ZONED IN

Economic Benefits & Shared Prosperity with Form-Based Codes

FBCI Form-Based Codes Institute

Smart Growth America
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In memoriam

The Form-Based Codes Institute mourns the loss in March 2021 of its longtime friend and supporter, Richard H. Driehaus.

Richard was the Institute's founding benefactor and the Richard H. Driehaus Charitable Lead Trust generously supported FBCI's work, including this study, for many years. Richard had a strong personal interest in design excellence and historic preservation. His commitment to the built environment was grounded in the belief that design can make a community stronger and give it more pride.

FBCI is pleased to dedicate this report to his memory.

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Introduction to form-based codes

Over the past several decades, walkable, mixed-use, smart growth development has become the preferred norm in many communities across the country. But many of these places are finding that their older, conventional, use-based zoning makes it difficult to realize this vision. This system of zoning was devised over 100 years ago to prevent undesirable adjacent uses—factories next to homes, schools across the street from taverns—and incompatible adjacent scales of development. Also referred to as Euclidean zoning, it focuses on the separation of uses—commercial, residential, industrial, civic—considered in the early 20th century to be incompatible.[1] Euclidean zoning was also used to segregate communities based on wealth, race, ethnic group, and abilities and continues to pervade most American communities today.

This intentional separation of land uses, incomes, races, and ethnicities—coupled with other government policies—has contributed to a range of societal problems including unequal distribution of wealth, racial segregation, auto-dependency and suburban sprawl, urban abandonment and blight, and significant environmental pollution. During the first half of the 20th century, a wave of white Americans chose to leave their homes in urban core areas and move to suburban neighborhoods on the periphery of the city. This resulted in the construction of thousands of miles of new roads to connect the increasingly sprawling suburbs to urban centers, many of them dividing Black and brown communities down the middle. This new "suburban" lifestyle was generally centered around segregated, residential-only neighborhoods with predominantly single-family, detached homes, and required the use of an automobile to fulfill most daily or recurring activities.

As commutes lengthened and women entered the workforce in greater numbers during the 1990s, many households—particularly white, middle- and upper-income households—began turning to a new, more urban way of life in places where they could shorten their commute and have other options for getting around. Residents near urban centers could enjoy street life, shopping and dining, and recreational activities nearby, and live in a more diverse neighborhood with a wider choice of housing types. When developers tried to respond to these preferences and market changes by creating mixed-use, walkable places, many hit a wall, discovering that this outdated approach to zoning, other local land-use regulations, and complicated, lengthy, unpredictable approval processes made building these types of walkable, mixed-use neighborhoods almost impossible in most communities, if not outright illegal. In

[1] Euclidean zoning was named after the landmark 1926 Supreme Court case, *Euclid v. Ambler*.

response, planners, urban designers, architects, and public decision-makers turned to the principles of historical urban form to develop a new system of land-use regulation. In 2003, this new approach to land-use regulation, which focuses on the places outside the buildings rather than on what goes on inside the buildings, became known as *form-based codes*.[2]

Modern form-based codes were created to encourage mixed-use, pedestrian-oriented development.

Illustrative plan from the Town of Canton, CT *excerpted from the Canton Village Districts Form-Based Code, which won the 2019 Richard H. Driehaus Form-Based Code Award.*

Unlike conventional zoning which focuses almost exclusively on building uses and largely ignores the public realm, form-based codes focus on creating the places outside of buildings—in the "public realm"—and creating spaces where people are comfortable and interested in walking, biking, or gathering. Form-based codes also focus on the scale and placement of buildings, the design of streetscapes, and the quality of open spaces and facades. Form-based codes are written to encourage the integration of uses and building types as modeled by village and urban centers that predate both conventional, use-based zoning and/or the popularization of the automobile.

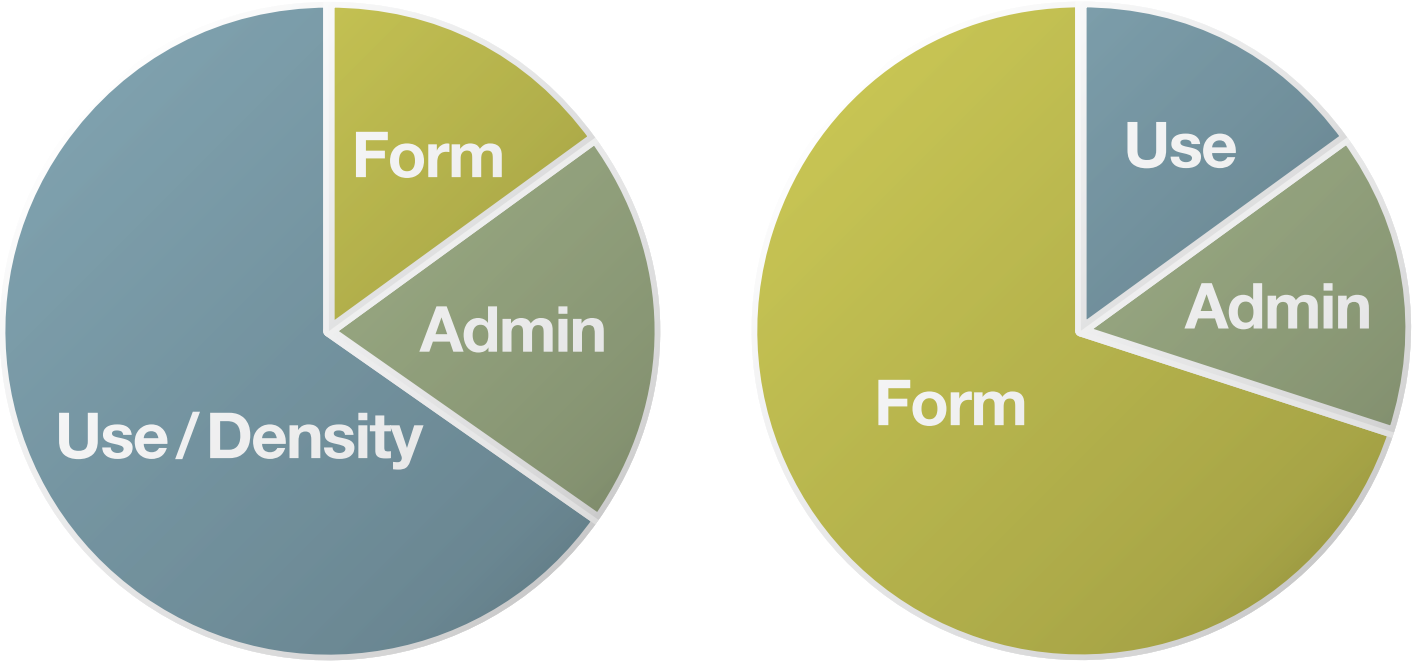
In these older urban centers, a diversity of housing types, commercial uses, and mobility options occur naturally and evolve over time as the needs of the community change. This focus on what happens outside the buildings, rather than inside, results in a regulatory framework that

[2] The term *form-based code* was coined in 2001 by Carol Wyant, who later became the first executive director of the Form-Based Codes Institute.

encourages a range of housing types and businesses, neighborhoods and streets that are designed to be safer and more inviting for walking and bicycling, preserves community history and architectural diversity, and results in a healthier environment. The main purpose of this study is to test the assumption that form-based codes foster a stronger economy and more diverse housing options, when compared to conventional codes in the same jurisdictions.

When implemented, form-based codes have the potential to help create more equitable development.[3] While conventional, use-based codes inherently drive separation and segregation, form-based codes offer an alternative regulatory framework that emphasizes walkability, human scale and physical character of place, mobility options, diversity, and a mix of uses.

Figure 1. Conventional (Euclidean) zoning vs. form-based zoning.



[3] The U.S. Environmental Protection Agency defines equitable development as, "…an approach for meeting the needs of under-served communities through policies and programs that reduce disparities while fostering places that are healthy and vibrant. It is increasingly considered an effective place-based action for creating strong and livable communities."

Figure 1 compares conventional zoning (left) with form-based zoning (right), illustrating how the importance of use and density, administration, and form are fundamentally opposite in the two types of codes.

The figure also illustrates the relative importance of three different aspects of zoning—use/density, administration (approval, variances, exceptions), and form. Conventional zoning relies heavily on what happens inside the buildings—the uses and densities. The second most important factor in implementing conventional zoning is the administration—variances, exceptions, and project-by-project approvals. Form—the shape, height, placement, and facades—of the buildings and the spaces in between play a relatively insignificant role in how development looks and feels.

Form-based codes primarily regulate the shape and exteriors of the buildings—heights, facades, placement on the lot, set-back or build-to line. These codes also include standards for open space—both public and private—streetscapes and pedestrian access. While most form-based codes specify how the code is to be administered, they provide more by-right options, if developers abide by the form standards. Most form-based codes also include use tables, which are shorter, with more general categories as the specifics of what happens inside the building is not as important as how a development relates to its surroundings.

Key findings

What we studied in this report

Form-based codes are widely recognized as tools to improve the character of a place, encourage physical activity, and strengthen resilience to climate change.[4] While most people who are familiar with form-based codes believe that the places these codes regulate tend to perform better economically than those regulated by more conventional, use-based codes, evidence to support this premise has been primarily anecdotal. This study uses both quantitative analyses—trends in land values, tax revenues, rents, and demographics—as well as qualitative approaches—opinions of public and private stakeholders in the study areas—to assess whether form-based codes have a significant, positive impact on their communities' economic performance. The research team selected four case study jurisdictions in different parts of the country to compare demographic and economic trends over a 10-year time period in neighborhoods with and without form-based codes. These comparisons were then used to determine the extent to which the form-based codes have contributed to the neighborhoods' economic growth and stability as opposed to their conventional code counterparts.

To complement the data retrieved from CoStar, Esri Demographics, and the American Community Survey 2019 (5-year estimates) and gain a more complete picture of the impact of form-based codes in the four case study jurisdictions, the research team interviewed a set of public officials, community leaders, residents, business owners, and real estate developers in each jurisdiction. Interviewees were asked to compare two select neighborhoods with regard to the quality of the built environment, changes to the public realm, the public response to development proposals, and the perceived impact of each type of code on the economy.

Summary of the findings

This combination of quantitative analysis and stakeholder interviews confirmed that places with a form-based code generally performed as well as or better than places regulated by more conventional, Euclidean zoning:

Places with *form-based codes* experienced about **1/2** the *increase in rents* compared to conventional codes

[4] Source: www.aarp.org/livable-communities/info-2014/livability-factsheet-form-based-code.html

- The four form-based code areas saw a **greater increase in construction activity**, particularly in multi-family development, than the comparison areas (average 154 vs. 115 percent, respectively).
- **Average rent in multi-family developments grew at a slower pace** in places with form-based codes than in the comparison areas (8.7 percent increase vs 16.6 percent). This is because there are more housing options for a wider range of household incomes in the form-based code areas, making it possible for folks and families of different backgrounds to share the prosperity of their community.
- The **number of residents in the form-based code areas grew faster** than in the comparison areas, largely because form-based codes create desirable places where people can live near jobs and amenities with more options for transportation to everyday destinations.
- The areas with form-based codes collectively **generated nearly $65 million more in tax revenue** than the comparison areas' revenue baseline (sometimes referred to as a "no intervention" scenario).
- Stakeholders across jurisdictions emphasized the **improved quality of life, walkability, and access to services and amenities** for local business owners and residents in the areas with form-based codes.
- Real estate developers touted the **increased flexibility and predictability of the approval process in places where form-based codes were in effect**.
- There was **no statistically significant change in the racial make-up** of areas with form-based codes, which reinforces the fact that **form-based codes are not a catalyst for gentrification and displacement** when they're designed around the needs of the community.

Places with
form-based codes
generated
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in tax revenue

Limitations with the data

Small sample: The form-based code and comparison areas analyzed for this study range in size from 400 acres to 1,500 acres. These relatively small areas, when compared to the much larger area of cities or counties, result in some inevitable limitations. For example, changes in population within a form-based code area—whether an increase or decrease—does not reflect how resident populations just outside the study area may have changed. These surrounding areas often are an important part of the story when considering whether and how an intervention like a zoning code may be affecting the local demographic landscape. When aligned with equitable development policies and regulations, like those described in the next section of this report, form-based codes can be

transformative not only for the specific neighborhood but for the region as a whole.

Timeframe of data: Demographic and economic trends were analyzed for the two study areas in each of the four jurisdictions for a 10-year period, beginning with the 2010 Census. This timeframe, which includes years of slower national economic growth as well as more recent economically robust times (prior to the COVID-19 pandemic) was used for all four case studies, regardless of when the form-based code was adopted. The differences in start/origin year could result in high variation among trends/outcomes. Cross-jurisdiction comparison should be avoided as each case study has a particular context.

Form-based codes: a tool for equitable development

Everyone deserves to live and work in a great place that is accessible and affordable, but great places are in short supply. Today, conventional land-use regulations—large minimum lot requirements, fewer dwelling units per acre, minimum parking requirements, and the predominance of single-family, detached zoning—continue to limit the variety of housing types, range of housing prices, and types of businesses that can afford to be in the neighborhood. In addition, this separation of uses produces densities that are too low to make transit viable, contributing to the prevalence of car-centric transportation networks. As a result, combined housing and transportation costs are much higher in places with conventional zoning than in places with more intensive, mixed-development patterns that can support a wider range of accessible options for housing, transportation, employment, and entertainment.

Form-based zoning can help foster more equitable development by offering a wider array of tools than conventional zoning does. Some of these tools are described below.

Equitable engagement. Form-based codes are the regulatory framework that cities use to implement a community vision. When current residents and business owners are meaningfully and consistently engaged in developing that vision, a form-based code can help ensure that the interests of vulnerable community members are protected. By bringing a diverse set of stakeholders to the table, communities can develop land use policies (like form-based codes) that stimulate the local economy while also creating or expanding avenues for more people to engage in it.

Increased transportation options. When zoning codes separate development according to use, they typically prevent

workers from living near their jobs, children from being able to walk to school or the playground, and everyone from experiencing any aspect of their neighborhood without using a car or being exposed to the well-documented dangers for pedestrians.[5] Because the adoption of a form-based code often results in higher intensity development and overall connectivity, active transportation and transit can become more viable options for residents (when paired with supportive infrastructure design). Form-based codes focus on life at a human scale, not a building scale.

Value capture. Property values and tax revenue in a given area generally increase after form-based codes are instituted. Particularly when generated through public policy or action—upzoning, infrastructure investments, development incentives—some or all of the additional revenue can be captured and reinvested in the local economy through initiatives that both mitigate displacement and advance the community's economic development goals. An example could be using the additional tax revenue generated by a new light-rail line to protect existing, and finance additional, affordable housing units along the transit corridor. This analysis will hopefully serve to encourage local leaders to consider the value-capture potential that form-based codes can bring to their communities, and the wide range of initiatives this additional revenue can support.

Housing diversity. Because form-based codes focus on the height, placement, and scale of buildings rather than number of units per acre, residential developers are able to provide a wider diversity of housing types. For example, accessory dwelling units can be built in neighborhoods where only large single-family detached units are allowed under conventional zoning, or a higher number of moderate-income units in a location where it would be financially infeasible under a conventional code's density limits. By allowing higher development densities, form-based codes enable households with different needs and income levels to join the community and participate in the local economy.

Mixed-use development. Building new residences in places with good access to employment, retail, entertainment, civic engagement opportunities, and other everyday activities can lower transportation costs by shortening the distance between residents and their destinations and providing other (often cheaper) options for getting around. This kind of mixed use development also reduces the time required to reach our destinations—an important commodity, particularly for low- and moderate-income households. Lastly, mixed-use development is known to benefit local businesses by attracting more commercial activity (that is, more spending) from pedestrians and other street users, making form-based codes a tool to support both residents' access to quality-of-life opportunities and businesses' access to employees and mobile capital. Form-based codes are designed to create more opportunities for mixed-use development than Euclidean or use-based codes.

[5] Source: smartgrowthamerica.org/dangerous-by-design

Policies to ensure equitable distribution of economic benefits

While there are many advantages to urban redevelopment, policies that promote new, market-rate development and other investments in historically disinvested neighborhoods can threaten housing affordability and the financial stability of community members with lower incomes. In addition to evaluating the many economic benefits of form-based codes, the findings and conclusions presented in this analysis also are intended to serve as a tool to calibrate supportive policies and activities, which can ensure that vulnerable residents and businesses not only avoid displacement, but that they benefit from their increasingly improving neighborhood. Here are a few steps that local leaders can take to ensure that the benefits of form-based codes are aligned with and contribute to the community's equity goals:

- **Ensure that a diverse set of stakeholders—particularly those representing groups that have historically been excluded—are consistently and meaningfully engaged throughout any visioning and planning processes involved in the adoption of a form-based code.** Some examples of key community stakeholders are residents of various demographic backgrounds and housing situations, local organizations that contribute to community life, developers and financial institutions, government agencies, business owners, and local advocacy groups.

- **Proactively adopt policies and programs that align with form-based codes to promote shared prosperity, mitigate displacement, and empower existing residents and business owners.** If these objectives are established as an integral part of the code-drafting process, a form-based code can serve as a regulatory framework to help address ingrained inequities through initiatives that create and preserve affordable housing, prevent economic displacement, and support local businesses and workers. Examples of such supportive initiatives can include community benefits agreements, home improvement grants and loans, tax credits for first-time home buyers, loans for small businesses to improve façades and other spaces, incentives for workforce development, and community centers and other public amenities geared toward serving existing residents.

- **Earmark a portion of the anticipated increase in public revenue and developer profits to mitigate displacement** and provide supportive services like affordable housing, workforce development, quality public spaces, and other amenities to low- and moderate-income residents and businesses. Property values and tax revenue generally increase in areas where form-based codes are adopted because they set guidelines to make neighborhoods more walkable and aesthetically pleasing in general, which can be a powerful tool to attract and grow community wealth. When this increase in value is generated through public policy or action, decision-makers can strategically use the additional "captured" revenue to finance existing or new initiatives that advance the community's resilience goals.

How the four study areas are aiming for equity

The significant lack of walkable, urban places in the United States raises the demand for the walkable, urban places that do exist, making them more expensive. As long as the desirable places created by form-based codes continue to be in short supply—whether in downtowns, small towns, or older suburban areas—property values in those places are likely to increase, with the potential for displacing long-time residents and local businesses.

Form-based codes can integrate elements intentionally designed to address displacement risks. Each of the four form-based codes analyzed in this study provide examples of equity-driven strategies that leverage new investments to share prosperity and power.

- The **Columbia Pike form-based code reinforces Arlington County, Virginia's** affordable housing program by requiring 20-30 percent of new housing units to remain affordable to households earning up to 60 percent of the area median income (AMI) for at least 30 years. It also includes a transfer of development rights—**allowing higher densities in some places in exchange for reduced densities in other places**—and conservation area standards to **protect sensitive properties and preserve existing affordable housing units**. Explore the **Columbia Pike Special Revitalization District Form-Based Code**.
- The **form-based code in Madisonville, a neighborhood in Cincinnati, Ohio, allows an array of missing middle housing types**[6]—cottage courts, duplexes, townhomes, stacked flats, and others—enabling the construction of new housing that is more compact and affordable. To further reduce the cost of housing, the code also encourages **shared parking**, allows **on-street parking to count toward parking requirements** for all development, and requires **no parking for small retail businesses**. Learn more about the **Cincinnati Form-Based Code** here.
- The **Near Southside form-based code in Fort Worth, Texas, permits accessory dwelling units**—a second small dwelling on the same grounds or attached to a regular single-family house—by right without restricting size. Common examples of accessory dwelling units are a studio built on top of the garage, a tiny house in the backyard, or a basement-level apartment with its own entrance. This is often an effective strategy to increase the supply and affordability of housing units in a given area. The Near Southside code also **eliminates off-street parking requirements for most developments**, potentially allowing the developer to pass these savings on to the tenant or new homeowner. Read more about the **Near Southside form-based code** here.

[6] Missing Middle Housing refers to "a range of house-scale buildings with multiple units—compatible in scale and form with detached single-family homes—located in a walkable neighborhood." (missingmiddlehousing.com)

- The **Delray Beach, Florida form-based code allows developers to build additional market-rate units** into a project—a "density bonus"—**in exchange for including a certain share of affordable or workforce housing units**. The size of the bonus is calibrated to encourage owner-occupied units to target low and very low-income households, often allowing around 20% additional units to be built on site if a certain share qualifies as affordable housing. The code **adjusts parking requirements based on proximity to public transportation** and **decreases parking minimums for small businesses**, generating savings that can trickle down to residents. It also places priority on preserving and enhancing existing neighborhoods that have experienced minimal investment in the past. Check out the **Delray Beach Central Business District Form-Based Code** here.

Other local strategies to support equitable development

Beyond the four study areas featured in this report, other local governments have adopted proactive policies across the country in conjunction with zoning reform to enable and incent equitable development:

- The **City of New Rochelle, NY used a multi-phased outreach effort titled "crowdsourced placemaking"** to engage as many stakeholders as possible in the development of their form-based Downtown Overlay Zone. An online forum allowed residents to submit and vote on suggestions for public spaces and amenities they'd like to see in their neighborhood, and a "downtown kiosk" was set up so people could submit ideas in person. The city also gathered feedback through home visits, church meetings, and other community events. The **most popular ideas were included** in a community benefits package—including density bonuses, PILOTs, and others—to **incent developers to deliver the kinds of places and amenities community members wanted**.

- Typically, when property values increase, rental units are converted to condominiums. The **Somerville, MA Condo Conversion Ordinance offers tenant protection in the cases where conversion to condos results in current tenants having to move**. The updated ordinance allows tenants to stay in their unit for one year after the owner submits a condo conversion application to the city, and up to five years for elderly, low- and moderate-income and/or people with disabilities. Tenants are also entitled to a $6,000 relocation fee per unit and $10,000 for units with elderly, low- and moderate-income and/or tenants with disabilities.

- Changes made to the Minneapolis (MN) Code of Ordinances to implement the 2040 Comprehensive Plan include permitting **"community clusters" of tiny homes** to provide **housing options for extremely low-income residents or the homeless**. The city also eliminated the maximum number of unrelated people legally allowed

to live in the same dwelling by redefining "family" in the zoning code.

- The **City of Norman, OK used community design charrettes** to engage residents, local businesses, longstanding institutions, etc. for months before code drafting began. **Citizens shared their ideas** for how the corridor/community should grow and were able to provide **immediate feedback** as designers presented concept drawings of ideas.
- In October 2010, the **City of Atlanta, GA** adopted legislation defining **community benefits principles for the Atlanta Beltline**, a 22-mile loop encircling the city, connecting many diverse neighborhoods and opening up acres of underdeveloped sections of the city for redevelopment. The **$2.8 billion project is expected to take 25 years** and will include a light rail line, transit-oriented design, multi-use trails, 1200 acres of green space, affordable housing, brownfield remediation, historic preservation, and public art.
- Programs like **Lifeline Pass in San Francisco, CA and Orca Lift in Seattle, WA offer monthly transit cards at discounted rates** to individuals earning below the 200 percent federal poverty level.
- In 2018, **Tigard, OR**'s **Housing Choices Initiative expanded zoning** in many of the city's residential zones **to include ADUs, cottage clusters, courtyard apartments, and quads**. All are by-right without any regulations more stringent than typical for single-family development.
- In 2019, **Seattle, WA updated its zoning ordinance to permit auxiliary dwelling units (ADUs)**—two attached units or one attached and one detached—in all single-family zones. Parking requirements include one parking space per (primary) dwelling unit with **no additional parking required** for ADUs.
- **Santa Cruz, CA reduces fees, waives building permit fees, and eliminates parking requirements** for certain ADU developments.

Equitable development in practice: Arlington County, Virginia[7]

It is well-documented that conventional zoning, as adopted for most U.S. communities in the 20th century, has contributed to a shortage in the overall supply of housing, limitations on the availability of different types of housing, and residential segregation by income and race. Form-based codes can be a tool to overcome that legacy and contribute to local efforts to increase the supply of affordable housing, prevent displacement, and preserve existing communities. The *Columbia Pike Form-Based Code* in Arlington, Virginia provides an example.

***Columbia Pike** is a vibrant, mixed-use walkable corridor, active at almost any time of the day. (Credit: Columbia Pike Revitalization Organization, columbia-pike.org)*

Just as local zoning codes are not the sole cause of the shortage of affordable housing and racial segregation, zoning code reform alone will never be sufficient to eradicate the problem. Any serious effort to create or maintain a diverse, mixed-income community requires a comprehensive approach that combines a range of tools and financial support and is based on a deep commitment from local leadership.

The Columbia Pike Form-Based Code is the product of a significant undertaking by the county to revitalize an auto-dominated corridor with stagnant commercial uses that did not serve adjacent neighborhoods well. Although the original effort in 2002 was driven by a desire to improve the

[7] *Columbia Pike Form-Based Code*, Arlington, Virginia. Prepared by Christopher Zimmerman, Vice President for Economic Development, Smart Growth America and former chair, Arlington County Council, Arlington County, Virginia.

quality of the built environment and to bring general economic benefits to the corridor, there was also early recognition that success could have unintended consequences for the very diverse Columbia Pike community. The corridor was at the time, and continues to be, the largest repository of market-rate affordable housing in Arlington County and the home to many working families, including immigrants from a wide variety of countries and continents. More than 100 different languages are spoken at home by the occupants of the thousands of units of garden apartments and low-rise residential buildings. A post-2000 Census report by the Brookings Institution referred to the area as, "the world in a zip code." Preserving this rich diversity was an explicit goal, from the "grassroots" to the County Board members.

***Adopting a form-based code** for Columbia Pike stimulated substantial new investment along the corridor, including more than 2,000 residential units added since 2008. (Credit: Arlington Economic Development)*

For that reason, the first form-based code, adopted in 2003, covered only commercial properties, with no action on residential zones—pending a study of the potential impact on affordable housing. The next phase—implementing form-based zoning for the remaining portions of the corridor constituting a majority of the land area—was completed a decade later, following extensive study of the housing stock, the needs of families residing there, and the identification of an extensive set of tools to preserve housing affordability. The result was presented as a comprehensive strategy—the "Columbia Pike Neighborhoods Plan." The form-based code was adopted as a component of a larger planning effort, one centered on the goal of preserving the existing diverse communities and ensuring that current residents would be able to continue living there.

As adopted, the plan set a goal of zero loss of affordable housing—establishing the expectation that, as development and redevelopment occur over time, families that lived in the corridor at the time of adoption

would still be able to live there. Given the 30-year time frame of the plan, this does not necessarily mean the same current residents, but instead individuals and families similarly situated. While the future Columbia Pike corridor is anticipated to have more residents, and many may have higher incomes, those who could afford to live there when the new plan was approved should always be able to afford to make the community their home. This ambitious goal was more than aspirational. It reflected market analysis, quantification of risk, and deployment of a set of policy tools sufficient to replace the loss of market-rate housing for low- and moderate-income households with committed affordable housing.

To develop the plan, the county conducted an inventory of the existing housing stock and an economic analysis to forecast the potential displacement of market-rate affordable units, as land values continue to rise. This quantification of expected loss was used to calibrate a set of policy tools (including provisions of the form-based code) to support creation of the necessary number of committed affordable housing units—approximately 6,200 units affordable to families between 40 and 80 percent AMI. The county considered a very wide range of possible tools to encourage the development or preservation of affordable units, finally adopting a combination of tools already in use in Arlington, as well as some new innovations. These included: a provision to incent the construction of on-site affordable units in projects built under the form-based code; the transfer of development rights; awarding height bonuses; parking relief; leveraging public land; a tax-increment financing or "TIF" device targeted to housing needs; and expanded use of existing mainstays of Arlington's housing program, such as a revolving loan fund (AHIF) and the use of tax credit mechanisms, including Low-Income Housing Tax Credits and Historic Preservation Tax Credits.

***Columbia Pike** is designed to provide residents, workers, and visitors with multiple mobility options. (Credit: BeyondDC)*

In the last decade, a series of residential projects built along Columbia Pike under the form-based code have provided nearly 1,000 units of new housing committed to be affordable to households with incomes below 60 percent of area median income. Developers of these projects have employed a variety of tools that the county has made available, in combination with the form-based code, in an aggressive effort to offset the loss of affordable housing through market pressure.

These projects have been developed under both the code adopted in 2003 for the commercial parts of the corridor, and under the code adopted in 2013, which applies in the residential parts of the corridor. Conforming to the form-based code, the projects use a variety of tools in different combinations, including, for example, Low-Income Housing Tax Credits, financing from Arlington's Affordable Housing Investment Fund, discounted public land leased by the county, and a partnership with a church.

Arlington County's success in leveraging a form-based code to produce and preserve affordable housing in the face of a strong market has many lessons for other communities, which are summarized as follows:

1. **Be intentional.** As Arlington County did in its Columbia Pike Corridor Neighborhood Plan, be explicit that community preservation is a baseline goal for development planning that includes a form-based code. Establish expectations from the outset that the resulting code will have built in housing-affordability provisions and that the code will be integrated with a range of tools to meet those objectives.
2. **Know what you have.** Inventory existing market-rate affordable housing in the area delineated for a form-based code.
3. **Use metrics to set goals.** Establish quantitative targets for affordable housing—number of units, income levels, and other factors.
4. **Embed a housing strategy in the plan.** Align provisions of the new form-based code and all related planning instruments—comprehensive plan amendments, ordinances, administrative regulations, and terms for any economic development incentives—with the housing targets.
5. **Monitor performance.** Track the changes in the housing stock regularly and make adjustments as necessary to ensure targets are met and the plan stays on course to meet community preservation goals.

Four case study jurisdictions

The four case study jurisdictions and their corresponding study areas (one form-based code neighborhood and one conventional code neighborhood in each jurisdiction) were selected to represent a range of place types. These include:

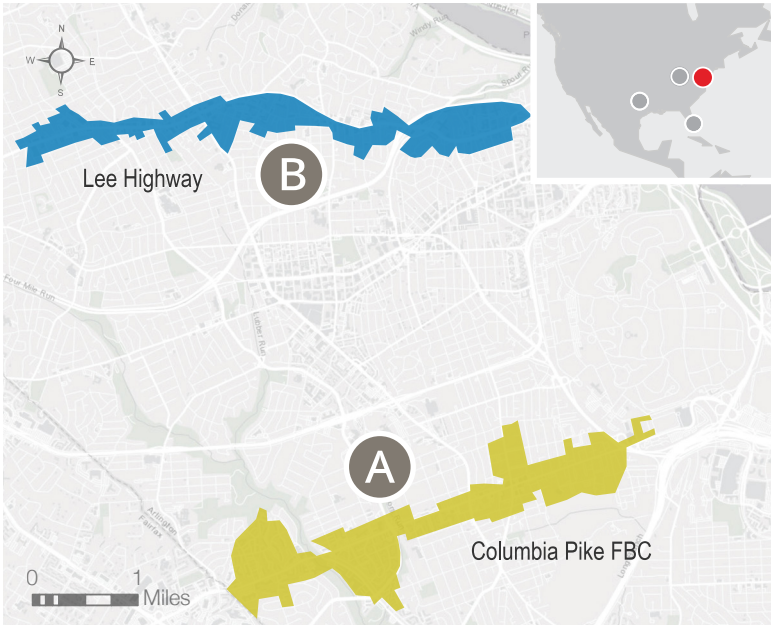
- Columbia Pike and Lee Highway are two suburban corridors in **Arlington County, VA**, part of the Washington, DC metro area.
- Madisonville and Pleasant Ridge are two mature, long-established neighborhoods in **Cincinnati, OH**.
- Near Southside and AllianceTexas are two neighborhoods in the rapidly growing city of **Fort Worth, TX**.
- Downtown Delray Beach and Boynton Beach are two small coastal communities in the diverse and growing **Palm Beach County, FL** region.

The four jurisdictions are located in different regions of the country and are home to households with a wide variety of income levels. This diversity in place type, geographic location, and income demonstrates the versatility of form-based codes and the economic benefits they can bring to different types of places. Each jurisdiction adopted the form-based code within the past 20 years, and they have all experienced enough development since the adoption of the code to evaluate real estate trends. Each area of analysis with a form-based code was regulated by Euclidean, use-based zoning prior to the adoption of a form-based code. Under those old, conventional codes, buildings and dwellings were separated by use, parking requirements were high in relation to the number of users and space available, and infrastructure supporting active mobility and the overall street experience was scarce. Development patterns in these areas favored auto-centric travel before the new code was adopted, even in historically walkable areas. In each case, the new form-based code encouraged a wider range of housing types and ground floor retail uses with residential and office uses above.

Arlington County, Virginia

Columbia Pike Special Revitalization District Form-Based Code

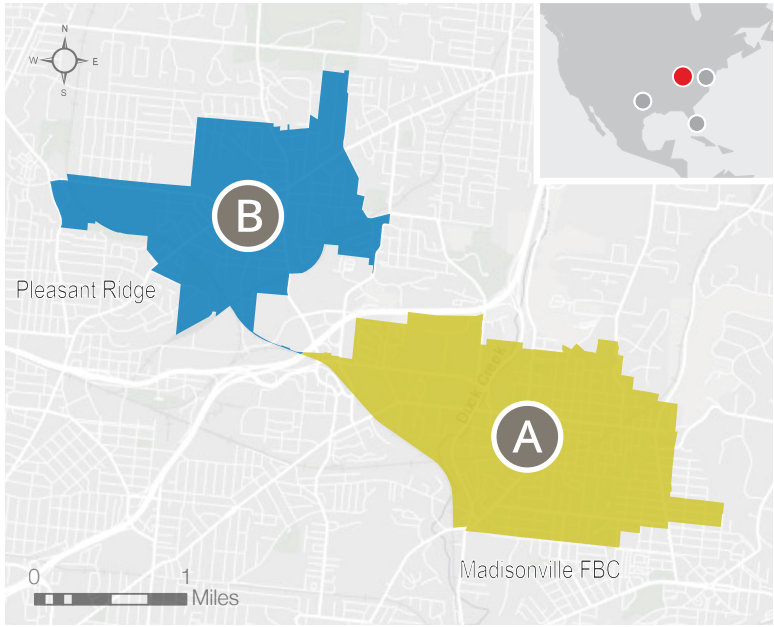
Lee Highway (comparison area)



Cincinnati, Ohio

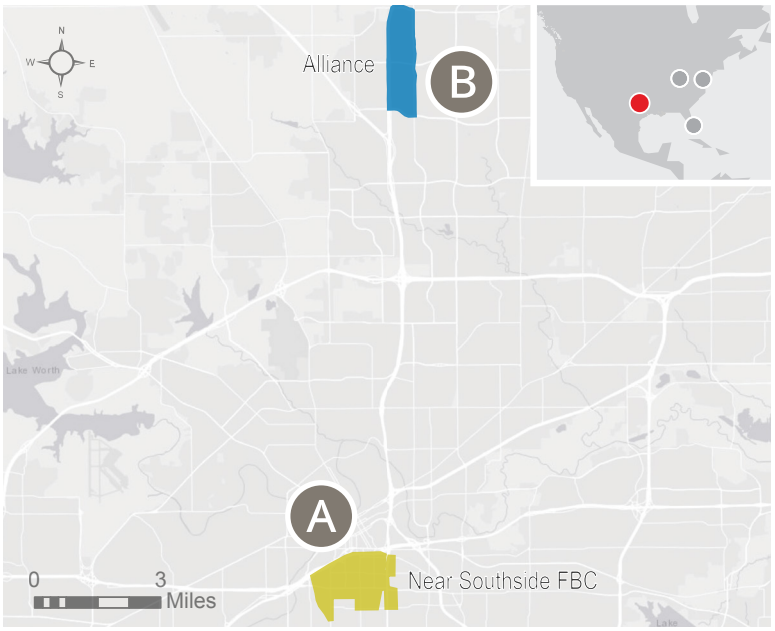
Madisonville: Citywide Land Development Code Update (form-based code)

Pleasant Ridge (comparison area)



Fort Worth, Texas

Near Southside Development Standards & Guidelines
(form-based code)

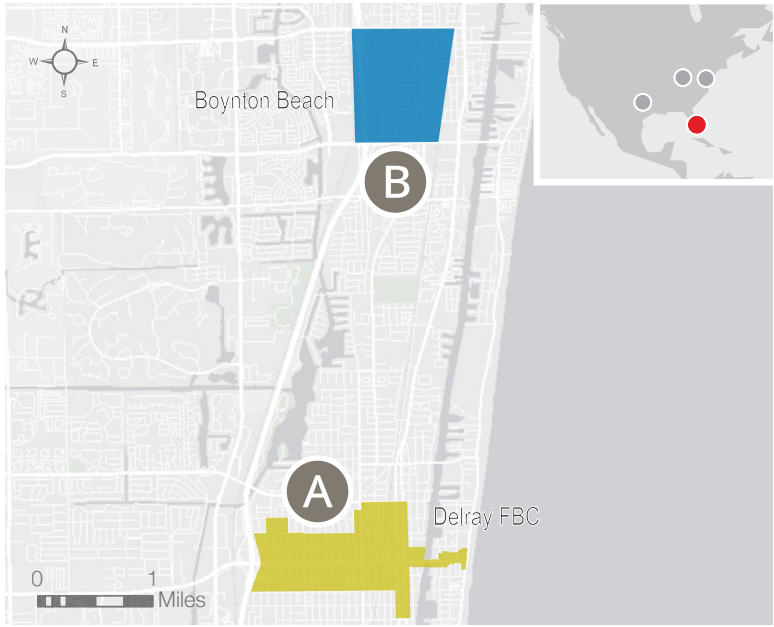


AllianceTexas (comparison area)

Palm Beach County, Florida

Delray Beach CBD Code and Architectural Guidelines
(form-based code)

Boynton Beach (comparison area)



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Case study findings

Demographic and economic trends were analyzed for the two study areas in each of the four jurisdictions for a 10-year period, beginning with the 2010 Census. This timeframe, which includes years of slower national economic growth, as well as more recent economically robust times prior to the COVID-19 pandemic, was used for all four case studies regardless of when the form-based code was adopted. The selected indicators for this particular analysis are: total population; population density; total number of businesses; total number of jobs; median household income; unemployment rate; number of building permits issued; and estimate of additional tax revenue associated with the establishment of the form-based code. All dollar values are adjusted for inflation.

The research team also evaluated real estate trends in three income-producing property categories—office, retail, and multifamily—for the eight areas of analysis.[8] These trends[9] include:

- **Average rent** per square foot;
- **Inventory**, or the active supply of real estate properties on the market;
- **Vacancy**, or the share of the available inventory (units) that is currently unoccupied;
- **Net absorption**, or the difference between the amount of occupied square feet tenants vacated during a certain time period and the square feet they occupied when they move to a different space within the same locality; and
- **Deliveries to market**, or the number of buildings that have been constructed and occupied in a given year.

Case studies: analysis

Arlington County, Virginia: Columbia Pike & Lee Highway corridors

Highlights:

- The number of building permits increased 19.5 percent, and tax revenues increased 131 percent along Columbia Pike between 2010 and 2019.

[8] An *income-producing property* is considered any piece of real estate that is purchased or developed primarily in order to earn income by renting or leasing it out to others, with a secondary goal of price appreciation.

[9] For rent per square foot, inventory, and vacancy, the percent change over time was evaluated. For net absorption and number of project deliveries, total numbers from the year before the form-based code was adopted were compared with those counts in 2019.

- Project deliveries along Columbia Pike, particularly multi-family inventory, have far outperformed Lee Highway with ten new projects as opposed to Lee Highway's four total deliveries.
- Multi-family rents along Columbia Pike increased by 9.4 percent compared to 19.8 percent along Lee Highway, suggesting housing opportunities for a wider range of household incomes in the form-based code areas.
- The racial mix along both corridors changed little over the ten-year period. Columbia Pike saw a slight decline in the White population (two percent) and Latino population (four percent) and small increases in the Black (four percent) and Asian (two percent) populations. Lee Highway experienced a two percent growth in its White and Asian populations (two percent each), a decline in its Latino population (four percent), and no change in its Black population.

Thousands of new homes, many attainable to low- and moderate-income households, have been added to the Columbia Pike Corridor. (Credit: BeyondDC)

Arlington County, Virginia is a fast-growing suburban county across the Potomac River from Washington, DC. The county is home to a wealth of technology and federal government-related jobs. The two corridors in the county—Columbia Pike and Lee Highway—were analyzed for this study. Overall, the analysis indicates strong economic growth throughout Arlington County, but the type of growth seen along the Columbia Pike corridor—diverse and mixed-use—is in a form that will be more sustainable and in demand in the coming years.

Arlington County adopted a form-based code for the Columbia Pike corridor in 2003 and expanded the area covered by the code in 2013. Lee Highway, to the north of Columbia Pike, is an auto-dependent corridor with low

density commercial and residential uses. The Columbia Pike corridor has experienced a modest increase in population numbers and density from 2010 to 2019. Additionally, despite the decline in overall office and retail space, the Columbia Pike corridor experienced an increase in the number of jobs. Inflation-adjusted median household income has risen and unemployment has declined substantially along the Pike. The number of building permits issued has increased, indicating an increase in real estate demand for the area. The number of permits issued in 2010 was significantly higher along Columbia Pike than along Lee Highway and has remained higher even as the Lee Highway Corridor has been built out. In addition, the Columbia Pike corridor has consistently generated more tax revenue for Arlington County than the comparison area, over the ten-year period.

In the same timeframe, the Lee Highway corridor experienced strong growth in the numbers of residents and a modest increase in population density. The highway saw a healthy increase in jobs and a relatively stable inflation adjusted median household income. The number of building permits also increased, although at a rate lower than along Columbia Pike. Overall, the economy of Lee Highway performed well in the ten-year period, but lagged behind when compared to the form-based code area along Columbia Pike.

Lee Heights Shopping Center on Lee Highway (U.S. Route 29) in Arlington. (Credit: Google Maps)

The Columbia Pike form-based code area experienced a decline in office and retail inventory and a substantial increase in multi-family inventory over the ten-year study period. These trends suggest that the area is making a successful transition from an auto-oriented commercial corridor to a mixed-use, pedestrian-oriented area. The vacancy rate along the corridor also

has increased slightly, but is low enough to suggest strong demand for multi-family housing along the corridor. Ten new multi-family buildings have been constructed since 2002. This, combined with the vacancy, reinforces the case that there is strong multi-family demand.

There was some growth in multifamily housing along the Lee Highway corridor in the ten-year period, but the slower rate of growth and steeper rent increases suggest that construction has not kept pace with demand, perhaps as a result of lower density zoning and a more complicated regulatory environment. Very little new inventory of any kind has been built in the area since 2002.

The redevelopment of Columbia Pike has brought high quality projects built by developers who, in the past, had no interest in the corridor. Interviewees explained that the simple, streamlined project approval process allows developers to save time and money, while predictable development standards, designed with community guidance, reduce objections from neighborhood activists for most projects. Projects like Penrose Square and Centro are extremely popular and provide important amenities for the community, welcome public realm improvements, and better mobility. Intentional initiatives to retain and increase affordable housing and prevent displacement are allowing the corridor to retain the diversity its current residents have long valued.

Those interviewed also remarked that the form-based code has resulted in economic growth along the corridor. Residents enjoy walking to and supporting local dry cleaners, wine stores, and small legacy restaurants that attract regional praise for excellent and authentic ethnic cuisine. An enhanced streetscape, with public infrastructure improvements, is lined with attractive new mixed-use buildings. The pedestrian and cycling experience is far superior to that of the Lee Highway corridor, and dining, shopping, and office destinations are more connected than ever.

While new buildings in the corridor are taller and more urban in character, they are designed to respect adjacent residential areas and promote a better pedestrian experience than before. Interviewees explained that services and amenities are available in compact walkable areas where residents and visitors can complete errands from a single parking space—allowing Columbia Pike to “act like a downtown.” This description stands in stark contrast to the unpleasant on-the-ground experience along Lee Highway, which lacks any feeling of community, where walking is dangerous and unappealing, and shopping, businesses, and restaurants are disconnected and auto-dependent.

Cincinnati, Ohio: Madisonville & Pleasant Ridge neighborhoods

Highlights:

- The Madisonville neighborhood, with a form-based code, outperformed Pleasant Ridge, which does not have a form-based code, on nearly every metric, both economic and real estate.
- The Madisonville neighborhood experienced strong population growth (10.3 percent) and business activity (1,145 percent) over the ten-year period, compared to a 5.0 percent population increase in Pleasant Ridge and 516 percent increase in Pleasant Ridge businesses.
- The number of building permits issued in Madisonville consistently exceeded those in Pleasant Ridge, growing 69.1 percent, as compared to 40.0 percent.
- Tax revenue generated in Madisonville was consistently greater, growing by 10.4 percent, as compared to 2.9 percent in Pleasant Ridge.
  - Multi-family rents grew at a similar rate in both neighborhoods, but two new properties were delivered in Madisonville, while there were no new multi-family projects built in Pleasant Ridge in the same time period.
  - Madisonville experienced a slight increase in its White, Black, and Asian populations, and a slight decrease of its Latino population.

This mixed-use development, completed in 2020, is one of the largest investments Madisonville has seen in years. (Credit: Al. Neyer, LLC)

In 2013, the City of Cincinnati adopted a citywide form-based code, giving each neighborhood in the city the option to opt into the new code, or continue to use the existing, use-based code. While most neighborhoods elected to continue to use the existing code, several neighborhoods chose to use the new form-based code to guide

future development. The research team compared trends in two neighborhoods—Madisonville, which opted into the form-based code and Pleasant Ridge, which did not. Madisonville is a neighborhood approximately ten miles northeast of downtown Cincinnati. Pleasant Ridge is located northwest of Madisonville across Interstate 71.

During the ten-year study period, Madisonville experienced an increase in population, as well as a slight increase in population density. The number of jobs in the area and median household income declined. However, the unemployment rate also declined and the number of building permits issued nearly doubled, indicating an increasing demand for real estate in the area. Together, these trends indicate a place transitioning from a detached, single-family residential neighborhood into a mixed-use neighborhood.

Residents await a bus in front of a service station in Pleasant Ridge. (Credit: Lisa Stout / Flickr)

The nearby Pleasant Ridge neighborhood also experienced population growth, albeit at a slightly slower rate. However, the higher rate of increase in businesses and jobs, coupled with the significantly lower increase in building permits, suggests that Pleasant Ridge is becoming more of a suburban office submarket, rather than a mixed-use neighborhood. Both neighborhoods experienced a decrease in median household income.

Since the adoption of the form-based code, rents per square foot increased at a greater rate in Madisonville than in Pleasant Ridge. Similar to many other areas in the city, the retail sector struggled in both neighborhoods. New multifamily and office space absorption slowed for both areas over the ten-year timeframe, but Madisonville performed significantly better than Pleasant Ridge on both of these metrics, over the same period.

The Pleasant Ridge neighborhood saw rent increases in both the office and multi-family markets, but a steep decline in retail rents. There have been no new developments in the neighborhood since 2013, even as vacancy rates declined.

This absence of new inventory could indicate a lack of demand in the neighborhood, even though its performance indicators were only slightly lower than those for Madisonville.

Interviewees explained that the decision by Madisonville to opt into the Cincinnati form-based code in 2014 resulted in new investment into the community and gave residents and business owners a focus for revitalization efforts leading to new construction, home renovations, and major improvements to older commercial buildings. In addition, several new locally-owned, neighborhood-oriented businesses—a hair salon, bakery, music school, clothing store, and gym—opened in the downtown as evidence of a strong commitment by local businesses and residents. "The form-based code is helping create the downtown district the neighborhood has envisioned for so long," said one community leader. "We would've had lower-quality development without it."

Interviewees commented that the decrease in densities—from the walkable, mixed-use business district to mid-level multi-family buildings and then to single-family homes represents a naturally occurring urban-to-suburban transition, shaped by form-based regulations. The form-based code helps Madisonville retain traditional neighborhood patterns while enabling new infill development. As a result, Madisonville has become a neighborhood of choice in greater Cincinnati, and growing investment year over year is greater than conventionally-zoned comparisons.

Fort Worth, Texas: Near Southside & AllianceTexas

Highlights:

- The Near Southside neighborhood, with a form-based code, experienced steady growth in population (4.3 percent), number of businesses (156 percent), and tax revenues (60 percent).
- The median household income grew at a rate similar to the more suburban AllianceTexas area (7.3 percent as compared to 8.0 percent).
- Near Southside has seen a decline of 39.4 percent in unemployment in recent years.
- The retail and multi-family inventory in Near Southside grew 102.3 percent and 184 percent, respectively. Retail inventory grew only slightly less than AllianceTexas, indicating strong demand in the form-based code area.
- Multi-family rents declined 2.5 percent and 12 new multi-family developments were delivered in New Southside, compared to AllianceTexas where multi-family rents increased 8.2 percent and only five new multi-family developments were delivered.
- Near Southside experienced a notable increase in its White population (ten percent) and a decrease in its Black population (15 percent)—more than any other study area with a form-based code. The Latino population and the

population who identified as “two or more races” also increased. Race distribution in AllianceTexas remained fairly stable with a decline of the White population by four percent and the Black population by one percent.

Fort Worth, Texas, part of the fast-growing Dallas-Fort Worth metro area, has seen a significant increase in population and employment over the past several decades. In 2013, the city adopted a form-based code for the blighted Near Southside district, located south of Interstate 30, just south of the downtown. AllianceTexas, the comparison area, is a large-scale, master-planned, mixed-use development in a formerly greenfield site, located approximately 15 miles north of Near Southside.

Street fair in Near Southside. (Credit: Near Southside, Inc.)

Between 2010 and 2019, the population and population density in the Near Southside grew at a modest rate. As a hub for medical jobs, the area also saw modest job growth, the unemployment rate declined, and the number of businesses increased more substantially. The median household income in the area also grew; and while the number of building permits declined, the new development that did occur resulted in a substantial increase in tax revenues.

Although AllianceTexas has some elements of a human-scale form, such smaller building footprints, residential, office, and retail uses are segregated, resulting in an auto-dependent development with limited vibrant, walkable places. Prior to 2010, the site was a greenfield with no residents or places of employment. Over the past ten years, since the project broke ground, the area experienced a rapid increase in the number of jobs and residents.

Since the adoption of the form-based code, Near Southside has experienced a significant amount of new construction. Office, retail, and multi-family inventory all have increased, resulting in a decline in rents. Vacancy rates for retail and multifamily also have increased somewhat, but remain low,

indicating a stable and growing market. The significant increase in office inventory and absorption, is most likely due to the fact that Near Southside is a hub for medical employment.

Real estate trend data for AllianceTexas is only available from 2012 for office developments and 2014 for multi-family development. From those years until 2019, the area experienced substantial growth in rents, inventory, and absorption, as well as sharp declines in vacancy rates. However, by comparison, more office and multi-family projects came online in Near Southside than in AllianceTexas, over a comparable period of time.

Interviewees from Fort Worth familiar with both areas of analysis said that Near Southside has transformed "slowly, not dramatically" from a blighted and under-developed part of the city to a vital district with the adaptive reuse of historic buildings, refurbished warehouses, and attractive rehab of older residential and commercial properties. Its mix of uses and superb walkability give residents the opportunity to carry out life's daily needs in a compact, walkable area. The area benefits from an impressive increase in multi-family housing, bustling mixed-use nodes, and plentiful bars, restaurants, and services. Rising property values reflect these appealing changes. Many of the businesses are locally-owned, and residents benefit from the balance between local attractions and the economic engine of the medical center. The community is growing in diversity, and new residents, both young and old, are increasingly interested in living there.

Retail area in AllianceTexas. (Credit: Heritage Homes)

Near Southside Inc., the local development organization and champion of the form-based code, works with developers to guide projects through the development pipeline. The code is user-friendly and predictable, and the density bonuses for open space and

parking facilities, standards for adaptive reuse, and elimination of parking required parking minimums all make developing in the Near Southside more appealing, when compared to other areas of the city. Interviewees explained that the quality of development in the Near Southside is significantly better than projects just outside the form-based code area where most projects are of a suburban design, surrounded by surface parking and that even corporate entities like CVS or 7-Eleven—which typically follow suburban development patterns—build compact, urban projects with buildings that directly address the street.

A street festival along Savor Avenue in Delray Beach. (Credit: Downtown Development Authority of Delray Beach)

Palm Beach County, Florida: Delray Beach & Boynton Beach

Highlights:

- Downtown Delray Beach, regulated by a form-based code, outperformed the comparison areas in Boynton Beach on nearly every economic metric.
- The form-based code district experienced a 60.8 percent increase in the number of jobs and a 43.8 percent increase in median household income. The comparable area in Boynton Beach experienced declines in both metrics.
- Delray Beach currently generates significantly higher tax revenue than Boynton Beach, $23,977,025 as compared to $3,717,522.
- Office and retail rents increased by 65 percent and 77.4 percent, respectively, in Delray Beach, over the ten-year period. Office rents increased in Boynton Beach by only 3.4 percent and retail rents by a significant 100.2 percent.
- Net absorption and deliveries for multifamily increased more in Delray Beach, with Delray Beach experiencing

a net absorption rate of 549,307 SF and five new multi-family deliveries, compared to a net absorption decline in Boynton Beach and no new multi-family deliveries.

- Multi-family rents in downtown Delray Beach increased 7.1 percent, a slower rate than in Boynton Beach, 17.6 percent, suggesting housing for a wider range of household incomes.
- Delray Beach and Boynton Beach experienced similar increases in White population and decreases in Black population. Delray Beach also experienced an increase in its Latino population and those who identified as "other".

A vision of downtown Boynton Beach on the cover of the new Strategic Plan for the city. (Credit: City of Boynton Beach)

Delray Beach, a small city in Palm Beach County along Florida's Southeast coast, located approximately 53 miles north of Miami, adopted a form-based code in 2004 and modified and expanded the area covered by the code in 2007 and 2015. Boynton Beach is another coastal community, located seven miles up the coast from Delray Beach, also in Palm Beach County. While some data—including ten-year trends for the number of businesses, building permits, and property assessments—was unavailable, the data for all other metrics was available, providing enough information to enable comparisons between the two areas of analysis.

The area covered by the Delray Beach Downtown form-based code experienced an increase in population, population density, and number of jobs between 2010 to 2019. The inflation adjusted median household income in the area increased, as did the level of unemployment. Today, the area covered by the Delray Beach code generates exponentially more tax revenue than the comparison area in Boynton Beach.

Over the same ten-year period, the Boynton Beach comparison area experienced significant growth in population, although

slightly less that of Delray Beach. The area also saw a slight decrease in economic activity, as indicated by the decline in the number of jobs and median household income. The unemployment rate in Boynton Beach increased to 7.6 percent, compared to Delray Beach's lower rate of 5.6 percent.

On the real estate side, the downtown area covered by the Delray Beach form-based code experienced an increase in office and multi-family inventory and a slight decrease in retail inventory. Additionally, the area saw rent increases in all three sectors, as well as a decrease in vacancies in retail and multifamily. Vacancy rates increased for office space, but the increase in inventory and positive absorption rate indicate demand in the area. The area also has seen a substantial number of new project deliveries since the adoption of the code, suggesting that the area has become more intensely developed, less auto-dependent, and more of a vibrant, walkable, mixed-use destination.

The comparable area in Boynton Beach experienced rent increases in its office, retail and multi-family market, however, there has been no new construction since 2004. Instead, retail and multifamily saw a decline in inventory, as well as negative absorption, indicating soft demand. Although vacancy rates declined, the lack of new inventory suggests weak demand for new construction. The office market fared slightly better, demonstrating positive absorption in the existing stock. However, there was significantly less new construction, compared to Delray Beach.

Those interviewed in Palm Beach explained that throughout the 90s and early 2000s, Delray Beach struggled to attract high-quality development in and around its traditional downtown. During this time, the city approved projects on a case-by-case basis, exercising minimal control on the architectural and placemaking qualities of new development. In 2007, the city adopted a design-driven form-based code and architectural standards for the central business district. As a result, all new or substantially renovated projects in the district must preserve and protect the historic character and scale of the area, while also stimulating and enhancing economic vitality and growth. The code reinforces the community's historic development pattern, manages its unique, ocean-oriented main street, and creates attractive gathering places by requiring most projects to have pedestrian-oriented building entrances and comfortable public spaces. As a comparison, interviewees noted that nearby communities like Boynton Beach have "allowed a few (formerly) great streets and pieces of urbanism to erode."

Developers appreciate Delray Beach's streamlined approval process and flexibility of uses. The code's reduced parking requirements and density bonuses also appeal to developers because they raise the value proposition for their projects. From a planner's perspective, the form-based code provides a high degree of predictability and is easy to use, requiring fewer revisions during the development review process.

Comparison: form-based code vs. conventional code areas

Economic & demographic trends

Tables 1–3 summarize the economic and demographic trends for the eight areas of analysis in the four case study jurisdictions.[10] The main trends identified were:

- **On average, the areas regulated by form-based codes have larger populations; higher population densities; more businesses, jobs, and building permits issued; and higher tax revenue.** This is because the development process under form-based codes is designed to be more streamlined and easier to complete than under a conventional zoning code.
- **Although the population growth rate was not significantly affected by the introduction of a form-based code, the areas with form-based codes experienced greater increases in the number of businesses and jobs, median household income, and number of permits issued.** These increases in economic activity are likely direct outcomes of the form-based codes as they enable compact, walkable development with more opportunities for businesses and new residents.
- **The eight study areas are relatively diverse with at least 30 percent of the population identifying as a race other than white.** The change in demographic composition of the form-based code areas was statistically insignificant from 2014 to 2019.
- **No definitive conclusions could be drawn regarding the effect that form-based codes have on per capita income by race.** Due to the small sample of the race and ethnicity data, the research team could not draw any conclusions.
- **On average, the form-based code study areas saw their per capita income increase by 24 percent, four percentage points greater than the comparison areas.** The median increase in the form-based code areas was 22 percent, also greater than the comparison areas.

[10] AllianceTexas in Fort Worth is a new, master-planned development located in a greenfield where there was no development prior to the project breaking ground. For this reason, the economic trend data is presented with and without data from that project.

Table 1. Summary Economic Data, 2019

	Population	Population Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
Columbia Pike Form-Based Code	19,279	34.0	363	2,867	$73,897	2.8%	14,272	$24,444,113
Lee Highway	8,836	22.0	358	4,065	$109,417	1.4%	405	$18,616,946
Madisonville Form-Based Code	9,570	6.3	361	6,129	$46,325	4.3%	359	$88,044,278
Pleasant Ridge	8,082	7.5	191	2,635	$59,315	2.6%	175	$57,699,049
Near Southside Form-Based Code	4,759	4.2	320	2,982	$41,125	5.7%	154	$18,953,381
Alliance Area	2,347	2.6	36	4,817	$96,451	2.8%	35	$5,640,958
Delray Beach Form-Based Code	5,009	8.6	1,326	7,947	$67,871	5.6%	-	$23,977,025
Boynton Beach	5,175	10.1	204	1,321	$42,660	7.6%	-	$3,717,522
Form-Based Code Average	9,654	13.3	593	4,981	$57,305	4.6%	4,928	$38,854,699
Comparison Average	6,110	10.6	197	3,210	$76,961	3.6%	205	$21,418,619
Form-Based Code Median	7,290	7.5	362	4,556	$57,098	5.0%	359	$24,210,569
Comparison Median	6,629	8.8	198	3,350	$77,883	2.7%	175	$12,128,952

Table 2. Summary Demographic Data, Race & Ethnicity, 2019

	% White	% Black	% Asian	% Other	% Two or More	% Latino
Columbia Pike Form-Based Code	28%	22%	16%	14%	3%	31%
Lee Highway	68%	5%	11%	2%	3%	13%
Madisonville Form-Based Code	44%	22%	3%	6%	2%	30%
Pleasant Ridge	60%	0%	0%	30%	2%	40%
Near Southside Form-Based Code	53%	38%	2%	0%	5%	3%
Alliance Area	58%	31%	1%	3%	3%	6%
Delray Beach Form-Based Code	43%	49%	0%	3%	1%	7%
Boynton Beach	36%	45%	3%	1%	2%	14%
Form-Based Code Average	42%	33%	5%	6%	3%	18%
Comparison Average	56%	20%	4%	9%	2%	18%
Form-Based Code Median	43%	35%	3%	5%	3%	12%
Comparison Median	57%	26%	2%	6%	2%	16%

Table 3. Change in Per Capita Income by County & Study Area, 2013–2018

	County 2013	County 2018	County	FBC	Comparison
Arlington County, Virginia	$32,690	$38,805	19%	43%	21%
Hamilton County, Ohio	$29,883	$35,957	20%	18%	30%
Tarrant County, Texas	$28,701	$32,939	18%	25%	15%
Palm Beach County, Florida	$64,298	$71,061	11%	11%	15%
Average	$38,893	$44,691	17%	24%	20%
Median	$31,287	$37,381	19%	22%	18%

Real estate trends

Charts 1–3 summarize the real estate trends in the eight areas of analysis, comparing the areas with form-based codes against those without form-based codes.[11] Both rents and vacancy rates across the four form-based code areas increased while the overall supply of properties in the market saw a slight decline. Key findings are:

- **Multi-family rents grew at a slower pace in form-based code areas**, which suggests that greater and more diverse residential development kept rents lower, allowing for households at a wider range of incomes to move into or remain in the area.
- **The increase in office vacancy rates in the form-based code areas, coupled with an increase in average rents and inventory together suggest stronger demand for office space than in the comparison areas**, because much of that demand remains unmet. In these cases, vacancy rates are a function of new deliveries added to the market—they are temporary and likely to decline as new inventory is absorbed.
- **The residential inventory, or active supply of properties on the market, increased significantly in form-based code areas but the proportion of unoccupied units was much lower than in the comparison areas.** This trend illustrates that areas regulated by form-based codes saw a higher rate of new construction, and that new housing stock was occupied at a faster rate than the available housing stock in the comparison areas.

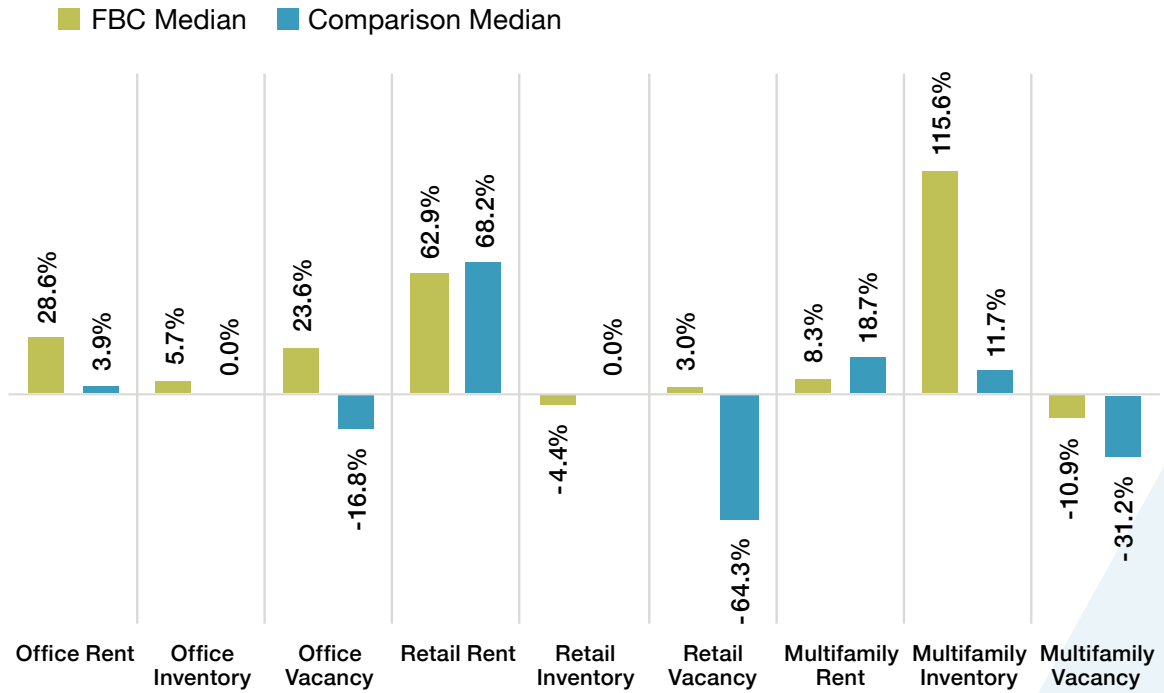

Chart 1. Real estate trends, median

[11] For rent, inventory, and vacancy the team evaluated the median, based on percentage change. For absorption and deliveries, the total number was evaluated.

The multi-family metrics demonstrate robust demand for residential development in all form-based code areas. Rents and inventory have increased at a fast pace, surpassing the rate of demand thus resulting in declining vacancy rates.

- **Areas regulated by form-based codes saw a significant increase in new deliveries, or the number of buildings that are built and occupied in a given year, for all three property types—residential, commercial, and office.** The number of new developments across the three property types increased in the form-based code areas, while the median of the comparison areas indicated a stagnant growth rate for office properties and a marginal increase in new retail and multi-family developments.
- **The form-based code areas experienced higher absorption rates in office and multi-family properties than the comparison areas.** That is, a higher rate of vacant office and residential space was occupied by new tenants, which represents lower vacancy loss in the form-based code areas than in the comparison areas. Areas with both types of codes saw negative absorption rates in the retail sector across the four jurisdictions, with lower absorption in the form-based code areas than in the conventional code areas.

Combined, these trends suggest that the form-based code areas are seeing a different mix of development—with more and a wider variety of residential products—than the comparison areas.

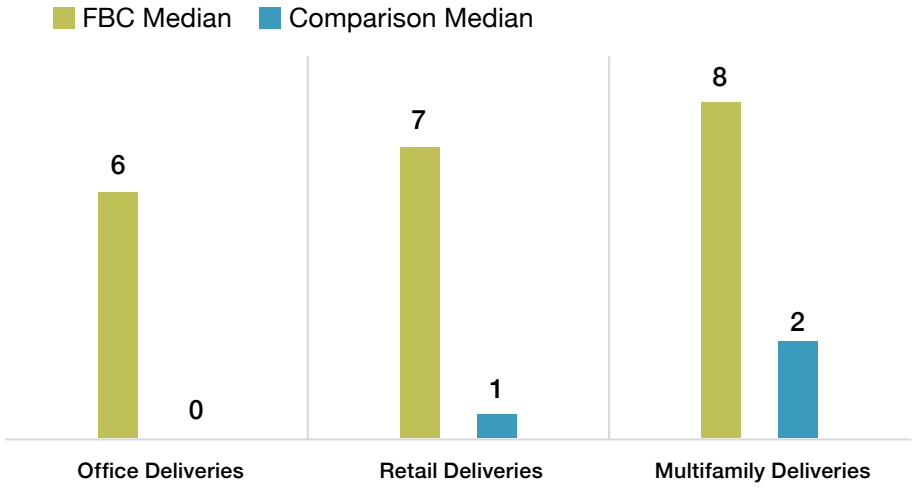

Chart 2. Real estate trends, median deliveries

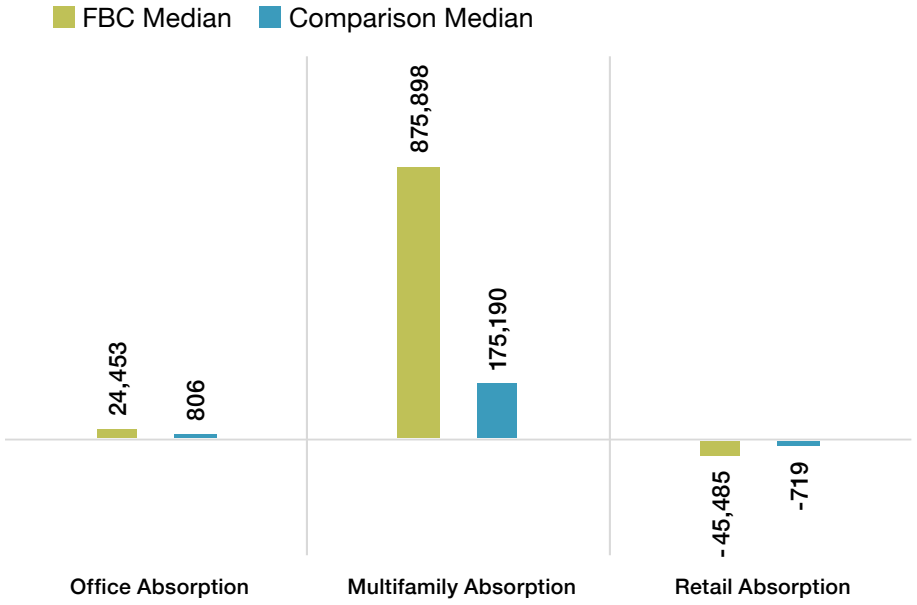

Chart 3. Real estate trends, median absorption

Summary of Interviews

The research team conducted approximately a dozen interviews with public officials, community leaders, and private developers from each of the jurisdictions. The purpose of these interviews was to gain a fuller understanding of how these stakeholders view the impact on development of areas with a form-based code compared to places with a more conventional, use-based code. Interviewees were asked to compare the two areas in terms of the pace and quality of the development, as well as the relative ease of the approval process. Their responses provided a deeper understanding of how these public and private stakeholders perceive the impact of the two different zoning systems.

The most common observation among all of the individuals interviewed was that **form-based codes lead to more walkability and connectivity in the areas where they are adopted**. With new, locally-owned businesses and amenities clustered together, well-connected streets, and a safe and comfortable public realm, it was their consensus that the majority of life's daily needs can be met on foot or with minimal car trips. One community leader in Fort Worth, TX cited the Near Southside's greatest amenity as "never having to get on the highway." When commenting on the impact of form-based codes, interviewees also talked about streetscape improvements and other investment in pedestrian spaces—often as a result of the public space requirements in the form-based code. These visible improvements in the public realm generated momentum in each community, which spurred residential rehabilitation projects, business relocation into the area, and other signs of investment and renewal, according to residents, community leaders, and business owners.

When asked about the public response to the adoption of a form-based code, most interviewees commented on the excitement shared among new and current residents, many of whom are pleased to see progress toward "walkable neighborhoods" or "vibrant and business-friendly streets", which had been long-term goals of their community. Several of the interviewees also stated that some residents continue to resist any change in their community. However, many other stakeholders who participated in the visioning and drafting process for their form-based codes are supportive. Most agreed that the development standards in the form-based code give residents confidence that proposed projects will have predictable outcomes and that, in many cases, neighborhood activists are not as concerned with newly proposed projects.

Developers, who were interviewed, cited several attractive benefits of form-based codes including more predictable and flexible development regulations, a streamlined permitting process, the elimination or reduction of parking requirements, and density bonuses, which, in some cases, combine to make previously untenable projects feasible. In communities with historic neighborhoods and buildings, the form-based codes enable adaptive reuse and are versatile enough to allow a variety of styles and design elements to coexist.

Conclusions

Form-based codes are intended to create development that is mixed-use, walkable, resilient to climate change, and demographically diverse—in other words, smart growth.

The data used for this study indicates that **places with 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**.

According to anecdotal data shared by interviewees, places with form-based codes also tend to have higher quality development, more walkability and vitality, and are more attractive to developers because of a more flexible and streamlined approval process. These outcomes are important considerations for decision-makers when taking on the difficult, politically sensitive, and time-consuming task of updating a conventional use-base code that might be maintaining the economic and social status quo.

In each of the eight jurisdictions evaluated for this study, the places with the form-based codes experienced increases in total population and population density. Each showed strong growth in their multi-family markets—an indicator of population growth—and increases in building permit activity and tax revenue—a sign that the development community recognizes the benefits of investing in these areas. In addition, office and retail rents rose significantly higher than those in conventionally zoned areas.

Multi-family rents in some of the places with form-based codes experienced lower rates of increment, indicating that the pace of development suppressed rents and made housing in these areas slightly more affordable than in comparable housing in areas with conventional zoning. Areas with form-based codes also saw modest gains in office inventory and rents, as well as lower vacancy rates in these areas—a sign of a growing spatial match between workers and their jobs, potentially increasing the number of transportation options.

Adopting a form-based code also can create opportunities for more equitable and inclusive development. The visioning process, which serves as the framework for the form-based code, has the potential to engage a wide and diverse range of stakeholders. This study demonstrates that form-based codes create more opportunity for development of a wider range of housing types and for smaller, local businesses to locate or remain in the area. The more efficient and flexible approval process and reduced parking requirements can

lower the cost of production, savings that can be passed on to end users in the form of lower rents and housing costs.

However, while a form-based code can create these opportunities for more equitable development, local policy makers also must act to ensure that these opportunities are not missed. They must take the time and make the effort to fully engage current, often lower wealth, residents and business owners in the visioning and code writing process. Leaders must ensure that homeowners and tenants have the knowledge and resources to access the wider range of housing types, and they must incent developers to pass savings on to end users through density bonuses, fast-track approval processes, and other strategies.

Finally, only what is measured can be managed. It falls upon FBCI and others in the field to continue to undertake studies like this to assess how the impacts of form-based codes are measured, evaluated, and shared to ensure equitable outcomes. Only with these intentional actions, on the part of local governments, can all stakeholders—current and future—be assured of having a share in the economic upside of creating and sustaining great places.

Appendices

A. Additional comparative analysis

Table 4. Average of economic data

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
FBC Average	14.1%	13.2%	437.8%	11.2%	8.9%	40.9%	23.1%	67.1%
Comparison Average	59.3%	24.2%	441.5%	979.5%	-1.9%	109.1%	34.9%	146.3%
FBC Average (Minus AllianceTexas Area)	17.4%	16.8%	578.7%	14.9%	9.4%	67.7%	44.3%	70.7%
Comparison Average (Minus AllianceTexas Area)	17.8%	18.1%	262.3%	1.4%	-5.1%	126.9%	26.3%	73.0%

Table 5. Median of economic data

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
FBC Median	7.6%	6.8%	156.0%	2.2%	5.6%	14.9%	19.5%	60.0%
Comparison Median	24.2%	24.3%	516.0%	10.0%	-2.3%	59.0%	40.0%	143.0%
FBC Median (Minus AllianceTexas Area)	10.3%	10.5%	578.7%	4.3%	3.9%	69.1%	44.3%	70.7%
Comparison Median (Minus AllianceTexas Area)	15.4%	15.7%	262.3%	1.1%	-3.9%	62.3%	26.3%	73.0%

Table 6. Demographic change 2014–2019

	% White	% Black	% Asian	% Other	% Two or More	% Latino
Columbia Pike Form-Based Code	-2%	4%	2%	-4%	-4%	-4%
Lee Highway	2%	0%	2%	-3%	-1%	-4%
Madisonville Form-Based Code	1%	2%	2%	-1%	-1%	-3%
Pleasant Ridge	2%	0%	2%	-3%	-1%	-4%
Near Southside Form-Based Code	10%	-15%	-1%	0%	4%	2%
Alliance Area	-4%	-1%	0%	3%	1%	3%
Delray Beach Form-Based Code	3%	-7%	-1%	3%	-1%	5%
Boynton Beach	3%	-7%	1%	1%	-1%	3%
Form-Based Code Average	3%	-4%	1%	-1%	-1%	0%
Comparison Average	1%	-2%	1%	-1%	-1%	-1%
Form-Based Code Median	3%	-5%	0%	0%	-1%	1%
Comparison Median	2%	0%	1%	-1%	-1%	-1%

B. Additional analysis for case study areas

Economic Indicators, Percent Changes 2010–2019.

Table 7. Columbia Pike & Lee Highway[12]

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
Columbia Pike	4.8%	3.0%	12.4%	4.3%	3.9%	-46.1%	19.5%	131.0%
Lee Highway	15.4%	15.7%	8.5%	18.8%	-0.6%	-57.5%	12.5%	143.0%

Table 8. Madisonville & Pleasant Ridge

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
Madisonville	10.3%	10.5%	1145.0%	-20.4%	-19.5%	69.1%	69.1%	10.4%
Pleasant Ridge	5.0%	5.6%	516.0%	1.1%	-3.9%	62.3%	40.0%	2.9%

[12] Building permit data is from 2014 to 2019 and number of businesses is from 2012 to 2019.

Table 9. Delray Beach & Boynton Beach[13]

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
Delray Beach	37.0%	37.0%	N/A	60.8%	43.8%	180.0%	N/A	N/A
Boynton Beach	32.9%	32.9%	N/A	-15.8%	-10.9%	376.0%	N/A	N/A

Table 10. Near Southside & AllianceTexas[14]

	Population	Pop. Density	Businesses	Jobs	MHI	Unemployment	Permits Issued	Tax Revenue
Near Southside	4.3%	2.4%	156.0%	0.1%	7.3%	-39.4%	-19.4%	60.0%
Alliance Area	183.8%	42.6%	800.0%	3914.0%	8.0%	55.6%	52.2%	293.0%

[13] Historical business, permits, and tax revenue unavailable.

[14] Median household income is from 2010 to 2017.

Real Estate Indicators, Percent Changes 2010–2019.

Table 11. Columbia Pike & Lee Highway

	Columbia Pike FBC	Lee Highway
Office Rent	-23.9%	-9.4%
Office Inventory	-8.8%	0.0%
Office Vacancy	-11.6%	33.3%
Office Absorption	-58,040	-2,276
Office Deliveries	0	0
Retail Rent	-12.7%	69.2%
Retail Inventory	-3.8%	0.0%
Retail Vacancy	-46.8%	-82.1%
Retail Absorption	-61,761	-59,964
Retail Deliveries	1	1
Multifamily Rent	9.4%	19.8%
Multifamily Inventory	47.2%	23.4%
Multifamily Vacancy	115.0%	11.1%
Multifamily Absorption	1,651,269	318,989
Multifamily Deliveries	10	4

Table 12. Madisonville & Pleasant Ridge

	Madisonville FBC	Pleasant Ridge
Office Rent	71.3%	47.8%
Office Inventory	0.0%	0.0%
Office Vacancy	58.8%	-100.0%
Office Absorption	3,059	0
Office Deliveries	0	0
Retail Rent	48.3%	-36.9%
Retail Inventory	-11065.0%	0.0%
Retail Vacancy	20.0%	-42.9%
Retail Absorption	-1,558	72
Retail Deliveries	-2	0
Multifamily Rent	20.6%	20.7%
Multifamily Inventory	18.1%	0.0%
Multifamily Vacancy	-38.7%	-48.6%
Multifamily Absorption	121,809	31,390
Multifamily Deliveries	2	0

Table 13. Delray Beach & Boynton Beach

	Delray Beach FBC	Boynton Beach
Office Rent	65.0%	3.4%
Office Inventory	11.3%	-3.4%
Office Vacancy	60.5%	41.7%
Office Absorption	45,846	1,611
Office Deliveries	11	0
Retail Rent	77.4%	100.2%
Retail Inventory	-4.9%	-4.7%
Retail Vacancy	-14.0%	-46.5%
Retail Absorption	-55,870	-1,510
Retail Deliveries	12	0
Multifamily Rent	7.1%	17.6%
Multifamily Inventory	370.0%	-5.4%
Multifamily Vacancy	-32.8%	-21.7%
Multifamily Absorption	549,307	-3,655
Multifamily Deliveries	5	0

Table 14. Near Southside & Alliance Area

	Near Southside FBC	AllianceTexas Area
Office Rent	-7.8%	4.3%
Office Inventory	17.4%	982.7%
Office Vacancy	-26.0%	-66.9%
Office Absorption	452,554	717,023
Office Deliveries	33	7
Retail Rent	1039.0%	67.1%
Retail Inventory	102.3%	145.5%
Retail Vacancy	22.2%	-92.6%
Retail Absorption	-35,100	932,433
Retail Deliveries	24	42
Multifamily Rent	-2.5%	8.2%
Multifamily Inventory	184.0%	370.9%
Multifamily Vacancy	11.1%	-40.6%
Multifamily Absorption	1,202,489	1,294,368
Multifamily Deliveries	12	5

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