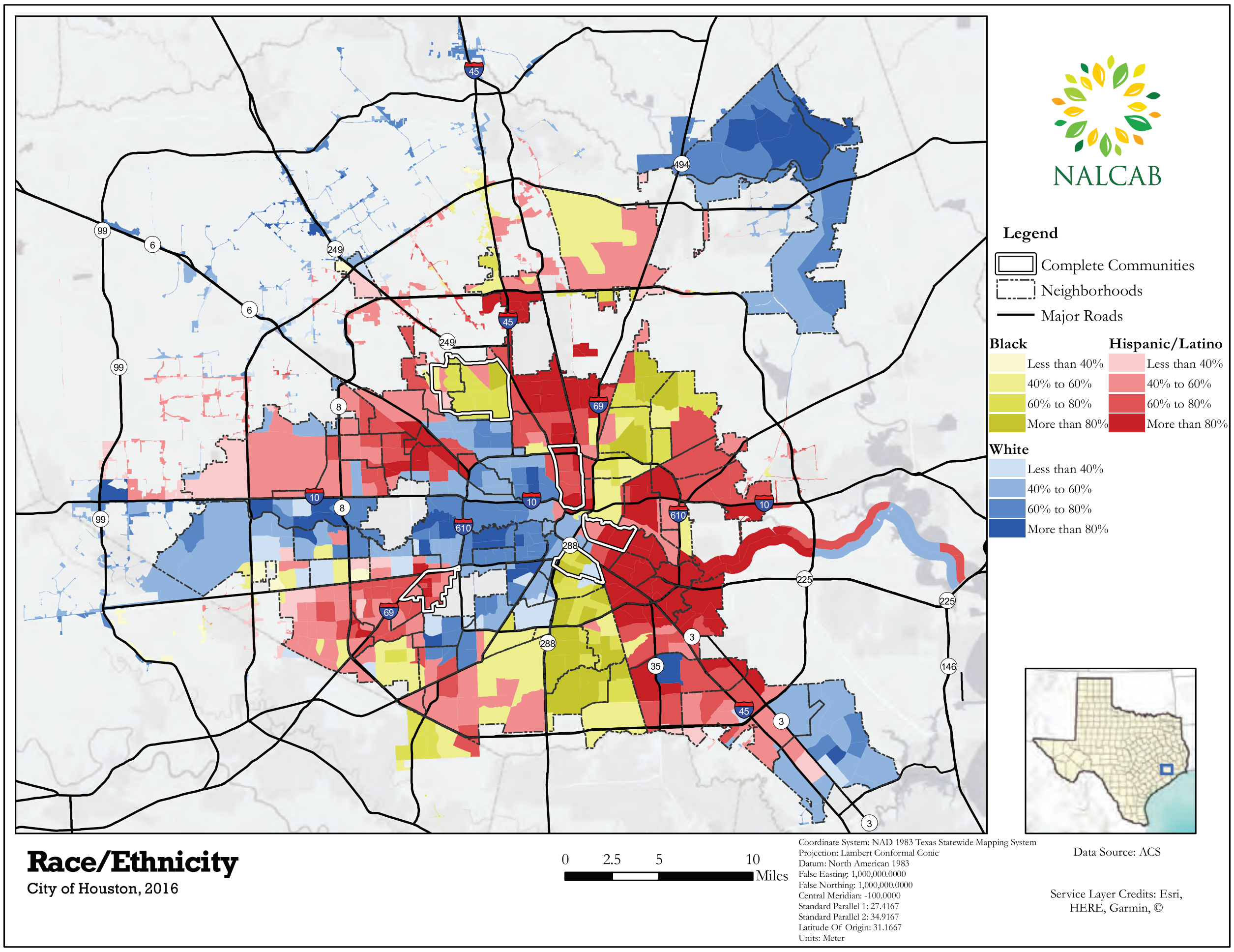
MATTERS FOR FURTHER INVESTIGATION

Low- and moderate-income Houstonians that reside in areas experiencing significant real estate appreciation face real challenges with respect to housing affordability and vulnerability. That being understood, the gap between housing costs and income in Houston, even for many African-American and Hispanic households, are relatively modest when compared to many large cities in the nation, including Dallas and Austin. There is an opportunity for meaningful housing policy and affordable housing programs to make a difference for Houstonians in the coming years. Left unaddressed, these gaps will widen and become insurmountable for more and more households. The following are selected recommendations for further analysis based on the preliminary findings presented in this report.

1. Conduct ongoing citywide monitoring to identify neighborhoods experiencing multiyear appreciation in real estate values and/or tax appraisals as well as significant demographic and cultural change, and
2. Conduct further analyses of neighborhoods outside of the 610 Loop that are experiencing a new, post-Harvey trend of higher rates of real estate appreciation.
3. Conduct analyses of neighborhoods receiving significant concentrations of public incentives/investments which may have the potential to leverage private investment and accelerate real estate appreciation.
4. Examine how City housing programs can be benefit low- and moderate-income households in neighborhoods experiencing distinct real estate market and demographic trends.
5. Invest in community engagement and housing counseling efforts aimed at helping Houstonians understand the potential benefits and challenges presented by the housing market conditions where they live.
6. Engage owners of subsidized rental housing with affordability covenants expiring in the next ten years to determine whether there is the potential to maintain the affordability of the properties into the future.
7. Collaborate with local taxing and appraisal districts, state governments, and other constituencies to examine how tax policy may exacerbate or alleviate to impacts of rapid real estate appreciation on low- and moderate-income households.

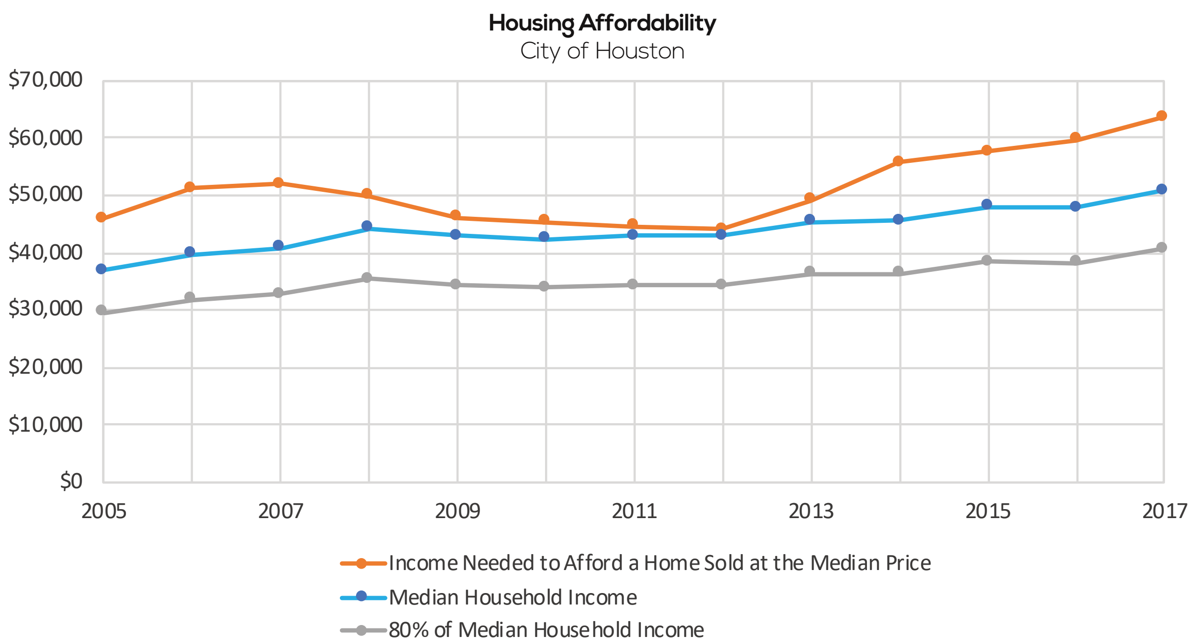
RESIDENTIAL SEGREGATION BY RACE AND ETHNICITY IN HOUSTON: 2016

MAP A



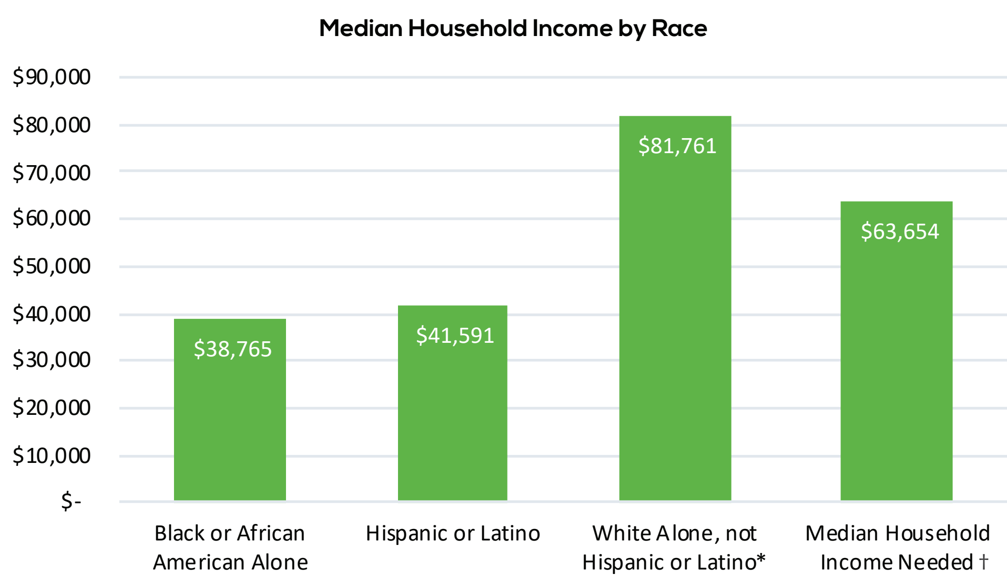
AFFORDABILITY OF A "MEDIAN HOME PURCHASE" IN THE CITY OF HOUSTON 2005 - 2017

CHART 1



Source: United States Census Bureau, American FactFinder. Median Household Income in the Past 12 Months (In 2017 Inflation-Adjusted Dollars), Table B19013. October 2018

CHART 2



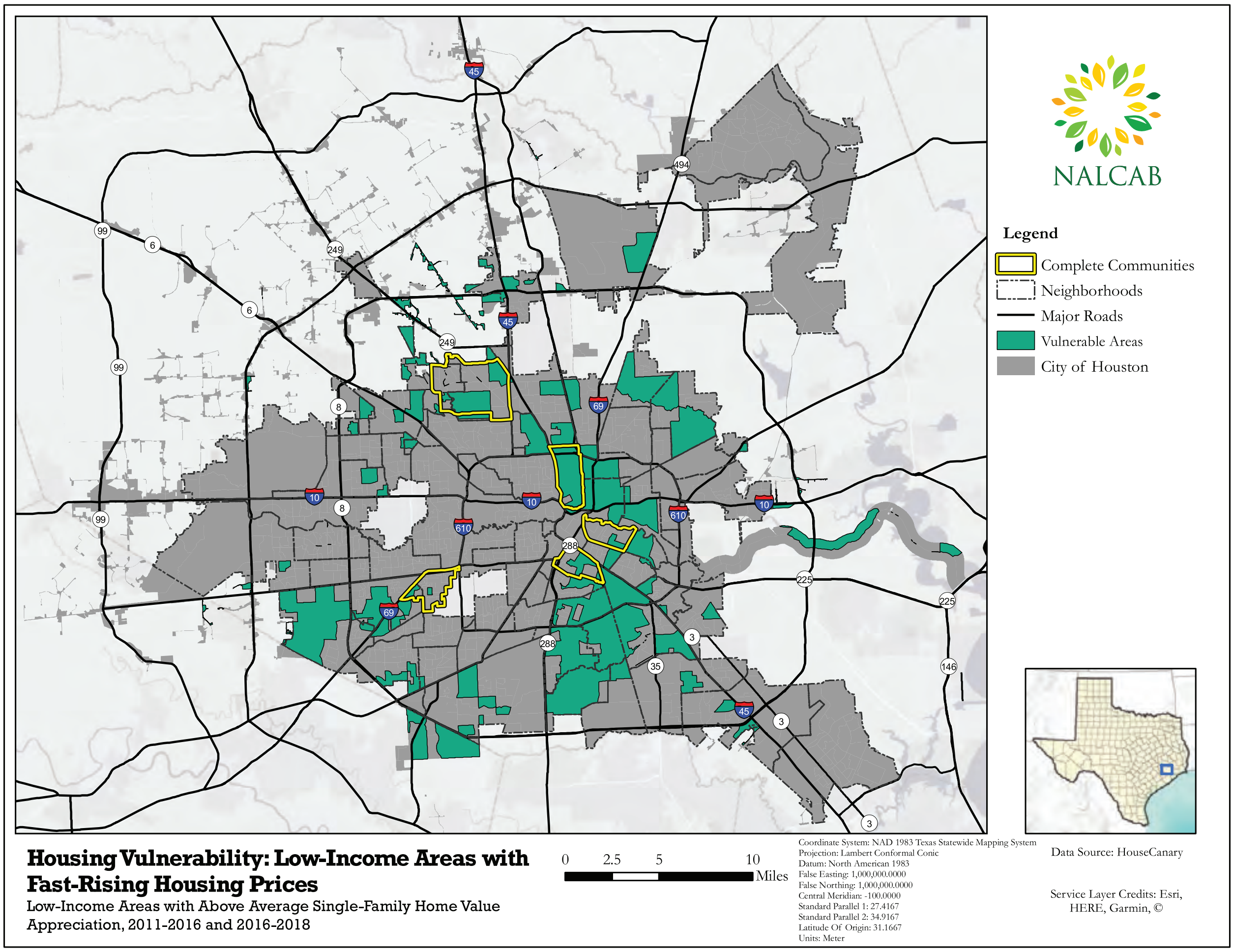
Source: United States Census Bureau, American FactFinder. Median Household Income in the Past 12 Months (In 2017 Inflation-Adjusted Dollars), Tables B19013B, B19013I, B19013A. October 2018

† Please refer to footnote 16 for how this number was calculated

NEIGHBORHOODS WITH WELL-ESTABLISHED TRENDS OF PRICE APPRECIATION

Low-Income Block Groups with Higher than Average Rates of Single-Family Appreciation in Houston During the Periods 2011-2016 and 2016-2018

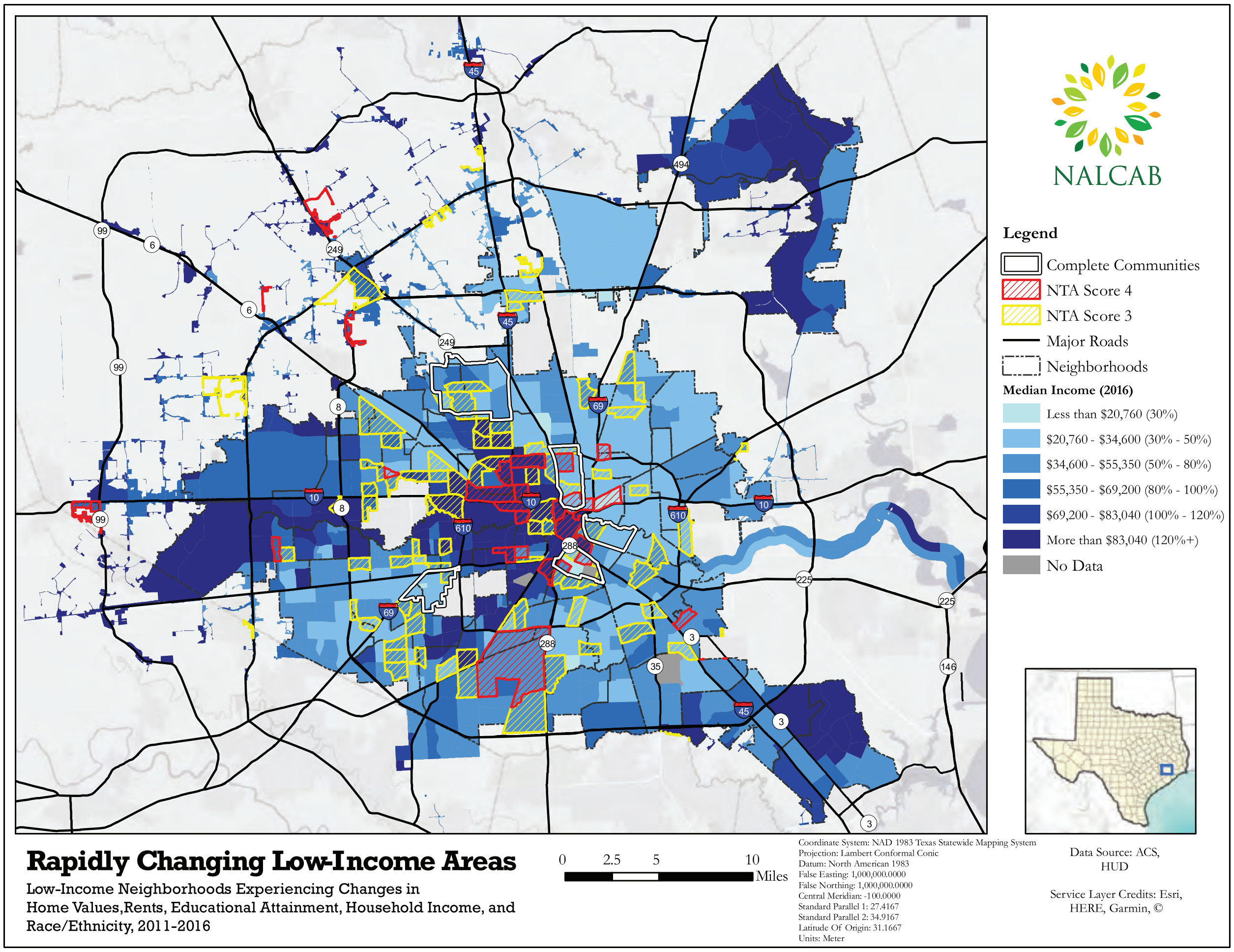
MAP B



RAPIDLY CHANGING NEIGHBORHOODS

High Scoring Census Tracts Using NALCAB's Neighborhood Trend Methodology© for the Period 2012-2016 Overlaid with Median Income

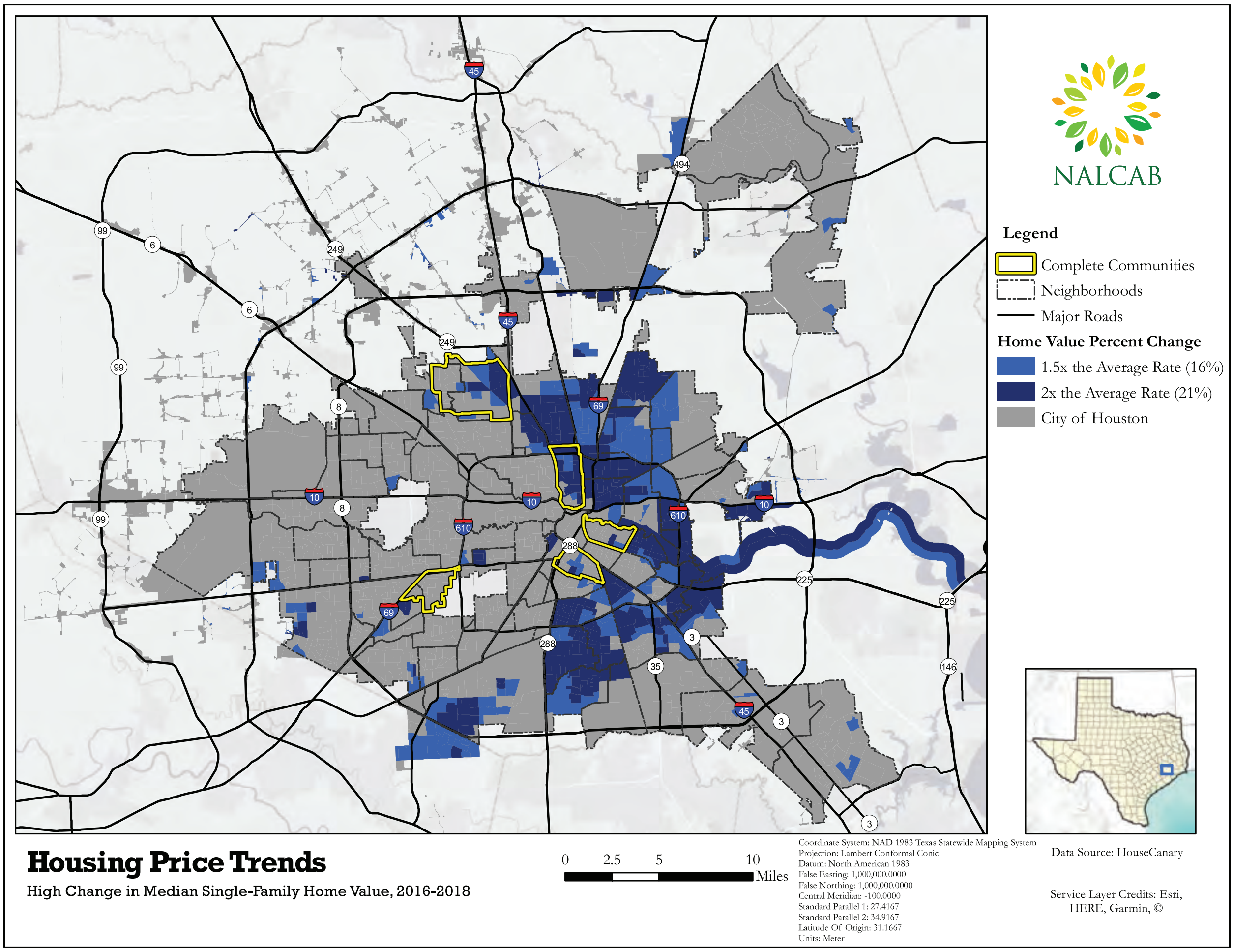
MAP C



A NEW TREND OF PRICE APPRECIATION ACROSS EAST HOUSTON

Block Groups that Have Experienced a Higher than Average Rate of Single-Family Price Appreciation in Houston from 2016-2018

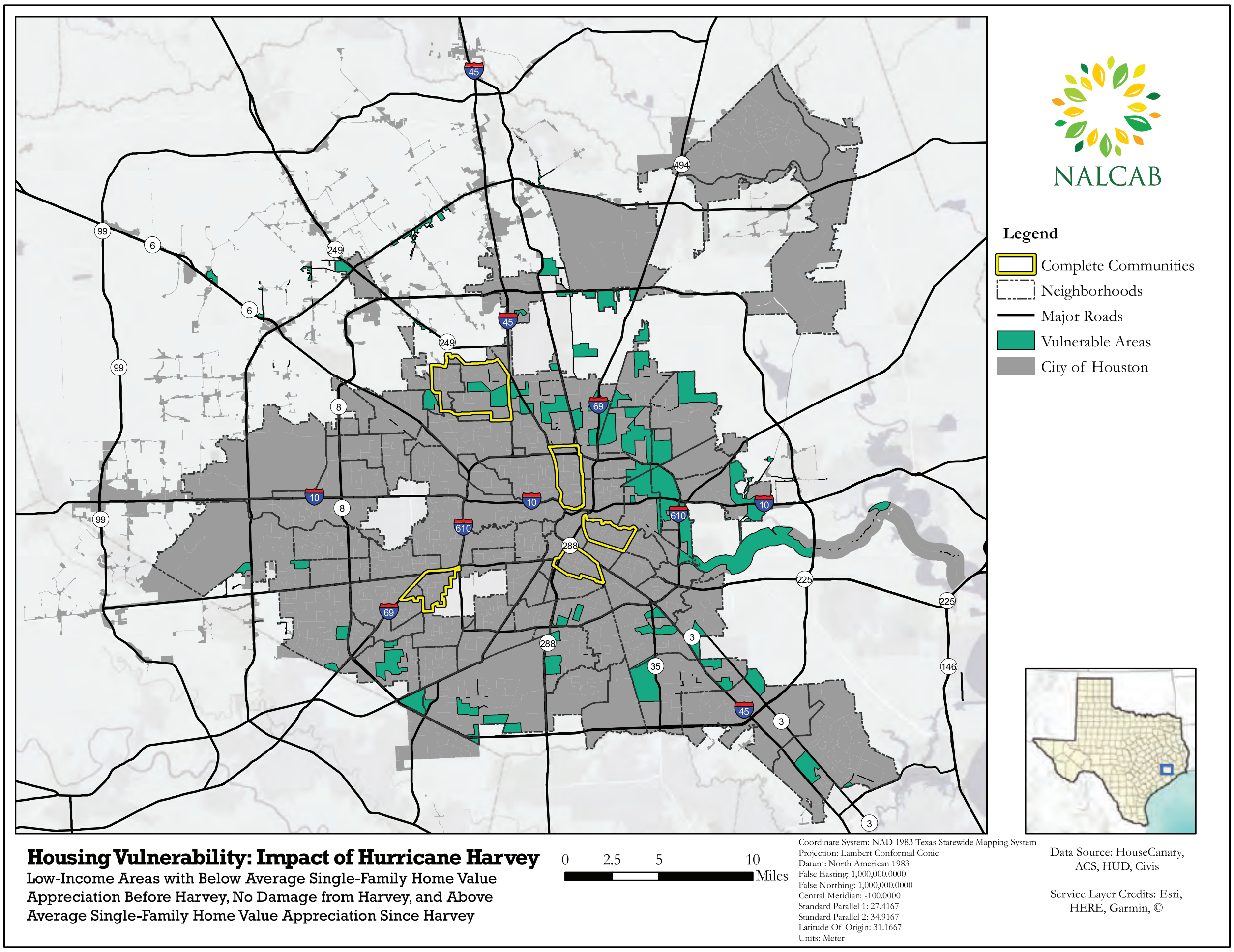
MAP D



EMERGING HOUSING VULNERABILITY IN OUTER LOOP NEIGHBORHOODS AFTER HURRICANE HARVEY

Low-Income Block Groups with Below Average Rates of Single-Family Appreciation from 2011-2016, and No Flooding Due to Hurricane Harvey and Above Average Rates of Single-Family Appreciation from 2016-2018

MAP E



I. INTRODUCTION

The City of Houston's Housing and Community Development Department (HCDD) engaged National Association for Latino Community Asset Builders (NALCAB) to conduct a preliminary study of factors that impact housing vulnerability and affordability in Houston. This is a limited scope report intended to inform the City of Houston HCDD's approach to housing policy and practice and to guide future research on vulnerable populations and affordable housing stock.

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For this report, single-family home values are utilized as an indicator of overall housing market valuations, understanding that values of multifamily rental housing and single-family homes are driven by different factors. The single-family home value data used for this report was purchased from HouseCanary, which uses a proprietary valuation method to estimate the present-day value at which a given residential property will be sold in an arm-length transaction.[5] The data are aggregated at the Census block group level, including data from all block groups that are either fully or partially within the City of Houston limits.

II. WHY HOUSING MATTERS

Housing is a foundational element of the U.S. economy. The Bipartisan Policy Center reported that from 1980 to 2007, residential fixed investment contributed 4.5 percent to the U.S. Gross Domestic Product.[6] Perhaps more importantly, research has shown that where a family lives determines much about their economic trajectory and the opportunities their children will have.[7] For low- and moderate-income families that struggled during the Great Recession, the post-Recession housing market has presented a variety of challenges related to affordability, access to opportunity (including employment, quality education and health services) and building wealth.

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4 NALCAB's Guide to Equitable Neighborhood Development for description of methodology pgs. 20-27 https://3ggt5b182jne4bbuo822a-8hi-wpengine.netdna-ssl.com/wp-content/uploads/2018/02/END-Toolkit-2.pdf

5 HouseCanary methodology: https://www.housecanary.com/property-valuation-method

6 *"Housing's Impact on the Economy."* Bipartisan Policy Center, *12 Feb. 2012,* bipartisanpolicy.org/library/housings-impact-on-the-economy/.

7 Chetty, Raj, and Nathaniel Hendren. *"The Impacts of Neighborhoods on Intergenerational Mobility: Childhood Exposure Effects and County-Level Estimates."* Harvard University and NBER, May 2015, pp.1-85, www.equality-of-opportunity.org/images/nbhds_paper.pdf.

Stable, quality, affordable housing that provides access to employment, educational institutions and health care resources is critical for building wealth and economic mobility. In particular, areas with greater economic and racial diversity favorably impact the economic opportunities for children and families. A growing body of research confirms that stable, quality housing—whether rental or homeownership—contributes to school performance, diminishes health problems, and strengthens neighborhoods.[8]

III. KEY DEFINITIONS

Discussions of housing affordability and vulnerability are often made more difficult because a lack of common understanding of key terms. Defining these terms is a critical prerequisite for establishing policy and programs to address these challenges. The following section provides a detailed discussion of four key terms, providing context for the ensuing analysis.

- **Housing Affordability:** Housing affordability is measured by the ratio of housing costs to household income. Housing costs are most commonly considered to be affordable when they are equal to 30% or less of household income on a monthly basis. For renters, housing costs include rent, utilities and insurance and, for homeowners, housing costs include mortgage payments, utilities, insurance, and property taxes. Housing affordability is more accurately understood when the costs of transportation are also taken into account, especially in a geographically large metro area like Houston. Many experts agree that combined housing and transportation costs are considered affordable if they do not exceed 45% of income.[9] The implication is that, when using a combined housing and transportation cost metric, housing units that cost the same amount to consumers will be viewed differently based on their transit orientation and/or proximity to employment and educational institutions—those places that define the length and cost of the majority of day-to-day travel.

- **Affordable Housing:** This report places an emphasis on housing that is affordable to households that earn below the median income—half of households in Houston. The term "affordable housing" is often used to refer only to housing that is publicly subsidized, such as those financed with Low Income Housing Tax Credits, Section 8 vouchers, public housing funds, etc. Focusing a discussion of affordable housing narrowly on publicly subsidized housing can be misleading because subsidized housing does not represent the majority of affordable housing. Most affordable housing is developed and operated without public subsidy and is sometimes referred to as "naturally occurring affordable housing (NOAH)."

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8 *"How Housing Matters."* MacArthur Foundation, John D. and Catherine T. MacArthur Foundation, 2017, www.macfound.org/programs/how-housing-matters/strategy/.
Brennan, Maya, and Martha Galvez. *Housing as a Platform: Strengthening for the Foundation for Well-Being.* Urban Institute, 30 Sept. 2017, www.urban.org/research/publication/housing-platform.
"New Research on Mobility: Studies by Profs. Chetty, Hendren, and Katz." Department of Economics, Harvard University, 4 May 2015, economics.harvard.edu/news/new-research-mobility-studies-profs-chetty-hendren-and-katz.
Mobility and the Metropolis: How Communities Factor Into Economic Mobility. The Pew Charitable Trusts, Dec. 2013, www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/mobilityandthemetropolispdf.pdf.
Turner, Margery Austin, et al. *Benefits of Living in High-Opportunity Neighborhoods: Insights from the Moving to Opportunity Demonstration.* Urban Institute, 7 Sept. 2017, www.urban.org/research/publication/benefits-living-high-opportunity-neighborhoods
Exploring the Social Determinants of Health. Robert Wood Johnson Foundation, May 2011, www.rwjf.org/content/dam/farm/reports/issue_briefs/2011/rwjf70451

9 *"About the Index"* H+T Index. The Center for Neighborhood Technology's Housing and Transportation Affordability Index, January 2018 https://htaindex.cnt.org/about/; https://linkhouston.org/

Publicly subsidized housing typically has legal covenants that ensure affordability for a particular income range, over a period of time, and that require minimum housing quality standards. The ongoing affordability of lower cost NOAH depends on the supply and demand conditions. Lower cost NOAH is typically not affordable to very low-income households and is often of lower quality.

- **Households experiencing housing vulnerability:** Households experience housing vulnerability when there are factors that threaten their ability to maintain or remain in their home, including those factors described below. Vulnerable households may be less resilient to changes in the housing market and/or less able to maintain and repair their home.

  In Houston's Local Needs Assessment, which was developed as part of the planning process for federal disaster recovery funds, the City used the Center for Disease Control's Social Vulnerability Index.[10] This index measures a broader range of vulnerability based on 15 factors, including housing issues.

  This limited scope report focuses particularly on housing vulnerability and, specifically, the potential of real estate appreciation to impact low-income and cost-burdened households.

  - **Income-based Vulnerability:** Households with low- and moderate-incomes have more limited housing choices relative to higher income households and are more vulnerable to market changes and natural disasters. Higher income households are more likely to have flexibility for responding to increasing housing costs, from something as simple as going out to dinner less, to more fundamental reallocation of their household income. Lower income households typically spend a larger portion of their income on basic costs of living (food, clothing, transportation, etc.), which gives them less flexibility to pay for increasing housing costs. When housing costs leave a household with insufficient income to meet these basic costs of living, households are vulnerable to becoming homeless. Month-to-month volatility in household income and expenses can exacerbate the vulnerability of a low-income households, especially if incomes are dependent on insecure employment or underemployment. Low- and moderate-income populations located in areas of Houston that have not flooded may be vulnerable to price appreciation and potential displacement. Properties in these non-flood areas will be attractive for acquisition and subsequent redevelopment. This is a specific concern that Houstonians communicated during the disaster recovery-related community engagement process conducted by the City of Houston following Hurricane Harvey.[11]

  - **Physical/Mental Health-related Vulnerability:** Households with individuals that have physical disabilities or mobility impairments, including frail elders, have unique housing needs (i.e. concerns with accessibility, first floor access, etc.), which can significantly impact their quality of life and/or severely constrain their housing options. Households with a member that suffers from a chronic debilitating illness or mental disability may also face housing-related barriers. These challenges can be compounded for low- and moderate-income households but are not limited to any income segment.

10 Center for Disease Control. *Social Vulnerability Index Fact Sheet.* September 10, 2018. https://svi.cdc.gov/factsheet.html.

11 City of Houston. *Build it Forward: Community Feedback about Harvey Recovery.* Summary of Comments Received on *Houston's Local Action Plan for Housing Recovery*. June 26, 2018. https://houstontx.gov/housing/Community_Feedback_Summary_V-4.pdf

- **Social Vulnerability:** A variety of social factors can impede access to housing. Formerly incarcerated individuals experience well-documented barriers to quality housing. Family size is another factor that can significantly constrain housing choices, particularly for large families in the rental market. Households with an undocumented member face additional barrier to secure housing and income stability.

- **Vulnerability Related to Discrimination:** The Fair Housing Act protects people from discrimination based on their race, color, national origin, age, sex, family type, religion, and disability. Despite the existing legal protections, housing discrimination occurs all too frequently. A variety of other populations face discriminatory challenges, including same-sex couples. Housing discrimination tends to increase in tighter housing markets when owners and sellers have more leverage and opportunities for greater returns.

- **Homelessness:** Homeless populations often fit into all the categories of vulnerability described above, and, from a housing perspective, they represent the most vulnerable populations.

- **Vulnerable Affordable Housing Stock:** Existing affordable housing stock may be considered vulnerable either because there are factors that could lead to significant price increases or because deteriorating physical condition or geographic location make units unmarketable and/or uninhabitable. Vulnerable affordable housing stock can be described in the following categories.

  - **Vulnerability to Disasters:** Housing can be vulnerable due to being located in areas that are subject to disasters, whether naturally occurring, caused by humans or some combination of the both. Flood zones, areas prone to fire hazard, and areas near highly toxic or explosive industrial uses are a few examples. Predicting the location and impact of disasters (using flood maps, for example) is extraordinarily difficult. A study by Civis, commissioned by the City of Houston, found that 64% of the city was covered in flood waters during Harvey and that 59% of the damage was outside any defined flood plain. The changing intensity and frequency of major storms and other natural disasters will impact decisions about where to locate housing. In addition, increasing insurance costs associated with risk of covering damage from disasters will continue to impact the affordability of all kinds of housing.

  - **Subsidized rental units with expiring affordability covenants:** Privately-owned housing units that have been financed using government subsidies have affordability covenants, or time-limited requirements that they only be leased to households below a specified income range. Subsidized housing is subject to minimum housing quality standards and units are typically inspected by a government agency prior to lease-up and periodically thereafter. When covenant periods come to an end, owners may choose to increase rents to increase their net rental income or sell the property. This can lead to significant rent increases when affordability covenants expire on units located in high-cost or appreciating neighborhoods. Low income housing tax credits (LIHTCs) are among the most commonly used sources of subsidy to produce rent restricted rental housing developments. LIHTCs has a minimum 15 year affordability covenant that, in the State of Texas, is typically extended to 30 years. Another form of subsidy, project-based Section 8, is a direct rental subsidy paid to a private owner of multifamily rental housing property to cover a portion of the rent for low-income tenants during a given contract period (often five years). When the contract ends, if the owner chooses not to renew the contract, tenants will be left to pay the full rent on their own or they will be displaced.

- **NOAH located in neighborhoods experiencing price appreciation:** A sizable portion of the rental housing affordable to households earning below the area median income is market-rate housing, meaning it was built and operates without any government subsidy. This is a category of lower cost housing that typically has significant quality concerns. Those owners who invest very little in the upkeep of their rental properties can afford to charge lower rent. Owners will typically increase rents as they see evidence that housing values are increasing. In neighborhoods experiencing price appreciation, market-based affordable rental housing is highly vulnerable to rapid price increases.

- **Homeownership and rapidly rising tax obligations:** Housing units that are owned by lower income households can be subject to increased housing costs due to rising tax obligations and insurance costs. Seniors that claim the homestead exemption are protected from rising taxes, though not from increases in insurance, utilities, homeowners' association (HOA) fees and other housing costs. However, when homes have benefitted from a senior homestead exemption for an extended period and they are then passed to the next generation or sold, they can be subject to rapid increases in tax obligations. This dynamic is more challenging when homes are passed to multiple owners in the next generation, potentially resulting in shared titles and absentee owners. Owners faced with tax obligations that they struggle to afford are vulnerable to property tax lenders, who pay off property taxes and use the home as collateral to secure the debt. This lending model can lead to abuses when the owner misses a payment and the lender moves to foreclose on the entire house to pay the loan. Property tax lenders aggressively market to households that fall behind on their taxes including through billboards, direct mail and even door to door solicitation.

- **Mobile home communities:** Mobile home communities, a type of market-based affordable housing, are particularly vulnerable to real estate market price appreciation. Typically, the owner of a mobile home community owns the land, utilities and other infrastructure improvements, and leases these to a household that owns or rents their own mobile home. Undeveloped land can be particularly attractive to developers. When a mobile home community is sold to an investor who intends to develop the land for a different purpose, the entire community can be subject to dislocation. It is important to note that manufactured homes are often thought of as a viable quality affordable housing option but the financing (chattel loan products) is not offered by many lenders and tends to be a more expensive product with unfavorable terms.

- **Housing in significant disrepair:** Beyond rising tax burdens, homeowners must also contend with the costs of maintenance and upkeep. The older a home, the more likely a property owner will need to invest significantly in maintenance. When owners do not have the income to make repairs or have circumstances that make upkeep difficult or simply choose not to invest in a property, deferred maintenance can lead to conditions that trigger code violations. Code enforcement plays an important role in ensuring health and safety of the City's housing stock. Code violations may be an important indicator of the vulnerability of "naturally occurring" affordable rental housing because they may trigger repairs that an owner may then seek to recover through increasing rent. Code violations can also be a challenge for low-income owners. Whether rental or ownership, these situations can present economic challenges for low-income people and may be best resolved with financial assistance and/or supportive services.

IV. DEMOGRAPHIC AND HOUSING MARKET TRENDS IN HOUSTON

It is important to contextualize any housing affordability or vulnerability analysis with relevant demographic and housing market trends. The following are key trends for the City of Houston.

- **Houston is experiencing a long-term trend of population growth:** The population of the City of Houston grew by approximately 15% between 2000 and 2016 (US Census), and is projected to grow by 175,000 additional residents by 2023 (ESRI Community Analyst). This growth requires the production of new housing units affordable to households across the entire income spectrum. The Kinder Institute for Urban Research at Rice University presents projections of population growth and demographic change in Houston through 2030 that, among other findings, illustrates the dramatic growth of the Hispanic population relative to other demographic groups.[12]

- **Average housing costs are increasing in Houston:** According to Marcus & Millichap, a real estate brokerage and data firm, in the 3rd Quarter of 2018, the average monthly effective rent for multifamily apartments in Houston rose year-over-year by 7.6% to $1,093.[13] The National Association of Home Builders/ Wells Fargo Opportunity Index indicates that the median sale price for a home in the Houston/ Woodlands/ Sugarland MSA in Q3 2018 was $241,000, the highest average quarterly sales price since the Index began.

- **Racial and ethnic segregation remains a defining feature of Houston's housing market:** When the predominant race and ethnicity of the population in any given block group in the City of Houston is represented on a map, clear patterns of residential segregation emerge. See **Map 1**.

- **An increasing number of households in Houston are facing housing affordability challenges:** Households that earn less than the median income face significant challenges in affording housing, especially if they require multiple bedrooms for children and/or have significant transportation costs. 46.7% of renter households in Houston were cost burdened in 2015 (paying more than 30% of their income for housing).[14] In the City of Houston, between 2005 and 2017, the median household income increased by 28% and the median home sale price increased by 62%. Today, a household earning the median income in Houston cannot afford the median home sale price in Houston.

V. ANALYSIS OF HOUSING AFFORDABILITY AND VULNERABILITY

The following are key findings from NALCAB's limited scope analysis of demographic and real estate market data in the City of Houston.

Homeownership is becoming increasingly unaffordable to low- and middle-income households in the City of Houston, which are disproportionately African-American and Latino.

Since 2012, home sale prices in Houston and the larger Houston/ Woodlands/Sugar Land Metropolitan Statistical Area (MSA) have increased faster than incomes, making the regional housing market less

12 https://kinder.rice.edu/2017/12/18/projections-show-how-houston-and-the-country-will-change-by-2030

13 Marcus & Millichap – *Multifamily Research, Houston - 3rd Quarter Market Report*.

14 "Millions of Americans Burdened by Housing Costs in 2015." Joint Center for Housing Studies, Harvard University, 2017, www.jchs.harvard.edu/son2017-housing-cost-burdens-table.

affordable for the average household. The charts below compare home prices and incomes during the period 2005-2017, for the City of Houston and the Houston/ Woodlands/Sugar Land Metropolitan Statistical Area (MSA), illustrating a trends before, during, and after the Great Recession. These data show that home sale prices and incomes have diverged during the recovery from the Recession. Between 2005-2017, in the MSA the median household income increased by 17% (from $61,000 to $71,500) and the median home sale price increased by 60% (from $142,354 to $228,000), with the fastest increase happening between 2012-2014. In the City of Houston over the same period, the median household income increased by 28% (from $36,894 to $50,896) and the median home sale price increased by 62% (from $142,000 to $229,900).[15]

CHART 1

Affordability of Homeownership in the City of Houston

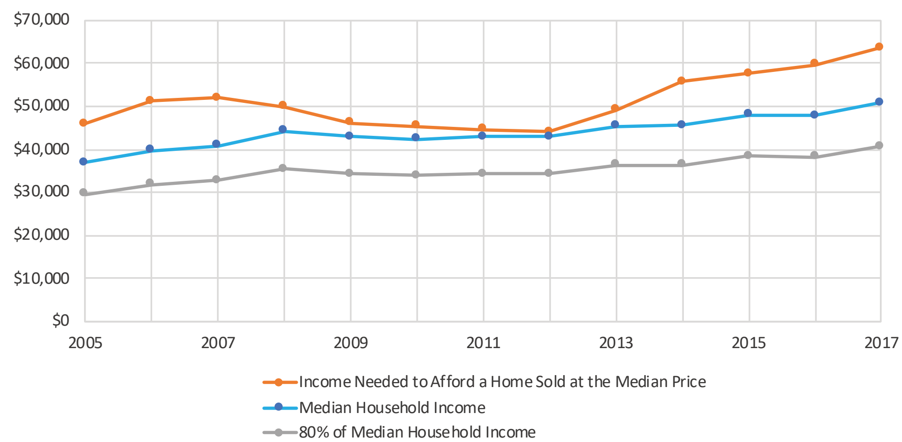
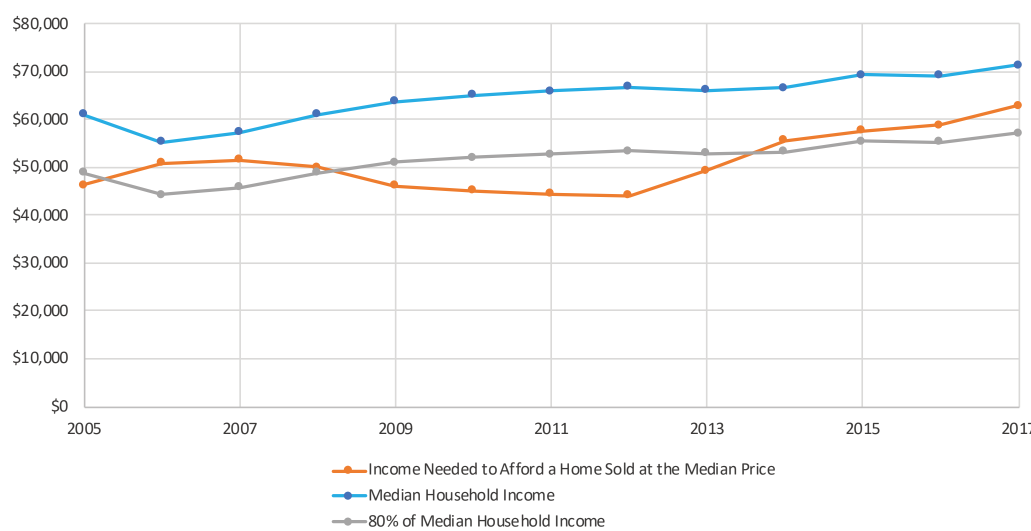


CHART 2

Affordability of Homeownership in the in the Houston/Woodlands/Sugar Land MSA



15 Median household income, for the MSA was determined by using US Department of Housing and Urban Development area median income estimates for a family of 4. HUD income limits can be accessed at https://www.huduser.gov/portal/datasets/il.html. City of Houston median household income was determined using US Census Bureau American Community Survey 1-Year Estimates, Table B19013 Median Household Income In the Past 12 Months, which can be accessed at factfinder.census.gov. Median home sale prices were determined from data published by Houston Realtors at www.har.com/content/mls/?m=1&y=05.

In the City of Houston, where both incomes and home sale prices are lower than in the MSA, a home sold at the median sale price is not affordable to a household that earns the median income for the city, and less so for households earning below the median. **Chart 1** shows the gap between median household income and income needed to afford a home sold at the median sale price, for the City of Houston. Between the start of the Great Recession, in 2007, and 2012, the gap between what a family earned and what a home cost narrowed slightly as home prices fell. Since 2012, however, the gap has widened again as housing prices have increased faster than incomes. In 2017, the gap between the median household income ($50,896) and the income needed to afford a home sold at the median price ($63,654) was $12,758—meaning a family would need to earn $12,758 more per year to afford to purchase a home sold at the median sale price. For a low-income family this gap was $22,937.

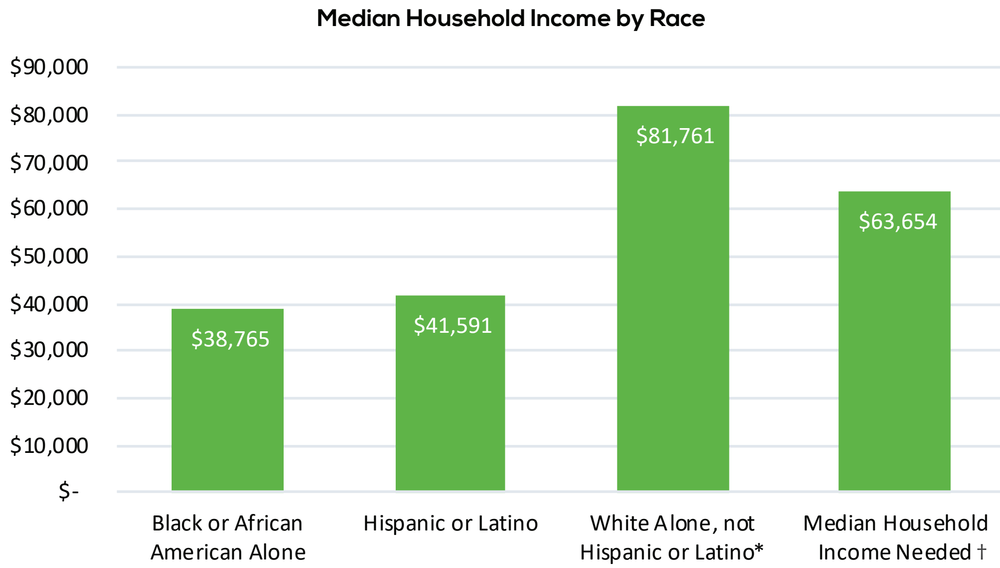
Chart 2 shows the gap between median household income and the income needed to afford a home sold at the median price, for the MSA, calculated using a tool developed by the National Housing Conference.[16] In each year between 2005-2017, a household earning the median income for the MSA could afford to purchase a home sold at the median price. Since 2012, the increase in home sale prices has outpaced growth in income, putting this affordability at risk for those households. For low-income households in the MSA (meaning those earning below 80% of the median household income), however, homes selling at the median price are already unaffordable, and have been so since 2014.

In Houston, African-American and Latino households earn less than White households. This means that the overall affordability challenge illustrated in Chart 2 is even worse for African-American and Latino families. **Chart 3** shows the median household income for African-American, Latino, White, and Asian households in Houston in 2017.[17] It also shows the income needed to afford a home sold at the median sale price, from Chart 2. What Chart 3 illustrates is that housing is most unaffordable to African-American and Latino households, who faced gaps of $24,886 and $22,063, respectively, in 2017, between what they earned and what they needed to earn to afford a home sold at the median sale price.

16 To calculate the "income needed to afford" homes at the median price, we use the National Housing Conference's Paycheck to Paycheck analysis tool: https://www.nhc.org/wp-content/uploads/2016/08/Conduct_Your_Own_NHC_Paycheck_Analysis.pdf.
For homeownership, we based the home purchase price on median sale price information from Houston Realtors (www.har.com); interest rates from the Federal Housing Finance Agency Monthly Interest Rate Survey (MIRS), using the contract interest rate for conventional single-family mortgages (https://www.fhfa.gov/DataTools/Downloads/Pages/Monthly-Interest-Rate-Data.aspx); and assume a monthly insurance cost of .022 for Houston (assuming .0015 for a low-cost area and .0025 for a high cost area). A down payment amount of 10% of the purchase price was assumed. Principal and interest was calculated assuming a 30-year fixed mortgage, adding monthly taxes and insurance to monthly principal and interest amount to calculate monthly homeownership costs (or PITI). It was assumed that underwriters would not accept a housing debt to income ratio of more than 28% of annual income.

17 Source: United States Census Bureau, *American FactFinder*. Median Household Income in the Past 12 Months (In 2017 Inflation-Adjusted Dollars), Tables B19013B, B19013I, B19013A. October 2018

CHART 3

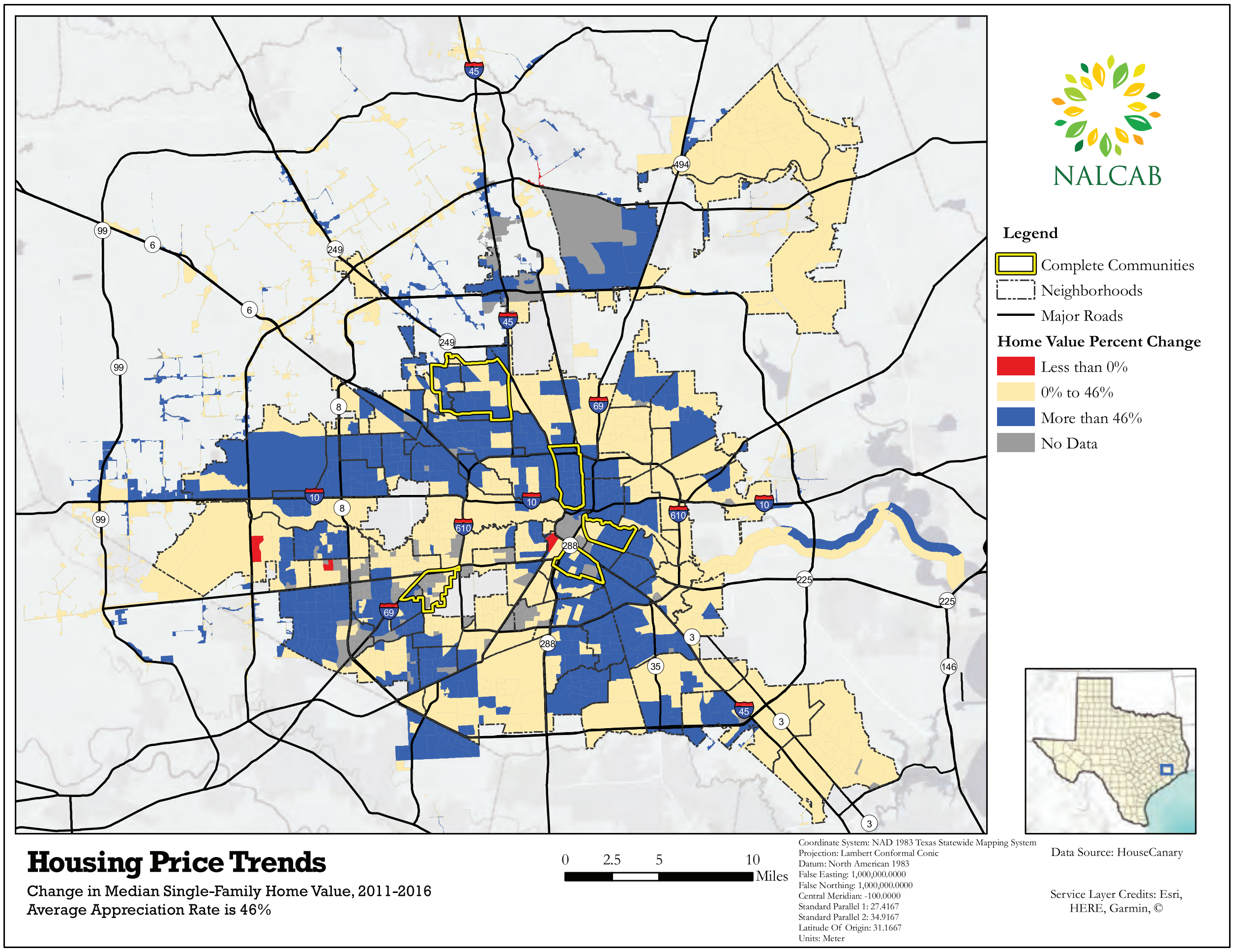


† Please refer to footnote 16 for how this number was calculated

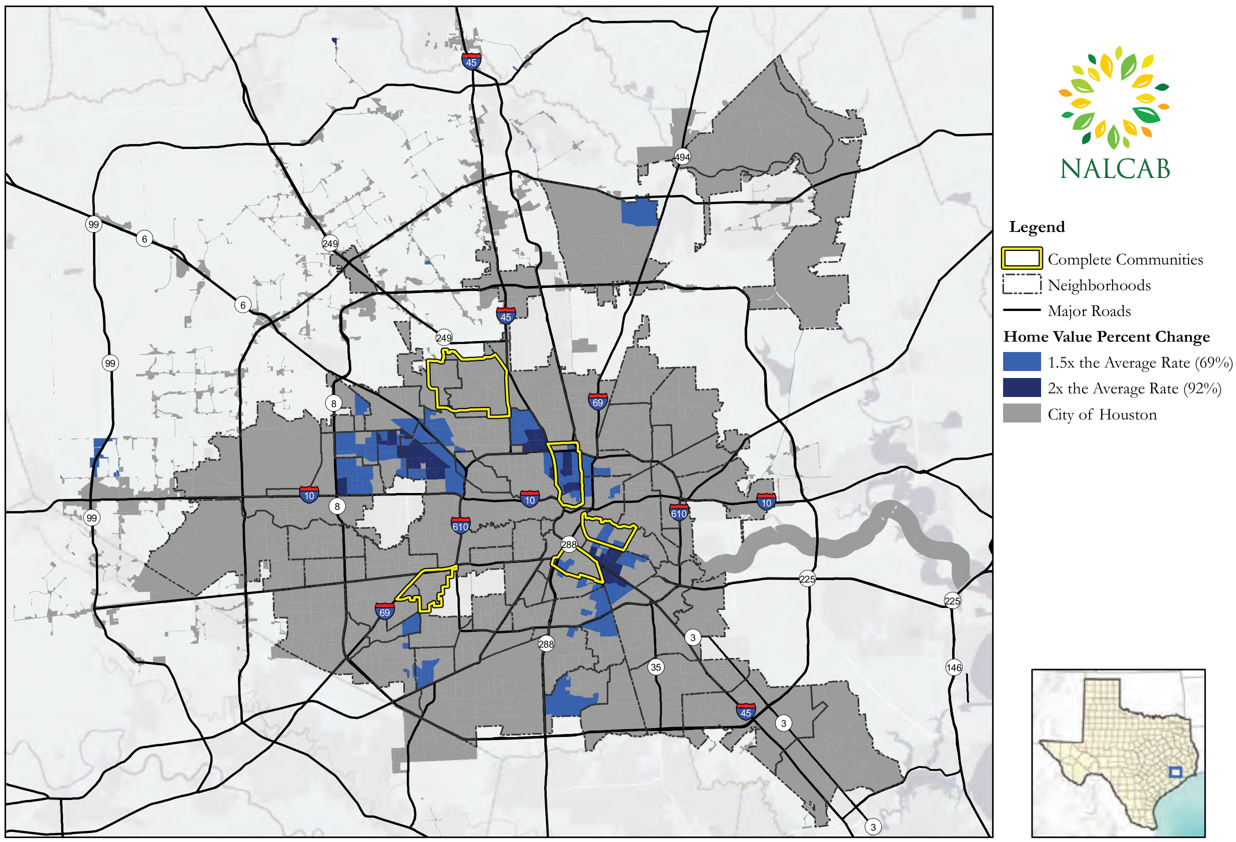
Housing prices are rising rapidly in areas of Houston that are home to predominantly low-income and African-American and Latino households. Households living in these neighborhoods will be increasingly vulnerable to housing cost burden and displacement pressures as housing costs increase.

The Houston housing market was experiencing broad-based price appreciation in the years leading up to Hurricane Harvey. Based on data purchased from HouseCanary, between 2011-2016, single-family home values in the City of Houston appreciated by an average of 46.01%. For comparison, over the same period, single-family home values increased by 51.01% in Dallas and by 29.19% in San Antonio. **Map 1** shows these trends by block group. Nearly every part of the city experienced increases in home values. The areas shaded in blue indicate block groups that appreciated faster than the average rate of 46.01%. The beige areas saw price appreciation below the citywide average and the red areas saw single-family home values decline. **Map 2** illustrates those block groups that saw the fastest home value appreciation. The lighter shade of blue indicates where single-family home values increased at a rate that exceeded 1.5 times the citywide average rate of appreciation, or 69%. The areas colored with the darker shade of blue experienced single-family home value appreciation at or more than twice times the citywide rate, or 92%.

MAP 1


NALCAB
Legend
Complete Communities
Neighborhoods
Major Roads
Home Value Percent Change
Less than 0%
0% to 46%
More than 46%
No Data
Housing Price Trends
Change in Median Single-Family Home Value, 2011-2016
Average Appreciation Rate is 46%
0 2.5 5 10 Miles
Coordinate System: NAD 1983 Texas Statewide Mapping System
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,000,000.0000
False Northing: 1,000,000.0000
Central Meridian: -100.0000
Standard Parallel 1: 27.4167
Standard Parallel 2: 34.9167
Latitude Of Origin: 31.1667
Units: Meter
Data Source: HouseCanary
Service Layer Credits: Esri, HERE, Garmin, ©

MAP 2



Housing Price Trends

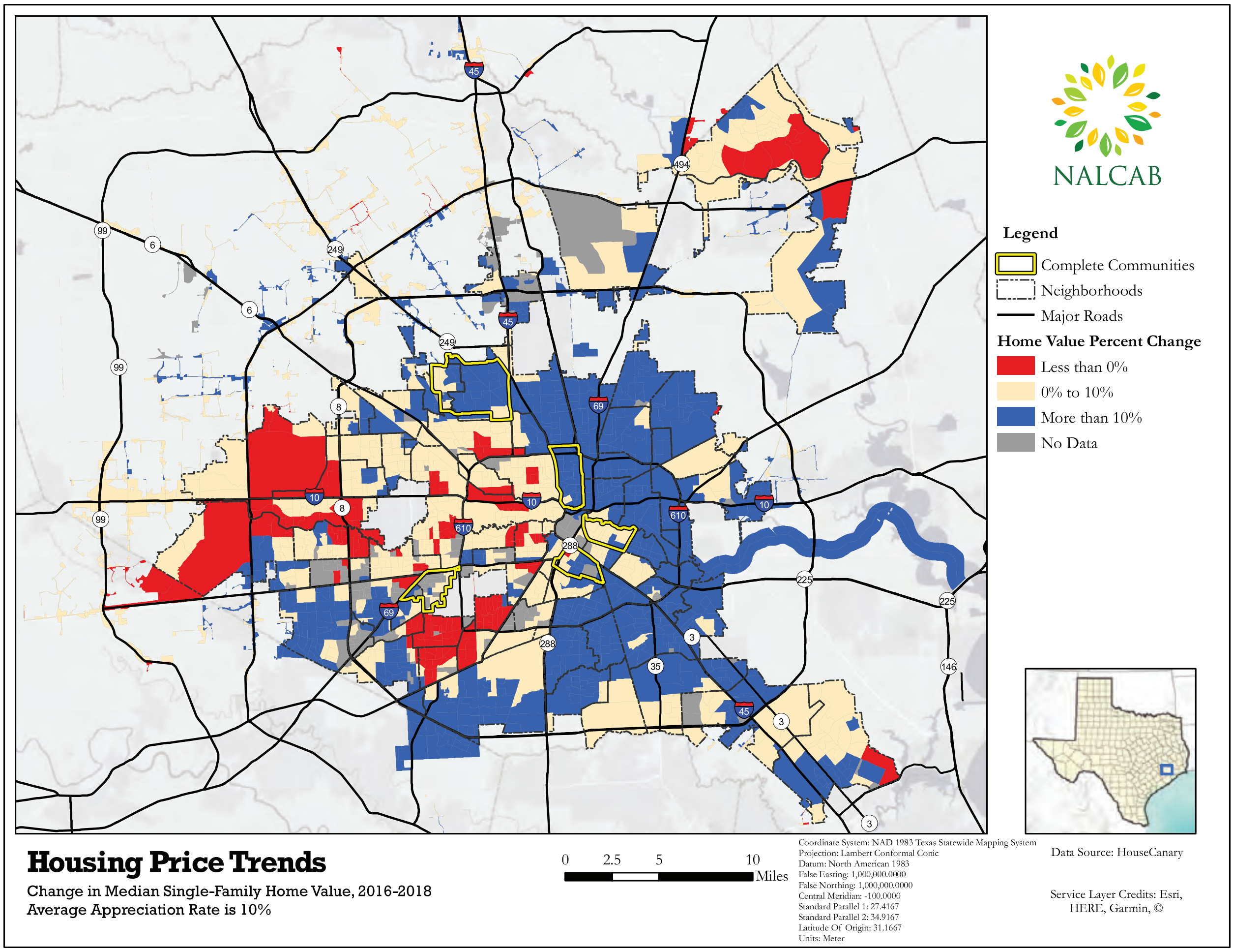
High Change in Median Single-Family Home Value, 2011-2016

Coordinate System: NAD 1983 Texas Statewide Mapping System
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,000,000.0000
False Northing: 1,000,000.0000
Central Meridian: -100.0000
Standard Parallel 1: 27.4167
Standard Parallel 2: 34.9167
Latitude Of Origin: 31.1667
Units: Meter

Data Source: HouseCanary

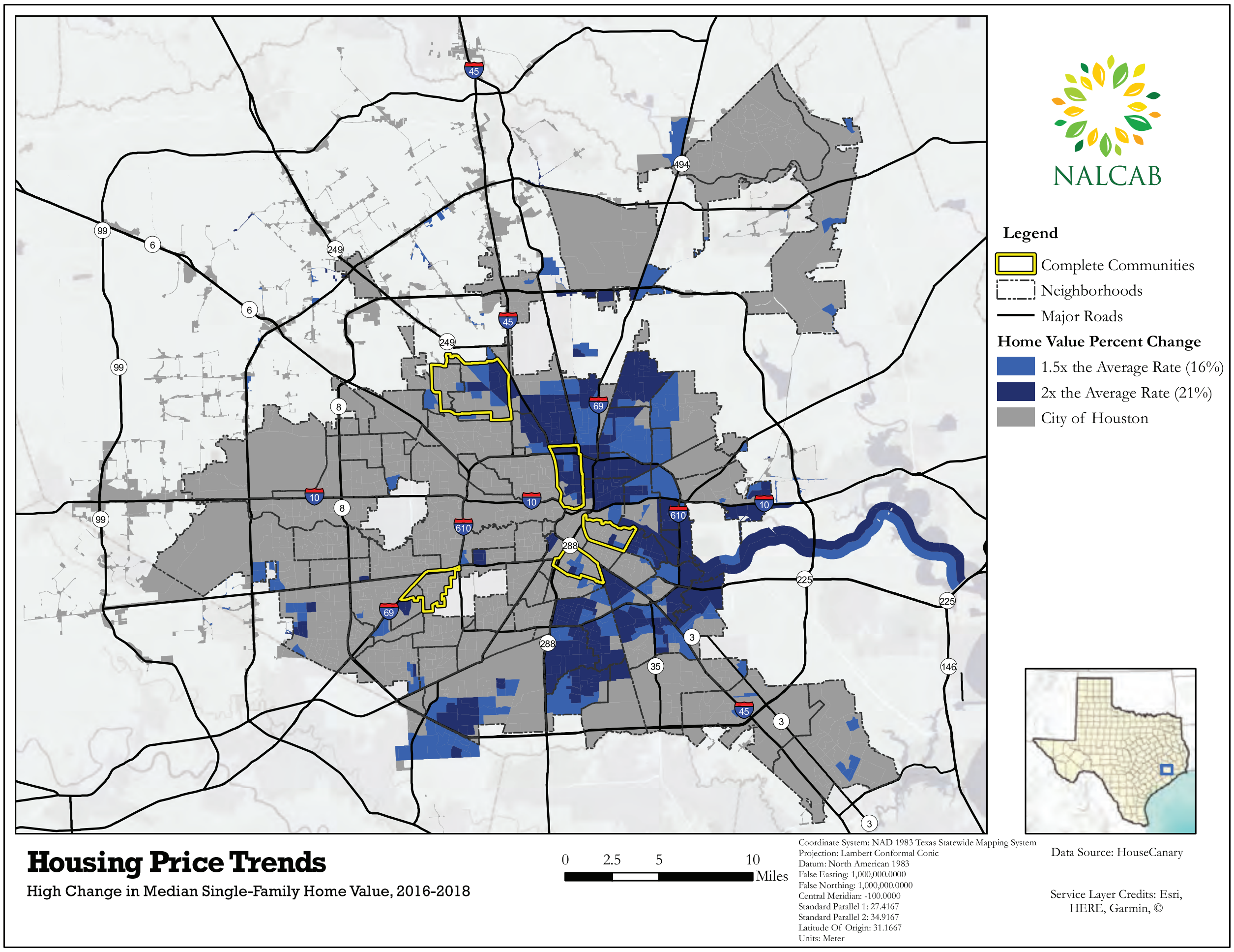
Service Layer Credits: Esri, HERE, Garmin, ©

MAP 3



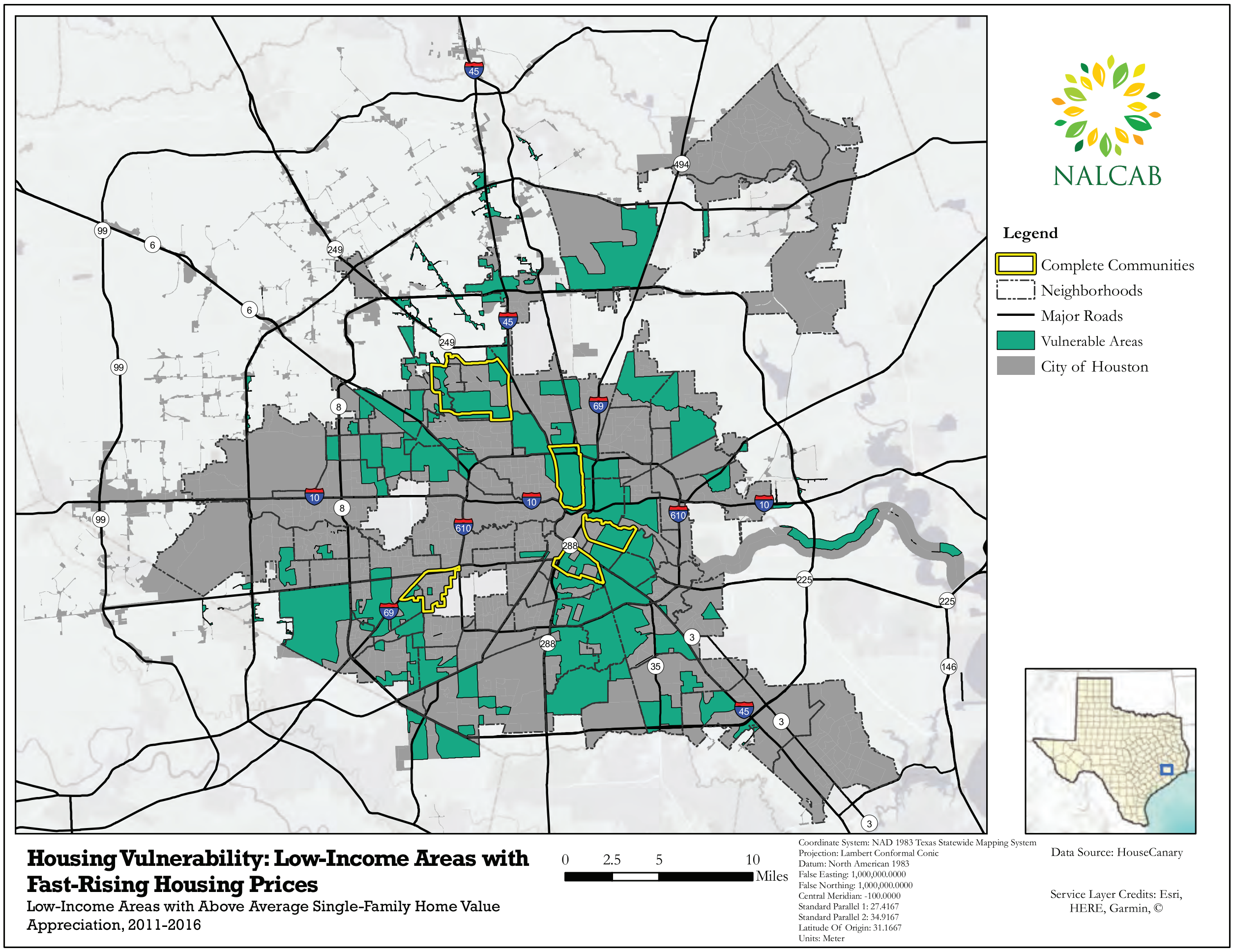
Map 3 shows the change in single-family home values between 2016 and the first six months of 2018 (the most recent data available at the time this report was produced) by block group. Some areas to the west of downtown saw declining home values, indicated by their red shading. During this time period, single-family home values increased by an average of 10.67% across the city. Some areas where values had appreciated between 2011-2016 saw values decrease between 2016-2018. The areas shaded blue indicate block groups that appreciated faster than the average rate of 10.67% during this period.

MAP 4



Map 4 highlights the block groups that saw the most rapid home value appreciation during this period. The lighter shade of blue indicates where single-family home values increased at a rate that exceeded 1.5 times the citywide average rate of appreciation, or 16%. The areas colored with the darker shade of blue experienced single-family home value appreciation at or above two times the citywide rate, or 21%. The areas of the city with the highest rates of single-family price appreciation shifted noticeably to the east.

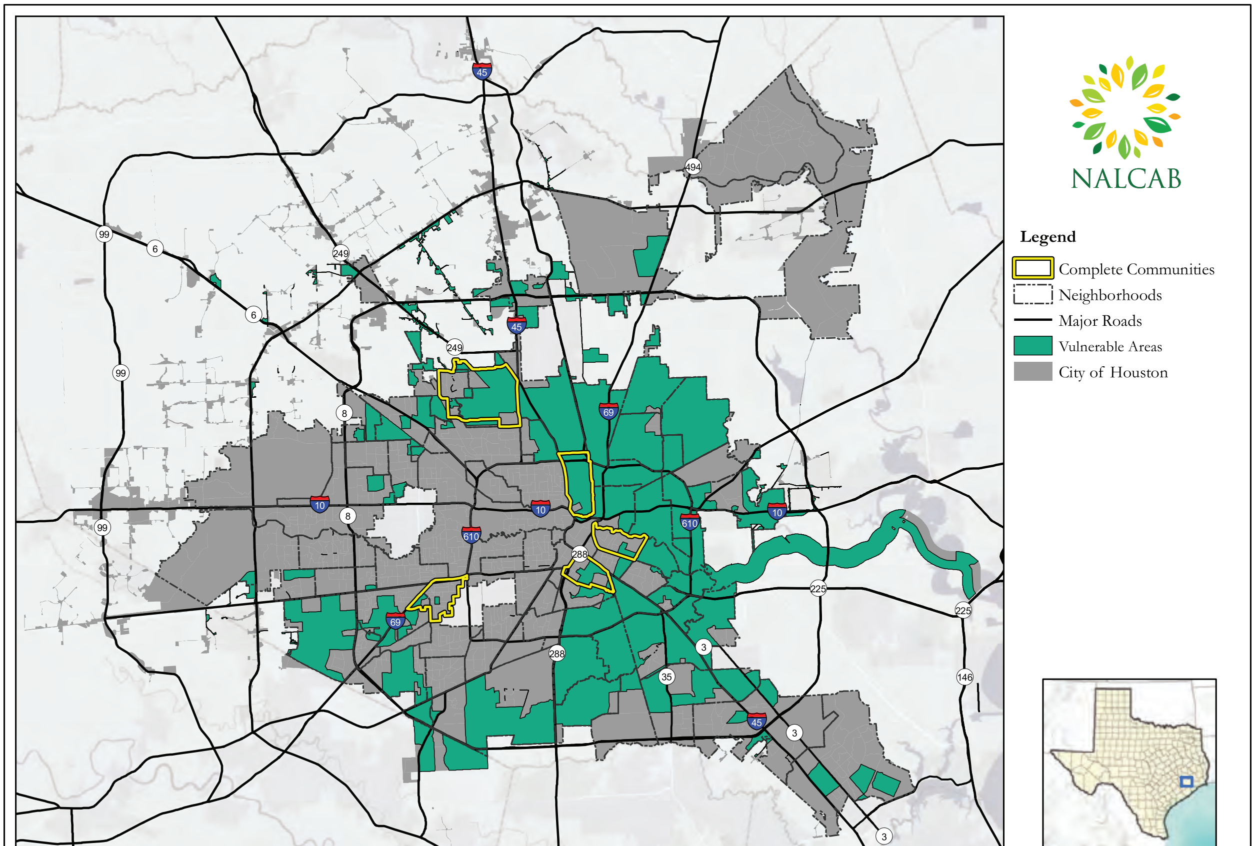
MAP 5



For a household, appreciation in home values can mean many things. For low-income Houstonians, the risks associated with rapid appreciation in home values can include increased housing cost burden as rising housing costs (i.e. rent for renters and property taxes for homeowners) consume more of the family budget, and the potential for displacement.

Map 5 shows the location of potentially at-risk households in the years leading up to Harvey. The map shows block groups where median household income in 2016 was at or below $55,350 (80% of the MSA area median income) and where single-family home values appreciated faster than the citywide average of 46.01% between 2011-2016.

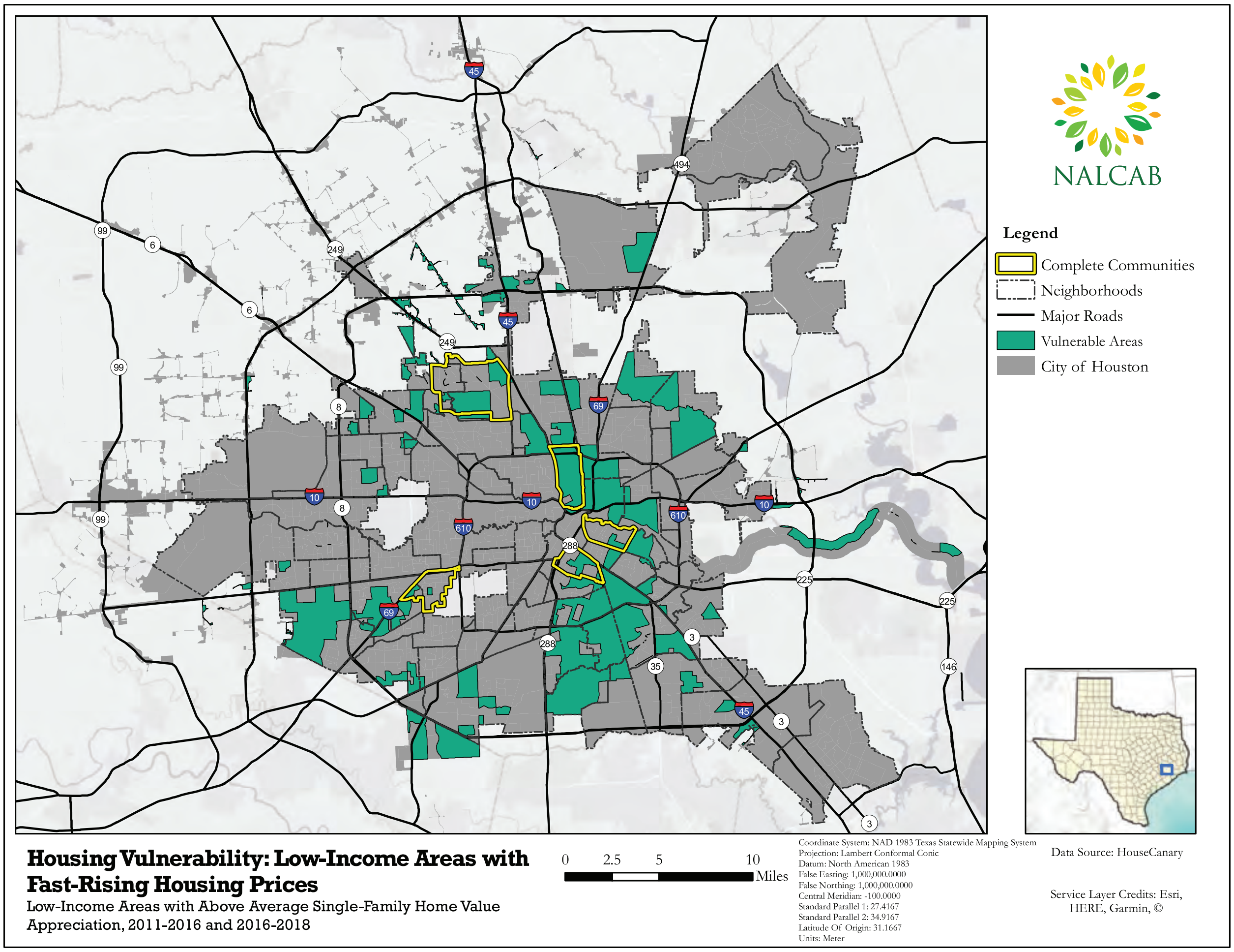
MAP 6



Housing Vulnerability: Low-Income Areas with Fast-Rising Housing Prices
Low-Income Areas with Above Average Single-Family Home Value Appreciation, 2016-2018

Map 6 displays the shift in market trends after Harvey. The map shows the block groups where median household income in 2016 was at or below $55,350 (80% of the MSA area median income) and where single-family home values appreciated faster than the citywide average of 10.67% between 2016-2018. What this shows is that more block groups in the eastern and northern edges of the city experienced price appreciation above the citywide average in the wake of Harvey.

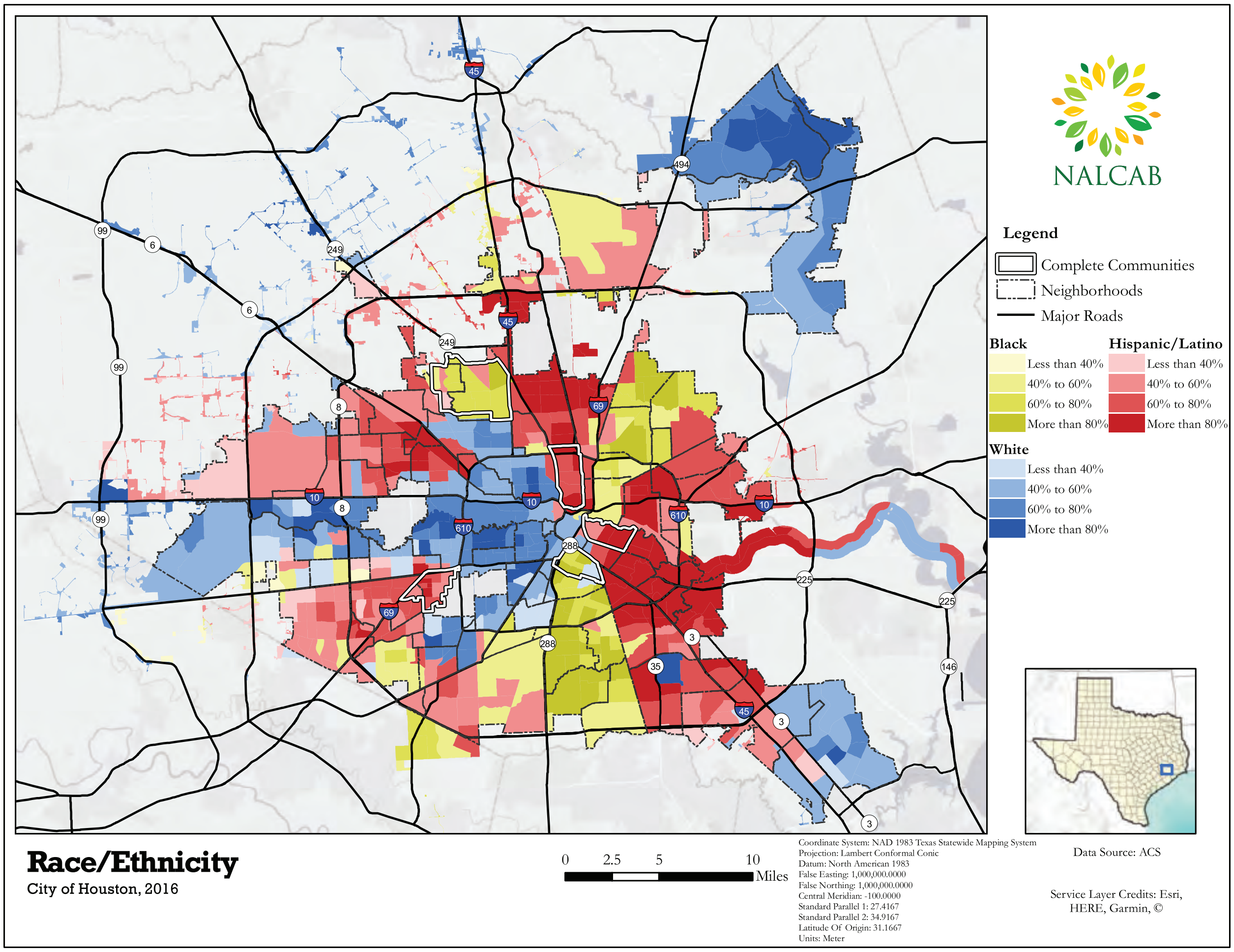
MAP 7



Map 7 shows where low income areas (below 80% of the MSA area median income) were appreciating in single-family home values faster than the city's average, both in the years leading up to Harvey (2011-2016), as well as the years where Harvey began to shift trends (2016-2018).

Map 8 shows where Houstonians of different races/ethnicities live. When comparing Map 7 to the previous maps, it is clear that the vulnerable areas identified by this analysis are all in parts of Houston that are primarily home to African-American and Latino residents.

MAP 8

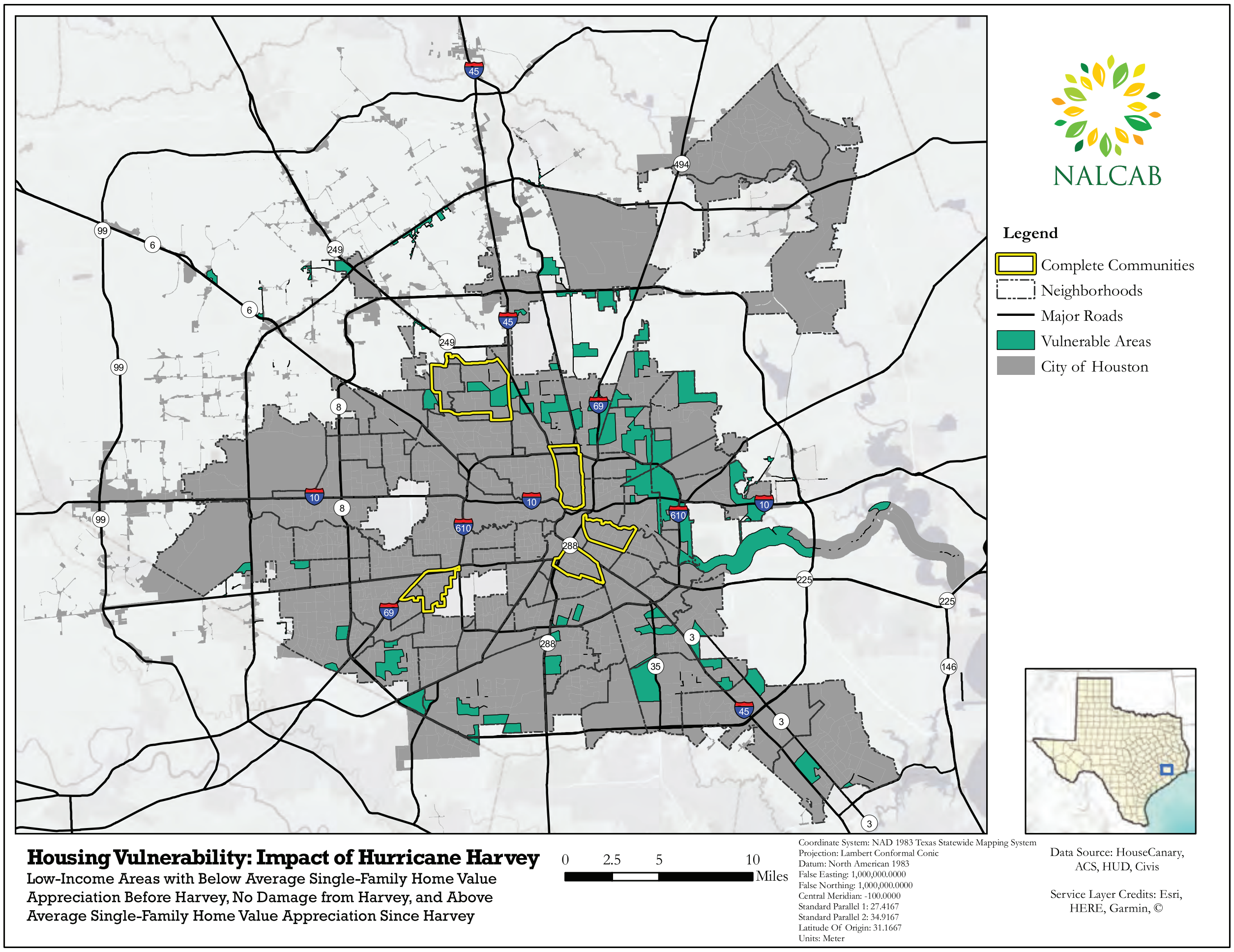


Changes in real estate market trends since Hurricane Harvey may be increasing the risk of displacement for low-income Houstonians in a few specific parts of the city, due to above average housing price appreciation.

Post-Harvey, Houston residents expressed concern that areas that did not flood during the storm might experience increased "real estate speculation, gentrification, rising rents, and increasing property taxes", which would all increase the risk of displacement.[18] There is evidence in the data that this concern is well founded.

18 City of Houston. *Build it Forward: Community Feedback about Harvey Recovery*. Summary of Comments Received on *Houston's Local Action Plan for Housing Recovery*. June 26, 2018. https://houstontx.gov/housing/Community_Feedback_Summary_V-4.pdf

MAP 9

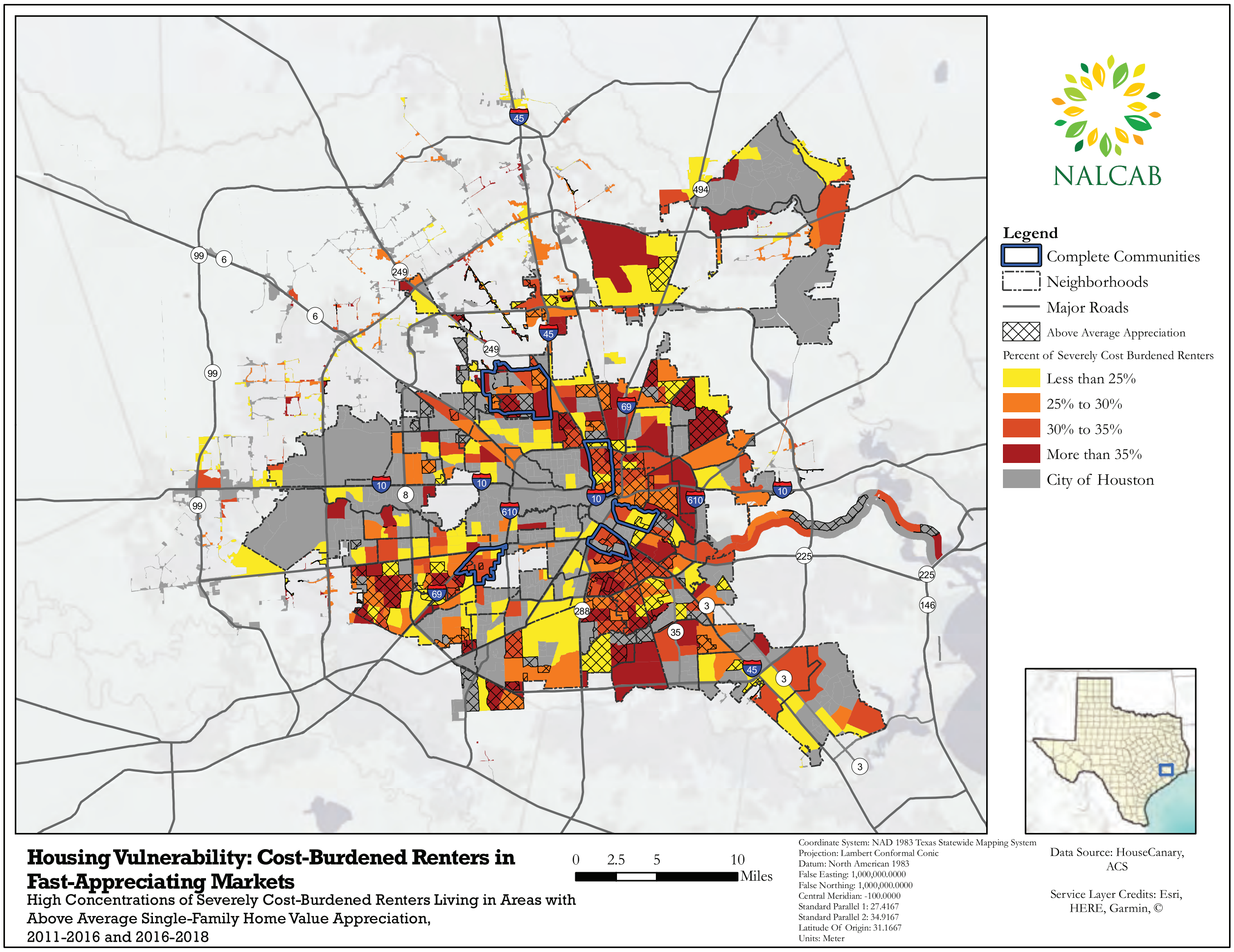


Severely cost-burdened households that rent in appreciating neighborhoods may be vulnerable to increased hardship and displacement pressures as housing costs continue to increase.

1. Median household income in 2016 was at or below $55,350 (80% of the MSA area median income).
2. Single-family housing values **did not** appreciate faster than the citywide average before Harvey, between 2011-2016.
3. There was no recorded property damage from Harvey.
4. Single-family housing values **did** appreciate faster than the citywide average between 2016-2018, which would include the impact of the storm on home values.

Map 9 includes data on building damage sustained during Harvey, which we use as a proxy to identify areas that flooded. These data were made available through the HEAL Platform developed by Civis, a consultant working with the City of Houston. The map displays the areas that are experiencing housing value appreciation that may be connected to the fact that they did not see significant flooding during Harvey. The map shows the block groups where the following is the case.

MAP 10



A subset of appreciating neighborhoods are experiencing significant demographic changes, which could indicate current or impending displacement of vulnerable residents.

Map 10 shows the census tracts where Houston residents are severely cost burdened (paying more than 50% of their income on housing costs), in relation to what areas are appreciating the fastest. The colored areas represent the proportion of residents per census tract that are severely cost burdened.. The hatch pattern represents areas that make less than 80% of the MSA area median income in 2016 ($55,350) and are appreciating faster than the city's average in single home value for both 2011-2016 and 2016-2018.

Building on academic and practitioner-led studies of neighborhood revitalization and gentrification,[19] NALCAB developed a method for identifying neighborhoods that are changing in ways that might point to a current or impending trend of displacement. The analysis measures changes over time in housing prices and demographics using indicators from the U.S. Census American Community Survey. Changes at the tract level are compared to changes at the urban area level[20] to help separate neighborhood-level changes from larger trends. The indicators are:

- Median Home Value
- Median Contract Rent
- Median Household Income
- Population 25 years or older with at least a bachelor's degree
- Number of White, non-Hispanic, residents

Each census tract is scored based on the number of indicators (0-4) that have changed more rapidly than the urban area's overall rate of change over a given period of time. The maximum score is four because one point is given if either Home Value or Contract Rent has appreciated faster in the census tract than in the overall urban area. In contrast to examining only the change in housing costs, this method identifies more complex changes in the demographics of a census tract. When price appreciation is accompanied by significant demographic shifts, the character or culture of a neighborhood may change.

A score of three or four using the Neighborhood Trend Analysis should not be understood as a positive or negative indicator in and of itself, rather as a flag for more in-depth investigation of housing vulnerability. Neighborhoods that have experienced disinvestment and high levels of vacancy may demonstrate rapid change as a result of community improvement and a reduction in crime or vacancy—positive outcomes for neighborhood residents. However, lower income neighborhoods with low vacancy and strong social fabric might view rapid demographic change as a threat. Neighborhoods will experience these changes differently, requiring community engagement efforts to better understand the implications of market change for residents

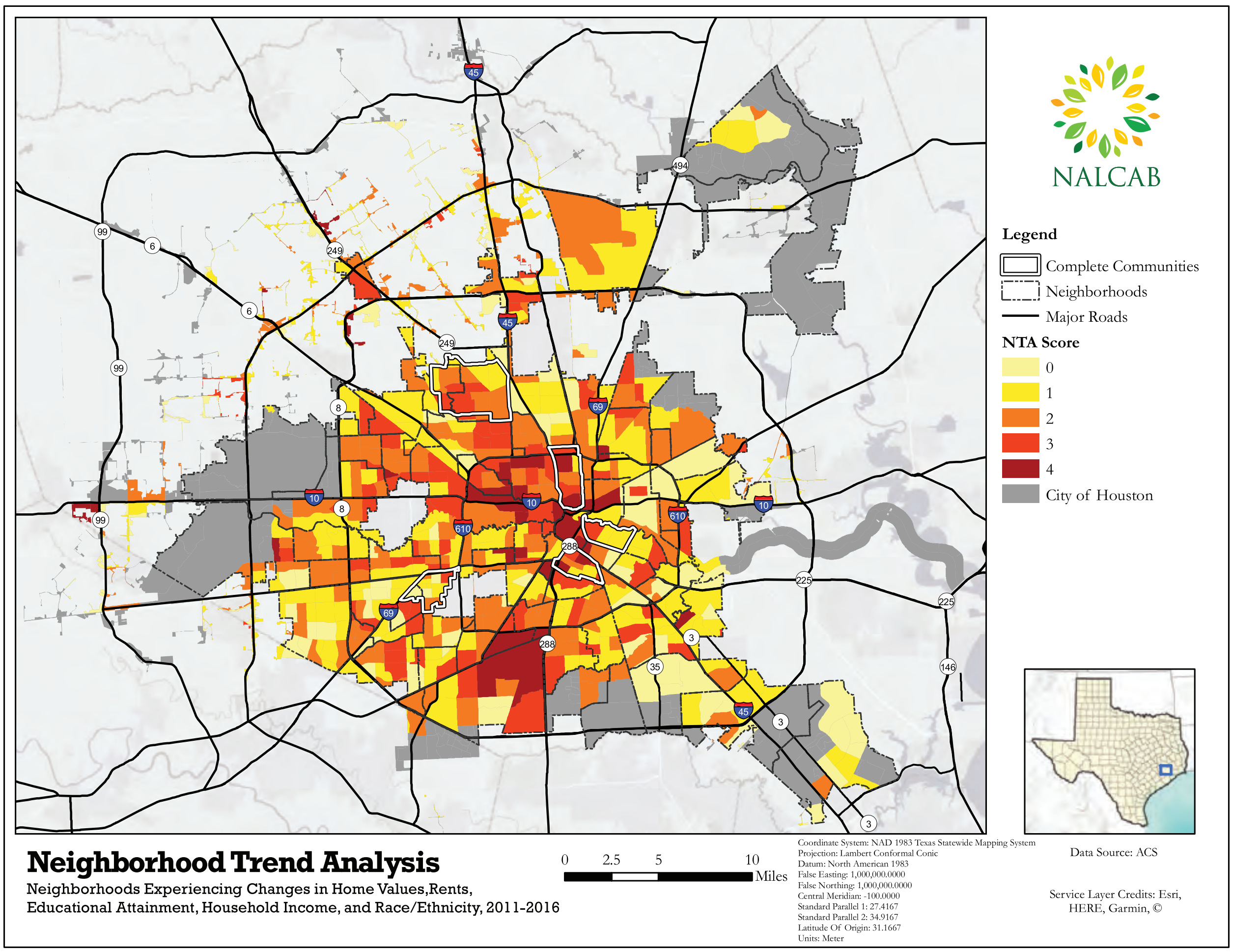
19 Zuk, Miriam, et al. *"Gentrification, displacement and the role of public investment: a literature review."* Federal Reserve Bank of San Francisco. Vol. 79. 2015; Freeman, Lance. There goes the hood: Views of gentrification from the ground up. Temple University Press, 2011.

20 Urban Area is a geography used by the Census Bureau to delineate between urban and rural areas. An urban area is defined by the Census Bureau as a "densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core." https://www.census.gov/geo/reference/ua/uafaq.html.

The following chart shows the number of census tracts in Houston that received each score using the above analysis for the period 2011-2016.

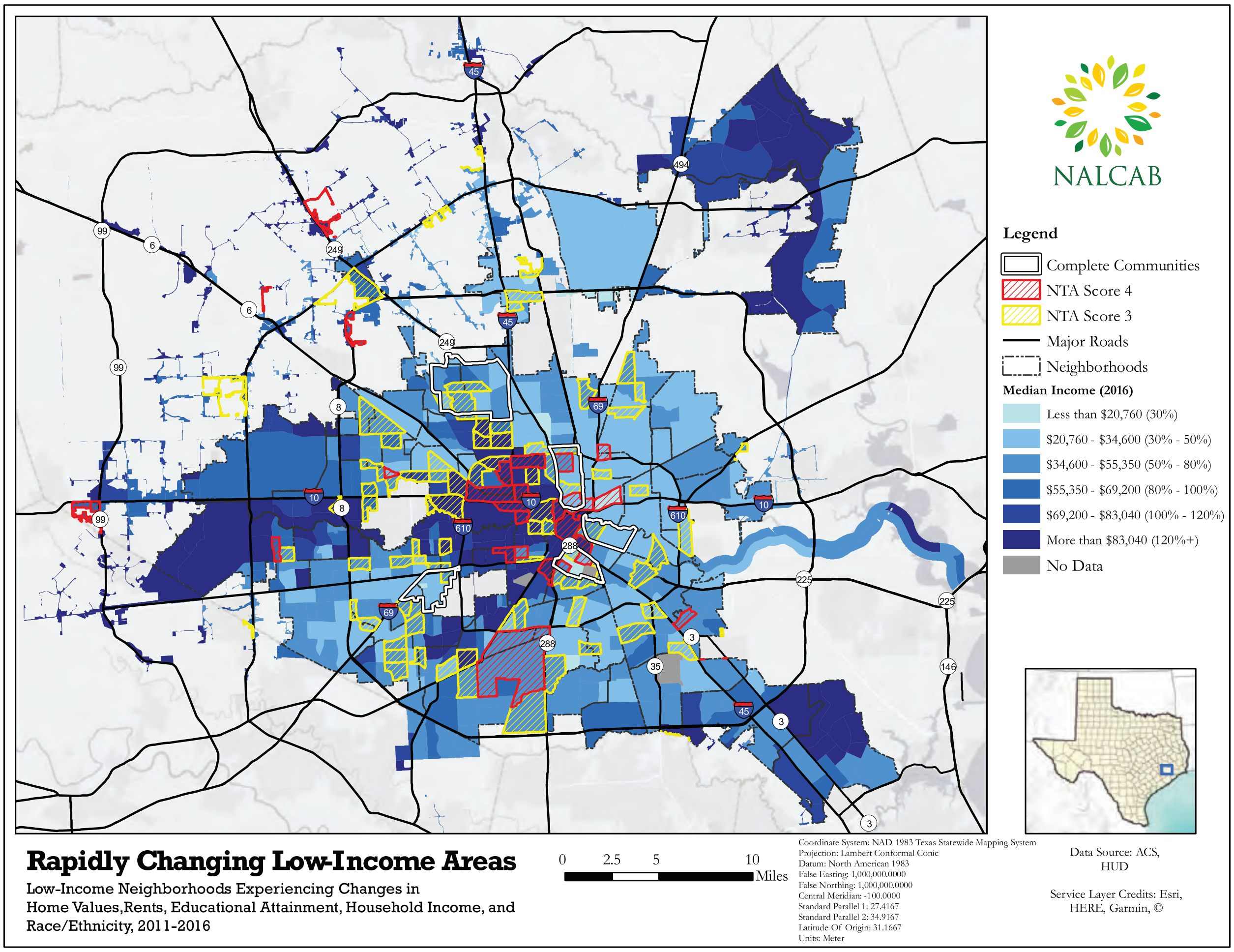
Rapidly Changing Census Tract Score	Number of Census Tracts in City of Houston	Percentage of Census Tracts
Score 4	27	4%
Score 3	86	11%
Score 2	180	29%
Score 1	217	35%
Score 0	111	18%

MAP 11



Map 11 shows the neighborhood change scores for census tracts in Houston between 2011-2016. There is a concentration of fast changing neighborhoods in and around downtown. Importantly, a few of the census tracts near downtown that are experiencing rapid change across three or four of the above indicators also have low median incomes, as shown in **Map 12.**

MAP 12

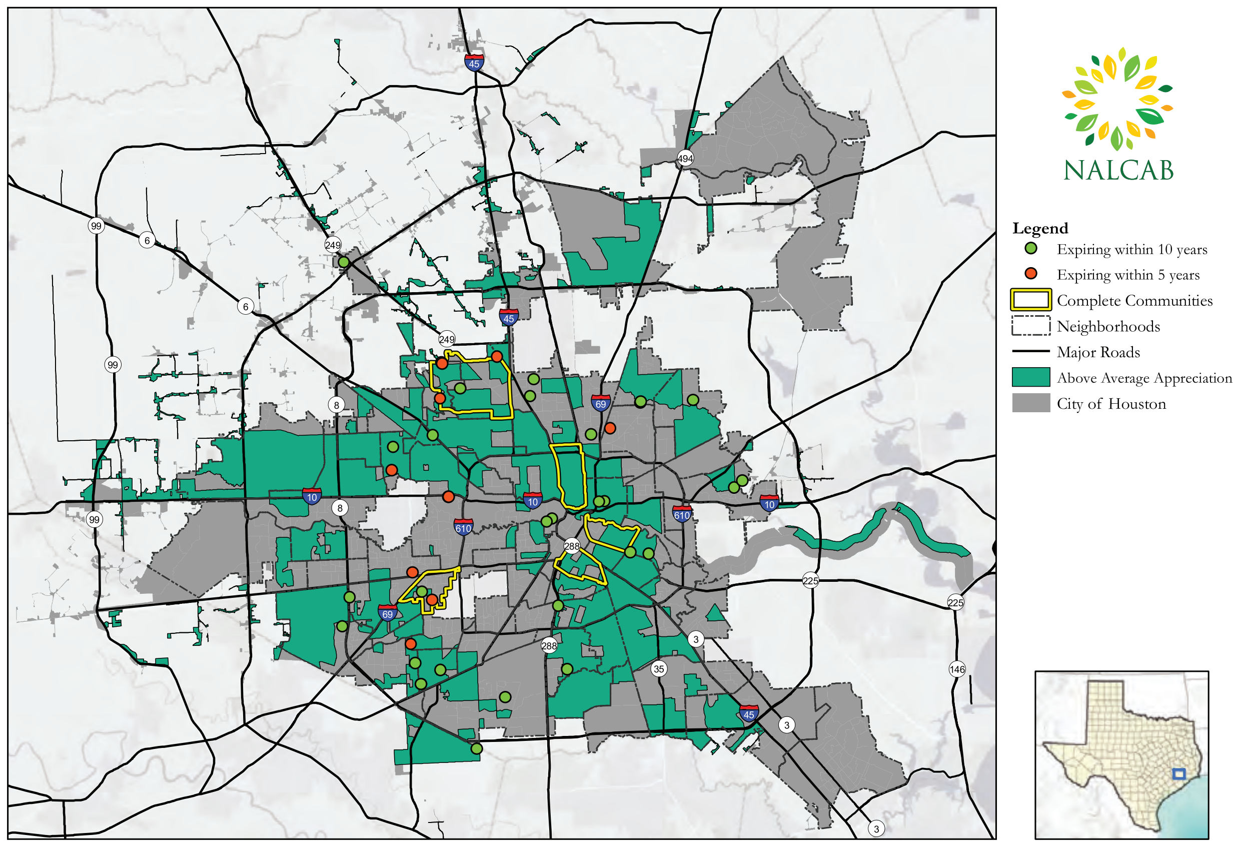


Subsidized housing with expiring affordability covenants located in neighborhoods with higher than median home values, or that are appreciating rapidly, may be vulnerable to conversion to market-rate when their affordability covenants expire.

Appreciation in Houston's real estate market has the potential to threaten the affordability of the subsidized rental housing stock. A range of publicly subsidized affordable rental housing has time-limited affordability covenants that ensure rents are kept affordable to households in a defined income range. This includes properties financed with Low-Income Housing Tax Credits (LIHTCs). When there is a significant gap between the maximum rents that can be charged by the owner of subsidized apartments and the effective rents in the surrounding neighborhood, the possibility exists for the owner to convert the property to market rate rents when the affordability covenants expire.

Over the next 10 years, the affordability covenants on approximately 8,000 units of LIHTC housing are potentially scheduled to expire. Some of these properties are located in high value, high opportunity areas. Others are located in markets that are appreciating and may become high value areas in the near future. Barring some intervention, a significant number of these affordable housing units could be at risk of conversion to market rate.

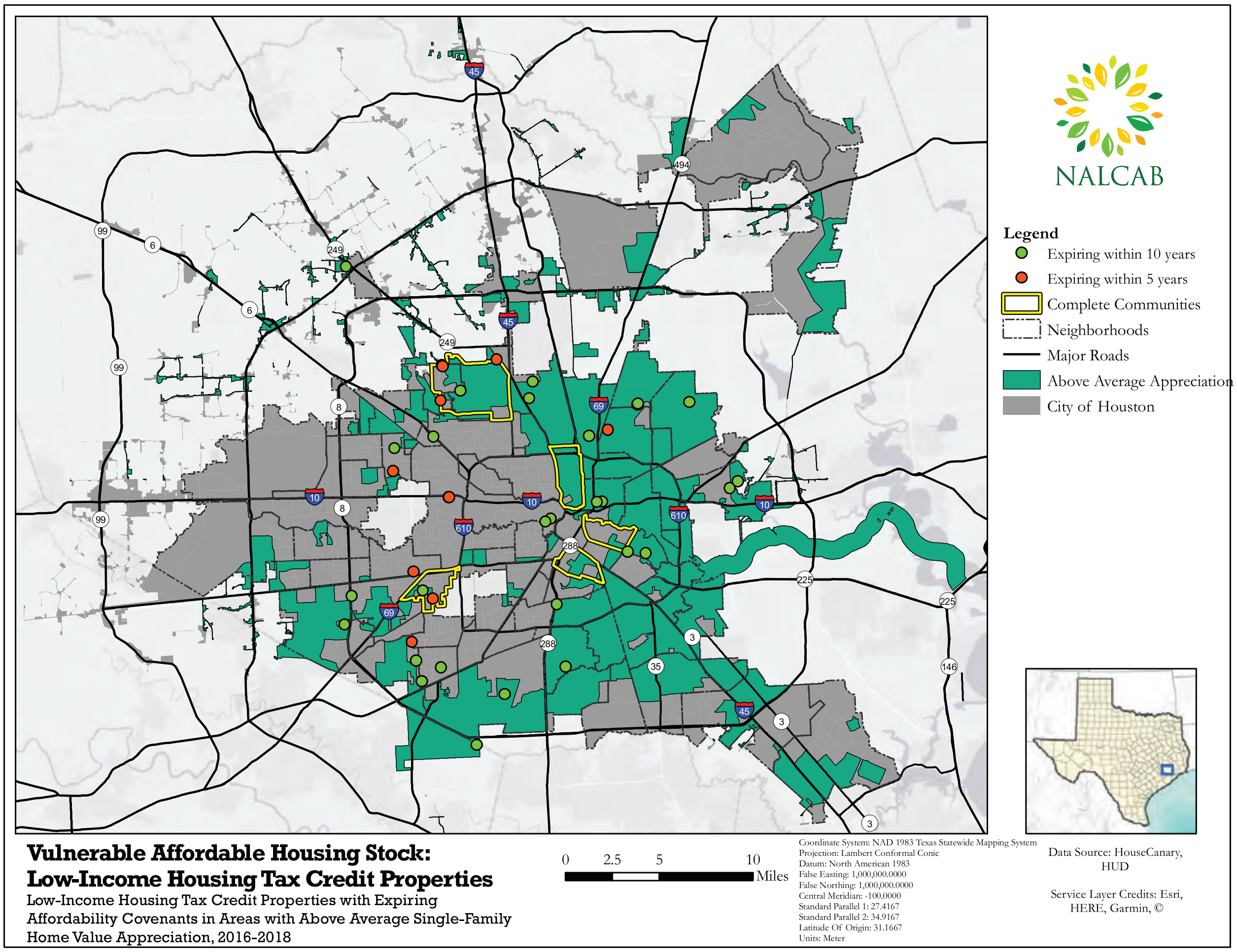
MAP 13



Vulnerable Affordable Housing Stock:
Low-Income Housing Tax Credit Properties
Low-Income Housing Tax Credit Properties with Expiring Affordability Covenants in Areas with Above Average Single-Family Home Value Appreciation, 2011-2016

Map 13 and **Map 14** show the location of LIHTC properties with affordability covenants that are scheduled to expire within 5 and 10 years, and changes in single-family home values between 2011-2016 and between 2016-2018, as a proxy for real estate market appreciation more broadly.

MAP 14

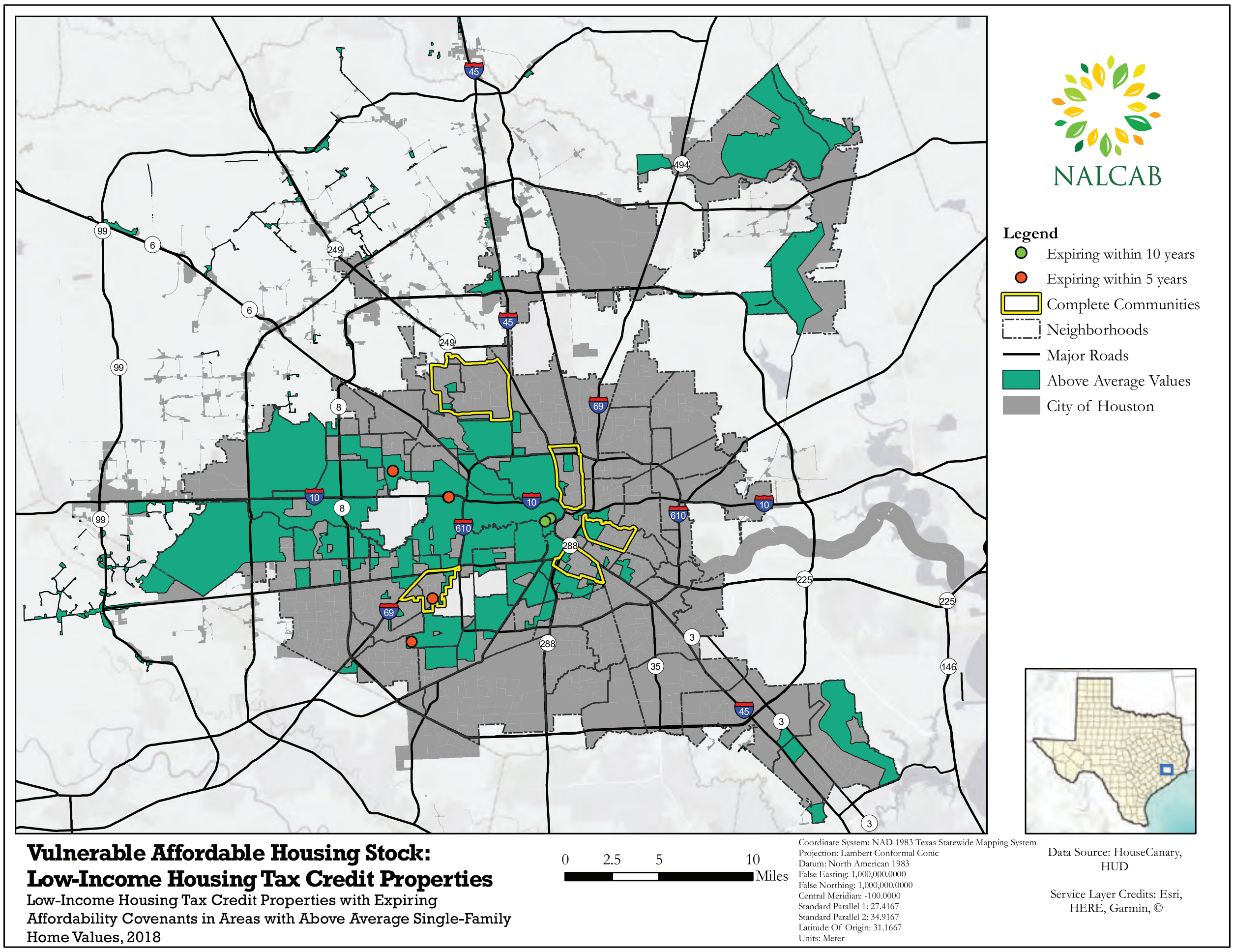


Map 15 shows the location of LIHTC properties with affordability covenants that are scheduled to expire within 5 and 10 years, and are located in high cost markets, as measured by median single-family home values by blockgroup during the first half of 2018.

In an appreciating real estate market, unsubsidized affordable rental housing is generally vulnerable to the impacts of market appreciation more immediately than subsidized properties that have affordability covenants. The Urban Land Institute Terwilliger Center for Housing requested a study by CoStar, a commercial real estate data analytics firm, of "naturally occurring" affordable housing across the United States. CoStar evaluates multifamily and commercial buildings based on a 5-star scale.[21] Ratings are determined based on property characteristics including design and construction, and are tested through field research, rating models, analytic quality assurance, and market advisories. Using this rating system,

21 CoStar's building rating system: http://www.buildingratingsystem.com/Source/CoStar_BuildingRatingSystem.pdf

MAP 15

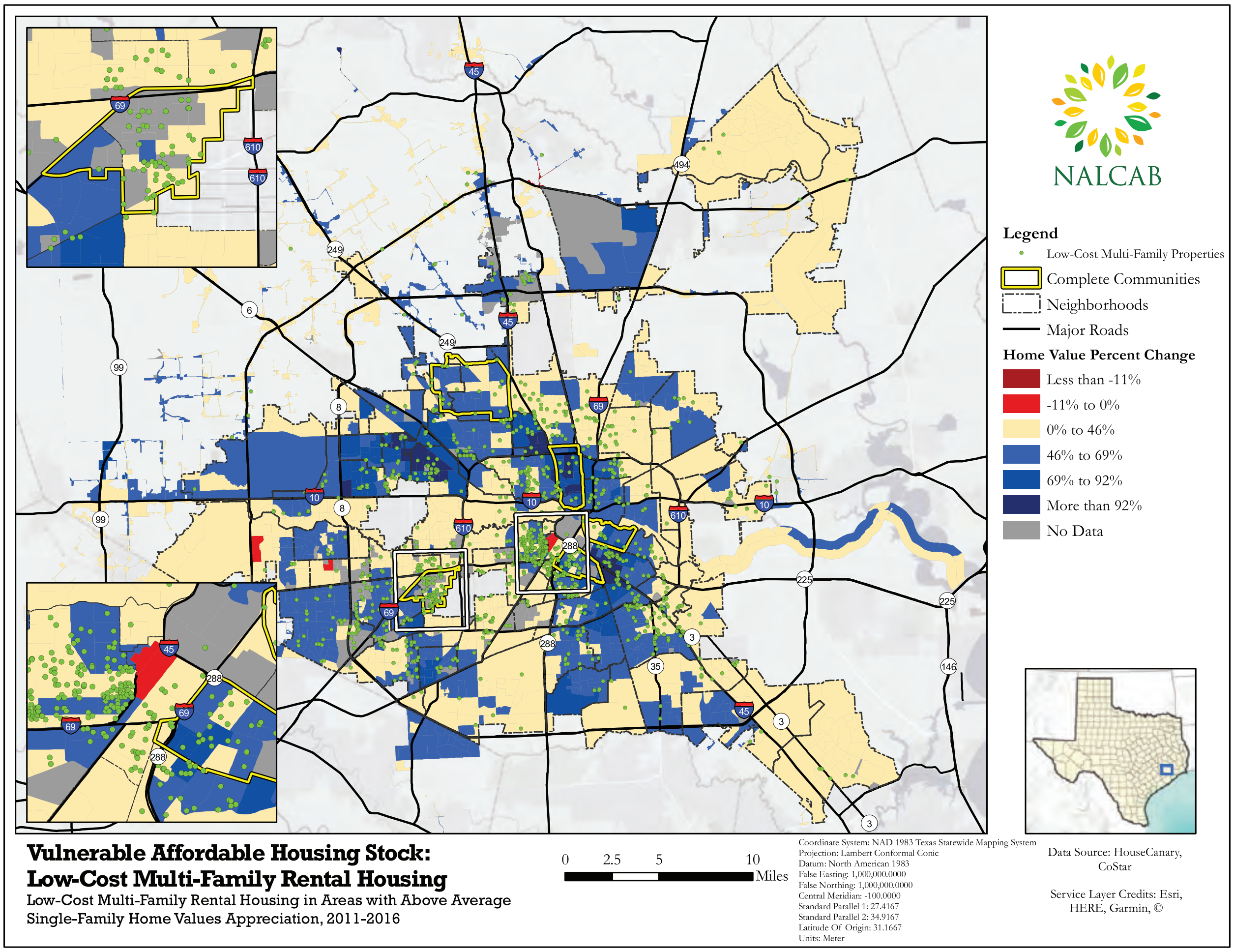


Unsubsidized rental housing located in neighborhoods that are experiencing rapid real estate appreciation will be vulnerable to price increases.

CoStar identified one- and two-star properties in its database as examples of naturally occurring affordable housing. They identified these properties as affordable by comparing rents to area median income and found that on average, rents in one- and two-star properties were 16.5% of average median income across all metro areas.[22]

22 National Low Income Housing Coalition. *Naturally Occurring Affordable Housing Benefits Moderate Income Households, But Not the Poor.* November 7, 2016. https://nlihc.org/article/naturally-occurring-affordable-housing-benefits-moderate-income-households-not-poor

MAP 16


NALCAB
Legend
Low-Cost Multi-Family Properties
Complete Communities
Neighborhoods
Major Roads
Home Value Percent Change
Less than -11%
-11% to 0%
0% to 46%
46% to 69%
69% to 92%
More than 92%
No Data
Vulnerable Affordable Housing Stock:
Low-Cost Multi-Family Rental Housing
Low-Cost Multi-Family Rental Housing in Areas with Above Average Single-Family Home Values Appreciation, 2011-2016
0 2.5 5 10 Miles
Coordinate System: NAD 1983 Texas Statewide Mapping System
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,000,000.0000
False Northing: 1,000,000.0000
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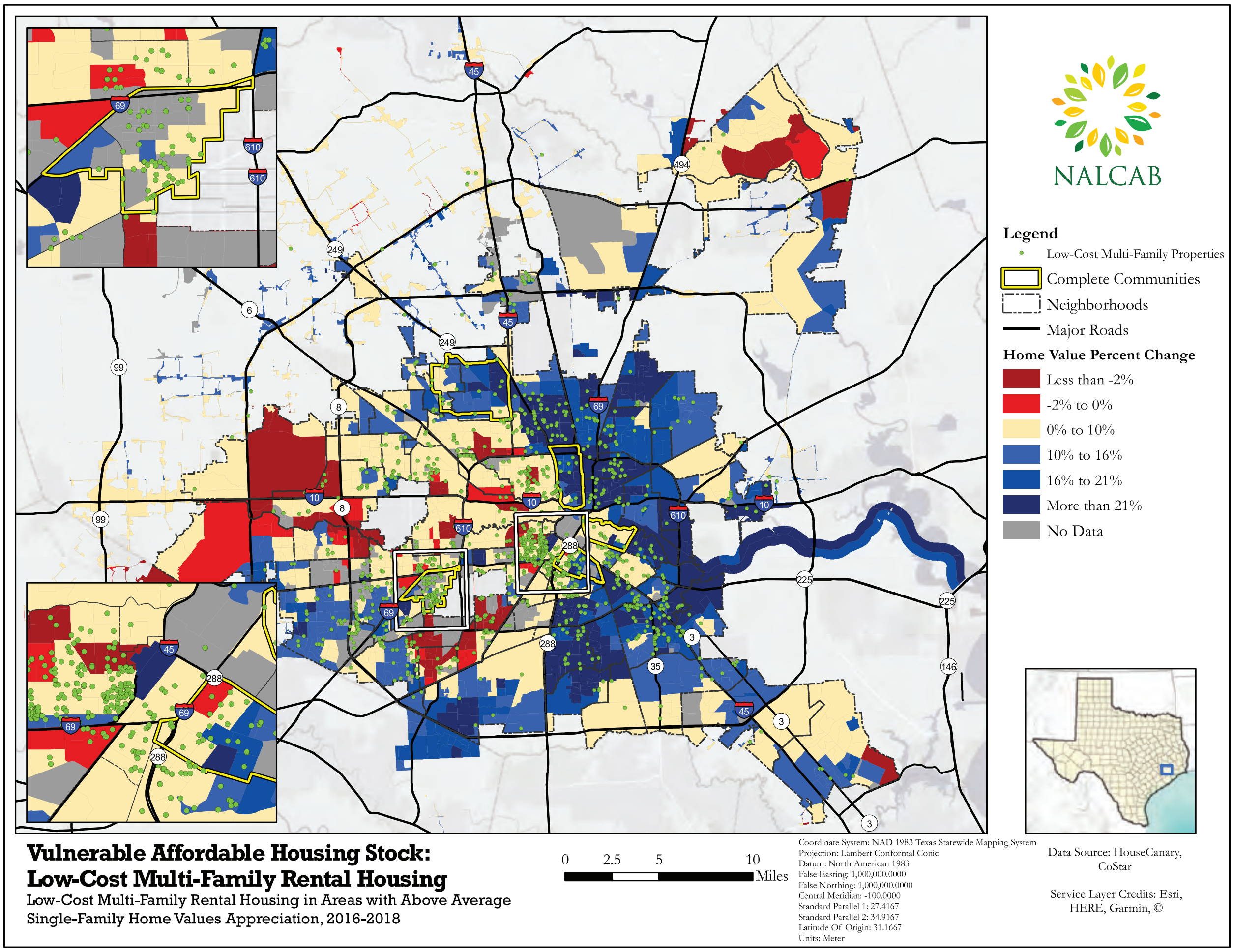
Standard Parallel 1: 27.4167
Standard Parallel 2: 34.9167
Latitude Of Origin: 31.1667
Units: Meter
Data Source: HouseCanary, CoStar
Service Layer Credits: Esri, HERE, Garmin, ©

MAP 17



Map 16 and **Map 17** show properties in the Houston market that do not have any public subsidy and are rated by Costar with one or two stars. The locations of these unsubsidized affordable housing developments are overlaid on single-family home value appreciation for the periods 2011-2016 and 2016-2018, as a proxy for real estate market appreciation more broadly. Unsubsidized affordable housing developments may be vulnerable to price increases in areas with a relatively high rate of appreciation, which are indicated by the darkest blue areas on the map.

VI. MATTERS FOR FURTHER INVESTIGATION

Low- and moderate-income Houstonians that reside in areas experiencing significant real estate appreciation face real challenges with respect to housing affordability and vulnerability. That being understood, the gap between housing costs and income in Houston, even for many African-American and Hispanic households, are relatively modest when compared to many large cities in the nation, including Dallas and Austin. There is an opportunity for meaningful housing policy and affordable housing programs to make a difference for Houstonians in the coming years. Left unaddressed, these gaps will widen and become insurmountable for more and more households. The following are selected recommendations for further analysis based on the preliminary findings presented in this report.

1. Conduct ongoing citywide monitoring to identify neighborhoods experiencing multiyear appreciation in real estate values and/or tax appraisals as well as significant demographic and cultural change.
2. Conduct further analyses of neighborhoods outside of the 610 Loop that are experiencing a new, post-Harvey trend of higher rates of real estate appreciation.
3. Conduct analyses of neighborhoods receiving significant concentrations of public incentives/ investments which may have the potential to leverage private investment and accelerate real estate appreciation.
4. Examine how City housing programs can benefit low- and moderate-income households in neighborhoods experiencing distinct real estate market and demographic trends.
5. Invest in community engagement and housing counseling efforts aimed at helping Houstonians understand the potential benefits and challenges presented by the housing market conditions where they live.
6. Engage owners of subsidized rental housing with affordability covenants expiring in the next 10 years to determine whether there is the potential to maintain the affordability of the properties into the future.
7. Collaborate with local taxing and appraisal districts, state governments, and other constituencies to examine how tax policy may exacerbate or alleviate to impacts of rapid real estate appreciation on low- and moderate-income households.

National Association for Latino Community Asset Builders

City of Houston Texas

City of Houston
Housing and Community Development