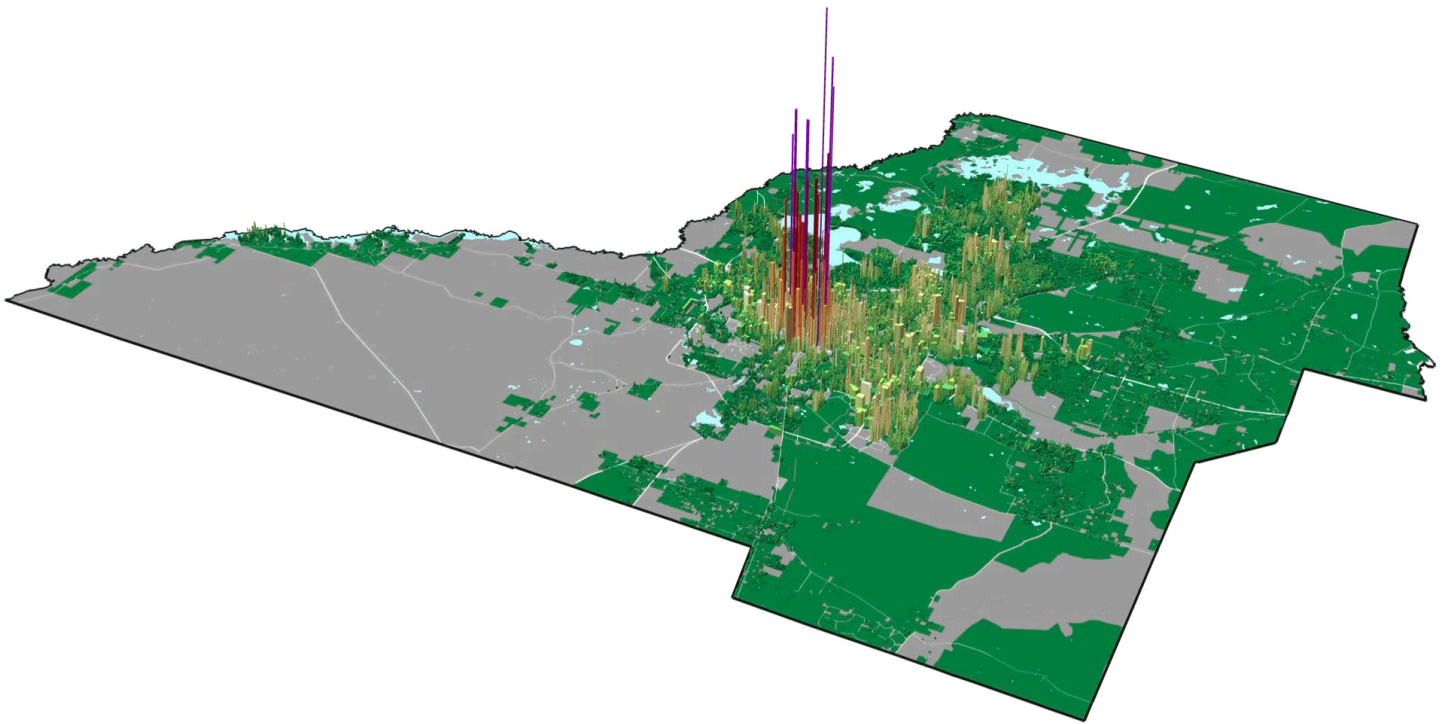


Economics of Community Design



Tallahassee/ Leon County

Florida

Assessed Value

The valuation of a real estate asset that determines the amount of property tax applicable to it.

Geoaccounting

Process of mapping a community's revenues and expenditures to understand how different land uses and development patterns perform financially.

Intergovernmental Revenue

Revenue that is exchanged between different municipalities or levels of government.

Infill Development

The process of developing vacant or under-utilized parcels within existing urban areas that are already largely developed.¹

Land Uses

Regulating the use of land to achieve urban and regional planning goals; land uses include commercial, residential, industrial, agricultural, open space, recreational, etc.

Lifecycle Cost

The whole range of maintenance, operations, and capital replacement that may happen multiple times over the full lifespan of a capital asset. These costs occur at different times but are eventual certainties.

Medium-Density Residential

Multi-unit housing that is consistent in scale and form to the single-family detached building typology, but has fewer people per geographic area than high-density residential.

Mixed-Use Development

A development that combines two or more land uses in a project.

Neighborhood Roads

Local or residential streets that provide primary access to residential areas; these streets are below collectors in the road classification hierarchy.

Parcel

Area of land that is owned (i.e. lot, plot).

Public Revenues

The taxes, fees, and other money collected from residents and converted by governments into public services and maintenance.

Value Per Acre (VPA)

A metric used to evaluate the effectiveness of land use policy; property value divided by acres utilized.

About the Author

URBAN3

Urban3 is a consulting firm specializing in land value economics, property tax analysis, and community design. Our approach bridges the gap between economic analysis, public policy, and urban design. Our work will empower your community with the ability to promote development patterns that both secure its fiscal condition and create a strong sense of place.

We provide communities with an in-depth understanding of their financial health and built environment by measuring data and visualizing the results.

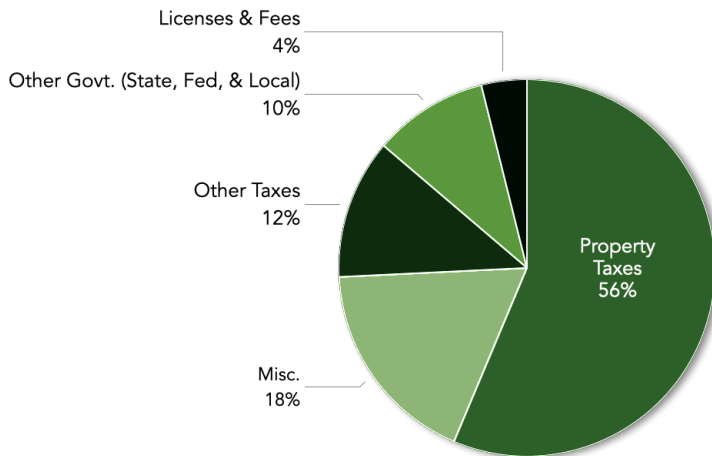
¹ Source: mrsc.org

Understanding Local Finance

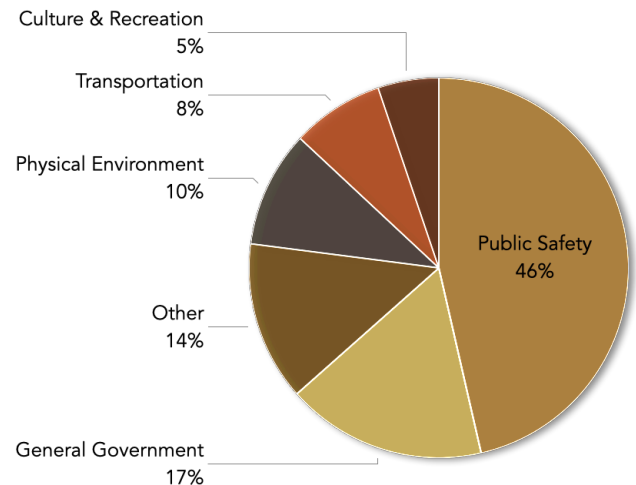
To understand the financial health of a community, we must begin by understanding the underlying tax structure. Most communities rely on a mixture of revenues, primarily from taxes, users fees, and state and federal government. Taxes tend to comprise a large share of local revenue. Communities use these funds to run their

government, pay for public services, and build and maintain infrastructure. When available, spatial data allows Urban3 to map and visualize both tax revenue and infrastructure costs, an approach we call "geoaccounting." We use geoaccounting to uncover the relationship between land use decisions and public revenue production.

Revenues: \$317.9M



Expenditures: \$317.9M



2023 General Fund overview for Leon County
Source: leoncountyfl.gov

Considering the entirety of Leon County and Tallahassee, there is a high degree of spatial overlap. Though each jurisdiction has different roles to play for the public (shown in the various budget charts), they very clearly serve a highly overlapping populace.

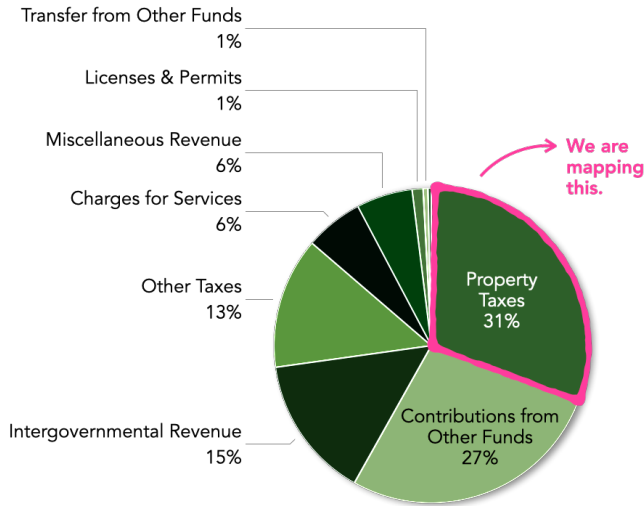
The county is primarily funded by property

tax at 56% of the budget in 2023. Considering county expenditures, new development or redevelopment can increase property value to help pay for services. Capitalizing on existing transportation and recreation resources while minimizing the expansion of public safety needs can make new revenues exceed new costs.

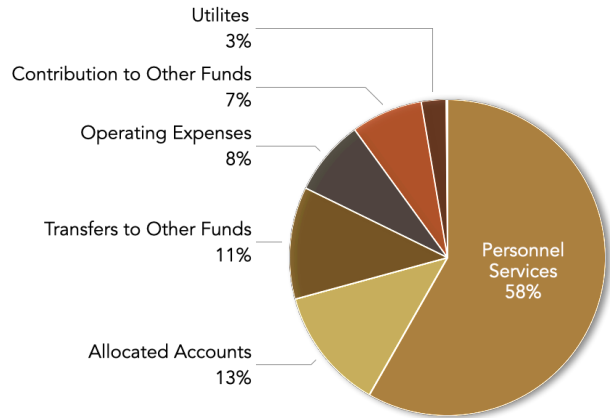
How Your Property Tax Bill is Calculated

$$\text{Assessed Value} - \text{Homestead \& Other Exemptions} = \text{Taxable Value} \times \text{Mill Rate} = \text{Tax Bill}$$

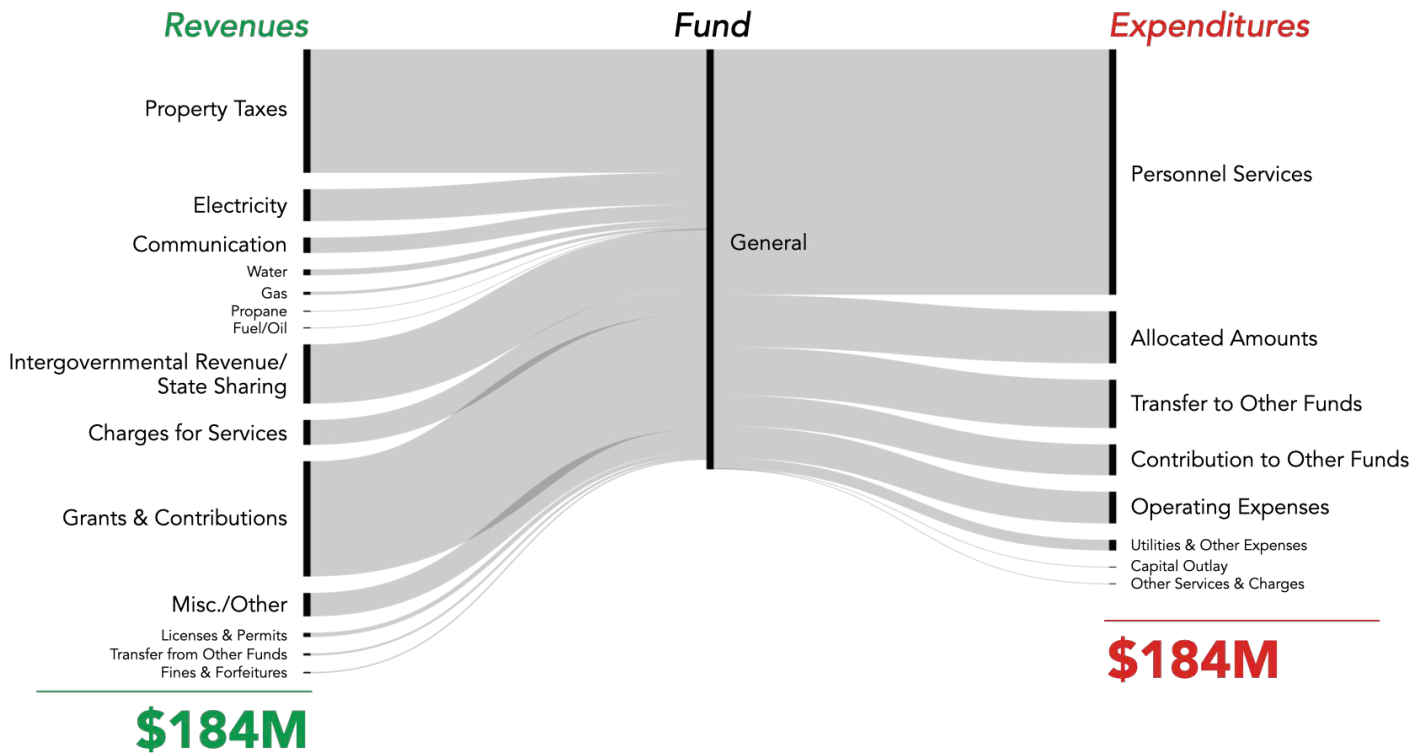
Revenues: \$184M



Expenditures: \$184M



General Fund overview for City of Tallahassee
Source: 2023 Annual operating budget



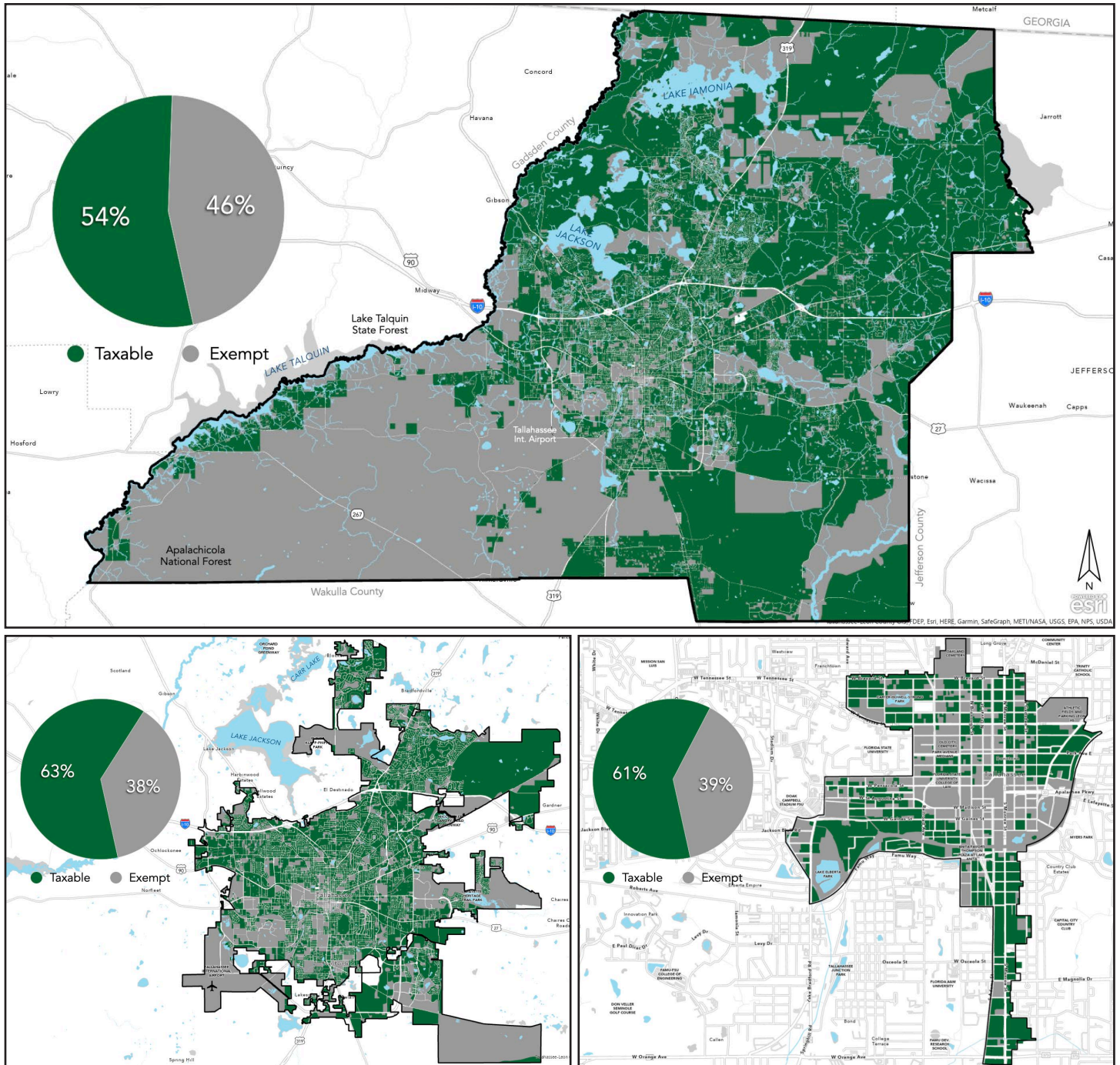
Sankey diagram (sometimes known as a butterfly diagram) depicting Tallahassee's Fiscal Year 2023 annual budget
Source: Tallahassee, FL

The diagram above depicts the flow of Tallahassee's \$184 million fiscal activity beginning from their revenue sources into different funds and their expense categories. For this analysis, we were primarily interested in understanding the General Fund. For Fiscal Year 2023, Tallahassee collected over \$184 million for its General Fund, as shown in the pie charts on the previous page. Of that \$184 million, approximately \$27.6 million

(15%) was Intergovernmental Revenue, which includes funding (grants) from other government entities such as state-collected income tax that is redistributed to the county. The second-highest source of revenue was Contributions from Other Funds with a contribution of \$49.7 million (27%). Property Taxes make up \$57 million (31%) of the revenue, making it the largest source of revenue in Tallahassee.

When public revenues vary geographically, comparisons can be made to other spatially relevant factors, such as development patterns, commuting patterns, and public investment.

Analyzing both the source of government revenues and the patterns they come from is critical to planning for a strong financial future.

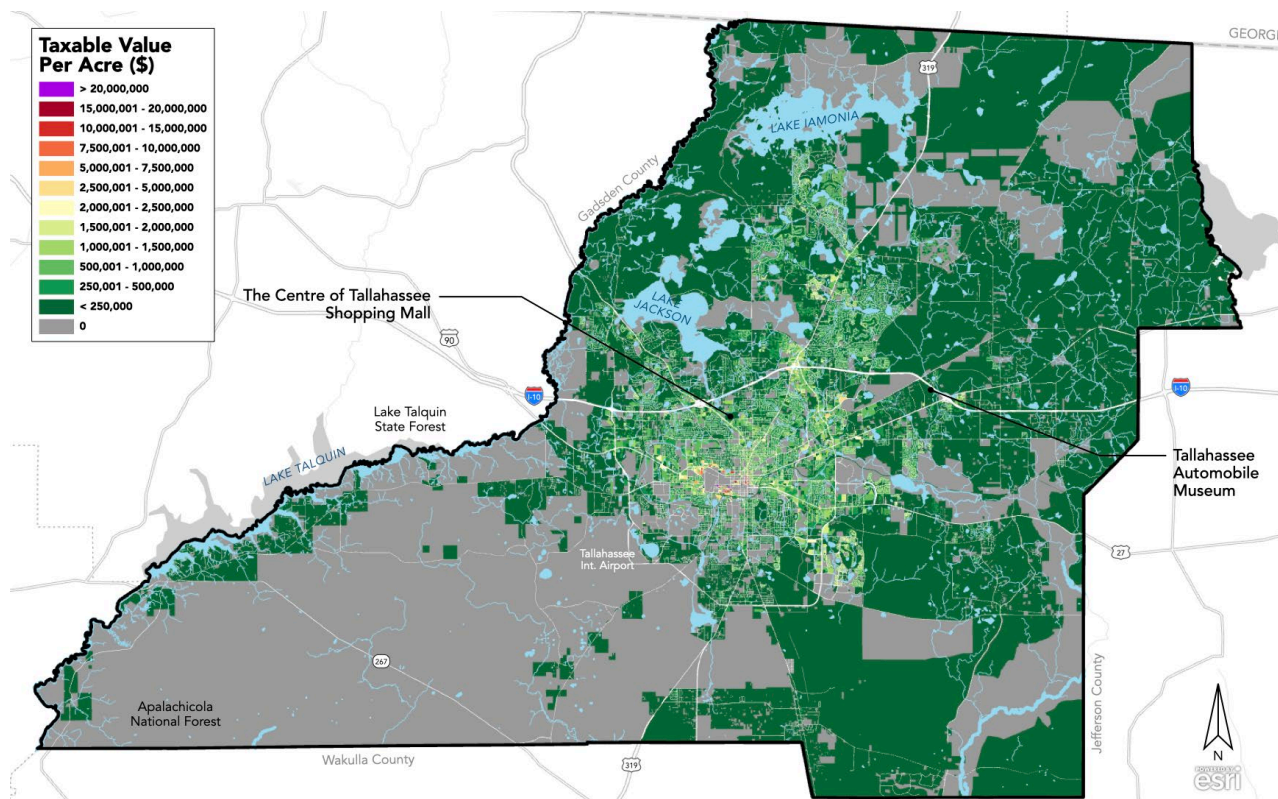
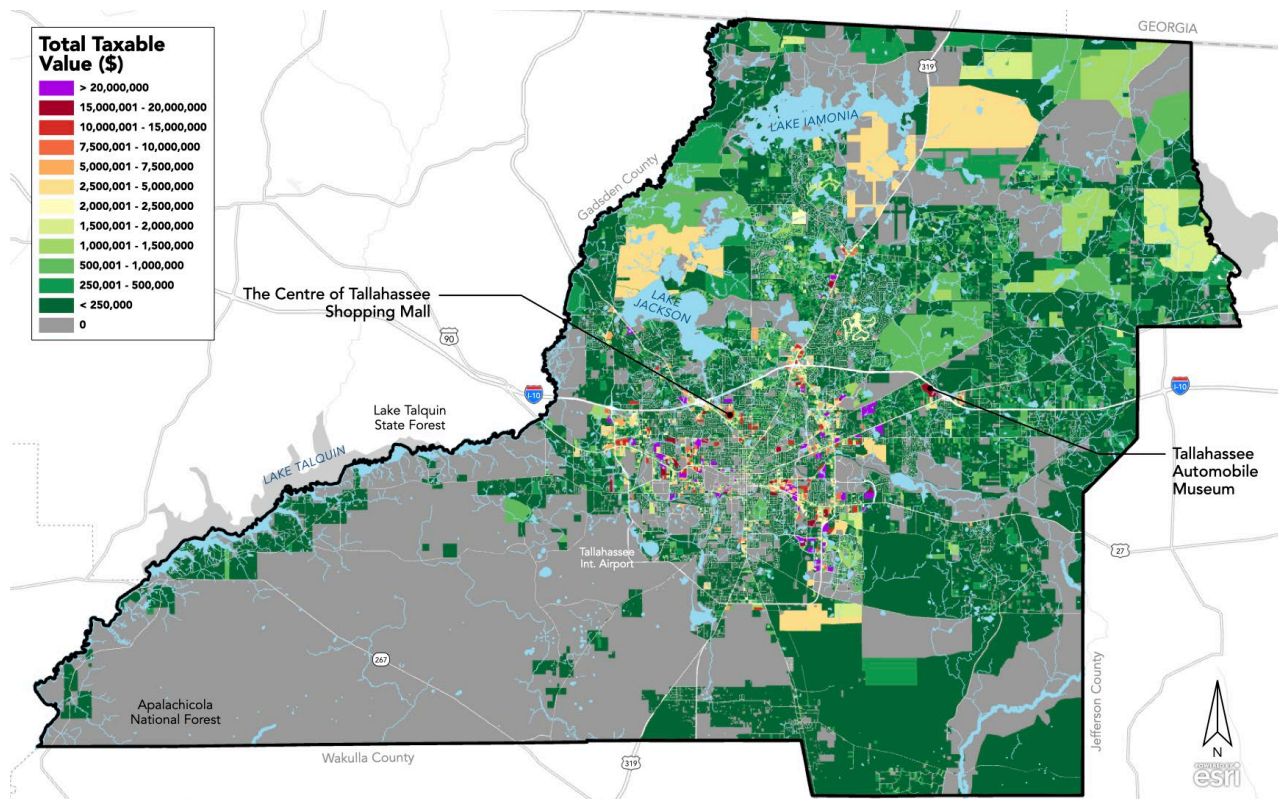


Maps depicting taxable and exempt land for Leon County (top), City of Tallahassee (bottom left), and Downtown Tallahassee (bottom right).
Source: Leon County Property Appraiser

Non taxable (exempt) land usually includes the institutions that serve us, such as public parks, libraries, or other government buildings. While these institutions provide important amenities and services to the public, they simply don't help

fund other services such as infrastructure or public safety. In instances of robust infrastructure and service provision needs, non taxable land uses will need to be supplemented by taxable land uses that are highly fiscally productive.

Value Per Acre

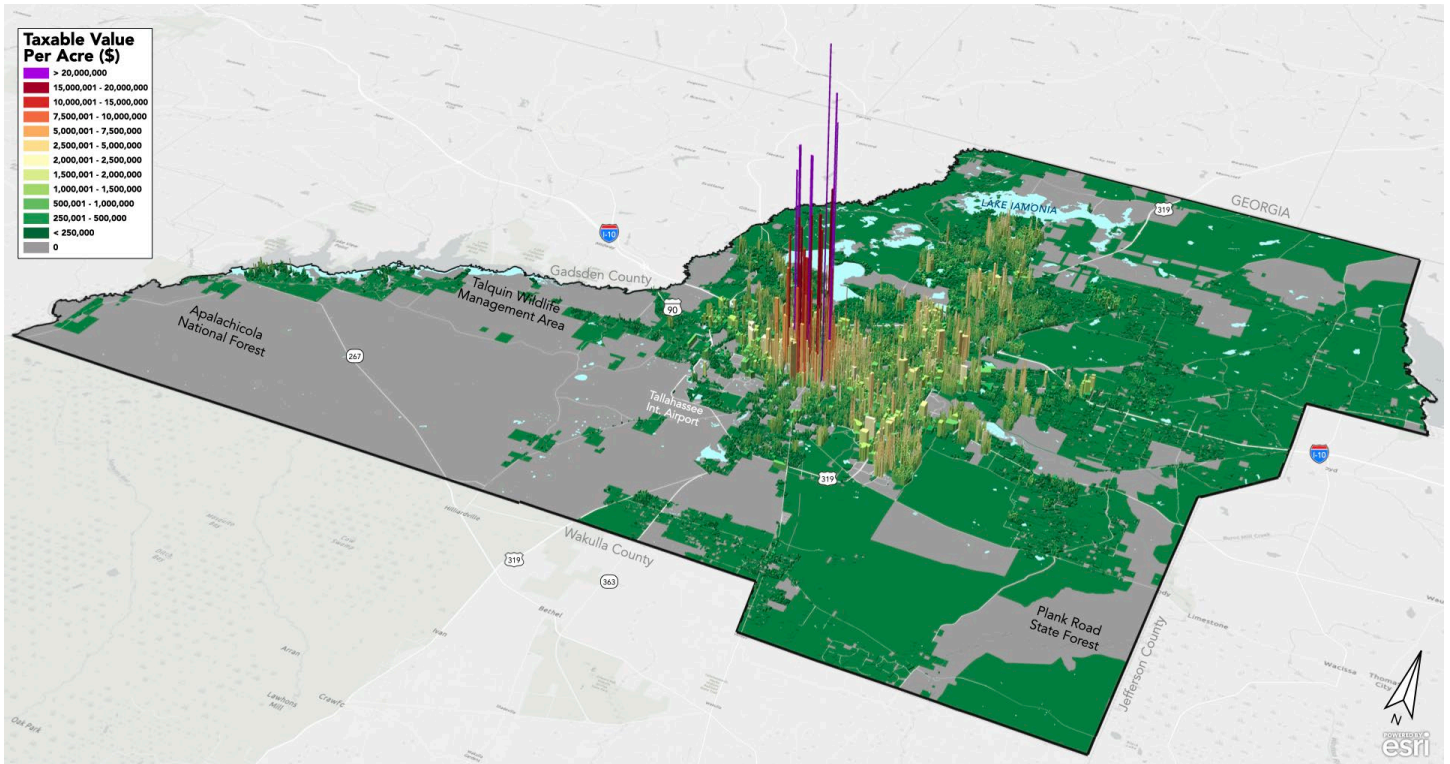


Leon County's total taxable value (top) vs. Taxable Value Per Acre (bottom)
 Source: Leon County Property Appraiser

Total taxable value is one way to analyze the overall value of a city, but when it comes to understanding economic productivity, it is not always the most useful. Urban3’s analysis focuses on the “per acre” metric as a unit of productivity. After all, cities and counties are, at their simplest, finite areas of land. How that land is used has a direct effect on municipal budgets. The per acre metric normalizes total revenues and tax values, creating direct “apples-to-apples” comparisons

utilizing land consumed as a unit of productivity.

Using VPA to compare properties is like using miles per gallon (MPG) to compare cars. When comparing cars, the miles a car can go per tank isn’t typically referenced because it only reflects the size of the tank, not how efficient the engine is. We apply the same principle to measure the financial productivity of various development types across a community.

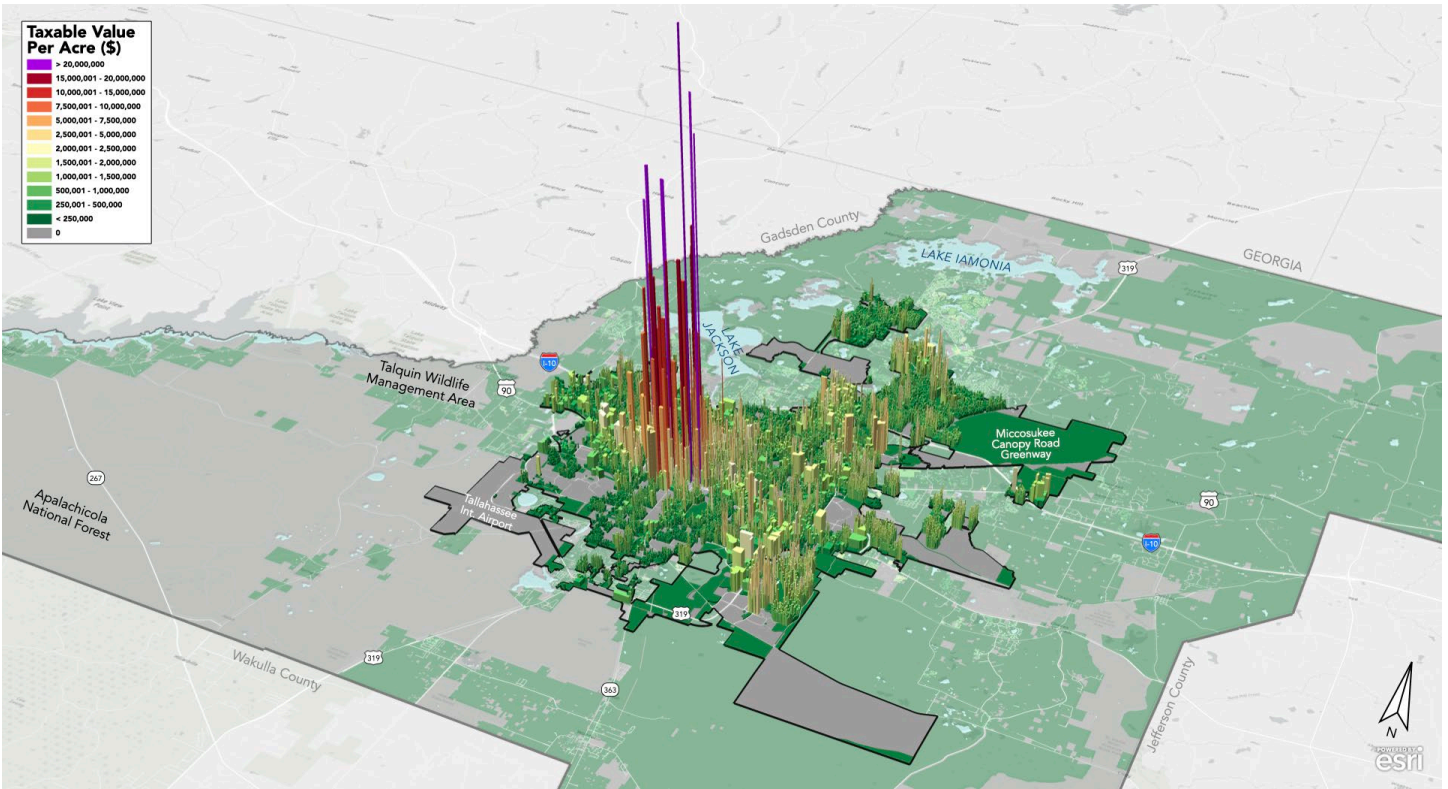


3D Taxable Value Per Acre (VPA) model of Leon County
Source: Leon County Property Appraiser

A few outstanding patterns appear in Tallahassee and Leon County. The downtown core stands out as the highest value productivity on the map, or put another way, as the most fuel efficient development patterns for all taxing jurisdictions. Within the City of Tallahassee’s developed

areas, road and utility liability appear generally consistent, but individual parcels vary widely in productivity. The areas of Leon County outside of Tallahassee exhibit relatively lower tax values per acre, but also come with a lower infrastructure burden.

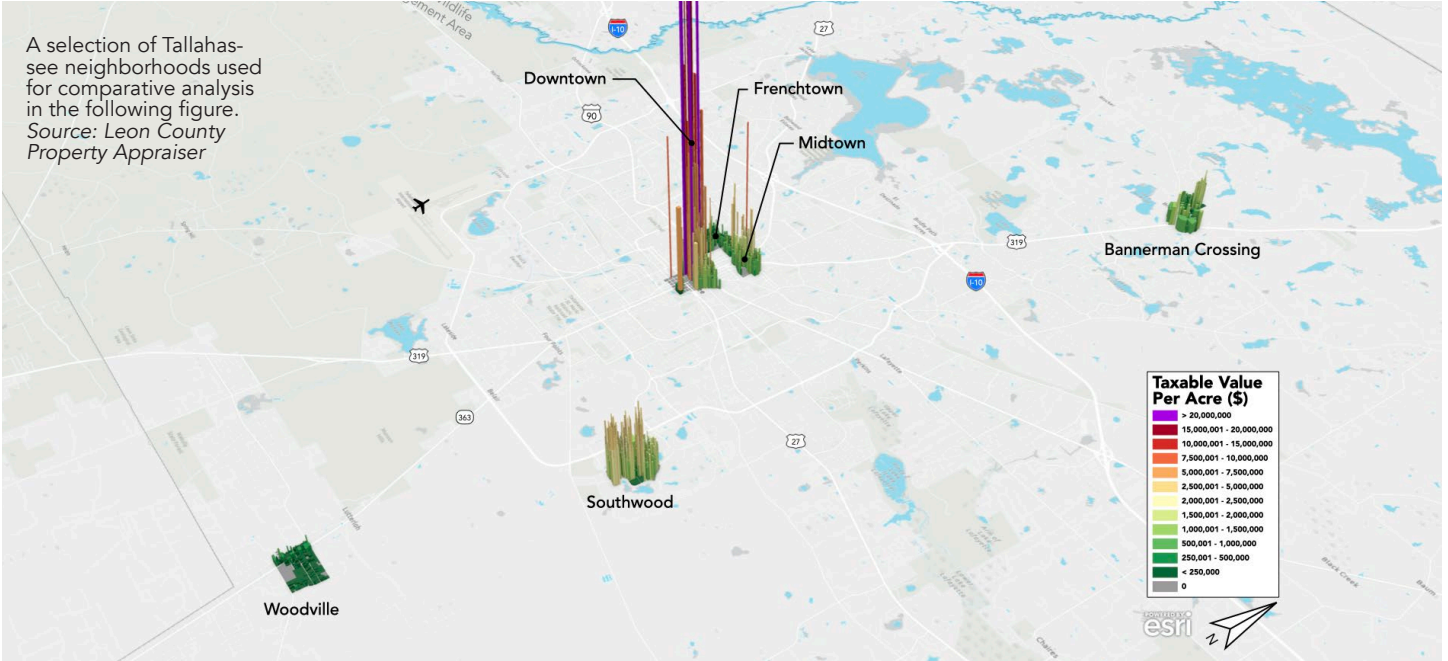
“The per acre metric normalizes total revenue and tax values, creating direct “apples-to-apples” comparisons utilizing land consumed as a unit of productivity.”



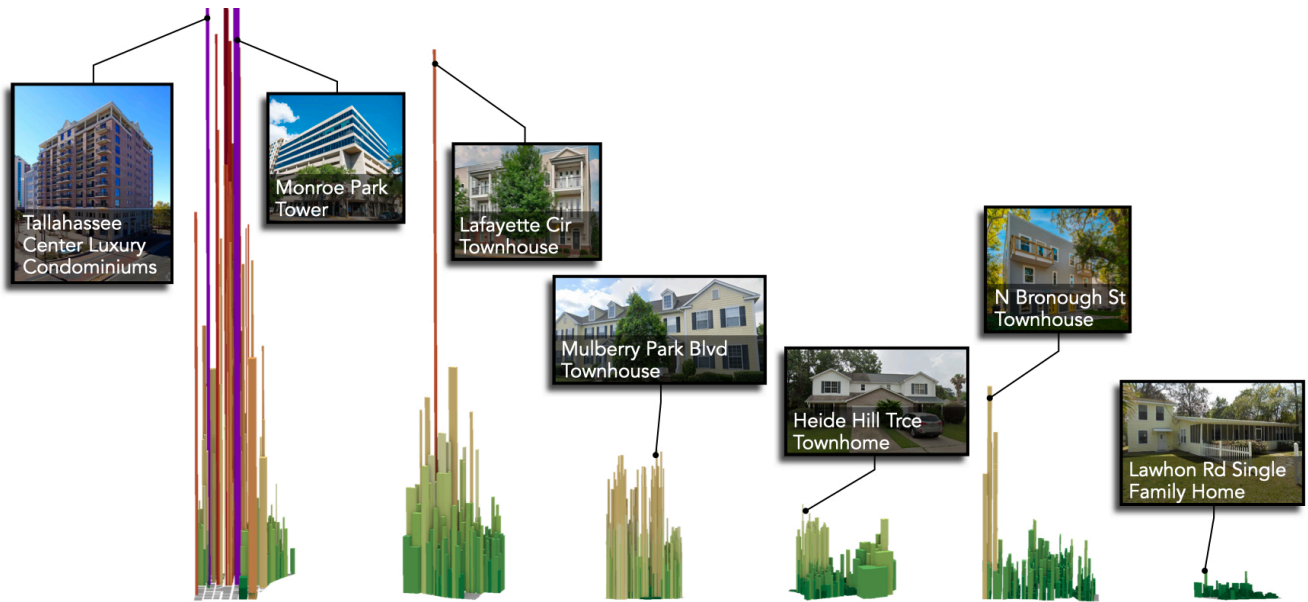
3D Taxable Value Per Acre (VPA) model of the City of Tallahassee within Leon County
 Source: Leon County Property Appraiser

The map and charts below lay out the varied performance of different neighborhoods. Each demonstrates how the buildings and layout of areas use up land, provide value to owners, and fund civic services. Value per acre is a fair metric for comparing each place. For example, while Downtown is both more valuable and larger

than Midtown, Midtown's average value per acre (\$721K) almost reaches Downtown's value of \$810K. Closer inspection reveals that Downtown's high productivity spikes are offset by the gray non-taxable areas, which explains why the two average value per acre measures are nearly the same.



A selection of Tallahassee neighborhoods used for comparative analysis in the following figure.
 Source: Leon County Property Appraiser



	Downtown	Midtown	Southwood	Bannerman Crossing	Frenchtown	Woodville
Total Value	\$322M	\$60M	\$125M	\$105M	\$36M	\$16M
Total Acres	400	80	190	200	130	270
Average Value Per Acre	\$810K	\$721K	\$644K	\$530K	\$247K	\$58K

Tallahassee by the numbers: Analysis of selected neighborhoods
 Source: Leon County Property Appraiser, Google Maps

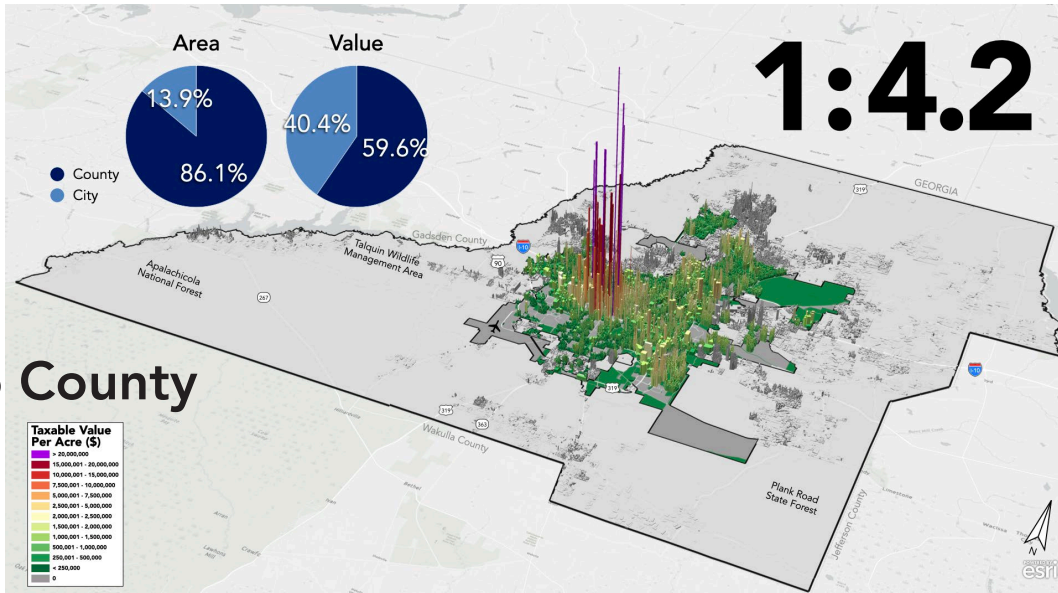
The following page compares the ratio of value to land area for three different geographies: Leon County, the City of Tallahassee, and Downtown Tallahassee. These ratios reveal the relative productivity of each of the areas. The City's

value exceeds its area by a factor of 4.2, while Downtown Tallahassee's value exceeds its area by a factor of 4.8. When comparing Downtown to Leon County, its value exceeds its share of county area by a factor of nearly 19 times.

“The City’s value exceeds its area by a factor of 4.2, while Downtown Tallahassee’s value exceeds its area by a factor of 4.8. When comparing Downtown to Leon County, its value exceeds its share of county area by a factor of nearly 19 times.”

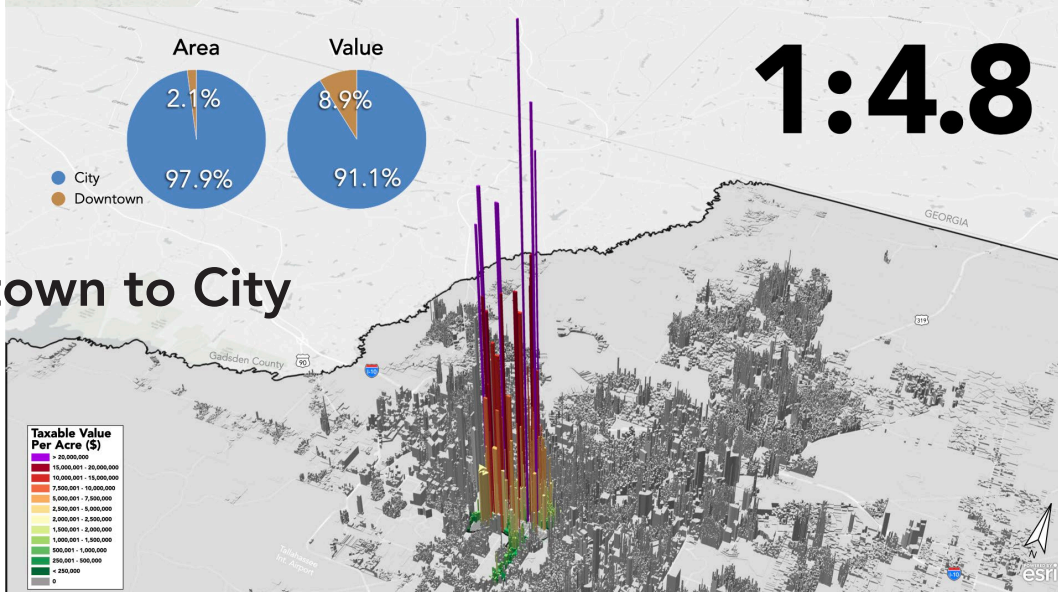
1:4.2

City to County



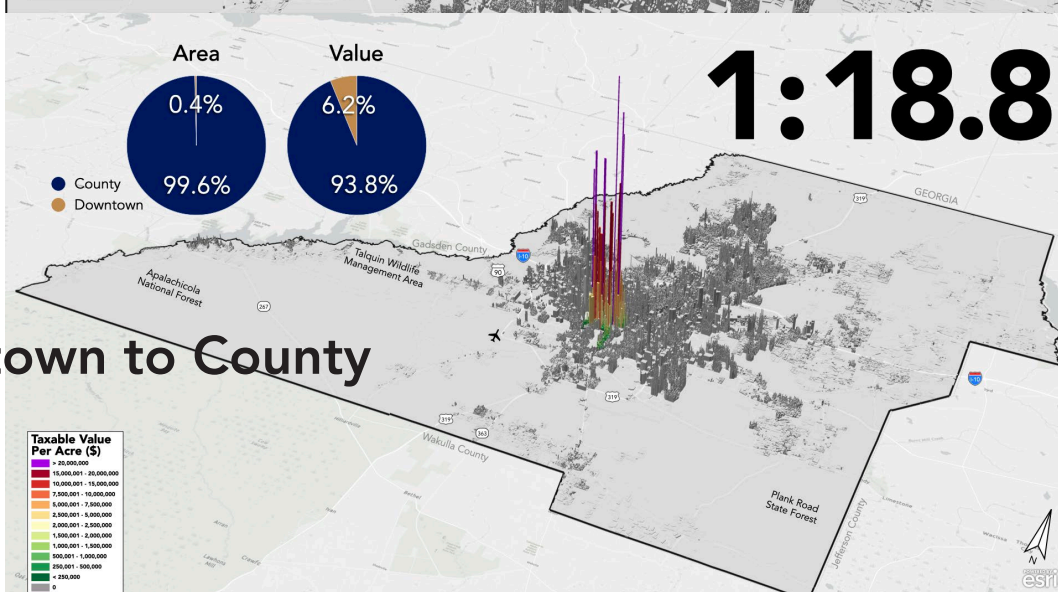
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Downtown to City



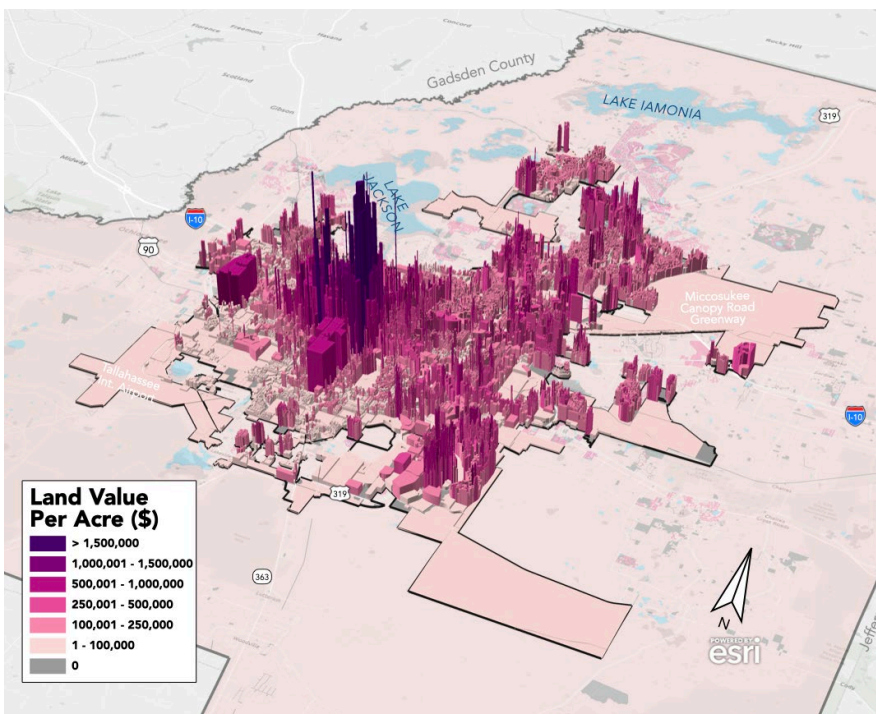
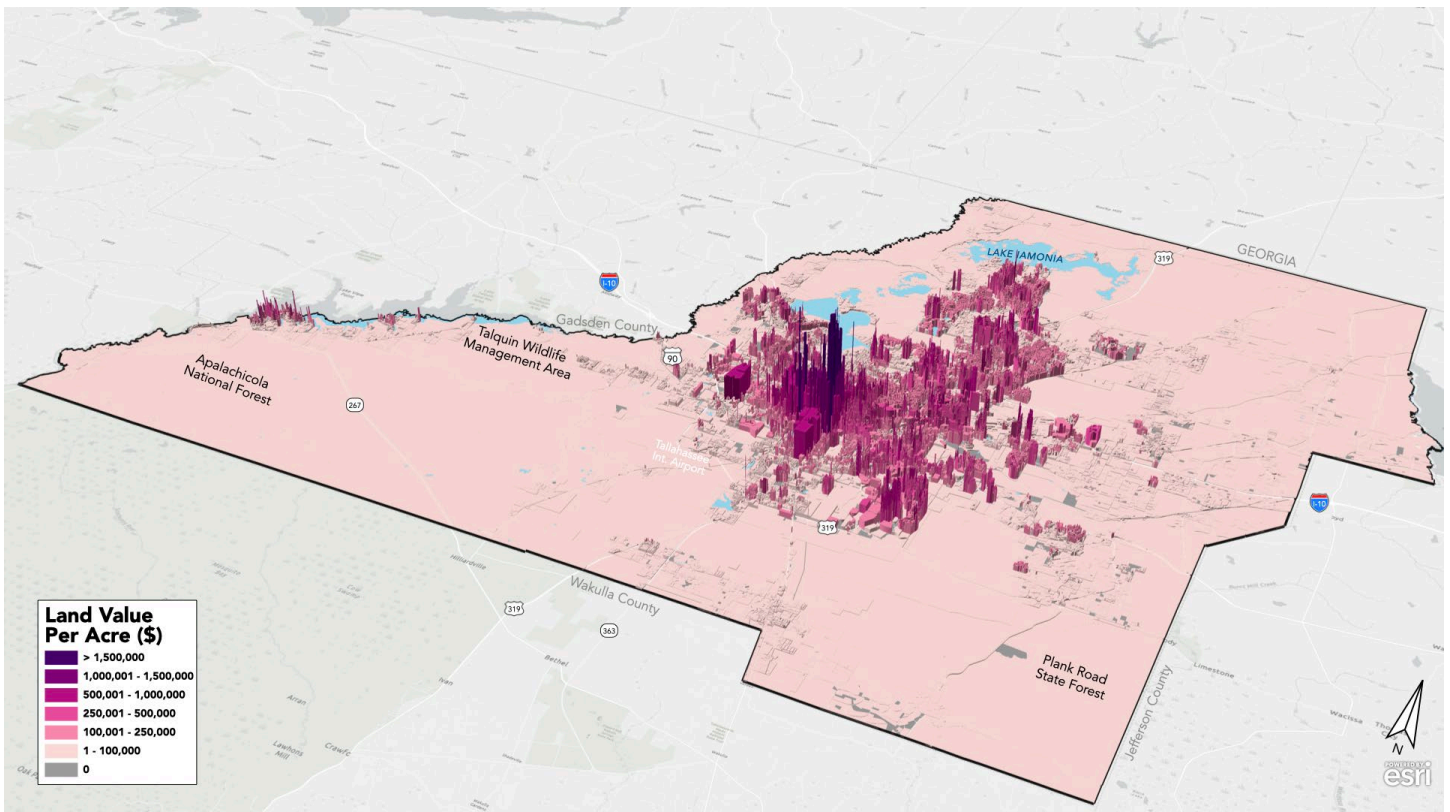
1:18.8

Downtown to County



Productivity Ratios comparing the financial productivity of the area relative to the value for Downtown Tallahassee, the City of Tallahassee, and Leon County. Higher ratios mean more efficient land use.
Source: Leon County Property Appraiser

Land Value Per Acre

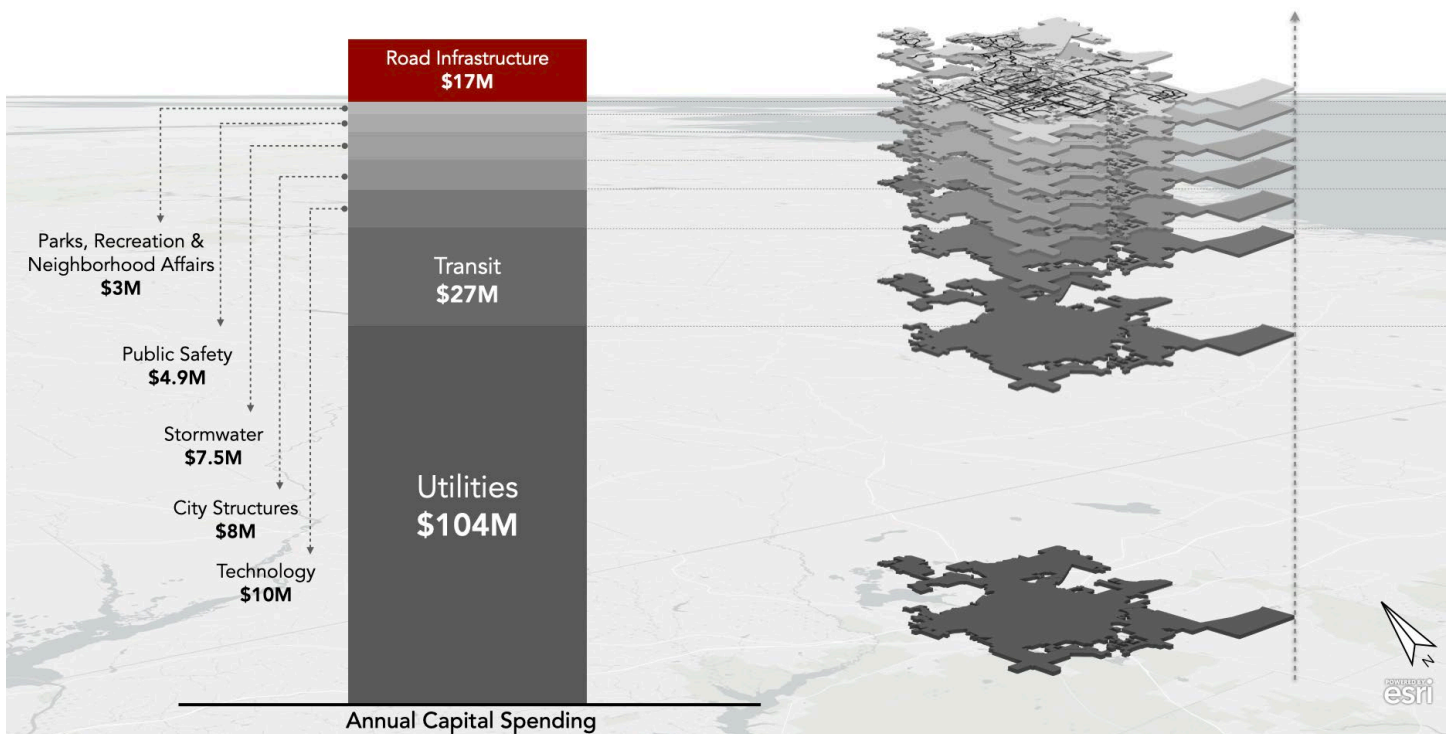


This model showing only the land value per acre reveals how much more consistent land value is over the developed areas of the community. However, some variation remains, signaling how valuable any location may be based on the price land sells for there.

For example, within the areas served by major infrastructure, the land value per acre is much higher than in rural areas. Then land value per acre shows an even higher level in areas of intense interest and infrastructure like the core and near campus.

Land Value Per Acre of Leon County (top) and City of Tallahassee (bottom).
Source: Leon County Property Appraiser

Infrastructure Analysis



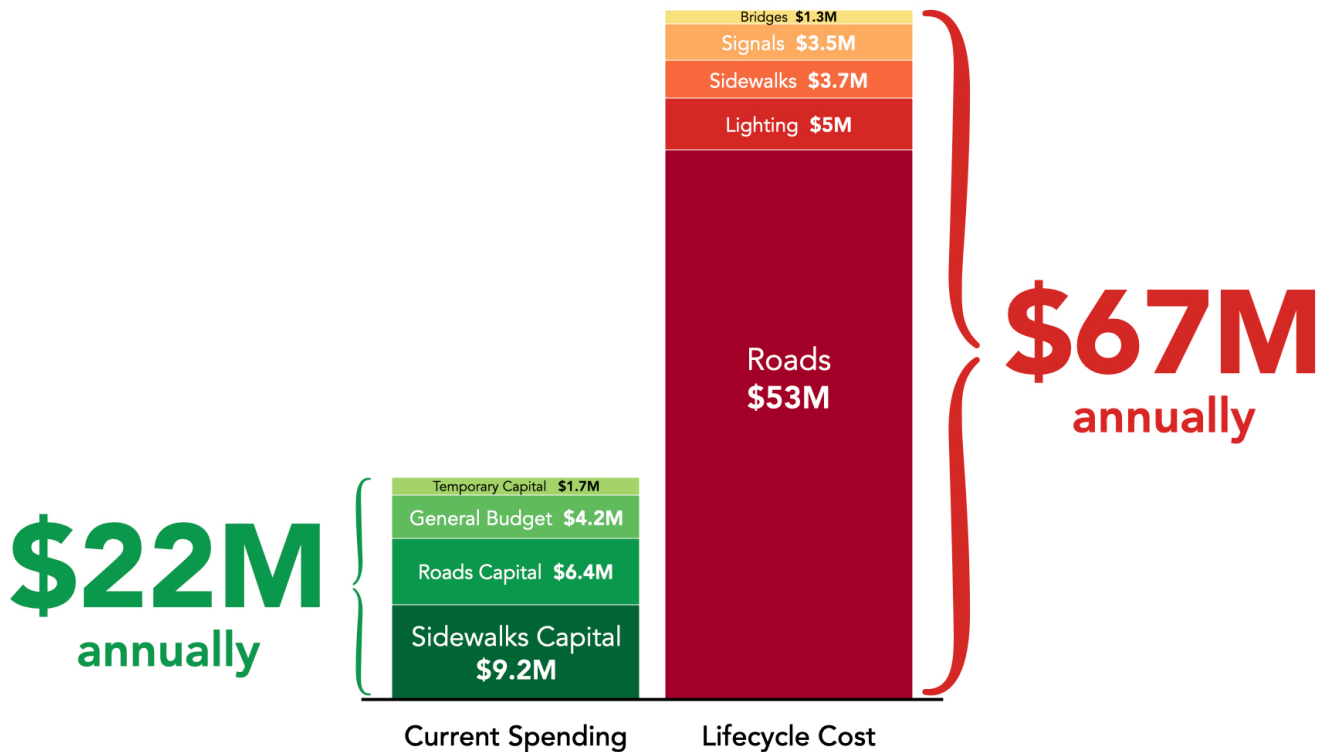
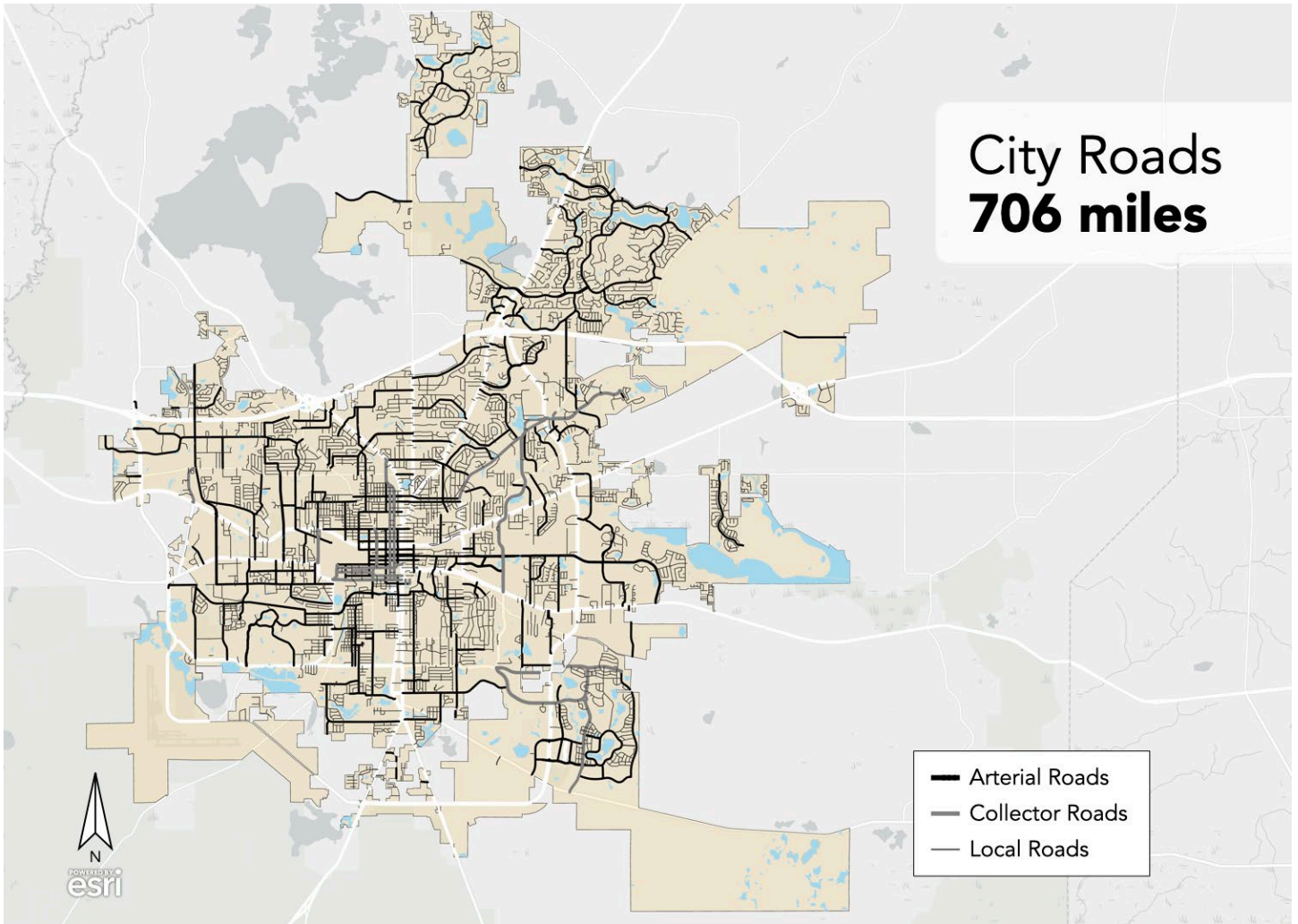
Source: Tallahassee GIS & 2023 Budget, ACFR, & Capital Plans, informing Urban3 Estimates

Any jurisdiction is responsible for maintaining and rebuilding the infrastructure that enables daily life in that place. Capital maintenance at the scale of a community ranges from annual budgets for workers in trucks to deal with leaking pipes or malfunctioning traffic lights or potholes all the way up to reconstructing decades old roads and pipes and treatment plants. These costs spread over years or decades with different starting schedules can be collected and simplified into annual lifecycle costs. Over the course of every piece of infrastructure's lifetime a total amount will need to be spent. Considering this lifecycle cost in annual terms allows us to evaluate how current spending levels compare to needed spending on local infrastructure.

Because roads are a familiar infrastructure system with cycles of patching, replacing, and eventual reconstruction that most people have experienced we will focus on those. In Tallahassee the entire capital spending plan for everything from parks to buildings to roads and pipes averages just

over \$183 million a year for the next 5 years. The portion of this set aside for roads is just over \$17 million a year or 9% of the total capital projects. The general fund budget also brings around \$4.2 million a year to maintaining roads and keeping traffic flowing. The resulting funding is charted in green and compared to expected annual costs, shown in red. By applying Florida specific costs and repair schedules to the 706 miles of City of Tallahassee roads, an annual level of spending to keep up with costs is estimated around \$66 million a year. Even as actual revenues and costs are sure to vary from estimates, this indicates a significant gap between the funding available and spending needed to keep roadways in good working order.

In Leon County the capital plan has nearly \$8.5 million set aside for road infrastructure and the general fund budget has up to \$15.7 million in public works, but the County has less clear and available data for the estimation of potential annual cost.



Source: Tallahassee GIS & 2023 Budget, ACFR, & Capital Plans, informing Urban3 Estimates

Key Takeaways

Increase Your Value Per Acre (VPA)

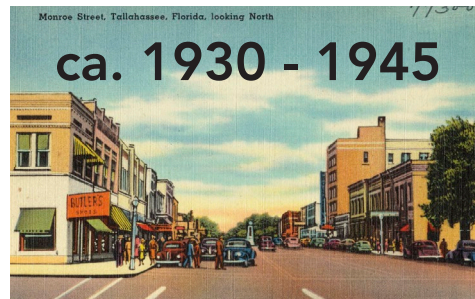
→ Thicken Up!/Use Your Land Wisely

Allowing greater density is a simple, but not necessarily easy, way to increase VPA. Essentially, allowing for greater density on a property means that greater value can be generated on that property. This means the value number in the “value divided by acres” equation will go up, while the acres will stay the same. This yields a higher VPA and greater productivity. And it doesn’t mean there has to be a dramatic increase in density. Adding even one or two units or one or two stories has a dramatic effect on productivity.

Density increases often come in the form of zoning regulation changes. Any technique that increases the amount of building per acre, whether less parking or more height or another approach, will increase the value per acre and the efficient use of infrastructure.

→ Repeat What Works

Inspecting the Value Per Acre (VPA) model allows communities to link fiscally productive areas with their associated land use types. Using a high productivity example (that is also well-liked) can guide community conversation, vision, processes, and future regulations -- ultimately allowing more high productivity places to be built.



Monroe St looking North through time
Source: floridamemory.com, digitalcommonwealth.org, Google Maps

→ Implement a Form-Based Land Development/Zoning Code

A Form-Based Code is an increasingly popular method for regulating development in a community. Unlike traditional zoning, form-based codes focus primarily on building form and site development standards, and allow a wider variety of land uses to coexist. Jurisdictions can tailor their standards to create building types that fit their local context and allow for more productive development.

Expanded Readings

Strong Towns: *A Bottom-Up Revolution to Rebuild American Prosperity*

Charles L. Marohn, Jr.

Walkable City: *How Downtown Can Save America, One Step at a Time*

Jeff Speck

Happy City: *Transforming Our Lives Through Urban Design*

Charles Montgomery

Confessions of a Recovering Engineer: *Transportation for a Strong Town*

Charles L. Marohn, Jr.

URBAN³

Data-driven storytelling

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All data used in this analysis and report, unless otherwise noted, was provided by Leon County, Florida.
All maps are created with ESRI software.

urbanthree.com