



ICMA

**RETHINKING REVENUE**

# THE ROOT OF LOCAL GOVERNMENT REVENUES



Rethinking the Intersection between  
Land Use Planning and Finances to Boost  
the Revenue Productivity of the Tax Base



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*This paper is part of The Rethinking Revenue initiative.*



[gfoa.org/rethinking-revenue](https://gfoa.org/rethinking-revenue)

## ABOUT THE RETHINKING REVENUE PROJECT

Local government revenues must adequately fund the public services that a community desires without creating excessive inefficiencies or unfairness in the revenue raising system. However, local government revenue structures are largely based on assumptions that no longer hold today due to digitization, globalization, demography, political changes, and other trends. Furthermore, fairness is becoming an increasingly important concern for public finance. It follows that this concern should include how revenues are raised. For these reasons, the Rethinking Revenue project is taking a fresh look at how revenues are raised. The project will raise new and interesting ideas like those featured in this paper and will produce guidance for state and local policy makers on how to local government revenue systems can be modernized. We hope the ideas presented in this paper will spur conversation about the possibilities for rethinking revenue.

The Rethinking Revenue initiative is a collaborative effort involving:

- American Planning Association (APA)
- Government Finance Officers Association (GFOA)
- International City/County Management Association (ICMA)
- National Academy of Public Administration (NAPA) Center for Intergovernmental Partnerships
- National League of Cities (NLC)
- Center of Municipal Finance at the University of Chicago's Harris School of Public Policy,
- Government Finance Research Center at the University of Illinois at Chicago's College of Urban Planning and Public Affairs



**L**ocal governments are defined by their geographic boundaries. As a result, a local government's revenues (and expenditures) are linked to how land is used within its boundaries.\* Property tax revenues are a function of the value of property in the jurisdiction. Sales tax revenues are often partially determined by how many and the types of merchants in the jurisdiction. However, when local governments make decisions about land uses, they may not consider the implications for the long-term financial health of the local government, either revenue produced or the cost to serve the development over its life. For example, comprehensive land use plans don't often account for the revenue and expenditure impacts of the land use patterns the plan calls for. This is part of the reason why, for example, many local governments face difficulties funding infrastructure maintenance and replacement: Historical land use decisions did not provide for sufficient taxable activities to pay the cost of maintaining the infrastructure that was built to serve the development.<sup>1</sup> We can see an example of this in the City of South Bend, Indiana, in Exhibit 1.

If local governments are to find a long-term, dependable solution to their structural revenue and expenditure imbalances, they need to become more intentional about making financially savvy land use decisions. It requires rethinking how local governments view their role in land use planning, which is conventionally focused on remaining in compliance with laws, administering building codes, keeping up with demand for new development, and making sure mobility, parking, and greenway goals are met. These are important and should continue to be, but the list must also include assuring that sufficient taxable activity takes place to support the spending needs of the local government.

In this paper, we will demonstrate the importance of land use decisions for revenue: It may be obvious that there is a relationship between revenue and land uses, but the nature and size of the relationship may not be obvious. We will suggest actions that local governments can take to better manage their land uses for positive revenue impacts, including examples of local governments that have already taken some of these steps.

## ABOUT THIS SERIES

The Rethinking Revenue Series is about bringing cutting-edge solutions to local government revenue. Because these ideas are cutting edge, there are few local governments currently using them. The Rethinking Revenue Initiative will build on this paper by providing support to local governments seeking to move the ideas described in this paper forward.

**ABOVE:** The population of South Bend, Indiana decreased from 132,000 people in 1960 to 103,000 in 2020, reducing the tax revenue necessary to maintain the city's expanded infrastructure.

\*Land uses have a big impact on expenditures, but because this paper is part of the "Rethinking Revenue" series, we will focus on revenue impacts. You can read more in "The Intersection Between Planning and the Municipal Budget" by Jack R. Huddleston, a 2007 working paper by the Lincoln Institute of Land Policy.

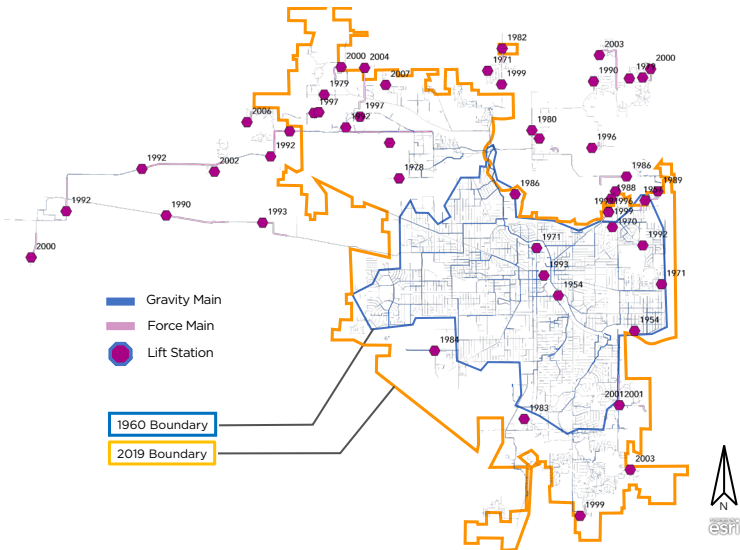
EXHIBIT 1 | UNAFFORDABLE INFRASTRUCTURE DUE TO CONVENTIONAL DEVELOPMENT PATTERNS






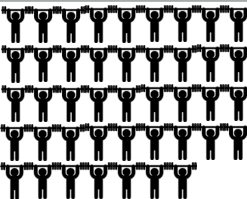
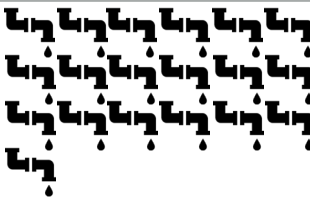
Sewer System Key Elements in South Bend

In 1960, the City of South Bend, Indiana, had one sewer force main and three lift stations for a population of 132,000 people. Over the years, the area the city served expanded, which resulted in more lift stations and miles of force mains, as our map shows.

The proliferation of force mains and lift stations is striking enough on a map. It is even more striking when we consider that South Bend’s population has shrunk to 103,000 in 2020. You do not have to be a government finance officer to know that the city will have problems maintaining the system.

One might question whether South Bend is an extreme case with little relevance to other cities. Perhaps it is just a declining city in the middle of the “rust belt”? First, consider if instead of a population decline, South Bend had population growth in parallel with the United States. In that case, its 2020 population would be 84% larger than in 1960—still far out of proportion with the growth in infrastructure. Population statistics aside, South Bend is representative of a problem that many communities face—land use development patterns that are incompatible with long-term financial realities. Sprawling, lower-density development patterns cause infrastructure to grow beyond the city’s ability to generate revenue to maintain it.



 Population	 Lift Stations	 Miles of Force Main
<b>1960</b> 132,445	 3	 0.3
<b>2020</b> 103,453	 43	 19
<b>-22%</b>	<b>1,333%</b>	<b>6,452%</b>

Graphics courtesy of Urban3

\*Force mains and lift stations are used to move sewage against gravity and are a more expensive part of a sewer system than the parts that go with gravity.

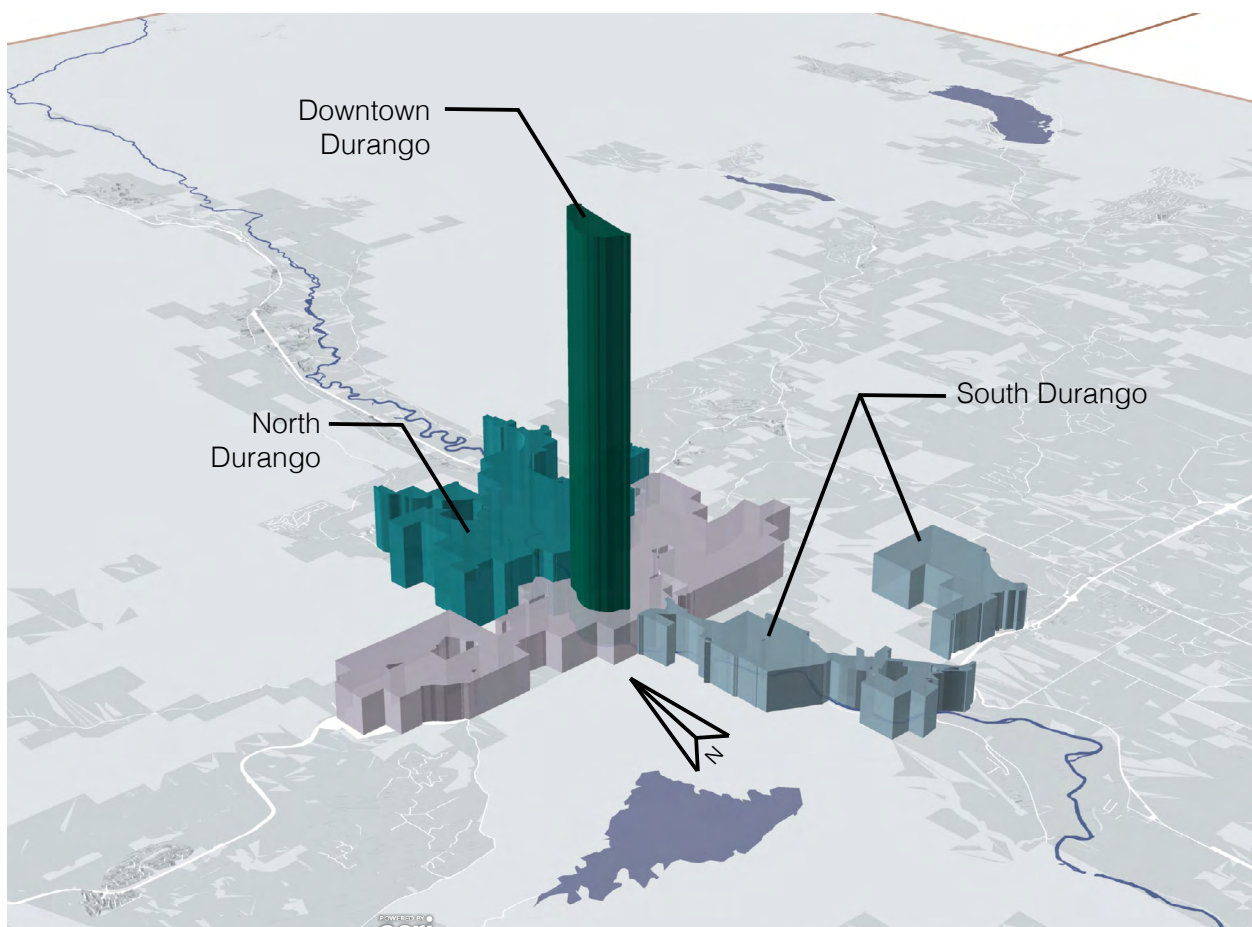


# Revenue Per Acre: Revealing the Relationship Between Land Use and Revenues

If land is largely responsible for producing local government revenue, then we can divide a local government's land into units of production to compare the revenue productivity of land within (or across) jurisdictions. "Revenue per acre" standardizes revenues and tax values into a measure of productivity that can be used to make comparisons. This is like using "miles per gallon" to compare the fuel efficiency of cars.

Revenue per acre can be plotted on a map of the community (added as a GIS "layer"). Exhibit 2 is a map of property tax per acre received by the Durango County government from the City of Durango, Colorado. Much like a bar chart, the higher an area is raised on the map, the more revenue per acre it produces. We see on this map that the downtown area produces more property tax per acre for the county government than other areas of Durango. This is due to the density and quality of buildings found in the downtown area.

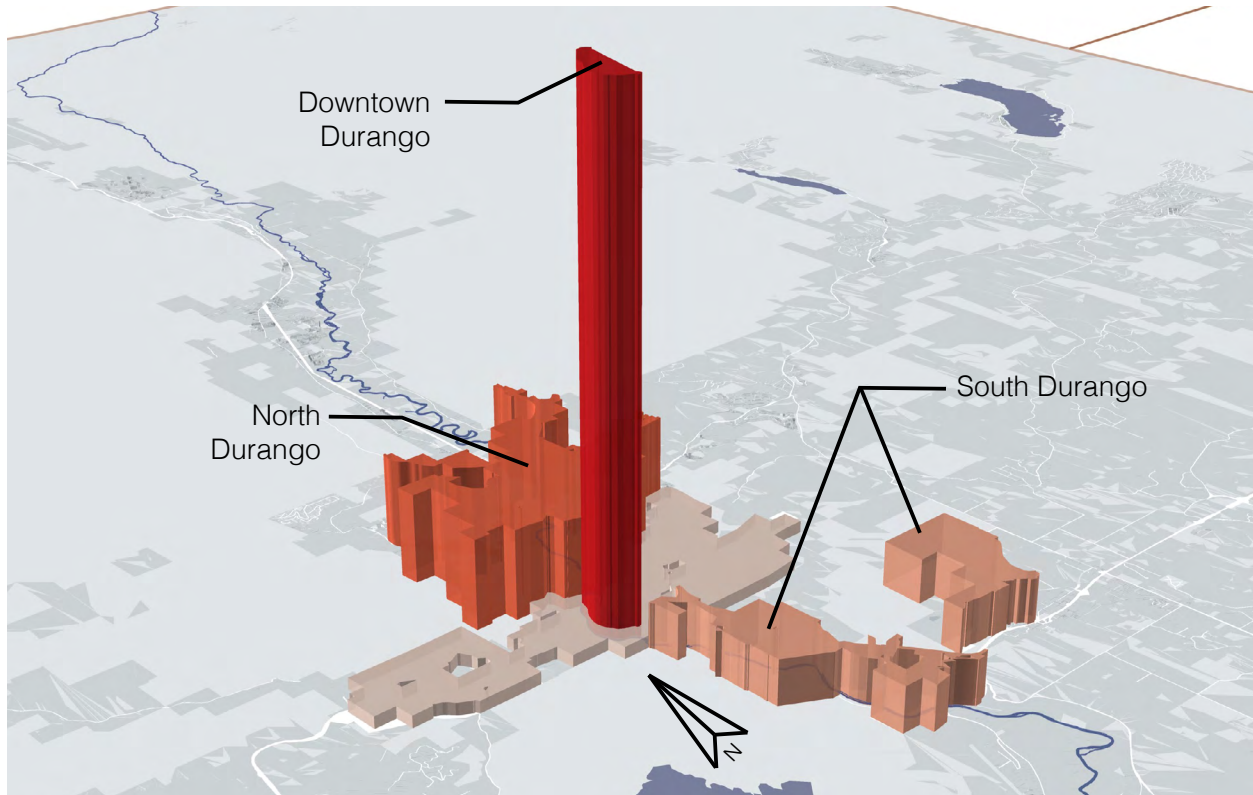
**EXHIBIT 2 | PROPERTY TAX PER ACRE FOR DURANGO, COLORADO**



Graphic courtesy of Urban3

However, a surprising finding comes when sales taxes are added to the analysis. In Durango, big-box retailers are located in South Durango. Exhibit 3, sales tax per acre, shows South Durango to be more productive than it is in Exhibit 1, but South Durango still lags behind downtown by a large margin. This is because big-box retailers take up a lot of horizontal space, including large parking lots. Downtowns are generally vertical, so they use the available land more intensively. The county gets more “bang for the acre” with denser development.

**EXHIBIT 3 | SALES TAX PER ACRE FOR DURANGO, COLORADO**



Graphic courtesy of Urban3

Two more points are worth noting about Exhibit 3: First, North Durango, the second-highest area on the map, was developed before big-box retailers came into vogue. Its retail areas comprise mainly strip malls. Though still lagging behind downtown, North Durango outperforms South Durango due to the greater density of strip malls compared to big-box retailers. Second, these maps were developed from the perspective of the county government, which is more reliant on property than sales taxes. In Colorado, sales taxes have more importance for city government, so the greater per-density sales tax production of downtown benefits the city government, too.

This pattern of greater revenue per acre in downtown or denser, urbanized areas is a common finding for local governments that have developed maps of the revenue productivity of land\* and is often a surprise to local officials. The common theme from a revenue-per-acre analysis is that if a local government wants more revenues, it will have to raise the average revenue per acre its jurisdiction produces. This will require managing development differently.

\*Based on the experience of Urban3, a consultancy that specializes in such maps.





In the rest of this paper, we will suggest several strategies to encourage higher revenue per acre. Before we do, however, we should confront the fact that higher revenues per acre will usually require denser, more intensive development per acre than many communities tend to support. This historical aversion to denser development may lead to objections to local government using its regulatory power to encourage higher revenue per acre. Let's review and address these objections below:

**Is it appropriate for government to exercise power in this arena?** In the United States, one primary purpose of government is to secure people's property rights. Part of doing that is controlling property rights. After all, something that is out of control can hardly be secured! As such, local governments use zoning and building codes to achieve public policy goals. For example, zoning codes might be used to encourage better traffic patterns (i.e., improve mobility), and building codes help prevent fire (i.e., promote public safety). Hence, there is an argument to be made that regulatory powers should be used to promote a public policy goal of financially sustainable local government. A financially healthy local government can better maintain transit, public safety, and other public services.

**Won't the private market reach an efficient outcome?** This argument suggests that even if local government *could* use its regulatory powers to encourage more intensive land uses, perhaps it shouldn't because the private sector will reach efficient decisions about how to use land on its own. However, this assumes that the interests of private actors and the public interest are aligned, but they sometimes are not. Let's take the example of the "big-box" retail building. The buildings are typically not of high quality and are not meant to be long-term assets to the community. The owners of these buildings have gone so far as to advance a legal argument known as "dark store theory." This posits that retail spaces should be valued as if they were vacant, even when the retail space is in use! The logic is that the low sale prices of vacant big-box buildings prove that they have little inherent worth. This example shows the underlying economic force behind the misalignment of private and public interests: the ability of private actors to "externalize" the costs of development to the public.\* In the case of big-box retailers, the "cost" of obsolete retail buildings is passed on or externalized to the public in various forms. One example is blight in the form of vacant buildings. Another is high redevelopment costs in the form of buildings with few viable alternative uses, which slows the pace of redevelopment and/or which may require the use of public subsidies to encourage redevelopment or oblige the local government to accept a less productive replacement use. Yet another is the lost development opportunity in the huge parking lot that serves the low-value retail building. Finally, is the cost of infrastructure to serve the now-vacant building, but with little to no supporting taxes.

\*The legal argument behind dark store theory is to distinguish value to the owner and value to the market for tax assessment purposes. The effect is to externalize to the public part of the cost of owning, operating, and disposing of these buildings.





### **Aren't the current land use patterns what people really want?**

This argument states that people prefer low-density development, so governments should accommodate it. There are two possible responses: First, some people prefer more dense development, pandemics notwithstanding.<sup>2</sup> Second, even if people do prefer less dense development, the private individuals making these choices are typically allowed to externalize the full costs of their choice to the larger community. We can see how this happens in Exhibit 1. The least productive, less dense areas of Durango are subsidized by the downtown. This is not to say that one area of a community should never subsidize another, but that these subsidies are rarely, if ever, accounted for. The community is not fully aware of the consequences of its choice to subsidize and, hence, subsidies are not planned and managed in a sustainable manner. These discussions should happen inside government, between planning, finance, elected officials, and other stakeholders. They should also happen between governments: counties, cities, and schools. The consequences and land use choices will impact the ability of all local governments to support a thriving community.

However, in many communities, there isn't enough revenue per acre in the community to fund the upkeep of infrastructure that has been built to serve less dense areas. These areas require more lane miles, linear feet of water pipe, etc., to serve the same number of people. Insufficient revenue per acre means that the maintenance and replacement costs are deferred to future generations. Hence, current consumption is subsidized by future taxpayers.

### **MAKING SUBSIDIES SUSTAINABLE**

Keep score of your subsidies and how far you are in the hole as you go along. If you aren't keeping score of how deep a hole you have, digging it deeper isn't a good idea. You need to know you are in a hole by doing the math. Communicate this as a "fiscal audit" to your elected officials and your municipal peers.

**ABOVE:** The density of downtown areas (as in the City of Durango, above) generates property and sales tax revenue that subsidizes less productive, less dense areas.



# How to Improve Revenue Per Acre

Now that we've addressed the objections to pursuing higher revenue per acre, let's see how local governments might achieve higher revenue per acre. We'll present the following strategies:

- ➔ **Make fiscally savvy development the easier choice.** Change decision-making so conventional development patterns are not the default approach, and promote fiscally savvy choices.
- ➔ **Calculate revenue per acre for all areas.** “If you can't measure it, you can't manage it.” Show revenue per acre on maps to show decision-makers how land use decisions impact revenues.
- ➔ **Encourage infill development and building up rather than greenfield development and building out.** Infill development increases the intensity of use of underused parcels in existing areas. It adds new revenue while minimizing the cost of service by taking advantage of existing infrastructure.
- ➔ **Understand how building and zoning regulations impact revenues.** Regulations create incentives that can work for or against revenue-positive land uses. Identify these incentives and adjust them.
- ➔ **Understand where cross-subsidization is happening and consider charging for it.** Cross-subsidization occurs where the cost to develop in one area is subsidized by revenues generated in another area of the community. Sometimes cross-subsidization is intentional and acceptable. Other times it is unintentional and unrecognized. In the latter case, it may be savvy to remove the subsidy, especially where the subsidy encourages unsustainable development patterns.

## Make Fiscally Savvy Development the Easier Choice

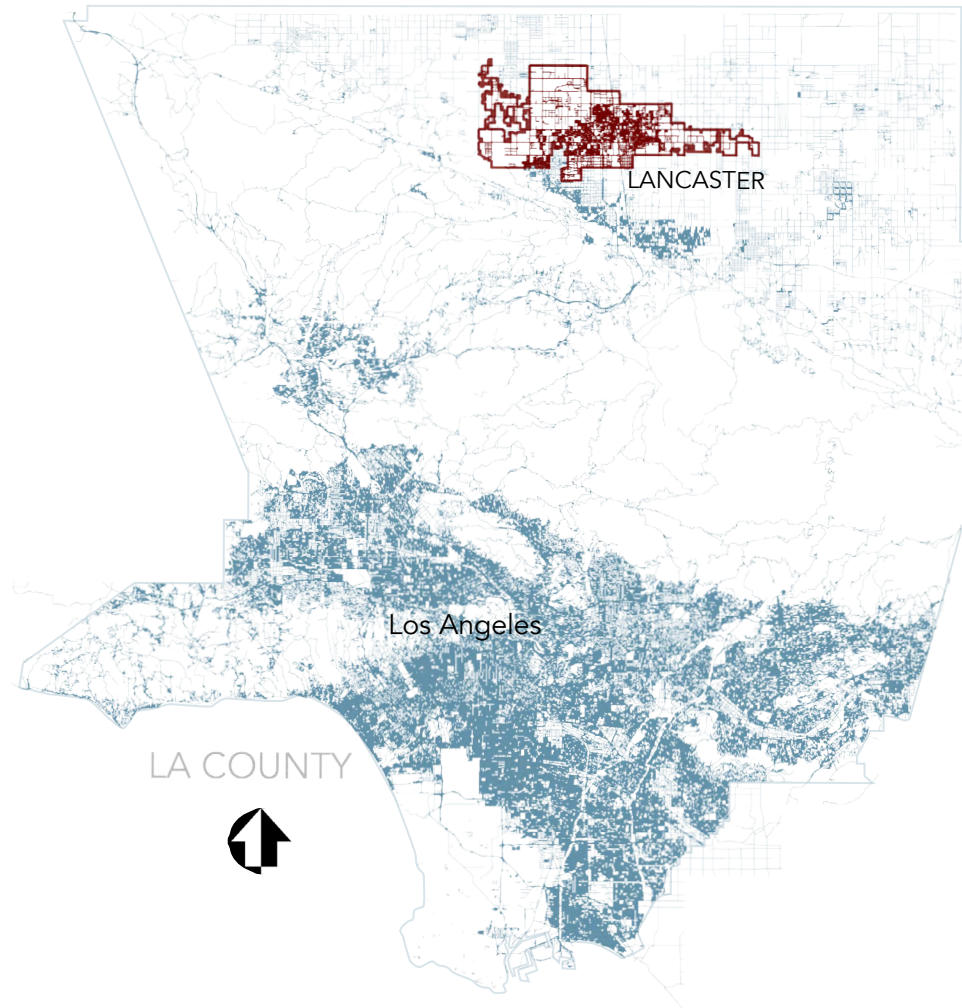
Development patterns that are disadvantageous for local government revenues have a long history and have become the “default” for how future development will proceed. Of course, rethinking revenue often requires breaking from past practices and realizing that local governments can choose to do things differently: They can choose fiscally savvy development over the conventional approach.

A good start is to answer the question: “Why is a different approach to development needed?” Different communities will have different answers based on their circumstances. Here are some examples:

**South Bend, Indiana.** As we saw in Exhibit 1, South Bend had lost about 30,000 in population from its 1960s peak of 130,000. However, the city maintained the same, or larger, physical footprint, which meant that it had to maintain all the infrastructure with fewer taxpayers. Thus, the city needed to discourage further development on the outskirts of the city, which would require expanding infrastructure further. Instead, it chose to encourage infill development and reuse of existing infrastructure.

**Lancaster, California.** The City of Lancaster had low-density development patterns. This meant that the city had to maintain more infrastructure (e.g., roads) than its tax base was able to support over the long term. Once the city recognized its infrastructure burden and how it got into this predicament, it understood that it needed to encourage denser development. See Exhibit 4 for a summary of Lancaster's experience and the importance of visualizing data.

EXHIBIT 4 | VISUALIZING LANCASTER'S ROAD INFRASTRUCTURE DEFICIT



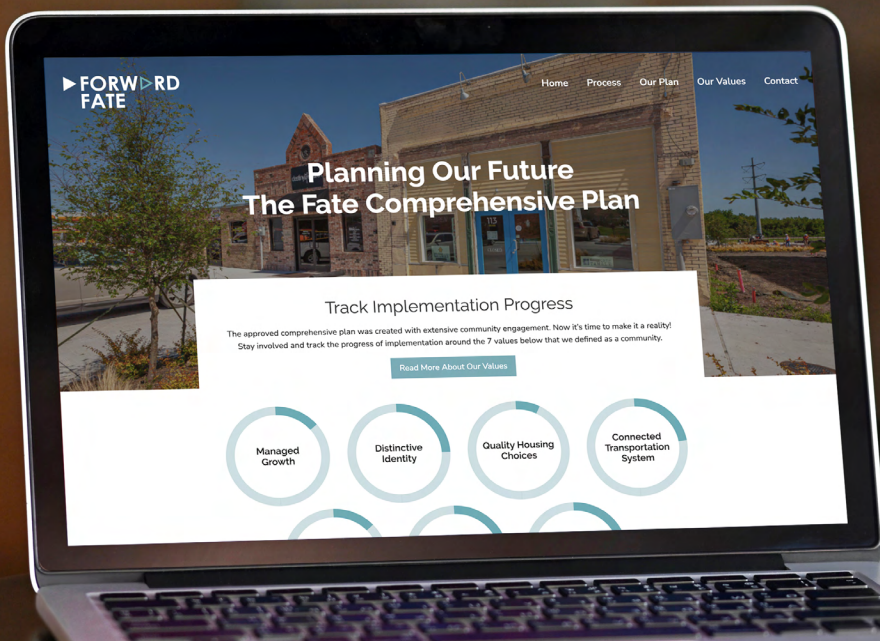
### Lancaster: 953 Miles of Paved Roads

Turning data into knowledge is hard. It is harder to turn your data into knowledge for someone else! A common problem is “the curse of knowledge,” where the presenter unconsciously assumes the audience has access to the same context and background that allowed the presenter to turn data into knowledge for themselves. Visualizations of data can help overcome this by providing easy-to-understand context. In Lancaster, the data was the lane miles of road that ran throughout Lancaster. The knowledge was the burden that this placed on the city. City staff had presented the number of “953” miles of roads, but that did not create true knowledge for the audience. Most people don’t know what a “mile” really looks like. But when put on the map, one can see that 950 miles of road is a road from Los Angeles, California, to Portland, Oregon. Anyone knows that is a long road! They can also appreciate that a city like Lancaster would be hard-pressed to maintain such a road, especially given that it would need to be replaced every 50 years. The city would need to move away from conventional development patterns to get out of the business of this Los Angeles to Portland highway!



Graphics courtesy of Urban3





The City of Fate, Texas, created a comprehensive land use plan to commit the city to specific practices to make their development goals a reality.

**Fate, Texas.** Unlike South Bend or Lancaster, Fate did not have a conspicuous problem like a shrinking population or an excess of infrastructure. It is a fast-growing suburb in the vibrant Dallas metro region. Fate's recognition of the need for a different approach to development is based on some important ideas about development that staff and elected officials regularly discuss and commit to:

- *New development is not just a pretty picture.* Development proposals are accompanied by concept drawings that show an idyllic future with beautiful buildings and happy people. Fate knows that the picture comes with a cost. Taking the picture at face value creates false expectations.
- *A new infrastructure asset is not really an asset.* An asset is something that can generate cash flows, reduce expenses, or otherwise create future financial benefit. Given the need to maintain and replace infrastructure like roads, typically every 50 years, it is questionable whether the infrastructure generated by new development is really an asset. Fate uses the metaphor of a car. If you are given a new car, yes, that is nice to have—but you must assume ongoing costs and eventually replace the car. Similarly, if a new piece of infrastructure is built by a developer and conveyed to the city or built by self-supporting debt, then the city still must find enough revenue to maintain and eventually replace it.
- *The conventional approach to development is a systematic problem for local governments.* Fate recognizes that its elected officials are not personally at fault for past decisions that may not have been fiscally savvy. Rather, the conventional development pattern is common across all local governments, so it takes special conscientiousness to make sure Fate isn't led astray into financially unwise decisions in the future.

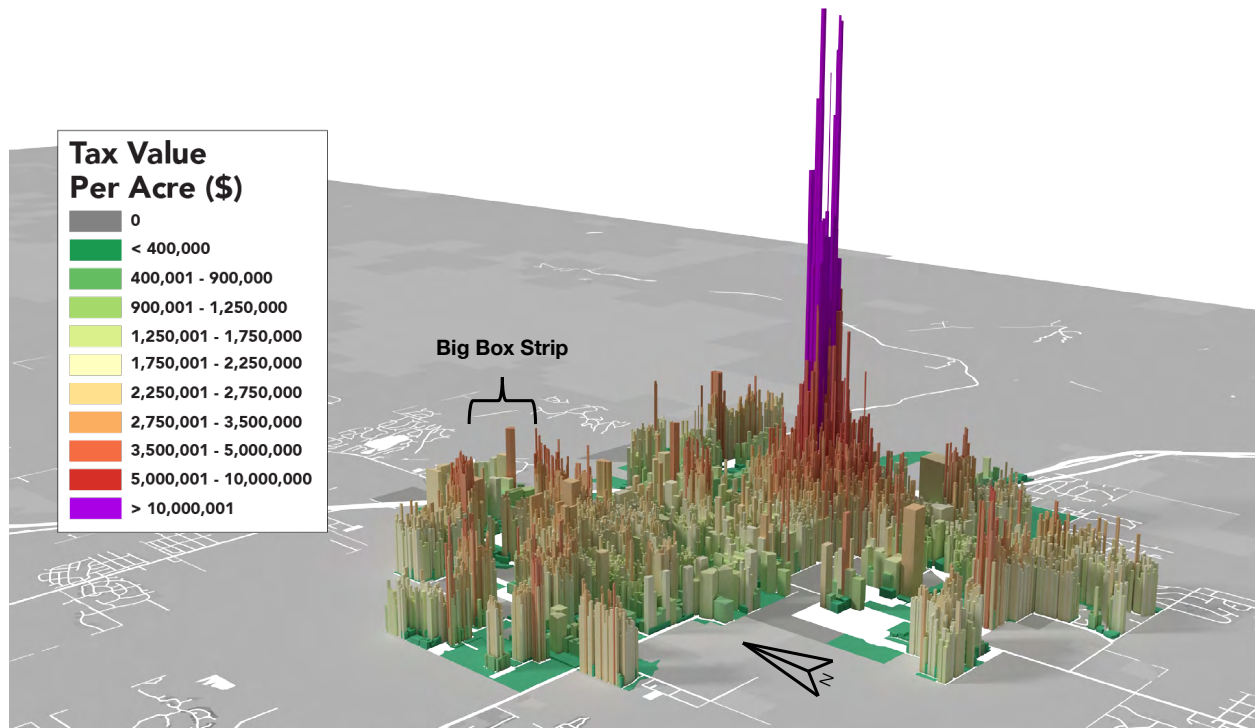
Fate has memorialized this commitment in its 2021 comprehensive land use plan. The plan says: "A primary directive of the [Forward Fate Comprehensive Plan](#) is to weave the notion of fiscal responsibility throughout." The plan commits the city to specific practices to make this aspiration a day-to-day reality. We'll highlight these practices, and more, in the following sections. Putting these practices in place is essential to making fiscally savvy development the easier choice compared to conventional development. It helps decision-makers better contrast the financial implications of conventional development with more financially sustainable options.

## Calculate Revenue per Acre for All Areas

“If you can’t measure it, you can’t manage it” is a truism that applies no less to revenue per acre than any other matter of public finance. However, public finance is typically measured on spreadsheets and graphs. Revenue per acre is best understood on maps. People find maps compelling and understandable. And with the increasing accessibility of geographic information systems (GIS), it is easier than ever to develop these kinds of maps by adding layers to display financial information. We’ve already seen a map of Durango. Exhibit 5 shows a map of Bozeman, Montana, where each parcel is represented separately. In Montana, property tax is the main source of revenue for city governments—there is no retail tax. It is usually possible to get data on individual property valuations. However, state governments often have restrictions on access to data concerning the sales taxes generated by individual properties (e.g., merchants). In this case, the “district” approach, like in the Durango example, is a reasonable alternative to parcel-by-parcel analysis. The maps for Durango and Bozeman were created by Urban3, a consultancy that develops such maps professionally. The City of Fate worked with Verdunity, another consultancy, to develop maps that color code parcels according to their revenue productivity. There is a spectrum of colors, with green at one end (good) and red at the other (bad). Local governments with in-house GIS capabilities should be able to develop their own revenue-per-acre maps. The basic approach to revenue-per-acre analysis is to find a given parcel’s value and its acreage, then divide one into the other to get value per acre. The millage rate can then be applied to get property tax revenue per acre. Whether it is a consultant or staff, the key is to visualize revenue per acre so you can show, rather than tell, decision-makers how land use decisions impact revenues.

### EXHIBIT 5 | PROPERTY TAX REVENUE PER ACRE IN THE CITY OF BOZEMAN, MONTANA

The Bozeman map shows not only the potency of the downtown but also that the near-downtown residential neighborhoods dwarf the commercial big-box strip.



Graphic courtesy of Urban3

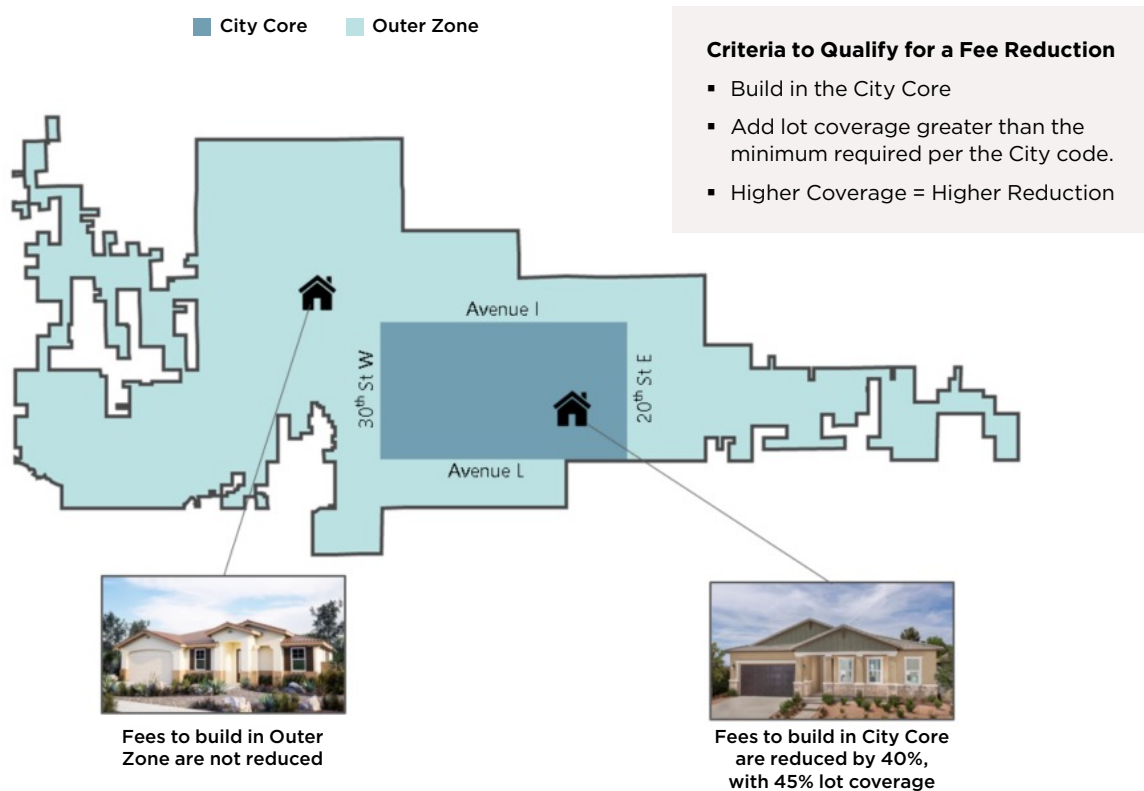


## Encourage Infill Development and Building Up Rather Than Greenfield Development and Building Out

Infill development increases the intensity of use of underused parcels in existing areas. Developing these parcels adds new revenue while minimizing the cost of service by taking advantage of existing roads, utilities, public safety coverage, etc. This also removes the subsidy that an undeveloped or underdeveloped property enjoys by virtue of its low valuation and consequent low property tax bill, all while still being served by infrastructures like roads and municipal utilities. Furthermore, to the extent development goes vertical instead of horizontal, it will generally improve revenue per acre, as we saw in the revenue-per-acre maps. In contrast, developing on the outskirts of existing development requires adding new roads, new utilities, and expanding public safety coverage.

The City of Lancaster, California, used its regulatory powers to adopt an impact fee structure to encourage development closer to the center of the city, where most infrastructure exists. Exhibit 6 shows that development in the core can receive a substantial reduction in the impact fee. The exhibit shows a 40% reduction for the homes depicted, but the reduction could be greater with greater lot coverage. A 40% reduction for the type of homes shown amounts to between \$3,000 and \$4,000.

EXHIBIT 6 | CITY OF LANCASTER MAP



Graphic courtesy of the City of Lancaster

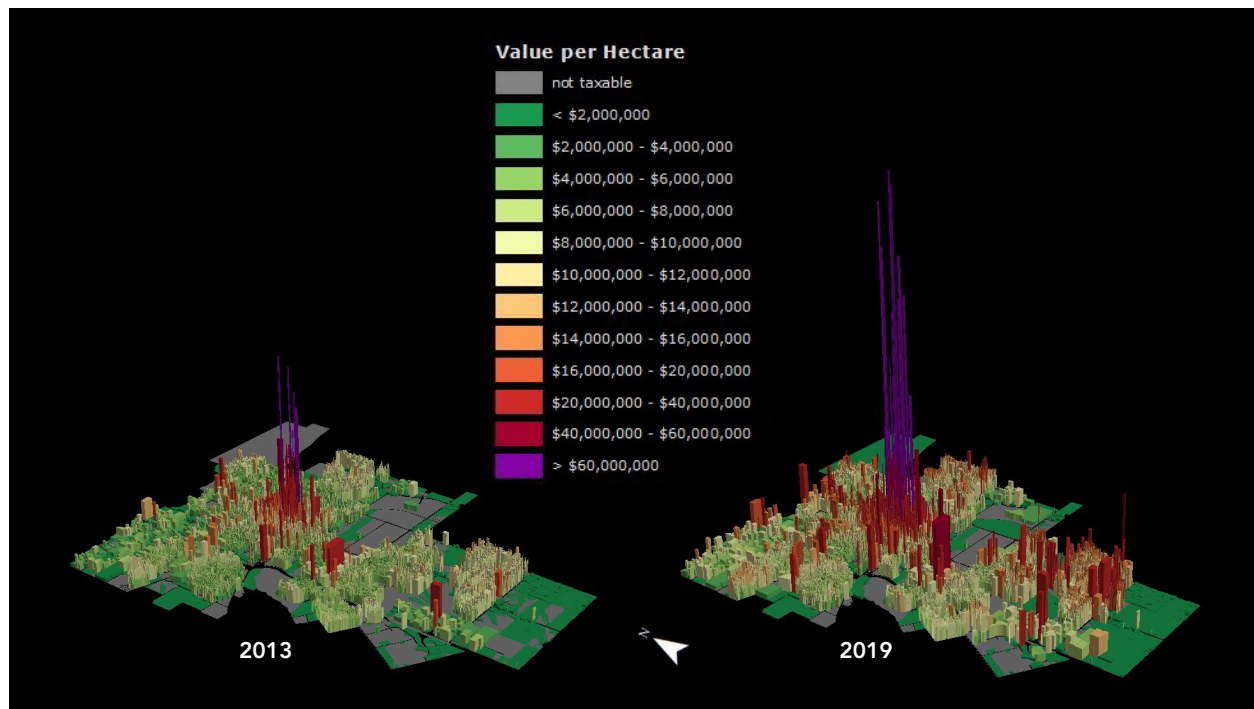
## Develop a Policy to Require Cost-Benefit Evaluation of Potential New Development

When a new development is proposed, the impact on local revenue should be evaluated. The City of Fate, Texas, analyzes all proposed developments and presents the results to City Council in an easy-to-understand format. Fate found that regular and easy-to-understand analysis has made consideration of fiscal impact into a habit for city decision-makers. Fate regularly updates its methodology. Its most recent evolution is a “[fiscal checklist](#).” This is a spreadsheet that compares: 1) the contribution the new development makes to city resources with 2) the cost to the city to provide services. Contributions comprise property and sales taxes, while costs include infrastructure replacement as well as day-to-day municipal services. The checklist ties back to the value-per-acre concept because the items on the checklist encourage the city to optimize value per acre for any given development.

Value-per-acre maps encourage savvy decision-making around new development. The City of Guelph, Ontario, had value-per-acre maps that showed the higher revenue productivity of development near the center of the city, relative to development on the periphery. This led the city to encourage more infill development and less greenfield development. Exhibit 7 shows the city’s value-per-acre maps from 2013 to 2019. You can see how the city center’s productivity has gotten better while the periphery has remained stable (as opposed to increasing the amount of lower productivity uses). The city used its land use master planning process to manage the issues that come along with density, like traffic. For example, the traffic master plan provided a strategy for public transit and other multimodal transport options.

### EXHIBIT 7 | REVENUE PER ACRE IN THE CITY OF GUELPH, ON

From 2013 to 2019 Guelph accentuated the revenue productivity of its city center and limited less productive land uses on the periphery of the city.



Graphic courtesy of Urban3





This strategy of regular cost-benefit analysis suggests a strategy of rigorously analyzing the long-term cost benefit of potential annexations, taking into account the life cycle of infrastructure replacement. The common assumption that “growth is good” might lead some governments to seek to annex new areas. However, if the revenue per acre of the annexed area is not enough to cover the cost of extending municipal services to that area, then it will be a net loss for the local government.

A particularly dangerous situation that a cost-benefit analysis can guard against is known as “leapfrog” development (or leapfrog annexations). This is where new development takes place away from existing development, leaving empty land in between (or unincorporated land, in the case of annexations). This is dangerous to a city’s financial health because the area where the “frog” leaped to must be serviced. The distance from there to existing development within municipal boundaries raises the cost of service but provides no offsetting revenue. For example, police and fire vehicles must drive further, roads and utilities need to be extended past empty and/or nontaxpayer areas, etc. You can see some “leapfrog” areas in Exhibit 6. The northwest corner of Lancaster has some unincorporated areas that are surrounded by incorporated areas. It is not hard to imagine that servicing the parcels in this area would be less efficient than servicing parcels closer to the city core.

### DON'T LEAVE COST-BENEFIT ANALYSIS TO THE DEVELOPERS

Fate conducts its cost-benefit analysis using its own staff. It has found that analyses performed by developers often have optimistic assumptions or ignore unfavorable variables altogether.

**ABOVE:** In an effort to avoid further “leapfrog” development, the City of Lancaster, California (above) adopted an impact fee structure to encourage development closer to the center of the city, where most infrastructure exists.

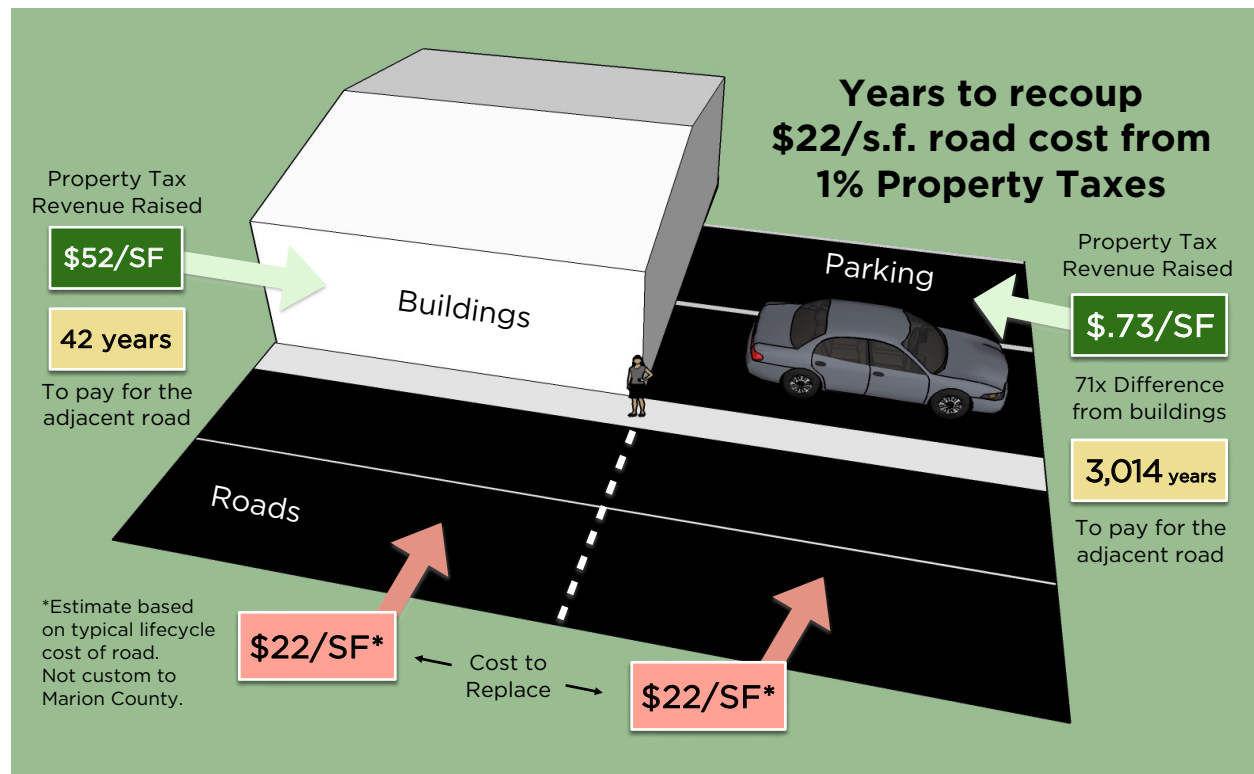
## Understand How Building and Zoning Regulations Impact Revenues

The devil of revenue-negative development can show up in the details of building regulations. For example, consider regulations that call for minimum space devoted to parking. Asphalt is far less valuable than a building. So the generous amounts of parking can drastically reduce the value per acre. Exhibit 8 illustrates the impact of these types of regulations in Marion County, Indiana. It shows that a building valued at \$52 per square foot will take 42 years to generate enough property taxes to cover the cost of replacing the abutting roadway. The adjoining parking lot will take over 3,000 years to pay off the abutting roadway!

This is not to say that less parking is always better, but local governments will often have the opportunity for more fiscally savvy development by taking a savvier approach to parking. They can do the math to find out if parking requirements reduce per acre revenue productivity to unacceptable levels. Research has shown that few cities suffer from acute shortages of parking, so reducing parking, in most cases, will not significantly reduce the public's ability to get around the city.<sup>3</sup>

### EXHIBIT 8 | HOW PARKING IMPACTS REVENUE AND THE ABILITY TO PAY FOR LOCAL SERVICES

This graphic shows monetary impact per Marion County resident, by average per square foot values of building, parking, and roads. Imagine that 50% of taxes were put into a “bank” for the road in front of the building and parking. It would take the building 42 years to pay for the road while parking would take over 3,000 years. However, roads only last 50 years.



Graphic courtesy of Urban3



South Bend has been intentional about shaping its zoning ordinance to attract more revenue-positive development. They started with making incremental changes to their code to:

- *Eliminate parking requirements.* This reduces the potential for an overabundance of parking and the negative impacts on revenue productivity shown in Exhibit 8.
- *Create a new zoning district to support missing middle housing typologies.* These are higher-density housing types, like townhouses, that were zoned out of existence. These housing types make more cost-effective use of infrastructure.
- *Entitle accessory dwelling units on all parcels; reduce setbacks, minimum lot size, and frontage; and increase the maximum coverage area of a lot.* These increase the intensity with which a given parcel can be used.
- *Change the subdivision ordinance to reduce cul-de-sac length.* Cul-de-sacs are a less efficient way to run infrastructure to residences than a grid street pattern. Cul-de-sacs contribute to a problem of excess pavement beyond the adjoining development's ability to pay for it. Cul-de-sacs, however, do not contribute to the mobility of the transportation system.

These changes reduced variance requests and helped to streamline the development process while making infill development easier and more desirable. The guiding principles were simplification, concision, and clarity to make it straightforward for anyone to understand the rules of how to build in the city. This would make it easier for developers to comply and would attract developers who were the best fit for the type of development the city wanted. The city went further to make infill development easier by developing preapproved, off-the-shelf plans for developers or anyone interested in infill.

An example of regulations that impact revenue productivity of development that is relevant to many cities is “minimum investment rules.” West Palm Beach, Florida, set up a two-story minimum as part of their zoning for downtown to encourage a minimum density that was commensurate with the city's investment in downtown infrastructure.

The City of Fate shares its criteria for revenue-positive development with developers. The city points out that, just like the developers, the city government has return-on-investment criteria for development. This city has found that if they show developers the math behind what the city wants to achieve with new development, then developers are often willing to work within those parameters, and in many cases will make more money than what their original plans would have yielded.

At this point, it is worth remembering that “revenue-positive” development often means denser development than the community might be used to. Denser development can run into NIMBYism.\* Fate has found that it is important to engage the neighbors of new development early and help them understand the rationale behind denser development. When the neighbors see the math and realize that conventional development will drag down the entire community (including them), many of them will support the wiser development choice for the community.

At this point, it is worth remembering that “revenue-positive” development often means denser development than the community might be used to.

\*NIMBY means “not in my backyard,” which refers to when people will object to some development that has benefits for the wider community but is not desirable to the immediate neighbors of that development.

## Understand Where Cross-Subsidization is Happening and Consider Charging for It

Cross-subsidization occurs where the cost to develop in one area is subsidized by revenues generated in another area of the community. This is of concern when cross-subsidization is used to offset higher costs of serving development in one area of the community versus another. This kind of cross-subsidization leads to lower “net” revenue per acre (revenues minus expenditures).

Perhaps the most important example of cross-subsidization is that denser urban development subsidizes the cost of low-density development. Low-density development often does not generate enough revenue to cover the cost of building, maintaining, and replacing the lane miles of roads, feet of pipe, etc., necessary to serve the development. That cost is offset by denser development that generates revenue above the cost to serve the development. This kind of cross-subsidization often happens with downtowns versus outlying areas, as we showed in the Durango and Bozeman examples. In these cases, downtown is the goose that lays the golden egg. To get golden eggs, you need to feed the goose, which means being supportive of downtowns and the required infrastructure.

Cross-subsidization can show up in other places as well. The City of Eugene, Oregon, adjusted its impact fees to encourage more development in places where it had existing infrastructure capacity by offering discounted fees to development in zones that are closer to the city core and/or mass transit (bus lines). The typical impact fee doesn’t cover the full life cycle impact of new development. The full life cycle cost is covered by the whole taxing system. Hence, when new development is built and requires new infrastructure, it will often be subsidized by the rest of the tax base.

## Conclusion

Local governments need to rethink how their approach to land use planning considers the financial impacts of development choices. Land uses underpin a local government’s revenue system because the property tax (and sometimes the sales tax) is an important source of local revenue. If the land within a local government’s boundaries is not productive at generating revenues, then local government will find it difficult, if not impossible, to keep up with the costs of providing services and maintaining infrastructure.

The conventional wisdom has often been to “grow our way out” of the problem by building new development that has little short-term infrastructure maintenance/replacement costs. This strategy can only go on for so long and compounds the problem by creating a larger backlog of infrastructure that has to be maintained and eventually replaced. Hence, local governments need to be savvier about their development choices by encouraging land uses that are revenue positive over the long term and recognizing where cross-subsidization is and is not desirable. This can be done by “doing the math” on what development choices cost versus the revenues they generate and changing incentives, regulations, and decision-making processes so that making the savvy choice becomes the default choice.

<sup>1</sup> Marohn, Jr., C. L. *Strong Towns: A Bottom-Up Revolution to Rebuild American Prosperity*. Wiley. 2020.

<sup>2</sup> Richard Fry and D’vera Cohn. “In 2020, fewer Americans moved, exodus from cities slowed” Pew Research Center. December 16, 2021.

<sup>3</sup> See “The Billion Dollar Curb” series in the American Planning Association’s *Planning* magazine. The series begins with Chrissy Mancini Nichols and John Dorsett. “Undervaluing the Curb.” May 2021.





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