

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE ECONOMIC EFFECTS OF FORM-BASED CODES: A PARCEL LEVEL ANALYSIS
OF NORMAN, OKLAHOMA'S CENTER CITY FORM-BASED CODE DISTRICT

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF REGIONAL AND CITY PLANNING

BY DAVID MCPHERSON

Norman, Oklahoma

2026

THE ECONOMIC EFFECTS OF FORM-BASED CODES: A PARCEL LEVEL ANALYSIS
OF NORMAN, OKLAHOMA'S CENTER CITY FORM-BASED CODE DISTRICT

A THESIS APPROVED FOR THE
CHRISTOPHER C. GIBBS COLLEGE OF ARCHITECTURE

BY THE COMMITTEE CONSISTING OF

Dr. Charles G. Warnken, Chair

Dr. Ladan Mozaffarian

Dr. Wei Liu

Dr. John C. Harris

©Copyright by DAVID MCPHERSON 2026
All Rights Reserved.

ABSTRACT

Form-based codes (FBCs) are increasingly used to guide urban form and support economic development, yet empirical research on their economic effects remains limited, particularly at the parcel level. Using parcel-level property tax and assessment data, this study examines the economic outcomes of the Center City Form-Based Code District in Norman, Oklahoma, through a combined longitudinal and cross-sectional analysis that evaluates both changes in the district's tax base over time and how market value is distributed across ownership types and locations.

The findings indicate that the district experienced substantial and accelerating growth in property value over time; however, this growth is not evenly distributed. Market value is disproportionately concentrated among entity-based and non-local owners, particularly out-of-state investors, who control a larger share of total value and are more strongly associated with higher-value and newer development.

These results suggest that while form-based codes may be associated with increased property tax and support economic growth, the benefits of that growth are unevenly distributed across ownership groups. The study contributes to a broader understanding of zoning as a framework that shapes not only urban form, but also how zoning decisions directly affect patterns of investment and the distribution of economic value.

Key Words: Form-based codes; Parcel-level analysis; Property value distribution; Property tax growth; Ownership patterns; Non-local investment; Urban economic development; Land use regulation; Value concentration; Development patterns

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to Dr. Charles Warnken for his guidance, support, and thoughtful feedback throughout the development of this thesis. His insight and encouragement were instrumental in shaping both the direction and overall quality of this research. I am also deeply grateful to my girlfriend, Cryste, for her constant support and encouragement throughout this process.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
1.0 Introduction	
1.1 Case Study: Center City Form-Based Code District	
1.2 Case Study Timeline	
1.3 Case Study Transitional Photos	
CHAPTER 2: LITERATURE REVIEW	25
2.1 Origins of Zoning in the United States	
2.2 Conventional Zoning Regulations	
2.3 Critiques of Conventional Zoning	
2.4 Paradigm Shift in Development Regulation	
2.5 Emergence of New Urbanism and Form-Based Code	
2.6 Components and Administration of Form-Based Code	
2.7 Form-Based Codes as a Tool for Economic Development	
2.8 Gap in the Literature: Quantifying Economic Effects of Form-Based Codes	
CHAPTER 3: METHODOLOGY	44
3.1 Research Design	
3.2 Study Area	
3.3 Data Sources	
3.4 Variable Classification	
3.5 Analytical Approach	
CHAPTER 4: RESULTS	50
4.1 Dataset Overview	

4.2 Longitudinal Results: Property Tax Growth Over Time (2008–2025)	
4.3 Cross-Sectional Dataset (2026) Results	
4.4 Integrated Results: Growth and Distribution of Property Value	
CHAPTER 5: DISCUSSION	72
5.1 Interpreting Ownership and Value Concentration	
5.2 Form-Based Codes and Market Outcomes	
5.3 Absentee Capital and Local Ownership Dynamics	
5.4 Implications for Economic Development	
5.5 Limitations and Directions for Future Research	
CHAPTER 6: CONCLUSION	78
REFERENCES	80

LIST OF TABLES

Table 1: Total Property Tax Revenue - Period Comparison (2008-2016 vs 2017-2025)	51
Table 2: Period Summary Comparison	52
Table 3: Parcel Count by Owner Type and Year Built Era	58
Table 4: Parcel Count by Owner Location and Year Built Era	65

LIST OF FIGURES

Figure 1: Annual Property Tax Revenue within Norman's Center City Form-Based Code District 2008-2025.....	50
Figure 2: Total Market Value Share vs Total Parcel Share by Owner Type.....	55
Figure 3: Total Market Value Share vs Total Parcel Share by Owner Type % Difference	56
Figure 4: Descriptive Statistics of Parcel Market Values by Owner Type	57
Figure 5: Average Parcel Value Per SqFt by Owner Type	58
Figure 6: Share of Each Owner Type by Year-Built Era	59
Figure 7: Total Market Value Share vs Total Parcel Share by Owner Location.....	62
Figure 8: Total Market Value Share vs Total Parcel Share by Owner Location % Difference	63
Figure 9: Descriptive Statistics of Parcel Market Values by Owner Location.....	64
Figure 10: Average Parcel Value Per SqFt by Owner Location.....	65
Figure 11: Share of Each Owner Location by Year-Built Era	66

LIST OF IMAGES

Image 1: Center City Project Area (City of Norman, 2023)	4
Image 2: R-3 Moratorium Map (Hampton, 2017).	9
Image 3: Center City Regulating Plan Map (City of Norman, 2023).....	11
Image 4: Center City Form-Based Code Timeline	16
Image 5: S University Blvd & White St, 2016-2024, Source: Google Earth (2026).....	17
Image 6: S Jenkins Ave 2016-2024, Source: Google Earth (2026).....	18
Image 7: McCullough St 2012-2024, Source: Google Earth (2026).	19
Image 8: S Santa Fe Ave & W Linn St 2012-2024, Source: Google Earth (2026).	20
Image 9: Boyd St 2015-2023, Source: Google Earth (2026).	21
Image 10: W Main St 2017-2024, Source: Google Earth (2026).	22
Image 11: James Garner Ave & W Apache St 2012-2023, Source: Google Earth (2026).	23
Image 12: W Apache St 2012-2022, Source: Google Earth (2026).	24
Image 13: Norman Zoning Map	28
Image 14: Zoning Regulations (Oklahoma County Planning Commission, 2008)	29
Image 15: Urban Sprawl (Cities Today, 2018).....	31
Image 16: Euclidean Zoning vs. Form-Based Code (Smart Growth America, & Form-Based Codes Institute, 2021)	35
Image 17: Traditional Zoning vs Form-Based Codes (Huntington, 2011)	36
Image 18: Form-Based Code Regulating Plan (Dover, Kohl & Partners, 2007)	37
Image 19: Form-Based Code Public Space Standards (City of Norman, 2023)	38
Image 20: Form-Based Code Building Form Standards (City of Norman, 2023).....	39
Image 21: Center City Project Area Parcels (City of Norman Open Data)	45
Image 22: Parcel Market Value Distribution.....	68
Image 23: Parcel Value Per SqFt Distribution	69
Image 24: Parcel Year Built Category Distribution.....	70

CHAPTER 1: INTRODUCTION

Rules governing how cities are built are often assumed to be a modern invention, yet societies have regulated the physical form of settlements for thousands of years. Throughout history, communities have established guidelines for streets, buildings, and public spaces to manage growth, reduce conflict, and respond to changing social and economic conditions (Talen, 2009). As cities evolve, so too do the regulations intended to shape them, with each generation of rules reflecting the challenges and priorities of their time.

In the United States, the most influential period of regulatory change occurred in the early twentieth century. Rapid industrialization and urban growth created new challenges in public health, environmental quality, and land-use conflicts (Parolek et al., 2008). In response, cities adopted zoning as a standardized and legally defensible tool for regulating development. Euclidean zoning, commonly referred to as conventional zoning, provided local governments with a framework for separating land uses, controlling development intensity, and promoting orderly growth. Over time, this system became the dominant approach to land-use regulation and continues to shape the form of American cities today.

While conventional zoning succeeded in addressing many of the conflicts associated with industrial-era cities, it has also been linked to unintended outcomes. Scholars have documented how use-based zoning and development standards contributed to low-density development patterns, automobile dependence, and fragmented urban form (Talen, 2013; Qurnfulah, 2019; Woodward, 2012). In this sense, zoning regulations designed to solve one set of problems helped produce a new set of challenges within the built environment.

By the late twentieth century, growing dissatisfaction with the physical outcomes of conventional zoning led planners and designers to reconsider how development is regulated.

Rather than focusing primarily on separating land uses, reformers began emphasizing walkability, mixed-use development, and the quality of the public realm (Parolek et al., 2008). These ideas gained traction through the New Urbanist movement and ultimately informed the development of form-based codes, an alternative regulatory approach that prioritizes physical form and urban design. Form-based codes have since been adopted by cities seeking greater predictability in development outcomes and improved urban design quality. Unlike conventional, use-based zoning, form-based codes are explicitly structured to shape urban form and development patterns. Proponents argue that by clearly defining what development should look like, these codes reduce uncertainty for both communities and developers (Rangwala, 2012).

Despite growing interest in form-based codes, very little empirical research has directly quantified their economic effects. Existing studies, such as Howard (2018), evaluate economic outcomes using aggregate municipal indicators such as property and sales tax revenues. While these approaches provide valuable insight into citywide fiscal performance, they do not capture how economic value is distributed within cities at the parcel level, the scale at which zoning is applied and development decisions are capitalized into property values. Similarly, studies that focus on parcel-level outcomes are often limited to cross-sectional snapshots, lacking a temporal dimension that captures how value changes over time.

This study addresses these gaps by examining both the temporal evolution and parcel-level distribution of economic value within the Norman Center City Form-Based Code District through a combined longitudinal and cross-sectional analysis. Using parcel-level property tax data from 2008 to 2025, the study evaluates how the district's tax base, and by proxy property value, has changed over time. This longitudinal perspective is complemented by a cross-sectional

analysis of 2026 parcel-level data, including market values, ownership types, and ownership locations, to assess how economic value is distributed across different ownership structures.

Specifically, the study asks two related questions: (1) Has property value within the district changed over time? and (2) how is property value distributed across ownership types and locations? By integrating these perspectives, the analysis moves beyond evaluating whether form-based codes are associated with economic growth and instead considers who captures that growth.

In doing so, the study contributes to a broader understanding of zoning as a tool not only for shaping the physical environment but also for structuring patterns of investment and ownership. While form-based codes are often framed as mechanisms for improving urban design and promoting economic development, their effects may extend beyond physical form to influence how capital is distributed within cities and which actors capture that value. Understanding these dynamics is critical for planners seeking to balance economic growth, equitable development, and long-term community stability.

1.1 Case Study: Norman Center City Form-Based Code District

Introduction

To examine how form-based codes operate in practice and to ground the preceding literature in a specific regulatory context, this study turns to a case study of the Center City Form-Based Code District in Norman. Adopted as part of a broader effort to guide redevelopment and urban infill in the city's core, the Center City code provides a useful setting for examining how form-based regulation has evolved over time. The following section traces the development of the Center City Form-Based Code District through key events in its adoption,

revision, and implementation, providing the institutional and regulatory context for the empirical analysis that follows.

The Center City Form-Based Code District is located in central Norman, positioned between the University of Oklahoma campus to the south and Main Street to the north.

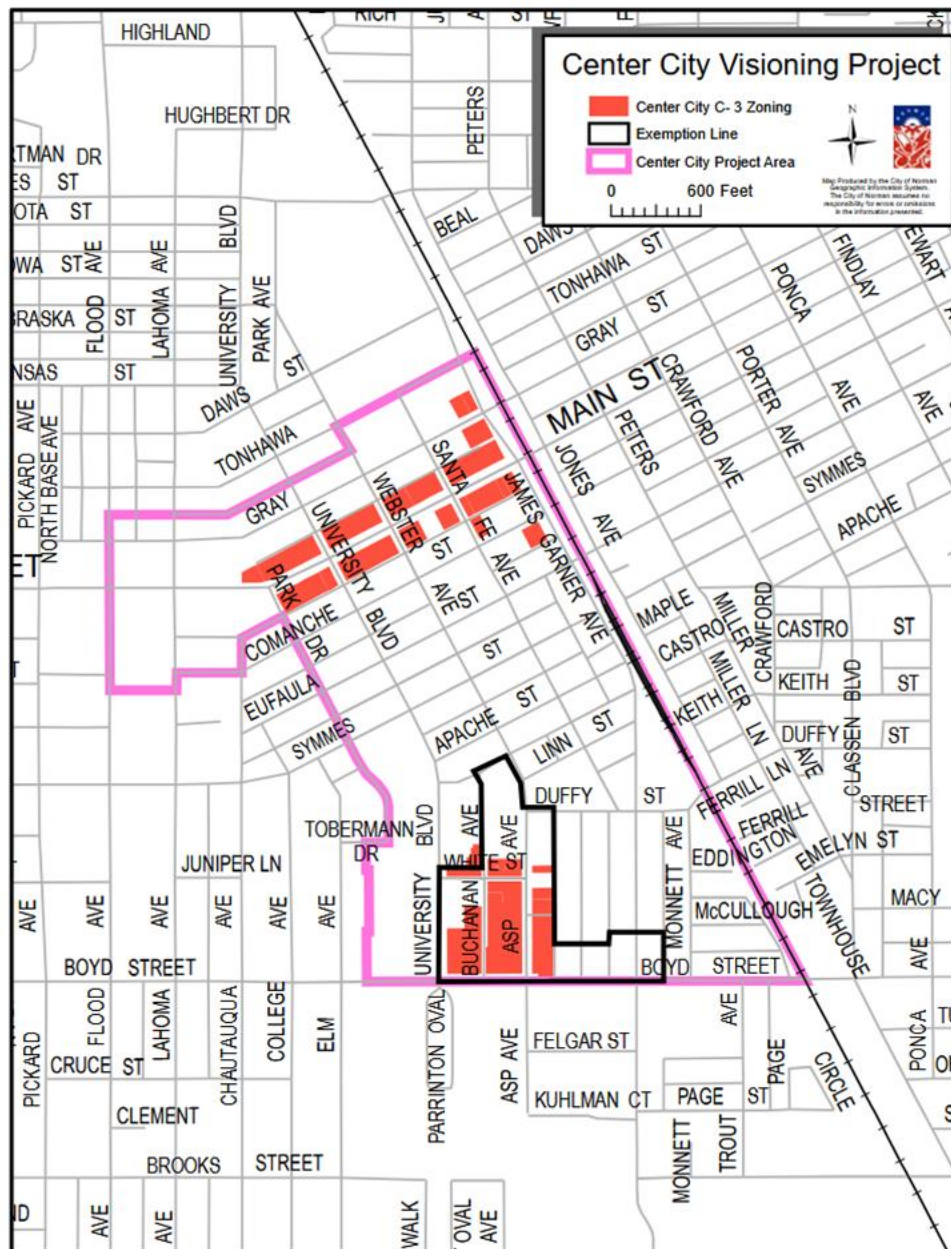


Image 1: Center City Project Area (City of Norman, 2023)

Historically, the area has been characterized primarily by single-family residential development and includes established commercial districts such as Campus Corner and downtown Norman. Over time, the University of Oklahoma's continued growth has driven increasing demand for off-campus student housing. Due to its proximity to the university, downtown, Campus Corner, and other amenities, the Center City area has become a highly desirable residential location for students and other residents seeking walkable access to employment, services, and entertainment.

Increasing Demand

As Norman and the University of Oklahoma have steadily grown, demand for housing, particularly among students seeking to live near campus, has increased accordingly. The discussion that would eventually lead to the creation of the Center City Form-Based Code District began in May 2012, driven by a surge in market demand and proposals for high-density residential development. At the time, the city lacked zoning ordinances capable of addressing development at such intensity. As noted by Hampton (2012), “new residential development applications in Norman... [were] requesting high density above 100 dwelling units per acre—a 285 percent increase over Norman’s current high density at 26 dwelling units per acre.” Residents voiced concerns about allowing higher density, citing that “high density is unattractive, attracts transient clients and does not fit with a neighborhood” (Hampton, 2012).

In response to these concerns, “the city has established a discussion series of six meetings to introduce the public to the topic of high density and to gather input from the community before the city writes the codes and zoning ordinances to deal with high density, or to exclude it altogether” (Hampton, 2012). During one of the initial high-density discussion series meetings in June 2012, Blair Humphreys, an urban designer and assistant professor at the University of Oklahoma’s College of Architecture who also serves* as executive director of the Institute for

Quality Communities, suggested the use of a form-based code as a way to protect the vision Norman ultimately chose to create.

According to city staff reports, in November 2012, the Community Planning and Transportation Committee directed staff to “create a single zoning district that would regulate high-density residential land uses in a variety of settings throughout Norman” (Hampton, 2012). This approach was short-lived and ultimately abandoned in early 2013, “as members of Norman City Council dumped the proposed draft ordinance prepared by city staff and shifted to three density zoning levels” (Hampton, 2013). The revised approach introduced three categories: High Density 1, High Density 2, and High Density 3, and incorporated architectural review requirements into the proposal.

Initiation of a Center City Study

In February 2014, the Norman City Council abandoned earlier high-density zoning proposals and shifted direction, unanimously approving a \$200,000 contract, funded jointly by the City of Norman and the University of Oklahoma, to engage the National Charrette Institute to lead the Center City visioning project. The purpose of the initiative was to develop a master plan and zoning framework for a 42-block area between Campus Corner and downtown Norman. As described in contemporaneous reporting, the study area “is bounded on the north by Gray Street, with railroad tracks forming the east boundary, Boyd on the south, and Park Avenue and Flood Avenue on the west” (Hampton, 2014).

Following approval of the visioning project, the City established a 15-member Center City Steering Committee to select a sub-consultant to draft the new development regulations. According to Hampton (2014), the committee evaluated firms based on “experience with form-based code, experience with the National Charrette Institute’s process, Oklahoma project

experience and university town experience.” The committee unanimously selected Opticos in partnership with Ferrell Madden and recommended the firm to the City Council for approval.

Public engagement formed a central component of the Center City study process. During an initial charrette meeting in May 2014, “Norman residents drew their vision of the city center... and shared priorities with the Center City Vision team,” following an introduction to the charrette process and basic urban design concepts (Hampton, 2014). At that meeting, Daniel Parolek of Opticos emphasized the long-term nature of the effort, stating that “all places evolve... Our goal is to put a framework in place to guide the evolution of Norman, Okla.” (Hampton, 2014). Subsequent presentations by Bill Lennertz and the charrette team summarized themes that emerged from public input, with participants expressing preferences for “generous sidewalks, tree-lined streets, active street frontage, mid-rise buildings, and public places where people can gather” (Hampton, 2014).

Form-Based Code Rough Draft

In late 2015, Norman city leaders moved to implement the Center City vision by introducing new development regulations. At that time, “the use of form-based code in the designated Center City area [was] proposed as an optional overlay that is preferred but not required,” with existing zoning remaining in place (Hampton, 2015). Ferrell Madden presented the initial draft of the form-based code, which was intended to translate the community’s vision into regulatory standards. A public engagement process, including a visual preference survey, identified design elements that residents favored the Center City area. According to Madden, these preferences included “generous sidewalks, tree-lined streets, active street frontage, mid-rise buildings and public places where people can gather,” along with calls for “more parking spaces, mixed-use development, and a more transit-friendly corridor” (Hampton, 2015). Madden

emphasized that the proposed development regulations were designed to align with these identified priorities.

On January 6, 2016, the City of Norman held the first of two public meetings to present the proposed form-based code overlay for the Center City Vision Project. During the meeting, Planning Director Susan Connors explained that the proposed code would regulate building design elements, such as height, frontage, and landscaping, rather than focusing solely on land use, with the intent of promoting pedestrian-oriented design, mixed-use development, and increased density between Campus Corner and downtown. The proposal also generated concerns among some stakeholders. As reported by Lee (2016), “property owners and business leaders were not happy with the parking requirements,” while other residents questioned whether the city had adequately planned for increased density, particularly with respect to public utilities and whether existing plumbing and electrical systems could support the level of growth envisioned.

Moratorium

Amid the rapid growth of student-oriented rental housing in the city center, nearby residents raised concerns about duplexes and triplexes “encroaching into predominantly single-family neighborhoods,” potentially displacing older homes and altering neighborhood character (Hampton, 2017). In response, in January 2017, the Norman City Council approved a six-month moratorium on new residential construction, additions, and demolitions within the area bounded by Robinson Street, Lindsey Street, Flood Avenue, and 12th Avenue East.

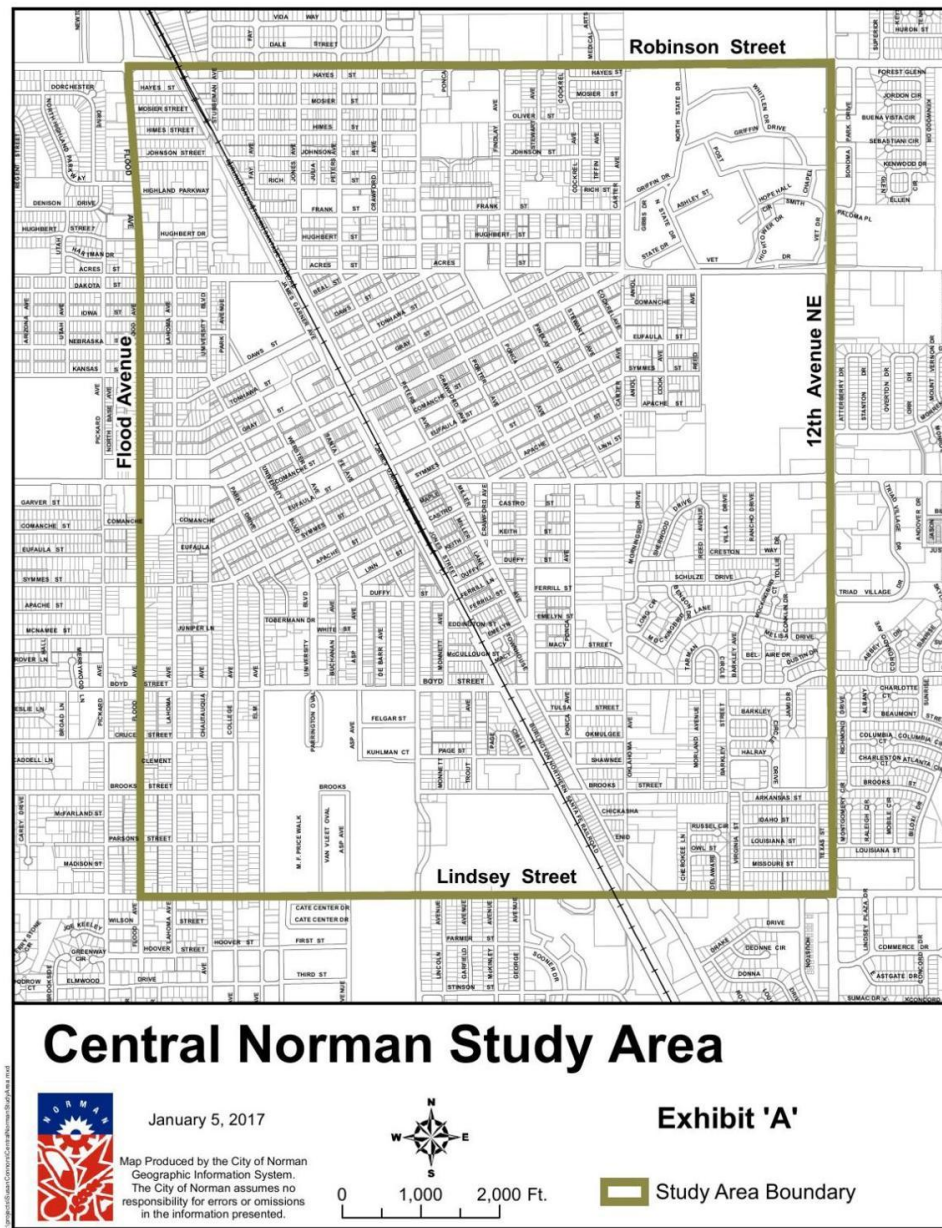


Image 2: R-3 Moratorium Map (Hampton, 2017).

The stated purpose of the moratorium was to allow time for the Center City Vision and associated development regulations to be finalized. The moratorium did not apply to commercial projects, remodels, or cases approved through an appeals process, following heightened community backlash and recent downzoning actions in three neighborhoods.

The moratorium drew opposition from segments of the local development community, led publicly by developer Mike Pierce. Developers argued that the city's actions disproportionately targeted student rental housing and undermined property rights. Pierce stated that developers had invested between \$15 million and \$20 million in replacing deteriorating housing stock with modern duplexes and triplexes that met current building codes and safety standards. As Pierce explained, "We are providing new and safe homes that meet all modern city codes and building requirements that you would want your children to live in, just like other flagship university towns in the nation are doing. Because of the unusually high property costs due to other development in the core area, we must build homes larger to offset these costs to protect investments" (Pierce, 2017). Developers further criticized the Center City form-based code as contradictory and impractical, warned that recent downzoning had reduced property values by 30–50 percent, and characterized the city's actions as discriminatory toward students and harmful to long-term investment.

In April 2017, the Norman Planning Commission voted 5–2 to recommend approval of the proposed Center City form-based code to the City Council. The recommendation followed a contentious public meeting held under the pressure of an impending moratorium deadline. During the meeting, residents and property owners raised concerns about ADA compliance, the financial burden on small developers, and the compatibility of new setback requirements with existing streetscapes. Planning Director Susan Connors addressed these concerns by noting that form-based zoning had been implemented successfully in other communities and emphasizing that changes in development patterns would occur incrementally over time (Troxtell, 2017).

Form-Based Code Adoption

City officials described the code as a living document intended to evolve over time. Several amendments were adopted during the approval process, including adjustments to property change thresholds, modifications to parking and corner-lot requirements, and the introduction of a fee-in-lieu option for green space. During deliberations, supporters framed the code as an opportunity to encourage higher-density, mixed-use development and improve walkability, while critics raised concerns regarding developer influence, financial impacts, and the long-term effectiveness of the regulatory framework (Burke, 2017).

TIF District

Following the adoption of the form-based code, attention shifted toward implementation and infrastructure financing. Early discussions centered on “the consideration of a property tax TIF to pay for the infrastructure associated with the new code” (Burke, 2017). By August 2017, the City Council was actively moving toward establishing a tax increment financing (TIF) district for the Center City area. A study conducted by Johnson & Associates identified approximately \$44 million in infrastructure needs, including roadway improvements, utility upgrades, sidewalks, and a parking garage in the Campus Corner area. The report noted that these improvements would require upfront funding through city budgets, bond financing, or public–private development agreements before the TIF district could begin generating revenue (Troxtell, 2017). City officials emphasized that early development activity would be necessary to initiate revenue generation and support long-term infrastructure investment. In December 2017, the City Council approved the Center City project plan establishing the TIF district, and in January 2018, the Center City TIF was formally adopted.

Administrative Delay

In January 2019, during a special session, the Norman City Council and city staff unanimously approved an administrative delay of the Center City Form-Based Code through an emergency clause, a step anticipated following ongoing implementation challenges. Interim Community Planning and Development Director Jane Hudson explained that the delay was “not to deter development, but to fix holes in the form-based code that have resulted in parking availability and safety concerns, setback inconsistencies that make some lots essentially undevelopable, and lack of architectural guidance” (Burke, 2019). Unlike the earlier construction moratorium, this action received broader support, as “developers, too, expressed relief... that the code is getting a second look, because it has been a minefield of confusion” (Burke, 2019).

To address the identified issues, the City established an Ad Hoc Center City Administrative Delay Committee to review parking standards, safety concerns, setback inconsistencies, architectural guidance, and overall code clarity. Public commentary during this period emphasized the importance of refining the code to achieve higher-quality outcomes. Norman resident Cameron Brewer urged “City staff, City Council, and others involved in refining the Center City form-based code to do so with an eye toward quality, demanding the best, not just the easiest solutions,” adding that “this area deserves development that is special, not ordinary” (Slinkard, 2019).

In July 2019, the City Council approved a series of amendments to the Center City Form-Based Code that addressed several of the issues raised during the administrative delay. These amendments included “a special use requirement for units with four or more bedrooms, building design changes, stormwater/runoff issues, steps to improve alleyways and lighting, and parking requirements” (Standlee, 2019). Following the adoption of these changes, the administrative

delay concluded, with the discussion that the ad hoc committee would remain active to continue reviewing and refining the code over time.

Second Administrative Delay

In January 2022, the Norman City Council approved a second administrative delay for the Center City project area in response to ongoing challenges with implementing the form-based code. During this period, the City began exploring pattern zoning as a strategy to improve code clarity and streamline development review. Community developer and designer Richard McKown described this approach as an opportunity to address interpretive challenges, noting that “what’s exciting about pattern zoning is the possibilities for updates to the code,” which he characterized as difficult to interpret in its existing form (Elkins, 2022).

By June 2022, the City Council unanimously approved a set of amendments to the Center City Form-Based Code intended to improve clarity, encourage a broader range of housing types, and address ongoing parking concerns in the area between Campus Corner and downtown. The amendments revised parking standards to require 0.5 spaces per bedroom for one- and two-bedroom units and 1 space per bedroom for units with three or more bedrooms. Additional changes permitted courtyards in townhouse and small apartment developments and clarified the definition of a bedroom, specifying that any room larger than 144 square feet would count as two bedrooms. The updates also consolidated certain zoning designations into the urban residential frontage type and allowed two- to five-story mixed-use buildings on Gray Street with a minimum of three residential units.

City officials characterized the amendments as steps toward achieving broader planning goals for the district. Autumn McMahan, a member of the Center City Form-Based Code development review team, stated that the revisions “get the city closer to their goal of creating

more diversity in that area of Norman and encourage increased density near campus” (Elkins, 2022). City Planner Logan Hubble* similarly noted that the changes would help facilitate additional housing near the university, where “housing is needed the most” (Elkins, 2022).

Case Study Conclusion

Over the course of a decade, the Norman Center City Form-Based Code District evolved from a response to rising development pressure into a formally adopted regulatory framework subject to ongoing amendment and administrative refinement. What began in 2012 as a series of discussions about high-density residential proposals ultimately led to the adoption of a 42-block form-based code district in 2017, followed by the establishment of a tax increment financing district and subsequent revisions. The timeline reflects not only the procedural development of a new regulatory tool, but also the institutional, political, and market dynamics that accompany shifts in land-use governance.

The Center City case illustrates that adopting a form-based code is not a singular event but an iterative process shaped by public input, administrative interpretation, financing mechanisms, and implementation challenges. Amendments in 2019 and 2022 demonstrate how regulatory frameworks continue to evolve in response to observed outcomes and stakeholder feedback. As such, the Norman Center City Form-Based Code District provides a grounded example of how form-based regulation is conceived, structured, implemented, and refined over time.

While the Center City case reflects local political and market dynamics, understanding its broader implications requires situating it within the evolution of zoning theory and regulatory practice. Chapter 2 examines the historical foundations of zoning in the United States, critiques of conventional Euclidean regulation, the emergence and structure of form-based codes, and the

limited but growing body of research evaluating their economic implications. This literature review provides the theoretical and empirical framework for interpreting the parcel-level analysis that follows.

1.2 Case Study Timeline

Image 4 provides a chronological overview of the major events that shaped the development and implementation of the Norman Center City Form-Based Code District. The timeline highlights key moments in the district’s evolution, including the initial high-density discussions, public engagement process, adoption of the form-based code, establishment of the TIF district, and subsequent administrative amendments and delays.

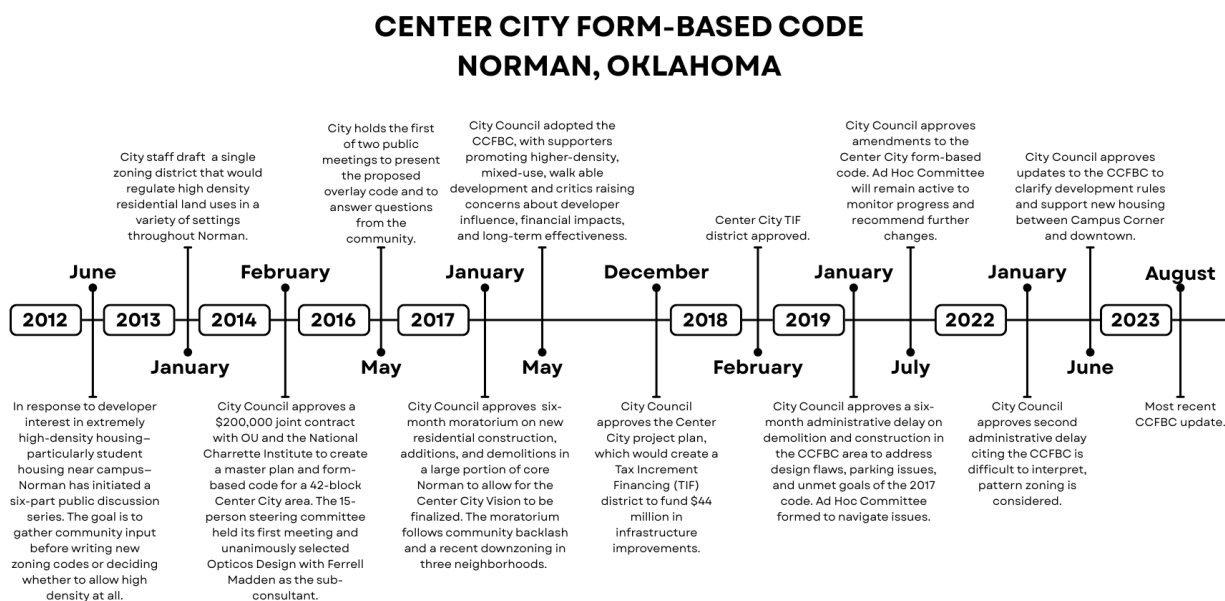


Image 4: Center City Form-Based Code Timeline

1.3 Case Study Transitional Photos



Image 5: S University Blvd & White St, 2016-2024, Source: Google Earth (2026).



Image 6: S Jenkins Ave 2016-2024, Source: Google Earth (2026).



Image 7: McCullough St 2012-2024, Source: Google Earth (2026).



Image 8: S Santa Fe Ave & W Linn St 2012-2024, Source: Google Earth (2026).



Image 9: Boyd St 2015-2023, Source: Google Earth (2026).



Image 10: W Main St 2017-2024, Source: Google Earth (2026).



Image 11: James Garner Ave & W Apache St 2012-2023, Source: Google Earth (2026).



Image 12: W Apache St 2012-2022, Source: Google Earth (2026).

CHAPTER 2: LITERATURE REVIEW

2.1 Origins of Zoning in the United States

Modern development regulations are often associated with the advent of 20th-century zoning practices. However, regulating the built environment is not a new practice and predates modern zoning by centuries. The need to regulate streets, blocks, frontage, and building form has been a regulatory concern throughout history. As noted by Talen (2009), “Indian laws dating back 4,000 years established rules for laying out towns, streets, and houses.” Additionally, “We know from the writings of Plato and Aristotle that there were laws governing streets and public squares (agora) in Greece in the 4th century BC.” These early examples show that regulating the built environment has been a longstanding practice and provide a foundation for how development regulations have evolved into today.

The transition from the 19th to the 20th century marked a significant period in the evolution of development regulations in the United States. The rapid growth and industrialization of urban centers necessitated the creation of government tools to regulate the negative externalities of the “industrialized urban conditions of the time: to separate uses, densities, and incompatibilities of all kinds in order to contain the most toxic among them.” (Parolek et al., 2008) In response to the conditions of the time, modern zoning emerged as a means of establishing a legal and institutional framework for municipalities to exercise police powers to protect the health, safety, and welfare of communities, and to provide a technically efficient, modern approach to urban regulation.

The advent of modern zoning began with the adoption of New York City’s 1916 Building Zone Resolution, which established regulations on building height, bulk, open space requirements, and the placement of trades, industries, and specific building uses, while creating

zoning districts to enforce these rules (City of New York City, 1916). Following its initial adoption, zoning ordinances were rapidly implemented by municipalities across the country, and “By 1918, zoning had taken the country ‘by storm’”, a trend further accelerated by federal endorsement through Herbert Hoover’s enabling legislation; by 1929, nearly 800 cities in the United States had adopted zoning ordinances (Talen, 2009).

Following the widespread adoption of zoning ordinances, a series of court cases tested municipal governments' authority to exercise police powers to enforce zoning. The landmark court case *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) legitimized what is commonly referred to as “Euclidean” zoning and established a legal foundation for land-use regulations in the United States. The case was presented to the Supreme Court when the Village of Euclid, Ohio, adopted one of the nation's first comprehensive zoning ordinances, dividing land into separate land-use districts - residential, commercial, and industrial. The Ambler Realty Co. challenged the action as an unconstitutional infringement on personal property rights under the Fifth and Fourteenth Amendments. The Supreme Court upheld Euclid’s authority in their zoning ordinance to separate land uses as a valid exercise of police power as a tool to protect the health, safety, and welfare of communities. Justice Sutherland, writing for the majority, stated that “The exclusion of places of business from residential districts is not a declaration that such places are nuisances... but it is a part of the general plan by which the city’s territory is allotted to different uses in order to prevent, or at least to reduce, the congestion, disorder, and dangers which often inhere in unregulated municipal development” (*Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 392–393 [1926]). This decision gave municipalities the authority to regulate development through zoning ordinances and marked the beginning of what is commonly known as Euclidean zoning today. By the early twentieth century, zoning had become the dominant framework for

regulating urban development in the United States, offering cities a legally defensible, technically efficient, and widely replicable tool for managing growth and land-use conflict.

2.2 Conventional Zoning Regulations

Euclidean zoning, also known as conventional zoning, is the primary legislative and administrative tool used by local governments in the United States to regulate land use. Exercised under municipal police power, zoning ordinances establish legally enforceable rules intended to promote the health, safety, and general welfare of communities by specifying how land may be used. As a rule-based regulatory system, Euclidean zoning typically operates on an “as-of-right” basis, granting development approval when proposals comply with established standards. This approach limits administrative discretion when requirements are met and provides a predictable framework for organizing development activity, resolving land-use conflicts, and administering growth through codified regulations.

Conventional zoning regulates built form “principally through its trio of use (violin), shape (viola), and bulk (cello) restrictions on development” (Kayden, 2004). A defining characteristic of Euclidean zoning is its separation of land by use. Under this framework, municipalities divide the city into distinct zoning districts—such as residential, commercial, and industrial—each permitting a limited range of land uses.

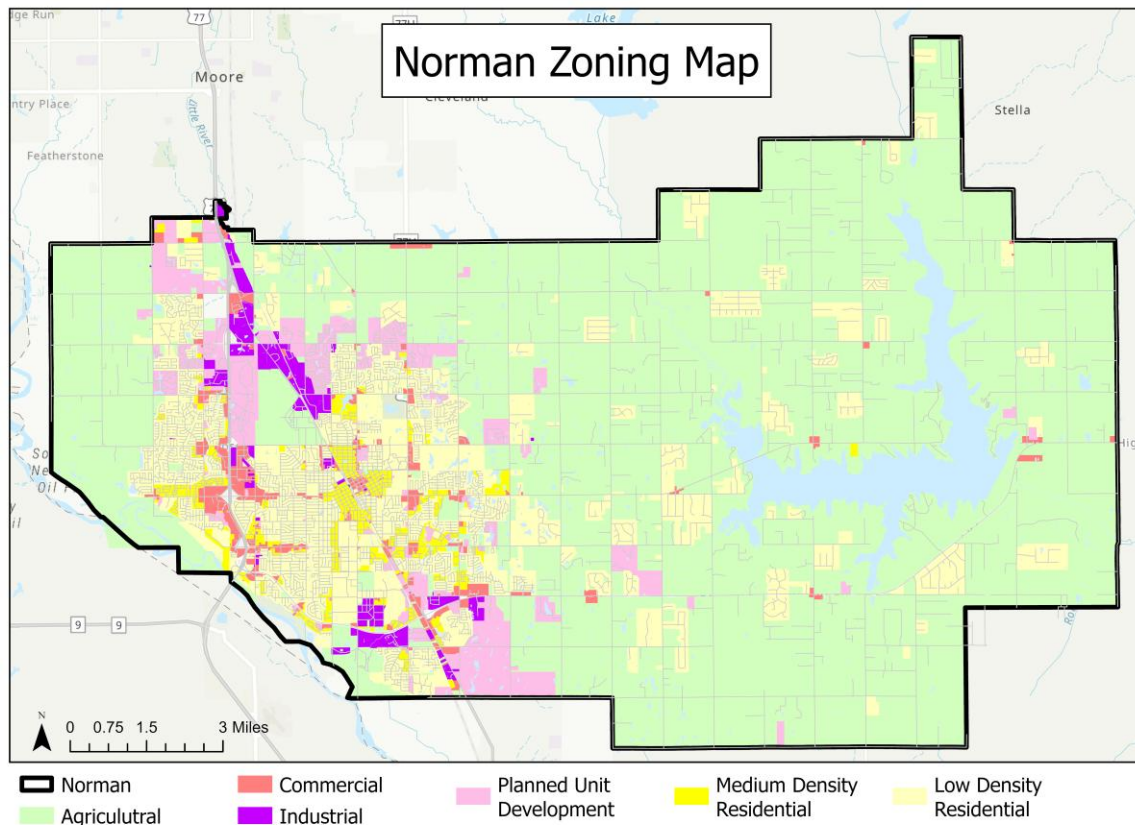


Image 13: Norman Zoning Map

This use-based structure is intended to separate activities deemed incompatible, thereby reducing land-use conflicts and facilitating orderly, efficient development. As a result, the allocation of land uses across districts serves as the central organizing principle of the regulatory framework. Within this system, development form is indirectly regulated by quantitative and dimensional standards rather than explicit design requirements. Image 13 illustrates this regulatory approach through an example of an R-1 zoning district from the City of Oklahoma City's 2008 zoning ordinance.

6.C. Development Regulations**1. Minimum Lot Size**

6,000 sq. ft. minimum lot size

2. Intensity of Use

a. **Maximum Lot Coverage: Fifty (50) percent**

b. **Density: 6,000 sq. ft. per dwelling unit (7.26 du/ac)**

3. Minimum Lot Width

Fifty (50) feet for permitted residential uses; one-hundred (100) feet for all other Permitted Uses, measured at the required front building line.

4. Site Design Requirements

a. **Height: No building shall exceed two and one-half (2½) stories or thirty-five (35) feet in height**

b. **Yard - Front: Twenty-five (25) feet minimum**

Twenty-five (25) feet from platted lot line; provided however, the following minimum front yard standards shall apply for all lots abutting the described streets:

(1) Section Line Road: Seventy-five (75) feet, measured from the centerline.

(2) Collector Street: Fifty-five (55) feet, measured from the centerline.

(3) Local Street: Fifty (50) feet, measured from the centerline.

c. **Yard - Side: Five (5) feet for interior lot lines and fifteen (15) feet for lot lines abutting a street**

d. **Yard - Rear: Ten (10) feet rear yard setback required**

Image 14: Zoning Regulations (Oklahoma County Planning Commission, 2008)

Shape governs the two- and three-dimensional configuration of buildings, while bulk regulates overall size and intensity. These controls typically include height limits, setback requirements, density thresholds, and floor area ratios, which are intended to manage development intensity and spatial relationships. Rather than prescribing specific building forms, these standards establish numerical limits that allow a wide range of building configurations to comply with the same regulatory criteria.

Within the regulatory trio of use, shape, and bulk, conventional Euclidean zoning applies proscriptive and prescriptive logic in different ways. As noted by Kayden (2004), “conventional zoning tends toward proscriptive, rather than prescriptive” regulation, relying primarily on rules

that define what development may not do rather than specifying desired outcomes. At the same time, conventional zoning “shows glimpses of being prescriptive, however. Within the trio of use, shape, and bulk restrictions, use is the one most often treated prescriptively” (Kayden, 2004). In this context, use regulations dictate the specific activities permitted within each zoning district, while controls related to shape and bulk typically operate through quantitative dimensional limits that development may not exceed.

Taken together, conventional Euclidean zoning functions as a rule-based regulatory paradigm that organizes development through use separation, numerical standards, and clearly defined approval criteria. By regulating land use through the interrelated dimensions of use, shape, and bulk, zoning provides municipalities with an administratively efficient and legally defensible framework for managing development and resolving land-use conflicts. At the same time, these structural characteristics play a significant role in shaping how development occurs across parcels and districts. The following section examines how scholars have evaluated the broader spatial, social, and economic implications of this regulatory framework, with particular attention to critiques of conventional zoning and its relationship to urban development patterns.

2.3 Critiques of Conventional Zoning

Much has been written about the cumulative effects of conventional zoning on the built environment. Urban sprawl, a term initially coined by city planner Earle Draper in 1937, describes the outward expansion of urban development into previously rural or natural landscapes. Talen 2013 notes: “Sprawl is defined as disconnected, automobile-dependent, land-consumptive, environmentally degrading, single-use, homogeneous, inaccessible development, with a low quality, poorly conceived public realm.” (Talen 2013). While sprawl has been attributed to a range of forces, including transportation technology and market preferences,

scholars increasingly emphasize the role of land-use regulation in shaping these outcomes. Talen (2013) argues “studies have consistently shown that zoning correlates with lower urban density and sprawl” and that “zoning has a significant detrimental impact on urban pattern and form at the local scale.” (Talen, 2013).



Image 15: Urban Sprawl (Cities Today, 2018)

Sprawled urban development associated with conventional zoning practices has been linked in the literature to a range of social, economic, and environmental externalities. Scholars note that restrictive, use-based zoning often fails to foster community cohesion or social and economic integration, instead producing fragmented governance structures and urban environments lacking a distinct sense of place (Qurnfulah, 2019). These development patterns also reinforce automobile dependence, increasing travel distances for daily activities and

contributing to adverse public health outcomes, environmental degradation, and higher infrastructure and service costs for local governments (Woodward, 2012).

Rangwala (2012) critiques conventional zoning as an economically inefficient regulatory system that prioritizes the separation of land uses and quantitative controls over the creation of coherent and economically valuable places. He argues that vague and arbitrary development standards, particularly those related to shape and bulk, “result in an unpredictable process and its outcomes” (Rangwala, 2012). According to Rangwala, this unpredictability introduces uncertainty, delays, and additional costs into the development process, ultimately undermining economic development objectives. Because conventional zoning standards often lack clear connections to desired physical outcomes, development proposals are frequently subject to discretionary interpretation, prolonged review timelines, and negotiated approvals. Rangwala emphasizes that developers typically finance pre-construction work through borrowed capital, making time a critical factor in project feasibility: “For developers, time is money.” (Rangwala, 2012). In this context, he argues that the most valuable incentive municipalities can provide is not financial subsidy, but rather “clear and predictable development regulations and a timely review process.” (Rangwala, 2012). Predictable standards and streamlined approvals, he contends, reduce risk, improve investment conditions, and highlight the economic limitations of conventional zoning practices.***table comparing

2.4 Paradigm Shift in Development Regulation

Building on critiques of conventional Euclidean zoning, scholars and practitioners increasingly observed that the regulatory framework shaping postwar development often failed to produce coherent, high-quality urban environments. Parolek et al. (2008) note that many communities “remain dissatisfied with the character and quality of places that conventional

zoning has fostered (or, as often, their *lack* of character and quality).” Despite incremental reforms to conventional zoning codes, these outcomes persisted, prompting planners and local governments to reconsider not whether development should be regulated, but how regulation could more effectively shape urban form. This growing recognition, that zoning influences physical form as much as land use, created the conditions for alternative regulatory approaches, setting the stage for the emergence of form-based codes.

2.5 Emergence of New Urbanism and Form-Based Code

Beginning in the 1980s, dissatisfaction with the outcomes of conventional zoning coincided with broader shifts in planning and urban design theory. At the forefront of what became known as the New Urbanist Movement, “town planners and architects dedicated to revitalizing and promoting walkable, mixed-use, sustainable communities... worked both individually and collaboratively to formulate, test, and refine an alternative to conventional zoning” (Parolek et al., 2008). Rather than continuing to organize cities primarily around land-use separation, these reformers envisioned “communities more in terms of variations in the scale and intensity of development than in differences in land uses,” calling for “a complete overhaul of the existing zoning system” (Parolek et al., 2008). As a result of these efforts, “FBCs emerged as the antidote to conventional, use-based zoning, possessing the fundamental difference of being intended to affect urban pattern and form” (Talen, 2009).

The first example of this new zoning system was introduced in 1981 by Duany Plater-Zyberk for Seaside, Florida, where a form-based code organized building types and public spaces through a visually coordinated regulatory framework (Parolek et al., 2008). The code used a catalog of building types assigned to specific lots within the plan, all visually organized on a single poster. Through the 1980s and early 1990s, similar approaches were adopted through

Traditional Neighborhood Development (TND) ordinances, primarily in greenfield developments. By the turn of the century, form-based coding expanded beyond new development to include infill areas, corridors, and existing urban districts, with regulatory standards increasingly coordinated across building form and thoroughfare design (Parolek et al., 2008).

As these approaches evolved, the regulatory framework was known by various names, including “TND ordinances” and “form codes,” before the term “form-based codes” gained widespread use (Parolek et al., 2008). Over time, form-based codes also came to encompass a broader family of aligned regulatory tools. According to Talen, “FBC is an umbrella term that encompasses other aligned regulatory efforts: Traditional Neighborhood Development ordinances, Mixed-Use and Live/Work codes, TOD ordinances, Transit Area Codes, Smart Growth codes, and Green Building Codes of various stripes.” (Talen, 2021)

As form-based coding gained traction as a regulatory alternative, adoption expanded across jurisdictions. Kim (2018) identifies over 600 adopted form-based codes throughout the United States, ranging from small overlay districts to comprehensive citywide transitions. Notable examples include the Denver Zoning Code and Miami 21, both adopted in 2010, which represent early large-scale efforts to shift from conventional use-based zoning toward regulatory frameworks that prioritize urban form over land-use separation. The increasing prevalence of such ordinances reflects the institutionalization of form-based coding within contemporary planning practice.

Form-Based Codes are an alternative approach to development regulation, and they “differ from conventional zoning codes in terms of the process by which they are prepared, the substance of the standards they contain, the mechanism by which they are implemented, and the built form they produce.” (Parolek et al., 2008) The Center for Zoning Solutions (formerly the

Form-Based Codes Institute) within Smart Growth America defines FBCs as follows: “Form-based codes (FBC) are a land development regulation that fosters predictable built results and a walkable public realm by using physical form, rather than separation of uses, as the primary basis and focus for the code and standards... FBC focuses on the form and shape of the built environment and focuses on creating mixed-use, people-oriented development patterns.” (Form-Based Codes Institute, 2022) Image 15 visually illustrates the differing priorities of conventional zoning and form-based codes, showing the shift from an emphasis on use and density regulation toward a stronger focus on physical form and urban design. Similarly, Table 1 compares the two regulatory approaches across categories such as overall focus, building placement, street design, and use regulation, highlighting how form-based codes prioritize the relationship between buildings and the public realm rather than strictly separating land uses.

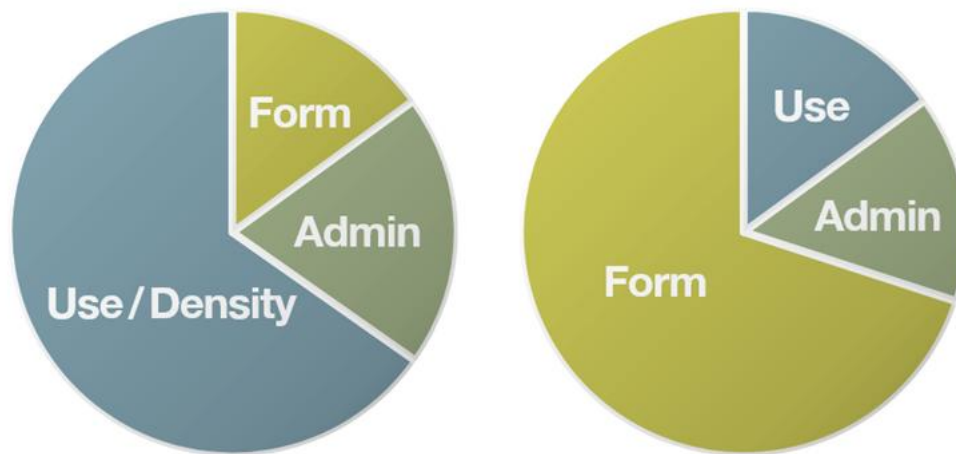


Image 16: Euclidean Zoning vs. Form-Based Code (Smart Growth America, & Form-Based Codes Institute, 2021)

	Traditional Zoning	Form-Based Codes
Overall Focus	Use-based	Focus on form of building, less on use
Regulatory Approach	Districts	Districts and Streets
	Emphasis on uses; building placement unpredictable	Emphasis on building form; relation to the public realm
Use Focus	Single use districts	Allows a mix of uses
Building Focus	Uniformity in neighborhoods	Diversity in neighborhoods
	Limited design standards	Focus on architectural form & public spaces
	Setbacks	Build to lines
Street Focus	Focus on site - little emphasis on right-of-way	Attention to the public realm & streetscape

Image 17: Traditional Zoning vs Form-Based Codes (Huntington, 2011)

2.6 Components and Administration of Form-Based Code

To ensure consistency in implementation, the Form-Based Codes Institute has established a set of Standards of Practice outlining the essential components of an authentic form-based code, which include:

1. **A Regulating Plan:** The regulating plan functions similarly to a zoning map, assigning specific form-based districts and their corresponding standards to defined physical locations within the code area. Districts are mapped onto the regulatory plan, typically through color coding, to indicate where each set of standards applies. Boundaries are often drawn along streets, blocks, rear lot lines, or alleys to allow for coherent transitions between districts.

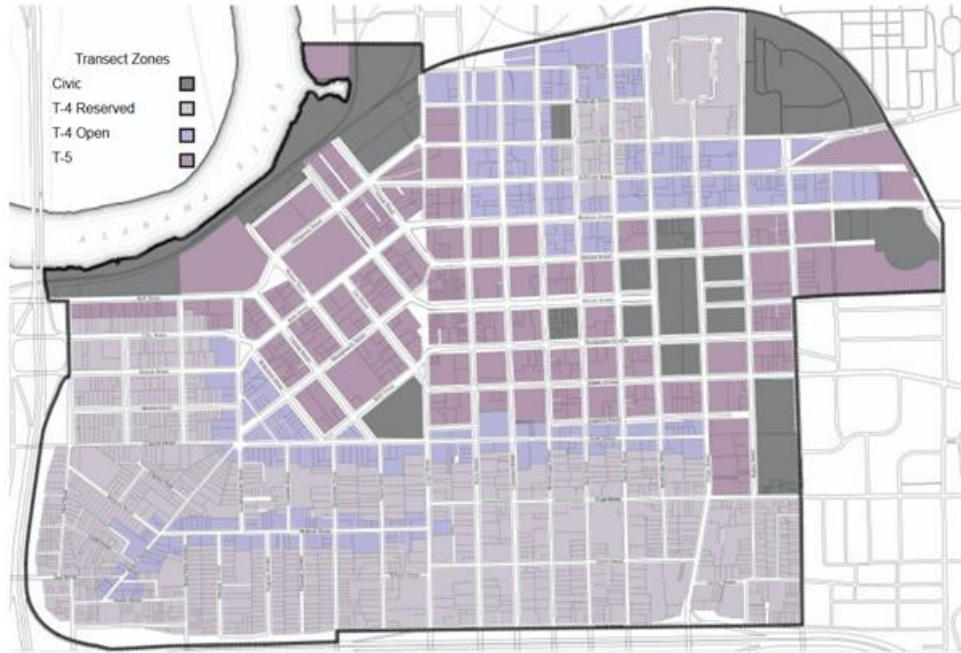
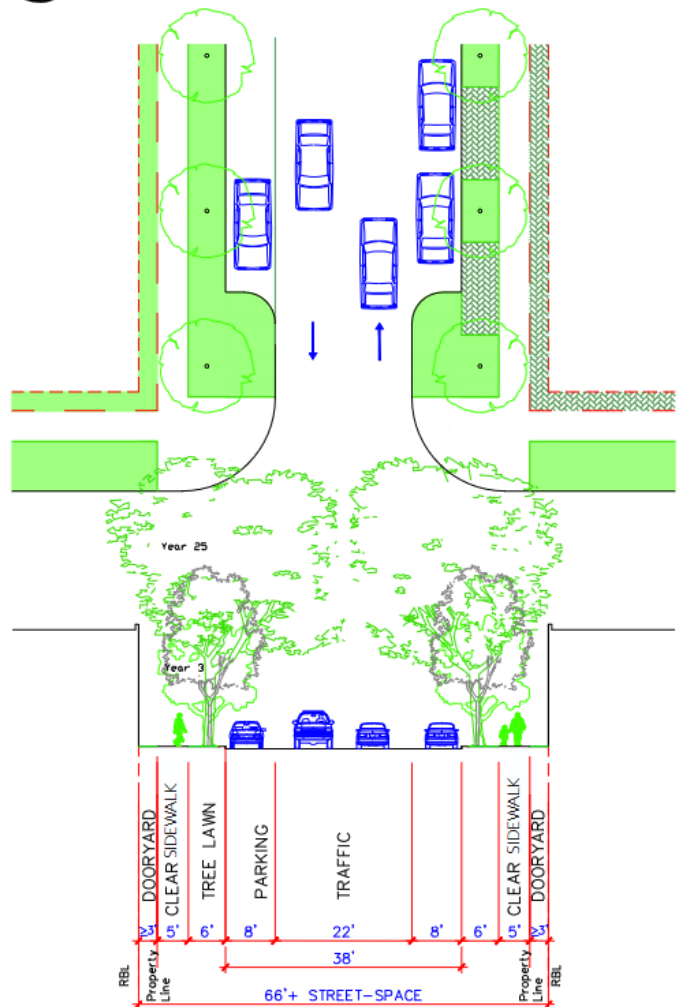


Image 18: Form-Based Code Regulating Plan (Dover, Kohl & Partners, 2007)

2. **Public Space Standards:** Public space standards establish specifications for elements within the public realm, including thoroughfares and civic spaces (Parolek et al., 2008). Thoroughfare standards typically regulate components such as sidewalk widths, travel lanes, street trees, street furniture, and the spatial relationship between buildings and the street. Civic space standards define parameters for public gathering areas, including minimum and maximum dimensions, space types, appropriate locations, functional roles within the community, and landscaping requirements. Together, these standards ensure that streets and public spaces are designed to support walkability, connectivity, and cohesive urban form.

Neighborhood ST 66+/38



STREET-SPACE	66', per RBL
Traffic Lanes	11'
TREE LAWN	6'
Clear Sidewalk	5'
DOORYARD	see Regulating Plan, 3'typ.min.
type	street
movement	Free
design & posted speed	20-25 mph
traffic function	two way
on street parking	Both Sides, Striped
Right of Way	60' (varies)
pavement width	38'
curb type	vertical
curb radius	20' with curb extensions 10' w/o
planting	Street Trees Max Avg 30'ctc
comparative pedestrian crossing time	5.9 seconds w/curb extensions. 10.2 seconds without

Image 19: Form-Based Code Public Space Standards (City of Norman, 2023)

3. **Building Form Standards:** Building form standards regulate the physical characteristics of buildings that shape the public realm (Parolek et al., 2008). These standards typically address lot dimensions, building placement, height, frontage conditions, parking configuration, and permitted encroachments. In some cases, they also specify building types or architectural elements. Rather than focusing primarily on land use, these standards guide the spatial form and interface of buildings to ensure consistency with the overall urban vision.

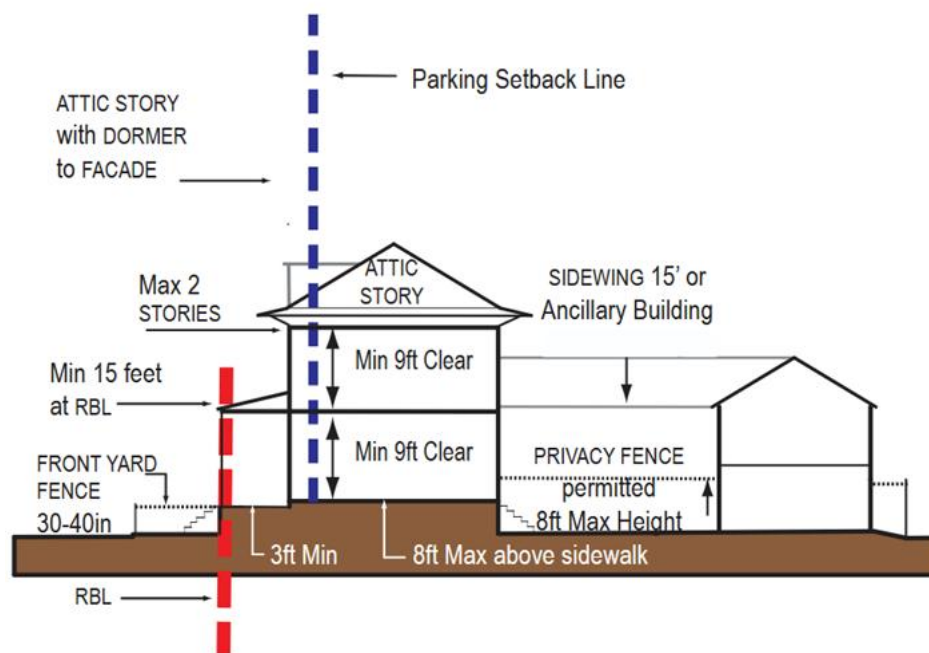


Image 20: Form-Based Code Building Form Standards (City of Norman, 2023)

4. **Administration:** Administrative provisions establish the procedures governing project application, review, and approval under the form-based code.
5. **Glossary:** The glossary provides definitions for technical terminology and specialized phrases used throughout the code, including descriptions of land-use categories and building-related terms (Parolek et al., 2008). By clarifying language and standardizing

meaning, the glossary reduces ambiguity in interpretation and supports consistent application of the code across projects and review bodies.

FBCs can be administered in varying formats, “Depending on local politics and resources” (Rangwala, 2012). Rangwala (2012) identifies three primary methods of implementation: mandatory codes, optional codes, and floating-zone codes. Mandatory codes replace conventional zoning within designated areas, while optional codes operate alongside existing zoning and provide alternative standards for specific locations. Floating-zone codes are not tied to specific parcels but are applied when property owners seek rezoning or initiate development, allowing jurisdictions to introduce form-based standards incrementally.

2.7 Form-Based Codes as a Tool for Economic Development

Proponents of form-based codes emphasize their capacity to produce predictable development outcomes through prescriptive standards that clearly articulate desired physical form, a characteristic frequently cited as central to their economic development potential. Rangwala (2012) argues that “the greatest advantage of FBCs is that they produce predictable outcomes,” noting that, unlike conventional zoning regulations, which focus primarily on what cannot be developed, form-based codes emphasize what can be built. As Rangwala explains, “FBCs [are] prescriptive and not proscriptive. Instead of focusing on what you cannot do, they simply state what is desired in the vision,” thereby reducing regulatory uncertainty and pre-construction risk. Because development finance is highly sensitive to time and predictability, this clarity can function as a non-financial incentive for private investment, enabling developers and landowners to assess project feasibility and land value expectations earlier in the process. Kim (2018) similarly notes that such regulatory predictability “provides a sense of security to investors and decision-makers,” contributing to economic stability over time.

Recent empirical evidence further suggests that form-based codes may be associated with measurable fiscal outcomes. Howard (2018) finds, using multivariate regression analysis, that cities with form-based codes in place exhibit higher property tax revenues than comparable cities without such codes, even after controlling for other variables. Howard's results support the hypothesis that "form-based codes are altering the financial outcomes of the cities that put them in place" (Howard, 2018). However, Howard cautions that these findings do not establish causality and may reflect broader economic or institutional shifts occurring in cities that adopt form-based codes.

A more recent comparative analysis by Smart Growth America & Form-Based Code Institute (2021) examined four jurisdictions across the United States and found that neighborhoods regulated by form-based codes generally outperformed comparable conventionally zoned areas across several economic indicators, including building permits, multifamily absorption, tax revenue growth, and per capita income increases. The study concludes that areas regulated by form-based codes "generally experience a greater increase in property values and tax revenues, maintain their values better, attract a wider range of housing types, attract more investment, and generate more employment than similar areas with more conventional zoning" (Smart Growth America & Form-Based Code Institute 2021). While this report operates at a neighborhood and comparative scale, it further reinforces the argument that regulatory structure may influence local economic performance. Taken together, these findings suggest that form-based codes are increasingly framed not only as design tools but also as mechanisms with potential economic implications.

2.8 Gap in the Literature: Quantifying Economic Effects of Form-Based Codes

While literature increasingly frames form-based codes as a potential tool for economic development, empirical research quantifying their economic effects remains limited. As Howard (2018) observes, “Fiscal outcomes, however, are not typically a focus of New Urbanism or of form-based code proponents, and the academic literature linking form-based codes to economic and fiscal outcomes, good or bad, is rare, despite a large existing literature linking land use regulations, and especially restrictive zoning to fiscal outcomes.” Howard’s study represents one of the most comprehensive academic efforts to address this gap by examining the relationship between form-based code adoption and municipal property and sales tax revenues, demonstrating that changes in regulatory structure may have measurable fiscal implications at the citywide scale.

More recent comparative research by Smart Growth America and the Form-Based Codes Institute (2021) similarly suggests that neighborhoods regulated by form-based codes often outperform comparable conventionally zoned areas across several economic indicators, including tax revenue growth, development activity, and multifamily absorption. However, this analysis relies on cross-jurisdictional neighborhood comparisons rather than parcel-level evaluation within a single regulatory district. Together, these studies indicate that regulatory structure may influence economic performance, yet they operate at aggregate municipal or neighborhood scales. Neither directly examines how form-based codes affect market values at the parcel level, the scale at which zoning regulations are applied and development decisions are capitalized into property values.

Accordingly, the effects of form-based codes on parcel-level market values remain underexplored. This study addresses that gap by conducting a combined longitudinal and cross-sectional parcel-level analysis of the Norman Center City Form-Based Code District. By

integrating parcel-level property tax data from 2008 to 2025 with a cross-sectional analysis of 2026 parcel-level market values and ownership patterns, this research provides a more comprehensive understanding of how economic value has changed over time and how that value is distributed within the district.

CHAPTER 3: METHODOLOGY

3.1 Research Design

This study employs a quantitative analytical framework that integrates both longitudinal and cross-sectional approaches to examine the economic characteristics of the Norman Center City Form-Based Code District.

The longitudinal component is based on parcel-level property tax payment histories for all non-tax-exempt parcels from 2008 to 2025. These data capture changes at the individual parcel level over time and are aggregated annually to evaluate trends in total property tax revenue across the district. This approach provides a temporal perspective on how the district's tax base has evolved, using property tax revenue as a proxy for broader shifts in property value and development intensity.

The cross-sectional component utilizes the most recent available assessment data (2026) to analyze parcel-level market values, ownership types, and ownership locations. This analysis offers a snapshot of how economic value is distributed within the district and allows for the identification of patterns in ownership and value concentration.

By combining these approaches, the study captures both changes in economic value over time and how that value is distributed across ownership structures, providing a more comprehensive understanding of economic outcomes within the district. While the analysis identifies relationships and trends, it does not establish causal links between the adoption of the form-based code and observed economic patterns.

3.2 Study Area

The study area consists of the Norman Center City Form-Based Code District, located in central Norman, Oklahoma. The district encompasses a 42-block area situated between the

University of Oklahoma campus and downtown Norman and represents a key zone of redevelopment and urban infill.

A total of 515 parcels within the district were included in the cross-sectional analysis. The longitudinal analysis incorporates property tax data for all non-tax-exempt parcels within the district. Image 21 illustrates the parcel boundaries included within the Center City Form-Based Code District study area.

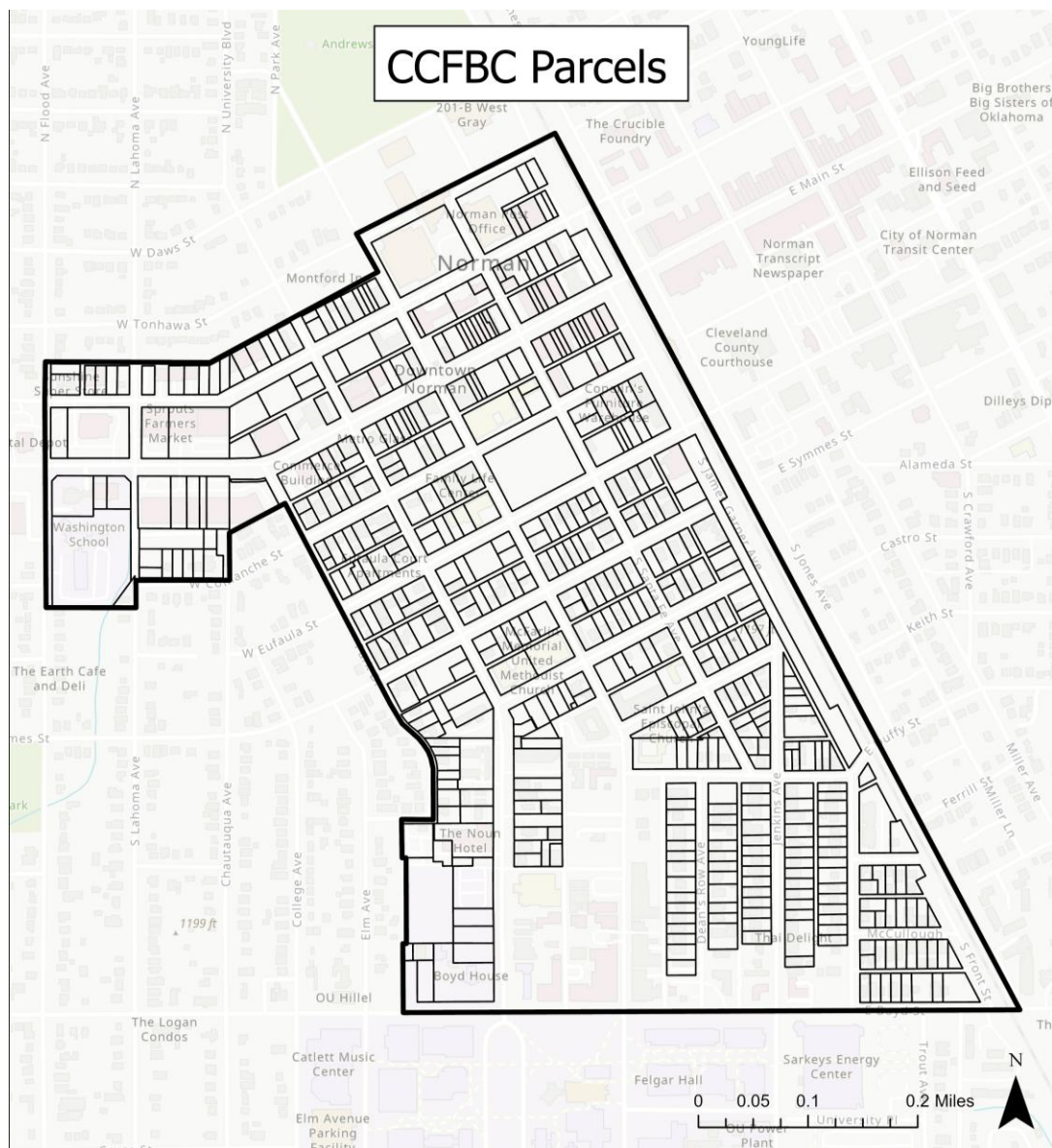


Image 21: Center City Project Area Parcels (City of Norman Open Data)

3.3 Data Sources

This analysis draws on multiple datasets to support both longitudinal and cross-sectional components.

Property Tax Data (2008–2025): Historical property tax records were compiled for all non-tax-exempt parcels within the district. To obtain these records, a Python script was developed to access the Cleveland County Treasurer’s website, query each parcel using its account number, and extract annual payment history data. The script returned 431 parcel accounts that recorded at least one year of property tax payments within the study period. These data were aggregated to calculate total annual property tax revenue for the district.

Parcel-Level Data (2026): Parcel-level data were obtained from the Cleveland County Assessor’s property record system. Using the map-based interface, all parcels within the district were selected and exported to Excel. This dataset included account number, owner name, address, market value, parcel identification number, legal description, and associated web links. Additional parcel attributes - including ownership type, land size, owner location, and year built - were collected using a Python-based data extraction process designed to systematically retrieve information from assessor records.

Spatial Data: Parcel boundaries and the Center City district boundary were obtained from the City of Norman Open Data portal and used to spatially define the study area.

Together, these datasets enable both the analysis of economic change over time and the examination of parcel-level ownership and value patterns.

3.4 Variable Classification

To examine relationships between ownership and market value, parcels were categorized along two dimensions: owner location and ownership type.

Owner location was classified into three categories:

- Local (owner based in Norman)
- Regional (owner located elsewhere in Oklahoma)
- Out-of-state (owner located outside Oklahoma)

Ownership type was categorized into four groups based on naming conventions and institutional identification:

- Individual (personal names, couples, and personal trusts)
- Entity (LLCs, corporations, limited partnerships, and similar legal entities)
- Institutional (governmental bodies, school districts, churches, and public institutions)
- Other (utilities, banks, and specialized ownership categories such as telecommunications or energy companies)

3.5 Analytical Approach

3.5.1 Longitudinal Analysis: Parcel-Level Property Tax Change (2008–2025)

The longitudinal component of this study is based on parcel-level property tax payment histories for all non-tax-exempt parcels within the district. Rather than relying solely on aggregate municipal data, this analysis incorporates individual parcel records over time, allowing for a more detailed understanding of how the district’s tax base has evolved.

Property tax data were analyzed for each parcel from 2008 to 2025, resulting in a longitudinal dataset that captures yearly tax payments at the parcel level. While the full dataset retains parcel-level detail, values were aggregated annually to evaluate overall trends in total property tax revenue across the district.

The analysis includes:

- Year-over-year (YoY) changes in total tax revenue

- Percentage growth rates
- Cumulative growth trends

To assess structural shifts in the district’s economic trajectory, the time series was divided into two periods:

- Pre-Adoption period (2008–2016)
- Post-Adoption period (2017–2025)

This periodization enables comparison of growth patterns across two periods aligned with the adoption of the form-based code. Importantly, while results are presented in aggregated form to illustrate district-wide trends, the underlying analysis is grounded in parcel-level data across all included properties, ensuring that observed changes reflect the combined contributions of individual parcels over time.

This approach allows the study to capture both micro-level data structure and macro-level outcomes while avoiding the limitations of purely aggregate analysis. However, the analysis does not establish causality and instead identifies temporal patterns in property tax growth within the district.

3.5.2 Cross-Sectional Analysis: Distribution of Value and Investment (2026)

The cross-sectional component examines how property value is distributed across parcels and ownership structures at a single point in time. Using 2026 parcel-level assessment data, this analysis incorporates multiple variables, including market value, value per square foot, use code, owner location, ownership type, and year built, to evaluate patterns of investment and value distribution within the district.

Parcel-level market values were analyzed using:

- Descriptive statistics (mean, median, standard deviation)

- Proportional comparisons (parcel share vs. market value share)
- Value intensity (market value per square foot)

In addition to value-based measures, categorical variables such as ownership type, owner location, and use code were used to examine differences in how value is distributed across parcels. The inclusion of year built provides further context for understanding the relationship between property age, redevelopment patterns, and value concentration within the district.

These measures were used to evaluate:

- The relationship between ownership type and market value
- The distribution of value across local and non-local ownership
- The intensity of land value across parcels
- The relationship between development characteristics (e.g., use type and year built) and property value

This analysis provides insight into who owns property within the district, how land is utilized, and who captures the economic value generated, complementing the longitudinal analysis of overall growth.

CHAPTER 4: RESULTS

4.1 Dataset Overview

This study utilizes two complementary datasets to examine both economic change over time and the distribution of property value within the district. The longitudinal dataset captures parcel-level property tax trends over time, while the cross-sectional dataset provides a snapshot of parcel-level value and ownership characteristics.

4.2 Longitudinal Results: Property Tax Growth Over Time (2008–2025)

Total Property Tax Revenue Trends

Figure 1 illustrates total annual property tax revenue within the Norman Center City Form-Based Code District from 2008 to 2025.

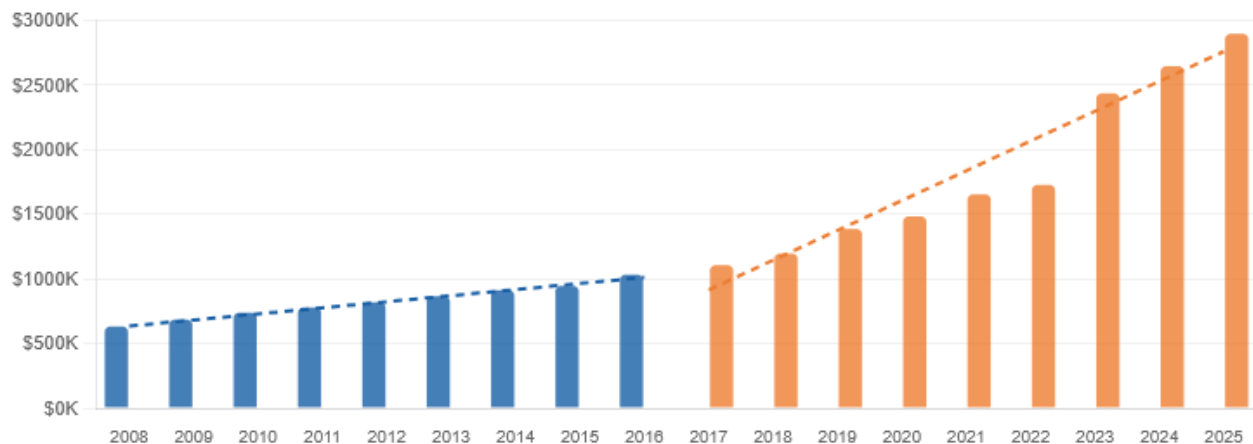


Figure 1: Annual Property Tax Revenue within Norman's Center City Form-Based Code District 2008-2025

The longitudinal analysis reveals a clear and sustained increase in total property tax revenue over the study period. During this time, total annual property tax revenue increased from \$631,178 to \$2,896,633, representing a substantial expansion in the district's overall tax base.

Through the study period, property tax revenue exhibits a consistent upward trajectory, with year-over-year increases observed in nearly every year. This pattern indicates steady growth

in assessed property values across the district, as property tax revenue functions as a proxy for underlying market value.

Period Comparison: 2008–2016 vs. 2017–2025

Table 1 presents a detailed comparison of total property tax revenue, year-over-year changes, and cumulative growth across the two time periods: 2008–2016 and 2017–2025.

Total Property Tax Revenue — Period Comparison (2008–2016 vs 2017–2025)									
Period 1: 2008–2016					Period 2: 2017–2025				
Year	Total Tax	YoY Change (\$)	YoY Change (%)	Cumulative Growth	Year	Total Tax	YoY Change (\$)	YoY Change (%)	Cumulative Growth
2008	\$631,178	-	-	-	2017	\$1,107,735	-	-	-
2009	\$685,275	\$54,097	8.6%	8.6%	2018	\$1,195,831	\$88,096	8.0%	8.0%
2010	\$739,869	\$54,594	8.0%	17.2%	2019	\$1,387,172	\$191,341	16.0%	25.2%
2011	\$777,207	\$37,338	5.0%	23.1%	2020	\$1,484,066	\$96,894	7.0%	34.0%
2012	\$817,955	\$40,748	5.2%	29.6%	2021	\$1,655,941	\$171,875	11.6%	49.5%
2013	\$867,174	\$49,219	6.0%	37.4%	2022	\$1,726,845	\$70,904	4.3%	55.9%
2014	\$910,972	\$43,798	5.1%	44.3%	2023	\$2,435,251	\$708,406	41.0%	119.8%
2015	\$945,926	\$34,954	3.8%	49.9%	2024	\$2,646,669	\$211,418	8.7%	138.9%
2016	\$1,034,032	\$88,106	9.3%	63.8%	2025	\$2,896,633	\$249,964	9.4%	161.5%
Total	\$7,409,588				Total	\$16,536,143			

Table 1: Total Property Tax Revenue - Period Comparison (2008-2016 vs 2017-2025)

To further evaluate changes in growth patterns, the time series was divided into these two periods. This comparison highlights a notable shift in both the scale and pace of growth over time.

During the 2008–2016 period, total property tax revenue increased from \$631,178 to \$1,034,032, reflecting a cumulative growth rate of 63.8 percent. Over this period, annual increases were relatively stable, with year-over-year growth generally ranging between 3.8 percent and 9.3 percent.

In contrast, the 2017–2025 period experienced significantly higher levels of both total revenue and growth. Total property tax revenue increased from \$1,107,735 in 2017 to \$2,896,633 in 2025, representing cumulative growth of 161.5 percent. The magnitude of annual increases was also greater, with several years exceeding double-digit growth rates, including a notable 41.0 percent increase in 2023.

Aggregate Growth Comparison

Table 2 summarizes key aggregate metrics comparing the two periods, including total tax collected, starting and ending values, and average annual tax revenue.

Period Summary Comparison				
Metric	2008–2016	2017–2025	Difference (\$)	Difference (%)
Total Tax Collected	\$7,409,588	\$16,536,143	\$9,126,555	123.2%
Starting Year Tax	\$631,178	\$1,107,735	\$476,557	75.5%
Ending Year Tax	\$1,034,032	\$2,896,633	\$1,862,601	180.1%
Average Annual Tax	\$823,288	\$1,837,349	\$1,014,062	123.2%
Total Growth (Start→End)	63.8%	161.5%		97.7%

Table 2: Period Summary Comparison

A comparison of total tax revenue collected across both periods further illustrates the scale of this shift. The district generated approximately \$7.4 million in total property tax revenue between 2008 and 2016, compared to \$16.5 million between 2017 and 2025. This represents an increase of \$9.13 million, or 123.2 percent, in total tax revenue between the two periods. Additional metrics reinforce this pattern. The average annual tax revenue increased from \$823,288 in the earlier period to \$1,837,349 in the later period, while the ending year tax value increased by approximately 180.1 percent. These changes indicate not only higher overall revenue, but also an acceleration in the rate of growth over time.

Summary of Longitudinal Findings

Taken together, these results indicate that the Center City Form-Based Code District experienced substantial and accelerating growth in property tax revenue between 2008 and 2025. Growth during the later period (2017–2025) significantly outpaced that of the earlier period (2008–2016), both in terms of total revenue generated and cumulative growth rates.

While these results demonstrate a clear increase in the district’s overall tax base, they do not, on their own, indicate how this growth is distributed across parcels or ownership structures.

To better understand how this growth is distributed within the district, the following sections examine parcel-level market values and ownership patterns using cross-sectional data.

4.3 Cross-Sectional Dataset (2026) Results

The cross-sectional dataset includes 515 parcels within the Norman Center City Form-Based Code District. Based on 2026 assessed market values, the combined market value of these parcels is approximately \$351.6 million.

In addition to market value, this dataset includes variables such as ownership type, owner location, use code, year built, parcel size, and value per square foot, allowing for a detailed analysis of how property value is distributed across parcels and ownership structures.

This dataset provides a snapshot of current ownership patterns and value distribution, which is analyzed in the sections that follow.

4.3.1 Ownership Type

Image 22 illustrates the spatial distribution of parcel ownership types within the Center City Form-Based Code District.

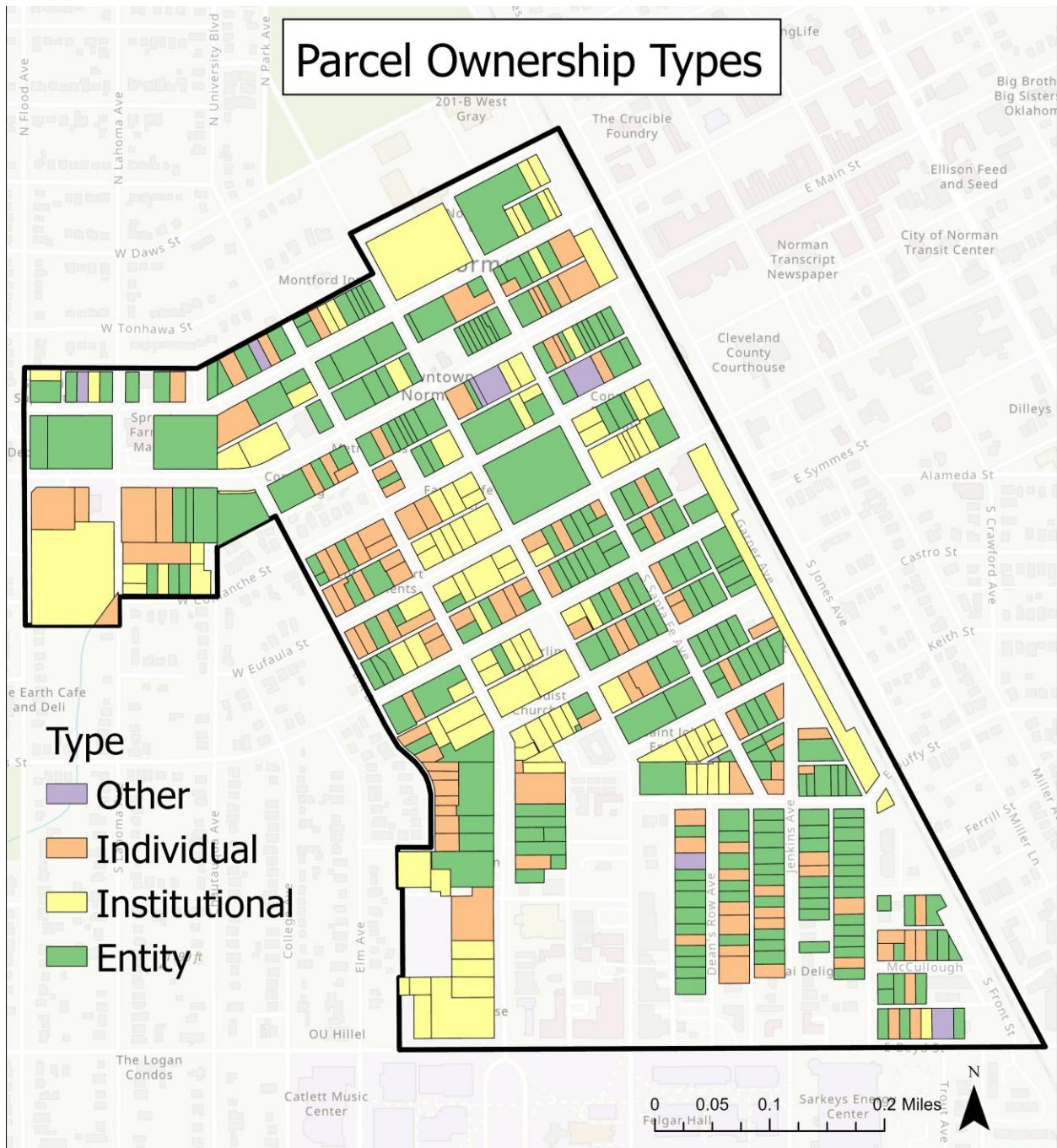


Image 22: Parcel Ownership Types

Distribution of Parcels and Market Value

Figure 2 illustrates the distribution of parcels and total market value by ownership type within the Center City Form-Based Code District.

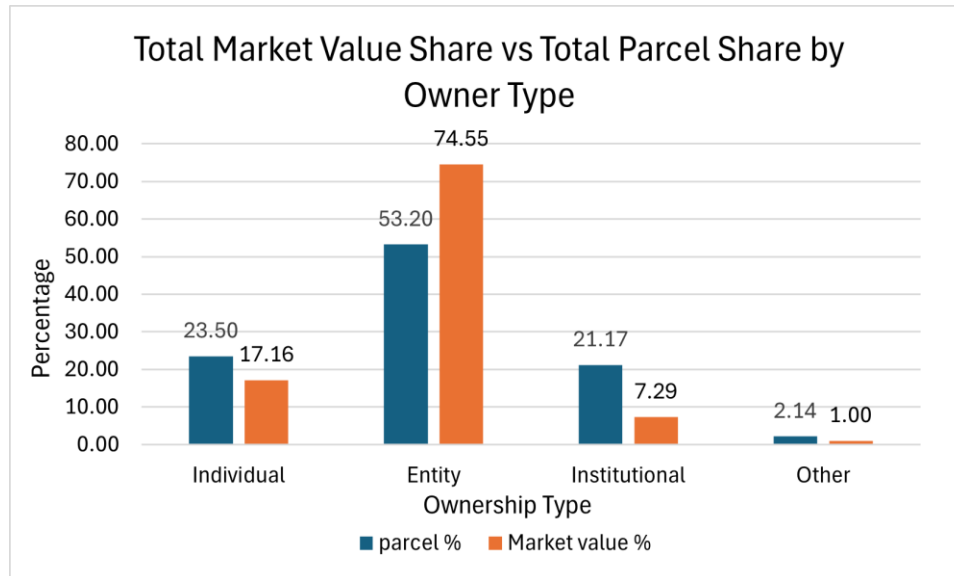


Figure 2: Total Market Value Share vs Total Parcel Share by Owner Type

Entity ownership accounts for the majority of parcels (53.20%) and an even larger share of total market value (74.55%). In contrast, individually owned parcels represent 23.50% of parcels but only 17.16% of total market value. Institutional ownership comprises 21.17% of parcels but represents just 7.29% of market value, while the “Other” category accounts for a minimal share across both measures (2.14% of parcels and 1.00% of value).

To further evaluate this relationship, Figure 3 presents the percentage difference between parcel share and market value share for each ownership type.

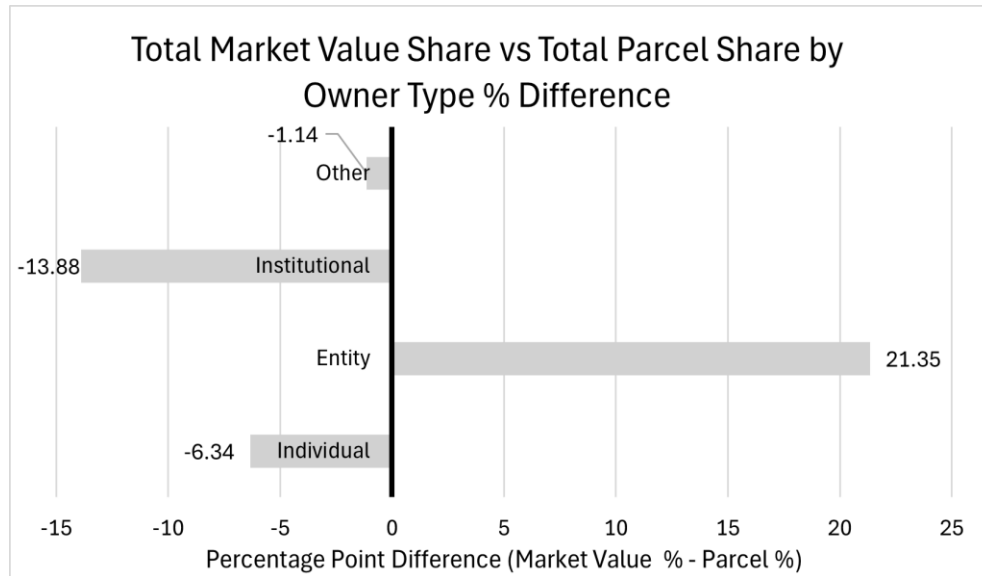


Figure 3: Total Market Value Share vs Total Parcel Share by Owner Type % Difference

Entity ownership shows a positive difference of +21.35 percentage points, indicating a disproportionately higher share of total market value relative to its parcel share. In contrast, individual (-6.34), institutional (-13.88), and other (-1.14) ownership categories all exhibit negative differences, reflecting lower relative value concentration.

Descriptive Statistics of Market Value by Ownership Type

Figure 4 presents descriptive statistics of parcel-level market values by ownership type, including average, median, and standard deviation.

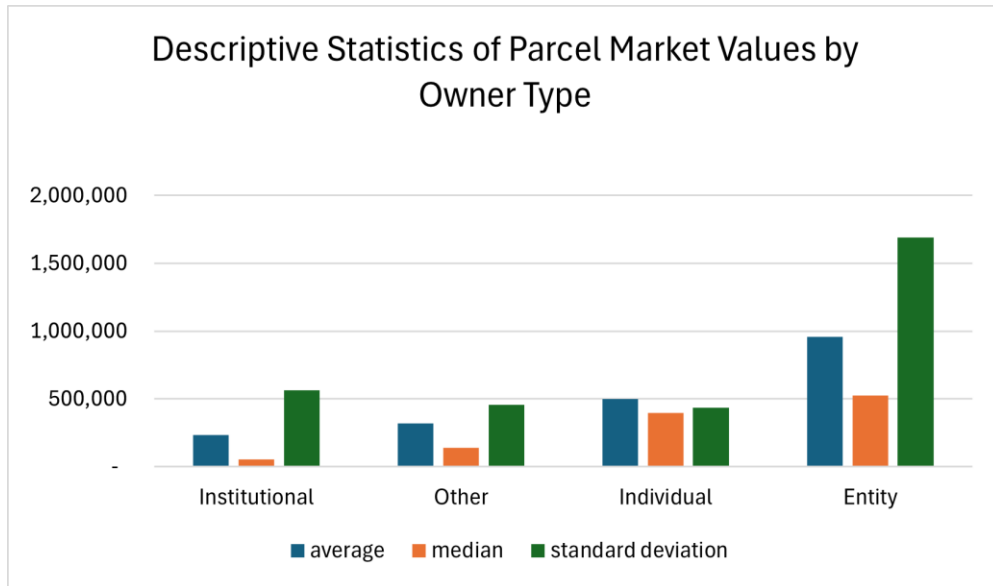


Figure 4: Descriptive Statistics of Parcel Market Values by Owner Type

Entity-owned parcels exhibit the highest average (\$956,629) and median (\$522,892) market values, indicating that these properties tend to be more valuable on a per-parcel basis than those in other ownership categories. Individually owned parcels show lower average (\$498,598) and median (\$395,421) values, while institutional and “other” ownership types are associated with substantially lower values overall.

Variation in property values is also greatest among entity-owned parcels, with a standard deviation of \$1,690,555—significantly higher than all other ownership categories. This suggests that entity ownership includes both moderately valued parcels and a concentration of high-value properties.

Parcel Value Intensity (Value per Square Foot)

Figure 5 illustrates the average market value per square foot by ownership type.

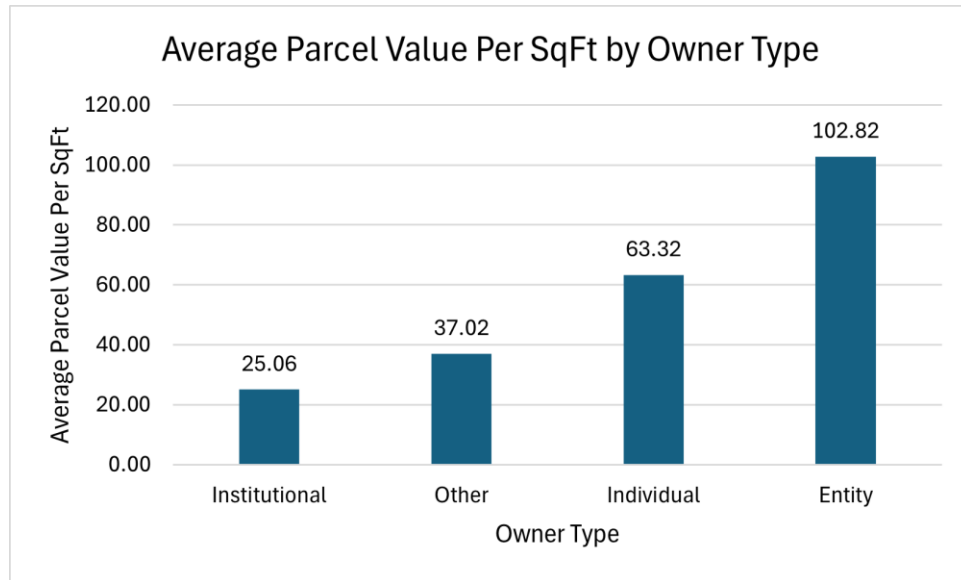


Figure 5: Average Parcel Value Per SqFt by Owner Type

Entity-owned parcels exhibit the highest average value per square foot (\$102.82), followed by individual (\$63.32), other (\$37.02), and institutional ownership (\$25.06). This pattern indicates that entity ownership is associated not only with greater total market value but also with more intensively valued land within the district.

Ownership Patterns by Year Built

Table 3 displays parcel counts by ownership type across year-built eras, while Figure 6 shows the share of each ownership type within those periods.

Parcel Count by Owner Type and Year Built Era						
Owner Type	Pre-1980	1980-1999	2000-2016	2017+	Unknown	Total
Entity	160	8	30	44	32	274
Individual	97	2	10	2	10	121
Institutional	14	1	9	4	81	109
Other	1	1	0	2	7	11
Total	272	12	49	52	130	515

Table 3: Parcel Count by Owner Type and Year Built Era

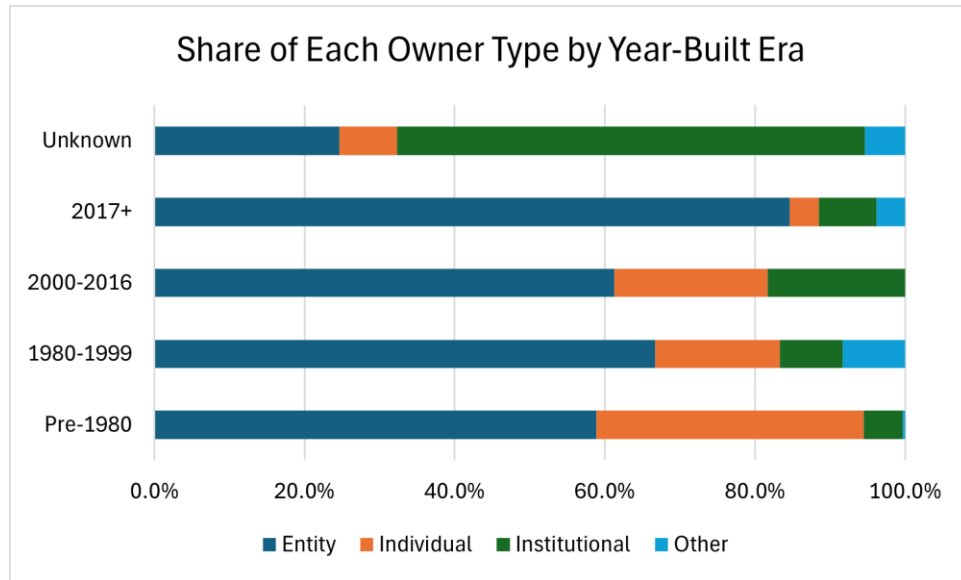


Figure 6: Share of Each Owner Type by Year-Built Era

Entity ownership dominates across all time periods, particularly among newer development. Of parcels built after 2017, 84.6% are entity-owned, compared to just 3.8% individually owned. In contrast, individually owned parcels are more concentrated in older development, accounting for 35.7% of pre-1980 parcels but only a small share of more recent construction. Institutional ownership is heavily concentrated in parcels with unknown construction dates (62.3%), while also maintaining a smaller presence across earlier development periods.

These patterns indicate that newer development within the district is overwhelmingly associated with entity ownership, while individual ownership is more common among older parcels.

Summary of Ownership Patterns

Across all measures, the results consistently indicate a concentration of market value among entity-owned parcels. Entities not only control the largest share of total market value relative to their parcel count, but are also associated with higher average values, greater

variability, and more intensive land use. Additionally, entity ownership is strongly associated with newer development within the district.

In contrast, individually owned and institutional parcels tend to be lower in value on average and are more commonly associated with older development. Together, these findings reinforce the pattern that market value within the district is not evenly distributed across ownership structures but is instead concentrated among entity-based ownership.

4.3.2 Owner Location

Image 23 illustrates the spatial distribution of parcel ownership locations within the Center City Form-Based Code District.

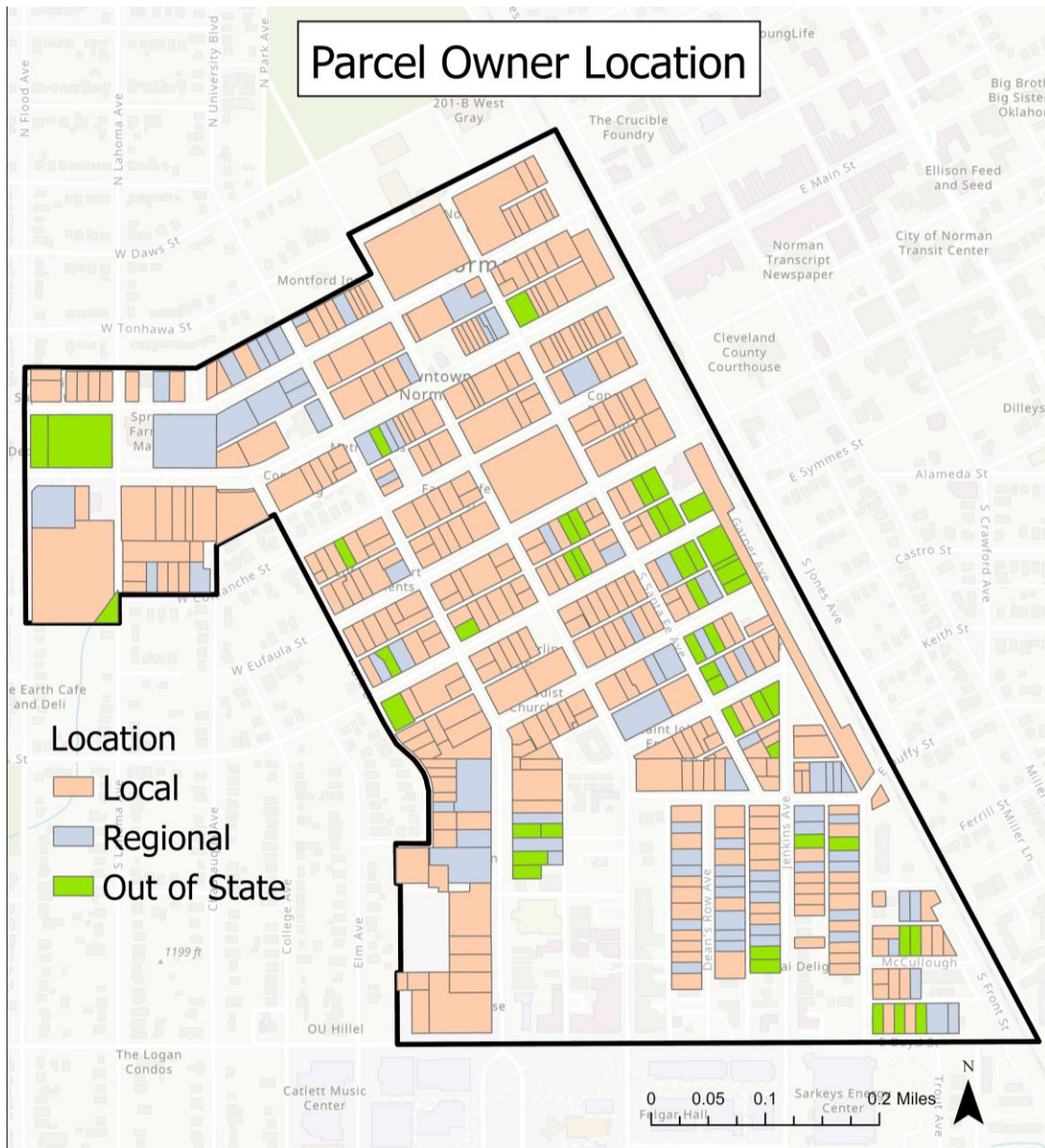


Image 23: Parcel Owner Location

Distribution of Parcels and Market Value by Owner Location

Figure 7 compares parcel share and total market value share by owner location within the Center City Form-Based Code District.

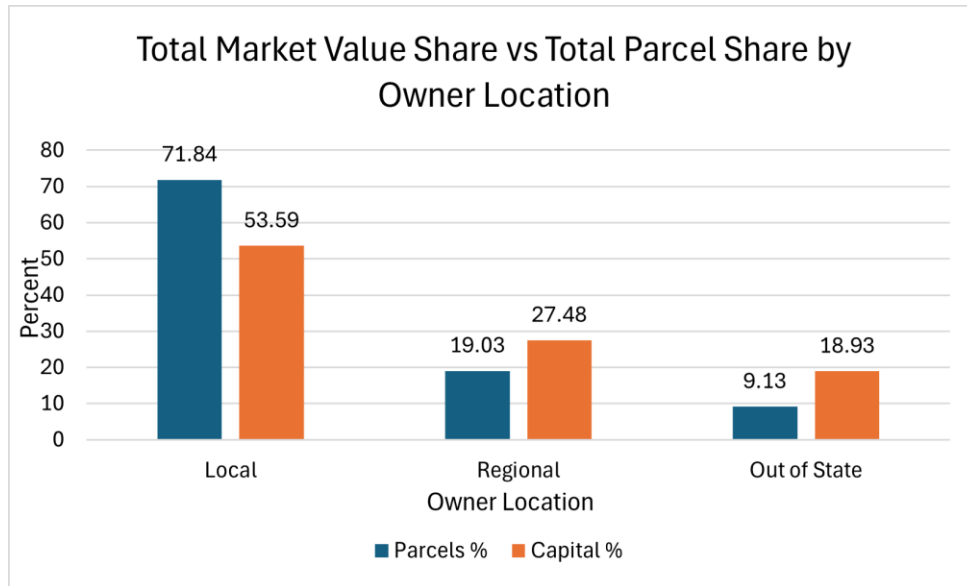


Figure 7: Total Market Value Share vs Total Parcel Share by Owner Location

Local ownership accounts for the majority of parcels (71.84%) but a smaller share of total market value (53.59%). In contrast, regional owners represent 19.03% of parcels and 27.48% of total market value, while out-of-state owners account for just 9.13% of parcels but 18.93% of total market value.

To further evaluate this relationship, Figure 8 presents the percentage-point difference between parcel share and market value share for each ownership location category.

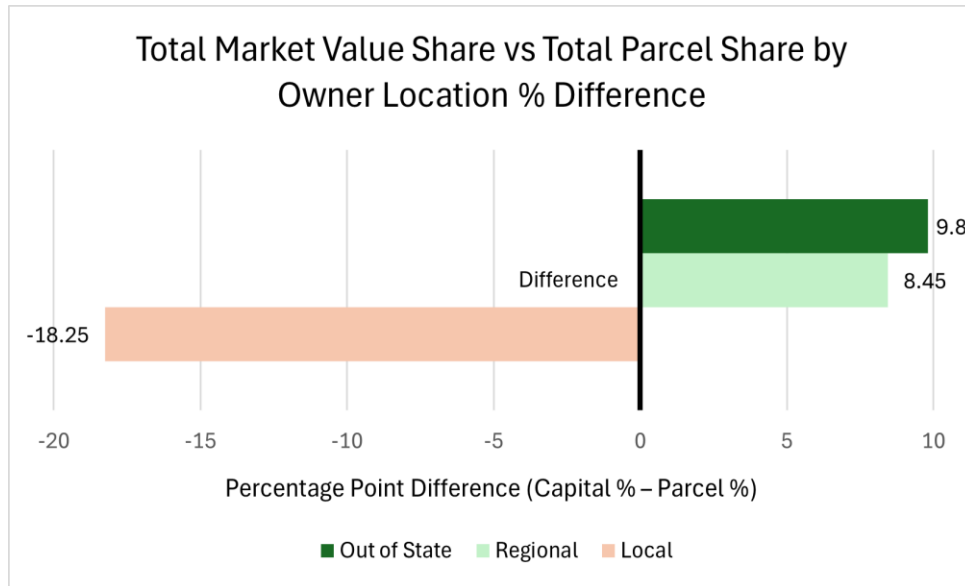


Figure 8: Total Market Value Share vs Total Parcel Share by Owner Location % Difference

Local ownership shows a negative difference of -18.25 percentage points, indicating that local owners control a smaller share of total market value relative to their share of parcels. In contrast, regional (+8.45) and out-of-state (+9.80) ownership exhibit positive differences, reflecting a greater concentration of market value relative to parcel count.

Descriptive Statistics of Market Value by Owner Location

Figure 9 presents descriptive statistics of parcel-level market values by owner location, including average, median, and standard deviation.

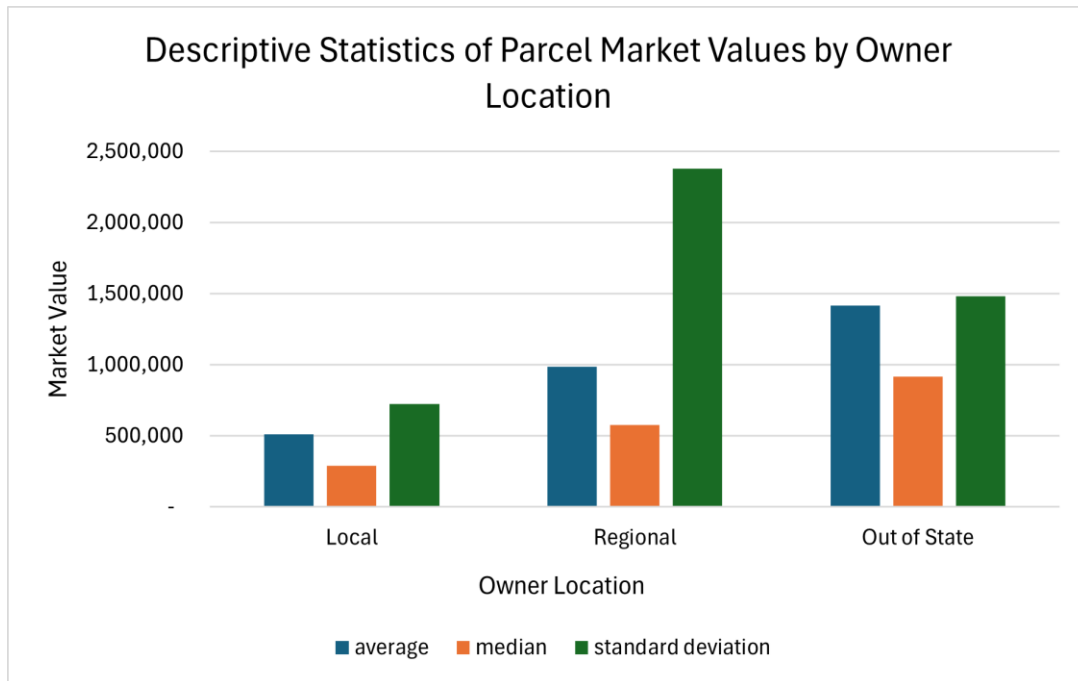


Figure 9: Descriptive Statistics of Parcel Market Values by Owner Location

Out-of-state ownership exhibits the highest average (\$1,416,187) and median (\$914,615) market values, followed by regional ownership (average \$985,821; median \$575,993). Local ownership shows substantially lower values, with an average of \$509,286 and a median of \$286,643.

Variation in property values is also greatest among regional ownership, with a standard deviation of \$2,376,770, followed by out-of-state ownership (\$1,479,317). Local ownership shows lower variability (\$723,118), indicating a more consistent distribution of lower-value parcels.

Parcel Value Intensity (Value per Square Foot)

Figure 10 illustrates average market value per square foot by owner location.

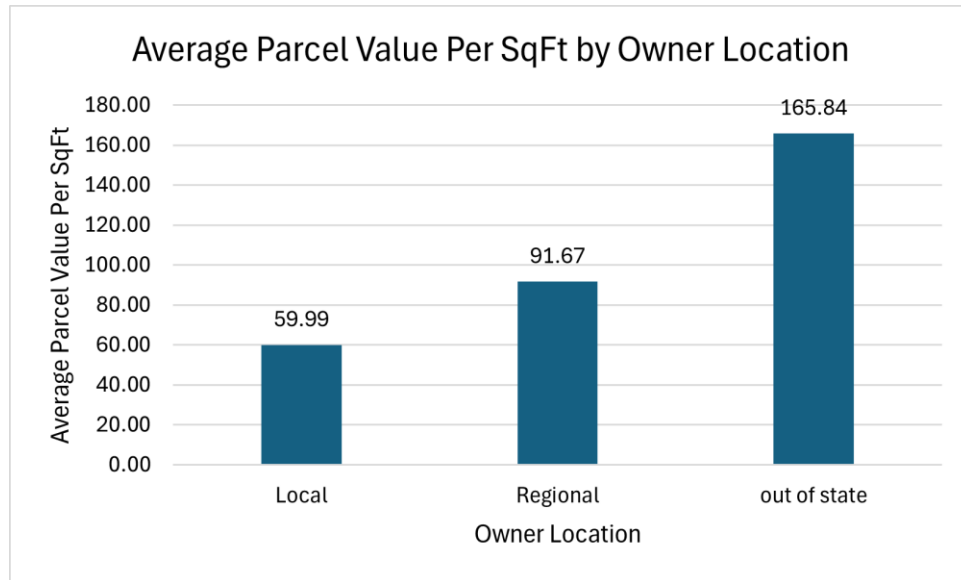


Figure 10: Average Parcel Value Per SqFt by Owner Location

Value intensity increases across ownership location categories, with out-of-state ownership exhibiting the highest average value per square foot (\$165.84), followed by regional (\$91.67) and local ownership (\$59.99). This pattern indicates that non-local ownership is associated not only with greater total market value, but also with more intensively valued land within the district.

Ownership Patterns by Year Built

Table 4 displays parcel counts by owner location across year-built eras, while Figure 11 shows the share of each ownership location group within those periods.

Parcel Count by Owner Location and Year Built Era						
Owner Location	Pre-1980	1980-1999	2000-2016	2017+	Unknown	Total
Local	202	2	34	20	112	370
Regional	50	10	12	12	14	98
Out of State	20	0	3	20	4	47
Total	272	12	49	52	130	515

Table 4: Parcel Count by Owner Location and Year Built Era

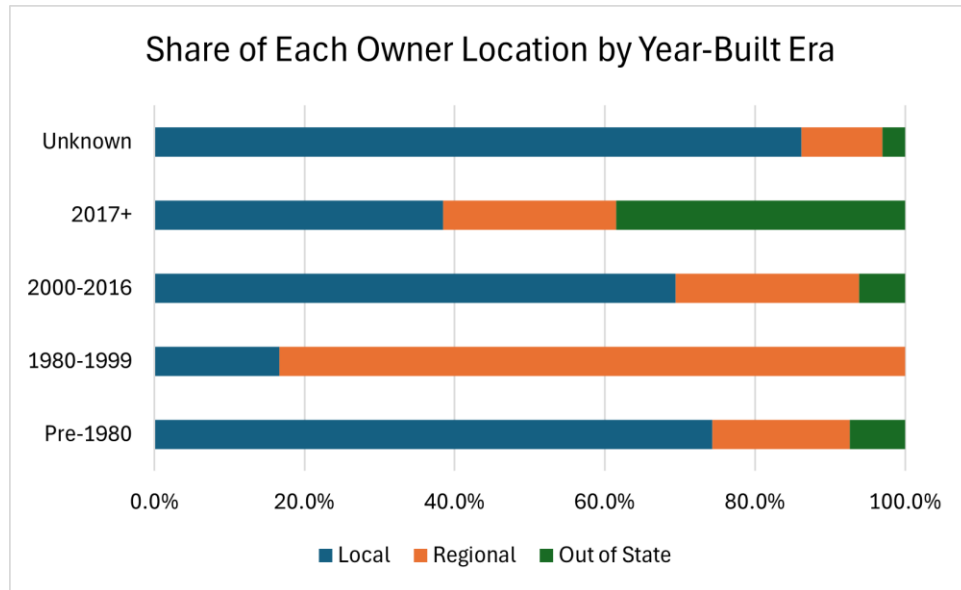


Figure 11: Share of Each Owner Location by Year-Built Era

Local ownership is heavily concentrated in older development, accounting for 74.3% of pre-1980 parcels and 69.4% of parcels built between 2000 and 2016. However, its share declines significantly in more recent development, representing only 38.5% of parcels built after 2017. In contrast, out-of-state ownership shows a strong presence in newer development, accounting for 38.5% of parcels built after 2017, compared to just 7.4% of pre-1980 parcels. Regional ownership remains relatively consistent across time periods but shows notable concentration in the 1980–1999 era (83.3%).

These patterns indicate that newer development within the district includes a substantially higher share of non-local ownership, particularly out-of-state investors, while local ownership is more strongly associated with older parcels.

Summary of Owner Location Patterns

Across all measures, the results indicate a clear pattern of value concentration among non-local ownership. Although local owners control the majority of parcels, they account for a

disproportionately smaller share of total market value and are associated with lower average values and lower value intensity.

In contrast, regional and out-of-state owners control a disproportionately larger share of total market value relative to their parcel count and are associated with higher-value and more intensively valued parcels. Additionally, non-local ownership is more prevalent in newer development within the district.

Together, these findings suggest that market value within the Center City Form-Based Code District is not evenly distributed across ownership locations, but is instead concentrated among non-local owners, particularly those located outside the state.

4.4 Integrated Results: Growth and Distribution of Property Value

The results of the longitudinal and cross-sectional analyses, when considered together, provide a more comprehensive understanding of economic outcomes within the Center City Form-Based Code District. The longitudinal analysis demonstrates that the district experienced substantial and accelerating growth in property tax revenue between 2008 and 2025, indicating a significant increase in overall property value. In contrast, the cross-sectional analysis reveals that this value is not evenly distributed across parcels or ownership structures.

Image 24 illustrates the spatial distribution of parcel market values throughout the district. Higher-value parcels are concentrated along major redevelopment corridors and mixed-use areas, while lower-value parcels are more common within older residential portions of the district. The map demonstrates that property value is spatially concentrated rather than evenly distributed across the study area.

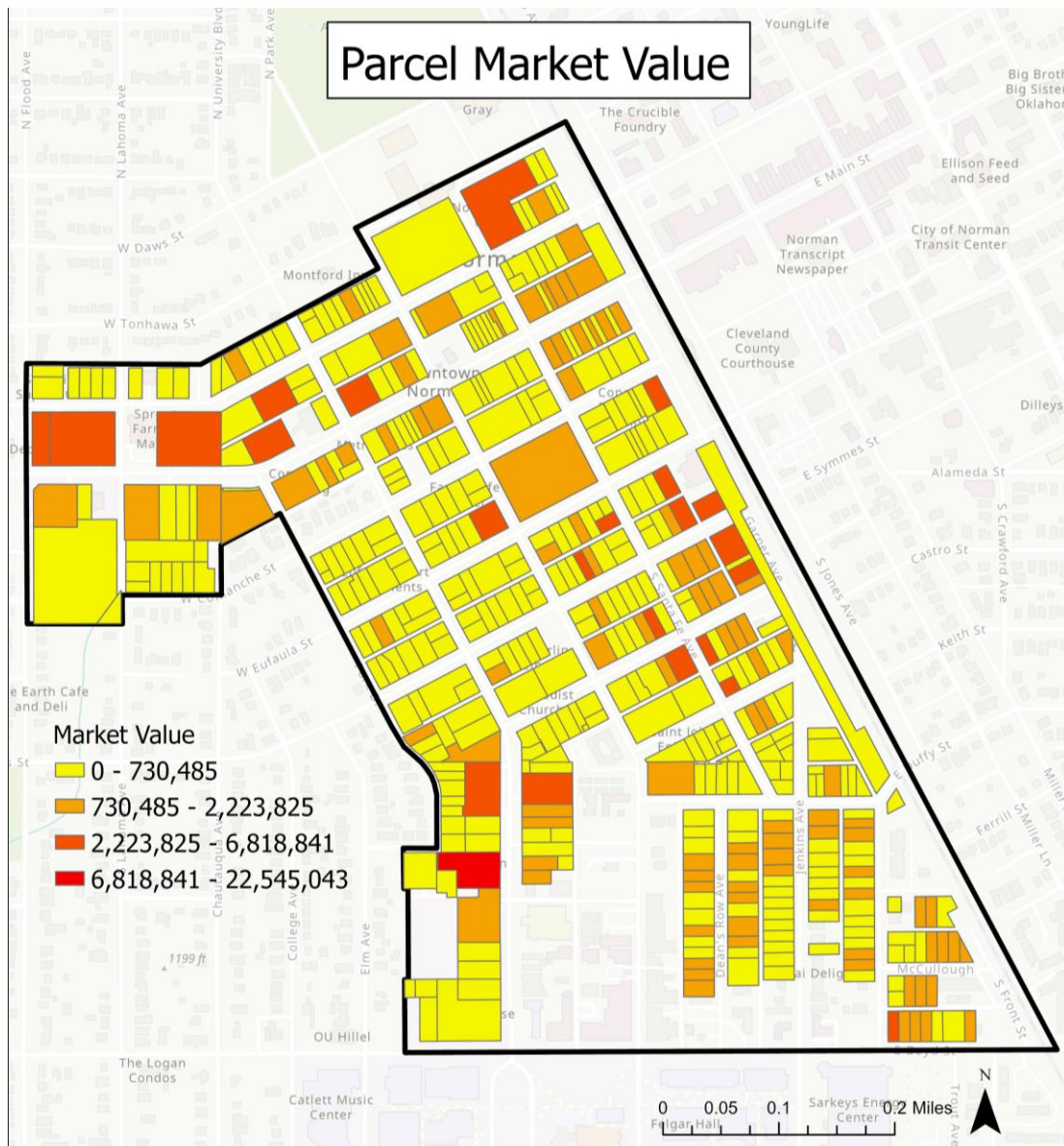


Image 24: Parcel Market Value Distribution

Image 25 displays the distribution of parcel market value per square foot, highlighting areas of greater value intensity. More intensively valued parcels are clustered within areas associated with recent redevelopment and higher-density development patterns, while lower value-per-square-foot parcels are generally associated with older and less intensive land uses. This pattern reinforces the uneven spatial concentration of economic value within the district.

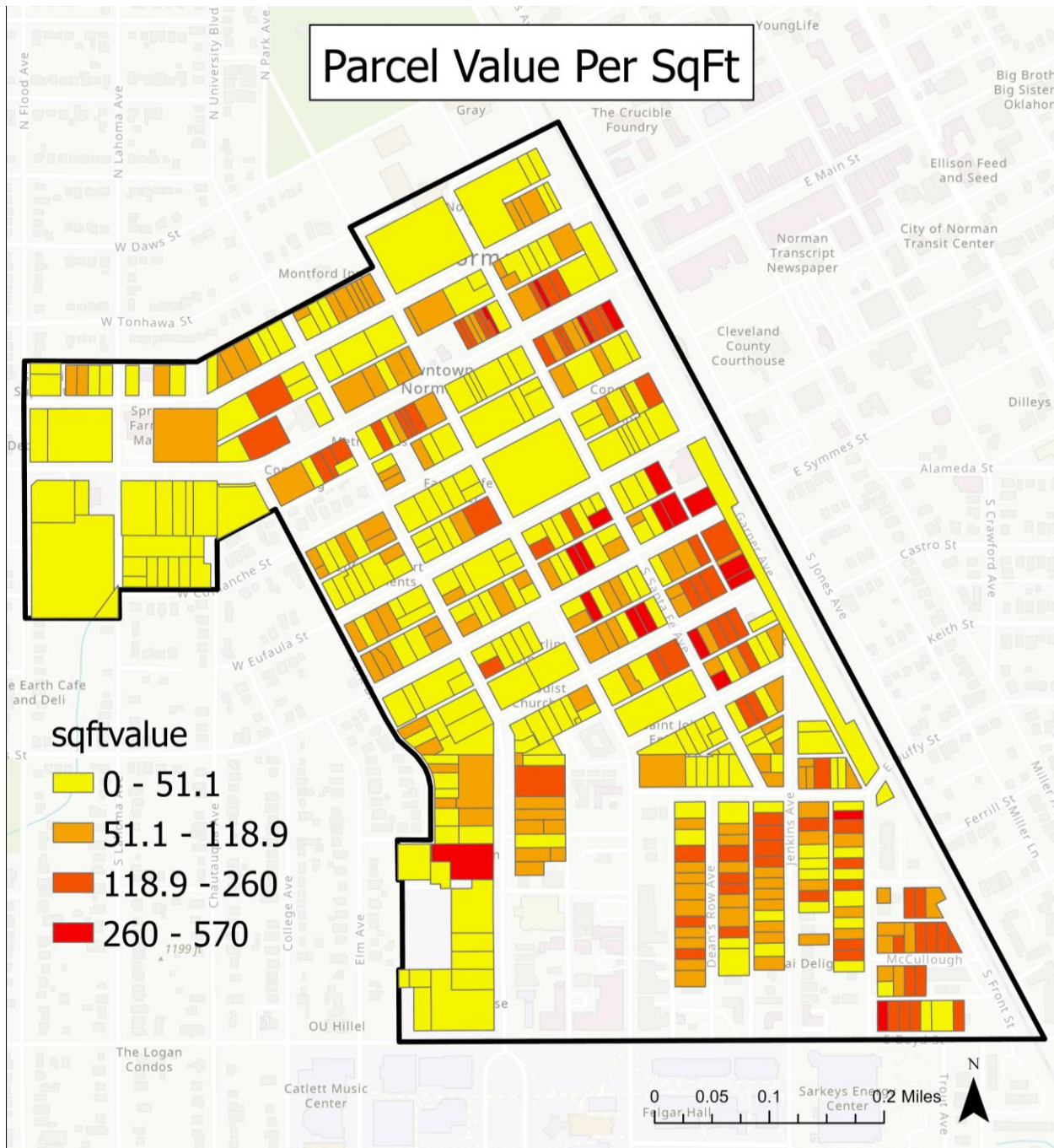


Image 25: Parcel Value Per SqFt Distribution

Image 26 illustrates the distribution of parcel year-built categories. Older development is widespread throughout much of the district, particularly within established residential areas, while newer development is concentrated within specific redevelopment corridors and infill

locations. The spatial clustering of newer construction corresponds closely with areas exhibiting higher market values and higher value intensity.

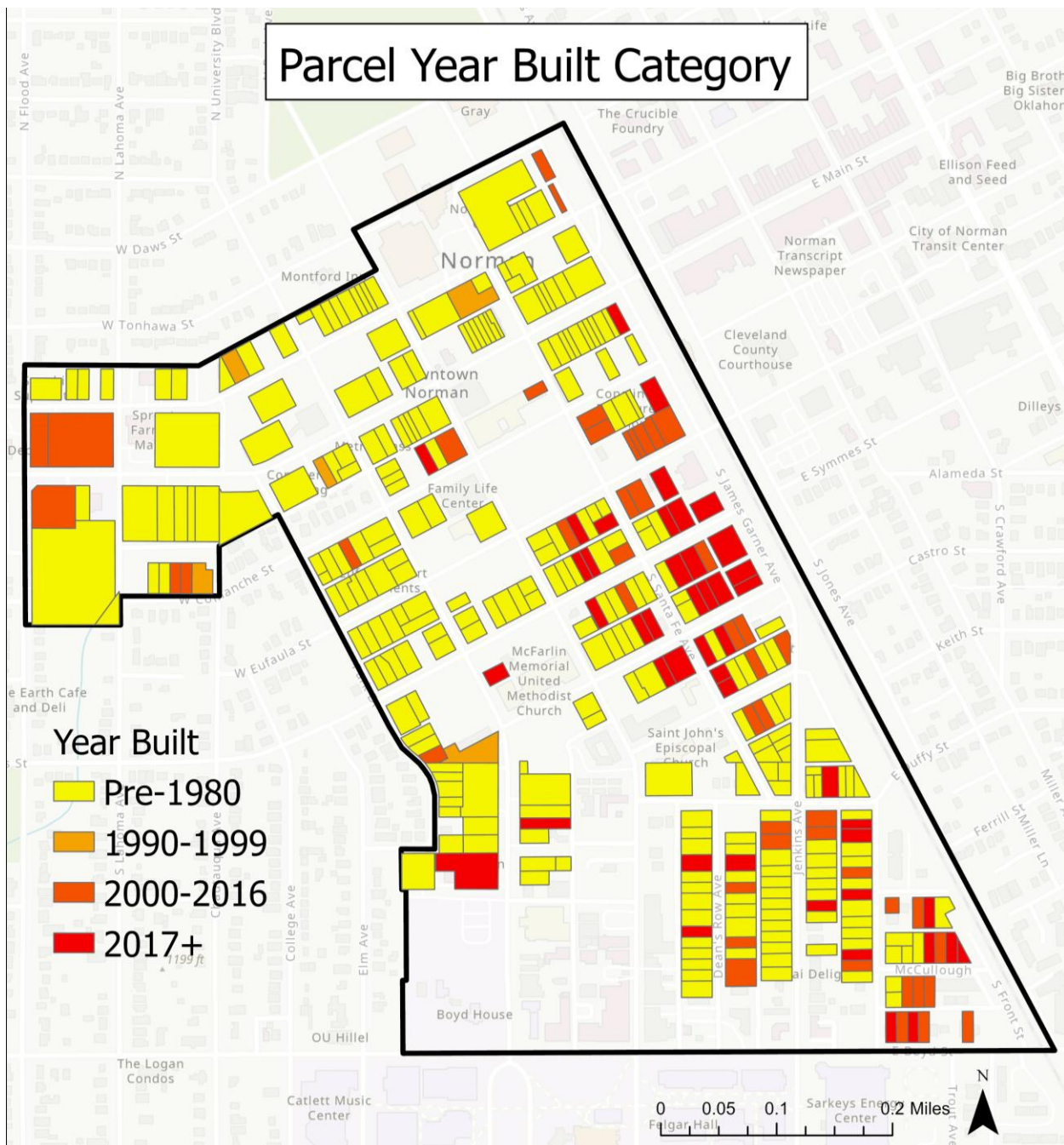


Image 26: Parcel Year Built Category Distribution

While total property tax revenue increased consistently over time, the distributional patterns observed in the 2026 dataset indicate that a disproportionate share of this value is

associated with entity ownership and non-local ownership. Entity-owned parcels account for a significantly larger share of total market value relative to their parcel count, and similar patterns are observed among regional and out-of-state owners. In contrast, locally owned and individually owned parcels, while more numerous, represent a smaller share of total market value.

Additional measures reinforce this pattern. Descriptive statistics show that entity-owned and non-local parcels have higher average and median market values, as well as greater variability, indicating the presence of higher-value properties within these ownership categories. Measures of value intensity further support this finding, with entity and non-local ownership associated with higher average market value per square foot.

Patterns of development provide further context for these findings. Analysis of parcels by year built shows that newer development within the district is disproportionately associated with entity and non-local ownership, while locally owned and individually owned parcels are more commonly associated with older development. This suggests that recent development activity corresponds with ownership structures that are also associated with higher-value properties.

Taken together, these results indicate that while the district has experienced significant growth in overall property value, that growth is concentrated among a subset of ownership groups, particularly entity-based and non-local owners. This integrated perspective highlights the distinction between the magnitude of economic growth and the distribution of that growth across parcels and ownership structures, providing a foundation for further interpretation in the following chapter.

CHAPTER 5: DISCUSSION

5.1 Interpreting Ownership and Value Concentration

The results of this study reveal a clear concentration of market value within the Norman Center City Form-Based Code District, occurring alongside substantial overall growth in property value over time. The longitudinal analysis demonstrates that the district experienced significant and accelerating increases in property tax revenue between 2008 and 2025, reflecting a strong expansion of the local tax base.

When considered in conjunction with the cross-sectional findings, this growth is not evenly distributed across ownership structures. While individual and local ownership account for the majority of parcels, they represent a disproportionately smaller share of total market value. In contrast, entity-based and non-local ownership, particularly regional and out-of-state investors, control a substantially larger share of total capital relative to their presence in the parcel base. Additional measures reinforce this pattern. Entity-owned and non-local parcels exhibit higher average and median values, greater variability, and higher value intensity. This indicates a concentration of more valuable and more intensively utilized properties within these ownership categories.

Taken together, these findings demonstrate that economic growth within the district is not only occurring but is being captured disproportionately by a specific set of ownership groups.

5.2 Form-Based Codes and Market Outcomes

The literature reviewed in Chapter 2 positions form-based codes as a regulatory approach designed to produce predictable development outcomes and reduce uncertainty in the development process. These characteristics are widely understood to support economic development by lowering risk and improving investment conditions.

The findings of this study provide partial support for this framework. The longitudinal analysis demonstrates that the Center City district experienced substantial and accelerating growth in property value over time, indicating that the area has become an increasingly valuable environment for investment. This pattern is consistent with the argument that a more predictable regulatory framework can facilitate development activity and attract capital.

However, the cross-sectional results show that the ability to capitalize on these conditions is not evenly distributed across ownership groups. Higher-value parcels are disproportionately associated with entity-based and non-local ownership, indicating that these actors are better positioned to respond to and benefit from the conditions present within the district. With greater access to capital, development experience, and the ability to operate at scale, these ownership groups are more capable of translating regulatory predictability into higher-value outcomes.

This distinction is critical. While form-based codes contribute to an environment that supports growth, the benefits of that growth are mediated by the characteristics of those investing within the district. Rather than producing uniformly positive outcomes for all property owners, the regulatory structure interacts with existing differences in financial and organizational capacity, resulting in uneven economic outcomes.

In this context, form-based codes function not only as design-oriented regulatory tools, but also as mechanisms that shape the type, scale, and origin of capital entering a district. The results indicate that regulatory predictability is particularly advantageous to larger and more capitalized actors, raising important questions about how planning tools influence both development outcomes and the distribution of economic value.

5.3 Absentee Capital and Local Ownership Dynamics

The observed concentration of market value among non-local owners aligns with broader discussions of absentee capital. Absentee capital refers to investment in land and property by owners who do not reside within the local community, often resulting in a separation between ownership and place-based interests.

Within the Center City district, non-local owners control a disproportionately large share of total market value and are more frequently associated with higher-value and more intensively valued parcels. When considered alongside the longitudinal findings, this pattern becomes more significant. The district has experienced substantial growth in property value over time, yet a notable share of this value is concentrated among investors located outside the local community.

This pattern indicates that investment activity within the district is not only increasing but is increasingly driven by external capital. Non-local ownership is also strongly associated with newer development, suggesting that recent growth and redevelopment activity is closely tied to investors whose primary relationship to the area is financial rather than place-based.

While absentee investment contributes to rising property values and increased development activity, it also reshapes the economic structure of the district by shifting ownership toward external actors. This dynamic influences how economic benefits are distributed and may limit the extent to which local residents and property owners participate in or capture the gains associated with redevelopment.

These findings highlight a central tension in urban economic development. The same conditions that attract capital and stimulate growth also facilitate a transition toward ownership structures that are less locally rooted. As a result, the relationship between investment, ownership, and community outcomes becomes a critical consideration in evaluating the broader impacts of redevelopment strategies.

5.4 Implications for Economic Development

The results of this study complicate the framing of form-based codes as a straightforward tool for economic development. While the longitudinal analysis shows that the Center City district has experienced substantial and accelerating growth in property value over time, the cross-sectional findings demonstrate that these gains are not evenly distributed across ownership groups.

Rather than being broadly shared, increases in market value are concentrated among entity-based and non-local ownership. These groups are more strongly associated with higher-value parcels, greater value intensity, and newer development. This indicates that economic development within the district is not solely a function of whether value increases, but also of who is positioned to capture that growth.

For planners and policymakers, these findings highlight the importance of distinguishing between growth-oriented outcomes and distributional outcomes. Regulatory approaches such as form-based codes can create conditions that attract investment and support redevelopment. However, without complementary strategies, they can also contribute to the concentration of economic value among a narrower set of actors.

This distinction suggests that land use regulation alone is insufficient to ensure broadly shared economic benefits. Additional tools, including policies that support local ownership, incentives for small-scale or incremental development, and mechanisms that encourage a diversity of ownership structures, may be necessary to more evenly distribute the benefits of growth.

At the same time, these findings do not suggest that the attraction of external capital is inherently negative. Non-local and entity-based investment plays a critical role in financing

development and increasing overall economic activity. However, the concentration of value among these groups raises important questions about the long-term balance between investment, local participation, and community outcomes.

Taken together, the results indicate that form-based codes can be effective in facilitating economic growth, but their broader implications depend on how that growth is distributed. As a result, planners should consider not only how regulatory frameworks shape development outcomes, but also how they interact with patterns of ownership and investment within a given district.

5.5 Limitations and Directions for Future Research

This study is subject to several limitations. While the analysis incorporates longitudinal property tax data to evaluate changes in property value over time, it relies on property tax revenue as a proxy for market value rather than direct longitudinal market value measurements at the parcel level. As a result, the analysis captures broad trends in value growth but does not reflect precise changes in assessed market value for individual parcels.

In addition, this study does not establish causal relationships between the adoption of the form-based code and observed economic outcomes. The Center City district operates within a broader context shaped by proximity to the University of Oklahoma, regional growth patterns, and local market dynamics. These factors likely contribute to increases in property value independent of regulatory changes.

The classification of ownership also presents limitations. While ownership categories provide insight into investment patterns, they do not fully capture the complexity of ownership structures, financing arrangements, or development partnerships. Classifications are based on

observable naming conventions and institutional identifiers, which may not reflect underlying financial relationships or the full extent of capital involvement in individual properties.

The cross-sectional component of the analysis represents a single point in time and does not capture changes in ownership patterns or value distribution over time. While the study identifies clear associations between ownership and value, it cannot determine how these relationships have evolved throughout the study period.

Future research should build on this analysis by incorporating longitudinal parcel-level market value data to more directly assess changes in property value over time. Comparative studies across multiple form-based code districts would improve the generalizability of these findings. Further research examining the relationship between ownership structure, development intensity, and housing affordability would provide a more comprehensive understanding of the broader implications of form-based regulation.

CHAPTER 6: CONCLUSION

This study examined the economic effects of form-based codes at the parcel level by analyzing both changes in property value over time and the distribution of that value across ownership structures within Norman’s Center City Form-Based Code District. By integrating a longitudinal analysis of property tax data (2008–2025) with a cross-sectional analysis of parcel-level market values and ownership characteristics (2026), this research provides a more comprehensive understanding of how economic value is both generated and distributed within a form-based regulatory environment.

The findings demonstrate that the district experienced substantial and accelerating growth in property value over time, as reflected in rising property tax revenues. This growth indicates a significant expansion of the district’s tax base and suggests that the area has become an increasingly attractive environment for investment and development.

However, this growth is not evenly distributed. The cross-sectional analysis reveals that market value is concentrated among entity-based and non-local ownership, with these groups controlling a disproportionately large share of total market value relative to their parcel count. Higher value and more intensively valued parcels, as well as a significant share of newer development, are more frequently associated with these ownership groups. In contrast, locally owned and individually owned parcels, while more numerous, are associated with lower average values and a smaller share of total capital.

Importantly, this study does not establish a causal relationship between the adoption of the form-based code and the observed economic outcomes. The Center City district operates within a broader context shaped by proximity to the University of Oklahoma, regional growth trends, and strong market demand. However, the results suggest that the regulatory clarity and

predictability associated with form-based codes may interact with these conditions to facilitate capital investment, particularly from larger and non-local actors.

These findings expand the understanding of zoning as more than a tool for shaping physical form, highlighting its role in influencing patterns of investment, ownership, and access to economic opportunity. In this way, the effects of form-based codes extend beyond design outcomes to shape the economic relationships that structure development within a district.

For planning practice, this research underscores the importance of distinguishing between economic growth and the distribution of that growth. While form-based codes may successfully attract investment and support redevelopment, the benefits of that growth may be concentrated among a narrower set of actors. As cities continue to adopt form-based codes to promote walkability, density, and urban revitalization, equal attention should be given to how these policies influence patterns of ownership, investment, and long-term community outcomes.

Future research should build on these findings by incorporating longitudinal parcel-level market value data, allowing for a more direct analysis of value change at the individual parcel level. Comparative studies across multiple form-based code districts and conventionally zoned areas would further strengthen the generalizability of these results. Additionally, exploring the relationship between ownership patterns, development intensity, and housing affordability would provide a more comprehensive understanding of the broader implications of form-based regulation.

In conclusion, this study demonstrates that the economic effects of form-based codes are reflected not only in the creation of value, but in how that value is distributed across ownership structures over time. Understanding this distinction is essential for planners and policymakers seeking to balance the goals of economic development and equitable growth.

REFERENCES

- Burke, M. (2017, May 24). 'Watershed moment': Council approves center city Form-Based Code. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/16496AD3EDA783E8>.
- Burke, M. (2019, January 29). City hits 'reset button' on center city form-based code. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/1714C80E7B7A7890>.
- Cities Today. (2018, March 15). *Urban sprawl triples public service costs, says OECD*. <https://cities-today.com/urban-sprawl-triples-public-service-costs-says-oecd>
- City of Norman. (2023). *Center City form-based code*. https://www.normanok.gov/sites/default/files/documents/202405/1_CCFBC_Aug_2023_Clean_9_13_23.pdf
- City of Norman Open Data. (n.d.). *City of Norman Open Data*. ArcGIS Hub. Retrieved May 7, 2026, from <https://data-normanok.opendata.arcgis.com/> (data-normanok.opendata.arcgis.com)
- Dover, Kohl & Partners. (2007). *Montgomery report*. https://www.doverkohl.info/reports/montgomery_report.pdf
- Elkins | Transcript Staff Writer, J. (2022, January 9). Pattern zoning could help navigate center city Form-Based Code, council, developers say. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/18770DF493293278..>

- Elkins | Transcript Staff Writer, J. (2022, June 16). Council approves updates to center city form-based code. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/18AB1960906B9D00>.
- Form-Based Codes Institute. (2022). *Form-based codes: A standard of practice* (Version 2.1). <https://formbasedcodes.org/wp-content/uploads/2022/02/FBCI-SoP-Documents-Feb-2022-FINAL.pdf>
- Google Earth. (2026). *Aerial view of Norman, Oklahoma* [Map]. Google. <https://earth.google.com>
- Hampton, J. (2012, December 18). High density zoning district currently under consideration. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/1434746916C5F8A8>.
- Hampton, J. (2012, June 9). Creating a vision for Norman's future. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/13F4D5A246C02E10>.
- Hampton, J. (2012, May 2). Planning for high density. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/13E84DFF43817218>.
- Hampton, J. (2013, April 23). High-density ordinance reconfigured. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/13E84DFF43817218>.

com.ezproxy.lib.ou.edu/apps/news/document-
view?p=NewsBank&docref=news/145D9572268DCBF8.

Hampton, J. (2014, February 12). Council members unanimously approve contract for center city study. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/14BED4055DF6DE30>.

Hampton, J. (2014, February 20). Center City Vision steering committee considering new zoning code style. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb-newsbank-com.ezproxy.lib.ou.edu/apps/news/document-view?p=NewsBank&docref=news/14C17193EC91A330>.

Hampton, J. (2014, May 13). Residents come together to create new vision of Norman. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/14DC7727F4AD88E0>.

Hampton, J. (2015, December 6). Rough draft of form-based code is moving through process. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/15991A82EE9C4810>.

Hampton, J. (2017, January 8). 'Cash Cow' rental explosion spurs moratorium. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/161D9E01830CD2A0>.

- Howard, J. M. (2018). Form-Based Codes and economic impacts: A multivariate regression analysis and case study (Order No. 30512338). Available from ProQuest Dissertations & Theses Global. (2838439444). Retrieved from <https://login.ezproxy.lib.ou.edu/login?url=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fform-based-codes-economic-impacts-multivariate%2Fdocview%2F2838439444%2Fse-2%3Faccountid%3D12964>
- Huntington, W. Va. Planning Commission. (2011). *Form-based codes* [PowerPoint slides]. SlideShare. <https://www.slideshare.net/slideshow/form-based-codes-huntington/6897985#7>
- Kayden, J. S. (2004). Reconsidering zoning: Expanding an American land-use frontier. *Zoning practice*, 1, 2-13.
- Kim, C. J. U. (2018). New Regulations for Promoting Good City Form? Insights from the Process and Product of Form-Based Code Adoption (Doctoral dissertation, University of California, Irvine).
- Lee Transcript Staff Writer, S. (2016, January 10). Business leaders, residents weight in on Center City. *Norman Transcript, The (OK)*. Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/15A4A767D102D008>.
- Oklahoma County Planning Commission. (2008). *Oklahoma County zoning regulations*. Oklahoma County. https://www.oklahomacounty.org/Portals/0/OklahomaCountyZoningRegulations_1.pdf
- Parolek, D. G., Parolek, K., & Crawford, P. C. (2008). *Form-Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Developers*. John Wiley & Sons.

- Pierce For The Transcript, M. (2017, January 19). Developers respond to city's building moratorium. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/16203A58E5C65960>.
- Qurnfulah, E. M., & Isah, A. D. (2019). Identifying the constraints of traditional zoning regulation: form-based codes as alternatives to urban communities. *Current Urban Studies*, 7(04), 539.
- Rangwala, K. (2012). Form-based codes. *Economic Development Journal*, 11(3), 35–40.
- Slinkard, C. (2019, February 24). LETTERS TO THE EDITOR: Feb. 24, 2019. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/171CAA6985633620>.
- Smart Growth America., & Form-Based Codes Institute. (2021). *ZONED IN Economic Benefits & Shared Prosperity with Form-Based Codes* <https://www.smartgrowthamerica.org/knowledge-hub/resources/what-is-a-form-based-code/>
- Standlee | Transcript Staff Writer, K. (2019, July 25). Center city amendments pass City Council. Norman Transcript, The (OK). Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/174EC5C64D2061D0..>
- Talen, E. (2009). Design by the rules: The historical underpinnings of form-based codes. *Journal of the American Planning Association*, 75(2), 144-160.

- Talen, E. (2013). Zoning For and Against Sprawl: The Case for Form-Based Codes. *Journal of Urban Design*, 18(2), 175–200. <https://doi-org.ezproxy.lib.ou.edu/10.1080/13574809.2013.772883>
- Talen, E. (2021). The socio-economic context of form-based codes. *Landscape and Urban Planning*, 214, 104182. <https://doi.org/10.1016/j.landurbplan.2021.104182>
- TroxteLL | Transcript Staff Writer, A. (2017, August 30). Council wants Center City TIF by end of year. *Norman Transcript, The (OK)*. Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/166A0A5FBA3C1C90>.
- TroxteLL | Transcript Staff Writer, A. (2017, March 8). Council hears Center City Vision concerns. *Norman Transcript, The (OK)*. Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/16305051269BD9A0>.
- TroxteLL Transcript Staff Writer, A. (2017, April 8). Planning Commission recommends modified Center City approval. *Norman Transcript, The (OK)*. Available from NewsBank: America's News: <https://infoweb.newsbank.com/apps/news/document-view?p=NewsBank&docref=news/163A5017892DB758>.
- Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926). <https://tile.loc.gov/storage-services/service/ll/usrep/usrep272/usrep272365/usrep272365.pdf>
- Woodward, K. A. (2012). Form over Use: Form-Based Codes and the Challenge of Existing Development. *Notre Dame Law Review*, 88, 2627

APPENDICES

APPENDIX A: CROSS-SECTIONAL PARCEL DATA (2026)

Account #	Owner Type	Market Value	sqftvalue	Owner Category	Use Code	Year Built
33227	Entity	\$22,545,043	562.6	Regional	Urban Commercial Land	2017+
45575	Entity	\$8,973,849	273.6	Local	Urban Reside	2017+
194001	Entity	\$6,818,841	570.0	Out of State	Urban Reside	2017+
24520	Entity	\$5,548,980	122.5	Regional	Urban Commercial Land	Pre-1980
37687	Entity	\$5,069,553	260.0	Out of State	Rural Commercial Land	2017+
37783	Entity	\$4,880,690	350.1	Out of State	Urban Reside	2017+
23107	Entity	\$4,621,345	55.3	Regional	Rural Commercial Land	Pre-1980
37977	Individual	\$4,012,652	122.8	Local	Urban Commercial Land	Pre-1980
37728	Entity	\$3,718,900	133.4	Regional	Urban Reside	2017+
25535	Entity	\$3,500,000	38.0	Out of State	Urban Commercial Land	2000-2016
40985	Entity	\$3,301,523	85.2	Regional	Urban Commercial Land	Pre-1980
37676	Entity	\$3,298,729	338.3	Out of State	Urban Commercial Land	2017+
37784	Institutional	\$3,247,543	177.5	Local	Religious Exempt	Pre-1980
37775	Entity	\$3,013,124	288.2	Out of State	Urban Reside	2017+
37748	Entity	\$2,939,944	562.4	Out of State	Urban Reside	2017+
37695	Entity	\$2,860,154	544.8	Out of State	Urban Reside	2017+
45585	Entity	\$2,835,022	406.8	Out of State	Urban Reside	2017+
24521	Institutional	\$2,773,300	141.5	Local	Urban Commercial Land	Pre-1980
45557	Entity	\$2,749,492	55.6	Local	Urban Commercial Land	2000-2016
24350	Entity	\$2,676,165	38.4	Local	Urban Commercial Land	Pre-1980
37759	Entity	\$2,639,166	275.4	Local	Urban Reside	2017+
24397	Institutional	\$2,602,688	249.1	Local	Exempt County	2017+
37696	Entity	\$2,587,386	371.2	Out of State	Urban Reside	2017+
187968	Entity	\$2,546,062	142.6	Local	Urban Reside	2017+
24486	Entity	\$2,406,904	110.9	Local	Urban Commercial Land	Pre-1980
37730	Entity	\$2,389,564	342.9	Local	Urban Reside	2017+

24384	Entity	\$2,223,825	319.1	Local	Urban Commercial Land	2017+
189620	Entity	\$2,208,163	210.3	Local	Urban Commercial Land	2017+
37731	Entity	\$2,172,539	311.7	Regional	Urban Reside	2017+
24510	Entity	\$2,152,478	87.9	Local	Urban Commercial Land	Pre-1980
37677	Entity	\$2,121,621	347.9	Out of State	Urban Commercial Land	2017+
37678	Entity	\$2,106,528	201.5	Regional	Urban Reside	2017+
37738	Institutional	\$2,085,691	299.3	Local	Urban Reside	2017+
37747	Entity	\$2,084,006	368.0	Out of State	Urban Reside	2017+
37776	Entity	\$2,077,573	298.1	Out of State	Urban Reside	2017+
24436	Entity	\$2,024,654	83.0	Local	Urban Commercial Land	Pre-1980
25534	Entity	\$1,883,149	59.2	Regional	Urban Commercial Land	Pre-1980
45598	Entity	\$1,861,761	328.8	Regional	Urban Reside	2017+
38058	Entity	\$1,861,305	60.5	Local	Religious Exempt	Pre-1980
37813	Institutional	\$1,817,136	259.6	Local	Religious Exempt	2017+
45587	Entity	\$1,764,238	253.1	Out of State	Urban Reside	2017+
45613	Institutional	\$1,672,533	240.0	Local	Rural Residential Land	2017+
37727	Entity	\$1,623,635	233.0	Regional	Urban Reside	2017+
37983	Other	\$1,569,948	150.2	Regional	Urban Reside	2017+
37756	Entity	\$1,525,683	218.9	Out of State	Urban Reside	2017+
38045	Entity	\$1,474,672	211.6	Regional	Urban Reside	2000-2016
37698	Entity	\$1,438,752	206.4	Out of State	Urban Reside	2017+
37679	Entity	\$1,422,493	204.1	Out of State	Urban Reside	2017+
158615	Individual	\$1,390,692	35.9	Regional	Urban Commercial Land	2000-2016
38047	Entity	\$1,356,968	129.8	Local	Urban Reside	2017+
24374	Entity	\$1,333,568	191.3	Local	Urban Commercial Land	Pre-1980
160928	Entity	\$1,317,826	39.5	Local	Urban Commercial Land	1980-1999
24359	Entity	\$1,313,789	94.3	Out of State	Urban Commercial Land	Pre-1980
168434	Entity	\$1,286,136	158.4	Local	Urban Reside	2000-2016
45642	Entity	\$1,281,243	122.6	Regional	Urban Reside	2017+
24504	Entity	\$1,269,295	91.1	Local	Urban Commercial Land	Pre-1980
37710	Entity	\$1,265,637	207.5	Local	Urban Reside	2000-2016

37709	Entity	\$1,255,570	205.9	Local	Urban Reside	2000-2016
45573	Entity	\$1,253,470	169.3	Local	Urban Reside	2017+
24382	Entity	\$1,252,635	179.7	Local	Urban Commercial Land	Pre-1980
37976	Entity	\$1,236,393	94.6	Local	Urban Reside	Pre-1980
37975	Entity	\$1,224,079	108.1	Regional	Urban Reside	2017+
23128	Individual	\$1,223,106	25.5	Local	Rural Commercial Land	Pre-1980
45609	Entity	\$1,201,333	172.4	Local	Urban Reside	2017+
168435	Entity	\$1,192,530	127.2	Local	Urban Reside	2000-2016
37685	Entity	\$1,186,512	113.5	Out of State	Urban Reside	2017+
37863	Entity	\$1,186,431	27.0	Local	Urban Commercial Land	Pre-1980
24508	Entity	\$1,181,790	169.6	Local	Urban Commercial Land	1980-1999
45588	Individual	\$1,175,745	168.7	Local	Urban Reside	2000-2016
37680	Entity	\$1,175,535	168.7	Local	Urban Reside	2017+
37686	Entity	\$1,174,033	168.5	Out of State	Urban Reside	2000-2016
45625	Entity	\$1,169,844	167.8	Local	Urban Reside	2017+
45572	Entity	\$1,168,493	167.7	Local	Urban Reside	2000-2016
37691	Entity	\$1,163,015	166.9	Regional	Urban Reside	2000-2016
45599	Entity	\$1,159,512	166.4	Local	Urban Reside	2017+
45592	Entity	\$1,151,849	165.3	Regional	Urban Reside	2000-2016
37684	Entity	\$1,151,233	110.1	Regional	Urban Reside	2017+
45574	Entity	\$1,149,320	235.6	Local	Urban Reside	2017+
24373	Entity	\$1,144,872	109.5	Local	Urban Commercial Land	Pre-1980
45580	Entity	\$1,143,563	164.1	Regional	Urban Reside	2000-2016
37700	Entity	\$1,141,841	163.8	Local	Urban Reside	2000-2016
45586	Individual	\$1,141,082	163.7	Local	Urban Reside	2000-2016
37699	Entity	\$1,140,890	163.7	Local	Urban Reside	2000-2016
33201	Individual	\$1,136,492	26.4	Local	Urban Commercial Land	
38037	Entity	\$1,115,148	160.0	Regional	Urban Reside	Pre-1980
45571	Individual	\$1,101,514	158.0	Out of State	Urban Reside	2017+

38044	Entity	\$1,087,394	156.0	Regional	Urban Reside	Pre-1980
38041	Entity	\$1,081,283	155.1	Regional	Urban Reside	2000-2016
37753	Institutional	\$1,055,677	151.5	Local	Urban Reside	Pre-1980
24357	Individual	\$1,054,866	302.7	Local	Urban Commercial Land	Pre-1980
45604	Entity	\$1,051,808	150.9	Local	Urban Reside	2017+
45631	Entity	\$1,051,062	125.1	Regional	Urban Reside	2000-2016
37988	Entity	\$1,044,951	149.9	Regional	Urban Reside	2017+
45632	Entity	\$1,044,606	114.8	Regional	Urban Reside	2000-2016
24356	Entity	\$1,037,174	148.8	Local	Urban Commercial Land	Pre-1980
157391	Entity	\$1,035,660	8.6	Local	Religious Exempt	
45563	Entity	\$1,023,526	146.9	Regional	Urban Reside	2000-2016
45562	Individual	\$975,710	140.0	Regional	Urban Reside	2017+
24483	Institutional	\$965,760	92.4	Local	Urban Commercial Land	Pre-1980
37971	Individual	\$961,923	96.0	Out of State	Urban Reside	Pre-1980
23124	Entity	\$956,143	28.9	Local	Rural Commercial Land	Pre-1980
37735	Entity	\$954,721	68.5	Local	Urban Commercial Land	Pre-1980
24380	Entity	\$954,584	273.9	Local	Urban Commercial Land	Pre-1980
37969	Entity	\$953,997	115.3	Out of State	Urban Reside	Pre-1980
37837	Entity	\$945,057	108.5	Local	Urban Reside	Pre-1980
45581	Individual	\$940,888	135.0	Local	Urban Reside	2000-2016
38020	Entity	\$938,322	134.6	Local	Urban Reside	Pre-1980
24354	Individual	\$923,661	44.2	Local	Urban Commercial Land	Pre-1980
45602	Entity	\$921,230	132.2	Regional	Urban Reside	2000-2016
38021	Entity	\$917,150	131.6	Local	Urban Reside	Pre-1980
24355	Individual	\$915,069	131.3	Local	Urban Commercial Land	Pre-1980
24498	Individual	\$914,615	131.2	Out of State	Urban Commercial Land	Pre-1980
37991	Entity	\$910,727	130.7	Local	Urban Reside	Pre-1980
24489	Entity	\$902,253	43.2	Local	Urban Commercial Land	Pre-1980
128474	Entity	\$895,806	293.8	Regional	Urban Commercial Land	Pre-1980

24503	Entity	\$893,289	128.2	Local	Urban Commercial Land	Pre-1980
24505	Entity	\$873,881	133.7	Local	Urban Commercial Land	Pre-1980
38042	Individual	\$869,092	71.3	Regional	Urban Reside	Pre-1980
45610	Individual	\$860,130	123.4	Local	Urban Reside	2000-2016
37993	Entity	\$856,172	81.9	Local	Urban Commercial Land	Pre-1980
152025	Entity	\$840,313	137.2	Local	Urban Reside	2017+
24368	Individual	\$838,921	53.0	Local	Urban Commercial Land	Pre-1980
24347	Entity	\$833,333	68.3	Local	Exempt City	Pre-1980
37992	Entity	\$828,457	118.9	Regional	Urban Reside	Pre-1980
24530	Individual	\$821,746	78.6	Regional	Urban Commercial Land	1980-1999
152024	Entity	\$821,435	117.3	Regional	Urban Reside	2000-2016
24378	Institutional	\$814,712	116.9	Local	Urban Commercial Land	Pre-1980
45582	Entity	\$807,348	115.8	Local	Urban Reside	2000-2016
24472	Entity	\$799,260	96.6	Regional	Religious Exempt	Pre-1980
37688	Entity	\$781,088	113.6	Local	Urban Reside	2000-2016
38048	Individual	\$776,372	110.8	Regional	Urban Reside	Pre-1980
24375	Individual	\$770,320	110.1	Local	Urban Commercial Land	Pre-1980
40973	Individual	\$768,656	98.0	Local	Urban Reside	Pre-1980
37984	Entity	\$755,727	108.4	Regional	Urban Reside	Pre-1980
37985	Entity	\$752,235	107.9	Local	Urban Reside	Pre-1980
45621	Entity	\$730,485	104.8	Local	Urban Reside	Pre-1980
172951	Individual	\$729,019	104.1	Local	Urban Reside	2000-2016
38028	Entity	\$728,178	104.5	Regional	Urban Reside	Pre-1980
37855	Individual	\$725,220	64.0	Local	Urban Reside	Pre-1980
23140	Individual	\$724,158	31.4	Local	Rural Commercial Land	Pre-1980
40984	Entity	\$722,630	55.3	Local	Urban Commercial Land	Pre-1980
37751	Individual	\$719,425	97.2	Local	Urban Reside	Pre-1980
24493	Entity	\$713,398	102.4	Local	Urban Reside	2017+
45608	Entity	\$699,719	100.4	Regional	Urban Reside	Pre-1980
24482	Entity	\$697,249	100.0	Regional	Urban Commercial Land	Pre-1980

24376	Individual	\$692,779	198.8	Local	Urban Commercial Land	Pre-1980
24507	Individual	\$692,108	158.9	Local	Urban Commercial Land	Pre-1980
152019	Individual	\$690,289	39.4	Local	Urban Reside	2000-2016
37737	Individual	\$688,392	105.4	Local	Urban Reside	Pre-1980
23130	Individual	\$687,005	50.9	Local	Rural Commercial Land	Pre-1980
48141	Individual	\$683,285	28.5	Local	Urban Commercial Land	Pre-1980
37989	Individual	\$682,310	97.9	Local	Urban Reside	Pre-1980
37745	Entity	\$681,146	92.0	Regional	Urban Reside	2000-2016
93401	Entity	\$678,221	97.3	Local	Urban Reside	Pre-1980
37697	Entity	\$672,590	96.5	Regional	Urban Reside	Pre-1980
38030	Individual	\$667,920	76.7	Out of State	Urban Reside	Pre-1980
45600	Entity	\$665,727	76.4	Out of State	Urban Reside	Pre-1980
143126	Entity	\$665,137	43.6	Out of State	Urban Reside	Pre-1980
45561	Entity	\$663,588	69.2	Local	Urban Reside	Pre-1980
37981	Entity	\$660,682	94.8	Regional	Urban Reside	Pre-1980
24468	Entity	\$660,152	94.7	Local	Urban Commercial Land	Pre-1980
38027	Entity	\$646,416	92.7	Regional	Urban Reside	Pre-1980
37986	Entity	\$643,838	61.6	Local	Urban Reside	Pre-1980
24420	Individual	\$630,000	20.1	Local	Public Service, Land	
38022	Entity	\$629,028	90.3	Regional	Urban Reside	Pre-1980
25516	Other	\$624,950	89.7	Local	Urban Commercial Land	Pre-1980
24383	Entity	\$622,496	178.6	Local	Urban Commercial Land	Pre-1980
37834	Entity	\$621,815	89.2	Local	Urban Reside	Pre-1980
37970	Entity	\$619,325	88.9	Regional	Urban Commercial Land	Pre-1980
37712	Individual	\$618,688	110.5	Out of State	Urban Reside	Pre-1980
37987	Entity	\$612,674	58.6	Local	Urban Reside	Pre-1980
24529	Entity	\$612,152	58.6	Local	Urban Commercial Land	Pre-1980
38024	Entity	\$611,413	87.7	Regional	Urban Reside	Pre-1980
45638	Entity	\$605,724	29.3	Local	Urban Reside	Pre-1980
37799	Individual	\$604,133	57.8	Local	Urban Reside	Pre-1980
37724	Individual	\$599,085	80.9	Local	Urban Reside	Pre-1980
37856	Individual	\$590,551	79.7	Local	Urban Reside	Pre-1980
45569	Entity	\$588,716	150.2	Regional	Urban Reside	Pre-1980
24500	Entity	\$584,243	111.8	Regional	Urban Commercial	Pre-1980

					Land	
33223	Institutional	\$582,921	23.9	Local	Religious Exempt	Pre-1980
38023	Individual	\$579,705	83.2	Regional	Urban Reside	Pre-1980
45567	Individual	\$575,364	77.7	Local	Urban Reside	Pre-1980
25530	Entity	\$572,281	59.7	Regional	Urban Commercial Land	Pre-1980
24485	Entity	\$570,986	59.6	Local	Urban Commercial Land	Pre-1980
25528	Entity	\$565,433	59.0	Local	Urban Commercial Land	Pre-1980
37843	Individual	\$555,916	91.2	Local	Urban Reside	Pre-1980
45568	Individual	\$554,449	97.9	Local	Urban Reside	Pre-1980
37770	Entity	\$536,131	61.5	Local	Urban Commercial Land	Pre-1980
37790	Individual	\$533,331	38.3	Local	Urban Reside	Pre-1980
23126	Entity	\$532,198	28.4	Local	Rural Commercial Land	Pre-1980
37829	Individual	\$531,409	67.8	Local	Urban Reside	Pre-1980
24358	Individual	\$528,865	151.8	Local	Urban Commercial Land	Pre-1980
37692	Entity	\$526,588	75.2	Local	Urban Reside	Pre-1980
45626	Entity	\$523,064	75.0	Local	Urban Reside	Pre-1980
37722	Entity	\$522,720	15.0	Regional	Urban Commercial Land	
24381	Entity	\$517,654	148.5	Local	Urban Commercial Land	Pre-1980
37740	Entity	\$515,595	74.0	Local	Urban Reside	Pre-1980
37785	Institutional	\$513,998	56.2	Local	Religious Exempt	
128475	Entity	\$512,831	147.2	Regional	Urban Commercial Land	Pre-1980
45630	Entity	\$512,640	58.6	Out of State	Urban Reside	Pre-1980
37974	Entity	\$510,793	61.7	Out of State	Urban Reside	Pre-1980
38043	Individual	\$509,278	61.5	Local	Urban Reside	Pre-1980
37703	Entity	\$507,065	105.8	Local	Urban Reside	Pre-1980
172952	Entity	\$504,167	72.0	Out of State	Urban Reside	Pre-1980
37982	Individual	\$498,595	47.7	Local	Urban Reside	Pre-1980
24423	Other	\$490,000	20.1	Local	Public Service, Land	
37803	Entity	\$485,523	69.7	Out of State	Urban Reside	Pre-1980
24429	Entity	\$483,100	138.6	Local	Urban Commercial Land	Pre-1980
24377	Entity	\$480,805	137.4	Local	Urban Commercial Land	Pre-1980
25529	Individual	\$480,171	50.1	Local	Urban Commercial Land	Pre-1980
37980	Individual	\$479,702	45.9	Local	Urban Reside	Pre-1980

37828	Individual	\$469,037	82.8	Local	Urban Reside	Pre-1980
24526	Entity	\$466,592	45.2	Regional	Urban Commercial Land	Pre-1980
24433	Entity	\$465,121	133.5	Local	Urban Commercial Land	Pre-1980
24432	Entity	\$462,713	132.8	Local	Urban Commercial Land	Pre-1980
37681	Individual	\$462,058	70.7	Local	Urban Reside	Pre-1980
40983	Entity	\$461,873	35.3	Regional	Urban Reside	Pre-1980
37832	Entity	\$458,100	61.9	Out of State	Urban Reside	Pre-1980
24393	Entity	\$456,893	65.6	Local	Urban Commercial Land	Pre-1980
24531	Entity	\$456,239	55.1	Local	Urban Commercial Land	Pre-1980
37733	Individual	\$455,664	65.4	Local	Urban Reside	Pre-1980
37694	Entity	\$453,990	86.9	Out of State	Urban Reside	2017+
37838	Individual	\$453,228	52.0	Local	Urban Reside	Pre-1980
24501	Entity	\$434,930	124.8	Local	Urban Commercial Land	Pre-1980
24502	Entity	\$434,773	124.8	Local	Urban Commercial Land	Pre-1980
24394	Entity	\$434,547	41.6	Local	Urban Commercial Land	Pre-1980
37798	Individual	\$432,767	82.8	Local	Urban Reside	Pre-1980
38025	Individual	\$429,486	61.3	Local	Urban Reside	Pre-1980
33199	Institutional	\$428,584	44.9	Local	Urban Commercial Land	
24473	Institutional	\$424,124	74.9	Local	Urban Commercial Land	Pre-1980
25515	Entity	\$421,146	57.9	Local	Urban Commercial Land	Pre-1980
37990	Entity	\$413,717	59.4	Local	Urban Reside	Pre-1980
37734	Entity	\$412,146	59.1	Local	Urban Reside	Pre-1980
37853	Entity	\$412,084	59.1	Out of State	Urban Reside	2000-2016
37791	Individual	\$407,936	39.0	Local	Urban Reside	Pre-1980
37781	Entity	\$407,327	39.0	Local	Urban Reside	2000-2016
38046	Individual	\$403,000	57.8	Regional	Urban Reside	Pre-1980
38051	Individual	\$400,871	83.7	Local	Urban Reside	Pre-1980
37741	Individual	\$399,830	57.4	Local	Urban Reside	2000-2016
45570	Individual	\$397,909	57.1	Out of State	Urban Reside	Pre-1980
37682	Individual	\$395,421	105.4	Local	Urban Reside	Pre-1980
24471	Entity	\$390,382	99.6	Local	Urban Commercial	Pre-1980

					Land	
24497	Entity	\$388,203	37.1	Regional	Urban Commercial Land	Pre-1980
45558	Entity	\$386,072	39.9	Regional	Urban Reside	Pre-1980
37840	Individual	\$383,453	44.0	Local	Urban Reside	Pre-1980
24371	Individual	\$381,785	58.4	Local	Urban Commercial Land	Pre-1980
37835	Individual	\$380,790	54.6	Local	Urban Reside	Pre-1980
40978	Individual	\$380,628	41.6	Local	Urban Reside	Pre-1980
24360	Individual	\$376,047	86.3	Local	Urban Commercial Land	Pre-1980
194289	Individual	\$374,362	27.7	Local	Urban Reside	Pre-1980
24519	Entity	\$367,500	35.2	Regional	Urban Commercial Land	
24425	Institutional	\$367,500	35.2	Local	Religious Exempt	
24379	Entity	\$366,356	105.1	Local	Urban Commercial Land	Pre-1980
45606	Entity	\$366,031	52.5	Regional	Urban Reside	Pre-1980
37833	Entity	\$365,061	59.9	Regional	Urban Reside	Pre-1980
38052	Entity	\$361,880	55.4	Local	Urban Reside	Pre-1980
37805	Entity	\$359,739	75.1	Local	Urban Reside	Pre-1980
38026	Individual	\$356,468	51.1	Local	Urban Reside	Pre-1980
37844	Entity	\$351,300	26.0	Local	Urban Commercial Land	Pre-1980
24469	Entity	\$349,229	99.8	Local	Urban Commercial Land	Pre-1980
174026	Entity	\$347,479	79.8	Local	Urban Reside	2000-2016
45645	Entity	\$347,064	57.5	Regional	Urban Reside	Pre-1980
45614	Individual	\$346,511	49.7	Local	Urban Reside	Pre-1980
24470	Entity	\$340,742	97.4	Local	Urban Commercial Land	Pre-1980
45583	Entity	\$333,570	63.8	Local	Urban Reside	Pre-1980
24431	Entity	\$329,417	94.5	Local	Urban Commercial Land	Pre-1980
37802	Individual	\$327,338	47.0	Local	Urban Reside	Pre-1980
37847	Individual	\$323,824	43.7	Local	Urban Reside	Pre-1980
24492	Entity	\$323,337	46.4	Local	Urban Reside	Pre-1980
24349	Institutional	\$323,086	61.8	Local	Exempt City	Pre-1980
24348	Institutional	\$315,196	60.3	Local	Exempt City	Pre-1980
38040	Individual	\$314,155	45.1	Regional	Urban Reside	Pre-1980
24430	Entity	\$306,196	87.9	Local	Urban Commercial Land	Pre-1980
24435	Entity	\$301,290	86.5	Local	Urban Commercial Land	Pre-1980

37973	Entity	\$299,702	86.0	Out of State	Urban Reside	
37746	Entity	\$298,858	28.6	Local	Urban Reside	Pre-1980
24361	Entity	\$297,375	113.8	Local	Urban Commercial Land	Pre-1980
24523	Individual	\$296,408	11.0	Regional	Urban Commercial Land	
45627	Entity	\$296,269	42.5	Local	Urban Reside	Pre-1980
45629	Individual	\$296,153	34.0	Local	Urban Reside	Pre-1980
38017	Entity	\$295,985	42.5	Local	Urban Reside	Pre-1980
175496	Individual	\$295,618	42.4	Regional	Urban Commercial Land	Pre-1980
33222	Institutional	\$294,703	27.1	Local	Urban Commercial Land	
40981	Individual	\$294,635	33.8	Local	Urban Reside	
37845	Individual	\$290,409	41.7	Local	Urban Reside	Pre-1980
23125	Entity	\$289,970	29.0	Local	Rural Commercial Land	Pre-1980
37842	Individual	\$286,862	36.6	Regional	Urban Reside	Pre-1980
37030	Entity	\$283,315	20.3	Local	Urban Commercial Land	Pre-1980
45607	Entity	\$282,864	40.6	Local	Urban Reside	Pre-1980
40974	Entity	\$280,488	40.2	Local	Urban Reside	Pre-1980
45624	Entity	\$280,013	40.2	Local	Urban Reside	Pre-1980
40975	Individual	\$278,339	53.3	Local	Urban Reside	2000-2016
37841	Institutional	\$277,774	25.5	Local	Urban Reside	Pre-1980
38029	Entity	\$272,183	31.2	Out of State	Urban Reside	Pre-1980
40977	Individual	\$270,914	51.8	Local	Urban Reside	Pre-1980
37851	Individual	\$270,330	38.8	Local	Urban Reside	Pre-1980
24488	Entity	\$270,198	11.1	Local	Urban Commercial Land	
37782	Individual	\$269,903	38.7	Out of State	Urban Reside	
24490	Individual	\$269,768	61.9	Local	Urban Reside	Pre-1980
37780	Entity	\$265,093	38.0	Local	Urban Reside	2000-2016
24475	Individual	\$263,712	37.8	Local	Urban Commercial Land	Pre-1980
24495	Individual	\$262,836	50.3	Local	Urban Reside	Pre-1980
37683	Individual	\$261,703	37.5	Local	Urban Reside	Pre-1980
37854	Individual	\$260,583	29.9	Local	Urban Reside	Pre-1980
37675	Entity	\$260,028	80.0	Out of State	Urban Commercial Land	
37849	Entity	\$258,358	59.3	Local	Urban Reside	Pre-1980
45611	Entity	\$256,713	36.8	Local	Urban Reside	Pre-1980
24369	Entity	\$256,246	49.0	Local	Urban Commercial	Pre-1980

					Land	
24426	Entity	\$256,060	36.7	Regional	Urban Commercial Land	
40976	Individual	\$255,408	41.9	Local	Urban Reside	Pre-1980
37690	Entity	\$255,308	36.6	Local	Urban Reside	Pre-1980
45628	Individual	\$252,521	36.2	Regional	Urban Reside	Pre-1980
37757	Entity	\$252,233	36.2	Out of State	Urban Reside	Pre-1980
24509	Individual	\$251,385	35.9	Local	Urban Commercial Land	
45637	Individual	\$250,578	30.3	Local	Urban Reside	Pre-1980
37739	Entity	\$250,003	35.9	Local	Urban Reside	Pre-1980
37729	Entity	\$250,000	35.9	Local	Urban Reside	
37705	Entity	\$247,064	70.2	Out of State	Urban Reside	Pre-1980
37708	Individual	\$246,960	40.5	Out of State	Urban Reside	Pre-1980
37693	Individual	\$246,216	35.3	Regional	Urban Reside	Pre-1980
37750	Entity	\$245,278	40.2	Local	Urban Reside	Pre-1980
24484	Entity	\$245,000	35.2	Local	Urban Commercial Land	
24424	Institutional	\$245,000	35.2	Local	Religious Exempt	
37972	Entity	\$243,810	17.0	Regional	Urban Commercial Land	
24447	Entity	\$242,662	46.4	Local	Urban Commercial Land	Pre-1980
45584	Entity	\$241,836	46.3	Local	Urban Reside	Pre-1980
24496	Entity	\$241,772	61.3	Regional	Urban Reside	Pre-1980
45612	Entity	\$241,371	34.6	Local	Urban Reside	Pre-1980
40982	Individual	\$240,769	27.6	Local	Urban Reside	Pre-1980
196779	Entity	\$239,362	35.0	Local	Urban Commercial Land	
40980	Individual	\$237,968	54.6	Regional	Urban Reside	Pre-1980
23135	Entity	\$235,241	33.8	Regional	Rural Residential Land	Pre-1980
37743	Entity	\$234,247	32.2	Local	Urban Reside	Pre-1980
45603	Entity	\$230,562	33.1	Local	Urban Reside	Pre-1980
45605	Individual	\$229,266	32.9	Local	Urban Reside	Pre-1980
37742	Entity	\$228,863	35.0	Local	Urban Reside	Pre-1980
45601	Entity	\$228,628	32.8	Regional	Urban Reside	Pre-1980
37779	Entity	\$228,077	26.2	Local	Urban Reside	Pre-1980
45597	Entity	\$226,728	43.4	Local	Urban Reside	Pre-1980
37689	Entity	\$225,558	32.4	Local	Urban Reside	Pre-1980
37836	Individual	\$224,971	32.3	Local	Urban Reside	Pre-1980
33200	Institutional	\$223,949	27.1	Local	Urban Commercial Land	
24491	Institutional	\$223,554	16.0	Local	Religious Exempt	2000-2016

37754	Entity	\$220,736	31.7	Regional	Urban Reside	Pre-1980
24422	Other	\$220,542	21.1	Local	Public Service, Land	
37706	Entity	\$220,402	46.0	Regional	Urban Reside	Pre-1980
24477	Entity	\$219,370	83.9	Regional	Urban Commercial Land	Pre-1980
40979	Individual	\$219,088	45.7	Local	Urban Reside	Pre-1980
37749	Entity	\$217,398	38.4	Local	Urban Reside	Pre-1980
37839	Entity	\$215,132	49.4	Local	Urban Reside	Pre-1980
93456	Entity	\$214,920	19.0	Local	Urban Reside	Pre-1980
37852	Individual	\$214,089	30.7	Local	Urban Reside	Pre-1980
24522	Institutional	\$213,967	17.5	Local	Urban Commercial Land	
37744	Entity	\$213,714	35.0	Local	Urban Reside	Pre-1980
37707	Entity	\$213,302	25.8	Local	Urban Reside	Pre-1980
37797	Entity	\$210,987	40.4	Local	Urban Commercial Land	Pre-1980
37796	Individual	\$209,091	30.0	Local	Urban Reside	Pre-1980
37771	Individual	\$207,081	43.2	Local	Urban Commercial Land	Pre-1980
37777	Individual	\$206,972	29.7	Local	Urban Reside	Pre-1980
37848	Individual	\$205,539	29.5	Local	Urban Reside	Pre-1980
37778	Entity	\$202,650	58.1	Local	Urban Reside	Pre-1980
24506	Individual	\$202,384	42.2	Local	Urban Commercial Land	Pre-1980
45643	Entity	\$199,309	41.6	Regional	Urban Reside	Pre-1980
45640	Entity	\$198,656	57.0	Local	Urban Reside	Pre-1980
38050	Individual	\$198,459	45.6	Local	Urban Reside	Pre-1980
45644	Entity	\$197,071	41.1	Regional	Urban Reside	Pre-1980
37800	Entity	\$197,004	28.3	Local	Urban Reside	Pre-1980
45641	Entity	\$196,496	56.4	Local	Urban Reside	Pre-1980
37846	Entity	\$195,206	32.0	Local	Urban Reside	Pre-1980
24499	Entity	\$194,775	37.3	Regional	Urban Commercial Land	
37732	Individual	\$194,111	27.9	Local	Urban Reside	Pre-1980
37711	Entity	\$192,667	31.6	Out of State	Urban Reside	Pre-1980
24395	Entity	\$192,436	63.1	Local	Urban Commercial Land	Pre-1980
37752	Individual	\$190,844	23.1	Local	Urban Reside	Pre-1980
45639	Individual	\$187,390	71.7	Local	Urban Reside	Pre-1980
24353	Institutional	\$178,750	17.1	Local	Exempt City	2000-2016
24442	Entity	\$174,705	80.2	Regional	Urban Commercial Land	1980-1999
24445	Entity	\$173,809	79.8	Regional	Urban Commercial	1980-

					Land	1999
23141	Individual	\$173,202	20.9	Out of State	Rural Residential Land	Pre-1980
37760	Individual	\$164,861	47.3	Local	Urban Reside	Pre-1980
37704	Individual	\$162,730	37.4	Local	Urban Reside	Pre-1980
24440	Entity	\$162,127	74.4	Regional	Urban Commercial Land	1980-1999
138791	Institutional	\$161,172	1.0	Local	School Exempt	Pre-1980
37825	Individual	\$159,437	22.9	Local	Urban Reside	Pre-1980
23136	Entity	\$157,352	22.6	Local	Rural Residential Land	2000-2016
37758	Entity	\$156,472	44.9	Local	Urban Reside	Pre-1980
23137	Entity	\$156,276	22.4	Local	Rural Residential Land	2000-2016
24443	Entity	\$155,622	89.3	Regional	Urban Commercial Land	1980-1999
24444	Entity	\$155,622	89.3	Regional	Urban Commercial Land	1980-1999
193131	Other	\$150,445	10.8	Regional	Urban Reside	
93400	Entity	\$150,321	10.8	Local	Urban Reside	
38054	Institutional	\$150,282	17.3	Local	Urban Commercial Land	
45589	Institutional	\$150,000	21.5	Out of State	Urban Reside	
24474	Institutional	\$149,033	24.4	Local	Urban Commercial Land	Pre-1980
37755	Individual	\$147,807	21.2	Local	Urban Reside	2000-2016
37701	Individual	\$147,508	24.2	Local	Urban Commercial Land	Pre-1980
24419	Entity	\$147,000	3.5	Local	Religious Exempt	
37979	Individual	\$144,702	83.1	Local	Urban Commercial Land	Pre-1980
37713	Entity	\$141,939	46.5	Local	Urban Reside	Pre-1980
37850	Entity	\$140,937	64.7	Local	Urban Reside	Pre-1980
45616	Other	\$140,518	13.4	Local	Urban Reside	
24421	Entity	\$139,653	20.0	Local	Public Service, Land	
25531	Entity	\$139,487	10.0	Local	Urban Commercial Land	
24438	Entity	\$138,984	79.8	Regional	Urban Commercial Land	1980-1999
24439	Other	\$138,984	79.8	Regional	Urban Commercial Land	1980-1999
23138	Institutional	\$137,101	19.7	Local	Rural Residential Land	Pre-1980
24370	Entity	\$134,938	9.7	Local	Exempt County	
45615	Entity	\$130,714	18.8	Local	Urban Reside	
25527	Entity	\$125,668	14.4	Local	Urban Commercial	

					Land	
23132	Individual	\$123,750	4.1	Local	Rural Commercial Land	
24476	Entity	\$123,712	16.5	Local	Urban Commercial Land	
189619	Individual	\$121,968	35.0	Local	Urban Commercial Land	
25518	Entity	\$120,488	17.3	Local	Urban Reside	Pre-1980
25533	Entity	\$120,278	17.3	Local	Urban Commercial Land	
24487	Entity	\$115,355	11.0	Local	Urban Commercial Land	
24528	Other	\$114,572	16.4	Regional	Urban Commercial Land	
25517	Institutional	\$112,491	16.1	Local	Urban Commercial Land	
24527	Individual	\$111,590	16.0	Regional	Urban Commercial Land	
38055	Institutional	\$111,099	15.0	Local	Urban Reside	
24437	Individual	\$106,204	48.8	Regional	Urban Commercial Land	1980-1999
24367	Entity	\$105,000	15.1	Local	Exempt City	
24448	Institutional	\$105,000	15.1	Local	Exempt City	
189875	Entity	\$100,605	14.4	Local	Urban Reside	
37736	Institutional	\$100,549	14.4	Local	Urban Reside	
37723	Institutional	\$100,000	2.3	Local	Religious Exempt	
37718	Institutional	\$96,778	18.5	Local	Urban Reside	
37719	Institutional	\$94,893	21.8	Local	Urban Reside	
33207	Institutional	\$94,598	1.5	Local	Exempt State	
24366	Institutional	\$93,975	15.4	Local	Exempt City	
24364	Entity	\$93,870	15.4	Local	Exempt City	
33205	Institutional	\$91,364	5.8	Local	Urban Commercial Land	
37811	Institutional	\$90,000	3.2	Local	Religious Exempt	
37978	Institutional	\$80,000	7.9	Local	Religious Exempt	
24346	Institutional	\$78,405	15.0	Local	Exempt City	
24390	Institutional	\$73,500	3.5	Local	Exempt County	
37807	Institutional	\$73,500	3.5	Local	Religious Exempt	
37814	Entity	\$70,000	10.0	Local	Religious Exempt	
37816	Institutional	\$70,000	10.0	Local	Religious Exempt	
37812	Institutional	\$70,000	10.0	Local	Religious Exempt	
37801	Institutional	\$70,000	10.0	Local	Religious Exempt	
37820	Institutional	\$70,000	1.6	Local	Religious Exempt	
37815	Institutional	\$70,000	10.0	Local	Religious Exempt	

37817	Institutional	\$70,000	10.0	Local	Religious Exempt	
24372	Other	\$67,082	3.5	Regional	Public Service, Land	
23127	Institutional	\$63,610	5.8	Local	Rural Commercial Land	
33203	Institutional	\$61,290	1.5	Local	Exempt State	
33202	Institutional	\$60,675	1.5	Local	Exempt State	
37715	Institutional	\$59,110	5.0	Local	Religious Exempt	
24417	Entity	\$56,000	3.6	Local	Religious Exempt	
24524	Entity	\$52,500	6.0	Regional	Urban Commercial Land	
24525	Institutional	\$52,500	6.0	Regional	Urban Commercial Land	
23300	Institutional	\$51,600	0.2	Local	Exempt City	
158614	Individual	\$50,400	8.0	Regional	Urban Commercial Land	
23133	Institutional	\$49,170	4.9	Local	Rural Residential Land	
24385	Entity	\$49,000	3.5	Local	Exempt County	2000-2016
37721	Entity	\$48,300	2.3	Local	Religious Exempt	
37031	Institutional	\$48,046	6.9	Local	Urban Commercial Land	
23134	Institutional	\$47,134	8.3	Local	Rural Residential Land	
23213	Institutional	\$45,742	1.0	Local	Exempt City	
24416	Institutional	\$42,000	3.6	Local	Religious Exempt	2000-2016
37826	Entity	\$41,817	1.5	Local	Religious Exempt	
37821	Institutional	\$39,989	2.6	Local	Religious Exempt	
23211	Institutional	\$39,011	6.0	Local	Rural Commercial Land	
37830	Institutional	\$31,500	3.0	Local	Exempt City	
37804	Institutional	\$31,500	3.6	Local	Religious Exempt	
24391	Institutional	\$30,625	3.5	Local	Religious Exempt	2000-2016
24392	Institutional	\$30,625	3.5	Local	Religious Exempt	2000-2016
37792	Institutional	\$30,492	3.5	Local	Religious Exempt	
33206	Institutional	\$27,201	1.5	Local	Exempt State	
37766	Institutional	\$26,750	3.8	Local	Religious Exempt	
33204	Institutional	\$25,221	1.5	Local	Exempt State	
24387	Institutional	\$24,683	3.5	Local	Exempt County	2000-2016
24386	Institutional	\$24,683	3.5	Local	Exempt County	2000-2016
24352	Institutional	\$24,500	3.5	Local	Exempt City	
24396	Institutional	\$24,500	3.5	Local	Exempt County	

37808	Institutional	\$24,500	3.5	Local	Religious Exempt	
33208	Institutional	\$24,176	1.5	Local	Exempt State	
24418	Institutional	\$23,875	3.5	Local	Religious Exempt	
33209	Institutional	\$20,909	1.5	Local	Exempt State	
37822	Institutional	\$19,995	2.6	Local	Religious Exempt	
38056	Institutional	\$17,250	2.3	Local	Religious Exempt	
38057	Institutional	\$17,250	2.3	Local	Religious Exempt	
37717	Institutional	\$15,529	2.3	Local	Religious Exempt	
37765	Institutional	\$14,910	1.6	Local	Religious Exempt	
45596	Institutional	\$14,297	32.8	Regional	Urban Reside	
37787	Institutional	\$13,940	2.0	Local	Religious Exempt	
37786	Institutional	\$13,940	2.0	Local	Religious Exempt	
37716	Institutional	\$13,800	2.4	Local	Religious Exempt	
37793	Institutional	\$13,125	1.5	Local	Religious Exempt	
37794	Institutional	\$12,750	1.5	Local	Religious Exempt	
37767	Institutional	\$12,600	1.5	Local	Religious Exempt	
24389	Institutional	\$12,250	3.5	Local	Exempt County	2000-2016
24388	Institutional	\$12,250	3.5	Local	Exempt County	2000-2016
33214	Institutional	\$12,003	1.5	Local	Exempt State	
37789	Institutional	\$12,000	1.5	Local	Religious Exempt	
37772	Institutional	\$11,850	1.5	Local	Religious Exempt	
37810	Institutional	\$10,500	0.4	Local	Religious Exempt	
37809	Institutional	\$10,500	1.5	Local	Religious Exempt	
37806	Institutional	\$10,500	1.5	Local	Religious Exempt	
37827	Institutional	\$10,455	1.5	Local	Religious Exempt	
37763	Institutional	\$9,750	1.6	Local	Religious Exempt	
37768	Institutional	\$9,584	2.0	Local	Religious Exempt	
37720	Institutional	\$9,200	2.3	Local	Religious Exempt	
37788	Institutional	\$9,000	1.6	Local	Religious Exempt	
37795	Institutional	\$8,250	1.6	Local	Religious Exempt	
37764	Institutional	\$6,873	1.6	Local	Religious Exempt	
33213	Institutional	\$6,401	1.6	Local	Exempt State	
37864	Institutional	\$4,356	2.0	Local	Exempt State	
37714	Other	\$920	2.3	Local	Religious Exempt	
24351	Entity	\$700	3.5	Local	Exempt City	
37769	Entity	\$250	0.6	Local	Public Service, Land	
38053	Individual	\$0	0.0	Regional	Charitable & Non Profit	Pre-1980
23139	Institutional	\$0	0.0	Regional	Charitable & Non Profit	1980-1999
37831	Institutional	\$0	0.0	Regional	Charitable & Non Profit	Pre-1980
189876	Other	\$0	0.0	Out of State	Charitable & Non Profit	2017+

APPENDIX B: PROPERTY TAX GROWTH OVER TIME (2008–2016)

Account #	2008	2009	2010	2011	2012	2013	2014	2015	2016
23107	33,025	34,287	34,713	25,356	26,313	26,562	29,337	29,053	31,451
23124	6,092	6,492	6,573	6,623	7,216	7,649	7,936	8,253	8,934
23125	1,839	1,966	1,990	2,005	2,185	2,316	2,403	2,498	2,704
23126	3,440	3,693	3,739	3,767	4,105	4,351	4,514	4,694	5,081
23127	39	42	45	47	52	55	57	59	63
23128	6,959	7,586	8,064	8,335	9,082	9,626	9,988	10,386	11,244
23130	2,293	2,499	2,657	2,810	3,062	3,136	3,099	3,069	3,278
23132	868	946	1,006	1,064	1,160	1,229	1,275	1,326	1,435
23133	74	77	78	79	82	82	81	81	83
23134	42	44	44	44	46	47	46	46	46
23135	291	318	338	357	389	413	428	445	482
23136	869	947	1,007	1,065	1,160	1,230	1,276	1,327	1,436
23137	923	1,006	1,070	1,132	1,233	1,307	1,356	1,410	1,526
23138	233	254	270	285	311	330	342	356	385
23140	3,682	3,822	3,870	3,899	4,249	4,503	4,672	4,859	5,259
23141	1,496	1,553	1,572	1,584	1,624	1,639	1,620	1,604	1,670
23211	96	105	111	118	128	136	141	147	158
24346	136	141	142	120					
24347	3,519	3,836	4,027	3,381					

24348	1,222	1,128	1,142	959					
24349	1,733	1,890	2,009	1,771					
24350	12,359	13,473	14,323	15,152	6,852	6,917	6,835	6,769	7,151
24352	316	328	332	279					
24353	568	589	597	501					
24354	8,213	7,970	8,069	8,130	8,437	8,517	8,416	8,335	9,293
24355	2,607	2,842	3,021	3,196	3,482	3,691	3,830	3,982	4,311
24356	2,120	2,311	2,457	2,599	2,832	3,002	3,115	3,239	3,507
24357	2,223	2,423	2,576	2,725	2,970	3,148	3,266	3,396	3,676
24358	1,482	1,615	1,717	1,817	1,979	617			
24359	2,502								
24360	1,102	1,201	1,277	1,351	1,472	1,560	1,619	1,683	1,822
24361	1,386	1,511	1,590	1,602	1,662	1,678	1,658	1,642	1,778
24364	283	294	297	250					
24366	283	294	298	250					
24367	316	328	332	279					
24368	4,433	4,833	5,138	5,435	5,922	6,263	6,189	6,130	6,635
24369	783	813	823	829	860	865	854	846	915
24370	318	330	334	336	349	352	348	345	355
24371	781	851	905	957	1,043	1,106	1,147	1,193	1,291
24373	2,365	2,578	2,741	2,900	3,160	3,349	3,475	3,613	3,912
24374	6,289	6,856	7,288	10,750	11,156	11,262	11,128	11,021	11,249
24375	1,011	1,102	1,172	1,239	1,351	1,432	1,485	1,544	1,671

24376	1,855	2,022	2,150	2,274	2,478	2,627	2,725	2,802	3,034
24377	1,097	1,195	1,271	1,344	1,465	1,552	1,611	1,869	2,022
24378	2,085	2,273	2,417	2,557	2,786	2,953	3,064	3,186	3,449
24379	1,276	1,391	1,440	1,451	1,506	1,520	1,502	1,487	1,610
24380	3,062	3,338	3,549	3,754	4,091	4,336	4,499	4,678	5,065
24381	916	984	1,046	1,106	1,205	1,277	1,325	1,378	1,492
24382	2,689	2,932	3,116	3,297	3,592	3,808	3,951	4,108	4,447
24383	2,023	2,205	2,344	2,506	2,702	2,864	3,061	3,091	1,634
24384	2,413	2,630	2,796	2,987	3,223	3,258	3,317	981	1,012
24393	1,018	1,109	1,179	1,248	1,359	1,441	1,495	1,555	1,683
24394	1,833	1,903	1,927	1,941	2,008	2,027	2,003	1,983	2,147
24395	309	337	358	379	413	438	847	839	866
24426	338	351	355	358	370	374	369	366	396
24429	1,325	1,444	1,535	1,624	1,694	1,710	1,690	1,673	1,725
24430	1,127	1,229	1,263	1,310	1,301	1,313	1,298	1,285	1,391
24431	812	885	941	995	1,084	1,149	1,193	3,036	3,197
24432	1,970	2,133	2,160	2,176	2,258	2,280	2,253	2,231	2,300
24433	726	791	841	890	969	1,027	1,066	1,108	1,199
24435	571	622	662	700	763	808	839	872	944
24436	17,027	18,496	18,726	12,020	12,473	11,294	11,160	11,052	11,965
24437	805	878	933	948	984	994	982	972	1,043
24438	833	830	841	847	879	887	877	868	930
24439	845	830	841	847	879	887	877	868	930

24440	752	820	872	922	1,005	1,024	1,012	1,002	1,074
24442	982	1,071	1,093	1,102	1,143	1,154	1,140	1,129	1,212
24443	801	873	928	954	990	999	988	978	1,050
24444	804	876	931	954	990	999	988	978	1,050
24445	977	1,065	1,086	1,094	1,136	1,146	1,133	1,122	1,205
24447	1,792	1,953	2,076	2,196	2,393	2,537	2,632	2,623	2,815
24468	1,331	1,488	1,912	1,753	1,790	2,003	2,050	1,834	2,075
24469	618	674	716	757	825	875	908	944	1,022
24470	741	808	859	909	990	1,049	1,089	1,132	1,225
24471	1,349	1,508	1,937	1,776	2,014	1,911	1,865	1,847	1,774
24472	2,143	2,337	2,280	2,297	1,075	1,085	1,126		
24473	1,425	1,553	1,651	1,747	1,903	2,017	2,093	2,177	2,356
24474	623	678	628	633	657	663	655	649	703
24475	1,926	1,990	2,015	2,030	2,107	2,127	2,102	2,081	2,223
24476	460	477	483	487	484	488	483	478	517
24477	612	666	705	679	705	712	703	697	686
24482	1,788	2,176	2,311	2,444	3,210	2,607	2,627	3,036	3,046
24483	1,526	1,663	1,768	3,738	3,879	3,916	3,870	3,832	3,951
24484	721	809	945	965	885	920	347	397	366
24485	3,036	3,310	3,518	3,722	4,055	1,899	1,827	1,809	1,865
24486	5,619	6,125	6,511	6,888	7,506	7,956	8,255	8,584	9,292
24487	496	515	522	526	546	551	544	539	555
24488	1,156	1,200	1,215	1,224	1,270	1,282	1,267	1,255	1,293

24489	3,489	4,225	4,490	4,748	5,168	5,088	5,126	5,908	5,943
24490	1,176	1,282	1,362	1,441	1,570	1,665	1,727	1,796	1,944
24492	362	395	420	444	484	513	532	553	599
24493	570	621	660	699	761	807	837	871	943
24495	1,611	1,672	1,693	1,706	1,511	1,856	1,834	1,816	1,874
24496	1,013	1,063	1,076	1,084	1,187	1,205	1,191	1,179	1,216
24497	894	961	973	981	1,015	1,024	1,012	1,003	1,085
24498									
24499	259	268	272	274	284	287	283	281	289
24500	1,625	1,771	1,883	1,992	2,170	2,300	2,387	2,482	2,687
24501	1,901	1,956	1,980	1,995	2,070	2,090	2,065	2,045	2,109
24502	1,894	2,065	2,195	2,322	2,432	2,175	2,149	2,128	2,109
24503	1,831	1,996	2,121	2,244	2,445	2,592	2,689	2,797	3,027
24504									
24505	2,365	2,579	2,741	2,900	3,160	3,349	3,475	3,613	3,912
24506	567	618	657	695	757	803	833	866	938
24507	1,171	1,277	1,357	1,436	1,565	1,658	1,721	1,789	1,937
24508	2,138	2,331	2,478	2,622	2,857	3,164	5,416	5,364	5,806
24509	399	414	419	422	438	462	437	433	469
24510	6,150	6,704	7,127	7,540	8,190	8,268	8,170	8,091	8,342
24519	474	493	499	502	521	526	520	515	531
24520	33,360	36,366	37,812	38,096	39,534	39,909	39,437	39,056	40,267
24521	5,885	6,319	6,398	6,446	6,689	6,742	6,663	6,598	7,142

24522	712	739	749	754	777	784	775	768	831
24523	1,509	1,567	1,587	1,599	1,653	1,669	1,649	1,633	1,768
24524	282	293	297	299	310	313	310	307	333
24525	395	410	416	419	435	439	433	429	442
24526	2,992	3,185	3,224	3,249	3,371	3,403	3,363	3,330	3,549
24527	330	343	348	350	363	367	363	359	370
24528	81	89	94	100	109	115	119	123	132
24529	3,226	3,516	3,630	3,604	3,740	3,775	3,731	4,100	3,962
24530	2,329	2,539	2,699	2,855	3,111	3,298	3,421	3,558	4,529
24531	2,883	3,143	3,330	3,355	3,569	3,498	3,457	3,423	3,707
25515	1,673	1,824	1,939	2,051	2,235	2,369	2,388	2,365	2,560
25516	1,757	2,324	2,471	2,614	2,722	2,748	2,715	2,689	2,911
25517	329	342	346	348	362	365	361	357	369
25518	255	284	307	331	377	384	395	406	448
25527	395	410	416	419	435	439	433	429	442
25528	2,239	2,441	2,595	2,745	2,991	3,171	3,150	3,120	3,354
25529	2,005	2,185	2,323	2,457	2,579	2,603	2,573	2,548	2,734
25530	2,302	2,510	2,668	2,822	3,075	3,188	3,150	3,120	3,356
25531	384	399	404	407	422	426	421	417	429
25533	723	751	760	766	818	802	793	785	809
25534	1,755	1,822	1,844	10,010	10,388	10,486	11,582	11,470	12,232
25535	21,700	22,529	22,576	22,746	22,115	23,441	24,322	25,292	27,380
33199									

33200									
33201									
33205	731	759	769	774	804	811	802	794	756
33222									
33227	16,420	17,899	18,956	19,098	18,389	17,265	17,261	15,896	17,142
37030	2,024	2,206	2,387	2,481	4,396	4,711	4,385	4,343	4,651
37031	338	351	388	364	372	385	371	367	379
37675	126	131	132	133	138	140	138	137	140
37676									
37677	352	356	404	400	1,253	1,486	1,712	1,415	1,458
37678	420	464	499	533	587	614	628	644	688
37679	490	539	579	618	883	922	942	964	1,027
37680	2,036	2,220	2,297	2,349	2,544	2,434	2,463	2,439	2,515
37681	707	771	820	867	945	1,001	1,039	1,080	1,170
37682	443	483	514	543	592	660	651	677	732
37683	701	652	699	745	818	854	873	894	952
37684	153	159	161	162	168	169	167	166	172
37685	493	543	583	676	1,481	1,806	1,699	2,001	1,607
37686	392	381	411	389	1,566	1,907	1,859	1,906	1,938
37687	1,046	1,093	1,209	1,423	216	293	316	234	241
37688	3,508	3,642	3,687	3,715	3,855	3,891	3,845	3,808	3,926
37689	683	751	804	856	938	979	1,000	1,024	1,091
37690	626	682	725	767	836	886	920	956	1,034

37691	1,239	1,350	1,436	1,519	1,655	1,754	1,820	1,892	578
37692	653	711	756	800	872	924	959	997	1,079
37693	561	611	650	687	749	794	823	856	927
37694	834	853	864	870	903	912	901	892	919
37695	834	853	864	870	903	912	901	892	919
37696	762	779	819	899	994	1,194	1,077	1,120	1,268
37697	2,385	2,600	2,764	2,924	2,880	2,443	2,414	2,391	2,465
37698	604	658	700	740	806	855	887	922	998
37699	1,483	2,094	1,925	1,845	1,953	2,142	2,117	2,096	578
37700	573	624	664	702	995	1,055	1,095	1,138	578
37701	632	653	662	667	692	698	690	683	705
37703	809	882	938	992	1,081	1,146	2,557	2,533	2,612
37704	312	340	362	383	417	442	459	477	516
37705	785	856	910	962	1,048	1,111	1,153	1,199	1,299
37706	946	1,031	1,096	1,160	1,264	1,339	1,390	1,445	1,565
37707	747	814	865	915	997	1,057	1,097	1,141	1,236
37708	1,046	1,141	1,213	1,283	1,398	1,482	1,537	1,598	1,730
37709	126	131	132	133	138	140	138	4,347	4,706
37710	876	1,228	1,015	1,110	1,138	1,206	495	4,694	4,840
37711	513	559	594	629	685	726	754	807	849
37712	674	735	781	826	900	954	990	1,060	1,114
37713	823	918	930	937	986	1,014	1,036	1,060	1,128
37714	3	3	3	3	3	3			

37718	554	604	642	679	740	784	813	846	915
37719	597	651	692	732	798	846	877	912	988
37722									
37724	1,440	1,575	1,680	1,783	1,949	2,030	2,069	2,114	2,249
37727	1,013	1,105	1,174	1,252	1,354	1,435	1,489	1,548	1,676
37728									
37729	843	919	977	1,034	1,126	1,194	1,239	1,288	1,394
37730	299	326	346	366	399	429	439	456	493
37731	432	470	500	529	576	611	634	659	714
37732	793	864	919	972	1,059	1,122	1,165	1,211	1,311
37733	1,977	2,156	2,292	2,346	2,307	2,328	2,301	2,279	2,349
37734	744	811	862	912	994	1,053	1,093	1,136	1,230
37735	2,124	2,316	2,462	2,604	2,838	3,008	3,036	3,006	3,099
37736	412	427	433	436	475	504	522	543	588
37737	1,264	1,524	1,465	1,673	1,823	1,790	2,310	1,926	2,051
37738	779	849	902	954	1,040	1,102	1,144	1,189	1,288
37739	452	492	523	554	1,107	1,173	1,218	1,266	1,371
37740	801	873	928	982	1,070	1,134	1,177	1,223	1,325
37741	542	591	628	665	724	768	796	828	897
37742	527	575	611	1,449	1,521	1,612	1,673	1,739	1,884
37743	1,183	717	1,119	782	845	1,021	1,059	1,101	1,192
37744	408	557	697	643	639	596	600	624	675
37745	1,368	1,361	1,447	2,126	152	3,727	3,867	4,021	4,175

37746	1,386	1,511	1,606	1,699	1,851	1,962	2,036	2,116	3,070
37747	2,242	2,328	2,357	2,375	2,526	2,678	2,829	2,801	2,888
37748	716	780	829	877	956	1,062	1,099	1,093	1,185
37749	421	458	487	516	562	595	618	642	695
37750	576	628	668	706	770	816	846	880	952
37751	1,305	1,423	1,512	1,600	1,743	1,848	1,917	1,994	2,158
37752	437	482	518	553	609	671	651	668	714
37753	1,046	1,139	1,185	1,254	1,386	1,468	1,523	1,583	1,676
37754	493	537	1,793	1,807	1,875	1,889	1,867	1,849	1,906
37755	330	365	568	572	591	606	920	637	680
37756	559	609	648	685	747	791	821	854	924
37757	643	701	745	788	858	910	944	982	1,064
37758	297	323	945	952	988	1,062	1,086	1,164	1,165
37759	1,281	1,396	1,484	1,570	1,711	1,814	1,882	1,957	2,118
37760	296	323	344	363	396	420	435	453	490
37763									
37770	3,174	3,459	3,618	3,563	3,698	3,845	3,689	3,763	4,002
37771	1,001	1,091	1,159	1,227	1,337	1,417	1,470	1,528	1,655
37772									
37775	1,094	1,144	1,264	1,486	1,296	1,587	1,815	1,578	1,708
37776	531	585	627	669	735	768	2,848	2,724	2,809
37777	432	477	512	548	603	630	645	661	706
37778	573	624	664	702	765	811	841	875	947

37779	808	881	937	991	1,080	1,144	1,188	1,235	1,337
37780	645	703	747	790	861	912	947	984	1,065
37781	656	715	161	162	168	645	637	631	3,555
37782	502	548	582	616	671	711	738	767	695
37783	1,008	1,075	1,143	1,209	1,317	1,456	1,449	1,683	1,820
37790	1,494	1,628	1,731	1,831	1,995	2,115	2,194	2,282	2,470
37791	1,242	1,354	1,439	1,522	1,659	1,758	1,824	1,897	2,053
37796	623	679	722	763	832	882	915	951	1,030
37797	884	964	1,024	1,084	1,181	1,252	1,299	1,350	1,462
37798	1,818	1,982	2,107	2,229	2,428	2,735	2,671	4,887	4,740
37799	2,581	2,856	2,991	3,307	3,910	3,654	3,792	3,943	4,269
37800	836	911	969	1,025	1,117	1,184	1,228	1,277	1,383
37801	526	573	609	644	702	573	566	561	578
37802	1,011	1,102	1,171	1,239	1,350	1,431	1,485	1,544	1,671
37803	2,288	3,061	3,099	3,122	3,261	3,270	3,232	3,201	4,828
37805	1,026	1,118	1,189	1,257	1,370	1,452	1,507	1,567	1,696
37816									
37825	291	594	340	362	361	361	374	899	258
37828	1,105	1,205	1,280	1,355	1,476	1,564	1,623	1,688	1,827
37829	1,548	1,693	1,806	2,030	2,212	2,344	2,432	2,529	2,739
37832	1,643	1,855	2,322	2,041	2,218	2,201	2,241	2,251	2,428
37833	1,970	2,076	2,071	2,822	2,672	2,689	2,657	2,631	2,713
37834	4,858	5,142	5,466	5,782	6,100	6,093	6,021	5,963	6,149

37835	1,032	1,149	1,196	1,284	1,399	1,461	1,516	1,678	1,707
37836	559	615	660	704	826	807	825	845	901
37837	997	1,086	1,612	1,624	6,243	7,884	7,791	7,716	7,955
37838	889	974	1,041	3,464	3,559	3,625	3,582	3,548	3,658
37839	376	410	436	462	503	533	553	575	622
37840	1,222	1,338	1,428	2,147	2,345	2,442	2,489	2,542	2,703
37842	3,074	3,278	3,922	3,328	3,162	3,222	3,207	3,153	3,483
37843	1,939	2,119	2,259	3,263	3,310	3,445	4,597	4,693	4,850
37844	2,310	2,611	2,372	2,390	2,480	2,629	2,626	2,679	2,682
37845	1,869	2,038	2,166	2,291	2,459	2,448	2,419	2,395	2,470
37846	391	426	453	479	522	553	574	597	646
37847	677	743	796	848	929	970	991	1,014	1,081
37848	534	582	618	654	713	755	784	815	882
37849	1,010	1,121	1,214	1,194	2,021	1,971	1,947	1,928	1,988
37850	309	337	358	379	413	438	454	472	511
37851	1,051	1,146	1,218	1,289	1,404	1,484	1,466	1,452	1,497
37852	559	609	648	685	747	791	821	854	924
37853	3,156	3,338	3,380	3,405	3,534	3,574	3,532	3,498	3,606
37854	1,233	1,344	1,410	1,533	1,591	1,686	1,750	1,820	1,969
37855	6,111	6,340	6,419	10,762	9,697	8,358	7,006	8,579	7,582
37856	1,094	1,081	1,155	1,227	1,528	1,593	1,625	1,661	1,767
37863	5,329	5,810	6,176	6,533	7,119	7,546	7,829	8,141	8,813
37969	2,088	2,276	2,419	2,559	2,789	2,956	3,067	3,189	3,452

37970	2,822	2,986	4,849	4,884	4,935	4,492	4,439	4,396	6,244
37971	7,311	6,434	7,325	6,184	6,418	5,927	5,857	5,801	5,981
37972	72	75	76	76	79	81	82	78	319
37973	341	378	407	436	481	504	517	530	567
37974	2,263	2,466	2,622	3,055	2,853	2,998	2,962	2,934	4,255
37975	1,016	1,067	1,080	1,088	1,129	1,140	1,126	1,115	1,150
37976	2,474	2,697	2,867	3,033	3,305	3,503	3,635	3,780	4,092
37977	6,921	7,545	8,021	8,485	9,246	9,800	10,168	10,574	11,447
37978									
37979	551	600	638	675	735	780	936	1,414	1,678
37980	946	1,031	1,096	1,160	1,264	1,339	1,390	1,445	1,564
37981	2,329	2,538	2,698	2,855	3,110	3,117	4,114	3,955	4,433
37982	716	781	830	878	956	1,014	1,052	1,094	1,185
37983	742	809	860	910	991	1,051	3,104	3,074	3,169
37984	904	986	1,048	1,109	1,208	1,280	3,782	3,746	4,321
37985	2,908	3,170	3,369	3,564	3,884	3,313	3,274	4,271	4,536
37986	1,211	1,340	1,701	1,800	1,961	2,079	2,157	5,629	5,804
37987	1,236	1,347	1,432	1,515	1,651	1,750	1,816	1,888	2,045
37988	2,623	3,080	3,039	3,012	2,835	3,005	3,118	3,242	3,510
37989	1,998	2,162	2,298	2,431	2,649	2,808	2,913	2,944	2,983
37990	804								
37991	1,217	3,913	3,565	3,592	3,914	3,990	3,943	3,905	4,026
37992	800	872	927	981	1,069	1,133	4,001	3,962	4,085

37993	3,677	3,910	4,292	3,894	4,448	4,490	4,437	4,526	8,249
38017	547	597	634	671	731	775	804	836	905
38020	606	666	714	761	2,114	4,896	4,160	4,120	4,175
38021	652	677	685	691	717	3,952	3,811	3,775	3,891
38022	1,580	1,640	1,660	1,673	1,823	1,932	2,005	2,085	2,256
38023	817	896	959	1,020	1,117	1,165	4,136	4,096	4,223
38024	385	3,601	3,158	3,182	3,302	3,317	3,278	3,246	3,346
38025	691	753	800	847	923	978	1,015	1,055	1,142
38026	432	476	482	486	504	509	503	498	514
38027	1,056	1,151	1,223	1,294	1,410	3,533	3,491	3,457	3,564
38028	608	663	705	745	812	2,244	2,218	2,196	2,264
38029	690	752	799	846	921	977	1,013	1,054	1,141
38030	1,138	1,241	1,319	1,395	1,520	1,612	1,672	1,739	1,883
38037	541	590	627	663	1,439	1,096	1,083	1,073	7,188
38040	815	888	944	999	1,088	1,153	1,197	1,244	1,347
38041	814	888	944	998	1,088	1,153	1,196	1,244	1,347
38042	3,354	3,657	3,887	4,112	4,481	4,581	4,527	4,483	4,621
38043	1,291	1,413	1,507	1,600	1,750	1,823	1,859	1,900	2,021
38044	819	893	949	1,004	1,094	1,160	7,565	7,492	7,145
38045	136	141	142	144	149	158	283	6,465	4,747
38046	666	726	772	817	890	943	3,743	3,707	3,822
38047	1,161	1,236	1,314	1,390	1,514	1,605	1,665	1,732	1,874
38048	1,876	2,193	4,631	4,138	4,274	4,152	4,435	5,560	5,732

38050	794	865	920	973	1,060	1,124	1,126	1,115	1,150
38051	793	864	919	972	1,059	1,123	1,126	1,115	1,150
38052	568	619	658	696	758	779	770	763	786
38053	1,861	-				163	13	172	
38054	538	586	623	659	719	762		2,344	2,416
38055									
38058	367								
40973	1,815	2,587	2,619	2,639	2,738	2,892	2,858	2,831	3,006
40974	577	629	668	707	770	817	847	881	955
40975	1,475	1,343	1,360	1,370	1,422	1,507	1,564	1,626	1,760
40976	514	544	578	611	666	706	754	762	824
40977	1,116	1,214	1,265	1,338	1,479	1,567	1,625	1,689	1,789
40978	959	1,044	1,085	1,148	1,270	1,345	1,337	1,418	1,535
40979	351	388	418	448	494	517	530	544	581
40980	362	395	420	444	499	513	532	554	618
40981	451	498	535	571	628	657	672	689	736
40982	625	687	736	757	785	792	783	776	799
40983	1,350	1,472	3,945	3,975	4,125	4,164	4,115	4,075	4,201
40984	1,511	1,647	1,751	1,853	2,019	2,140	2,220	2,309	2,500
40985	10,219	11,496	11,843	12,528	13,651	14,470	15,014	16,714	16,388
45557	3,042	3,316	3,526	1,014	1,052	18,955	18,731	18,550	20,082
45558	806	879	934	988	1,077	1,141	1,184	1,211	1,248
45561	1,575	1,717	1,826	1,931	2,104	2,200	2,174	2,153	2,219

45562	439	479	509	539	815	823	853	887	961
45563	979	946	2,151	2,167	2,249	2,270	2,078	2,058	2,122
45567	731	797	847	896	976	1,035	1,074	1,116	1,209
45568	1,268	1,383	1,492	1,713	1,778	1,884	1,955	2,312	2,201
45569	512	558	593	627	683	724	752	2,663	2,746
45570	1,118	1,219	1,296	1,306	1,355	1,368	1,352	1,339	1,449
45571	136	141	142	144	149	150	156	162	176
45572	494	657	843	778	762	720	726	755	840
45573	689	751	799	845	921	976	1,012	1,053	1,139
45574	1,200	2,453	2,483	2,502	2,684	2,709	2,681	2,628	2,709
45575	167	182	193	204	222	236	245	254	275
45580	384	172	174	175	191	200	198	206	506
45581	429	468	497	526	573	608	631	656	710
45582	395	431	142	144	4,412	4,412	4,102	4,062	4,188
45583	1,326	1,446	1,537	1,626	1,771	1,878	1,948	2,026	2,193
45584	423	578	615	650	708	751	779	810	877
45585	583	636	676	715	779	826	857	891	1,007
45586	888	968	1,029	1,088	1,186	1,257	1,304	491	4,431
45587	1,050	1,145	1,217	1,288	1,403	2,311	2,340	2,317	2,510
45588	929	1,040	1,243	1,320	1,378	1,485	1,515	1,434	521
45589	371	405	430	455	496	526	545	567	614
45592	241	270	280	296	322	342	354	369	4,472
45596	4	4	4	4	4	4	4	4	4

45597	437	477	507	536	584	619	642	668	722
45598	430	469	1,263	1,273	1,321	1,333	1,658	1,438	1,509
45599	784	1,284	1,950	1,619	1,921	1,691	1,448	1,483	2,015
45600	2,388	2,370	2,400	2,418	2,380	2,403	2,493	2,593	2,769
45601	370	409	441	472	520	545	558	572	611
45602	701	764	812	859	936	992	1,030	1,071	4,387
45603	716	1,011	1,038	1,046	1,848	1,274	1,081	1,107	2,575
45604	1,273	1,227	1,242	1,580	1,639	1,655	1,939	1,920	1,979
45605	665	639	684	729	703	734	751	770	820
45606	759	833	891	949	1,040	1,085	1,107	1,133	1,206
45607	530	578	614	650	721	750	778	809	876
45608	1,132	1,233	1,311	1,387	1,511	1,602	1,662	1,728	1,900
45609	1,014	1,106	1,176	1,244	1,355	1,436	1,490	1,550	1,677
45610	1,049	1,034	807	1,151	931	986	1,023	505	3,971
45611	612	662	704	744	1,607	1,704	1,768	1,838	1,989
45612	473	515	548	579	631	669	694	722	782
45613	136	141	142	144	149	150	156	162	176
45614	758	826	878	929	1,012	1,073	1,113	1,158	1,254
45615	34	36	36	36	38	38	40	41	45
45616	153	159	161	162	168	169	176	183	198
45621	1,920	2,100	2,330	2,503	2,727	3,014	3,151	3,084	3,311
45624	358	396	427	457	504	528	541	555	1,510
45625	469	511	544	575	627	664	689	717	776

45626	731	797	847	896	977	1,035	1,074	1,117	1,210
45627	681	742	789	835	910	964	1,000	1,040	1,127
45628	1,006	1,096	1,165	1,233	1,343	1,424	1,477	1,536	1,663
45629	541	589	584	1,373	1,496	1,586	1,646	1,711	1,852
45630	1,527	1,665	1,770	1,872	2,040	2,162	2,243	2,333	2,497
45631	519	565	601	636	693	734	762	792	578
45632	373	412	443	475	523	548	561	576	578
45637	435	479	515	551	572	577	570	565	583
45638	1,253	1,366	1,452	1,537	1,674	1,775	1,841	1,915	2,072
45639	407	444	472	499	544	576	598	622	673
45640	314	342	363	384	733	740	768	798	865
45641	318	347	368	390	807	814	845	878	951
45642	2,211	1,971	2,334	2,724	2,655	2,602	2,631	2,605	3,460
45643	334	364	387	409	446	473	490	510	552
45644	326	355	377	399	435	461	478	497	538
45645	670	731	777	822	895	949	951	942	971
48141	2,899	3,160	3,359	3,554	3,872	4,104	4,258	4,323	4,602
93400	271	281	285	287	298	301	297	294	303
93401	951	1,037	1,102	1,166	1,270	1,346	1,397	1,453	1,573
93456	778	848	901	953	1,039	1,024	1,012	1,002	1,085
128474	1,349	1,471	1,564	1,654	1,802	1,910	1,982	2,061	2,230
128475	1,248	1,360	1,446	1,529	1,666	1,766	1,833	1,906	2,063
143126	5,563	6,028	6,103	6,149	6,381	6,639	7,045	6,977	7,193

152019	1,899	4,998	5,157	5,196	5,392	5,302	5,239	6,142	6,212
152024	483	503	509	513	532	537	531	526	542
152025	848	924	982	1,039	1,132	1,200	1,245	1,295	1,401
158614			14	14	14	14	14	14	15
158615			12,477	11,224	11,648	11,758	11,619	10,984	10,659
160928				13,085	13,579	12,891	12,739	12,615	13,657
168434							4,622	4,577	4,587
168435							2,111	561	5,079
172951									578
172952									3,059
174026									
175496									
187968									
189619									
189620									
189875									
189876									
193131									
194001									
194289									
196779									
Total	631,17	685,27	739,86	777,20	817,95	867,17	910,97	945,92	1,034,03
	8	5	9	7	5	4	2	6	2

APPENDIX C: PROPERTY TAX GROWTH OVER TIME (2017-2025)

Account #	2017	2018	2019	2020	2021	2022	2023	2024	2025
23107	32,489	32,272	33,276	32,717	33,437	31,718	33,072	32,988	34,703
23124	8,817	8,720	8,991	8,840	9,034	8,570	8,936	8,913	9,377
23125	2,670	2,640	2,723	2,676	2,736	2,594	2,705	2,699	2,839
23126	5,016	4,960	5,116	5,029	5,139	4,875	5,083	5,071	5,333
23127	66	68	74	76	82	81	89	94	99
23128	11,081	10,959	11,300	11,110	11,355	10,771	11,232	11,202	11,785
23130	3,225	3,189	3,289	3,233	3,304	3,135	3,268	3,260	3,430
23132	1,483	1,540	1,614	1,588	1,623	1,539	1,605	1,600	1,685
23133	82	81	84	83	84	79	83	88	92
23134	46	46	47	46	48	45	47	48	51
23135	498	517	595	1,163	1,249	1,095	1,141	1,196	3,387
23136	1,484	1,541	1,669	1,896	1,776	1,665	1,737	1,819	1,914
23137	1,576	1,638	1,774	1,930	1,809	1,698	1,771	1,854	1,950
23138	397	412	447	462	495	493	540	574	595
23140	5,433	5,641	6,108	6,164	6,299	5,976	6,230	6,215	6,538
23141	1,643	1,648	1,676	1,647	1,683	1,597	1,665	1,744	1,834
23211	164	171	183	190	204	204	223	233	245
24346									
24347									

24348									
24349									
24350	7,036	6,958	7,175	7,053	7,210	6,838	7,131	7,468	7,855
24352									
24353									
24354	9,320	9,679	10,479	10,695	10,930	10,841	11,867	11,916	12,196
24355	4,454	4,623	4,871	6,992	15,108	12,622	12,105	15,241	10,459
24356	3,623	3,875	9,617	9,181	9,382	9,345	10,231	10,715	11,272
24357	3,798	3,943	4,270	4,408	4,730	4,712	5,157	5,403	5,683
24358			2,638	2,594	2,651	2,641	2,891	3,028	3,185
24359		4,520	4,661	4,583	13,678	13,168	13,329	13,295	13,985
24360	1,883	1,955	2,116	2,184	2,344	2,335	2,488	2,482	2,611
24361	1,833	1,813	1,869	1,838	1,878	1,781	1,859	1,946	2,048
24364									
24366									
24367									
24368	6,855	7,071	7,291	7,168	8,039	10,290	11,268	11,391	11,060
24369	946	1,026	1,135	1,146	1,178	1,173	6,341	6,324	6,336
24370	349	346	357	394					
24371	1,334	1,385	1,499	1,549	1,586	1,504	1,569	1,565	1,647
24373	4,041	4,385	5,094	5,200	4,798	4,552	10,231	10,205	10,735
24374	11,067	10,944	11,285	11,095	11,339	11,295	12,737	24,175	
24375	1,726	1,793	1,942	2,004	2,151	6,073	6,649	6,936	8,195

24376	3,133	3,254	3,523	3,636	3,903	3,887	4,256	4,458	4,689
24377	2,088	2,517	2,304	2,173	3,642	3,389	3,710	3,885	4,087
24378	3,562	3,698	3,995	3,928	4,014	3,998	4,377	4,584	4,822
24379	1,593	1,575	1,648	1,596	1,632	1,626	1,780	1,863	1,961
24380	5,232	5,386	5,636	5,460	5,580	5,558	6,085	6,374	6,704
24381	1,542	1,601	1,732	1,788	1,920	1,912	5,741	5,727	5,880
24382	4,595	4,770	5,165	5,333	5,721	5,699	6,240	6,535	8,950
24383	1,608	1,590	3,673	3,610	3,690	3,676	4,025	4,214	4,434
24384	996	984	12,605	12,393	4,385	4,368	4,782	5,008	5,268
24393	1,739	1,804	1,912	1,880	1,922	1,823	1,900	3,329	3,503
24394	2,219	2,303	2,493	2,574	2,762	2,751	3,013	3,155	3,319
24395	852	842	869	854	872	828	863	861	905
24426	409	425	460	474	510	507	556	582	612
24429	3,618	4,415	3,782	3,368	3,442	3,428	3,754	4,572	7,000
24430	1,552	1,492	1,702	1,523	1,556	1,552	1,697	1,777	1,870
24431	3,145	3,110	3,207	3,153	3,222	3,054	3,185	3,176	3,341
24432	2,263	2,238	2,308	2,269	2,319	2,310	2,529	2,648	2,786
24433	1,240	1,287	1,393	1,438	1,543	1,538	1,684	1,764	1,855
24435	976	1,013	1,096	1,133	1,215	1,210	1,324	1,387	1,460
24436	12,360	13,475	14,590	15,062	16,162	16,098	17,625	18,460	19,419
24437	1,025	1,015	1,046	1,028	1,051	997	1,039	1,089	1,144
24438	915	905	933	918	938	890	928	972	1,023
24439	915	905	933	918	938	890	928	972	1,023

24440	1,057	1,045	1,077	1,059	1,083	1,028	1,071	1,121	1,179
24442	1,192	1,179	1,216	1,194	1,222	1,159	1,208	1,265	1,332
24443	1,033	1,021	1,053	1,036	1,059	1,004	1,047	1,096	1,153
24444	1,033	1,021	1,053	1,036	1,059	1,004	1,047	1,096	1,153
24445	1,185	1,172	1,208	1,188	1,215	1,152	1,201	1,258	1,323
24447	2,771	2,739	2,825	2,778	2,838	2,692	2,807	2,800	2,845
24468	2,467	2,529	2,802	2,999	2,947	2,583	2,911	3,006	1,535
24469	1,055	1,097	1,187	1,225	1,315	2,589	2,834	2,969	3,122
24470	1,267	1,314	1,423	1,458	1,491	2,589	2,834	2,969	3,122
24471	2,019	1,973	2,083	2,125	1,991	1,648	1,769	1,827	
24472									
24473	2,410	2,384	2,458	2,417	2,469	2,343	2,443	2,559	2,692
24474	699	692	713	701	716	679	708	743	781
24475	2,187	2,163	2,230	2,193	2,240	2,125	2,216	2,321	2,441
24476	534	554	601	620	665	662	726	760	799
24477	674	667	689	676	691	656	684	683	718
24482	3,394	3,266	3,434	5,916	6,046	5,735	5,980	5,965	6,275
24483	3,887	3,844	3,964	3,898	3,983	3,967	4,343	4,549	4,786
24484	403	355	410	405	414	411	484		
24485	5,607	5,545	5,718	5,621	5,745	5,722	6,264	4,958	4,967
24486	9,599	9,968	10,792	11,141	11,955	11,906	13,037	13,654	14,363
24487	546	540	557	548	559	531	554	580	610
24488	1,273	1,259	1,298	1,276	1,304	1,237	1,290	1,350	1,420

24489	6,605	6,375	7,424	7,661	8,222	8,187	9,014		
24490	2,009	2,086	2,257	2,296	2,347	2,227	2,437	2,553	2,685
24492	436	431	445	436	447	423	463	486	510
24493	143	4,570	4,856	4,922	5,184	5,069	5,448	5,601	6,019
24495	1,844	1,823	1,880	1,848	1,889	1,792	1,962	2,055	2,163
24496	1,196	1,182	1,220	1,218	1,347	1,277	1,399	1,465	1,541
24497	1,120	1,118	1,153	1,133	4,953	4,698	4,898	4,886	5,094
24498					8,830	13,344	4,370	4,577	4,815
24499	308	313	303	298	474	421	369	334	2,789
24500	2,948	3,147	3,261	3,366	5,113	4,472	4,183	3,947	7,751
24501	2,074	2,051	2,115	2,080	2,126	2,117	2,317	2,427	2,554
24502	2,074	2,051	2,115	2,111	2,126	2,117	2,317	2,500	2,554
24503	3,127	3,248	3,516	3,629	3,894	3,878	4,247	4,448	4,679
24504								12,444	16,973
24505	4,041	4,196	4,327	4,253	4,347	4,330	4,741	4,965	5,223
24506	969	1,005	1,089	1,123	1,205	1,165	1,215	1,211	1,275
24507	2,002	2,078	2,251	2,322	2,492	2,481	2,718	2,846	2,995
24508	5,829	5,765	5,944	5,845	5,972	5,949	6,513	6,821	7,176
24509	688	680	701	689	705	702	769	805	848
24510	8,207	8,116	8,369	8,228	12,273	18,597	20,362	21,323	22,434
24519	523	517	534	548	536	533	584	612	643
24520	39,615	39,177	40,397	39,719	40,592	40,429	44,264	46,357	48,770
24521	7,379	7,662	8,295	8,235	8,415	7,983	8,740	25,601	26,934

24522	858	890	964	996	1,069	1,059	1,104	1,101	1,159
24523	1,827	1,896	1,983	1,950	1,993	1,890	1,971	2,065	2,171
24524	342	355	386	397	427	423	441	440	463
24525	436	431	445	456	446	423	441	440	463
24526	3,491	3,452	3,720	4,448	4,545	4,312	4,496	4,708	4,953
24527	364	360	371	365	373	355	369	387	406
24528	138	143	154	159	171	169	186	196	205
24529	3,897	3,855	3,975	3,907	4,299	3,788	3,950	4,138	4,353
24530	4,456	4,407	6,686	6,201	7,242	6,012	6,268	6,564	6,907
24531	3,807	3,766	3,882	3,817	3,901	3,701	6,196	6,180	6,502
25515	2,645	2,746	2,949	2,944	2,926	1,663	1,821	1,907	2,007
25516	3,007	3,123	3,311	3,255	3,327	3,156	3,291	3,447	3,625
25517	362	359	370	364	372	353	367	384	405
25518	443	456	488	499	527	519	562	580	601
25527	436	431	445	436	446	423	441	463	486
25528	3,301	3,264	3,366	3,309	3,382	3,208	3,345	3,337	3,510
25529	2,690	2,659	2,742	2,697	2,756	2,614	2,725	2,718	2,859
25530	3,301	3,264	3,367	3,310	3,382	3,209	3,346	3,337	3,511
25531	423	418	431	423	433	411	428	897	2,916
25533	796	787	811	798	816	775	1,009	1,055	1,111
25534	12,033	11,901	12,271	12,065	12,330	11,696	12,197	12,164	12,187
25535	28,283	29,369	30,963	30,443	31,112	48,367	86,458	50,303	50,399
33199									6,171

33200									3,225
33201									16,365
33205	744	735	758	745	762	723	754	752	791
33222									4,243
33227	21,611	21,372	22,038	24,020	24,532	23,969	269,06 9	264,40 9	278,16 3
37030	4,575	4,525	4,667	4,794	6,336	4,798	4,882	4,827	4,836
37031	373	369	380	392	399	362	378	377	396
37675	139	138	153	642	656	1,381	2,406	2,155	2,161
37676				1,583	1,589	1,583	43,963	43,850	36,350
37677	1,348	1,332	1,288	12,624	15,613	15,550	29,390	29,702	30,292
37678	700	1,595	13,971	13,810	14,819	14,761	16,160	16,925	17,806
37679	1,186	1,829	9,249	9,149	9,818	9,779	10,706	11,212	11,795
37680	2,475	2,447	6,770	6,990	7,501	7,471	8,178	8,566	9,011
37681	1,209	1,254	1,358	1,401	1,504	1,499	1,641	1,718	1,808
37682	1,141	1,129	1,203	1,220	1,288	1,261	1,358	1,398	1,401
37683	969	991	1,056	1,072	1,132	1,109	1,196	1,231	1,275
37684	169	6,308	6,830	7,051	7,567	7,537	8,251	8,641	9,091
37685	1,582	6,556	7,096	7,118	7,639	7,722	8,329	8,723	9,177
37686	2,188	2,273	2,461	2,540	2,726	2,756	2,973	3,113	3,275
37687	216	6,854	40,164	39,490	42,376	42,206	69,356	69,537	69,671
37688	3,862	3,820	4,136	4,269	4,583	4,955	4,996	5,233	5,504
37689	1,109	1,962	2,059	2,017	2,058	2,050	2,243	2,351	2,473

37690	1,070	1,111	1,202	1,241	1,331	1,327	1,453	1,520	1,600
37691	5,944	5,879	6,364	6,795	7,291	7,481	7,952	8,326	8,761
37692	1,115	1,157	1,253	1,293	1,388	1,383	1,514	2,231	2,347
37693	1,021	2,290	2,379	2,966	2,573	3,028	3,496	4,114	3,883
37694	905	895	969	2,617	2,691	2,939	3,470	3,634	4,983
37695	905	895	2,409	2,383	2,448	2,677	3,200	37,284	38,169
37696	1,234	1,320	1,388	2,096	1,020	1,015	17,651	18,485	19,448
37697	2,425	2,398	2,597	2,682	2,877	2,866	3,137	3,285	3,456
37698	1,032	1,578	9,264	9,164	9,834	9,794	10,723	11,230	11,814
37699	4,762	4,709	5,097	5,263	5,647	5,625	6,159	6,449	6,785
37700	4,762	4,709	5,097	5,263	5,647	5,625	6,159	6,449	6,785
37701	693	686	706	695	710	674	702	701	737
37703	2,569	2,540	2,657	2,630	2,679	2,668	2,921	3,059	3,219
37704	534	554	599	619	664	662	725	758	798
37705	1,341	1,392	1,508	1,556	1,669	1,663	1,821	1,907	3,557
37706	1,616	1,678	1,817	1,829	1,858	1,997	2,086	2,154	
37707	1,275	1,325	1,692	1,749	1,876	1,869	2,045	2,143	2,254
37708	1,788	1,817	2,157	2,131	2,174	2,165	2,370	2,483	2,612
37709	4,762	4,709	5,097	5,263	5,647	5,625	6,159	6,449	6,785
37710	4,762	4,709	5,097	5,263	5,647	5,625	6,159	6,449	6,785
37711	902	910	985	1,018	1,091	1,088	1,190	1,246	1,311
37712	1,186	1,194	1,294	1,335	1,434	1,428	1,563	1,637	1,723
37713	1,109	1,098	1,169	1,333	1,384	1,400	1,510	1,582	1,664

37714									
37718	946	982	1,063	1,097	1,177	1,173	1,304	1,228	1,273
37719	1,021	1,060	1,148	1,185	1,270	1,267	1,407	1,203	1,247
37722							20,091	21,041	7,528
37724	2,282	2,328	2,476	2,512	2,647	2,590	2,785	2,865	2,960
37727	1,732	1,798	2,936	9,862	10,584	10,541	11,540	12,087	12,716
37728			6,525	14,252	28,705	28,591	31,302	32,783	34,487
37729	1,440	1,495	1,619	1,671	1,794	2,155	3,747	3,792	
37730	510	529	573	2,423	1,020	23,036	24,020	24,778	26,457
37731	737	765	829	855	918	1,085	3,818	28,059	28,703
37732	1,354	1,406	1,523	1,572	1,687	1,680	1,839	1,927	2,027
37733	2,311	2,285	1,879	1,849	1,889	1,883	2,061	2,159	2,272
37734	1,270	2,677	4,682	4,646	4,752	4,374	4,789	5,015	5,276
37735	3,050	3,016	3,264	3,371	3,532	3,351	3,494	3,659	3,849
37736	606	599	649	670	719	716	784	821	863
37737	2,017	1,790	1,918	2,024	2,028	1,847	2,208	2,176	1,114
37738	1,330	1,381	1,496	1,543	1,656	3,306	3,727	2,444	27,471
37739	1,416	1,470	1,592	1,643	1,763	1,756	1,923	2,014	2,119
37740	1,368	1,420	1,539	1,587	1,704	1,696	1,859	1,946	2,048
37741	926	3,076	3,330	3,438	3,689	3,675	4,023	4,213	4,432
37742	1,879	1,858	2,011	2,075	2,227	2,219	2,431	2,544	2,677
37743	1,232	1,279	1,384	1,430	1,534	1,528	1,673	1,751	1,843
37744	793	797	826	810	869	865	947	992	1,045

37745	4,108	4,063	4,368	4,300	4,387	4,369	4,784	5,012	7,070
37746	3,020	2,986	2,764	2,724	2,758	2,747	3,008	3,149	3,314
37747	2,841	2,809	3,370	7,755	8,320	8,287	19,632	18,398	18,174
37748	1,223	1,270	1,374	926	11,400	11,355	24,438	24,187	24,233
37749	719	746	808	835	895	891	976	1,022	1,075
37750	985	1,021	1,105	1,142	1,225	1,222	1,336	1,400	1,473
37751	2,230	2,315	2,507	2,588	2,777	2,765	3,028	3,171	3,336
37752	725	743	792	807	852	837	902	930	964
37753	1,720	1,822	1,971	2,049	2,115	2,108	2,308	2,415	2,543
37754	1,875	1,855	2,008	2,073	2,186	2,177	2,384	2,496	2,626
37755	693	709	756	769	813	798	861	888	921
37756	955	991	1,073	1,108	1,190	1,933	18,156	19,016	19,783
37757	1,098	1,139	1,234	1,274	1,367	1,362	1,491	1,561	1,643
37758	1,163	1,134	1,243	1,268	1,360	1,354	1,483	1,552	1,634
37759	2,151	2,192	2,564	2,647	2,629	2,542	2,783	2,916	2,161
37760	507	526	569	588	631	628	688	721	758
37763									
37770	3,825	3,895	4,155	4,353	4,298	4,078	4,252	4,451	
37771	1,709	1,759	1,906	1,967	2,110	2,103	2,301	2,410	2,535
37772									
37775	1,658	1,721	1,367	12,445	13,355	13,302	24,640	25,804	27,147
37776	2,645	2,616	2,781	2,821	2,906	3,453	16,130	16,893	17,772
37777	719	736	785	798	816	775	807	805	807

37778	977	1,016	1,099	1,134	1,217	1,213	1,329	1,391	1,463
37779	1,381	1,434	1,552	1,603	1,720	1,714	1,875	1,964	2,066
37780	1,949	3,546	3,839	3,783	3,863	3,848	4,213	4,412	4,642
37781	3,498	3,459	3,746	3,867	4,150	4,132	4,524	4,739	4,987
37782	707	725	771	786	1,020	1,696	3,930	3,920	2,487
37783	1,753	1,887	1,894	1,283	19,417	19,342	35,921	37,620	39,577
37790	2,552	2,650	2,868	2,961	3,178	3,165	3,466	3,629	3,818
37791	2,121	2,203	2,384	2,462	2,642	2,632	2,881	3,017	3,174
37796	1,064	1,104	1,195	1,235	1,325	1,319	1,446	1,512	1,591
37797	1,510	1,569	1,698	1,677	1,714	1,626	1,695	1,690	1,694
37798	4,663	5,212	5,043	5,036	5,322	5,381	5,610	5,877	6,181
37799	4,410	4,579	4,957	5,118	6,317	6,291	6,888	7,214	8,699
37800	1,428	1,483	1,606	1,657	1,779	1,772	1,940	2,032	2,137
37801	568	562	609						
37802	1,726	1,793	1,942	2,003	2,151	2,142	2,346	2,456	2,584
37803	4,751	4,698	5,085	5,011	3,655	3,639	4,758	4,983	5,242
37805	1,752	1,819	1,970	2,033	2,590	2,173	2,379	2,529	2,622
37816									
37825	257	265	404	321	434	333	462	378	371
37828	1,733	1,768	1,881	1,910	2,014	1,972	2,120	2,182	2,256
37829	2,829	2,936	3,179	3,284	3,522	3,509	3,842	4,023	4,233
37832	2,184	3,566	3,805	3,778	3,695	5,595	5,832	6,107	6,425
37833	2,670	2,640	2,722	2,676	2,736	2,594	2,840	2,975	3,130

37834	6,049	5,982	6,288	6,183	6,319	6,313	6,912	7,238	7,614
37835	1,876	1,831	2,553	2,402	2,578	2,568	2,811	3,052	3,097
37836	929	819	844	830	849	805	840	837	839
37837	7,827	7,740	7,982	7,727	7,898	7,492	10,765	13,186	14,017
37838	5,111	5,054	5,211	5,124	5,236	4,967	4,430	6,011	6,324
37839	642	667	723	746	1,763	1,672	1,832	1,917	2,018
37840	2,743	2,797	2,975	3,016	3,178	3,109	3,343	3,438	3,552
37842	3,597	3,661	3,971	3,839	3,923	3,722	3,374	3,534	3,718
37843	4,772	4,720	4,866	4,784	4,889	4,673	4,985	5,125	5,292
37844	2,718	3,783	3,901	3,724	3,806	3,610	3,952	4,139	4,354
37845	2,430	2,402	2,478	2,436	2,490	2,362	2,586	2,709	2,849
37846	668	692	836	774	831	828	906	950	999
37847	1,098	1,123	1,195	1,214	1,242	1,178	1,228	1,224	1,227
37848	912	946	1,025	1,057	1,135	1,131	1,238	1,296	1,363
37849	1,956	1,935	1,995	1,961	2,005	1,901	2,081	2,181	2,293
37850	529	549	593	613	658	655	718	752	791
37851	1,473	1,457	1,425	1,401	3,350	3,178	3,158	3,307	3,479
37852	956	991	1,073	1,108	1,190	1,184	1,296	1,359	1,429
37853	3,548	3,509	3,618	3,557	3,635	3,782	4,018	4,085	5,934
37854	2,034	2,113	2,288	2,198	2,246	2,130	2,222	2,216	2,220
37855	9,004	7,705	6,867	8,440	8,683	8,616	9,433	9,879	10,393
37856	1,794	1,832	1,948	1,976	2,085	2,040	2,195	2,258	2,335
37863	9,105	9,453	10,235	10,567	11,339	11,294	12,366	12,949	13,624

37969	3,566	3,704	4,009	4,140	4,441	6,351	6,548	6,859	7,214
37970	498	492	8,405	8,141	8,320	8,536	9,074	9,215	9,233
37971	5,884	5,819	6,136	6,185	6,438	7,196	8,541	8,945	8,997
37972	806	838	920	934	1,003	1,029	1,093	1,197	1,206
37973	578	593	632	644	683	669	722	746	4,316
37974	4,186	4,263	4,405	4,311	4,411	4,433	5,037	5,036	5,298
37975	641	5,882	6,370	6,576	7,056	7,028	7,694	8,058	8,478
37976	4,227	4,389	4,541	4,813	5,164	5,143	5,632	5,897	6,205
37977	11,824	11,959	12,331	12,124	12,391	12,340	13,511	14,151	14,887
37978									
37979	1,369	1,295	2,307	2,269	2,319	2,200	2,294	2,287	2,406
37980	1,616	1,661	1,801	1,859	1,994	1,987	2,175	2,277	2,396
37981	4,361	4,314	4,670	5,482	4,710	4,981	5,213	5,379	5,658
37982	1,223	1,270	1,229	1,246	1,316	1,289	1,389	1,431	1,479
37983	3,118	633	9,642	9,526	10,088	10,048	19,885	19,981	20,406
37984	4,253	4,763	4,710	4,634	4,745	4,640	6,412	6,716	7,065
37985	4,527	4,477	5,234	4,726	4,812	4,862	5,178	5,335	5,613
37986	5,710	5,647	6,070	6,014	6,148	6,123	6,705	7,023	7,386
37987	2,112	2,192	2,373	8,469	8,631	8,597	9,413	8,805	8,822
37988	3,682	3,641	1,014	6,895	7,398	7,369	12,680	13,100	13,191
37989	2,935	2,902	3,142	3,244	3,481	3,468	3,796	3,975	4,182
37990								6,265	5,957
37991	3,959	3,917	4,954	4,855	4,943	4,922	5,389	5,644	5,939

37992	4,020	3,975	4,303	4,442	4,766	4,747	6,226	6,519	6,860
37993	7,766	12,636	11,768	10,171	8,961	7,613	9,727	9,702	9,720
38017	935	971	1,051	1,085	1,164	1,160	1,270	1,329	
38020	4,108	4,063	4,399	4,542	4,873	4,854	5,314	5,565	5,855
38021	3,828	3,786	4,099	4,232	4,541	4,523	4,952	5,186	5,456
38022	2,331	2,421	2,621	2,705	2,903	2,891	3,165	3,316	3,488
38023	4,155	4,108	4,112	4,051	4,145	4,128	4,519	4,734	4,979
38024	3,292	3,256	3,525	3,640	3,905	3,890	4,258	4,460	4,692
38025	1,180	1,225	1,326	1,369	1,469	1,463	1,602	1,678	1,764
38026	504	499	514	506	518	491	511	510	510
38027	5,638	5,576	6,218	6,015	7,430	7,237	4,972	5,131	5,399
38028	3,449	3,412	3,588	3,531	3,790	3,774	4,132	8,778	8,817
38029	1,178	1,224	1,325	1,368	1,467	1,462	1,600	1,676	1,763
38030	1,945	2,020	2,186	2,256	2,421	2,412	2,641	2,765	2,909
38037	7,071	6,993	7,572	7,817	8,387	8,355	9,146	9,579	10,077
38040	1,392	1,446	1,565	1,615	2,067	2,051	2,599	2,554	2,082
38041	4,139	4,093	4,431	4,574	4,909	4,889	15,851	13,566	13,655
38042	4,548	5,497	5,953	5,890	6,002	6,159	8,646	9,055	8,947
38043	2,052	2,093	2,226	2,258	2,416	2,330	2,505	2,579	2,664
38044	7,029	6,951	7,526	7,528	7,699	7,669	8,739	9,017	9,771
38045	4,669	4,618	5,001	5,161	5,540	5,517	19,021	18,972	19,096
38046	3,761	3,718	3,848	3,809	3,895	3,879	5,807	5,792	5,803
38047	1,936	2,011	2,178	2,248	2,411	6,120	1,441	16,674	17,716

38048	5,639	5,577	5,751	6,721	5,779	6,108	6,398	6,600	7,245
38050	1,131	1,119	1,212	1,250	1,342	1,336	1,463	1,532	1,612
38051	1,131	1,119	1,212	1,250	1,342	1,336	1,463	1,532	1,612
38052	774	765	1,937	1,912	1,955	1,947	2,132	2,233	2,349
38053									
38054	2,378	2,351	2,034	2,015	2,038	2,030	2,255	2,187	2,164
38055								2,187	2,161
38058									
40973	2,871	2,839	3,561	3,501	3,579	7,051	7,721	8,085	8,506
40974	985	1,022	1,108	2,412	2,466	2,339	2,560	2,682	2,821
40975	1,819	1,889	2,044	2,111	2,265	2,257	2,471	2,586	2,721
40976	2,349	2,358	3,098	3,046	3,158	2,952	2,628	2,793	2,895
40977	1,886	1,944	2,038	2,046	2,091	1,983	2,172	2,275	2,393
40978	1,574	1,634	1,749	1,804	1,936	1,928	2,112	2,211	2,326
40979	592	607	648	660	699	686	943	787	792
40980	619	643	696	719	806	768	842	881	3,427
40981	884	919	3,289	3,233	3,303	3,134	3,431	3,593	3,781
40982	787	778	802	788	805	764	824	851	882
40983	4,134	4,088	4,215	4,144	5,715	5,420	4,751	4,975	5,234
40984	2,583	2,681	2,903	2,996	3,215	3,203	3,506	3,672	3,863
40985	20,473	20,246	20,877	20,526	20,977	20,895	22,876	23,958	25,206
45557	28,964	28,645	26,395	25,953	36,423	36,279	41,507	41,887	43,762
45558	1,228	1,215	1,315	1,933	2,075	2,066	2,263	2,369	3,688

45561	2,184	2,159	2,338	2,414	2,590	2,581	2,825	2,958	3,112
45562	991	492	5,690	5,652	6,066	6,041	6,614	6,928	7,288
45563	2,086	2,064	1,917	6,103	6,551	6,524	7,142	7,481	7,869
45567	1,248	1,296	1,404	1,449	1,554	1,549	1,696	1,776	1,868
45568	2,274	2,361	2,557	2,638	2,831	2,821	3,088	3,234	3,402
45569	2,702	2,671	2,754	2,709	2,906	2,895	3,170	3,318	3,491
45570	1,497	1,554	1,682	1,737	1,865	1,857	2,033	2,128	2,240
45571	181	188	204	210	226	3,204	10,753	11,261	11,848
45572	568	6,022	6,519	6,731	7,222	7,193	7,876	8,249	8,677
45573	1,178	1,223	2,338	1,069	7,908	7,877	8,624	9,031	9,501
45574	2,666	2,636	1,817	723	6,816	6,789	7,433	7,784	8,189
45575	284	295	320	330	353	353	1,441	7,545	114,450
45580	5,506	5,445	5,896	6,086	6,531	6,505	7,122	7,458	7,847
45581	733	5,239	5,631	5,571	5,979	5,955	6,520	6,827	7,184
45582	4,120	4,074	4,412	4,556	4,887	4,867	5,330	5,581	5,872
45583	2,265	2,328	2,515	3,214	3,274	3,261	3,571	3,740	3,934
45584	1,663	1,646	1,781	1,839	1,920	1,912	2,094	2,193	2,307
45585	996	1,034	1,120	1,157	1,241	4,328	1,441	33,854	34,632
45586	4,360	4,311	4,668	4,819	5,171	5,151	5,638	5,906	6,212
45587	2,469	2,442	2,643	2,728	2,928	3,462	1,441	21,578	21,739
45588	4,485	4,435	4,802	4,957	5,320	5,297	5,800	6,075	6,392
45589	634	658	713	737	790	788	887	903	2,161

45592	4,400	4,351	4,710	4,862	5,218	5,198	5,690	5,959	6,269
45596	4	4	5	5	5	5	208	145	151
45597	746	776	840	867	931	927	1,014	1,062	1,117
45598	1,485	1,469	1,590	1,641	12,633	12,583	13,777	14,428	15,179
45599	498	6,171	6,682	6,898	7,403	7,373	8,071	8,453	8,893
45600	2,723	4,446	4,178	4,076	4,501	4,137	4,529	4,743	5,277
45601	623	639	681	694	733	720	776	815	832
45602	4,316	4,269	4,621	5,383	5,776	5,753	6,298	6,596	6,939
45603	2,533	2,505	2,585	2,566	2,613	2,602	2,849	2,985	3,141
45604	1,947	1,926	2,085	2,152	1,020	11,206	13,689	13,235	13,328
45605	837	854	911	926	979	959	1,034	1,066	1,103
45606	1,227	1,253	1,334	1,355	1,429	4,377	5,274	5,261	5,271
45607	3,360	3,323	3,516	3,456	3,533	3,351	2,913	3,051	3,210
45608	1,933	2,007	2,206	2,344	2,407	6,156	6,343	6,642	6,987
45609	1,733	1,799	1,528	6,907	7,411	7,382	8,082	8,463	8,904
45610	3,907	3,863	4,184	4,319	4,634	4,616	5,053	5,292	5,566
45611	2,055	2,134	2,311	2,385	2,559	2,550	2,791	2,923	3,075
45612	807	839	907	937	1,005	1,002	1,096	1,149	1,208
45613	181	188	204	210	226	225	1,295	1,356	21,042
45614	1,294	1,345	1,456	1,503	1,613	1,606	1,758	1,841	1,936
45615	45	48	52	53	58	57	63	67	69
45616	204	213	230	238	254	254	277	290	306
45621	3,257	3,220	3,538	3,599	3,862	3,847	4,212	4,412	4,641

45624	1,486	1,544	1,671	1,724	1,851	1,843	2,019	2,114	2,223
45625	568	6,561	7,102	7,332	7,868	7,837	8,580	8,987	9,454
45626	1,248	1,297	1,404	1,451	1,556	1,549	1,697	1,777	1,868
45627	1,164	1,207	1,308	1,349	1,448	1,443	1,581	1,655	1,741
45628	1,718	1,898	2,084	2,519	2,268	2,297	2,333	2,637	2,945
45629	1,914	1,987	2,152	2,221	2,384	2,374	2,599	2,721	2,863
45630	2,457	2,429	2,631	2,353	2,379	2,370	2,596	2,718	2,859
45631	4,757	4,705	5,094	6,850	7,178	7,150	7,829	8,199	8,625
45632	4,757	4,705	5,094	6,921	7,150	7,121	7,797	8,165	8,589
45637	573	448	463	455	465	441	460	458	460
45638	2,141	2,223	2,408	2,485	2,667	2,656	2,908	3,046	3,204
45639	694	722	1,828	1,797	1,836	1,830	2,003	2,098	2,207
45640	893	927	1,004	1,036	1,111	1,107	1,213	1,271	1,336
45641	982	1,020	1,104	1,139	1,223	1,218	1,333	1,397	1,470
45642	3,404	7,302	7,906	8,161	8,758	8,724	9,551	10,002	10,524
45643	570	593	640	661	710	707	775	811	853
45644	555	578	625	645	693	690	755	791	832
45645	956	945	1,023	1,056	1,133	1,128	1,235	1,293	1,362
48141	4,528	4,478	4,617	4,539	4,639	4,401	4,590	4,577	4,815
93400	298	295	305	299	321	319	351	368	386
93401	1,625	1,686	1,827	1,885	2,022	2,015	2,206	2,311	2,430
93456	1,120	1,164	1,260	1,302	1,396	1,391	1,522	1,595	1,677
12847	2,306	2,393	2,591	2,676	2,871	2,860	3,131	3,279	3,450

4									
12847	2,131	2,213	2,395	2,474	2,654	2,644	2,894	3,031	3,189
5									
14312	8,146	8,056	8,307	8,167	8,346	7,917	8,653	9,063	9,534
6									
15201	6,112	6,044	6,422	6,317	6,653	6,505	6,989	7,183	7,417
9									
15202	568	3,979	4,309	4,448	4,773	4,753	5,204	5,451	5,734
4									
15202	498	4,437	4,804	4,736	5,082	5,061	5,542	5,803	6,105
5									
15861	14	14	14	14	14	14	15	15	15
4									
15861	10,486	10,371	10,693	10,513	10,745	10,191	10,628	10,600	11,151
5									
16092	13,435	13,287	13,700	13,471	13,767	13,058	14,298	14,974	15,753
8									
16843	4,512	4,463	4,830	4,988	5,351	5,330	5,835	16,396	16,495
4									
16843	4,997	4,942	5,351	5,524	5,927	5,904	6,464	6,770	7,121
5									
17295	3,341	3,470	3,757	3,877	4,162	4,144	4,539	4,754	5,000
1									

17295 2	3,009	2,976	3,112	3,073	3,134	3,121	3,418	3,578	3,766
17402 6	2,418	2,392	2,550	2,517	2,571	2,561	2,805	2,937	3,089
17549 6	2,219	2,194	2,263	2,224	2,386	3,689	3,846	3,951	4,097
18796 8			3,407	1,426	1,457	1,451	32,246	32,772	33,144
18961 9				1,953	1,995	1,988	2,176	2,280	884
18962 0				12,453	12,725	12,676	13,877	14,536	15,292
18987 5						1,209	1,261	1,258	1,323
18987 6					510	508	556	582	-
19313 1							2,882	2,169	2,165
19400 1							779	777	258
19428 9							5,265	5,177	5,223
19677									1,558

9									
Total	1,107,7	1,195,8	1,387,1	1,484,0	1,655,9	1,726,8	2,435,2	2,646,6	2,896,6
	35	31	72	66	41	45	51	69	33