Trends in Property Appraisals Across Houston and the Effects on Affordable Housing Center for Civic and Public Policy Improvement Amelie Panai, Ashley Rivera, Aryan Trivedi, Michelle Gabriel

Introduction

The Center for Civic and Public Policy Improvement (CCPPI) currently provides housing for low to moderate-income families in the Third Ward neighborhood of Houston. Changes in this neighborhood have led to increasing home appraisal values, causing increasing property taxes for those in affordable housing and dramatically increasing their monthly payments. This puts low to moderate-income families at risk of losing their homes. CCPPI wants to explore other areas of Houston to assess the tax burden and the potential for building affordable homes. If there is an alternative area in Houston that is growing at a slower rate, there may be more opportunity for homeowner longevity over the next twenty years. Our team analyzed the home appraisal data of City Council Districts B, D, I, and K to assess their current tax burden, the growth over the last ten years, and the forecasted growth to explore if moving to a different neighborhood would benefit CCPPI— as well as an evaluation of income growth to provide a complete picture of the selected neighborhoods. These districts were provided to us by CCPPI due to their similar demographics and makeup to their current district, D, which includes the third ward area. Our team provided recommendations regarding affordable home building in the Houston area. From our analysis, Houston's District I was chosen as best suited for CCPPI's needs.

Background

The Center for Civic and Public Policy Improvement (CCPPI) is a non-profit organization "dedicated to advancing policies that promote human, civic, social and economic justice" (Center for Civic and Public Policy Improvement [CCPPI], 2023a). One initiative CCPPI has undertaken to pursue that mission is increasing access to affordable housing. CCPPI's goal is to build single-family houses within the range of \$195,000 - \$215,000, making the homes affordable for families within 120% of the AMI. In collaboration with the Midtown Redevelopment Authority (MRA), CCPPI provides affordable housing for low to moderate-income families in Houston's Third Ward. Low to moderate-income families are described as having household incomes below 90% up to 120% of the Area Median Income (CCPPI, 2023b). The annual household income of a family of four at 120% of the Area Median Income (AMI) in the Houston area is approximately \$113,500 (City of Houston, 2024). At 90% of the AMI, a family of four makes about \$85,125. Herbert et al. (2017) cite that in the 1980s Congress defined that housing should be no more than 30% of one's income, and with that set the standard for housing affordability (see Appendix).

The Problem

CCPPI's program purchased a home, they were initially paying less than 30% of their income on housing. The Harris County Appraisal District appraises homes every year, and there is a significant chance that a given home will be appraised at a higher value than it was the previous year. As the value of the home rises, the cost of property taxes rises, which can increase the homeowner's monthly housing payment. Ding and Hwang (2020) explain that the increase in property taxes, or tax burden, can "lead to tax delinquencies, tax foreclosures, and involuntary moves" demonstrating that the concern from CCPPI is valid. CCPPI tasked our team with

investigating the problem of rising appraisal values and assessing whether this rise is as aggressive in other areas of Houston, along with whether CCPPI should consider relocating where they build affordable homes. CCPPI currently builds homes in Houston City Council District D and is interested in Districts B, I, or K as an alternative location to build homes.

Why Thirty Percent?

Households that spend 30 percent or more of their total income on rent or mortgage payments are generally considered to be cost-burdened. The United States federal government has been using this number for housing-related programs since the 1980s (Herbert et al., 2017). There also exists an alternative approach called the residual-income approach, which accounts for variance in living expenses, along with the ability of higher-income households to afford to spend a higher percentage of their income on necessities. This approach accomplishes these by subtracting an estimate of the cost of basic necessities (excluding housing) from total household income, and checking if the remaining income is sufficient to pay for housing costs. However, for low-cost and moderate-cost cities, the residual-income approach and the 30 percent approach produce remarkably similar results (Herbert et al., 2017). Given the additional difficulty of determining the cost of basic necessities for each household, the well-established precedent for the 30 percent approach, and the similar outcomes of the 30 percent approach to the primary alternative, we find 30 percent to be a reasonable benchmark for determining housing cost burden and housing affordability.

Property Taxes in Texas

Property taxes in the state of Texas are administered and collected by local government, as Texas does not collect a state property tax (Hegar, 2024). There are various types of taxes collected by local government and include cities, school districts, counties, and special purpose districts such as utilities and hospitals (Hegar, 2024). The taxes collected by local government are then utilized to provide local services (Hegar, 2024). Texas currently has the seventh-highest effective property tax rate due to Texas having no state income tax (Fulton, 2020). The median property taxes in Texas have risen 26% between 2019 and 2023 alone (Stringer and Sparber, 2024). Houston's property tax rate is \$0.57 per \$100 assessed value, which is cheaper than other Texas cities (Fulton, 2020). Although this rate is more affordable than other cities in Texas, tax increases are still a matter of concern. From 2018 to 2022, there has been a 13.9% increase in the city of Houston's tax levy (Quintero and Bonura, 2023). This rise in taxes in addition to the rise in home appraisal values has the potential to increase the number of homeowners being priced out of their homes. When someone is unable to pay their property taxes, they become delinquent on their taxes and risk losing their home through foreclosure (Loftsgordon, 2023). On average across the United States, there is a 2-3 year period of tax delinquency before a property can be foreclosed upon (Lindner, 2024). However, property taxes in Texas "become delinquent if not paid by January 31 of the year following assessment" (Lindner, 2024), and once a property tax bill becomes delinquent, the taxing authority may begin the foreclosure process (Loftsgordon, 2023). This demonstrates how rising home appraisals and the subsequent tax burden puts homeowners at risk of losing their homes.

Target Region

CCPPI indicated four city council districts within Houston, including the district CCPPI currently works within, District D. To recommend a district, growth should be taken into account. A district that is growing rapidly in population and income could leave CCPPI with the same issues they are currently facing just a few years down the line. However, choosing a district with average appraisal rates and median income that is too low can force property taxes for current residents upward, meaning CCPPI could contribute to the same problem they are trying to avoid. To measure growth, our team looked at the median household income and age of the population.

We started by comparing median household income from the American Community Survey via Social Explorer. Filtering by census tract, we compared the same areas for 2012, 2017, and 2022. We calculated the average by adding each AMI per census tract and dividing by total number of census tracts in the district. We then added the percentage changes of each of the census tracts from 5 and 10 years ago and divided by the number of tracts to find the average percent change in the district. If median household income grew significantly within the last 5 or 10 years, we can expect growth to continue, leading to the potential risk of longevity for homeowners. Note that census tracts in Houston were modified in 2020, with some tracts being split into two or more separate tracts. In these instances, separated tracts were averaged together to calculate percentage change.

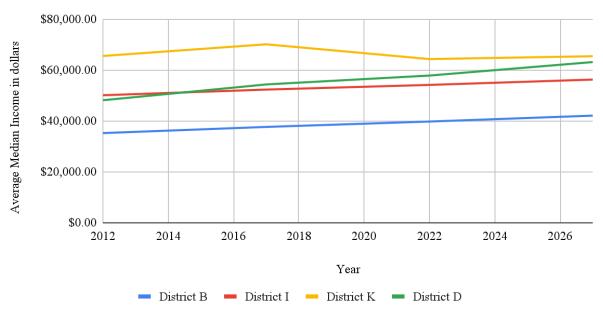
Table A - Average Median Household Income by District
Average median income of Houston Districts and the average percentage change

District	2022 Average	2017 Average	2012 Average	Avg % Ch. 5 Yrs	Avg % Ch. 10 Yrs
В	39697.18	37578	35153.38	6.99	12.4
D	57790.45	54294.84	48084.02	11.71	22.91
I	54112.27	52269.89	50046.63	7.8	8.2
K	64277.2	70086.34	65499.19	0.1278	3.82

Source: Social Explorer

The data in Table A shows that CCPPI's current district, D, has had the most income growth in the past 10 years with an average percent change in income of 22.91%. District K's median household income has increased the least but is still higher on average than the other 3 districts. Based on income growth alone, the best options for recommendation are currently Districts I and B. However, CCPPI focuses on low-to-moderate income families, defined as 90-120% of the median income. Placing houses between \$195,000-215,000 in District B could potentially cause the exact problem CCPPI is currently facing. Current homeowners may not be able to afford their property taxes after highly appraised houses begin to pop up in their neighborhoods. Based on this, District I appears most suitable to CCPPI's needs.

Graph AAverage Median Income by District



Using the AMI for each district, we were able to predict the income growth for each district up to the year 2027. Graph A shows that District D quickly surpassed District I, and is projected to grow to over \$63,000 by 2027, just \$2,000 under District K, which has maintained the highest AMI of all four districts. District D's fast projected growth is a concern for the longevity of CCPPI's program. Districts with slower projected growth such as I and B are more appealing.

Table B Median Age by City Council District (2018-2022 5-Year Estimates)

District	В	D	I	K	Houston Overall	
Median Age	34.2	34.0	33.6	37.5	34.1	

Source: Social Explorer

Table C
Proportions of District Populations by Age Range (%)

District	В	D	I	K	Houston Overall
≤ 5 years	7.5	6.4	7.1	6.7	6.8
5-17 years	20.5	16.7	19.5	16.2	17.1
18-64 years	60.5	65.3	62.7	63.7	64.5
≥ 65 years	11.5	11.6	10.7	13.4	11.6

Source: Social Explorer

Tables B and C show the age range of the current residents in each district. It is relevant to track age because a large young adult population has more potential for income growth than an aging population. Considering the data in Table C, district K has a sizable portion of residents over 65. District B has the highest portion of children, which points to many families and the potential for rapid growth. We see fewer children in District D, but the largest population is between 18-64 of the four. District I also has many children but not as many people between ages 18-64 as D and K. Based on this, the most appealing districts are D and I. However, population age did not have much influence on our decision due to similarities between districts.

Project Steps and Findings

To begin the process of comparing the Houston City Council districts, we analyzed the average home appraisal value for each district. The first step was to find the average appraisal value for single-family homes in each of the districts. CCPPI's goal is to build single-family homes within the range of \$195,000 - \$215,000. The average appraisal value of single-family homes will be a measure to indicate whether the homes CCPPI builds are above, below, or within the average of a district. We obtained property data from the Harris County Appraisal District (Harris Central Appraisal District, 2024) and sorted through for addresses within City Council Districts B, D, I, and K. We used this data to find the average appraisal value of single-family homes in each district. Data from the Harris County Appraisal District (2024) show that the average 2023 value of single-family homes in Districts B, D, I, and K are between approximately \$142,000 and \$249,000 (see Table D). Considering the goal for home values, Districts B, I, and D have an average home cost within or below that range.

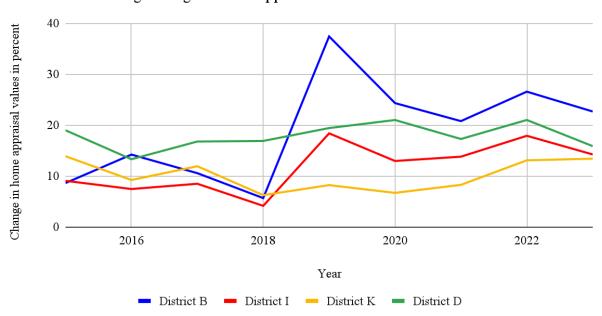
Table D Average Home Values

District	2023 Average Home Value
В	\$142,329
D	\$214,338
I	\$189,908
K	\$249,297

After assessing the average home values for each district, it was important to understand the growth in each district. By reviewing the previous years growth the trending growth of an area can be analyzed. Higher annual percentage changes indicate a higher level of growth in an area. Although a district may have lower home values, a higher level of average annual growth may indicate home values are rising faster than those districts with a lower average annual growth. When considering property taxes, this higher level of growth may cause home costs to increase over the goal of 30% of income more swiftly. The annual percentage change for Districts D, I, K, and B from 2015 through 2023 are indicated below in Graph B. Between 2015 and 2023, District B experienced the highest average percentage change at 18.9%, followed by District D at 17.8%, and District I at 11.7% for the same period. District K had the lowest average percentage change in home values at 10.7% between 2015 and 2023.

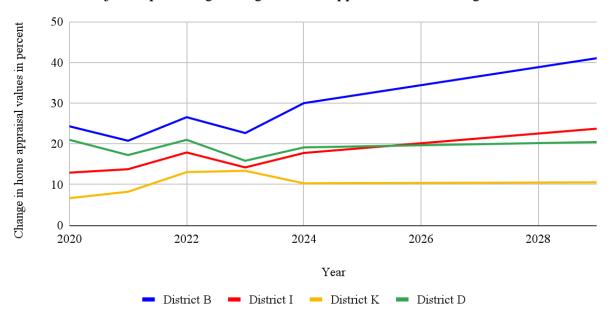
Graph B

Percentage change in home appraisal values between 2016 and 2022



An analysis of the average home value and percentage growth data within a district will determine the feasibility of building affordable homes. With an average home value of \$142,329 in 2023, District B has the lowest of the four districts. However, District B has seen the greatest change in home values, with growth in appraisal values above 20% since 2019. Meanwhile, median household income in District B has only seen 5.64% growth from 2017 to 2022. This disparity between income growth and appraisal values indicates that property taxes are costing increasingly large portions of people's household incomes, and the continued rise in home values may quickly put homeowners in a position where their taxes have become unaffordable. With District B having both the highest growth in appraisal values since 2019 (see Graph B) and lower income growth than District D (see Table A), we cannot recommend District B as an alternative to District D. District I's average home value of \$189,908 in 2023 puts it below the goal range of \$195,000 - \$215,000 for homes to be built. The percentage change in home values for District I falls below that of District B, with a change of just 14.2% from 2022 to 2023. Though District K had the lowest average percentage change, the average home value of \$249,297 for 2023 puts it well out of range for affordable home building. The current district where homes are being built, District D, also had a lower percentage change, but the average home value of \$216,000 is at the top of the affordable home range. From this, District I is feasible with an average home value just below the desired range and a lower rate of home value growth.

Graph C
Projected percentage change in home appraisal values through 2028



Using the home appraisal change for 2015-2023, we were able to predict the next five years for each of the districts. According to Graph C, we are able to see that District B's home appraisal is projected to grow up to 41%, making it the highest growth out of all districts. District K's home appraisal change is the lowest with it growing up to 10%. Even though it has the lowest change, home values in District K are still out of range for affordable home building.

District I and D are more appealing, with District I growing up to 23% and District D growing up to 20%.

Project Recommendations

We recommend CCPPI to consider District I for future affordable home building. The data indicates that compared to District D, where CCPPI is currently building homes, District I has a lower average home value and lower home value growth. There is a lower starting value for homes in District I, and the lower rate of home value growth indicates that single-family homes in the area will not increase in value as quickly. With this lower rate of increase, homeowners in District I may not experience the rate of home valuation change that has been experienced in District D. When considering the demographics of the areas, District D's median household income has grown over 22% from 2012-2022, which is over 10% greater than the next fastest-growing area. The median household income of District I has grown at a slower rate, indicating that this area may be more stable for homeowners that fall below 120% AMI. Though District I has a lower level of home value growth and median household income growth, it is crucial to conduct further research on the availability of property. Without property available for the construction of affordable housing, moving to operate in this district would not be possible.

It is important to note that even with the slower rate of growth, homeowners in District I may eventually be in the same position as current homeowners in District D. When considering the projected percentage change in home appraisals as indicated in Graph C, District I's rate of growth is projected to meets District D's year 2020 rate of growth by year 2026. It can then be seen that District I's rate of growth is predicted to surpass District D's 2020 rate of growth by 2028. Though these are projections, they indicate that District I will continue to grow at a rate comparable to the rate of growth in District D. This suggests that moving affordable home building to District I will be beneficial for homeowners in the short term, but eventually home appraisals will rise in this district as well and threaten to price out affordable homeowners. Moving to District I remains the recommendation, but all of the data needs to be considered.

Conclusion

In conclusion, we have teamed up with CCPPI to investigate further the problem of rising appraisal values in District D, where they are currently building homes and to see if they should reconsider relocating where they should build affordable homes. As the values of homes rise, low to moderate-income families who participate in the initiative may find it challenging to afford their property taxes. We did an analysis of home values, demographics, and growth in four Houston City Council Districts, and alternative options were assessed for future affordable home construction. To mitigate the challenges of rising home values, CCPPI can pivot to building homes within Houston's District I. Based on average median household income growth, District I was the best option since it was not too high or too low. Based on the age range population, the most appealing district was District I. Based on projected home appraisal changes in the next five years, District I and D are the most feasible with a lower average value growth. With this, affordable homes could be built within the range required by CCPPI and stay affordable for longer. Even though District I is our final recommendation to CCPPI, there is still a chance that eventually home appraisals will rise and threaten the affordable initiative that CCPPI is chasing after just like District D is doing currently.

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