

**Assessing Resistance: Analyzing Factors Behind the Success of NIMBY Movements in
Charlotte's Housing Development**

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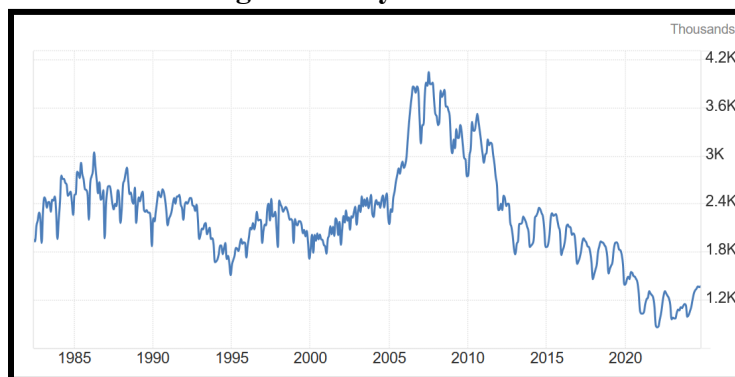
A. Introduction

There has been a crisis that has been brewing in America since the dawn of the recent millennium. It has for the most part defined our decade's economic prosperity and declines. That problem is the current housing crisis that is plaguing the average American. This crisis can be shown by the fact that for the last two decades, rents and housing prices have been rising faster than that of incomes across the United States.¹ This notably impacts every metric of the standard of living (SOL) for the average American, as they have less money to spend on other critical items such as education and healthcare.

This crisis generally started in 2000 when housing demand had grown more than the housing supply. This was primarily due to concerns about the aging U.S. population which caused construction to fall.² This demographic concern can be seen by the fact that "In 2000, people aged 55 and over made up 20 percent of the U.S. population; by 2020, the 55-and-over share was 30 percent. Older people are more likely to be the head of their household, so as the population ages, demand for homes rises".³ This along with various other factors, such as the lack of government regulations on mortgage lending and budget deficit spending caused by the 2003 war in Iraq, contributed to a perfect storm that culminated in the 2008 Recession and the housing market crash. Deregulation allowed risky mortgage practices, including subprime lending, to proliferate, leading to unsustainable home prices and a speculative housing bubble. When the bubble burst, housing prices plummeted, triggering widespread foreclosures and devastating the financial sector.

Initially, the crash led to a significant decrease in housing prices. However, the long-term impact on the housing market was even more profound. The collapse made housing less desirable, as the market was now seen as volatile and risky. Developers, wary of repeating past mistakes and facing diminished demand, significantly curtailed the construction of new homes. This is evident from Figure 1, which shows that the housing supply dropped dramatically, from a peak of over 3.91 million homes in May 2007 to just 860,000 homes in January 2022.⁴ The sustained undersupply of housing has compounded affordability issues, with long-lasting effects on the broader economy and society.

Figure 1. Total Housing Inventory in the United States 1982-2024⁵



¹Laura Feiveson, Arik Levinson, and Sydney Wertz, "Rent, House Prices, and Demographics," U.S. Department of the Treasury, June 24, 2024, <https://home.treasury.gov/news/featured-stories/rent-house-prices-and-demographics>.

²Laura Feiveson, Arik Levinson, and Sydney Wertz, "Rent, House Prices, and Demographics," U.S. Department of the Treasury, June 24, 2024, <https://home.treasury.gov/news/featured-stories/rent-house-prices-and-demographics>.

³Laura Feiveson, Arik Levinson, and Sydney Wertz, "Rent, House Prices, and Demographics," U.S. Department of the Treasury, June 24, 2024, <https://home.treasury.gov/news/featured-stories/rent-house-prices-and-demographics>.

⁴"United States Total Housing Inventory," National Association of Realtors, October 2024, <https://tradingeconomics.com/united-states/total-housing-inventory>.

⁵"United States Total Housing Inventory," National Association of Realtors, October 2024, <https://tradingeconomics.com/united-states/total-housing-inventory>.

However, this paper does not focus on solutions to the housing crisis, as these solutions have already been outlined and proposed by academics and politicians alike. The consensus is that increasing the housing supply is essential to lowering housing costs. For instance, one of the key proposals in Vice President Kamala Harris's campaign was the creation of three million new housing units under the Neighborhood Homes Investment Act and the Housing Supply Action Plan.⁶ Additionally, the current Biden Administration has enacted policies such as the Low-Income Housing Credit, which is the largest source of financing for affordable housing in the U.S., and the American Rescue Plan which has deployed billions of dollars to help create and improve affordable housing supply.^{7 8}

Thus, this is not an issue of solutions but rather opposition. ‘Not in my backyard’ (NIMBY) is a movement that is centered around the halting of development, with the name being derived from the fact that its members generally don’t want to change around the area where they live. The resistance towards change could come from many proposed reasons such as traffic, historic preservation, or environmental damages to areas such as watersheds.⁹ Additionally, one of the greatest tools for a NIMBY is housing prices as it is something that a majority of Americans can relate to because “Americans hold about 28.5% of their wealth in their homes”.¹⁰ While it is not possible to calculate the exact amount of developments that NIMBY movements have halted, altered, or outright stopped, their impact can still be statistically shown by the fact that “NIMBY has delayed, killed or inflated the expenses of more than 500 projects nationwide over the last decade at a cost to the economy of more than \$1 trillion annually... This is a conservative estimate, though in truth those numbers are likely far higher”.¹¹

Given the well-documented impact of the NIMBY (Not In My Backyard) movement and the broader anti-development movement, one aspect that warrants closer examination is their messaging strategies. As a political movement, NIMBY advocates rely on specific messages and themes to motivate and persuade both the general public and local officials responsible for land management decisions. Understanding these messages is essential to grasp how the movement influences development outcomes.

Therefore, the key question becomes: what messaging techniques are most commonly used and most effective for the NIMBY movement? To address this question, our research will analyze City Hall meetings in Charlotte, North Carolina, as well as public discussions surrounding potential development plans. This approach will provide insights into the strategies employed by the movement to shape public opinion and influence decision-making processes within an under-researched city on the topic.

We hypothesize that the most commonly used and effective messaging technique employed by the NIMBY movement in Charlotte revolves around concerns about housing prices. Specifically, NIMBY advocates frequently argue that new development could destabilize housing markets, either by lowering property values for existing homeowners or by introducing

⁶David M. Dworkin, “The Harris-Walz Housing Plan - Detailed, Serious, and Impactful,” National Housing Conference, September 4, 2024, <https://nhc.org/the-harris-walz-housing-plan-detailed-serious-and-impactful/>.

⁷Laura Feiveson, Arik Levinson, and Sydney Wertz, “Rent, House Prices, and Demographics,” U.S. Department of the Treasury, June 24, 2024, <https://home.treasury.gov/news/featured-stories/rent-house-prices-and-demographics>.

⁸Sheldon Whitehouse, “A Blueprint for Prosperity: Expanding Housing Affordability,” United States Senate Committee on the Budget, January 31, 2024, <https://www.budget.senate.gov/committee/newsroom/press/whitehouse-expanding-housing-affordability-drives-economic-growth>.

⁹Conor Dougherty, “Twilight of the Nimby,” The New York Times, June 5, 2022, <https://www.nytimes.com/2022/06/05/business/economy/california-housing-crisis-nimby.html>.

¹⁰U.S. Census, The wealth of households: 2021, 2021, <https://www.census.gov/content/dam/Census/library/publications/2023/demo/p70br-183.pdf>.

¹¹Christopher Helman, “Nimby Nation: The High Cost to America of Saying No to Everything,” Forbes, August 18, 2015, <https://www.forbes.com/sites/christopherhelman/2015/07/30/nimby-nation-the-high-cost-to-america-of-saying-no-to-everything/?sh=3daa78e34f8e>.

pricing dynamics that negatively affect the community. This messaging resonates because it appeals directly to economic self-interest, particularly given that housing represents the largest source of wealth for many Americans and the recent instabilities surrounding housing prices with events such as the 2008 recession.

Additionally, Charlotte serves as an ideal case study due to its rapid population growth and increasing housing demands, making it a hotspot for contentious development debates. This can be seen by the fact that the Charlotte metropolitan area has been ranked as one of the hottest housing markets within the nation by multiple sources.^{12 13} As a city experiencing significant urbanization, it provides a relevant setting to analyze the messaging strategies of the NIMBY movement and their impact on shaping housing policies.

B. Previous Studies On NIMBYism

Previous research on the NIMBY movement has primarily focused on the grievances and concerns of those involved, rather than the strategies and methods they employ to oppose development projects. Furthermore, much of this research has been geographically concentrated in areas with strong NIMBY movements or significant backlash against development, such as China, the Bay Area, and other similarly affected regions.

Before delving into the sources that have guided and informed my research on the NIMBY movement, I would like to highlight one source that, while indirectly related, significantly shaped my methodological approach. This source is *LocalView: A Database of Public Meetings for the Study of Local Politics and Policy-Making in the United States* by Soubhik Barari and Tyler Simko. As its title suggests, the paper presents a comprehensive database of audio transcripts from local government meetings, collected from notable municipalities across the United States. These meetings, which were uploaded to YouTube, span 1,012 locations and 2,861 distinct governments, covering the years 2006 to 2022.¹⁴

Barari and Simko's work stands out for its focus on organizing and analyzing this wealth of data using the TIDY process: Import, Tidy, Transform, Visualize, Model, and Communicate. This methodology is not only innovative but also pivotal in advancing the literature on local participation, governance, and movements like NIMBYism. By creating a structured and accessible database, the authors have laid a foundation for more systematic and data-driven analyses of how local politics operate and how citizen engagement influences policymaking. As someone who has actively participated in various local government forums, including HOA meetings, Harrisburg Town Hall meetings, and Chapel Hill Town Hall meetings, I can attest to the often time-consuming and, frankly, tedious nature of such proceedings. The ability to digitize, catalog, and analyze these meetings through a centralized database is invaluable, not only for researchers but also for policymakers and community advocates seeking to understand patterns of public involvement. Thus, creating a database and the work surrounding it was pivotal to this research.

As for the literature that analyzes the general understanding of the NIMBY and subsequent anti-development movements, that would best come from Carissa Schively's *"Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research"* and N.R. Brouwer's *"NIMBYs, YIMBYs, and the Politics of Land*

¹² Patrick S. Duffy, "The Hottest U.S. Housing Markets | U.S. News Housing Market Index | U.S. News," U.S. News & World Report, August 29, 2024, <https://realestate.usnews.com/real-estate/housing-market-index/articles/the-hottest-housing-markets-in-the-us>.

¹³ Miranda Crace, "10 Best Real Estate Markets in 2023," Rocket Mortgage, March 1, 2024, <https://www.rocketmortgage.com/learn/best-real-estate-markets>.

¹⁴ Soubhik Barari and Tyler Simko, "LocalView, a Database of Public Meetings for the Study of Local Politics and Policy-Making in the United States," *Scientific Data* 10, no. 1 (March 15, 2023), <https://doi.org/10.1038/s41597-023-02044-y>.

Use in American Cities”. Starting with the former, Schively notes that the NIMBY movement expands into further acronyms and movements such as the LULU (locally unwanted land uses), NIABY (not in anybody’s backyard), NIMTOO (not in my term of office), BANANA (build absolutely nothing anywhere near anyone), NOPE (not on planet Earth), and CAVEs (citizens against virtually everything).¹⁵ These groups’ main concerns are “(1) the decline in property values; (2) the inability of the community to keep out other undesirable land uses once one has been sited; (3) the decline in quality of life because of noise, truck traffic, odor and the like; (4) the decline in the image of the community; (5) the overburdening of community services and community budgets; and (6) the aesthetically objectionable quality of the facility”.¹⁶ While these groups are also more prone to have members that are older, more educated, and are wealthier.¹⁷ Additionally, Schively addresses the perceptions made towards these groups and how there are positive attributes, such as democratic response, and negative attributes that are applied to these groups.

As for the latter article by Brouwer and Trounstein, their main focus is the dichotomy between NIMBYs and YIMBYs and the political arena that surrounds them. That arena is land use regulation and local governance. They do this by initially discussing the growth of the use of zoning to counteract things such as public health threats as well as general nuisances such as sewage and how zoning was transformed into a tool by cities to segregate or to push specific agendas such as higher land prices.¹⁸ This agenda is hand-in-hand with the desires of the residents of a community who seek to maximize individual wealth and local service quality.¹⁹ Another point of interest from this article is that “all demographic subgroups prefer single-family housing to apartment complex development. Cross-sectional survey data reveal that housing consumers prefer suburban developments with large lots and wide streets”.²⁰ However, it is primarily individuals with higher incomes and more discretionary time who successfully advocate for and achieve the land use restrictions that align with their preferences.

The next piece of literature of note was from Kenneth A. Stahl who wrote “‘*Yes In My Backyard*’: Can a New Pro-Housing Movement Overcome the Power of NIMBYS?”. This article talks about the counter-force that has become the YIMBY movement and how the prospects of the movement. The author notes that the NIMBY movement cost the U.S. economy around 1.5 trillion dollars in productivity losses due to workers being unable to move.²¹ This inefficiency, along with the desire for affordable housing, gave way to the YIMBY movement. Where they have been successful at approving high-density developments in areas such as Cambridge, Boulder, Seattle, and many more municipalities.²² However, Stahl analyzes the current trajectory of the YIMBY movement and the current issues they face. The author notes how home-owners influence in local politics is one obstacle that has been persistent towards the YIMBY

¹⁵ Carissa Schively, “Understanding the Nimby and Lulu Phenomena: Reassessing Our Knowledge Base and Informing Future Research,” *Journal of Planning Literature* 21, no. 3 (February 2007): 255–66, <https://doi.org/10.1177/0885412206295845>. Pp 255.

¹⁶ Carissa Schively, “Understanding the Nimby and Lulu Phenomena: Reassessing Our Knowledge Base and Informing Future Research,” *Journal of Planning Literature* 21, no. 3 (February 2007): 255–66, <https://doi.org/10.1177/0885412206295845>. Pp 256.

¹⁷ Carissa Schively, “Understanding the Nimby and Lulu Phenomena: Reassessing Our Knowledge Base and Informing Future Research,” *Journal of Planning Literature* 21, no. 3 (February 2007): 255–66, <https://doi.org/10.1177/0885412206295845>. Pp 257.

¹⁸ N.R. Brouwer and Jessica Trounstein, “Nimbys, YIMBYS, and the Politics of Land Use in American Cities,” *Annual Review of Political Science* 27, no. 1 (July 29, 2024): 165–84, <https://doi.org/10.1146/annurev-polisci-041322-041133>. Pp 168.

¹⁹ N.R. Brouwer and Jessica Trounstein, “Nimbys, YIMBYS, and the Politics of Land Use in American Cities,” *Annual Review of Political Science* 27, no. 1 (July 29, 2024): 165–84, <https://doi.org/10.1146/annurev-polisci-041322-041133>. Pp 170.

²⁰ N.R. Brouwer and Jessica Trounstein, “Nimbys, YIMBYS, and the Politics of Land Use in American Cities,” *Annual Review of Political Science* 27, no. 1 (July 29, 2024): 165–84, <https://doi.org/10.1146/annurev-polisci-041322-041133>. Pp 173.

²¹ Kenneth Stahl, “‘Yes in My Backyard’: Can a New pro-Housing Movement Overcome the Power of Nimbys?,” SSRN, December 20, 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3087508. Pp 1.

²² Kenneth Stahl, “‘Yes in My Backyard’: Can a New pro-Housing Movement Overcome the Power of Nimbys?,” SSRN, December 20, 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3087508. Pp 2.

movement. Additionally, the current members of the community, those who are most likely to be against increased development, have a larger say than those who wish to move into that municipality as they have current and direct voting power. The YIMBY movement has countered this by organizing into chapters that can use their collective action as a means of political will. However, this leads to the movement's most prominent issue which is the collective action problem and garnering local support and funding from a hostile populace. Additionally, YIMBYs have to continuously create connections through different advocacy groups such as environmentalists to counter sprawl through high-density or advocates for the homeless.

Another article that was used to further the understanding and coherence of this research paper was Veikko Eranti's 'Re-visiting NIMBY: From conflicting interests to conflicting valuations'. This article explores the opposition to land use empirically through cases from Helsinki Finland and neighboring municipalities.²³ Eranti proposes a framework based on pragmatic sociology to analyze how residents engage with local land-use disputes, moving beyond the traditional notion of NIMBY as solely self-interest-driven opposition. Eranti categorizes opposition into three modes of valuation: individual interests, public justification, and familiar affinities.²⁴ He demonstrates that while some residents base their arguments on personal stakes, such as property values or neighborhood aesthetics, others invoke broader principles of common good, like ecological preservation or urban heritage. A smaller but notable portion of arguments draw on deep emotional attachments to specific places, illustrating the role of personal and collective identity in these disputes. Through the analysis of over 500 dispute letters, Eranti reveals that land-use conflicts are not just about tangible interests but also about competing systems of valuation and perceptions of fairness.²⁵

The final article that contributed to this research is 'NIMBYism as a Barrier to Housing and Social Mix in San Francisco' by Georgina McNee and Dorina Pojani. Their study focuses on the participation of NIMBY proponents in public hearings held in San Francisco. The authors chose this city because of the significant increase in living expenses over the past century, which has driven up housing costs within the municipality. This rise in housing costs has, in turn, increased the wealth of existing homeowners in the Bay Area, further exacerbating issues of affordability and social equity. This comes from the fact, which other sources have mentioned, that the political economy is dominated by older, wealthier, whiter, and more powerful homeowners who are retired and thus have the time to combat new developments within public hearings.^{26 27} The political limitations along with the fact that San Francisco is surrounded by water thus limiting sprawl have caused the city to build only 1500 units a year when it should have been producing around 5000 new housing units.²⁸ The case study viewed 20 videos from the City and County of San Francisco and found that anti-NIMBYism elements have grown within the city but the presence of the NIMBY movement is still dominant in the public hearing and political decisions of development.

The current literature on NIMBYism is extensive and provides a broad historical context, as well as an understanding of the general activities pursued by individuals in the movement.

²³Veikko Eranti, "Re-Visiting Nimby: From Conflicting Interests to Conflicting Valuations," *The Sociological Review* 65, no. 2 (November 1, 2016): 285–301, <https://doi.org/10.1177/0038026116675554>. Pp 285.

²⁴Veikko Eranti, "Re-Visiting Nimby: From Conflicting Interests to Conflicting Valuations," *The Sociological Review* 65, no. 2 (November 1, 2016): 285–301, <https://doi.org/10.1177/0038026116675554>. Pp 290.

²⁵Veikko Eranti, "Re-Visiting Nimby: From Conflicting Interests to Conflicting Valuations," *The Sociological Review* 65, no. 2 (November 1, 2016): 285–301, <https://doi.org/10.1177/0038026116675554>. Pp 294.

²⁶Georgina McNee and Dorina Pojani, "Nimbyism as a Barrier to Housing and Social Mix in San Francisco," *Journal of Housing and the Built Environment* 37, no. 1 (May 26, 2021): 553–73, <https://doi.org/10.1007/s10901-021-09857-6>. Pp 555.

²⁷Georgina McNee and Dorina Pojani, "Nimbyism as a Barrier to Housing and Social Mix in San Francisco," *Journal of Housing and the Built Environment* 37, no. 1 (May 26, 2021): 553–73, <https://doi.org/10.1007/s10901-021-09857-6>. Pp 564.

²⁸Georgina McNee and Dorina Pojani, "Nimbyism as a Barrier to Housing and Social Mix in San Francisco," *Journal of Housing and the Built Environment* 37, no. 1 (May 26, 2021): 553–73, <https://doi.org/10.1007/s10901-021-09857-6>. Pp 557.

However, there is a notable gap in data specific to the City of Charlotte, the state of North Carolina, and much of the Sunbelt region. This gap exists largely because academic research on the topic has focused more on locations with more established and proven examples, such as the Bay Area, China, and Helsinki. Additionally, Charlotte isn't constrained by geographic barriers as San Francisco was. Furthermore, while scholars like Schively discuss the motivations and causes driving the NIMBY movement, they do not quantify the extent to which these motivations influence local politics, nor do they measure the impact of these factors on shaping political discourse in affected areas.

C. Methodology

The analysis was conducted primarily using the LocalView website and database, with occasional exports to R for further processing.²⁹ To ensure uninterrupted access to the data, the entire LocalView dataset was imported into R as a precaution against potential website issues or limitations on LocalView.net. Accessing the dataset required a Harvard Database API code, as the data is stored within Harvard's database. The following R packages were utilized for the analysis: ``dataverse``, ``ggplot2``, ``arrow``, ``stringr``, and ``dplyr``. The data was then uploaded to R by creating a new function called ``get_charlotte_meetings`` that would funnel the resources needed for the ``get_dataframe_by_name`` functions and essentially automate the removal of all other meeting data other than that of the City of Charlotte. Additionally, the LocalView database went from 2006 to 2023 which thus created seventeen datasets.

Next, I decided to analyze the number of meetings held each year. To achieve this, I combined all the datasets generated using the ``get_charlotte_meetings`` function into a single list. I then calculated the number of rows in each dataset to represent the total number of meetings recorded by LocalView for Charlotte in each respective year. With this baseline understanding, I turned to examine the frequency of NIMBY-provocative words recorded in the LocalView database. These words were chosen based on their relevance to concerns commonly raised in opposition to development, particularly in the context of the ongoing housing crisis. The most fitting terms for this analysis were "property values," "density," "traffic," "character," "noise," and "historic". These words encapsulate key themes used by the NIMBY movement to resist new developments, particularly in light of rising housing costs, demographic shifts, and the economic and political challenges surrounding land-use regulation. We then turned to the search function on the LocalView website, setting the search parameters to capture results from the City of Charlotte. The search was conducted within a timespan from the minimum to the maximum available range on the website. To refine the results, we set the character count before and after the identified terms to 300 characters. This was done to all of the stated terms which NIMBYs would most likely use.

This approach not only provides the dates on which each term was used but also captures the surrounding context in which they appeared. These dates will be used to generate graphs based on two distinct metrics: one that reflects meeting-specific data from LocalView and another that aggregates the data on a yearly basis using Excel. I created two separate Excel graphs to illustrate both the relevant data and the lack of data from 2006-2018. Once all the data is compiled, the LocalView graphs will highlight noticeable spikes, showing the specific dates when these terms were most frequently mentioned. In cases where a term shows a significant

²⁹Soubhik Barari and Tyler Simko, "LocalView, a Database of Public Meetings for the Study of Local Politics and Policy-Making in the United States," *Scientific Data* 10, no. 1 (March 15, 2023), <https://doi.org/10.1038/s41597-023-02044-y>.

lack of spikes, further analysis will be conducted to explore the underlying causes of these trends. If a spike is found on specific dates, we will find how much of which is towards NIMBYist efforts rather than other mentions such as a ‘Historic Society’ or a ‘Traffic Stop Sign’. This analysis will help identify which tactics are most effectively used within Charlotte’s NIMBY movement, while also offering a framework for evaluating similar movements in other cities. Additionally, the maps generated will visually highlight the most commonly used language within the NIMBY movement, shedding light on the specific verbiage employed to express concerns about development.

Once the data is compiled, the results will focus on analyzing the ratio of NIMBY-related terms used in development contexts versus non-development contexts. This ratio will compare instances where these terms were mentioned in opposition to development against other uses, such as in community activities or discussions about minor local issues, determined through manual vetting with the criteria of housing in mind. The results will then be uploaded into Excel to create a pie chart illustrating the ratio for each term within the research article’s target zone. This ratio analysis provides a clearer understanding of how NIMBY-related language is applied across different settings, highlighting the proportion of usage specifically tied to development opposition. By doing so, it offers insights into the strength and focus of NIMBY narratives within the area. While this method is somewhat basic, it effectively creates a visual representation of the success and focus of NIMBY efforts, revealing where most of the opposition energy is directed. This approach bypasses the need to track individual pieces of legislation within the often complex environment of local governance, enabling researchers to assess the movement's impact on a broader scale.

D. Results

Figure 2, Amount of Meetings within Charlotte, NC Throughout the LocalView dataset

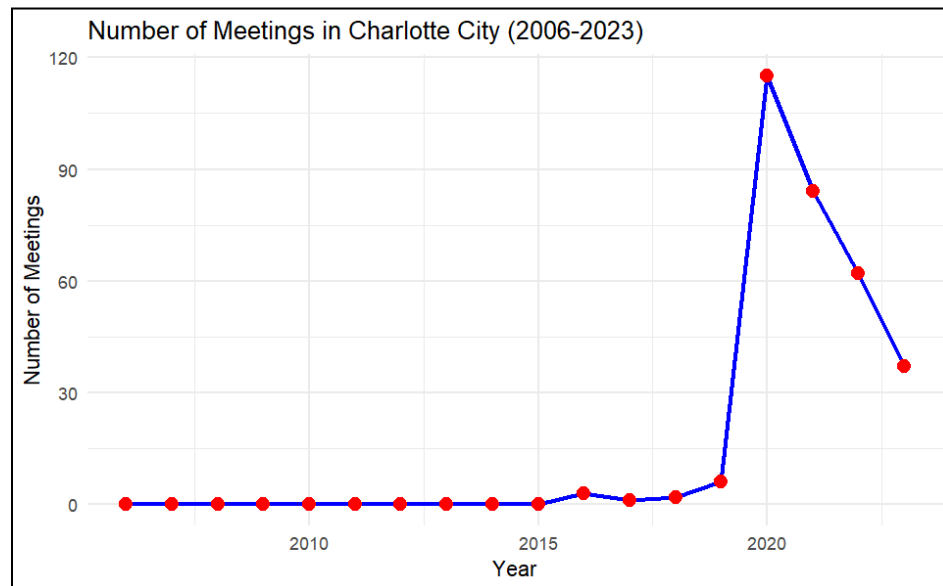


Figure 3, NIMBY Key Language from 2006-2023 within Charlotte, NC

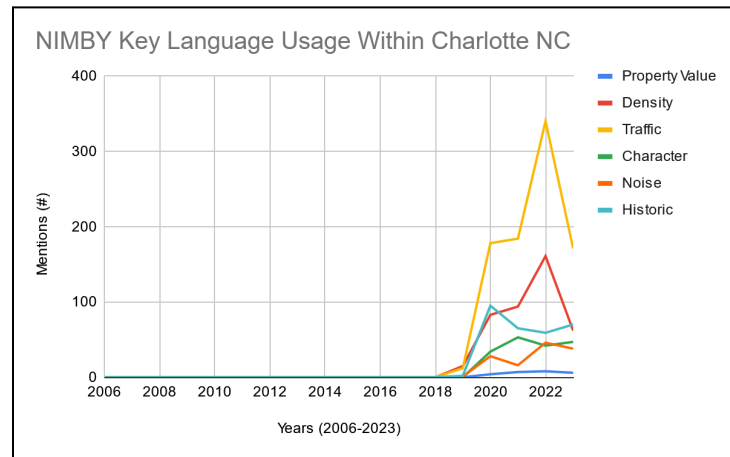


Figure 4, NIMBY Key Language from 2019-2023 within Charlotte, NC

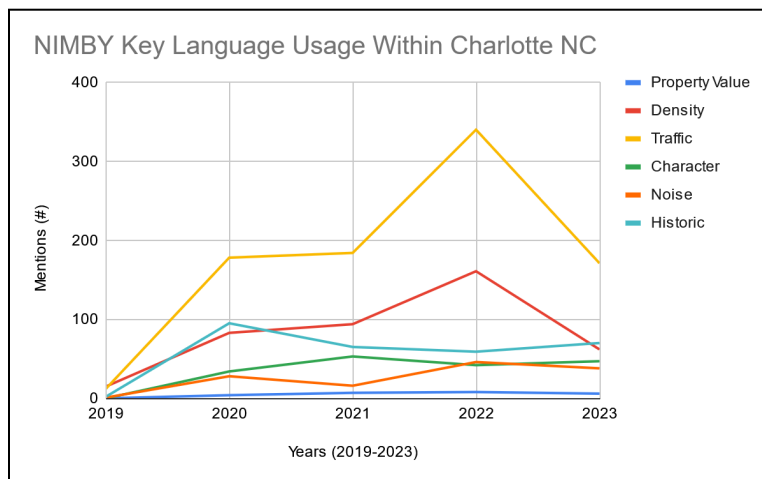


Figure 5, Mentions of 'Property Values' in Public Hearings from 2020-2023 within Charlotte, NC

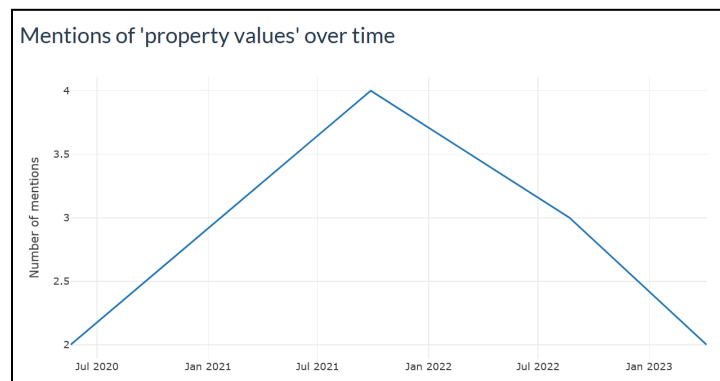


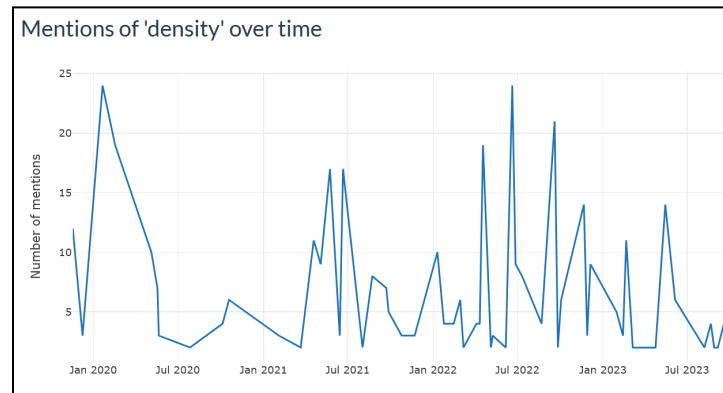
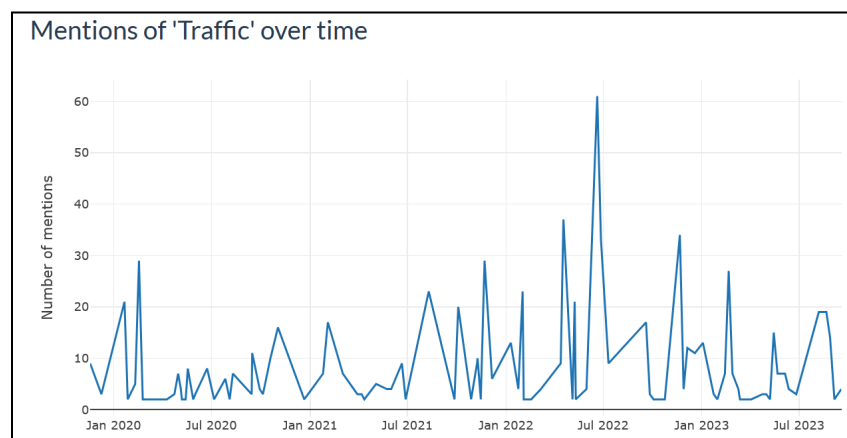
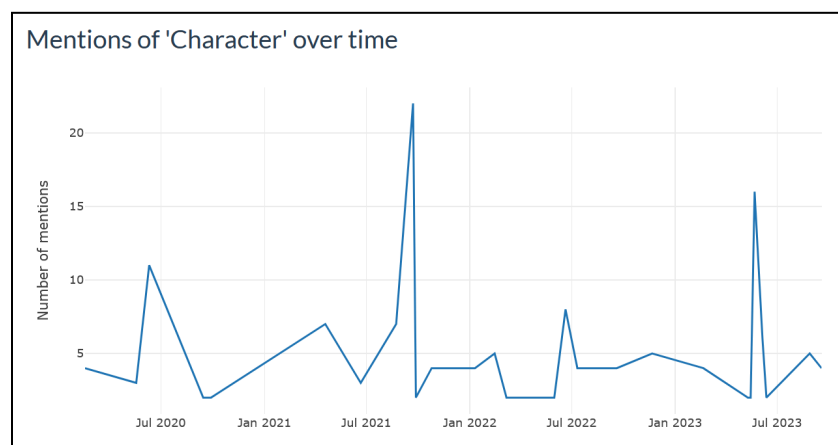
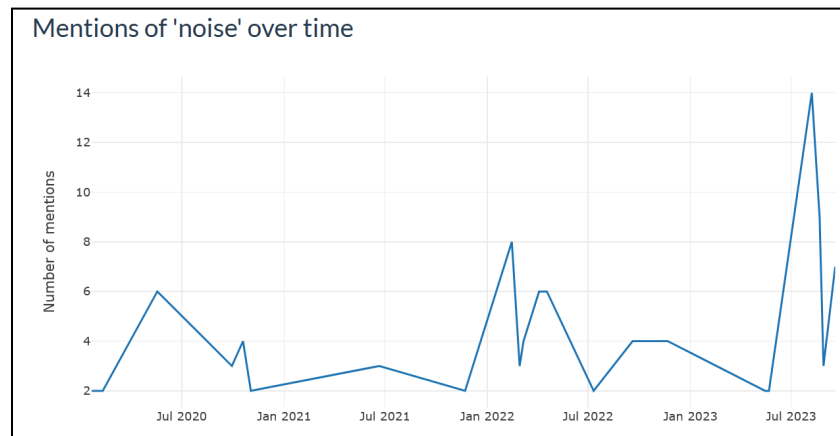
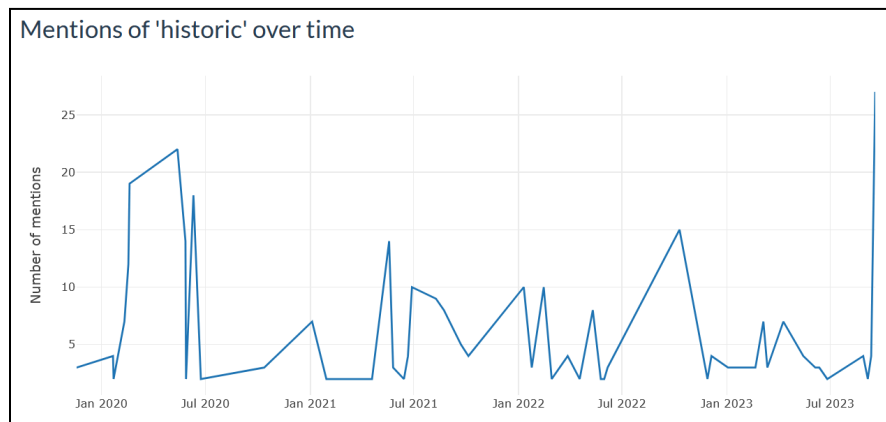
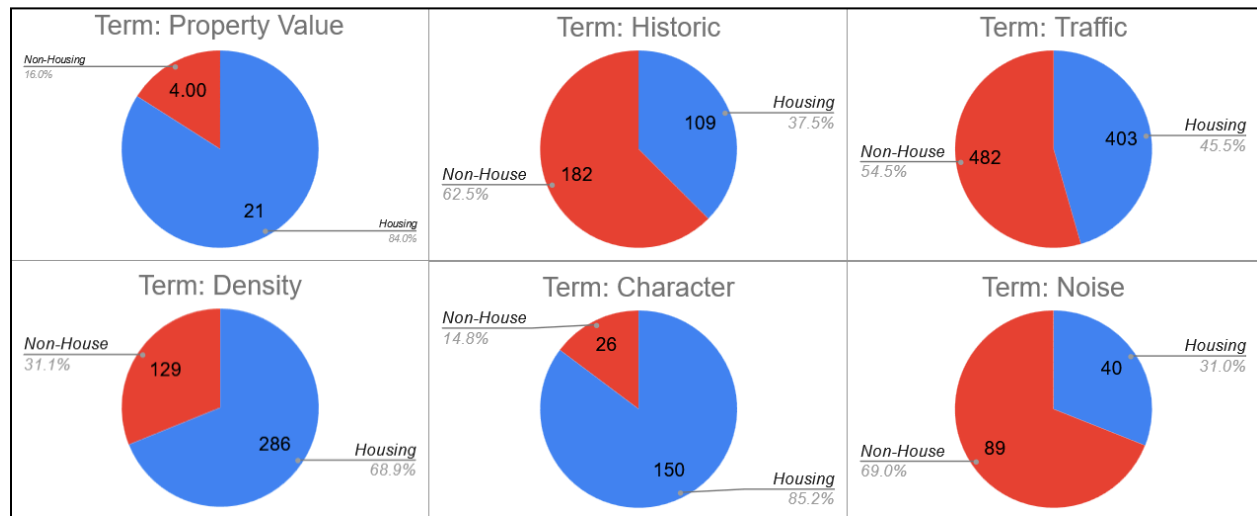
Figure 6, Mentions of ‘Density’ in Public Hearings from 2019-2023 within Charlotte, NC**Figure 7, Mentions of ‘Traffic’ in Public Hearings from 2019-2023 within Charlotte, NC****Figure 8, Mentions of ‘Character’ in Public Hearings from 2019-2023 within Charlotte, NC**

Figure 9, Mentions of ‘Noise’ in Public Hearings from 2019-2023 within Charlotte, NC**Figure 10, Mentions of ‘Historic’ in Public Hearings from 2019-2023 within Charlotte, NC****Figure 11, Total Mentions of NIMBY Terms in Public Hearings from 2019 to 2023, with Yearly Totals, within Charlotte, NC**

	Property Value	Density	Traffic	Character	Noise	Historic	Total (Year)
2019	0	15	12	0	1	2	30
2020	4	83	178	34	28	95	422
2021	7	94	184	53	16	65	419
2022	8	161	340	42	46	59	656
2023	6	62	171	47	38	70	394
Total (By Term)	25	415	885	176	129	291	1921

Figure 12, Ratio of Housing Development Motivated Terms to Non-Housing Development Terms in NIMBY Movement Public Hearings within Charlotte, NC



E. Discussion

Before delving into the results, it is important to first address the limitations encountered during this analysis. The most obvious challenge when dealing with such a large dataset and public hearings, in general, is time. As shown in Figure 2 and also confirmed by R, the LocalView database contained approximately 307 meetings. While this may seem like a sizable dataset, it becomes more problematic when considering that the database only includes data from the City of Charlotte up until 2016. This limited timeframe posed challenges when attempting to assess the success rates of certain terms in blocking or influencing the denial of high-density housing developments. The difficulty was further compounded by the fact that the approval process for local developments can take over a year, meaning that the final vote on a specific development might fall outside the dates covered by the LocalView data. Additionally, a major challenge when studying the impacts of NIMBY movements is that their effects are often difficult to quantify. The direct influence of NIMBYism is usually indirect and largely untraceable within the political process related to land use. Previous studies have acknowledged this, often providing estimates of NIMBYism's economic impact. Although a more detailed analysis of specific development projects could have addressed this issue, such an approach would have significantly limited the scope of this research and been constrained by time restrictions.

The second major limitation stemmed from the LocalView database itself, which presented challenges in three areas: technological limitations, accuracy, and scope. The first issue was a technical one: the website hosting LocalView's database did not have sufficient server capacity. As a result, the site often froze while generating results, and users were frequently disconnected if they left the page or switched tabs for too long. These technical issues were annoying and added unnecessary delays to the analysis. The second issue, accuracy, was related to the quality of the transcripts. These were primarily generated by YouTube's automated transcription service, which sourced data from publicly available municipality meeting videos.

This is where LocalView procured it's as present within its methodology.³⁰ Unfortunately, automated transcription services are prone to errors, leading to inaccuracies in the transcripts. While this problem had less of an impact on the ratio analysis, it became a significant limitation when searching for specific developments, as the names of projects were often incorrectly transcribed. Furthermore, any minor spelling errors in the target terms could result in missed data, as LocalView's search function, along with R's search, would not detect such terms. Finally, the scope of LocalView's database was limited, particularly since it only covered the City of Charlotte starting in 2019, with a mere six meetings recorded from 2016 to 2018. While this limitation did not have a major impact on the analysis, it reduced the ability to track completed NIMBY efforts and conduct a more comprehensive term analysis related to those efforts. Altogether, the limitations at hand simply changed the scope and the analysis that could have been done on specific NIMBY attempts.

The results of the analysis are quite compelling and reveal interesting trends. Starting with Figures 3 and 4, these charts display the usage of each target term on a yearly basis. They clearly highlight the dominance of the term *traffic* within the political discourse, which not only appears frequently but also shows a strong correlation with the number of meetings held during each time period. Similarly, the term *density* demonstrates a comparable pattern of growth and decline over time. One surprising finding here is the relatively infrequent use of the term *property value*, which is the least mentioned of all target terms, with only 25 appearances throughout the dataset. This might be attributed to the fact that it is the only two-word term analyzed, making it more likely for speakers to use alternative phrasing such as "my house's value" or "my home value." Despite its low frequency, the limited usage of *property value* in public hearings is noteworthy, as it is a term often closely associated with NIMBY movements and their goals.

Figures 5 through 9 delve deeper, highlighting specific terms and their most frequent dates of use, revealing notable spikes in usage. Among the analyzed terms, *traffic* and *density* stand out with the highest number of spikes as well as the most significant individual spikes. This suggests that these terms, while not used consistently across all discussions, are employed heavily at critical moments when they are strategically leveraged to question or influence development decisions. Other terms such as *noise*, *character*, and *historic* also show usage spikes during specific instances, although to a lesser degree than *traffic* and *density*. As for *property value*, its low frequency of use results in a steadier pattern without prominent spikes. This consistency could reflect an underlying, ongoing concern about housing prices, given their volatility and importance in the net worth of American households. Alternatively, the lack of public usage may stem from an avoidance of appearing overtly self-serving during public hearings.

Figure 10 provides a detailed breakdown of the total mentions for each term, as well as a year-by-year gradient of usage between 2019 and 2023. Interestingly, most terms saw their highest levels of usage in 2022, despite the fact that the peak number of public meetings occurred earlier, in 2020. This discrepancy is notable: in 2020, there were 115 public hearings in the dataset, followed by a drop to 84 in 2021 and only 62 in 2022, when term usage peaked. The decline in the number of meetings coupled with the rise in term mentions suggests that the language of opposition became more concentrated or intensified during fewer meetings.

³⁰Soubhik Barari and Tyler Simko, "LocalView, a Database of Public Meetings for the Study of Local Politics and Policy-Making in the United States," *Scientific Data* 10, no. 1 (March 15, 2023), <https://doi.org/10.1038/s41597-023-02044-y>.

The final figure, Figure 11, illustrates the extent to which these terms were associated with zoning debates and discussions surrounding development, particularly housing development. This focus stems from the correlation, as outlined in the introduction, between NIMBYism and the decline in housing stock, driven by the movement's significant political influence within local governance. By highlighting these associations, Figure 11 emphasizes the role NIMBY-related language plays in shaping zoning and development outcomes, offering a deeper understanding of how these terms are employed to influence policy decisions and potentially hinder housing growth.

Interestingly, even though *"property value"* had the lowest overall volume among the target terms, it showed the second-highest frequency of association with housing development. This could be attributed to statistical anomalies, such as regression toward the mean, as the relatively small sample size limits the reliability of its high frequency. However, the result remains logically sound, given that property value is a critical consideration in land development discussions and is often a key concern for residents opposing new housing projects.

The other two high-frequency terms were *"character"* and *"density"*. Both of these make sense for having such a high usage concerning housing development. Density in particular will be constantly mentioned by both advocates and critics of increased development as NIMBYs would ask for low-density housing such as single-family homes while YIMBYs would ask for multi-family housing. Additionally, City officials would question density the most when it comes to proposed construction as it eventually leads to a lot of other key issues that NIMBYs would have such as noise and traffic and the potential drop in property value. As for *"character,"* it stood out with a significant 85.2% of its mentions explicitly tied to preserving neighborhood character in response to development proposals. This term underscores a common NIMBY sentiment aimed at maintaining the existing aesthetic, cultural, or social fabric of a neighborhood in the face of change. Its high usage highlights its importance as a tool for framing opposition to new development, making it one of the most targeted and impactful terms in zoning and housing debates. Moreover, this term faced minimal dilution in its usage, aside from occasional mentions by City Hall when presenting awards related to a person's character or addressing events critiquing an individual's character. This consistency strengthens its relevance as a reliable indicator of NIMBY-driven discourse.

Among the other target terms, *"historic," "noise,"* and *"traffic"* exhibited the lowest correlation with housing development. The lower association of *"traffic"* is particularly noteworthy, as traffic concerns are universal in municipal discussions and frequently extend beyond development-specific issues. Routine traffic-related proposals, such as the installation of stop signs or traffic lights, likely inflated the term's overall usage but diluted its connection to housing development. A similar dilution occurred with the term *"historic,"* as a historic committee met during nearly every public hearing, significantly inflating the term's overall usage. Furthermore, the term was often employed in contexts unrelated to zoning or development, such as emphasizing the importance or magnitude of an event or relationship. Phrases like "a historic increase" or "our historic relationship with Durham" demonstrate how the word was used in broader rhetorical contexts, further diluting its association with housing development and zoning debates. As for the term *"noise,"* the majority of its usage stemmed from complaints about noise from neighbors and public events. Additionally, the transcripts occasionally captured City Hall members asking speakers to back away from the microphone or to reduce the noise level during meetings. This particular term had one of the weakest direct connections to NIMBYism, as its usage was often unrelated to development discussions.

Nevertheless, it served as a reasonable indicator of concerns about noise pollution and highlighted the level of attention Charlotte residents and officials placed on this issue.

F. Conclusion

The initial hypothesis that was presented was that property value would be a key concern of homeowners when it came to new developments near their houses. So much so that it would push them to want to counter this development and stop it altogether, leading to them unknowingly joining the NIMBY movement. This has been seen within other studies such as Georgina McNee and Dorina Pojani's study on San Francisco which showed that protecting high property value was a key interest within the current homeowners. However, this is not what was present when looking at the target terms that make up a majority of the motivation for the NIMBY movement. Those terms are historic, character, density, traffic, and noise. Rather than leading in both usage and high association with housing development, property value leads in neither within Charlotte, North Carolina. This could be due to a geographic difference as Charlotte has more land to allow urban sprawl as well as a lower-valued housing market. No matter the reason, the fact of the matter is that terms such as density and character make up a higher connection towards the contestation of new housing development as well as a higher volume. This makes sense, it would be much easier to convince people that you are preserving a public good, such as preserving the character of a neighborhood, rather than acting out of their own perceived self-interest.

For future research, a more in-depth analysis of specific NIMBY movements within Charlotte could provide valuable insights into the areas and neighborhoods most affected by such opposition. Mapping where these debates occur most frequently could reveal patterns related to socioeconomic status, neighborhood demographics, or even zoning regulations that facilitate or hinder development. Additionally, expanding the research to compare Charlotte with other cities in North Carolina and across the Sunbelt would offer a broader perspective on how NIMBYism manifests in different regional contexts, particularly in fast-growing urban areas. Understanding how Charlotte's NIMBY movement compares to those in cities with similar growth trajectories, such as Raleigh, Austin, or Phoenix, could reveal whether the factors influencing opposition to development are unique to Charlotte or indicative of broader trends across the Sunbelt. This research could help policymakers better understand the strengths and differences of NIMBYism across the country and develop strategies to address housing challenges while balancing community concerns.

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