

Zoning Policies and Social Equity: Building Cities through Zoning Variances

Thesis

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## Abstract

This study investigates how due process, equal protection, and social justice are impacted by zoning variances within the United States urban planning system. While zoning is a well-examined topic, variances, which allow deviations from standard zoning regulations, remain less explored. Historically, zoning in the U.S. evolved from 19th-century nuisance laws and has served the role of managing public and private interests, but it has also excluded minority communities, reinforcing racial and socioeconomic discrimination. Zoning variances, intended to provide flexibility, have faced scrutiny due to potential biases and procedural flaws. High approval rates and differential treatment of variances based on neighborhood demographics raise concerns about fairness and governmental legitimacy. Through a mixed-methods approach, incorporating quantitative, qualitative, and spatial analyses, this study examines these questions to advance understanding of the effects of variance approvals and denials on low-income and minority communities. The research highlights the persistent flaws in the variance process, such as bias, lack of public participation, and procedural inconsistencies. The study's findings underscore the need for reforms to ensure a transparent and equitable zoning system, addressing gaps in contemporary research and advocating for procedural justice in urban planning.

## Dedication

To Taís, without your love and support, none of this would be possible.

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## Fields of Study

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## Table of Contents

Abstract .....	ii
Dedication .....	iii
Acknowledgments.....	iv
Vita.....	v
Table of Contents .....	vi
List of Tables .....	vii
List of Figures .....	viii
Chapter 1. Introduction .....	1
Chapter 2: Literature Review .....	8
History of Zoning.....	8
Defining Zoning Variances.....	19
Equal Protection and the Zoning Variance Process .....	21
Chapter 3: Methodology .....	32
Chapter 4: Analysis.....	36
Quantitative Analysis.....	36
Qualitative Analysis.....	40
Spatial Analysis .....	45
Chapter 5: Discussion and Conclusion .....	55
Bibliography .....	62

## List of Tables

Table 1: Analysis of Zoning Variance Approvals With and Without Legal Representation, Columbus, Ohio, 2021 To 2023.....	36
Table 2: Analysis of Zoning Variance Approvals Based on Applicant/Organization type, Columbus, Ohio, 2021 to 2023. ....	38
Table 3: Analysis of Zoning Variance Approvals Based on Landowner Address, Columbus, Ohio, 2021 to 2023. ....	39
Table 4: Analysis of Zoning Variance cases BZA20-120, BZA21-050 and BZA23-114, Columbus, Ohio, 2021 to 2023. ....	45
Table 5: Analysis of Zoning Variance by number of approved variances over the years, Columbus, Ohio, 2009 to 2023. ....	53



## List of Figures

Figure 1: Total Number of Zoning Variances From 2009 to 2023 by Columbus Communities, Ohio, 2022.....	47
Figure 2: Approved and Disapproved Zoning Variances (2021-2023), Total Number of Zoning Variances (2009-2023) by Columbus Communities, 2022.....	48
Figure 3: Approved Zoning Variances from 2009 to 2013, White Population by Census Block Groups, Columbus, Ohio, 2020.....	49
Figure 4: Approved Zoning Variances from 2014 to 2018, White Population by Census Block Groups, Columbus, Ohio, 2020.....	50
Figure 5: Approved Zoning Variances from 2018 to 2023, White Population by Census Block Groups, Columbus, Ohio, 2020.....	51
Figure 6: Approved Zoning Variances from 2009 to 2023, White Population by Census Block Groups, Columbus, Ohio, 2020.....	52
Figure 7: Average Nearest Neighbor Summary, Columbus, Ohio, 2009 to 2023.....	54

## Chapter 1. Introduction

Discussions of urban planning issues in the United States rarely omit the term "zoning." However, the concept of "variances" is much less explored, leaving many lay people unaware of this possibility within rigid zoning code schemes. Variances can become a powerful tool for urban manipulation, comparable to zoning itself as it provides needed flexibility to landowners and residents.

This study seeks to investigate the implications of the zoning variance process concerning due process, equal protection, and social justice. Specifically, the study aims to address the following questions: What do we know—and not know—about zoning variances and justice? And are minority groups<sup>1</sup> and low-income communities disproportionately affected by zoning variance decisions? Focusing on minority and low-income groups is crucial because zoning decisions are deeply related to power dynamics. Historically, zoning laws have segregated communities and maintained socioeconomic disparities. (Pollard, 1931; Hirt, 2015; Reininger, 1986; Alexander, 2005; Maldonado, 2017; Bronin, 2020; Whittemore, 2017; Hinds & Ordway, 1986). Understanding how

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<sup>1</sup> Minority group (is defined as): "a group that is the subject of oppression and discrimination, whether or not it literally comprises a minority of the population"(APA Dictionary of Psychology, 2023).

these dynamics work in the context of zoning variances is essential for addressing broader issues of justice and equity.

Traditional zoning originated in Germany and was subsequently adopted in the United States, where it evolved as an extension of 19th-century nuisance laws (Hirt, 2010). The earliest known instance of land use districting for nuisance control in the United States dates back to 1867 in San Francisco, where there was an attempt to remove slaughterhouses from the city (Stangl, 2019). From 1870 to 1890, cities continued to employ nuisance laws to establish municipal regulations excluding specific types of businesses. During this period, laundries were the most commonly affected businesses, particularly in selected urban areas (Stangl, 2019; Pollard, 1931). This era witnessed the emergence of the so-called "laundry cases," which focused on restricting the locations of Chinese laundries (e.g., *Yick Wo vs. Hopkins*, 118 U.S. 356, 1886).

Unlike zoning in Germany, early zoning in the United States was unique in its emphasis on detached single-family homes and social control (Hirt, 2015). The most common form of traditional zoning in the United States is Euclidean zoning, which was informed by the Standard State Zoning Enabling Act, a model of zoning legislation developed by the U.S. Department of Commerce and published in 1924. The practice of zoning is not directly supported by the U.S. Constitution; its justification comes from historic judicial decisions, such as the landmark case *Village of Euclid v. Ambler Realty Co.* (272 U.S. 365, 1926) which established a legal precedent for the validity of urban zoning by local jurisdictions.

Various scholars have debated the purposes of zoning. Early views highlighted property value preservation, while later discussions delved into zoning's dual role of maximizing property value and serving as a planning tool to resolve conflicting public and private interests (Williams, 1966; Walker, 1941; Babcock, 1966; Haar and Kayden, 1989). However, zoning has also demonstrated its power to exclude certain communities, particularly in terms of racial and socioeconomic discrimination. Studies have highlighted how zoning decisions historically discriminated against minority groups, such as ethnic minority communities in cases of immigrants and, as mentioned earlier, Chinese laundries (Reynolds, 2019; Pollard, 1931). Other affected groups include individuals with disabilities, as in the *City of Cleburne, Texas v. Cleburne Living Center* (473 U.S. 432, 1985), which involved the denial of a special permit for a group home for mentally disabled people (Reininger, 1986); non-traditional family formats, with family definitions in zoning and housing law that exclude LGBTQIA+<sup>2</sup> families and functional families (Alexander, 2005; Maldonado, 2017; Bronin, 2020); and people of color, with decision-makers prioritizing the allocation of heavy commercial and industrial activities to

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<sup>2</sup> LGBTQIA+ (is defined as): "Abbreviation for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual. The additional “+” stands for all of the other identities not encompassed in the short acronym." (UC Davis, LGBTQIA Resource Center Glossary, 2024).

majority-black residential communities and approving a greater number of variances in white neighborhoods (Whittemore, 2017; Hinds & Ordway, 1986).

The remedy for zoning inequalities is complex and structural. Zoning variances appear as strategies for addressing the unequal zoning process. The Standard State Zoning Enabling Act (SSZEA) recommended a “Board of Adjustment” to allow for “special exceptions to the terms of the zoning ordinance” for various hardships (U.S. Department of Commerce, 1926, p. 9). A variance is a formal request to deviate from existing zoning requirements. Once granted, it allows the applicant to use the property otherwise prohibited by the zoning ordinance. It is crucial to note that a variance does not alter the zoning law; rather, it grants a specific waiver from zoning ordinance requirements. Specific zoning requirements can create a hardship for a resident. For example, a zoning code might mandate certain setbacks from front or side property lines for dwellings. The shape of a particular parcel might render the buildable area too small for a dwelling unit, making the property unusable for the owner. In such cases, a variance is needed to alleviate the hardship imposed by the strict zoning code. However, what if these variance processes are not fair? What if this process is exclusionary towards certain communities, contributing to or exacerbating existing exclusions?

Relying on zoning variances as a remedy for the inequities in the zoning process presents its own challenges. The high number of variance approvals in several cities since the 1920s drives suspicion towards the process (Shapiro, 1969). Additionally, biased decision-makers who treat the same variance requests from Black and white

neighborhoods differently not only jeopardize accurate decisions but also undermine the legitimacy of governmental processes (Cordes, 1989; Dubin, 1993; Whittemore, 2017; Hinds & Ordway, 1986).

Recent debates about zoning reform primarily focus on single-family housing and affordable housing (Bratt & Vladeck, 2014; Manville et al., 2019; Wegmann, 2019; Infranca, 2023). This study, however, explores the procedural aspects of zoning reforms, critically analyzing mechanisms for zoning variance approvals. The literature indicates that procedural issues with zoning variances have existed since their inception, prompting important questions about their current status (Toll, 1969; Shapiro, 1969; Haar and Kayden, 1989; Gardiner & Lyman, 1978; Cordes 1989; Dubin, 1993; Reynolds, 1999; Saadi, 2017). It is noteworthy that most discussions on this topic originate from sources predating 2000, underscoring a substantial gap in recent research. This presents opportunities to investigate whether the procedural behaviors of zoning variances have remained consistent or evolved over time.

Chapter 2, "Literature Review," presents a review of previous works segmented into three parts: 1) history of zoning, this section delves into the origin of zoning since nuisance laws, and the zoning reflection on social attitudes, legal structures of segregation and economic priorities in United States urban planning; 2) defining zoning variances, the section discusses the origin and purpose of zoning variances and the role of the Board of Zoning Adjustment/Appeals (BZA). It explores the issues of zoning regulations not clearly defining the purpose of variances, leaving interpretation up to each

board and municipality; and 3) equal protection and the zoning variance process. This section explores the zoning variances inequalities and procedural problems.

In Chapter 3, "Methodology," explains the mixed-method approach of the research, using quantitative analyses, qualitative methods, and spatial analysis. This section draws on works such as those by Hinds & Ordway (1986), Whittemore (2017), and Yin (2011), to understand the implications of approved and denied zoning variances for low-income and minority communities. Chapter 4, "Results," presents the results of the analysis, focusing on each of the methodologies covered.

Chapter 5, "Discussion," explores the findings, consequences, and implications of the results concerning zoning flexibility and justice issues. It addresses the persistent flaws in the zoning variance process, including bias, lack of public participation, and procedural inconsistencies, and discusses the broader significance of these problems. Chapter 6, "Conclusion," encapsulates the thesis by aligning with historical criticisms and underscoring the urgent need for reforms to establish a fair and transparent zoning system. The existing gap in contemporary research on zoning variances presents an opportunity for further investigation to comprehend and address these longstanding procedural challenges. Issues such as biased decisions, lack of public participation, and procedural inconsistencies, identified in the zoning variances system over 90 years ago, continue to persist today. It is misguided to consider these issues outdated when they remain prevalent. Zoning reform extends beyond the scope of affordable housing and single-family homes; it seeks to rectify ongoing procedural flaws. This study highlights

the persistent issues within the zoning variance system and underscores the necessity for comprehensive zoning reform.



## Chapter 2: Literature Review

The study draws on the works of previous authors to present a literature review segmented into three parts: 1) a short history of zoning in the United States, 2) defining zoning variances, and 3) equal protection and the zoning variance process. The first section delves into understanding zoning history and reasoning exploring the problems associated with it, such as disparities in zoning decisions and exclusionary zoning. The second section seeks a historical view rationale for creating zoning variances. The third section delves into issues related to due process and equal protection concerning variance approvals and denials. This section aims to explore whether and how the procedural mechanisms that govern the approval of variances disproportionately affect minority groups and low-income communities.

This chapter concludes with a discussion of the need to address social justice and equal protection issues in the zoning variance process to ensure that minority and low-income communities are not subjected to discriminatory and exclusionary zoning practices.

### *History of Zoning*

Zoning is a method of regulating land use implemented by local governments, which delineate and establish standards for areas within districts. These regulations provide guidelines for land use, setbacks, structure heights, lot sizes, and more. Zoning laws are primarily established by local governments such as cities and counties.

However, states can set frameworks and guidelines that influence how zoning is conducted at the local level (Fischel, 2000).

The zoning process officially originated in Germany during the 1870s and 1880s when German reformers divided entire cities into separate residential and industrial districts. This German system was widely adopted in the United States, where zoning evolved as an extension of 19th-century nuisance laws (Hirt, 2010). Before zoning legislation, land use districting was governed solely by nuisance laws, which addressed the unhealthy environments and dangerous conditions of polluted industrial cities (Pollard, 1931; Hirt, 2010; Stangl, 2019).

The earliest known case of land use districting for nuisance control in the United States dates back to 1867 in San Francisco, where there was an attempt to remove slaughterhouses from the city (Stangl, 2019). This case highlighted the urgent need for sanitary improvements, as diseases were associated with unhealthy environments characterized by "wetness, darkness, and foul smells," nuisances predominantly found near poor neighborhoods (Stangl, 2019, p.313). The butchers resisted these measures, with Shrader, one of the butchers, asserting that his property rights had been violated. This resulted in a legal dispute that ultimately reached the Supreme Court of California in the case of *Ex parte Shrader* (1867, 33 Cal. 279). The court ruled that the ordinance was "constitutionally valid, noting that the State Legislature had delegated San Francisco the power to ban slaughterhouses from the entire city" (Stangl, 2019, p.317). The

justification was that the city had the power to ensure public health and safety, and slaughterhouses were deemed a threat to both.

San Francisco was leading the charge in regulating nuisances. Between 1870 to 1890, the city continued employing nuisance laws to establish municipal regulations that excluded specific types of businesses. During this period, laundries were the most common businesses affected by these laws, particularly in selected urban areas (Stangl, 2019; Pollard, 1931). This era witnessed the emergence of the so-called "laundry cases," which focused on restricting the locations of Chinese laundries. Notably, a significant portion of laundry work in San Francisco was performed by Chinese immigrants, coinciding with a period of violent anti-Chinese disturbances in California. (Pollard, 1931) This era saw widespread harassment, assaults, and the forced expulsion of thousands of Chinese immigrants from communities across California and the Pacific Northwest (Lew-Williams, 2018). The case began with the City Council of San Francisco alleging that laundry structures were unhealthy and unsafe, citing fire hazards, inadequate drainage, and moral hazards due to the congregation of Chinese residents at these locations (Pollard, 1931). Consequently, city authorities enacted ordinances prohibiting laundries from being maintained or operated in specific sections of the city without obtaining permits.

In 1885, Lee Yick and Wo Lee were arrested by city authorities and charged with violating one of these ordinances by continuing to operate a laundry contrary to its provisions. The case escalated to the Supreme Court of California, which upheld the

city's right to prohibit the operation of laundries. Although the San Francisco ordinances did not entirely prohibit laundries in certain districts and only required them to seek permits, the authorities responsible for issuing permits frequently delayed or refused to grant them (Pollard, 1931).

Despite the similarities in zoning processes between Germany and the United States, there have always been notable distinctions in how mixed-use areas are managed. Historically, German zoning has aimed to control noxious industries, alleviate crowding, and protect the countryside. These objectives reflect Germany's focus on maintaining environmental quality and public health, as well as preserving rural landscapes. In contrast, while zoning in the U.S. also addresses these concerns, planners in the United States emphasized land-use control (Hirt, 2010).

Hirt (2015) provides an in-depth analysis of these unique American considerations explaining that between 1910 and 1916, U.S. residential districting employed three primary methods: 1) separating housing by race, 2) by lot size, and 3) by the distinction between single-family and multi-family housing. These methods reflect broader social and economic priorities in American urban planning. The racial separation of housing was a response to prevailing social attitudes and legal structures of segregation.

Districting by lot size aimed to control population density and manage urban sprawl, addressing concerns about overcrowding and infrastructure strain. Finally, distinguishing between single-family and multi-family housing was rooted in the desire

to maintain certain neighborhood characteristics and property values, often tied to notions of social status and community identity. (Hirt, 2015).

In the 1920s, the zoning process was established as a constitutional use of police power to regulate public and private property (Williams, 1966). A significant case in zoning was the *Village of Euclid, Ohio v. Ambler Realty Co.* (272 U.S. 365, 388, 1926), which marked the shift from treating land use districts as a control for nuisances to viewing them as an exercise of police power. In this case, the Ambler Realty Company owned 68 acres in the Village of Euclid, a suburb of Cleveland, Ohio. In 1922, the Village Council adopted an ordinance establishing a comprehensive zoning plan that regulated and restricted land use for each parcel in the town. The zoning plan divided Ambler Realty's parcel into three categories: U-2 for single-family dwellings, U-3 for single-family, apartment houses, hotels, churches, schools, and other public and semi-public buildings, and U-6 for all uses previously mentioned additionally for industry and manufacturing.

According to the court, industrial uses had "a market value of about \$10,000 per acre, but if the use is limited to residential purposes the market value is not in excess of \$2,500 per acre" (*Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365, 388, 1926). Ambler Realty argued that their parcel would be worth more if it could be used for industrial purposes and sued to declare the zoning regime unconstitutional. They claimed the zoning laws violated the Fourteenth Amendment by depriving the company of its liberty and property without due process and denying equal protection of the law.

The U.S. Supreme Court upheld the constitutionality of zoning, stating that the Euclid ordinance did not violate the standard. The court ruled that zoning regulations were a legitimate use of police power, necessary “under the complex conditions of our day, for reasons analogous to those which justify traffic regulations, which, before the advent of automobiles and rapid transit street railways, would have been condemned as fatally arbitrary and unreasonable.” (*Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365, 388, 1926). Fischel (2000) argues that the decision in *Euclid* was crucial in addressing zoning issues at the federal level.

Two years after the landmark case *Euclid*, another significant case, *Nectow v. City of Cambridge* (277 U.S. 183, 1928), was decided. Similar to *Euclid*, *Nectow* involved comprehensive zoning ordinances against which an injunction was sought on the grounds that their enforcement constituted a violation of the Fourteenth Amendment. However, the Court in *Nectow* addressed the limitations on governmental authority to adopt zoning regulations.

The plaintiff, Nectow, owned a tract of land in Cambridge, Massachusetts, and had contracted to sell it to a prospective buyer. During the pending transaction, the city implemented a comprehensive zoning ordinance that divided the city into residential, business, and unrestricted-use areas. The majority of Nectow's property was zoned without significant restrictions, but a specific strip was restricted for residential use. This zoning prompted a potential buyer to withdraw from purchasing the property. Consequently, Nectow sued the city, alleging that the residential zoning of his strip of

land violated the Fourteenth Amendment's due process clause by unlawfully depriving him of property rights. He sought a court injunction to compel the city to allow construction of any type of building on the strip, irrespective of its residential zoning designation.

The *Nectow* case represents a notable advancement in zoning regulations compared to *Euclid*. While the latter case established the authority to utilize zoning laws to organize cities for the collective benefit, *Nectow* focused on whether the zoning ordinance was reasonable in its application and genuinely promoted the general welfare. The determination of reasonableness, as articulated by Monchow (1928), cannot be established by general rules but must be evaluated based on the specific circumstances of each case. This decision underscores the importance for zoning authorities to thoroughly assess their plans to avoid them being deemed arbitrary and unreasonable exercises of police power by the courts. The significance of this decision lies in its emphasis on the necessity of evaluating zoning ordinances not by fixed rules but by their reasonable application to individual cases (Monchow, 1928).

Walker (1941) argued that zoning regulations implemented between 1920 and 1930 were primarily to preserve and increase property values. He asserts that this period witnessed significant urbanization and industrial expansion, leading to apprehensions about the impact of mixed land uses on property values. Similar to street widening programs, which were often justified by their potential to enhance property values, zoning regulations were also instituted with comparable economic motivations. The

proponents of this approach predominantly comprised property owners, real estate developers, and local government officials who aimed to safeguard and enhance their investments. They believed that zoning could prevent undesirable developments, such as industrial facilities or low-income housing, from encroaching on residential neighborhoods and commercial districts. Consequently, zoning was perceived not just as a tool for urban planning, but also as a strategic measure to safeguard and enhance the economic value of real estate assets (Walker, 1941).

Strengthening Walker's argument, Richard F. Babcock (1966), in his book, “The Zoning Game,” discusses the purpose of zoning based on two concepts. First, is the property value concept, where zoning is a means of maximizing the value of property. Babcock explains that zoning ordinance can achieve the goal of maximizing property value by prohibiting the construction of nuisances – defined as “any use that detracts from the value of another property to a degree significantly greater than it adds to the value of the property on which it is located.” (1966, p.117). The second concept he calls the planning theory. The author illustrates zoning as a planning tool to resolve conflicting public and private interests. However, Babcock questions planners for saying that zoning is just a tool; he argues that zoning is more about exclusion than planning purposes.

Babcock's point has been reiterated numerous times over the years, zoning remains a key component of urban planning in the United States, governing land use, placement, spacing, and building size. This land-use mechanism has the potential to safeguard communities. However, it has also proven to be a major contributor to



inequality (Bronin, 2022). When cities use zoning to exclude, this practice is known as exclusionary zoning. For example, land policies in many communities make access between people's homes and workplaces more challenging, exclude health and education services from some residential neighborhoods, and prevent the implementation of affordable housing (Ritzdorf, 1994). Additionally, zoning laws often restrict unrelated individuals from living together by defining "family" narrowly (*Village of Belle Terre v. Boraas*, 1974; Alexander, 2005; and Bronin, 2020) and consider unconstitutional related people of different generations from living together, as per *Moore v. City of East Cleveland, Ohio*, 1977 case (Maldonado, 2017).

Other issues include the denial of special use permits without legitimate reasons and discrimination against people with disabilities, as seen in the *City of Cleburne, Texas v. Cleburne Living Center*, 1985 (Reininger, 1986). And also reports of unequal treatment in rezoning requests, with majority-black communities often facing more challenges than majority-white communities (Whittemore, 2017; Hinds & Ordway, 1986).

The literature around the topic is vast and diverse, exploring issues around zoning exclusion of women (Ritzdorf, 1994), ethnic minority communities (Reynolds, 1999), individuals with disabilities (*City of Cleburne, Texas v. Cleburne Living Center*, 1985; Reininger, 1986), non-traditional family formats (Alexander, 2005; Maldonado, 2017; and Bronin, 2020), and people of color (Whittemore, 2017; Hinds & Ordway, 1986). All of these works share a common theme of dissatisfaction with the zoning process and a call for zoning reform. Some focus more on discussing the zoning process in general, its

definitions and consequences (Ritzdorf, 1994; Reynolds, 2019; Alexander, 2005; Maldonado, 2017; and Bronin, 2020), while others concentrate on cases of inequality in administrative relief mechanisms, such as exceptions, special permits, and variances (Reininger, 1986; Whittemore, 2017; Hinds & Ordway, 1986).

The works of Alexander (2005), Maldonado (2017), and Bronin (2020) offer a critique of traditional zoning laws for their exclusionary nature, highlighting how these laws marginalize non-traditional family structures and advocate for reform. Each author brings unique perspectives and solutions tailored to a specific family. Alexander (2005) argues that zoning laws are inherently discriminatory against LGBT families. The author emphasizes how normative family definitions in zoning and housing laws, which focus on relationships rather than function, discriminate against LGBT individuals and families. Bronin (2020) also discusses discrimination against LGBT families and expands the discussion to include functional families. They provide a comprehensive analysis of current zoning laws and their discriminatory effects on non-traditional families. Maldonado (2017), on another hand, discusses the impact of exclusionary zoning on extended families. The focus is on the case of *Moore v. City of East Cleveland* (1977), in which an ordinance prohibited a grandmother from living with her grandson due to the specific definition of family used.

The authors Reininger (1986), Whittemore (2017) and Hinds and Ordway (1986) discuss cases of inequality in administrative relief mechanisms, specifically focusing on the impact of zoning practices on minority groups. Each study reveals how these

practices have disproportionately affected these groups, leading to negative social, economic, and environmental outcomes. All three articles emphasize the need for more equitable zoning practices to prevent discrimination and protect the rights and well-being of minority communities. While all three articles highlight the discriminatory impacts of zoning decisions, they each offer unique perspectives and evidence, underscoring the pervasive nature of bias in zoning and the urgent need for policy reform. Reininger (1986) discusses the Supreme Court case *City of Cleburne v. Cleburne Living Center*, which involved a zoning ordinance requiring a special permit for a group home for mentally disabled people. In this case, the Court found that the city's decision was based on prejudice rather than legislative rationality, rendering the application of the ordinance unsustainable.

Whittemore (2017) and Hinds and Ordway (1986) both observe that zoning practices have favored white communities and discriminated against Black ones. Whittemore (2017) analyzes zoning changes in Durham, North Carolina, from 1945 to 2014, focusing on shifts from less intensive to more intensive commercial and industrial uses. The proximity of heavy commercial and industrial activities to residential communities can lead to detrimental health impacts. The author questions who zoning is designed to protect, as his study shows a clear racial disparity in the approval of upzonings and downzonings before 1985. The evidence indicates that the predominantly white city council consistently ignored opposition to upzonings in Black neighborhoods while frequently blocking upzonings in white areas.

Hinds and Ordway (1986) examine rezoning practices in Atlanta, Georgia, using census tracts as the unit of analysis to compare predominantly white and predominantly Black tracts from 1955 to 1980. Analyzing 4,753 applications for rezoning, their study found that in the first 11 years, the number of approvals was higher in white areas than in Black areas. Their findings highlight the inequality of treatment in rezoning decisions, further emphasizing the need for policy reform to ensure equitable zoning practices.

### *Defining Zoning Variances*

The zoning variances model emerged in 1862 from the building code established for New York City (Cook & Trotta, 1965; Reynolds, 1999). It provided the Department of Buildings with the power to "modify or vary any of the several provisions of [the] act to meet the requirements of special cases, where the same do not conflict with public safety and the public good, so that substantial justice may be done." (N.Y. Laws 1862, c. 356, p. 591). Though votes, the Board of Zoning Adjustment/Appeals (BZA) is "authorized to review administrative decisions in zoning matters and to give administrative relief through exceptions, special permits, and variances" (Cook & Trotta, 1965, p. 632).

The purpose of creating zoning variances also has different interpretations depending on the author considered. The Standard State Zoning Enabling Act (SZA), developed by an advisory committee on zoning in 1926, provides municipalities with guidelines for establishing and amending zoning regulations. However, the purpose of

variances within the document is not clearly defined. Section 7 of the SZEa states that the Board of Adjustment "may, in appropriate cases and subject to appropriate conditions and safeguards, make special exceptions to the terms of the ordinance in harmony with its general purpose and intent and in accordance with general or specific rules therein contained" (Advisory Committee on Zoning, 1926, p.9). Despite this, the document does not explicitly define what constitutes an "appropriate" case or condition, leaving the interpretation up to each board and municipality.

In 1961, Anderson on the article "The Board of Zoning Appeals-Villain or Victim" referred to zoning variances as a relief from injustice (Anderson, 1961) The author argues that creating an administrative council was a way to ease incidences of injustice. Thus, the board has the power to vary the existing zoning, continuing with its general purpose and intent.

Reynolds (1999) explains the purpose of zoning variances as a relief tool for "unnecessary hardship". Variances were created to relieve property owners facing hardships due to zoning regulations. Variances provide flexibility but should be granted sparingly and with consideration for the public interest. "A variance should be awarded only if it will not substantially disturb the comprehensive plan of the community but will alleviate hardships that are unnecessary to the general purpose of the plan" (Reynolds, 1999, p. 128).

Owens explained the purpose of zoning variances differently. The author argues that variances are a "perfecting" tool for zoning. Zoning is not a perfect instrument, and

for this reason, variances are the "safety valve" used to perfect the crude regulatory instrument. It is one of the ways to prevent unconstitutional application of zoning (2004, p.283).

The remedy to exclusionary zoning is complex and structural. Law cases that went to court for exclusionary zoning practices and prevailed established essential precedents and optimism about remedies. However, these cases have had a limited impact on increasing the opportunities available to the victims of government exclusion (Rubinowitz, 1973). Additionally, to lawsuits, rezoning and zoning variances appear as remedy strategies for the unequal zoning process.

#### *Equal Protection and the Zoning Variance Process*

The discussion and exploration of equal protection and due process in the zoning variance procedure are essential to assess whether the tool created to protect or improve zoning fulfills its role or reinforces practices of exclusion of low-income and minority communities. Due process and equal protection are regulated under Section 1 of the 14<sup>th</sup> Amendment, which states that no State shall "...deprive any person of life, liberty, or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."

When evaluating a variance request, several critical factors should be considered. These factors include the impact on governmental services, the property owner's knowledge of zoning restrictions at the time of purchase, and the potential for resolving

the issue through means other than a variance. Moreover, the zoning requirement's underlying intent and the principle of substantial justice are also considered. It is essential to understand that variances serve as exceptions to alleviate specific hardships imposed by zoning codes, whether related to usage or dimensional requirements. A variance should only be granted if it can be conclusively demonstrated that the requested relief is indispensable and that its approval will not pose any additional threat to public health or safety, nor will it create a nuisance (Reynalds, 1999; Juergensmeyer, et. al, 2018).

Relying on zoning variances as a remedy for the inequities in the zoning process presents its own challenges. Shapiro (1969) estimated that approximately 50% of all zoning variances granted in the United States during that period were illegal. He highlights the existence of illegal variances in certain cities through the high number of approved variances and the proportion between acceptances and denials. For instance, in Cincinnati, between 1926 and 1937, 1,493 out of 1,940 (76.9%) variance requests were approved. In Philadelphia, from 1933 to 1937, 4,000 of 4,800 variance applications were approved. In 1955 alone, 952 variances were accepted out of 1,134 cases in Los Angeles. Similarly, in Chicago, 2,640 variances were approved between 1942 and 1953. In 1952, the Cambridge, Massachusetts, Board of Appeals granted 99 variances and denied 17 (Shapiro, 1969, p.11). Although the proportions and numbers of accepted variances do not constitute direct evidence of illegal activity, Shapiro argues that they provide sufficient grounds for suspicion. Concerns about the excessive granting of zoning variances emerged as early as the 1930s, with accusations that city councils and boards of

adjustment were compromising the integrity of zoning districts by granting too many variances. These bodies were seen as prioritizing development needs and tax revenues over strict zoning regulations (Toll, 1969; Haar and Kayden, 1989). These patterns suggest that the overreliance on variances not only undermines zoning laws but also potentially facilitates illegal practices, exacerbating the very inequities they are meant to address.

Shapiro (1969) identifies several potential explanations for the high proportion of variance approvals. One significant factor is the lack of meaningful criteria in the variance sections of zoning ordinances, coupled with minimal neighborhood opposition to variance requests. He notes a pattern in the language used to justify variance approvals, where boards of appeals frequently state: "The Board finds... that exceptional circumstances peculiar to this specific case justify a relaxation of the restrictions imposed by the statute, and that the varying of the terms of the Zoning Act" (Shapiro, 1969, p.13). Regarding the absence of opposition, Shapiro discusses the case of Ithaca, New York, where nearly 1,000 variances were approved over three years due to a lack of neighborhood opposition. However, he cautions that the relationship between public absence and successful variance requests may be superficially significant, as public participation is generally too minimal to draw substantial conclusions about its impact on board decisions (Shapiro, 1969).

Another potential method for neighborhood participation is through neighborhood or area commissions. Members of these commissions are either elected by residents or



appointed by the mayor, as seen in Columbus. Their role is to make recommendations on rezonings and variances and to facilitate communication between neighborhood groups and city officials (Clark et al., 2024). A study by Clark et al. (2024) indicates that these commissions were established in response to insufficient public participation and years of exclusionary practices, including urban renewal projects, federal highway programs, and redlining policies. However, there is a risk that these commissions might be dominated by middle- or upper-class professionals who are incentivized to participate through their personal networks (ibid., p.93). The study further elucidates disparities between Black and white neighborhood commissions and their interactions with the city. Due to historical racist policies, Black neighborhood commissions often exhibit a lack of trust in city authorities, whereas white neighborhood commissions are typically well-integrated into the city's development framework.

Accepting or rejecting zoning variances in light of neighbor opposition becomes particularly significant when considering matters of due process and equal protection. Local residents' opposition to a zoning application can be a valid consideration for a decision-making body if it reflects "logical and reasonable concerns." (Saadi, 2017, p.395). However, excessive reliance on neighborhood opposition might result in arbitrary decision-making, potentially violating an applicant's right to due process. Similarly, giving undue weight to neighborhood opposition can raise concerns about equal protection. For instance, in the case of *Cleburne*, the court determined that basing decisions on neighborhood opposition violated equal protection when the city denied a

special permit for a group home catering to the mentally disabled. The court emphasized that mere negative attitudes or fear from neighboring residents may not suffice as a basis for land use decisions (Saadi, 2017).

Cordes (1989) argues that courts have increasingly reviewed zoning decisions for procedural correctness (p.161). This reflects a growing recognition that, in many cases, meaningful assurance for appropriate zoning decisions must come from procedural rather than substantive protections. The author further mentions the importance of impartial decision-makers in ensuring procedural justice. "Biased decision-makers not only threaten accurate decisions but also undermine the legitimacy of governmental processes." (ibid, 1989, p. 161).

Dubin (1993) explores the idea of protective zoning rights, highlighting the need for zoning laws that safeguard low-income communities of color from detrimental developments. The author investigates the denial of a proposed zoning variance necessary for the implementation of a private landfill in two neighborhoods, one with majority of white people and the other with majority of Black people. The result showed that when the application for variance was proposed for implementation in the majority-white neighborhood, the board of zoning appeals officials denied the proposal. However, the board of zoning appeals accepted the variance request when the same project applied for a variance in a primarily Black neighborhood. As a result, the concerns of Black residents about the effects of the proposed landfill on property values in the adjacent

neighborhoods did not result in similar treatment that the same project had with white residents.

The variance process, similar to the zoning process, can be used as a tool to exclude and shape cities, often to the detriment of minority groups (Dubin, 1993). The variance and zoning processes frequently face criticism due to their lack of clarity and predictability. Meetings are typically scheduled during business hours, rendering them inaccessible to many residents. Furthermore, decision-makers are perceived by the public to have conflicts of interest. It has been observed that applications for zoning variances often result in incremental and irrational policy changes unless opposed by the neighborhood (Gardiner & Lyman, 1978, p. 18).

By the 1960s, evidence indicated that the zoning process had become corrupt. Planners and lawyers described variances as a "marketable commodity," suggesting that money could secure any type of zoning in many U.S. cities (Toll, 1969, p. 301). This corruption led to frequent convictions for bribery, accusations of improper activities, and conflicts of interest (Toll, 1969). This occurs because, in certain instances, property values are primarily concentrated in the land. The principal factors that generate or affect land value include location, zoning regulations, and local attitudes toward development (Peiser, 1987). These local attitudes and zoning ordinances may vary across different suburbs, influencing both the duration and cost of development, and consequently, land prices (Peiser, 1987, p.342). The general belief is that zoning decisions consistently favored real estate interests, undermining trust in zoning and variance boards (Toll,

1969). Notable corruption scandals occurred in New Jersey, California, New York, and Chicago (Haar and Kayden, 1989). A survey conducted between 1970 and 1976 identified 372 cases of corruption, with eighty-three related to land use, including the approval of subdivision plans, zoning variances, and building permits (Gardiner & Lyman, 1978, p.8).

Excessive variance granting, corruption scandals, lack of trust in zoning and variances processes, biased attitudes of neighborhoods and city officials, and concern with equal protection and due process, are some of the possible arguments for Reynolds (1999) when he advocates a more prudent approach to granting variances. He proposes that decision-makers thoroughly evaluate each case, ensuring that the variance sought is necessary due to unique and compelling circumstances that meet the established criteria. He further argues that variance decisions must balance between leniency and the public interest. While variances offer flexibility, they should not "fail to provide fundamental fairness and due process" (Reynolds, 1999, p.130).

A city's ordinances typically outline the factors that the board of zoning adjustments, or zoning board of appeals in many jurisdictions, must consider when determining if an applicant has faced practical difficulties, as Reynolds classifies, "unique circumstances" or "unnecessary hardship" in using the property. These factors include assessing whether the property can yield a reasonable return or have any beneficial use without a variance, evaluating the significance of the variance requested, and considering whether the neighborhood's character would be substantially altered or if adjoining

properties would suffer a substantial detriment due to the variance (Reynolds, 1999; Juergensmeyer, et. al, 2018).

In summary, this literature review has explored the major advancements and challenges associated with the zoning variance process, highlighting the significant contributions of various researchers in understanding due process, equal protection, and social justice. The analysis of the literature revealed that the zoning variance model emerged in 1862 (Cook & Trotta, 1965; Reynolds, 1999). The definition and purpose of zoning variances have diverse interpretations depending on the author. The Standard State Zoning Enabling Act employs broad interpretations, allowing boards to make "special exceptions" in alignment with its general purpose and intent, and according to general or specific rules (SSEA, Advisory Committee on Zoning, 1926, p.9). Zoning variances have been described as a relief from injustice (Anderson, 1961), a tool for alleviating unnecessary hardships (Reynolds, 1999), and a "safety valve" to perfect the crude regulatory instrument (Owens, 2004).

The review also illustrates how the zoning process evolved as an extension of 19th-century nuisance laws in Germany and the United States, addressing the unhealthy environments and dangerous conditions of polluted industrial cities (Pollard, 1931; Hirt, 2010; Stangl, 2019). The analysis of nuisance law in cases such as *ex parte Shrader* and *Landry* indicates that land use control has exhibited a discriminatory character from its inception. (Stangl, 2019; Pollard, 1931; Hirt, 2010; Hirt, 2015). The zoning process was formally established in the 1920s, with the landmark case *Euclid*, which granted local

authorities the power to organize cities through land use (Williams, 1966; Fischel, 2000). Subsequently, *Nectow v. City of Cambridge* (1928) examined whether the zoning ordinance was reasonable in its application and genuinely promoted general welfare, reinforcing the need for zoning power to be exercised judiciously (Monchow, 1928).

The literature discusses the true intentions of zoning, with some authors arguing it was meant to preserve and increase property values (Walker, 1941; Babcock, 1966) or to serve as a planning tool for resolving conflicting public and private interests (Babcock, 1966). Others contend that zoning has been used as an exclusionary tool (Babcock, 1966; Bronin, 2022; Ritzdorf, 1994; Alexander, 2005; Maldonado, 2017; Bronin, 2020; Reininger, 1986; Whittemore, 2017; Hinds & Ordway, 1986), preventing affordable housing (Ritzdorf, 1994), limiting definitions of families (Alexander, 2005; Maldonado, 2017; Bronin, 2020), and discriminating against people with disabilities (Reininger, 1986) and racial minorities (Whittemore, 2017; Hinds & Ordway, 1986; Dubin, 1993).

As the literature suggests, zoning variances appear as a remedial tool to alleviate problems caused by zoning. However, relying on zoning variances to address inequities in the zoning process presents its own challenges. Excessive granting of zoning variances often prioritizes development needs and tax revenues over strict zoning regulations (Shapiro, 1969; Toll, 1969; Haar & Kayden, 1989). Unclear criteria in variance sections of zoning ordinances (Shapiro, 1969) and lack of public participation (Shapiro, 1969) further complicate the effectiveness of variances in ensuring equal protection and due process. Other authors emphasize that public participation in variance requests is often

limited to middle- or upper-class professionals involved in neighborhood or area commissions (Clark et al., 2024).

The discussion and exploration of equal protection and due process in the zoning variance procedure are essential to assess whether the tool designed to protect or improve zoning fulfills its role or reinforces exclusionary practices affecting low-income and minority communities. Similar to the zoning process, the variance process can be used as a tool to exclude and shape cities, often to the detriment of minority groups (Dubin, 1993; Gardiner & Lyman, 1978; Toll, 1969). This corruption in the zoning system occurs because property values are primarily concentrated in the land, with factors such as location, zoning regulations, and local attitudes toward development influencing land value (Peiser, 1987). A survey conducted between 1970 and 1976 identified 372 cases of corruption, with eighty-three related to land use, including the approval of subdivision plans, zoning variances, and building permits (Gardiner & Lyman, 1978).

Most debates on zoning reform center around single-family housing discourses (Bratt & Vladeck, 2014; Infranca, 2023; Manville et al., 2019; Wegmann, 2019). This study, however, delves into the procedural context of zoning reforms, critically examining flawed mechanisms such as zoning variances. The literature reveals that procedural issues with zoning variances have been present since their inception, raising pertinent questions about their current state. Notably, most existing discussions on this topic stem from pre-2000 sources, highlighting a significant gap in contemporary

research. This opens opportunities to investigate whether the procedural behaviors of zoning variances have persisted or evolved over time.



### Chapter 3: Methodology

This thesis questions the effects and patterns of zoning variance decisions in cities. As we saw in the literature review, zoning variances are an instrument to review decisions in zoning matters and avoid unnecessary hardships. However, the literature also revealed cases where these decisions have resulted in the marginalization of minority communities, rather than ensuring equal protection (Cook & Trotta, 1965; Reynolds, 1999; Owens, 2004; Reynolds, 1999). Additionally, variances have been exploited to perpetuate corruption and show favoritism towards specific areas and groups within cities (Babcock, 1966; Toll, 1969; Gardiner & Lyman, 1978; Haar and Kayden, 1989).

The study examines the impact of zoning variances on city development, using Columbus, Ohio, as a case study. It seeks to understand the equity implications of zoning flexibility and examine the procedural fairness of the zoning variance process. The selection of Columbus as the subject of my analysis was due to the unique opportunities it offers as a case study. First, Columbus has a 70-year-old zoning code, which, combined with its historical record of excluding communities of color, allows for the observation of unique patterns in city development and variance decisions over the years.

This project utilized a mixed-method approach, based on the work of Hinds & Ordway (1986), Whittemore (2017), and Yin (2011). The approach was divided into three phases: quantitative analysis, qualitative analysis, and spatial analysis. It aimed to comprehend the implications of disparate results of the variance adjudication process in the city. The study involved analyzing the monthly Zoning Board of Appeals meetings

that took place in the city of Columbus over a three-year period from January 2021 to December 2023. Based on the literature review, I hypothesize that public participation in the meetings, the location of the request, and the type of applicant are factors that influenced the decision of the Zoning Board of Appeals and that we were able to find patterns and trends that emerge from comparisons between the different methodologies applied in the study, being able to verify existing theories and build an explanatory case for new hypotheses.

Over three years, 417 variance applications were analyzed, out of which 407 were approved and 10 were disapproved. The period analyzed was chosen due to the availability of online meeting content. These meetings began to be recorded and made publicly available on the YouTube platform only in 2020 due to the Covid 19 Pandemic and the need for virtual meetings. Even after the pandemic, meetings continued to be recorded and made available on the online platform.

The first phase of the study was the combination of different quantitative research elements. I assessed material from the Board of Zoning Appeals meeting agendas, results, and hearing minutes, analyzing each zoning variance application and considering: the result of the applications (approved or disapproved); Owner of the property address (Columbus, Columbus metropolitan area, Ohio, United States, and International); the type of applicant (person, business entities, government institution, association, church, NGO); and the representation of an attorney or agent (present or not). I created a

comprehensive table containing all the approved and disapproved variances, along with their respective information.

The second phase concentrated on qualitative research, including observations of meetings and document analysis. I began by using the R sample function to randomly select 100 cases from a total of 417 applications to examine the level of public participation in these cases. Subsequently, I conducted an in-depth analysis of the discussions and arguments presented by the public during these meetings. This involved closely following all 100 cases and transcribing the outcomes of these discussions.

The third phase involves conducting a spatial analysis to understand the proportion of zoning variations in the city. I marked the location of each approved and disapproved variation on the map and overlaid these addresses with demographic data obtained from the U.S. Census Bureau. Additionally, I conducted a nearest-neighbor analysis (NNA) to measure the distribution of variances in the Columbus area. The NNA analysis method is particularly useful in identifying spatial patterns and clustering tendencies of variance decisions, which can reveal whether certain areas are disproportionately affected by the variance process. By integrating NNA with quantitative and qualitative analyses, this mixed-methods approach ensures a robust investigation of zoning variance decisions. The combination of these methods allows for a comprehensive exploration of the central research question: Are minority groups disproportionately affected by zoning variance decisions?

The quantitative analysis provides statistical evidence of variance decision patterns and their correlations with applicant characteristics and locations. The qualitative analysis offers insights into the procedural dynamics and public engagement during variance hearings. The spatial analysis (including NNA) Highlights geographical disparities and clustering of variances, thus revealing spatial inequities in the zoning variance process. This mixed-methods approach ensures a thorough examination of zoning variances, combining statistical rigor, contextual depth, and spatial awareness to uncover the implications of zoning variance processes on social justice and equity.

## Chapter 4: Analysis

### *Quantitative Analysis*

From the analysis of the 417 cases, it was found that 144 cases (34.5%) did not have an legal representation while 273 (65.4%) did. Among the cases without an attorney, 139 were approved and 5 were disapproved. In the cases with an attorney, 268 were approved and 5 were disapproved.

Attorney	Result	Number of Cases	Total
No	Approved	139	144
	Disapproved	5	
Yes	Approved	268	273
	Disapproved	5	

Table 1: Analysis of Zoning Variance Approvals With and Without Legal Representation, Columbus, Ohio, 2021 To 2023.

The proportion test (prop\_test) indicates that the presence of an attorney does not have a significant effect on the outcome of cases. The results of the analysis are as follows:

- X-squared: 0.49658, df: 1, p-value: 0.481
- Alternative hypothesis: two-sided
- 95% confidence interval: -0.02276555 to 0.05557995
- Sample estimates: prop 1 = 0.9816850, prop 2 = 0.9652778

Since the p-value (0.481) is greater than the chosen significance level (0.05), we cannot conclude that the presence or absence of an attorney significantly affects the outcome of cases. The same proportion test was applied to other categories analyzed, including the type of applicant and the landowner's address. The results indicated that these variables also did not have a significant effect on the outcome of the cases.

Regarding the applicant/organization type, the analysis of 417 cases revealed that 209 involved individual applicants, while 191 involved applications from various types of business entities, including LLCs, Inc., and other companies. Additionally, there were seven cases where the applicants were government institutions, such as the City of Columbus and the Columbus Metropolitan Housing Authority. Furthermore, 5 applications were made by associations, 3 by churches, and 2 by non-governmental institutions.

Type of Applicant	Result	Number of Cases	Total
Person	Approved	202	209
	Disapproved	7	
Business entities	Approved	189	191
	Disapproved	2	
Government institution	Approved	7	7
	Disapproved	0	
Association	Approved	4	5
	Disapproved	1	
Church	Approved	3	3
	Disapproved	0	
NGO	Approved	2	2
	Disapproved	0	

Table 2: Analysis of Zoning Variance Approvals Based on Applicant/Organization type, Columbus, Ohio, 2021 to 2023.

Upon analyzing the data, we have found insufficient evidence to conclude that the type of applicant (association, church, government institution, business entity, person, and non-governmental organization (NGO)) is associated with the acceptance or denial of the application. The acceptance rates for different types of applicants do not demonstrate a statistically significant difference at the 0.05 level.

Regarding addresses, applicants in Columbus must provide the local address, which is typically the same as the location where they require a variance. This address must be within the city of Columbus. However, the landowner's address may differ;

therefore, I have categorized addresses into the following groups for analysis: Columbus, Columbus Metro Area (CMA) – as defined by the U.S. Census Bureau, which includes Delaware, Fairfield, Franklin, Hocking, Licking, Madison, Morrow, Perry, Pickaway, and Union counties – Ohio, United States, and International.

The analysis of the 417 cases identified 310 instances involving landowners with Columbus addresses, 70 cases with landowners in the Columbus metro area, 12 cases with landowners from other locations in Ohio outside of the Columbus metropolitan area, 23 addresses from locations within the United States excluding Ohio, and 2 addresses from international locations.

Landowner address	Result	Number of Cases	Total
Columbus	Approved	302	310
	Disapproved	8	
Columbus Metro Area	Approved	68	70
	Disapproved	2	
Ohio	Approved	12	12
	Disapproved	0	
United States	Approved	23	23
	Disapproved	0	
International	Approved	2	2
	Disapproved	0	

Table 3: Analysis of Zoning Variance Approvals Based on Landowner Address, Columbus, Ohio, 2021 to 2023.



The analysis of the addresses of landowners provided a p-value of 0.9073, which exceeds the typical significance level of 0.05. Therefore, we conclude that there is no significant evidence to suggest that acceptance rates differ across the various address categories of landowners.

### *Qualitative Analysis*

In the subsequent phase of the study, our focus shifted to qualitative research methods, meeting observations, and document analysis. The first step involved randomly selecting 100 cases from 417 applications to assess the extent of public participation within these cases.

The analysis of the cases revealed significant insights into public participation and the influential role of area commissions in deliberating multiple cases. Among the cases examined, only 12% featured broader public involvement beyond the area commission's recommendations. This encompassed opposing emails on variance requests, landlords advocating for tenants, residents expressing both support and opposition and even area commission board members lobbying for applicants.

One notable case was BZA21-118, where the applicant sought approval to formalize and expand an existing deck into the adjacent parking lot, requiring a variance to reduce required parking spaces from four to zero. This case drew diverse viewpoints, including a speaker who highlighted the representation of tenants by stating, "Because they are not allowed to speak, being non-property owners" (case BZA21-118), indicating

his presence to represent them. After reviewing the Columbus zoning code, it was found that there is no explicit exclusion of tenant advocacy. In fact, the code emphasizes inclusivity by allowing appeals to be heard from all affected parties. (Zoning Code, Chapter 3307, Ord. 377-95; Ord. 1272-01 § 1). The property owner observation underscores critical considerations regarding public awareness of zoning regulations and procedural accessibility.

In addition to resident and landowner involvement, case BZA21-055 illustrates another noteworthy instance. A representative from the area commission actively supported the application, engaging in discourse with the board chair on the evolution of area commission decision-making over time. She emphasized the significance of adaptive reuse in the University District and underscored the community's responsibility to decrease parking spaces despite ample availability in the city. As a resident, she advocated for alternative transportation modes such as cycling and walking, citing community preferences and behavioral trends to bolster her position.

During deliberations, the area commission member specifically endorsed the applicant, commending his adaptability as a business owner and lauding his reduction of parking spaces as commendable (Case BZA21-001). The board chair subsequently questioned the area commission member's stance, noting its departure from previous positions and querying whether this shift stemmed from personal affinity for the establishment or other factors.

The area commission member responded by asserting consistency in their support for parking reductions, referencing prior variances. She contended that societal attitudes towards parking have evolved significantly in recent years, highlighting increased acceptance of environmentally conscious practices such as widespread scooter use and the development of pedestrian and cycling infrastructure along Olentangy Path and Wolf's Ridge. She argued that the culture in Columbus has changed, with a growing embrace of environmental conscientiousness (Case BZA21-001). The chair acknowledged this societal shift and suggested it reflected a changing guard in community decision-making. This discussion underscored the importance of the area commission, ostensibly representing resident viewpoints, and its role in shaping local development through considerations of environmental consciousness and community representation.

This discussion regarding the area commission's perspectives extends beyond this case, raising broader questions about its alignment with neighborhood interests and the potential presence of biases in its decision-making processes. Previous cases have shown instances where the area commission supported applications leading to approvals, yet conversely, there have been cases where applications lacking such support still received variances.

For example, in case BZA19-039, the chair raised concerns about the absence of area commission approval. In response, the attorney clarified that the commission's lack of support stemmed from personal issues with the applicant rather than from objections

related to the variance itself: “I can assure you it had nothing to do with vision clearance, it had nothing to do with loading, and it had nothing to do with parking. The university initiative admits in its recommendation to this board that the basis of their recommendation is because they don't like us, and they don't think that my client is a good operator, or a good business owner. They, therefore, have a problem just with doing anything to facilitate and make it easy for campus destinations to exist, and they, therefore, on that basis, voted no.” (case BZA19-039)

In addition to public participation by residents and area commitment members, a recurrent issue during the variance process is the debate between hardship and profit. Board members frequently scrutinize whether a variance request is driven by profit motives or genuine hardship. In the case BZA20-120, a board member questioned the applicant: "You could have built a single-family home here, but you're building a two-family home, and you need a hardship for zoning variances like this, so I don't understand where the hardship is, knowing how thin this lot was, why you're not, why you couldn't build a single-family home there?" (BZA20-120). In response, the applicant's attorney argued that the unique difficulties of the land and the zoning regulations of the district justified the variance application. However, the board member contended that the desire to maximize the use of the lot for profit did not constitute a legitimate hardship. Despite this debate and the board member's skepticism regarding the claimed hardship, the board of appeals ultimately approved the variance unanimously.

In the BZA21-050 case, the Board's decisions appeared even more incoherent. The applicant requested to subdivide a lot and build a two-unit dwelling, like the BZA20-120 case mentioned. However, the current proposal involves splitting the lot. As in the previous case, the Board members questioned the claimed hardship of the case. One member, expressing skepticism, stated, “there is no hardship. they just want to make an extra million dollars by making two duplexes; I don't see that as a hardship. It's not affordable housing; you're making another duplexes you're going to charge 2500 a month for. I don't see that as a hardship. You already have two duplexes there. I've been consistent, so hopefully, you get the other three votes.” (CaseBZA21-050). The case was disapproved, calling into question the consistency of the Board of Appeals' decisions.

A comparison of cases BZA20-120 and BZA21-050 reveals that the only differences lie in the address, previous zoning, and the issue of the proposed parcel division. The first case was under ARLD zoning, while the second was under R-4. However, both zoning categories permit at least one- and two-family dwellings, with ARLD also allowing three or four dwelling units. Thus, the primary issue concerns the division of the land. Notably, in the BZA23-114 case, which occurred almost two years later with a similar request for parcel division and the construction of two dwelling units, the question of hardship was not raised during the meeting, and the case was approved. The only differences among the three cases are their respective addresses and the dates of the requests.

Year	App.No	Result	Address	Existing Zoning	Proposal	Area Commission
2021	BZA20-120	Approved	Near East Side	ARLD	To construct a two-unit dwelling.	Approval
2021	BZA21-050	Disapproved	Italian Village	R-4	To split a lot and construct a two-unit dwelling.	Approval
2023	BZA23-114	Approved	South Side	R-4	To split a lot and construct a two-unit dwelling.	Approval

Table 4: Analysis of Zoning Variance cases BZA20-120, BZA21-050 and BZA23-114, Columbus, Ohio, 2021 to 2023.

### *Spatial Analysis*

In the third phase of this research, a spatial analysis was undertaken to examine the distribution of zoning variations in Columbus. Using data provided by the city, 1,781 variances from 2009 to 2023 were analyzed, covering 15 years. For the initial contextual map, the boundaries of Columbus communities were used. These boundaries, employed by city departments for planning and reporting purposes, represent areas generally recognized as "communities," often encompassing multiple neighborhoods. Within this layer of Columbus communities, all variances approved in each community from 2009 to 2023 were aggregated. This aggregation facilitated the observation of any standard

patterns in the behavior of the variances.

In Figure 1, the communities with more than 150 variances were the Near East (283) University District (192), and South Side (168). The areas with more than 75 and less than 150 variances were German Village (105), Clintonville (99), Northland (94), Italian Village (92), Victorian Village (89), Greater Hilltop (88), Fifth by Northwest (87), and Far South (84). Subsequently, I overloaded the data collected from the 417 approved and disapproved cases to observe any standard patterns in the behavior of the variances (Figure 2). The second moment of the analysis involved tracking the evolution of variances over the years and spatially correlating their addresses with demographic data sources from the U.S. Census Bureau. The resulting maps are presented below for reference.

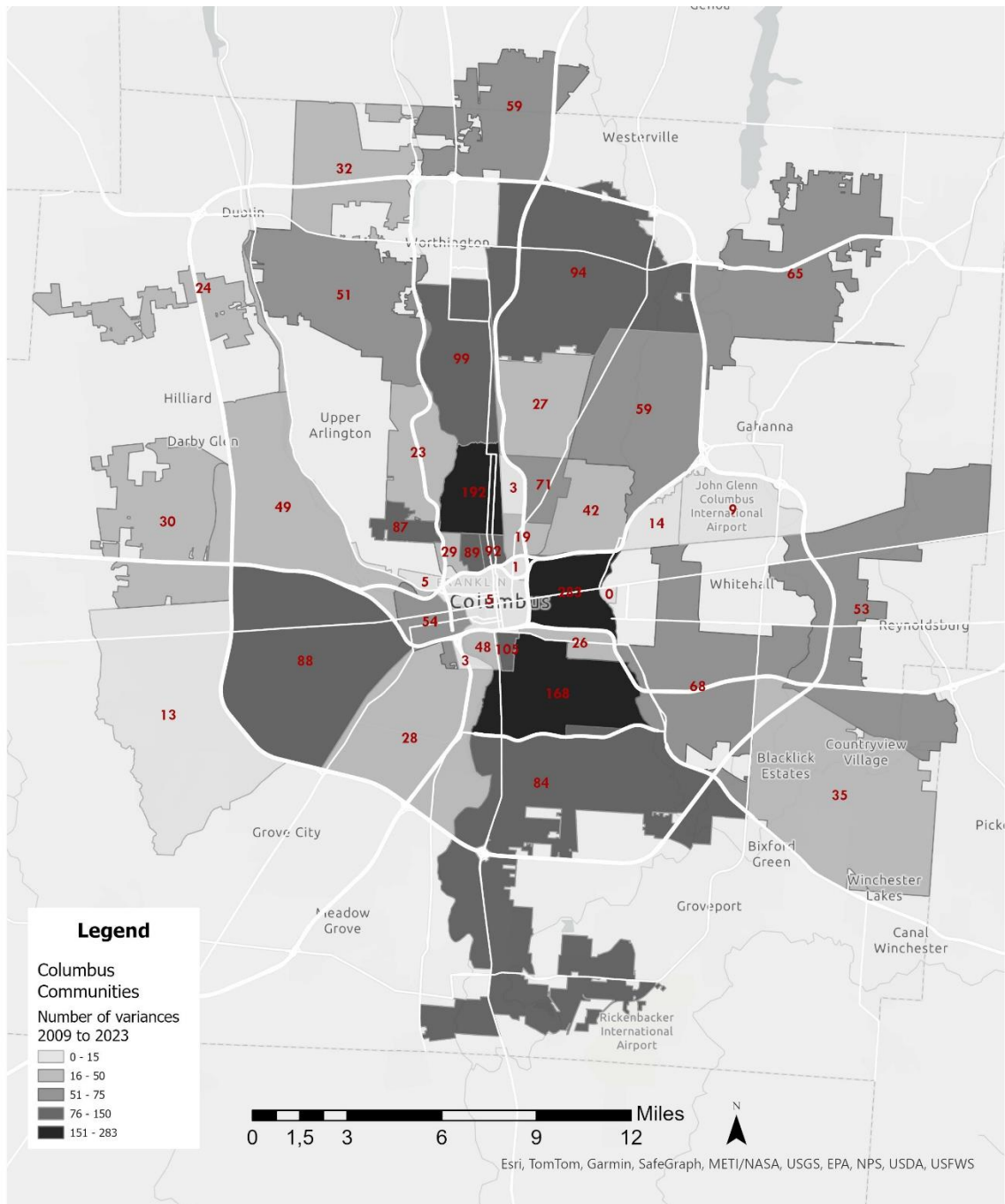


Figure 1: Total Number of Zoning Variances From 2009 to 2023 by Columbus Communities, Ohio, 2022.



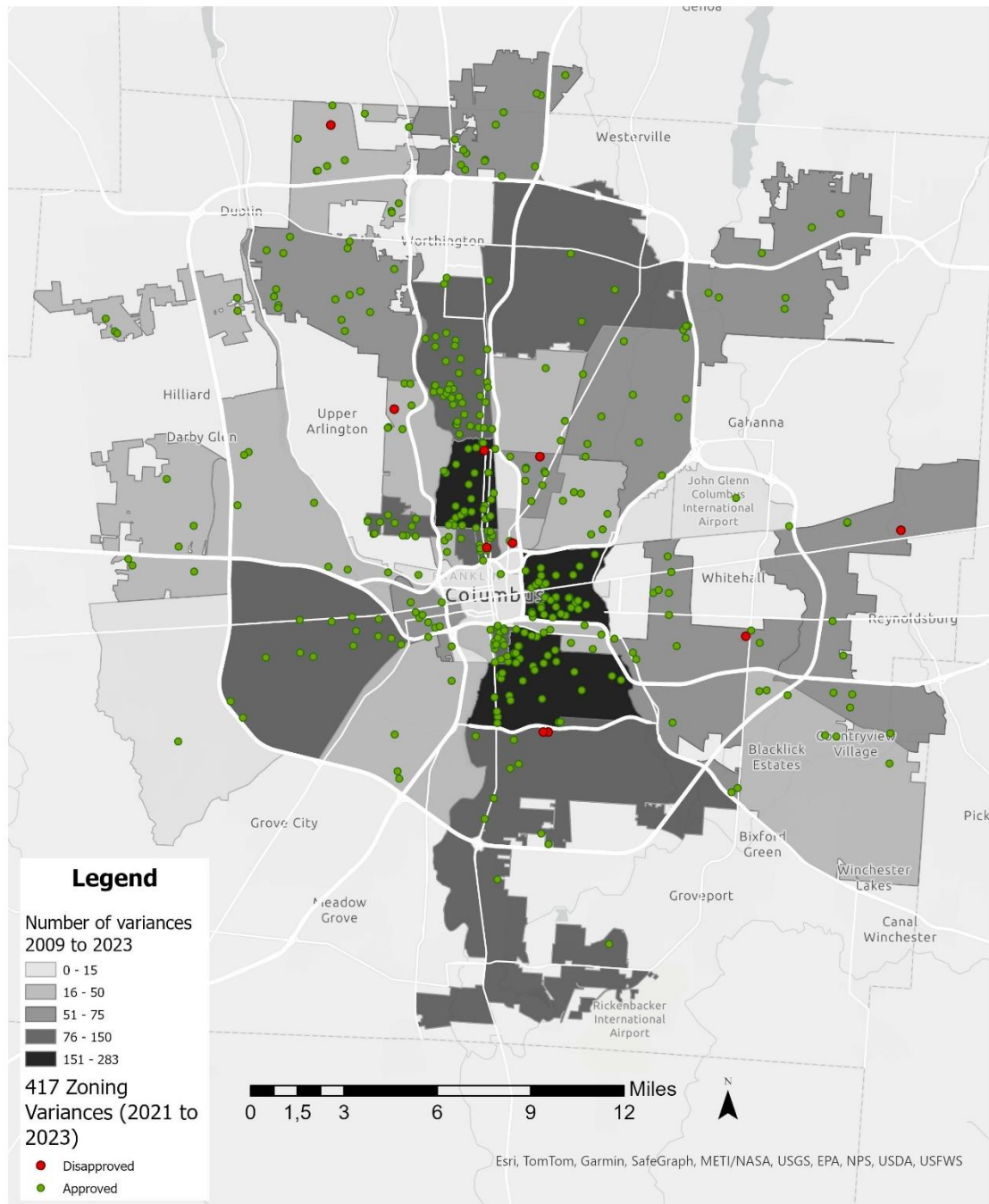


Figure 2: Approved and Disapproved Zoning Variances (2021-2023), Total Number of Zoning Variances (2009-2023) by Columbus Communities, 2022.

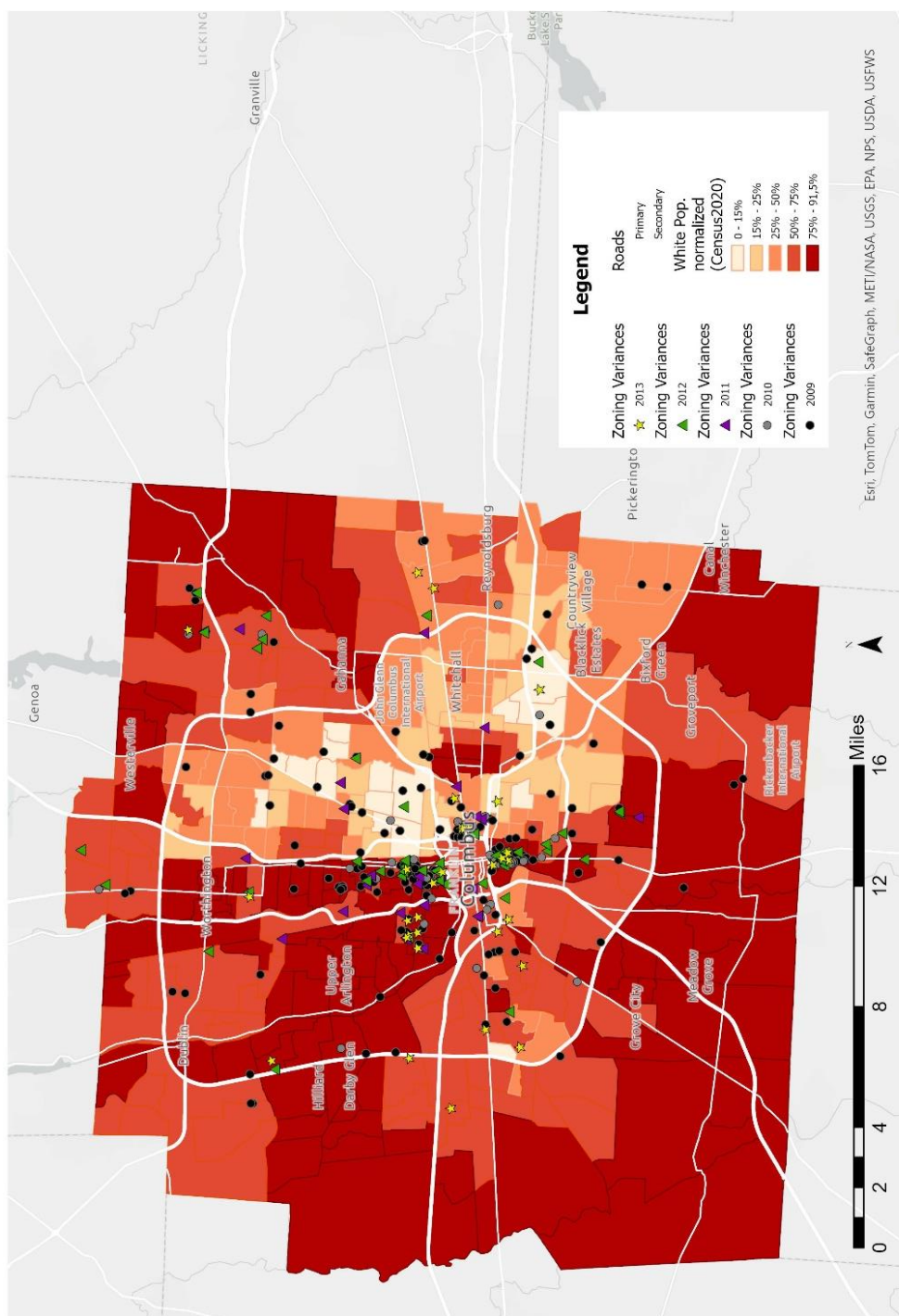


Figure 3: Approved Zoning Variances from 2009 to 2013, White Population by Census Block Groups, Columbus, Ohio, 2020.

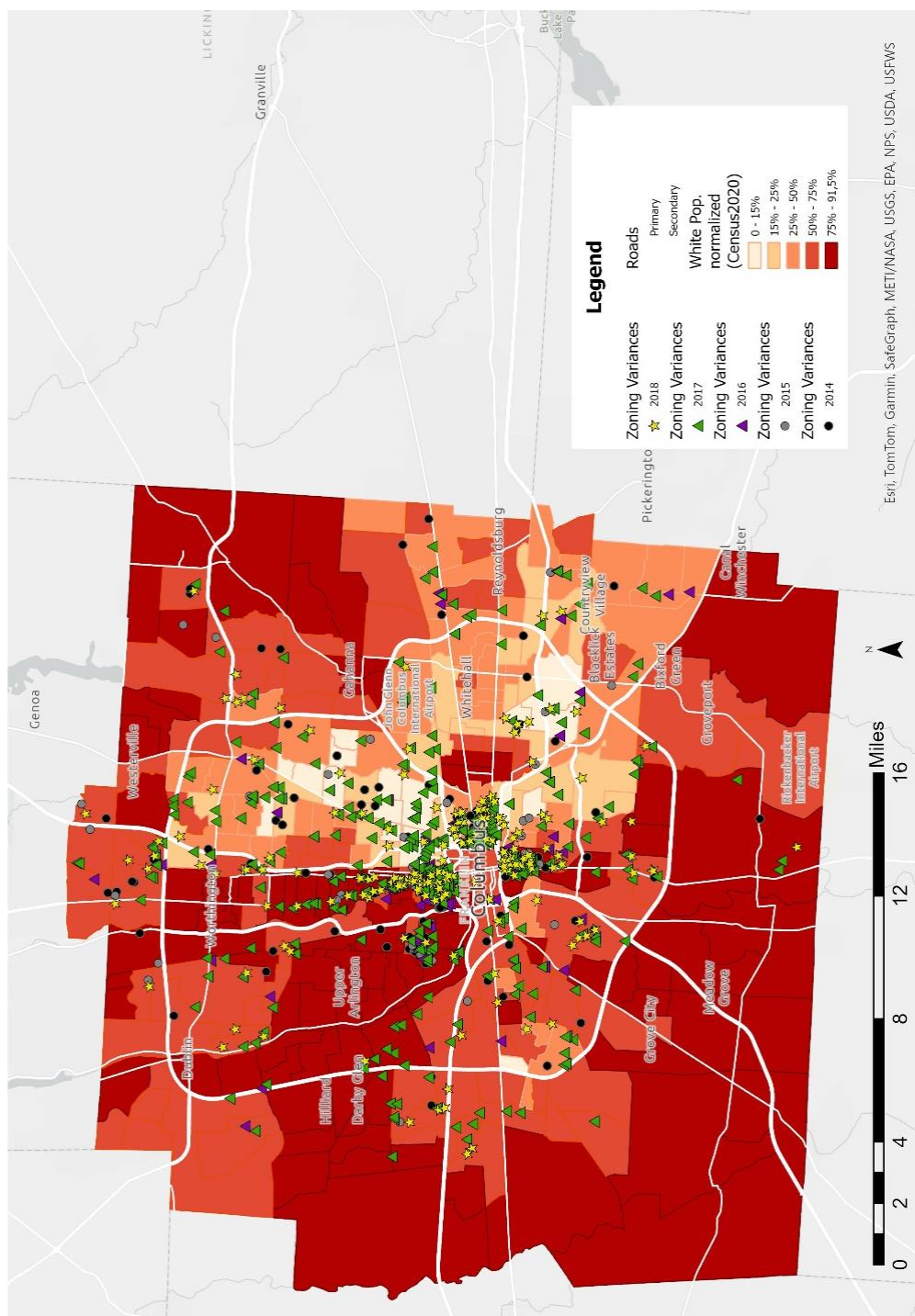


Figure 4: Approved Zoning Variances from 2014 to 2018, White Population by Census Block Groups, Columbus, Ohio, 2020.



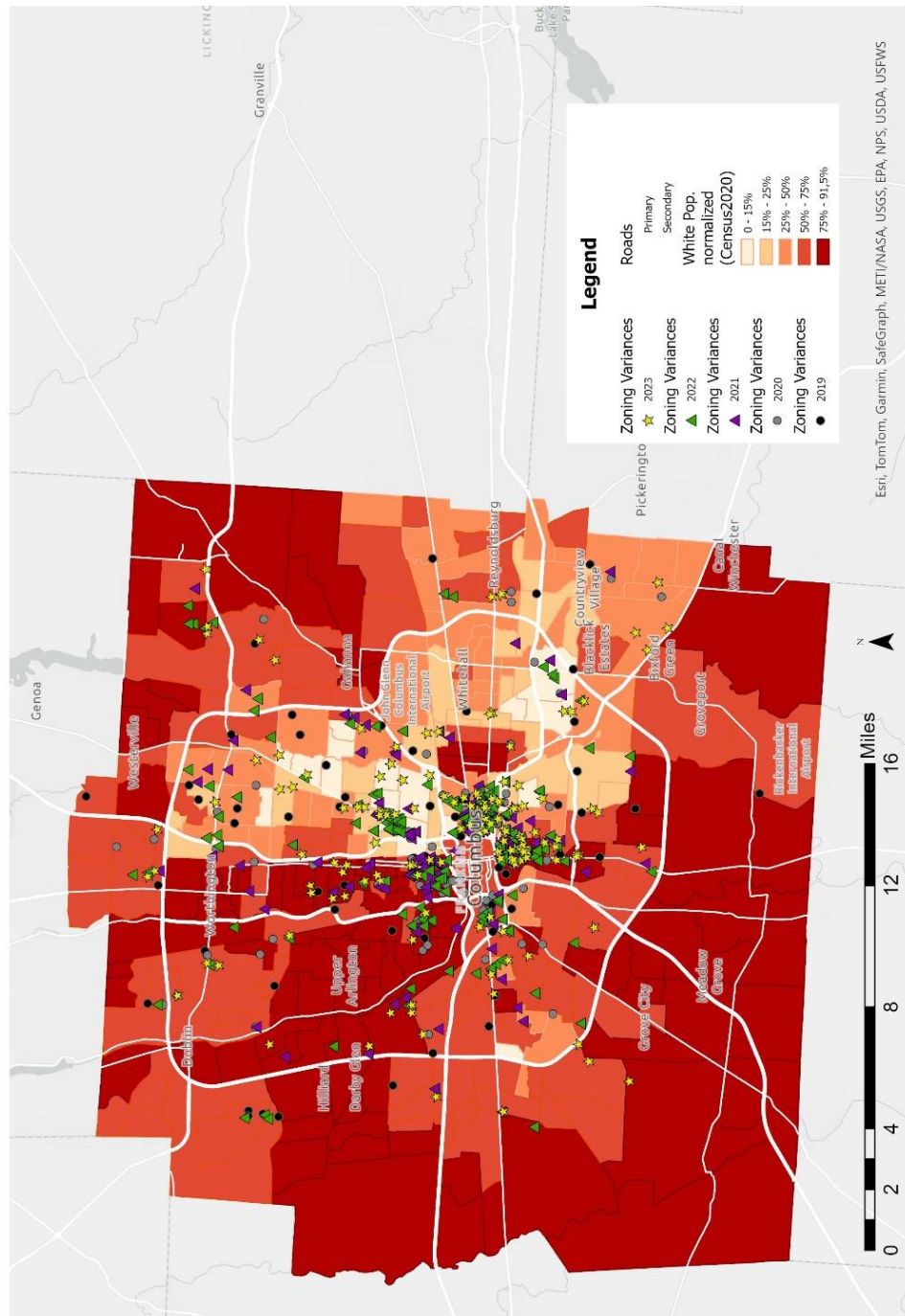


Figure 5: Approved Zoning Variances from 2018 to 2023, White Population by Census Block Groups, Columbus, Ohio, 2020.

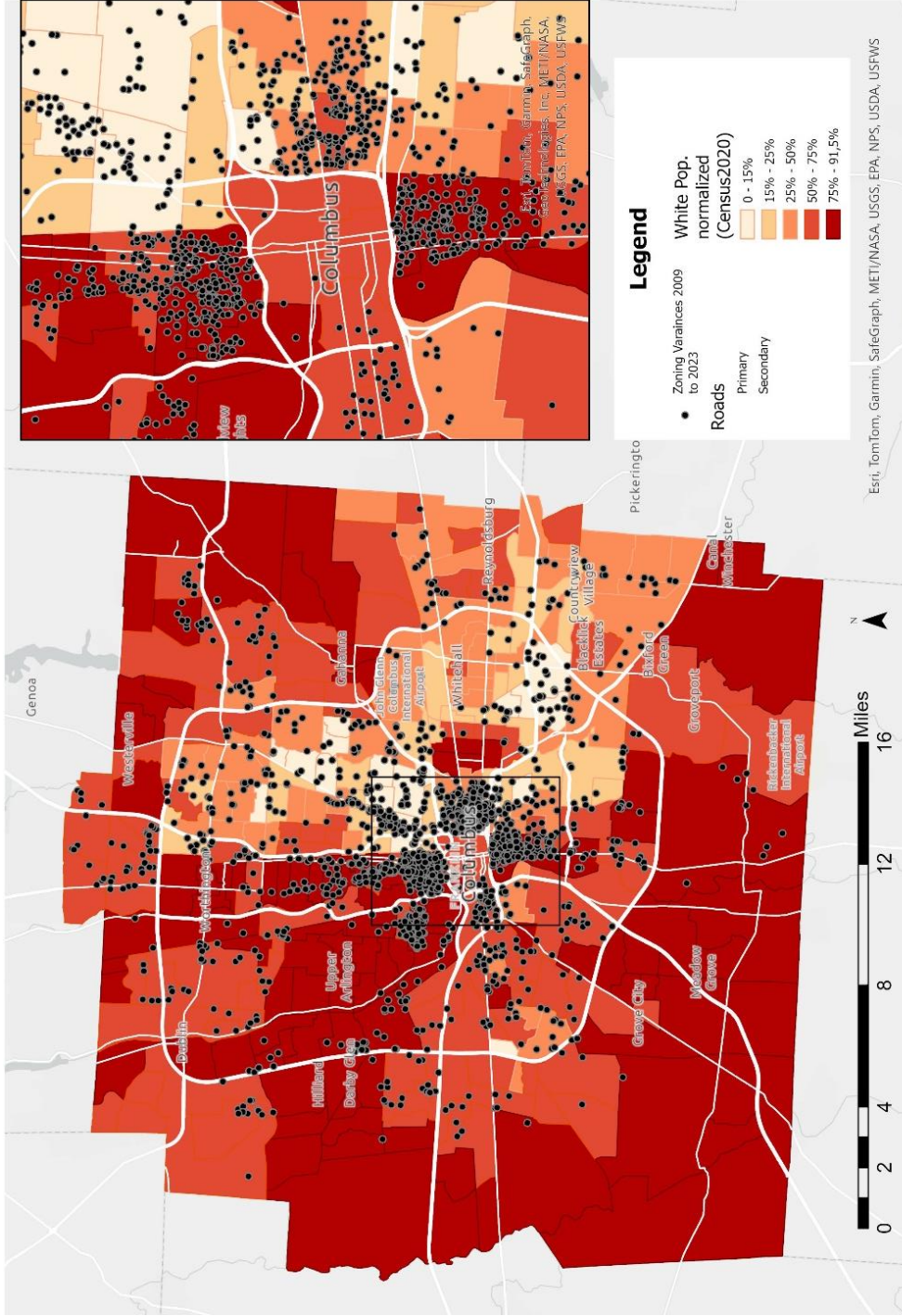


Figure 6: Approved Zoning Variances from 2009 to 2023, White Population by Census Block Groups, Columbus, Ohio, 2020

Year	N Variances	Total
2009	175	313
2010	34	
2011	29	
2012	44	
2013	31	
2014	130	843
2015	73	
2016	65	
2017	377	
2018	198	
2019	121	625
2020	97	
2021	120	
2022	147	
2023	140	

Table 5: Analysis of Zoning Variance by number of approved variances over the years, Columbus, Ohio, 2009 to 2023.

I also conducted a nearest neighbor analysis to assess the distribution of zoning variances in the Columbus area over a 15-year period. The analysis, based on the Average Nearest Neighbor (ANN) tool, revealed a Nearest Neighbor Ratio (NNR) of 0.486844, indicating clustering of points as it is less than 1. Additionally, a significantly low negative z-score of -42.247487 suggested a highly clustered distribution, and a p-value of 0.000000 provided strong evidence that the pattern is non-random. Furthermore, the observed clustered pattern was found to have less than a 1% probability of occurring

by chance. These results strongly indicate that an underlying factor or process is causing the points to cluster together in a non-random manner.

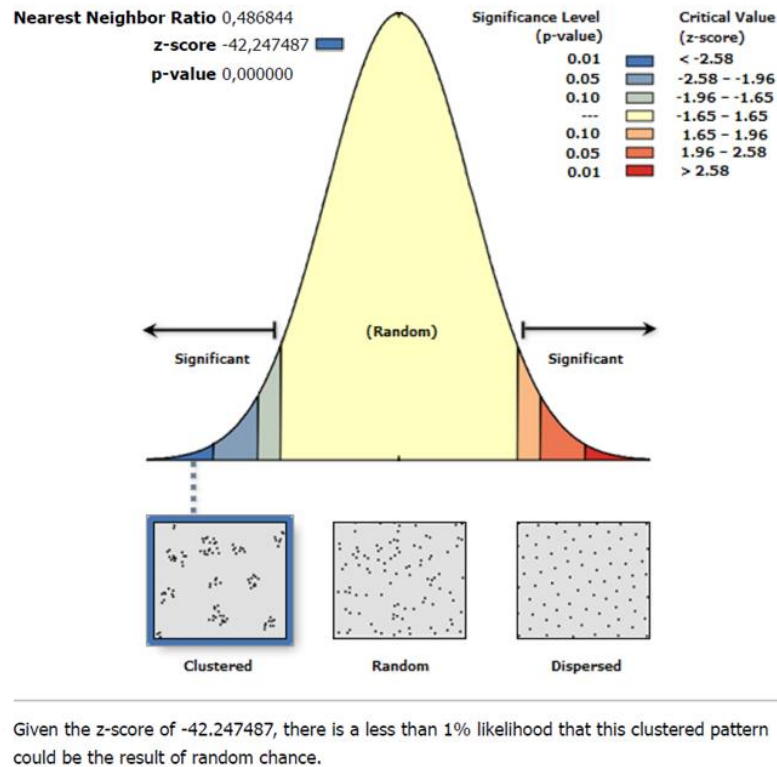


Figure 7: Average Nearest Neighbor Summary, Columbus, Ohio, 2009 to 2023.

## Chapter 5: Discussion and Conclusion

This chapter delves into the findings, significance, and implications of the study, with a focus on zoning flexibility and justice issues. It examines how zoning variance decisions may exhibit bias toward certain neighborhoods and area commissions and discusses the broader significance of this problem for zoning reform.

Each methodology employed in this study raises different questions about the zoning variance process. During the quantitative stage, we highlight the high number of approved applications in Columbus from 2021 to 2023. An astounding 98% of variance applications over these three years were approved, while only 2% were rejected. This raises important questions about the implications of a city built largely through variances. The findings support ongoing debates and criticisms regarding variances, replicating historical patterns observed in the mid-20th century, where very few variances were disapproved (Shapiro, 1969).

In 20th-century cities such as Cincinnati, Philadelphia, Los Angeles, Chicago, and Cambridge, there were already concerns about the excessive granting of zoning variances. Accusations emerged that city councils and boards of adjustment were compromising the integrity of zoning districts by granting too many variances (Toll, 1969; Shapiro, 1969; Haar and Kayden, 1989). Similar trends are evident in contemporary Columbus. The data collected in this research reveal that the high number of zoning variance approvals remains excessive for a tool theoretically intended to make special exceptions (Advisory Committee on Zoning, 1926).



The possible reasons for this high number of variance acceptances, according to the literature review, include the lack of clear criteria in the variance sections of zoning ordinances, coupled with minimal neighborhood opposition to variance requests (Shapiro, 1969).

In the qualitative stage, we examine the public participation aspects of the variance process, observing the participation of residents and the role of area commissions. This analysis highlights not only the intricate dynamics of public engagement but also the evolving interpretations and applications of zoning policies within community decision-making bias. The literature review indicates that the participation of residents remains superficially significant, as public participation is generally too minimal to draw substantial conclusions about its impact on board decisions (Shapiro, 1969). However, the analysis also underscores critical considerations regarding public awareness of zoning regulations and procedural accessibility.

During meetings where public participation occurs, board members tend to ask more questions about the application. This does not necessarily lead to the denial of the application but indicates a higher level of engagement in the case. Other important observations include the accessibility of meetings held on weekdays during business hours in public buildings that can be quite intimidating. Additionally, there is often a lack of clear communication about the operation of zoning processes. In Case BZA21-118, a disagreement arose with a speaker against the variance who claimed to represent tenants who were not allowed to speak because they were not property owners. This issue

highlights another barrier to public participation. Despite being affected by variances and their consequences, tenants could feel that they do not have the right to speak out because they are not landowners. These barriers could explain why many individuals choose not to participate in meetings or request variances in some neighborhoods.

Another important topic of discussion is the role of area commissions, an institutional system of local review for zoning decisions created in 1970 to provide better community representation in the zoning variance process. However, what happens when the area commission's recommendations conflict with the community's views or display bias toward certain applications? This situation calls into question the efficacy of such representation. In case BZA21-055 and case BZA19-039, the impartiality of area commissions is scrutinized. In the first case, a member of the area commission attends a meeting to advocate for a variance request. Her speech is compelling and insistent, prompting the chair of the Board of Zoning Appeals to question her opinion and personal affinity for the application. The chair also raises concerns about board member changes in area commissions and their potential impact on neighborhood development decisions. In the second case, BZA19-039, the applicants argue that the commission's denial was not based on the variance request's merits but rather on the members' personal bias against the establishment's owner. These cases highlight the need to closely examine the zoning variance process, particularly public participation through area commissions. Institutions created to represent a community often end up representing only a portion of it, allowing personal biases to influence decisions instead of focusing on logical and

reasonable concerns (Clark et al., 2024; Saadi, 2017). Such behavior among decision-makers not only threatens accurate decisions but also undermines the legitimacy of governmental processes (Cordes, 1989, p. 161).

Another critical issue in the variance process is the debate between hardship and profit. Board members frequently scrutinize whether a variance request is driven by profit motives or genuine hardship. In cases BZA20-120 and BZA21-050, these questions arise. Despite both being questioned by board members, one case is disapproved while the other is approved. This inconsistency in variance decisions underscores criticisms about the lack of clarity and predictability in zoning decisions, reinforcing the belief that these decisions often favor real estate interests, thereby undermining trust in zoning and variance boards (Gardiner & Lyman, 1978; Toll, 1969).

The spatial analysis stage prompts us to ask which areas are applying for variances. By examining the evolution of application areas from 2009 to 2024, we observe that some areas have a highly clustered distribution of applications, with strong evidence that the pattern is not randomly distributed. Communities such as the University District (192 applications), South Side (168 applications), and Near East (283 applications) have significantly more applications than other parts of the city. Since 2009, these areas have been a focal point for variances. Understanding where variance applications are concentrated helps urban planners and policymakers identify areas under pressure for change. Elevated numbers of variance applications may indicate regions experiencing growth, redevelopment, or conflicts with existing zoning regulations.

Analyzing these trends provides valuable insights that can guide future zoning revisions and the formulation of targeted development policies.

The analysis of the three methodologies suggests two possibilities: either the variance process is flawed, or the high volume of variances and their almost universal approval indicate systemic issues within the zoning ordinance. Notably, the city is currently overhauling its zoning regulations in response to what is being termed the "variance problem." This local initiative aligns with broader national debates on the need for zoning reform, such as efforts to dismantle single-family-only zoning.

Since the 20th century, scholars have highlighted issues of equal protection and due process in the zoning variance procedure. Similar to the zoning process, the variance process can be used as a tool to exclude and shape cities, often to the detriment of minority groups (Dubin, 1993; Gardiner & Lyman, 1978; Toll, 1969). The case of Columbus reinforces many of the authors' arguments, showing no evolution or correction of the process. In Columbus, we observe a high number of approved variances (Shapiro, 1969; Toll, 1969; Haar and Kayden, 1989), a lack of public participation (Shapiro, 1969), bias on the part of area commission decision-makers (Clark et al., 2024), lack of clarity and coherence in the decisions of board members of appeals (Saadi, 2017; Cordes, 1989), and spatial clustering of approved variances in predominantly white neighborhoods (Dubin, 1993; Gardiner & Lyman, 1978; Toll, 1969).

In conclusion, this study sheds light on the often-overlooked concept of zoning variances and their significant impact on urban planning and social justice in the United

States. While zoning itself is a well-discussed topic, variances represent a critical yet underexplored aspect that can profoundly influence urban development. The research highlights how variances, intended as remedies for the rigidities of zoning laws, may instead perpetuate inequities, especially affecting minority and marginalized communities.

By examining the historical evolution of zoning and the procedural issues of variances, this study underscores the potential biases and inconsistencies in the current system. The mixed-method approach provides a comprehensive analysis of the implications of variances, revealing persistent issues such as biased decision-making, lack of transparency, and unequal impact on different communities.

The findings call for a critical reevaluation of zoning variance processes to ensure they do not reinforce existing disparities. There is an urgent need for reforms aimed at creating a fair and transparent zoning system that genuinely serves the public interest and upholds principles of social justice.

This research's limitations mainly relate to the difficult accessibility of data concerning variance decision-making. Due to this process's poorly documented nature, the lack of data prior to 2021 limited opportunities for longitudinal comparisons. Additionally, the data collection process was extremely time-consuming, restricting the time available for other parts of the study. Despite these limitations, this study contributes to filling the gap in contemporary research on zoning variances, advocating for ongoing investigation and dialogue to address these enduring procedural challenges and promote

equitable urban development. Future analyses would benefit from comparing different cities and conducting interviews with members of boards of zoning appeals and area committees.

## Bibliography

Alexander, F. S. (2005). The housing of America's families: Control, exclusion, and privilege. *Emory Law Journal*, 54(3). Available at SSRN:

<https://ssrn.com/abstract=1965542>

Anderson, R. M. (1961). The board of zoning appeals - Villain or victim. *Syracuse Law Review*, 13(3), 353–388.

Babcock, R. F. (1966). *The zoning game*. Madison: University of Wisconsin Press.

Bratt, R. G., & Vladeck, A. (2014). Addressing Restrictive Zoning for Affordable Housing: Experiences in Four States. *Housing Policy Debate*, 24(3), 594–636.

<https://doi.org/10.1080/10511482.2014.886279>

Bronin, S. C. (2020). Zoning for families. *Indiana Law Journal*, 95(1), 1–37.

*City of Cleburne v. Cleburne Living Center, Inc.*, 473 U.S. 432 (1985). Justia, U.S. Supreme Court.

City of Columbus. (2010). Code of ordinances. Ord. 185-94; Ord. 1272-01 § 1 (part); Ord. No. 0455-2010, § 21, 4-5-2010. Retrieved from

[https://library.municode.com/oh/columbus/codes/code\\_of\\_ordinances?nodeId=TIT33ZOCO\\_CH3307BOZOADAPVA\\_3307.09VABOZOAD](https://library.municode.com/oh/columbus/codes/code_of_ordinances?nodeId=TIT33ZOCO_CH3307BOZOADAPVA_3307.09VABOZOAD)

City of Columbus. (2024). Board of zoning adjustment cases. Boards and Commissions, Columbus, Ohio. <https://www.columbus.gov/Business-Development/Building-Zoning-Services/Boards-and-Commissions/Board-of-Zoning-Adjustment>

City of Columbus. (2024). Zoning code, Chapter 3307, Ord. 377-95; Ord. 1272-01 § 1. Municode. [https://library.municode.com/oh/columbus/codes/code\\_of\\_ordinances](https://library.municode.com/oh/columbus/codes/code_of_ordinances)

Clark, J., Holley, K., Sweeney, G., Reitz, C., Glickman, A., Allen, C., & Reece, J. (2024). Social equity of public participation environments. *Journal of Social Equity and Public Administration*, 2(1), 91–107. <https://doi.org/10.24926/jsepa.v2i1.5229>

Constitution of the United States. (1868). National Constitution Center.

Cook, D. H., & Trotta, R. D. (1965). Syracuse board of zoning appeals: An appraisal. *Syracuse Law Review*, 16(1), 1-28.

Cordes, M. (1989). Policing bias and conflicts of interest in zoning decision making. *North Dakota Law Review*, 65(2), 161–218.

Dubin, J. C. (1993). From junkyards to gentrification: Explicating a right to protective zoning in low-income communities of color. *Minnesota Law Review*, 77(1), 739-804.

Fischel, W. A. (2004). An economic history of zoning and a cure for its exclusionary effects. *Urban Studies*, 41(2), 317-340. <https://doi.org/10.1080/0042098032000165271>

Gardiner, J. A., & Lyman, T. R. (1978). *Decisions for sale: Corruption and reform in land use and building regulation*. New York: Praeger.

Haar, C. M., & Kayden, J. S. (1989). *Zoning and the American dream: Promises still to keep*. Chicago, IL: Planners Press, American Planning Association, in association with the Lincoln Institute of Land Policy.



- Hinds, D. S., & Ordway, N. (1986). The influence of race on rezoning decisions: Equality of treatment in black and white census tracts, 1955–1980. *The Review of Black Political Economy*, 14(4), 51–63. <https://doi.org/10.1007/BF02903791>
- Hirt, S. (2010). To zone or not to zone? Comparing European and American land-use regulation. *PNDonline* II.
- Hirt, S. (2015). *Zoned in the USA: The origins and implications of American land-use regulation*. Ithaca, NY: Cornell University Press. <https://doi.org/10.7591/9780801454714>
- Infranca, J. (2023). Singling out single-family zoning. *Georgetown Law Journal*, 111(4), 659-722.
- Juergensmeyer, J. C., Roberts, T. E., Salkin, P. E., & Rowberry, R. (2018). *Land use planning and development regulation law*. West Academic Publishing.  
<https://books.google.com.ar/books?id=g0e8tAEACAAJ>
- Lew-Williams, B. (2018) *The Chinese Must Go: Violence, Exclusion, and the Making of the Alien in America*. Cambridge: Harvard University Press
- Maldonado, S. (2017). Sharing a house but not a household: Extended families and exclusionary zoning forty years after Moore. *Fordham Law Review*, 85, 2641. Available at: <https://ir.lawnet.fordham.edu/flr/vol85/iss6/10>
- Manville, M., Monkkonen, P., & Lens, M. (2019). It's Time to End Single-Family Zoning. *Journal of the American Planning Association*, 86(1), 106–112.  
<https://doi.org/10.1080/01944363.2019.1651216>

Monchow, H. C. (1928). The Cambridge zoning decision. *The Journal of Land & Public Utility Economics*, 4(3), 322-324. University of Wisconsin Press.

<https://www.jstor.org/stable/3139155>

Moore v. City of East Cleveland, 431 U.S. 494 (1977). Justia, U.S. Supreme Court.

Nectow v. City of Cambridge, 277 U.S. 183 (1928). Justia, U.S. Supreme Court.

Owens, D. W. (2004). The zoning variance: Reappraisal and recommendations for reform of much-maligned tool. *Columbia Journal of Environmental Law*, 29(2), 279-322.

Peiser, R. B. (1987). The determinants of nonresidential urban land values. *Journal of Urban Economics*, 22(3), 340-360. [https://doi.org/10.1016/0094-1190\(87\)90032-5](https://doi.org/10.1016/0094-1190(87)90032-5)

Pollard, W. L. (1931). Outline of the law of zoning in the United States. *The ANNALS of the American Academy of Political and Social Science*, 155(2), 15–33.

<https://doi.org/10.1177/000271623115500203>

Reininger, N. M. (1986). *City of Cleburne v. Cleburne Living Center: Rational basis with bite*. *University of San Francisco Law Review*, 20(4), 927-948.

Reynolds, O. M. (1999). The “unique circumstances” rule in zoning variances: An aid in achieving greater prudence and less leniency. *The Urban Lawyer*, 31(1), 127–148.

Ritzdorf, M. (1994). A feminist analysis of gender and residential zoning in the United States. In I. Altman & A. Churchman (Eds.), *Women and the environment* (pp. 255–279).

Springer US. [https://doi.org/10.1007/978-1-4899-1504-7\\_10](https://doi.org/10.1007/978-1-4899-1504-7_10)

Rubinowitz, L. S. (1973). *Exclusionary zoning: Wrong in search of remedy*. *University of Michigan Journal of Law Reform*, 6(3), 625–670.

Saadi, M. (2017). Neighbor opposition to zoning change. *Urban Lawyer*, 49(3), 393-414.

Shapiro, R. M. (1969). The zoning variance power - Constructive in theory, destructive in practice. *Maryland Law Review*, 29(1). Available at:  
<http://digitalcommons.law.umaryland.edu/mlr/vol29/iss1/4>

Stangl, P. (2019). San Francisco slaughterhouses and American proto-zoning. *Journal of Planning History*, 18(4), 311–328. <https://doi.org/10.1177/1538513219825756>

Toll, S. I. (1969). *Zoned American*. Grossman Publishers.  
<https://books.google.com.br/books?id=pEZBAAAAIAAJ>

U.S. Census Bureau. (2020). Name of data or report. Total Population. A03001.

U.S. Department of Commerce. (1926). A standard state zoning enabling act. Advisory committee on zoning.

Village of Belle Terre v. Boraas, 416 U.S. 1 (1974). Justia, U.S. Supreme Court.

Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926). Justia, U.S. Supreme Court.

Walker, R. A. (1941). *The planning function in urban government*. Chicago, IL: University of Chicago Press.

Wegmann, J. (2019). Death to Single-Family Zoning...and New Life to the Missing Middle. *Journal of the American Planning Association*, 86(1), 113–119.  
<https://doi.org/10.1080/01944363.2019.1651217>

Whittemore, A. H. (2017). Racial and class bias in zoning: Rezoning involving heavy commercial and industrial land use in Durham (N.C.), 1945–2014. *Journal of the*

American Planning Association, 83(3), 235–248.

<https://doi.org/10.1080/01944363.2017.1320949>

Williams, N., Jr. (1966). The structure of urban zoning: And its dynamics in urban planning and development. New York, NY: Bittenheim Publishing Corporation.

Yin, R. K. (2015). Qualitative research from start to finish. Guilford Publication.