Fiscal Impact Analysis for California Communities

DRAFT v3

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California Strategic Growth Council

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TischlerBise is a fiscal, economic, and planning firm specializing in fiscal/economic impact analysis, impact fees, infrastructure financing studies, cost allocation plans, user fees, utility rate studies, and related revenue strategies. We have been providing consulting services nationally for over 35 years. During that time the firm has prepared over 800 fiscal impact analyses and over 900 impact fees, more than any other firm.

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I. INTRODUCTION

The California Strategic Growth Council (SGC) seeks to support communities in their efforts to make sustainable land use decisions. Communities need analytical tools and technical support to assess and balance multiple priorities when making land use and development decisions. For many communities, priorities to be considered with regard to land use decisions include resource conservation and climate adaptation, economic development, investing in new versus existing communities, and maintaining fiscal responsibility.

TischlerBise has been retained by SGC to facilitate several public workshops on fiscal impact analysis for communities in California, and to provide direct technical assistance to Sustainable Community Planning Grant and Incentives Program (SCPGIP) grantee communities as they identify and implement community-specific sustainable development strategies. These tasks are preceded by the delivery of this Technical Report on available tools, resources, and methodologies for fiscal impact analysis and recommendations for using these tools and communicating the results.

Importance of Fiscal Impact Analysis in Local Land Use Decisions

Most states require local governments to prepare a balanced budget on an annual basis, but few require jurisdictions to conduct evaluations of land use decisions on a longer time horizon. Oftentimes, as part of public discussion and deliberation of local land use, such as a local general plan or for specific development decisions, analysis of fiscal impacts of those land use decisions can be useful. A fiscal impact analysis (FIA) goes beyond the annual budget *to clarify the longer-term financial effects of land use and development decisions and related public infrastructure and service costs* in order to help ensure that local officials understand the short- and long-term fiscal effects prior to making such land use and development decisions.

A fiscal impact analysis clarifies longer-term financial effects of land use and development decisions.

A FIA projects net cash flow (revenue generation and operating and capital costs) to the public sector due to residential and/or nonresidential (commercial, office, industrial, etc.) development. In simple terms: Revenues (generated from growth such as property taxes, sales and use taxes, charges for service) minus expenditures (generated from growth such as cost to provide public safety services,

recreation programs, library services, etc.) equals the fiscal impact. *In other words, are sufficient revenues generated available to cover the resulting costs to provide services and infrastructure?*

This form of analysis can enable local governments to address a number of short- and long-term planning, budget, operational, and finance issues, as well as to inform the community about land use decisions and policy, such as the benefits or disadvantages of various development patterns. *Just as a household benefits from forecasting its long-term cash flow needs (incorporating anticipated future expenses for higher education and other large cost items) and setting money aside to pay for future outlays, local governments are better prepared to manage changing financial circumstances if they anticipate and plan for future costs and revenues.*

When faced with a land use or development proposal that may adversely affect a community, a fiscal impact analysis of the proposal can provide a perspective to objectively analyze proposed changes and communicate the overall impacts. This process can help develop a compatible land use plan, build community support for resulting land use decisions, and provide elected officials and others with additional information to help make decisions and a better understanding of how land use decisions affect a jurisdiction's bottom line. Fiscal impact analysis also helps communities avoid making fiscally unsound decisions based on short-term revenue opportunities by helping to focus decision-making on long-term outcomes.

A fiscal impact analysis can help communities avoid making fiscally unsound decisions based on short-term revenue opportunities by helping to focus on long-term outcomes.

A fiscal impact analysis provides support to decision makers, local government staff, and community stakeholders to identify and quantify benefits to a local community. Specific benefits of fiscal impact analysis include:

- Identifies projected changes to local services and revenues
- Helps define achievable levels of service
- Projects capital facility needs
- Clarifies development policy impacts
- Calculates revenues and helps in the development of revenue strategies
- Encourages "what if" questions
- Promotes public education of the connection between land use and fiscal conditions

Relationship to California State Planning Priorities

The California State Planning Priorities, delineated in Sections 65031-65051 of the Government Code, aim to ensure a growing economy while protecting the environment and public health and promoting equity in urban, suburban, and rural communities across the state. To accomplish these goals, the State Planning Priorities highlight three primary strategies:

- Encouraging infill development by improving the infrastructure already serving underutilized land in areas served by transit;
- Protecting natural resources; and
- Ensuring non-infill development at least takes the form of development patterns that use land efficiently, and that is located in areas adjacent to existing development and served by transit, thereby minimizing "ongoing costs to taxpayers."[1]

To support these goals, the State Legislature passed two signature bills: the California Global Warming Solutions Act of 2006 (AB 32) and the Sustainable Communities and Climate Protection Act of 2008 (SB 375). The principal goal of AB 32 is to improve air quality by requiring the state to rollback its greenhouse gas emissions to 1990 levels by 2020. This represents a roughly 30 percent decrease from "business-as-usual" projections. *Of course, the causes of climate change are complex and involve many aspects of modern life, but one of the most important is the impact of land use patterns on climate.* Land development patterns are directly linked to vehicle travel. If California can decrease vehicle miles travelled (VMT), it can reduce its climate pollutants, especially GHG emissions**.** *There are a number of ways to reduce VMT, including encouraging carpooling, building bike lanes, and constructing high-occupancy vehicle lanes. However, perhaps the most effective is encouraging development near transit and employment centers on infill sites in transit-oriented developments (TODs).* The second piece of legislation, SB 375, expands this strategy by requiring the coordination of Regional Housing Needs Allocation process with the regional transportation planning process, with the end goal of increasing the colocation of housing, jobs, and transit in dense urban patterns.

This shift from conventional subdivision patterns to infill development will necessitate a significant adjustment in how landowners, residents, developers, and government officials approach planning and development. *Fiscal impact analysis can serve as an extremely useful tool for helping these stakeholders sort through the impact of various forms of development on operating and capital budgets, thereby fostering fiscal sustainability and resilience in local communities throughout the state.*

The question of fiscal impact is especially important in California for several other reasons as well. First, Proposition 13 limits property tax rates and assessment growth (detailed in Chapter 3), thereby slowing property tax revenue increases from existing development over time even as service and infrastructure costs go up. This limitation on property tax has encouraged California jurisdictions to aggressively

[1] California Government Code Section 65041.1.

impose impact fees, thus loading considerable front-end costs on new development. In turn, jurisdictions pursue new development of all types to generate the relatively large one-time fees and property tax revenue from new growth. Second, the local share of sales-tax revenue is retained entirely by the jurisdiction in which the generator of the sales tax is located, thus creating an incentive for local governments to favor developments that produce short-term retail sales. Finally, the State's policies of encouraging less sprawling, more sustainable land use plans has challenged traditional practices and encouraged more infill development, which has different fiscal impacts than conventional development patterns. Fiscal impact analysis can help local governments plan for the future in the midst of a complex public finance landscape.

Scope of this Paper

This paper describes a generalized approach to the topic of fiscal impact analysis. It is important to note that each community is different and not all of the issues identified herein are applicable to all communities.

The following topics are addressed in the remainder of this document:

- Overview and general description of fiscal impact analysis
- Discussion of benefits of conducting a fiscal impact analysis
- Factors to consider in a fiscal impact analysis
- Description of the analytic process
- Matrix of recommended approaches
- How to communicate the results of the analysis
- Discussion of fiscal impact analysis specifically for infill development
- Case studies of fiscal impact analysis in action
- Bibliography and resources

II. WHAT IS FISCAL IMPACT ANALYSIS?

In general, a fiscal impact evaluation analyzes cash flow (revenue generation and operating and capital costs) to a jurisdiction associated with the provision of public services and facilities to serve new development—residential, commercial, industrial, or other land use. A fiscal impact analysis is different than an economic impact analysis, which evaluates the economic benefits to a community in terms of jobs, income, and economic output.

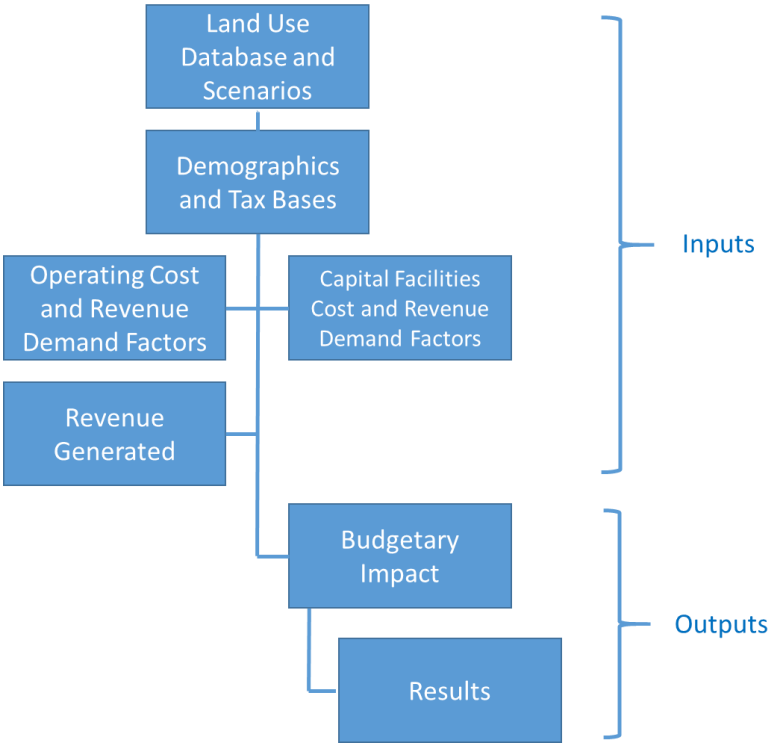
Fiscal analysis enables local governments to estimate the difference between the costs of providing services to development and the taxes, user fees, and other revenues that will be collected by the government as a result of new development. It can be used to evaluate the level of subsidy for or contribution of an individual project (such as a request for rezoning), analyze changes in land-use policies (such as increasing or decreasing allowable densities for development), assist in determining the appropriate balance of land uses (residential, retail, industrial), or identify fiscal impacts related to a proposed annexation.

Fiscal impact analysis helps local governments estimate the difference between the costs of providing services for and the revenues collected from new development.

The general process for fiscal impact analysis is shown in Figure 1. First, data for inputs must be gathered. These data usually include (1) land use projections data, which describe development scenarios for which the analyst wants to test the fiscal impact; (2) baseline demographics data, such as current population, jobs, housing units, nonresidential square footage, and vehicle trips, in order to derive the levels of service factors from budgetary information (i.e., what it costs to provide public services to each person, worker, home, nonresidential space, or car trip); and (3) data on annual service demand generators, such as population, jobs, and nonresidential building area, in order to inform the process of determining annual and cumulative tax base increases for development scenarios.

Next, current year budgetary information is used to determine the cost of providing public services to each demand unit. Costs include operating fund expenditures (e.g., the cost of maintaining roads for each vehicle trip) and/or capital expenditures (e.g., the cost of park land acquisition for building new parks for each new resident). Finally, the positive or negative impact of new development is determined by analyzing the demand created by each development scenario and the cost of meeting that demand, as well as the revenues generated from the development.

Figure 1. Inputs and Outputs of the Fiscal Impact Analysis



The following factors should be considered when conducting a fiscal impact analysis. Each is described in more detail later in this paper.

- Local revenue structure
- Public services provided
- Levels of service
- Capacity of existing infrastructure
- Demographic and market characteristics of new growth

It is important to keep in mind that the fiscal impact of development policies, programs, and activities is only one of the issues that local government officials should consider when evaluating policy or program changes relating to land use and development. *In general, a fiscal impact analysis should be used to craft a land use plan that incorporates the appropriate mix of land uses necessary to achieve fiscal sustainability, or at minimum, fiscal neutrality, or otherwise make informed decisions about the balance of policy goals as they pertain to the public costs of land use and development decisions.* Moreover, localities have a responsibility to consider other impacts, too. Court cases have suggested that, in addition to fiscal impacts, local governments need to evaluate environmental impacts, regional needs for housing and employment, and other concerns. Using fiscal impact data as part of a larger cost-benefit analysis can be useful, and fiscal impact analysis is considered by most courts to be an appropriate element in the comprehensive long-range planning process.

General Benefits of Fiscal Impact Analysis[2]

Fiscal impact analysis has many benefits for communities, whether it is used for long-term financial, land-use, or capital planning.

General benefits include:

- Identifies Projected Changes to Local Services and Revenues
- Helps define achievable levels of service
- Projects capital facility needs
- Clarifies development policy impacts
- Projects revenues and helps in the development of revenue strategies
- Encourages "what if" questions
- Promotes public education of the connection between land use and fiscal condition

Identifies Projected Changes to Local Services and Revenues

One of the major benefits of fiscal impact analysis is that it describes what happens—from a fiscal perspective—to a jurisdiction when changes are proposed or when new policies are implemented that affect development patterns. Based on proposed changes to development patterns, fiscal analysis measures the impact of growth (or decline) on a local government's services, including the need for and ability to fund capital facilities, and the resulting costs and revenues associated with operating and maintaining new facilities. A fiscal analysis can also identify impacts of new development on existing infrastructure and public facilities. This is different from the preparation of locality's budget. A fiscal analysis essentially looks at revenues and expenditures separately to determine if sufficient revenues are generated to support operating and capital needs. It does not project expenditures based on revenues available—unlike the annual budget process where a budget is balanced with the resources available.

Helps Define Achievable Levels of Service

Public agencies that provide capital infrastructure and services rely on a standardized "level of service" to identify capacities of infrastructure, and the ability to provide ongoing service from those capital facilities. Examples include average daily capacity for water and sewer usage, number of park acres per person, and vehicle miles of travel supported on a road network. To support changes in residential and commercial land use, and therefore users, department heads and managers must identify indicators that reflect the demand for services on public facilities; examples include: the number of residents or jobs in the community, the number of average daily trips on local roads, or some other appropriate factor. Defining the overall level of service for the community promotes discussions about the adequacy of existing services and facilities and enables local governments to determine through fiscal analysis

[2] This section is primarily from TischlerBise President, L. Carson Bise II, 2010. *Fiscal Impact Analysis: Methodologies for Planners*. Chicago, IL: APA Planners Press.

whether the community can afford various levels of service, in terms of both the costs of new or expanded capital facilities and annual operating costs.

Projects Capital Facility Needs

A fiscal impact analysis can incorporate information on the available capacity of current capital facilities and project when additions or new facilities will be needed. The evaluation of capital facility needs can be helpful in developing or revising the local government's CIP. For communities that are *growing*, this benefit is particularly important. Population expansion will impact local government facilities and services, and communities will need to be prepared to handle the influx of new residents and businesses. Many high-growth communities are conducting fiscal impact analysis to determine timing, costs, and revenue sources for new capital needs.

Clarifies Development Policy Impacts

In most cases, fiscal impact analysis focuses on the effects of growth, development, or disinvestment, which are usually defined in development scenarios. Many local governments never translate their policies or major land-use plan changes into estimates of annual revenues and expenditures. The process of describing in narrative form how and why the numbers were developed provides local officials with information to evaluate the logic of the assumptions underlying policies or proposals—and make changes accordingly.

Projects Revenues and Helps in the Development of Revenue Strategies

A fiscal analysis can show the magnitude of revenues anticipated to be collected under different development scenarios and can show whether there would be a surplus or deficit of revenues over expenditures on an annual as well as a cumulative basis. This enables local officials to consider the need for and types of alternative sources of revenues. Fiscal impact analysis presents a wealth of information that a local government can use to develop revenue strategies. Obviously, if the fiscal analysis indicates that existing plans for the community's growth will result in a deficit, the plans may need to be adjusted to arrive at a neutral or positive position. Oftentimes, the first area to evaluate is the structure of rates for various revenue sources. Revenue formulas used to set user fees, utility rates, and property taxes should be reviewed as part of developing a revenue strategy. Possible new revenue sources are often evaluated.

Encourages "What If" Questions

A good fiscal impact analysis with a narrative explaining all assumptions and inputs encourages managers and other stakeholders to ask a number of "what if" questions. Alternative scenarios can be described for service levels, for the cost and revenue factors, for growth itself, or for almost any other aspect of the analysis—including location of the growth. Decision makers find that one of the major benefits of fiscal analysis is the definition of all the different service level and cost and revenue factors, and the ability to change assumptions and quickly see the impact of the changes. This makes fiscal analysis an effective policy tool.

Promotes Public Education

The process for a fiscal impact analysis as well as the outcomes of the analysis provides the potential benefit of improved public education on the linkages between land use and fiscal health. Conducting an analysis requires collaboration among local government staff, particularly finance and planning, who in most jurisdictions do not work together regularly. An analysis helps local leaders to understand a locality's revenue structure as well as major cost drivers, particularly as they relate to different types of land uses. Finally, through the process, community members should have a better understanding of how land use decisions affect local government finances and the types of strategies available to mitigate impacts.

Specific Benefits of Fiscal Impact Analysis to Different Stakeholders

A variety of stakeholders have an interest in fiscal analysis and those stakeholders may have a wide-range of viewpoints. What can a fiscal impact analysis do to assist a community in addressing stakeholder concerns?

Property Owners and Developers

As a constituent, a property owner may be interested in the wise use of limited resources and/or their tax burden. A fiscal impact analysis can evaluate different land use scenarios to test assumptions regarding current and future land use. It can inform property owners of the impact of their land use to the local government and can reveal the level of subsidy their property receives currently (in terms of direct revenues generated compared to costs)—or that a future land use will require. In fact, some communities are requiring that new development attain "fiscal neutrality" as a condition of rezoning—that new growth pays for the services and infrastructure it needs. Furthermore, a fiscal (and economic) analysis will help to communicate the impact of development and identify the opportunities for optimizing fiscal and economic benefits for all stakeholders.

Elected Officials

Elected officials make decisions about the provision of services and infrastructure with limited available resources. They face a variety of competing and oftentimes contradictory influencing factors such as environmental, social, economic, fiscal, and political. An elected official will want to both address property owners' concerns while providing for the economic viability and safety of their citizens. Constituents include all members of the community including citizens, businesses, nonprofit organizations, institutions, and others.

Elected officials need to fully understand revenue and cost drivers. For example, does the jurisdiction receive sales tax revenues based on point of sale purchases or is it distributed from the state based on a per capita formula? Often revenue generation potential may be well understood for a particular land use; however, the resulting costs may be less apparent. A fiscal impact analysis can help reveal these impacts with objective, quantifiable data.

Therefore, fiscal impact analysis results can ground negotiations with developers for the provision of infrastructure. It can help to elucidate the time implications of demand, encouraging public officials to think longer-term about public services delivery.

Broader Community

It is common for land use decisions to be praised by some and criticized by others. As a result of the fiscal impact analysis, a community will have a better understanding of revenue sources, cost drivers, and levels of service as each relates to different types of land uses. Along the way, the process can result in community support for recommendations since they are quantifiable and can be easily communicated.

Timing

Timing plays an interesting role in a fiscal impact analysis. During the real estate boom, localities were generally conducting fiscal evaluations with an eye toward keeping pace with growth needs and ensuring that growth paid for itself. During the economic downturn, the concern was more about encouraging development as well as identifying and offering incentives that are feasible from a fiscal perspective.

Fiscal analyses should be done at the same time as comprehensive or small area planning efforts, rather than after a study is completed and land use and fiscal policies have been recommended and/or implemented. Fiscal and economic impact analyses can assist with decisions related to land use policy and regulations, financial policy, use of incentives, and infrastructure planning, therefore should be done in conjunction with other planning efforts.

Fiscal impact analysis should be done in concert with comprehensive and small area planning efforts.

Another aspect to be considered with regard to timing is local politics and election cycles. Land use decisions are local and are often driven by the assumption that the resulting land use will be fiscally beneficial. With the use of fiscal impact analysis, faulty perceptions and short-sighted decisions can be avoided or perhaps will be less likely to happen—or at a minimum, additional information will be available to better inform the debate.

Challenges and Opportunities of Fiscal Impact Analysis

Like most planning-related efforts, a fiscal impact analysis is both "art and science." Because of this, a number of challenges and opportunities occur. Officials should be aware of these challenges prior to embarking on a fiscal impact analysis in order to determine if the opportunities presented by the process outweigh the difficulties of completing it.

Challenges

Common challenges to conducting a fiscal impact analysis include:

- Collecting usable and defensible data.
- "Garbage In/Garbage Out" or "Black Box" concerns. Making faulty assumptions or making assumptions based on faulty data leads to faulty results. A fiscal impact analysis must include a clearly written rationale explaining the methodology employed as well as the assumptions behind the level-of-service standards and cost and revenue factors.
- Political effects of making data assumptions explicit. While explaining assumptions is considered a benefit by most people, levels of service as well as many other data inputs can be politically sensitive. Local officials should consider the impact of this information on the public's perception of services in determining how to explain the data and how to involve citizens effectively in discussing levels of service and related issues. For example, if the number of police assigned to a certain sector is controversial, then the number used in the fiscal analysis will most likely generate interest.
- Claims that the results or approach will lead to fiscal zoning. Results from a fiscal impact analysis can lead communities to base land-use decisions entirely upon fiscal considerations at the expense of achieving a healthy and balanced quality of life. This is referred to as fiscal zoning or the "fiscalization" of land uses. Communities must take care to consider all of their priorities, in addition to fiscal impacts.
- Since a fiscal impact analysis is a mix of "art and science" as well as quantitative and qualitative aspects, assumptions can be challenged and results questioned. This is reason to be inclusive on the data collection and to vet the assumptions with key stakeholders throughout the process.

Opportunities

Potential opportunities for stakeholders in conducting a fiscal impact analysis include:

- Better understanding of levels of service, infrastructure needs, and how a jurisdiction pays for those needs.
- Better understanding of how different land uses affect a jurisdiction's bottom line.
- Complete picture of a development's fiscal and economic impact on a locality, region, and state.
- Collaboration among stakeholders in the process of conducting an analysis can lead to collaboration in other areas and potential buy-in for land use changes to support the development.

- Use of fiscal impact analysis becomes an ongoing tool in land use decision making that can lead to more informed and beneficial decisions.
- Results of fiscal impact analysis can provide political cover for elected officials when deciding land use changes.
- Partnerships can be formed among developers and the community to meet common goals. Appropriate incentives can be identified and quantified to promote compatible land uses.

III. FACTORS TO CONSIDER IN A FISCAL IMPACT ANALYSIS

The general perception among planners, citizens, and elected officials is that in most cases residential development does not pay for itself, while nonresidential development does. It is true that, generally speaking, some types of land uses tend to produce positive fiscal impacts, while others often result in negative fiscal impacts. However, there are numerous factors that influence the fiscal results for different land uses, including local revenue structure, levels of service, and the capacity of existing infrastructure, as well as the demographic and market characteristics of new growth. Every community is unique and results will vary based on place-specific analyses.

There are numerous factors that influence the fiscal results for different land uses. These factors include, but are not limited to:

- Local revenue structure,
- Services provided,
- Local levels of service,
- Capacity of existing infrastructure, and
- Demographic and market characteristics of new growth.

This section discusses these factors in general terms. For a more detailed look at fiscal impact calculations, please refer to Chapter 6: Case Studies.

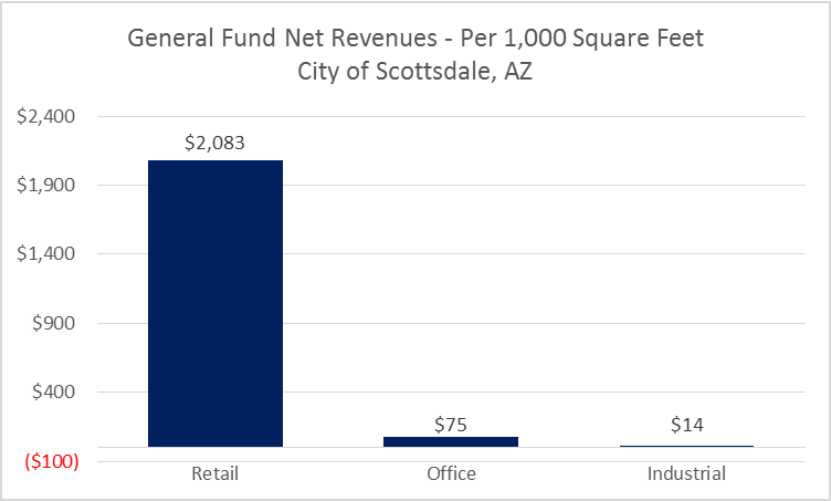
Local Revenue Structure

A key determinant in calculating net fiscal results from new development is the local revenue structure, which affects fiscal findings through both its composition and revenue distribution/collection formulas. Every community has at least one major revenue source, and in some cases, several on which it is reliant. Examples include property tax, local sales tax and local income tax. An important component of revenue structure is the distribution/collection formulas for various sources. With the exception of property tax, the distribution/collection formulas for common revenue sources can vary greatly from state to state.

For example, in states where sales tax is collected, some allow communities to assess a local option sales tax, which is usually collected on a situs-basis (point of sale). Other states collect sales tax at the state level and distribute the revenue to communities using a population-based formula. A similar situation exists with income tax, where some states allow a local income, or “piggyback” tax on top of the state income tax. In certain states, such as Maryland, this tax is collected by place of residence. In others, such as Ohio, it is collected by place of employment. Please note that Chapter 3 addresses California revenue sources in greater detail.

Examples are shown below from two Cost of Land Uses studies for prototype nonresidential land uses in each community. The figures show results for nonresidential development *per 1,000 square feet of floor area*. Data points above the $0 line represent net surpluses; data points below the $0 line represent net deficits. The first example shows results for the City of Scottsdale, Arizona, where the main source of revenue is a **"point of sale" sales tax**. Note the positive results for **retail** development.

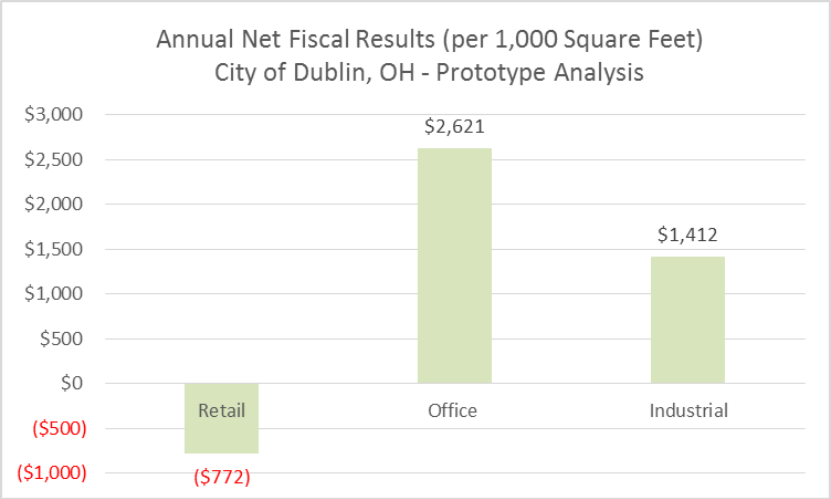
Figure 2. Example of Fiscal Impact Results: "Point of Sale" Sales Tax [Scottsdale, Arizona]



Source: TischlerBise

Compare these results to the City of Dublin, Ohio, shown in Figure 3. Cities in Ohio have a **local income tax, which is based on place of work rather than place of residence**. While many localities do not have a local income tax, the results are shown here to compare fiscal impact results in places with different revenue structures. In the case if Dublin, retail land uses cost more to the City than they generate in direct revenue—specifically due to local revenue structure.

Figure 3. Example of Fiscal Impact Results: Local Income Tax by Place of Employment [Dublin, Ohio]

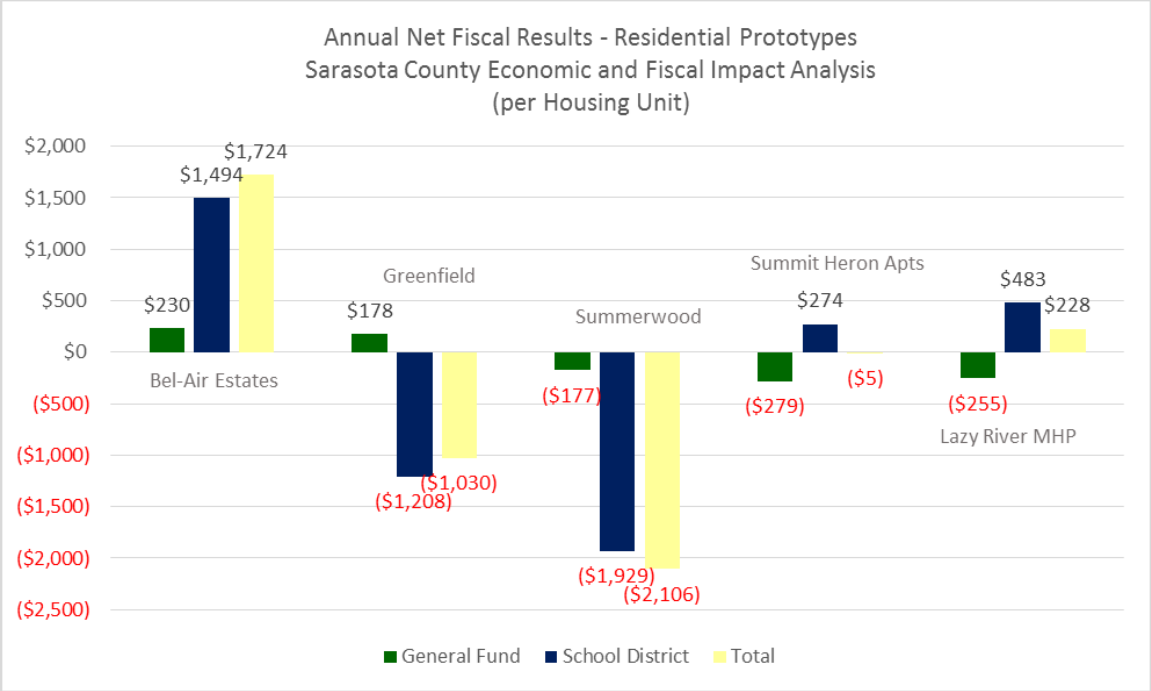


Source: TischlerBise

Services Provided

Another important factor in the fiscal equation is the services provided by the jurisdiction. Jurisdictions provide different services and the fiscal impact analysis will reflect this—and it is important for stakeholders to understand this. For example, in many states, school districts are separate entities with their own tax rates (e.g., Florida). In other states, schools get their local funds from County General Fund taxes (e.g., Virginia). Fiscal analyses will reflect the services provided by the jurisdiction under study, and audiences need to be aware of this to prevent both unintentional and deliberate confusion. An example is shown below in Figure 4.

Figure 4. Fiscal Impact Results: Evaluation of Different Services/Units of Government [Sarasota Co., Florida]



Source: TischlerBise and Sarasota County, FL.

Levels of Service

Another factor in fiscal impact analysis is an understanding of the levels of service currently being provided in a community. Existing levels of service are defined as the facility or service standard currently being funded through the budget. Examples of level of service standards are pupil teacher ratios (i.e., 1 teacher per 24 students), parkland per capita, and fire facility square footage per capita. This is an important factor since levels of service generally vary from community to community. Levels of service will decrease if new infrastructure is not constructed to keep pace with new residential and nonresidential development. In this way, levels of service are tied to existing infrastructure and proposed infrastructure plans.

Capacity of Existing Infrastructure

The capacity of existing infrastructure in a community also has a bearing on the fiscal sustainability of new development. For example, a community may have the capacity to absorb a large number of additional vehicle trips on its existing road network or may be significantly under capacity with regards to high school enrollment. Accounting for existing facilities and levels of usage to assess fiscal impacts, helps to reveal that a community with excess capacity could absorb substantially higher growth over time without making additional infrastructure investments than a community without these capacities. This excess capacity results in lower capital costs over time. This is an important factor in the fiscal equation, since the largest cost associated with capital facilities are often the annual operating impacts, which typically account for approximately 75 to 85 percent of a locality's budget.

Demographic and Market Characteristics of New Growth

Next to a community's revenue structure, no other factor has as great an impact on the net fiscal results as the demographic and market characteristics of different land uses. Examples of demographic and market variables for residential development include average household sizes, pupil generation rates, market value of housing units, vehicle trip generation rates, density per acre, and average household income. Important demographic and market characteristics for nonresidential development include square feet per employee, trip generation rates, market values per square foot, sales per square foot (retail), and floor area ratio.

California Revenue Structure[3]

As noted above, understanding revenue sources is a crucial step in conducting an effective fiscal impact analysis. This chapter examines the revenue structures unique to California municipalities. It covers taxes; rates, fees, and assessments; revenues from other governments; and various other revenues sources. The source and use of these revenues influence fiscal results.

Taxes

Broadly, there are two types of taxes: general taxes and special use taxes. Governments impose a general tax in order to collect general-purpose revenues. Revenues from a special use tax, on the other hand, are raised for a specific purpose or project, such as developing more parkland or improving roads. California allows the imposition of a number of different types of taxes. The largest revenue raisers, by far, are property and sales taxes.

Property Tax

In California, property tax is imposed by counties and divided among the county and the cities, special districts, and school districts within the county according to formulas in the state enabling law. Property tax in California is unique due to the passage of Proposition 13 in 1978, which has severely limited property tax revenues for all levels of government by freezing the maximum tax rate for general purposes at one percent of a property's assessed value at the time of the law's adoption and capping the annual adjustment of a property's assessed value at inflation or two percent, whichever is lower. Though larger year-to-year adjustments are possible in the case of the sale of a property (the sale price becomes the new starting assessed price from which future adjustments are made) or property improvements, **Proposition 13's effect on municipal budgets has been to severely limit flexibility in raising revenues from the real property tax base.**

Moreover, a portion of property tax revenues is diverted to each county's Education Revenue Augmentation Fund (ERAF), a type of special taxing entity created by the State Legislature in order to ease its school funding burden in the mid-1990s. Each ERAF gets a portion of property tax revenues, which is then credited against the legal obligation for State funding of local schools. **Although California's Constitution has prohibited the Legislature from increasing the allocation to ERAF since 2004, significant revenues are still diverted from municipal general funds to school funds throughout the state.**

Sales and Use Tax

California currently imposes a state-wide 7.5 percent sales tax. As in many other states, a statewide agency (the State Board of Equalization) collects local sales tax revenues from retailers. **Of these funds, close to 70 percent is retained in the State's General Fund.** The remaining 30 percent is redistributed to cities and counties largely based upon each locality's share of statewide taxable sales. These revenues are earmarked for certain types of uses, such as county and city operations, local public safety (as a result of Proposition

[3] This section is based on the following publication: Institute of Local Government, "Understanding the Basics of County and City Revenues," Updated in 2013, www.ca-ilg.org.

172), county-wide transportation efforts, and various other county programs. In addition, cities often receive an augmented share based on property tax losses resulting from diversion of funds to the counties' ERAFs. Increasingly, web-based commerce is complicating this process. By state law, retailers with brick-and-mortar locations in California must collect sales tax on online purchases made in California. However, if a company does not maintain a physical location in the state, users are tasked with submitting their own sales tax.

State law allows counties to impose a local option sales tax (LOST) of up to 1.25 percent. Cities may impose a LOST of up to 1 percent; if a city passes a LOST, the tax is credited against the county rate for sales within the city's jurisdiction. Cities and counties keep the LOST revenue collected within their boundaries. In addition, local voters can add a use tax to the sales tax. Together, these must not exceed two percent. The use tax is imposed on purchasers when sales tax does not apply such as for goods purchased out of state for use in California.

Other Taxes

State law also allows for a number of other taxes.

- **Business License Tax.** This tax can be imposed by cities and counties on a business based on a number of different measures, such as gross receipts, quantity of goods produced, number of employees, vehicle fleets, occupied square footage, or a combination of these factors.
- **Transient Occupancy Tax (TOT).** Cities and counties may impose a TOT (commonly known as a "hotel bed tax") on visitors staying 30 days or less in hotels, motels, and mobile homes. The TOT is collected by the establishment and remitted to the municipality.
- **Utility User Tax (UUT).** These taxes are collected by utility companies and remitted to the taxing municipality based on consumption of various types of utilities. For counties, these utilities may be electricity, gas, water, sewer, telephone, and cable television services. UUTs are rare for counties in California; only a handful in the state's larger metropolitan areas collect a UUT (e.g. Alameda County and San Francisco County, Los Angeles County, and Sacramento County). City UUTs are much more common and are typically charged on gas, electricity, telephone and cable, and water.
- **Parcel Tax.** A parcel tax is a tax on land that differs from typical property tax in that it may not be based on that land's value. Parcel taxes are charged on a flat per-parcel rate and are typically charged for a specific use, such as police and fire services, neighborhood improvement and revitalization, or open space protection.
- **Documentary Transfer Tax.** This tax is imposed when the interest in real estate is transferred. Counties can tax a transfer at a rate of up to 55 cents per $500 of property value. Cities may impose a tax of up to one half that amount, but the city tax is credited against the county amount.

Other Revenues

Taxes are not the only local revenue source of consequence during a fiscal impact analysis. In addition, cities and counties in California charge a variety of assessments and fees.

Benefit Assessments

Benefit assessments are charges on real property to pay for public facilities or services within a specified area. Assessments are sometimes structured to reflect the benefit of services to a specific property. For instance, a road assessment may take into account the linear feet of property fronting a road. Assessments are usually collected through an owner's annual property tax bill.

Fees

There are four commonly charged fees in California: user fees, regulatory fees, development impact fees, and franchise fees.

- User fees are simply fees charged for use of services or facilities. For instance, in some municipalities, the parks and recreation department will charge a fee for using the public pool in order to pay the costs of operating costs.
- Regulatory fees are charged for the cost of issuing licenses and permits or performing investigations, inspections, or audits. A good example of a regulatory fee is when a new building is charged for a health and safety inspection.
- Development impact fees (commonly known as AB 1600 fees in California), are fees charged to new development (residential and/or commercial) to pay for improvements and facilities designed to reduce the impact of new development on existing facilities. For example, a municipality may charge a fire impact fee to new development in order to pay for the construction of a new fire station needed to maintain current service response times. Development impact fees may not be used for operating costs.
- Finally, franchise fees are charged to branches of a larger company operating within a city or county. In California, these typically include trash collectors, cable television companies, electric utilities, and oil and natural gas companies. Franchise fees are usually based on some state and federal regulation, whereas the fee for television programming is directly overseen by the State.

IV. FISCAL IMPACT ANALYSIS METHODS

The first step in conducting a fiscal impact analysis is to frame the question to be answered. For some communities, the question may involve future land uses in general during comprehensive planning efforts. For others, the question may relate to whether a specific development proposal will pay for itself. Some municipalities seek to determine the extent to which certain land uses subsidize others and to provide a foundation for discussion of alternative development patterns. Different questions can be answered using different types of fiscal impact analyses.

The majority of fiscal impact analyses fall into three categories:

- Cost of Land Uses/Cost of Services
- Project Analysis
- Areawide Analysis/Growth Scenarios

Different questions can be answered using different types of fiscal impact analyses.

Cost of Land Uses

The first type of analysis can be classified as a Cost of Land Uses fiscal impact analysis. Other names for this type of analysis are "Cost to Serve" or "Cost of Community Services."[4] In this type of analysis, the characteristics of various residential (single family, town house, apartment) and nonresidential (retail, industrial, office) "prototypes" are defined and the annual costs and revenues associated with each prototype are determined. *This reveals the generalized impacts that each land use has independently on a local government's budget and is an average cost fiscal analysis.* Factors used to define these prototypes typically include persons per household, equivalent dwelling units, road frontage, employment per 1,000 square feet, vehicle trips, assessed value, and so on. Figure 5 provides an example of residential prototypes for a cost of land uses fiscal study (results will vary community to community).

[4] A Cost of Community Services study is a specific type of study conducted by the American Farmland Trust (AFT) to highlight the fiscal importance of farms and farmland. However, the term is occasionally used to describe a study similar to a Cost of Land Uses study.

Figure 5. Example of Cost of Land Uses Prototype Data Factors [Lincoln County, Nevada]

Co. LU Code	*Land Use Prototype*	*Assessed Value Per Unit (rounded) [1]*	*Market Value Per Unit (rounded) [2]*	*Persons Per Unit [3]*	*Lot Width Per Unit [4]*	*Vehicle Trips Per Unit [5]*
	Single Family Detached (SFD) [6]					
200	SFD High Value	$122,000	$350,000	2.62	250	4.79
200	SFD Medium Value, 2.5 acre lot [7]	$76,000	$217,000	2.62	200	4.79
	SFD Medium Value, 1 acre lot	$76,000	$217,000	2.62	125	4.79
	SFD Medium Value, 5000 sf lot	$76,000	$217,000	2.62	50	4.79
200	SFD Low Value	$45,000	$130,000	2.62	125	4.79
220	Mobile/Manufd Home (Real Property) [6]	$49,000	$140,000	2.72	50	4.79
n/a	Condo (owner-occupied) [8]	$33,000	$95,000	2.03	20	2.91
300,310,320,340	Multifamily Units[9]	$22,000	$64,000	1.24	20	3.33

[1] Lincoln County Assessor Database
[2] Calculated based on assessed value of 35% of market value
[3] U.S. Census
[4] Lincoln County
[5] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to residential unit.
[6] Units built 2000-09; reappraisal years 2004-2009.
[7] Assuming average values for Medium Value SFD and varying densities.
[8] Anticipated new type of development in Lincoln County; proxy prototype from Mesquite, NV.
[9] All construction years included; includes only structures with number of units specified; reappraisal years 2004-09.

Source: TischlerBise and Lincoln County, Nevada.

Project Analysis

The second type of fiscal impact analysis, Project Analysis, is the most common type of fiscal analysis conducted by local governments. In this type of analysis, one or multiple proposed development programs in a limited geographic area are evaluated for their fiscal impact over a specified period of time. Where a Cost of Land Uses fiscal impact analysis evaluates the fiscal impact of individual discrete land uses, a Project Analysis evaluates the overall fiscal impacts of a combination of proposed land uses in a development program. As most project-level analyses are prepared in conjunction with specific development proposals, this type of analysis is incremental in that it addresses the impacts of only one development project at a time, typically in isolation from other potential development in the rest of the jurisdiction.

While a Cost of Land Uses analysis evaluates the fiscal impact of individual discrete land uses, a Project Analysis evaluates the overall fiscal impacts of a combination of proposed land uses in a development program.

Area-wide Analysis

The third type of fiscal impact analysis, an area-wide analysis, can be applied to a neighborhood, several contiguous neighborhoods, or an entire city, county, or region. *This type of analysis is cumulative in that it evaluates the fiscal impacts of all anticipated development within an analysis area over a defined period, usually between 10 and 20 years.* In this type of analysis, it is common to evaluate multiple development scenarios that vary land use mixes or patterns, paces of growth, or economic activity. Figure 6 provides an example of annual scenario projections for number of new residential units by type and projected increase in square footage of nonresidential land uses.

Figure 6. Example of Scenario Land Use Assumptions [Oklahoma City, Oklahoma]

SCENARIO 2: INNER CORE FOCUS TOTALS
NW URBAN AREA SCENARIO TOTALS

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Residential Land Uses											
Rural Single Family	14	14	14	14	14	10	10	10	10	10	**120**
Duplex	22	22	22	22	22	15	15	15	15	15	**185**
Multifamily	225	225	225	225	225	170	170	170	170	170	**170**
Single Family	214	214	214	214	214	159	159	159	159	159	**170**
Total Units	**475**	**475**	**475**	**475**	**475**	**354**	**354**	**354**	**354**	**354**	**645**
Nonresidential Land Uses											
Retail	54,886	54,886	54,886	54,886	54,886	84,942	84,942	84,942	84,942	84,942	**699,140**
Industrial	188,179	188,179	188,179	188,179	188,179	139,392	139,392	139,392	139,392	139,392	**1,637,855**
Office	5,227	5,227	5,227	5,227	5,227	0	0	0	0	0	**26,135**
Institutional	61,855	61,855	61,855	61,855	61,855	46,174	46,174	46,174	46,174	46,174	**540,145**
Total Square Footage	**310,147**	**310,147**	**310,147**	**310,147**	**310,147**	**270,508**	**270,508**	**270,508**	**270,508**	**270,508**	**2,903,275**

Source: TischlerBise, City of Oklahoma City and BWR

An area-wide fiscal impact analysis can be conducted on multiple growth scenarios for a neighborhood, contiguous neighborhoods, or an entire city, county, or region.

Methodologies

There are two basic approaches to fiscal evaluations: (1) average costs and (2) marginal costs. Average-cost approaches are simpler and more popular with costs and revenues calculated based on an average cost per unit of service multiplied by the demand for that unit. *Average-cost approaches assume a linear relationship and do not consider excess or deficient capacity of facilities or services over time.* A per capita relationship—in which the current level of service per person in a community is considered to be the standard for future development—is an example of an average-cost approach.

On the other hand, *marginal-cost approaches are more detailed than average cost analyses and consider unique circumstances in a community such as oversized infrastructure or geographic/locational factors affecting level of service.* Marginal-cost analysis is most useful in a short two- to ten-year time

frame. However, average-cost techniques are generally simpler to use, so for relatively small development projects with modest impacts or impacts that are realized over a long time frame, they may be preferred. Some local governments may find it worthwhile to use more than one type of approach and compare the assumptions and results as part of the decision-making process.

Marginal cost approaches are more detailed than average cost analyses because they consider unique circumstances in a community such as levels of service and existing capacities of infrastructure.

Although average-cost analyses and marginal analyses may yield similar results when comparing cumulative impacts, the two approaches are likely to result in substantial differences in the intermediary years of the analysis.[5] **Fiscal results tend to follow a linear relationship when an average-cost approach is used, whereas under a marginal-cost approach results tend to fluctuate due to the amount of available capacity at a given point in time.** For example, deficits are likely to be incurred when a new capital facility is needed and the associated operating costs are triggered, which would occur using a marginal-cost approach as opposed to an average-cost approach. As a result, the marginal-cost approach enables a community to better understand if, when, and for how long costs to serve growth exceed revenues generated. It can be a more accurate indicator of return on investment, particularly when evaluating large development proposals or economic development projects.

As an example, parks and recreation departments have traditionally constructed three types of parks: neighborhood, community, and regional. However, a recent trend has been to focus on special-purpose parks, such as athletic complexes, dog parks, aquatic parks, and skateboard or sports-bike parks. These parks can have very different maintenance needs than traditional neighborhood and community parks. Under an average-cost approach, maintenance costs would be calculated on a per capita or per acre basis. Therefore, if current park maintenance costs are $1,000,000 and the current park inventory is 125 acres, the maintenance cost per acre is $8,000. However, this figure is based on an inventory that is not likely to be constructed in the future, so park maintenance costs may be over- or under-stated, depending on the community. In contrast, the marginal-cost approach has the ability to factor in different operating costs depending on the park type. In other words, the marginal-cost approach recognizes that the cost to serve future development may be different than the current cost per unit today.

[5] Burchell, Robert W., et al. 1994. *Development Impact Assessment Handbook.* Washington, D.C.: Urban Land Institute.

Choosing a Methodology

No one methodology is appropriate for every analysis or situation. The type of analysis employed depends on several factors, including type and scale of evaluation, data availability, size of the jurisdiction, budget, time frame, and audience.

Marginal Cost

To get the most accurate information from a fiscal impact analysis, most local governments find the case-study approach preferable. This method seems to have more credibility with local government finance and management staff. Finance and budget staffs tend to view per capita analysis as a planning exercise and the marginal analysis as a more serious attempt at replicating fiscal reality. For example, *if a community would like a fiscal analysis to reflect a higher level of service or to factor costs for a new division within an individual department, the marginal-cost approach would be more useful than an average-cost approach.*

The marginal cost approach typically has more credibility with local government finance and management staff.

Marginal-cost analysis can also *model demographic and socioeconomic data from a geographic perspective* by showing how factors such as housing unit size, persons per household, pupil-generation rates, and vehicle-miles of travel vary by city subarea. The analysis could then use this information to generate geographic cost differentials. This type of analysis calls for a level of precision that would be very difficult to model under an average-cost approach.

Finally, marginal cost is the *method of choice for communities that are approaching build out* or do not anticipate a large development increase and as a result are able to absorb some increment of development with very little additional cost. Since average-costs analyses almost always treat every cost and revenue as being growth-related, they have a tendency to overstate costs in situations where growth is minimal.

Average Cost

Average-cost analyses are appropriate in certain situations. An average-cost analysis is *appropriate for smaller-scale development projects.* With smaller developments, the amount of new demand for services and facilities may be relatively small compared to the existing development base therefore the need for a new facility may never be triggered. However, it is important to show the cost impact from the development and an average-cost analysis will do this.

Where *data are not readily available or where it is difficult to define the service level relationship* on a true marginal basis, it may be necessary to use the per capita average-cost approach to supplement departmental estimates. Because the average-cost method uses existing data and does not involve

substantial interviews with government staff, it has the advantages of being *relatively inexpensive* and can be completed in a fairly short amount of time. Proponents contend the average-cost method has significant face validity since applying per capita multipliers to current conditions replicates the local budget and is therefore highly precise.[6] However, *because the average-cost approach derives its costs and revenue factors from a balanced budget, most average-cost analyses conclude that new development pays its way.*

The average-cost approach may be most appropriate when the service system capacity bears a close relationship to service demand and the average cost of providing services to current users is a reasonable approximation of the cost to provide services to future users (Burchell and Listokin 1980).

Because the average cost approach derives cost and revenue factors from a balanced budget, many average cost analyses conclude that new development pays its way.

A significant objection to average-cost analysis arises from the fact that although cost figures for new development can be calculated using the average-cost approach, revenue streams resulting from major growth are calculated marginally. For example, rather than comparing the average cost of providing residential services to a per capita current property-tax figure, the average cost is compared with the assessed value of a new housing unit of the marginal revenue for that development. In most cases, the assessed value of new construction is higher than the average assessed value of existing development. As a result, the analysis has taken a budget in equilibrium and *distorted the revenue side of the equation, therefore showing that growth pays its way.* Additionally, in most cases the average-cost approach is *not a true "apples to apples" comparison.* Although comparisons to regional and national standards can be helpful, each community has its own unique levels of services, geographic service boundaries, cost and revenue factors, and available capacity of existing capital facilities.

Edwards and Huddleston (2010) include a table that describes the list of conditions that should be considered in choosing between the per capita multiplier method (the most popular average-cost approach) and the case-study method (the most popular marginal-cost method). TischlerBise adapted the table in Figure 7 to reflect additional considerations that relate to the types of analysis that can be conducted.

[6] Edwards, Mary M., and Jack R. Huddleston. 2010. "Prospects and Perils of Fiscal Impact Analysis." *Journal of the American Planning Association* 76(1): 25-41.

Figure 7. Matrix of Recommended Approaches

Local Context	Per Capita Multiplier Method Likely Appropriate	Case Study-Marginal Method Likely Appropriate
Time is constrained#	X	
Staff expertise and resources are limited #	X	
Budget is limited#	X	
Data collection capacity is limited#	X	
Most services are at capacity#	X	
Significant unused or overused capacity#		X
Development will create unique service demands#		X
New population likely to resemble the current population#	X	
Services likely to continue at current level#	X	
Development requires significant new infrastructure#		X
Type of Analysis		
City/countywide analysis*		X
Area/corridor plans*		X
Large mixed-use/planned-unit developments*		X
Small/medium scale developments*	X	
Cost of land uses studies*	X	
Infill/redevelopment*		X
Analysis of alternative development patterns*		X
Annexation*		X
Level of service changes*		X
Long-term fiscal planning*		X

 # Edwards, Mary M., and Jack R. Huddleston. 2010. "Prospects and Perils of Fiscal Impact Analysis." Journal of the American Planning Association

**Bise, L. Carson. 2010. Fiscal Impact Analysis: Methodologies for Planners. American Planning Association: PAS Report 561.*

Who Should Prepare this Type of Analysis

Most fiscal impact analyses are prepared by private sector entities such as consulting firms, university professors, or planning firms. Some agencies have sufficient planning or finance staff expertise to do the analysis in-house. Typically, the analyst has a background in public finance, economics, and/or urban planning. An outside consultant brings the benefit of objectivity to the analysis and can usually do the work more efficiently than if local government staff takes the lead role.

Sometimes, a technical advisory group is assembled to advise the consultant or staff and review the work product. At a minimum, local government staff including key representatives from the chief executive's office (e.g., mayor's office, city or county manager's office), planning, finance or budget, economic development, police, public works, and parks and recreation should be included. In addition, other stakeholders such as private business owners and developers could be included as well to broaden the reach of the effort.

Communicating Fiscal Impact Results

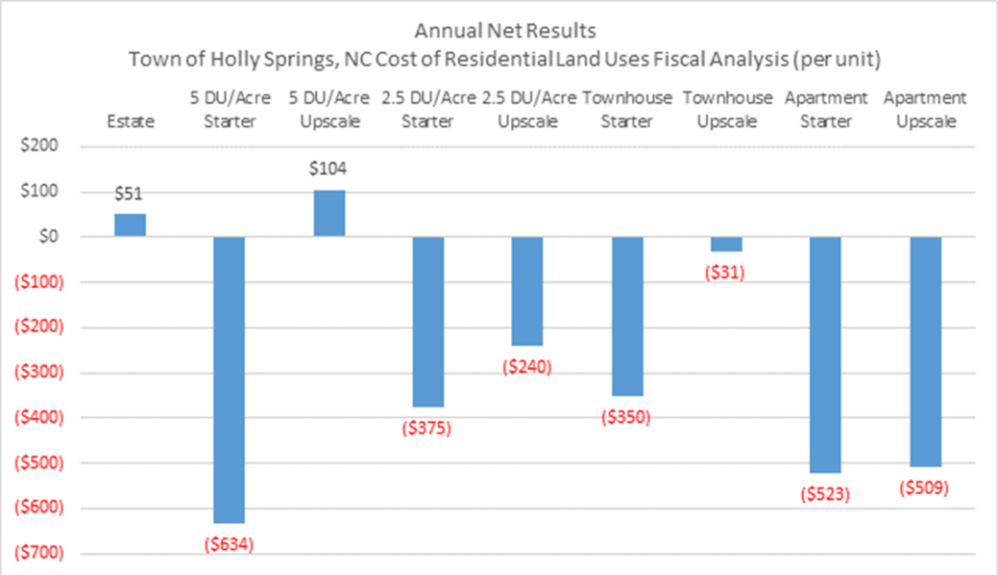
A clear, concise fiscal impact report should be prepared, explaining the annual as well as the cumulative fiscal results and the reasons for them. An executive summary is desirable. A fiscal impact analysis report should include, but not be limited to, the following sections:

- Executive Summary
- Introduction
- Economic Context
- Approach and Methodology
- Scenario or Land Use Assumptions
- Fiscal Results By Alternative: Annual, Average Annual, and Cumulative
- Major Revenue Findings
- Major Capital Cost Findings
- Major Operating Expense Findings
- Level of Service and Cost and Revenue Assumptions

Some examples of how results are typically shown in a Fiscal Impact Analysis report are provided below.

Figure 8 shows an example from a Cost of Land Uses Fiscal Impact Analysis for residential prototypes. Results are shown *per residential unit* with data points above the $0 line representing net surpluses; data points below the $0 line representing net deficits. As shown, two types of housing generates net surpluses to the locality while the others produce net deficits. In other words, only two types of housing units pay for themselves and the others do not and are therefore subsidized by the town.

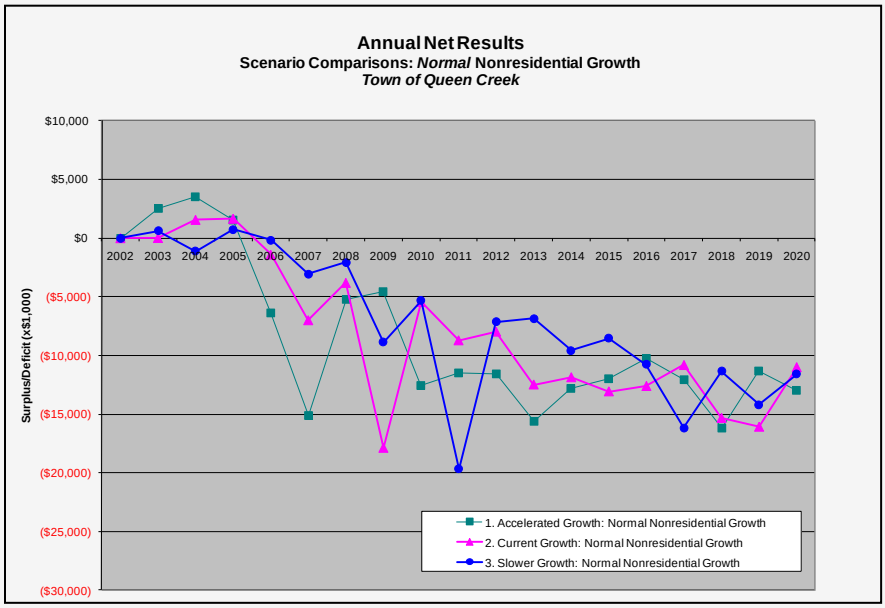
Figure 8. Example of Cost of Land Uses Fiscal Impact Results [Holly Springs, North Carolina]



Source: TischlerBise

Figure 9 shows three scenarios at different paces of growth for a rapidly growing town in Arizona. Each year reflects total revenues generated minus total expenditures incurred in the same year with data points above the $0 line represent annual surpluses; points below the $0 line representing annual deficits. Beginning in 2006, deficits start to occur in the faster and current growth scenarios. By 2007, all scenarios show deficits.

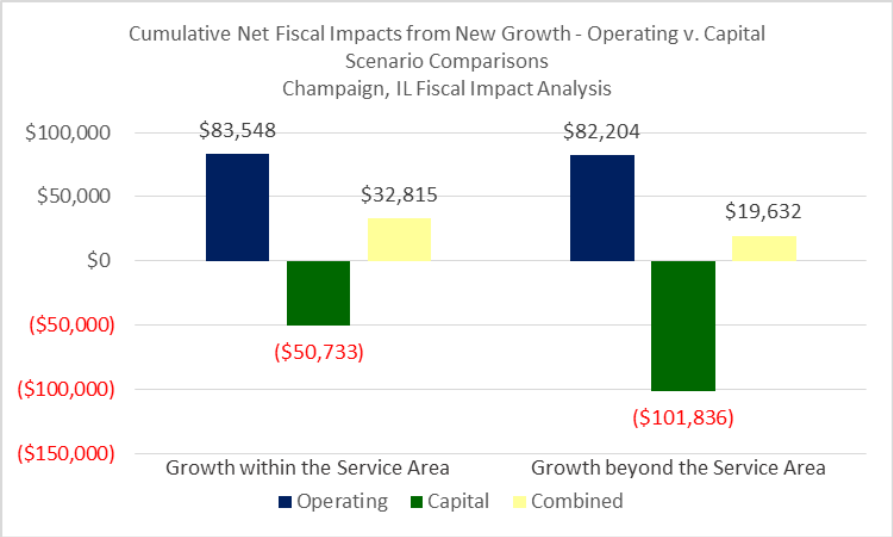
Figure 9. Example of Area-wide Scenarios Annual Fiscal Impact Analysis Results [Queen Creek, Arizona]



Source: TischlerBise

Figure 10 shows cumulative (total 20-year impacts) fiscal impact results for two scenarios for the City of Champaign, Illinois. Both operating and capital net fiscal results are shown as well as the combined results. The scenario with future growth assumed to occur in the Service Area is better fiscally than the alternative scenario, with growth assumed to occur outside the Service Area.

Figure 10. Example of Areawide Scenarios Cumulative Fiscal Impact Analysis Results [Champaign, Illinois]



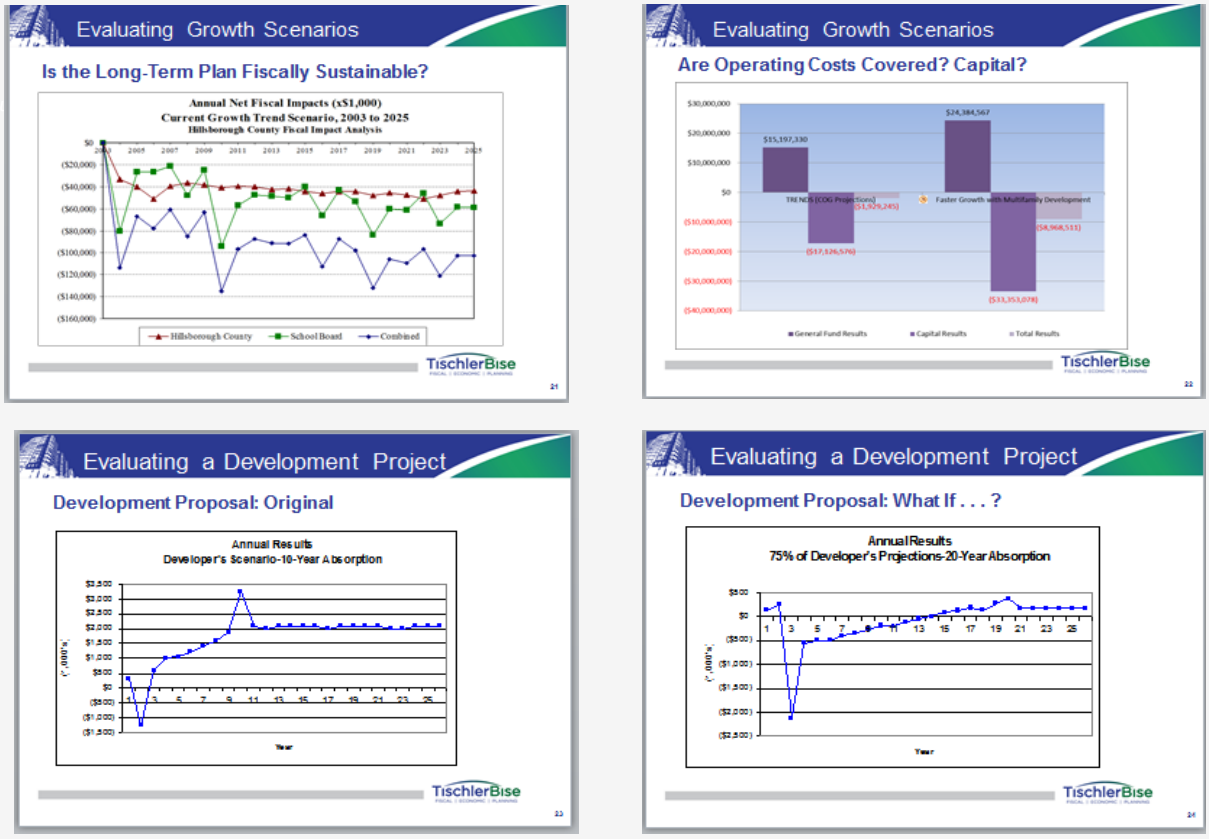
Source: TischlerBise

In addition, fiscal impact models have become useful local tools to evaluate development proposals as well as other long-term and far-reaching land use changes. These models evaluate the impacts of development on a local government's cash flow—revenues generated compared to costs incurred—and are typically developed by specialized consultants and calibrated to a specific community or region. Unlike economic impact models which can be purchased and populated with appropriate geographic area multipliers, there are very few "off-the-shelf" fiscal models because jurisdictions have unique development patterns, revenue structures, and levels of service that do not lend themselves to generalization. *Attempts to develop universal models have tended to fallen short due to simplified and generalized approaches that do not adequately portray local fiscal conditions.*

How to Brief Different Audiences

A fiscal impact analysis can be briefed in a number of ways to different audiences. Presentations of major findings to department personnel, elected officials, and other stakeholders give them an opportunity to ask questions about the process. A presentation or briefing memo can be prepared and presented to key staff, elected officials, and other major stakeholders. Communication materials should include graphics and visuals that are easily understood by both laypersons and those with technical knowledge. Presentation examples are provided below.

Figure 11. Presentation Examples



Source: TischlerBise

Figure 12. Public Outreach as Part of a Comprehensive Plan Process

WHAT DO NEW FACILITIES COST?

3 i

Average Costs of Transportation, Parks, and Public Facilities

There are 1,249 miles of roadways, 6,998 street lights, 30 parks including 1,210 of park acres, 3 libraries, 7 fire stations, and 1 police station in the City of Denton. The construction and maintenance of these and new facilities factor into the City's budget. Population growth triggers the need for additional facilities, as well as road expansion. Adhering to sustainability and mobility goals also has budget implications and impact the fiscal picture.

ROADWAYS

New Arterial Street
$1,500,000 per lane mile

New Collector Street
$1,500,000 per lane mile

Traffic Signal Installation
$130,000 - 275,000 per intersection

PARKS

New Community Park (4 ac)
$200,000 per acre

New Neighborhood Park (2 ac)
$80,000 per acre

STORMWATER MANAGEMENT & DRAINAGE IMPROVEMENTS

Drainage Channel
$450,000 - 1,440,000 (typ.)

Detention Basin
$775,000 - 1,340,000 (typ.)

BIKE LANES, TRAILS, SIDEWALKS

New Bike Lane (on street)
$20,000 - 50,000 per mile

New Sidewalk
$80,000 - 150,000 per mile

New Multi-Use Trail (10' wide)
$150,000 - 400,000 per mile

Signing of bicycle facilities (5 signs per mile each way)
$3,000 - 5,000 per mile

FACILITIES BUILDINGS

Fire Station (average 8,000 s.f.)
$260 per square foot

Library (29,000 s.f. average)
$84 per square foot

Police (8,606 s.f. average)
$96 per square foot

Community Center (14,000 s.f. average)
$149 per square foot

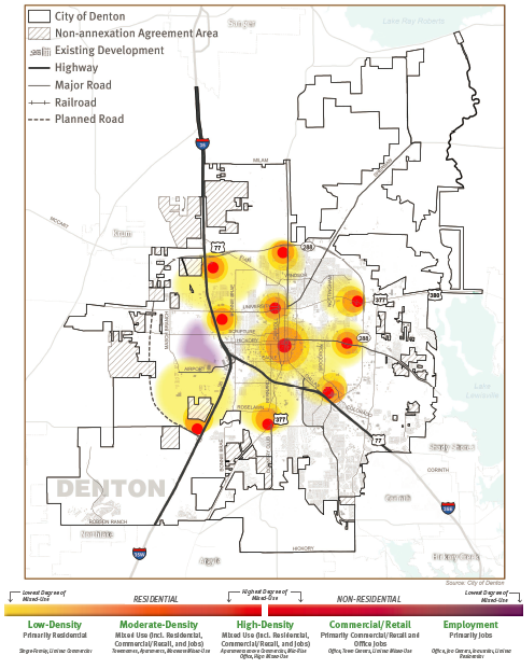
Recreation Center (14,000 s.f. average)
$119 per square foot

SOURCES: City of Denton Pedestrian and Bicycle Linkage Component of the Denton Mobility Plan (2012); City of Denton Drainage Improvements Updates; City of Denton Annual Program of Services, 2012-2103.

Denton Plan Update | Community Forum 2 — Denton Plan 2030

COMPACT GROWTH SCENARIO

4 i



SUMMARY INDICATOR RESULTS

Land Use	Total Land Developed	10,544	
	Mixed Use (% of total land area)	15%	
	Located in Central Loop of Denton (% of new development)	100%	*Lowest amount of land and greenfield*
	Redevelopment (% of new development)	30%	
	Infill (% of new development)	74%	
	Jobs/ Housing Balance (% of new development within 1/2 mile of jobs)	100%	
Environment	Greenfield Development (% of new development)	26%	
	Impervious Surface (square footage of new development)	200.1	That's the amount of 100 Apogee Stadiums
	Greenhouse Gas (GHG) Emissions (metric tons CO_2 created by new development annually)	739,076	
	Water/Wastewater Demand (millions of gallons per day per new development)	12.8	*9% reduced water use from Growth Trend*
	Solid Waste (millions of pounds per day per new development)	.97	
Mobility	Transit Access (Homes) (% of residents within 1/4 mile of existing transit services)	26%	
	Transit Access (Jobs) (% of jobs within 1/4 mile of existing transit service)	27%	*Lowest vehicle trip rates and vehicle miles traveled of all Scenarios*
	Vehicles Miles Traveled (from net new development annually: in millions)	1.02	
	Vehicles Trips Generated (from net new development annually)	484,858	
Fiscal Impact	Roads & Public Works (cost in millions of dollars)	$97.2	
	Fire & Police Services (cost in millions of dollars)	$20	
	Parks & Recreation (cost in millions of dollars)	$68.7	*14.9% reduced fiscal impact from Growth Trend*
	Libraries & Government Facilities (cost in millions of dollars)	$23.6	

Denton Plan Update | Community Forum 2 — Denton Plan 2030

Source: TischlerBise and WRT.

V. SPECIAL CONSIDERATIONS FOR FISCAL IMPACT ANALYSIS OF INFILL DEVELOPMENT[7]

Infill development is the process of developing vacant or under-utilized land parcels in areas with large amounts of existing development. Infill development differs from "conventional" development in that it does not occur on previously undeveloped greenfield sites, nor is it typically guided by traditional subdivision design. Though it tends to be denser, with an emphasis on building vertically rather than horizontally, this is not always the case. Conducting a fiscal impact analysis for an infill development may differ significantly from analyzing greenfield development.

Revenue Impacts

In terms of revenues impacts, residential and commercial property values are often higher in dense urban areas than in low-density areas on a per square foot basis. This difference is critical to modelling tax revenues. Likewise, the draw of dense commercial districts may increase sales tax revenues higher than what is typically found in a community. Moreover, infill developments are often found to increase property values in nearby neighborhoods, an impact not necessarily found in greenfield subdivisions. Finally, the location of housing in older commercial areas may increase revenues significantly, a result that may not be anticipated with a new development on a greenfield.

Residential and commercial property values are often higher on a per square foot basis in dense urban areas compared to low-density areas.

Operations, Maintenance, and Infrastructure Impacts

Another important difference between modelling infill versus greenfield development comes with estimating upfront and ongoing maintenance costs for infrastructure. Recent case studies have found that smart growth development has the potential to cost up to one-third less than conventional development in upfront infrastructure costs and approximately 10 percent less for operations and maintenance. Additionally, some estimates peg the tax revenue of smart growth development, including

[7] This section is based on the following sources:
Domus Development, "Infill Development in a Post-redevelopment World," January 2014.
Smart Growth America and RCL Co., "The Fiscal Implications of Development Patterns: A Model for Municipal Analysis," April 2015.
United States Environmental Protection Agency, Office of Sustainable Communities, Smart Growth Program, "Smart Growth and Economic Success: Investing in Infill Development, February 2014.

infill, at nearly 10 times that of traditional suburban development.[8] However, *significant* one-time costs may be necessary due to aging and under-sized infrastructure.

Although infill development may require less infrastructure investment, sometimes significant one-time costs may be necessary due to aging and under-sized infrastructure.

Related findings include:

- With roads, the quantity of lane miles needed per capita to maintain current levels of service tends to decrease as density increases. Since maintenance costs are usually proportionate to square footage of roads, maintenance costs would also likely decrease as density increases. The same reasoning applies to sidewalks and bike lanes. However, the type and quality of infrastructure differs in dense environments with the potential to increase costs.
- Closely related to roads is storm water capacity, since roads represent a large portion of the impervious area related to development. Although urban/dense areas may have more impervious area per acre, they usually boast less impervious area over larger areas per capita. However, most communities that are redeveloping face significant existing stormwater deficiencies with similarly significant improvement costs thus adding to potential mitigation requirements for infill development. Nevertheless, infill development has the potential to delay development of natural land tracts, thereby limiting the disturbing of natural hydrologic cycles.
- Though storage and treatment costs may increase regardless of development pattern, greater lengths of water transmission and distribution pipes and wastewater pipes will be necessitated by less dense development.
- Fire protection capital costs are driven by the need for new stations and the apparatus to staff them. Most communities base their fire station capital investment decisions on station distance or response time, both of which likely increase over longer distances created by less dense development. Though urban areas may require more expensive equipment to deal with taller structures, it is likely that fire infrastructure costs are likely to decrease with denser development.
- In terms of operating costs, longer travel times equate to greater fuel costs for municipal fleets. On the other hand, some studies have found that some operating costs increase as density increases, such as public safety and parks and recreation. For public safety, the denser a community is, the greater the need may be for additional officers. For parks and recreation, as private green space decreases, the need for public parks and recreational opportunities increase.

[8] For a detailed review of these studies, see Kate Meis, "Fiscal Impact Tools Change Local Planning," *Government Finance Review*, Government Finance Officers Association: December 2013.

Thus, when creating model parameters on a case study/marginal basis, it makes sense to model the impact of geography and density on different types of government functions and infrastructure.

Caveat: Potential for Higher Costs

It is important to note that typical greenfield development often requires the developer to bear the costs of building project-level infrastructure. In contrast, with infill development the responsibility may shift to the locality as an incentive for development. *This shifts the cost burden and if the infrastructure is old and undersized, costs may be substantial.* However, the non-fiscal benefits as well as the eventual fiscal and economic benefits may outweigh the initial upfront costs.

VI. CASE STUDIES

Case Study 1: Falls Church, Virginia

Background

The City of Falls Church, Virginia, is a small city of around 12,000 people in the greater Washington, DC metropolitan area. For many years a commuter suburb for Washington, DC, Falls Church's land area is dominated by residential uses. In Virginia, cities are independent from counties and are responsible for funding education. As a result of the City's land use and service responsibilities, its budget is dominated by school expenditures and heavily strained by additional residential development. Recently, the City has experienced a larger share of commercial development, but encouraging a more manageable balance of commercial and residential development remains of paramount importance to City officials. In fact, the City has required a base amount of ground floor retail on all mixed-use developments for many years and has recently begun to require developers to have leases-in-hand prior to project approval.

Falls Church's budget is dominated by school expenditures and heavily strained by additional residential development.

Use of Fiscal Impact Modelling

TischlerBise developed a fiscal impact model for the City to measure the impact of proposed developments on the City's annual operating budget. To effectively model school costs, the demand from new development is projected based on student generation rates.

The City's fiscal impact model focuses on direct tax revenue and other growth-related revenues flowing to the City and direct City operating expenses. However, the model is not a budget forecasting tool because new projects do not result necessarily in new staffing or other operational expenditures. The model aims to project impacts and how those impacts vary when comparing alternative development scenarios. The City's model does not make any assumptions about inflation or deflation of revenues or expenses over time. The model has been used consistently from project to project to provide comparative information.

The primary revenue contributors estimated by the model are real and personal property taxes, sales taxes, meals taxes, and business license taxes. On the expense side, school operating public safety, and community services costs are generally the biggest cost categories from new development, although all operating expenses are included.

The City's fiscal impact model is structured using a marginal/average cost hybrid approach to determine expenses. The model will pick up certain capital expenses routinely included in the City and school budgets, calculating the need for additional non-fixed assets such as police cars, school buses, and maintenance equipment. The model is designed to assume that current levels of service are maintained to serve new development. However, the model does take into account excess capacity in certain services today.

Revenue assumptions in the fiscal impact model are a combination of regional local data researched by TischlerBise and staff-generated values determined in consultation with the City's Commissioner of Revenue and city assessor. Staff examines the most comparable real estate in the City to produce projected, assessable values used in the model. If local comparable properties are not available, comparable regional data is researched and used.

Proposed commercial uses in new development projects can generate business, personal property, sales, meals and other local taxes for the City. Staff looks at comparable existing businesses in the City to estimate projected tax revenues on a per-square-foot basis. In making these revenue (and expenditure) projections, full commercial and residential occupancy of the buildings is assumed. It is understood that absorption rates for residential, retail, and office uses vary with market cycles and conditions. As of October 2015, occupancy of residential components of the first six mixed-use buildings is essentially full, and overall occupancy of commercial space is 96 percent. There can be substantial, one-time fee revenue from licenses and permits for mixed-use development projects. This revenue is not included in annual gross and net fiscal impact projections, but is, instead, reported separately by staff.

A Retail Impact Module, which projects additional retail spending and sales tax revenues from residential and office development, was recently added. To determine average household spending, TischlerBise obtained retail spending information from ESRI Business Analyst as well as consulted industry data. The module derives an average amount of additional spending from two methodologies as shown below to derive additional retail sales tax revenues to the City.

Example 1: The Rushmark

The City frequently uses the fiscal model to evaluate individual projects. For instance, in 2013 the City evaluated a proposal for a development, which for the purposes of this discussion we will call "Rushmark." Rushmark is a proposed mixed-use development planned for a plot of land that the City has designated as part of its future City Center. The land is currently developed with a vacant U.S. Post Office, a restaurant, a commercial parking lot, and vacant land zoned for commercial uses. The project called for a seven-story structure with ground floor commercial, including a 60,800 square foot Harris Teeter grocery store and 3,470 square feet of other retail. The development schedule for the upper six floors consists of 176 studio and one-bedroom rental units and 106 two-bedroom rental units. The developer will also construct a three-level, underground garage to accommodate parking needs.

Figure 13. Rendering of the Rushmark Development

Source: City of Falls Church Economic Development Office

To evaluate the fiscal impact of the Rushmark development, the City entered the commercial and residential development schedule, assuming average valuation. The model estimates a total market value of the project of more than $100 million and an average annual net fiscal impact on the city of approximately $1.3 million. The total market value is broken out by residential and nonresidential uses, providing taxable values for each. The model also estimates that the residential development will generate 36 pupils.

Figure 14. Rushmark Project Inputs

Name of Project One:	Rushmark 050613

RESIDENTIAL DEVELOPMENT COMPONENT

Type of units	Total number of units	Number of units absorbed each year	Assessed value per unit	Total square feet	Student generation rate	Persons per unit	Trip generation rate	Trip adj. factor	Utility Tax per Unit	Average Building Permit per Unit
Single Family Detached	0	0	$654,549	0	0.62	2.77	9.57	50%	$158	$7,000
Townhouse - Owner Occuppied	0	0	$587,451	0	0.27	2.10	5.81	50%	$143	$5,600
Townhouse - Renter Occuppied	0	0	$587,451	0	0.27	1.68	5.81	50%	$143	$5,600
Mid-Rise Apartments one bedrooms	**158**	**158**	**$255,000**	0	**0.07**	1.59	4.20	50%	$83	$2,000
Garden Apartments	0	0	$87,000	0		2.58	6.59	50%	$60	$2,000
Condominiums	0	0	$406,533	0	0.11	1.31	5.81	50%	$120	$2,000
High Rise Condominiums	0	0	$406,533	0	0.11	1.74	4.18	50%	$120	$2,000
Age-Restricted Housing	0	0	$406,533	0	0.00	1.41	3.71	50%	$19	$2,000
ADU Townhouse	0	0	$194,342	0	0.00	1.68	5.81	50%	$143	$5,600
ADU Condo	0	0	$140,675	0	0.00	1.31	5.81	50%	$120	$2,000
Mid-Rise Apartments 2 bdrms.	**100**	**100**	**$255,000**	0	**0.23**	1.59	4.20	50%	$83	$2,000
Mid-rise Apartments Studios	**30**	**30**	**$255,000**	**0**	**0.00**	1.59	4.20	50%	$83	$2,000
Custom Residential Housing Type 3	0	0	$0	0	0.00			50%		
Custom Residential Housing Type 4	0	0	$0	0	0.00			50%		

NONRESIDENTIAL DEVELOPMENT COMPONENT

Land use type	Total square feet	Number of square feet absorbed each year	Assessed value per square foot	Sales per square foot	Empl. density (jobs per 1,000 SF)	Trip generation rate	Trip adj. factor	Utility Tax per 1,000 SF/Room	BPOL TAX per 1,000 SF/Room	Average Building Permit per 1,000 SF/Room
Com / Shop Ctr 50,000 SF or less	**3,470**	**3,470**	$375	$400	2.86	86.56	31%	$138	$760	$3,200
Com / Shop Ctr 50,001 SF or more	0	0	$300	$405	2.50	67.91	33%	$138	$770	$3,200
Office / Inst 50,000 SF or less	0	0	$325		3.91	15.65	50%	$113	$1,080	$3,200
Office / Inst 50,001 SF or more	0	0	$275		3.70	13.34	50%	$113	$6	$3,200
Bank with Drive Thru	0	0	$568		3.39	148.15	0%	$113	$0	$2,200
Auto Dealership	0	0	$957	$0	1.58	33.34	29%	$113	$1,500	$2,200
Movie Theater	0	0	$167	$0	1.47	78.06	50%	$138	$0	$2,200
General Light Industrial	0	0	$126		2.31	6.97	50%	$75	$185	$2,200
Medical-Dental Office	0	0	$381		4.05	36.13	50%	$138	$3,870	$2,400
Supermarket	**60,000**	**60,000**	$493	$947	1.16	102.24	33%	$175	$1,800	$2,200
Drug Store	0	0	$101	$526	2.86	90.06	27%	$138	$1,000	$2,200
Big Box Retail	0	0	$177	$211	1.94	57.24	33%	$125	$400	$2,200
Quality Restaurant	0	0	$700	$539	5.00	89.95	23%	$138	$1,025	$2,200
High-Turnover (Sit-down) Restaurant	**0**	**0**	$696	$553	5.00	127.15	28%	$175	$1,050	$2,200
Convenience Store	0	0	$175	$405	2.00	737.99	14%	$175	$770	$2,200
Gym/Health Club	0	0	$175		0.84	32.93	50%	$113	$160	$2,200
Gasoline/Service Station	0	0	$1,000	$0	4.41	845.60	16%	$175	$3,750	$2,200
Hotel (per room)	rooms	rooms	$60,000	0 Sq. Ft.	0.44	8.92	50%	$125	$68	$600
Extended Stay Hotel (per room)	rooms	rooms	$112,981	0 Sq. Ft.	0.44	6.24	50%	$113	$116	$800
Custom Nonresidential Type 1	0	0	$0	$0						
Custom Nonresidential Type 2	0	0	$0	$0						
Custom Nonresidential Type 3	0	0	$0	$0						
Custom Nonresidential Type 4	0	0	$0	$0						
Custom Nonresidential Type 5	0	0	$0	$0						

Source: City of Falls Church Economic Development Office

To calculate the total fiscal impact of the development on the City, the model first tallies gross annual revenues from taxes, license and permit fees, state and federal aid, charges for services, fines and forfeitures, and revenue for the School Board (based on the presence of residential units). The largest annual revenues are produced by property taxes (approximately $1.3 million) and local sales and use

taxes (approximately $590,000). Total revenues are estimated at around $2.30 million annually. From this revenue total is subtracted the government expenditures necessitated by the new development. These include various community, public safety, education, and administrative services, all of which are derived from existing level-of-service factors. Of these expenditures, the largest are for schools ($460,000) and the school board ($160,000), public safety ($145,000), and community services ($125,000). Expenditures total approximately $1 million, yielding a net positive fiscal impact of $1.3 million ($2.3 million – $1 million). This project is currently under construction with the same development schedule as proposed.

Figure 15. Rushmark Project Output Summary

Output Summary: Annual Revenues & Expenses

RUSHMARK 020413		
Summary Information		
Rushmark w/ 176 studios & 1's & 106 - 2 bdrms all @ $255K, 3110 SF retail 60,800K grocery		
Total Market Value of Project	$103,050,650	
Avg. Annual Net Fiscal Impact:	$1,330,837	
Number of Pupils Generated:	36	
Number of Residential Units in Project:		282
Total Taxable Value of Residential Units:		$71,910,000
Total Nonresidential SF of Project:		63,910
Total Taxable Value of Nonresidential SF:		$31,140,650

Gross Annual Revenues	
Real Estate Property Taxes	$1,308,743
Personal Property Taxes	$69,346
Non-Assessed Property Taxes	$0
Local Sales and Use Taxes	$588,440
Other Taxes	$70,255
Gross Receipts Business Tax	$111,804
Licenses & Permits	$4,455
Grant Revenue--Federal	$0
Other State Categorical Aid	$0
State Non-Categorical	$0
State Categorical	$0
Other Contributions	$0
Charges for Services	$83,885
Fines & Forfeitures	$21,900
Investment Revenues	$0
Rental Income	$0
Dispositions & Sales	$0
Recovered Costs	$0
Payments in Lieu of Taxes	$0
Transfer from Water Fund	$0
Transfer from School Board	$0
Proceeds from sale of bonds	$0
Use of Fund Balance	$0
School Board	$120,893
COP & CIP Capital Revenues	$0
Proffers	$0
Gross Revenues	$2,379,722
Gross Annual Expenditures	
Legislative	$2,673
Constitutional Officers	$10,912
Executive	$9,460
Administrative Services	$30,248
Community Services	$126,162
Development Services	$10,842
Environmental Services	$88,337
Public Safety	$146,197
Education	$463,596
Non-departmental	$0
School Board	$160,459
Capital Needs	$0
Gross Expenditures	$1,048,886
Net Fiscal Impact	**$1,330,837**

Source: City of Falls Church Economic Development Office

Example 2: The Reserve at Tinner Hill

City of Falls Church officials also use the model to evaluate multiple development scenarios for individual projects. For instance, in the case of a development called the Reserve at Tinner Hill, the City used the fiscal model to evaluate the fiscal impact repercussions of six different design possibilities and absorption scenarios. All cases included a 20,381 SF grocery store and evaluated residential schedules producing 26 pupils and/or 45 pupils. All but Scenario 1 included 1,300 SF of portico retail space. However, aside from those similarities, the scenarios varied in significant ways: Scenario 1 included a large amount of unleased commercial space; Scenario 2 included a large amount of office space (19,985 SF); Scenario 3 included a 10,192 SF of restaurant space and 10,192 SF of additional retail space; Scenario 4 included 8,732 SF of restaurant space and 10,362 SF of office space; Scenario 5 included the same buildout scenario as Scenario 3 but with less residential; and Scenario 6 included a large amount of restaurant square footage (19,085 SF). See Figure 16.

Figure 16. Fiscal Impact Scenarios for the Reserve at Tinner Hill

FISCAL IMPACT SCENARIOS FOR THE RESERVE AT TINNER HILL

Commercial Scenario	Project Value	Grocery SF	Rest. SF	Retail SF	Office SF	Portico Retail SF	Gross Tax Revenue Per Year	Gross City Expenses Per Year	Net Tax Revenue/Yr. (26 Pupils)	*Approximate* Net Tax Revenue/Yr. (45 Pupils)
1 (grocery & unleased commercial space)	$73,610,958	20,381	0	0	0	0	$1,300,441	$755,794	**$544,647**	**$274,647**
2 (grocery & remainder office)	$73,610,958	20,381	0	0	19,085	1,300	$1,360,039	$755,794	**$604,245**	**$334,245**
3 (grocery, restaurant, retail, 45 pupils)	$78,323,965	20,381	10,192	10,192	0	1,300	$1,807,806	$1,116,948		**$690,859**
4 (grocery, restaurant, office)	$76,847,191	20,381	8,723	0	10,362	1,300	$1,644,679	$769,866	**$874,813**	**$604,813**
5 (grocery, restaurant, retail, 26 pupils)	$78,323,965	20,381	10,192	10,192	0	1,300	$1,743,994	$782,164	**$961,830**	
6 (grocery & remainder restaurant)	$80,691,493	20,381	19,085	0	0	1,300	$1,982,802	$786,582	**$1,196,219**	**$926,219**

Note: Existing uses on the project site yield about $79,000 per year in gross tax revenue for the City.

Prepared by EDO, 050713

Source: City of Falls Church Economic Development Office

The analysis showed that the scenarios with more restaurant square footage (Scenarios 3-6) yielded greater gross tax revenues than the scenarios with larger amounts of office or retail space (in particular, Scenarios 1-2). Additionally, as expected, the analysis showed that fiscal results were worse when there were higher pupil counts, since education is one of the City's largest expenses.

This project is currently under construction with 224 apartments, a 25,000 square foot neighborhood grocery store, retail/restaurant space of approximately 8,000 square feet, and 10,500 square feet of commercial space.

Scenarios with more restaurant square footage yielded greater gross tax revenue.

Long-term Tracking of Model Accuracy

Finally, it is important to note that the City actively tracts the accuracy of its use of the fiscal model for mixed use developments. Figure 17 below demonstrates the City's long-term tracking of model accuracy, including net fiscal impact annually and gross tax revenue. Note that the City also tracks a number of model inputs, such as pupil generation rates, so as to further refine its use of the model.

Figure 17. City of Falls Church, VA Long-term Model Accuracy Tracking

Mixed Use Development Fiscal Impact Report - 2012											
Development Project	*June 2012 Net Fiscal Impact Per Year ($1.27 tax rate)*	*Original NET Estimated Fiscal Impact per Year (Date & Tax Rate)*	*June 2012 GROSS Tax Revenue from All Sources*	*Annual GROSS Tax Revenue from Pre-Devel. Uses*	*2011/12 FCCPS Pupils & Pupils per Housing Unit*	*2010/11 FCCPS Pupils & Pupils per Housing Unit*	*Original Estimate of Total Pupils & Pupils per Housing Unit*	*Land (sf & acres) & Development Total FAR*	*Commercial SF Occupied or Committed by Lease***	*Commercial FAR, Comm./Total SF, % Commercial Space*	*Housing Unit Characteristics: % Studios & 1's % 2 & 3 Bdrms*
Byron *513 W. Broad St.* (90 condos, 22,527 sf commercial)	$551,354 $276,000/acre	$306,436 (2003, $1.13)	$886,346 $443,000/acre	$209,380 (Red Lobster) $105,000/acre	12 in 90 occupied units (0.13)	11 in 90 occupied units (0.12)	14 (0.15)	87,120 sf 2.00 acres 1.76 FAR	19,831 sf (88%)	0.26 FAR 22,527/153,422 sf 14.6%	22% One bdrms 78% 2 & 3 bdrms
Pearson Sq. *400/500 S. Maple* (230 apts., 102,000 sf commercial)	$233,248 $50,000/acre	$684,196* (early 2004, $1.13)	$1,791,548 $381,000/acre	$75,000 (light industrial) $16,000/acre	70 in 230 rented units (0.30)	98 in 219 rented units (0.45)	35 (2004: 0.15)	204,732 sf 4.70 acres 2.10 FAR	96,300 sf (94%)	0.50 FAR 102,000/434,000 sf 25.8%	30% One bdrms 70% 2 & 3 bdrms
Read Bldg. *402 W. Broad St.* (26 apts., 11,800 sf commercial)	$96,395 $142,000/acre	$52,690 (2005, $1.03)	$161,415 $237,000/acre	$15,780 (auto service) $23,000/acre	1 in 26 occupied units (0.04)	0 in 26 occupied units (0.00)	4 (0.15)	30,000 sf 0.68 acres 1.18 FAR	11,850 sf (100%)	0.40 FAR 11,850/35,350 sf 33.5%	92% studios & 1's 8% 2 bdrms
Spectrum *444 W. Broad St.* (189 condos, 64k sf commercial)	$1,066,287 $333,000/acre	$721,307 (early 2004, $1.13)	$1,654,902 $517,000/acre	$43,600 (parking & vacant lots) $14,000/acre	24 in 139 occupied units (0.17)	21 in 98 occupied units (0.21)	29 (0.15)	139,392 sf 3.20 acres 2.54 FAR	37,018 sf (58%)	0.46 FAR 64,000/355,000 sf 18.4%	21% One bdrms 79% 2 bdrms
SUBTOTALS	$1,947,284 $184,000/acre	$1,764,629 $167,000/acre	$4,494,211 $425,000/acre	$343,760 $32,000/acre	107 in 485 units (0.22)	130 in 433 units (0.30)	82 in 535 units (0.15)	10.58 acres	164,999 sf		
Broadway *502 W. Broad St.* (80 condos, 14,503 sf commercial)	$511,601 $324,000/acre	Fiscal impact model not available at time of project approval	$739,348 $468,000/acre	$19,800 (Adcom Building) $13,000/acre	7 in 80 occupied units (0.09)	7 in 80 occupied units (0.09)	N/A	68,825 sf 1.58 acres 2.74 FAR	9,915 sf (68%)	0.21 FAR 14,508/188,329 sf 11.0%	100% 2 & 3 bdrms
GRAND TOTALS	$2,458,885 $202,000/acre	2010 Net Fiscal Impact: $2,103,168	$5,233,559 $430,000/acre	$363,560 $30,000/acre	114 in 565 units (0.20)	137 in 513 units (0.27)		529,690 sf 12.16 acres 2.20 FAR	174,914 of 214,835 sf (81%)	0.41 FAR 214,615/1,166,101 sf 18.4%	25% studios & 1's (153 units) 75% 2 & 3 bdrms (462 units)
Rushmark *301 W. Broad St.* (282 apts.; 63,470 net sf commercial)	$957,962-$1,323,982 and $364,000- $503,000/acre	N/A	$2,369,788- $2,456,197 and $901,000- $934,000/acre	$97,000 $36,882/acre	N/A	N/A	35-61	114,563 sf 2.63 acres 3.25 FAR	N/A	0.62 FAR 70,522/372,838 gross sf 18.9%	62% studios & 1's (176 units) 38% 2 bdrms (106 units)
Lincoln *Reserve at Tinner Hill* (224 apts.; 43,490 sf commercial)	$604,245-$1,196,219 and $276,000- $546,000/acre	N/A	$1,360,039- $1,982,802 and $621,000- $905,000/acre	$79,000 $36,073/acre	N/A	N/A	26-45	95,396 sf 2.19 acres 2.98 FAR	N/A	0.46 FAR 43,940/284,528 sf 15.3%	69% One bdrms (155 units) 31% 2's (69 units)
Project Under Construction: Northgate 472 N. Washington (95 apts., 10 towns, 37,075 sf commercial)	$459,670 $300,000/acre	$195,753 (2007; $1.01)	$938,576 $613,000/acre	$31,823 (vacant funeral home & rental property) $21,000/acre	N/A	N/A	19 (0.184)	66,647 sf 1.53 acres 2.42 FAR	Under Construction	0.44 FAR 37,075/161,000 sf 23.0%	53% studios & 1's (55 units) 47% 2 & 3 bdrms (50 units)

NOTES:
Fiscal impact results reflect actual business tax revenue when available and model generated projections when not.
* Re-estimated at $690,083 in July 2007 with $1.01 tax rate & 0.167 pupils per unit.
** Commercial leases for space unoccupied at 06/12: Beadazzled, Moby Dick's & Sweet Frog (Spectrum); Body Dynamics (Pearson Sq.); Edward Jones (Byron); medical clinic (Broadway).

Source: City of Falls Church Economic Development Office

Case Study 2: City-wide Fiscal Impact Analysis in City of Champaign, Illinois

The City of Champaign, Illinois, was interested in evaluating the cost to serve new development in the future, particularly as growth occurs near the City's borders. This study is particularly interesting because it evaluates the same amount of development on two different geographical footprints. Two scenarios were evaluated as part of this analysis:

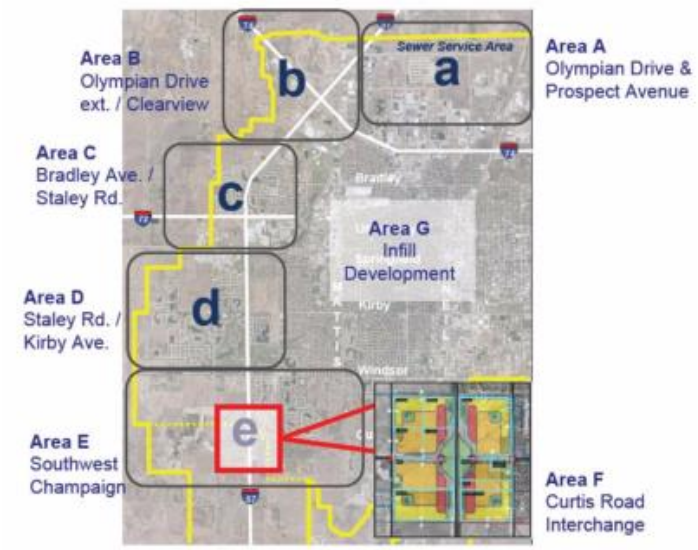
> **Scenario 1:** Growth Within the Service Area. All growth occurs within the current sanitary-sewer service area.
> **Scenario 2:** Growth Beyond the Service Area. Growth occurs both within and outside of the current sanitary-sewer service area.

The two scenarios are intended to show the fiscal implications of public policy decisions about key planning issues and their impacts on broad land-use patterns. The first scenario assumes that no new sewer projects will be constructed. Additionally, the only infrastructure assured in this scenario is road construction. The second scenario assumes that the sanitary-sewer service area will be expanded with four capital projects.

The study is particularly interesting because it evaluates the same amount of development on two different geographical footprints.

While the pace of growth in each scenario is very similar, the mix of land uses varies, as does the amount of growth in each of the fiscal analysis zones. Land uses are based on approved developments as well as the assumptions in the Champaign Tomorrow plan. Growth within each of the two scenarios is allocated to seven different FAZs, defined by transportation nodes in the city. These FAZs are shown in Figure 18.

Figure 18. Fiscal Analysis Zones (FAZ)



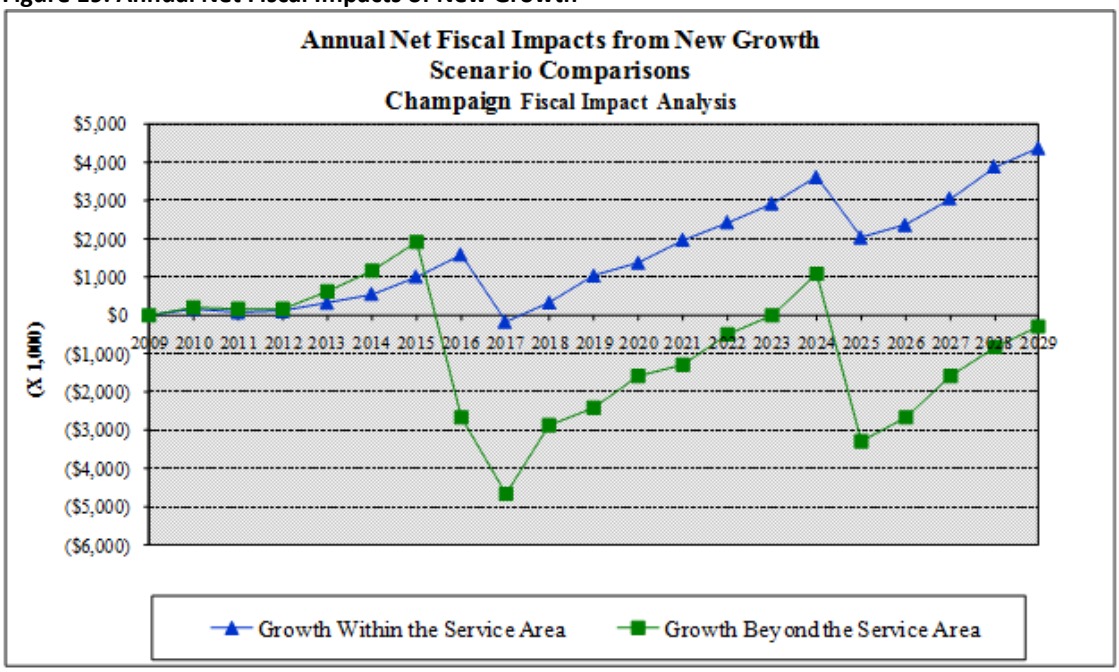
Source: TischlerBise

As Figure 19 shows, the largest changes in the net fiscal impact from one year to another for each of the growth scenarios are triggered by capital projects and the associated operating costs. By showing the results annually, the magnitude, rate of change, and timeline of deficits and revenues can be observed. The "bumpy" nature of the annual results during particular years represents the opening of capital facilities or the incurring of major operating costs.

The "bumpy" nature of the annual results during particular years represents the opening of capital facilities or the incurring of major operating costs.

Data points above the $0 line represent positive annual results; points below it represent annual deficits. Each year's result is not carried forward into the next year. This enables a comparison from year to year of the net results without distorting the revenue or cost side of the equation. In reality, those positive impacts would be carried forward or deficits would be funded through other means, such as debt financing for capital improvements.

Figure 19. Annual Net Fiscal Impacts of New Growth



Source: TischlerBise

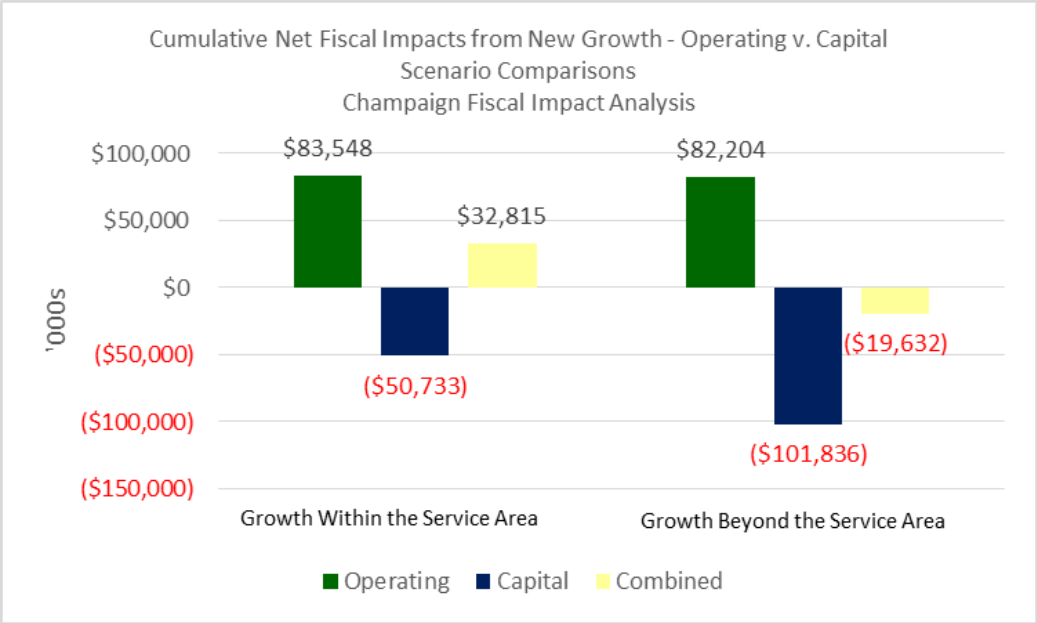
In FY2017, there is a significant decrease in the net fiscal impact for the Growth Within the Service Area scenario, which is caused by the beginning of road projects; additional road projects begin in FY2025. An accompanying downturn in the net fiscal impact is seen that year as well. The slight leveling of the net fiscal impact between FY2019 and FY2020 and FY2025 and FY2026 is caused by the triggering of new street-maintenance workers and new snow-removal trucks coupled with added police officers and vehicles. The net fiscal impact remains positive in all years except FY2017 for the scenario ensuring Growth within the Service Area.

The decrease in the net fiscal impact begins in FY2016 from the Growth Beyond the Service Area; this decrease is caused by the beginning of road projects. The net deficit increases in FY2017, when the new fire station opens and another fire station moves. Another significant decrease in the net fiscal impact occurs in FY2025 when the second set of road projects begins. Overall, net deficits are generated in this scenario.

The cumulative fiscal results comparing the net operating and net capital impacts make this even clearer. The relative size of each of these cumulative net positive and negative results as well as a comparison of the cumulative net fiscal impact can be seen in Figure 20. As the figure indicates, cumulative fiscal results for the City are $52 million more favorable for the first scenario than in the second scenario. The net fiscal impact of the first scenario is a $32.8 million surplus while the second scenario generates a $19.6 million deficit. This is driven primarily by the higher infrastructure costs associated with development occurring beyond the Service Area. It should be noted that the acreage

available for development under the Growth Beyond the Service Area scenario is more than double that of the Growth Within the Service Area scenario. This larger development area leads to a more scattered and leapfrog approach to development, which requires the expansion of fire-service areas as well as the road network. The fiscal impact results confirm that this is an inefficient and fiscally unsustainable development pattern.

Figure 20. Cumulative Net Fiscal Impacts of New Growth



Source: TischlerBise

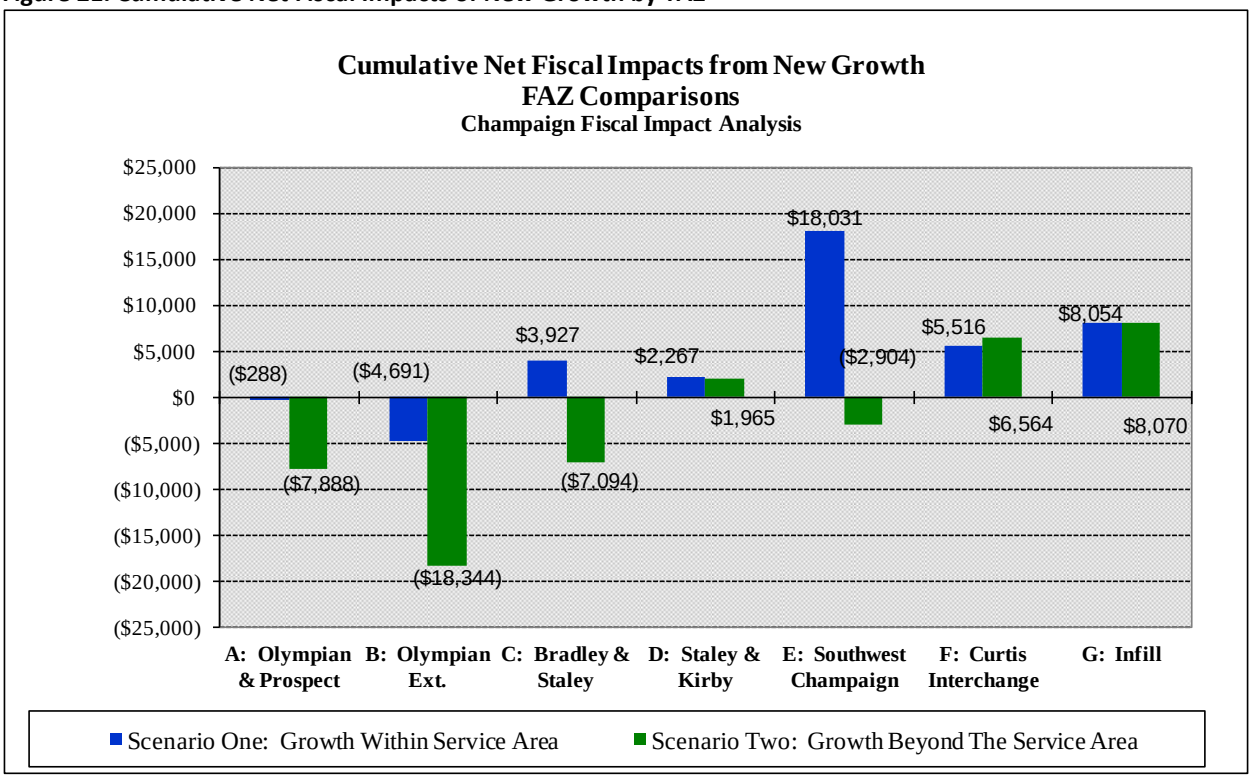
Three additional factors must be considered when analyzing these fiscal results:

- The fiscal impact analysis results for each scenario are a snapshot based on the FY2009 budget and levels of service. Thus, it is assumed that these current levels of service will continue over the 20-year analysis period. If any levels of service are insufficient or the City raises any levels of service, costs will increase, reducing the net fiscal impacts.
- Road projects and fire-station construction are assumed to be debt financed over a period of 20 years. Thus, the debt payments extend beyond the time period of this analysis. Remaining debt service for the Growth Within the Service Area scenario totals $52.5 million, eliminating the positive impact of the scenario, while the remaining debt service for the Growth Beyond the Service Area totals $96.4 million, creating a more extreme deficit.
- The Growth Beyond the Service Area also requires expansion of the sanitary-sewer service area with four projects, including the extension of interceptor sewers and new lift stations. These sewer-project costs have not been captured in this analysis because sanitary-sewer service is not provided by the city but by the Urbana-Champaign Sanitary District. These costs and the difficulty of the projects should be considered in addition to the net fiscal impact. However, the city often carries the cost of sewers and is reimbursed as development occurs.

The analysis also indicated that three of the FAZs with positive net cumulative results in the first scenario—Stanley and Kirby, Curtis Interchange, and Infill—maintain positive results in the second scenario (See Figure 21). In fact, the Curtis Interchange and Infill FAZs show very little difference in fiscal impact in the two scenarios and maintain net positive impacts in each year of the analysis. Two FAZs—Olympian and Prospect, as well as Olympian Extended—have net deficits in both scenarios. Only the Bradley and Staley and Southwest Champaign FAZs change from a net positive result to a net deficit.

Of relevance to the discussion on infill development, in the City of Champaign, the Infill FAZ generates positive fiscal impacts. As development increases over the 20-year period, the net positive impact increases. Infill development does not require capital infrastructure, and the balance of retail and higher value multifamily housing units creates a positive net impact.

Figure 21. Cumulative Net Fiscal Impacts of New Growth by TAZ



Source: TischlerBise

Use of the Analysis

Planning staff report that the greatest value of the Fiscal Impact Analysis was that it created a "culture shift" in understanding the true costs and revenues of development to the City. Because the analysis was completed at the beginning of an in-house update to the Comprehensive Plan, the results of the study helped to shape the growth management policies in the new plan. For example, the Plan

specifically prioritizes infill development over greenfield development, and the City created a tiered system for City growth areas indicating where the City will be supportive of expansion and where it will not. Moreover, staff report that they are able to use the report to show that medium-density residential subdivisions don't "pay their way," which changes the nature of the development negotiation and grounds the conversation in numbers.

Case Study 3: Gilroy, California[9]

Background

Gilroy, California, is a city of roughly 50,000 residents, located in Santa Clara County on the south side of the San Francisco Bay. Though it was long a largely agricultural region, known for its garlic, mushroom, and other vegetable production, southern Santa Clara County has recently had to grapple with pressure to urbanize driven by growth in San Jose and the greater Silicon Valley region in the northern portion of the county. This pressure to grow came to head in the winter of 2015-2016, as city officials, residents, and developers debated a new project called Rancho Los Olivos.

Development Proposal

Ranchos Los Olivos is a proposed $3 billion, 4,000 home project proposed for a 721-acre unincorporated tract of farmland north of town. The project master plan and development schedule includes 1,500 units for "active seniors," two schools, and 143 acres of greenspace and programmed park space. The plan also includes 338,000 square feet of commercial space. Because the land is unincorporated, the viability of the Ranchos Los Olivos project is dependent upon an annexation bid to the City for the extension of the Urban Service Area boundaries, thereby providing water, sewer, and other municipal services. In California, annexations must be approved by the county Local Agency Formation Commission (LAFCO).

Debate

The Rancho Los Olivos project has long been a contentious project in the local community, but debate became most heated this past winter, when the City Council voted 4-3 in favor the annexation proposal, despite the fact that the City's Planning Commission had voted unanimously against the project due to questions as to the City's ability to provide services to the incoming residents. In addition, the Santa Clara County LAFCO had expressed serious doubts about the environmental repercussions of the project, and an online petition with 2,000 signatures expressed concerns about road congestion and the need for additional school operating funds that would further strain the City's budget. In the words of one councilman who voted against the annexation proposal, "We cannot pave our streets, fix our sidewalks. Our city's falling apart because we can't fix what we have, and we're adding more. It doesn't make sense."

[9] Case study information on Gilroy and Rachno Los Olivos are derived from the following sources:
Brad Kava, "City Oks Annexation Plan," *Gilroy Dispatch*, December 10, 2015.
Brad Kava, "4,000 Home Development Off the Table," *Gilroy Dispatch,* January 21, 2016.
Nathan Donato-Weinstein, "Growing Gilroy? Huge annexation proposal moves forward, could add 4,000 homes in South County," *Silicon Valley Business Journal*, December 8, 2015.

Two separate law suits were filed to stop the project: one by the county's LAFCO and another by two developers of unrelated projects in Gilroy. LAFCO claimed the City would violate the California Environmental Quality Act if it approved the project, claiming the site "consists of largely prime agricultural land and that the city wants to include these lands in its Urban Service Area even as the City has substantial amounts of land within its current boundaries that are vacant and underutilized." The suit also claimed the City did not require an adequate Environmental Impact Review. The other lawsuit, filed by developers of an unrelated project in Gilroy, argue that the City Council told them not to pursue

A recent City report found that the city only has a 7.4-year supply of residential land remaining, or 9.5 years if the downtown area is included.

a 150-acre housing project in unincorporated south Gilroy in 2014 until the new general plan was complete, only to approve the Rancho Los Olivos project a year later prior to that plan's completion and adoption.

A recent City report found that the city has a 7.4-year supply of residential land remaining, or 9.5 years if the downtown area is included. Opponents have noted that the plan for Rancho Los Olivos calls for a large portion of single-family homes, with 1,358 units built at less than 7.25 units per acre; 930 units between 7.25 to 9 units per acre; 1,176 units at 9 to 16 units per acre; and 532 units at 16 to 30 units per acre. The city's new general plan espouses a preference for denser development patterns, much like other communities in Santa Clara County, including Redwood City, Mountain View, and Sunnyvale. The general plan also seeks to encourage development on infill sites and downtown. This inconsistency was a main reason the Planning Commission voted against the project. Supporters, on the other hand, argue the project will allow the City to accommodate growth in a more comprehensive fashion than through the "piecemeal" development envisioned by the general plan.

Due to community pressure and the threat of a protracted court battle, the Rancho Los Olivos developers agreed to put the project on hold in order to allow for further examination of the costs and benefits of the new development to the community. In a press release, the mayor pro tempore, a supporter of the project, noted that rescinding the application would "allow the city and greater community to better understand the proposal, the benefits to our community, how it gains local control and fits within the collective long-term vision of Gilroy's future." He added, "We've been saying all along that this will take 10 to 15 years. This isn't a short-range project." The outgoing mayor, another project advocate, added "If you don't have growth, you die."

How does a community set out to determine potential fiscal benefits and liabilities of a proposed annexation prior to the approval of a large proposed development? TischlerBise undertook a fiscal impact analysis to help the Imperial County LAFCO answer some of the same questions.

Fiscal Impact Analysis: Imperial County LAFCO

TischlerBise conducted a fiscal impact analysis for the Imperial County LAFCO in 2006. The report provided estimates of the fiscal impacts to the operating and capital budgets of the City of El Centro and Imperial County resulting from the Las Aldeas development and its proposed annexation from unincorporated Imperial County to the City of El Centro. The proposed Las Aldeas development included 1,557 single family homes, 178 multi-family homes, and 674,406 square feet of commercial space.

The focus of the analysis was the annualized fiscal impact based on full build-out of the development. The level of service and cost and revenue factors were drawn from FY2005 budget documents and in the case of capital, from impact fees prepared for the localities by this firm in 2006. To estimate the operating revenues and costs resulting from new development, operating budget items expected to be impacted by new development were identified by the consultant in consultation with finance and budget officials from both jurisdictions. In the majority of cases, an average cost approach was used, taking the FY05 budget numbers and dividing them by the jurisdiction's current demographic estimates (population, jobs, vehicle trips, etc.). This enabled the current level of service to be determined and applied to new growth. Some costs and revenues were fixed. For example, new growth, in some cases, would not necessarily prompt an increase in City Council or Board of Supervisors operating expenses. In the case of property taxes, real estate transfer tax, sales tax, and other revenue items, a marginal approach was used.

Revenues were calculated for sales and use taxes, motor vehicle in-lieu taxes, property taxes (adjusted for Education Revenue Augmentation Fund transfers), other taxes (e.g., the transient occupancy tax, real property transfer taxes, and francise fees and business license taxes), fees for current services (e.g., environmental impact fees, recreation fees, fingerprinting charges, etc.), other financing sources (gas tax and Article 8 funding), licenses and permits, revenue from other agencies, fines and forfeitures, and federal and intergovernmental revenue and invested money (for the County). General Fund expenditure factors were derived for public safety (fire, police, and animal services), general government, development and community services, public works, parks and recreration, libraries, and health and sanitation and education (for the County). A large number of special fund (e.g., local transportation authority) revenues and expenditures were also included in the model. For the Capital Fund component of the model, revenues were calculated from fire, libraries, parks, police, and general government impact fees. Expenses were developed for these categories and schools (for the County) on a per person, per employee, and per nonresdiential trip basis, where appropriate.

TischlerBise determined that City and County services provided to the residential component of the development were expected to exceed the operating revenue generated by the Las Aldeas development. Revenues from the non-residential portion of Las Aldeas were anticipated to exceed expenses for the City of El Centro, primarily due to new sales tax revenues. Nonresidential revenues to the City were not expected to not entirely offset the City's net losses from the residential component of the project. For the County, expenses were projected to exceed revenues for both the residential and

nonresidential portion of the development. TischlerBise found that the Las Aldeas project would generate an estimated net loss of $186,668 to the City of El Centro annually. The cost to Imperial County was estimated at $403,868 annually.

TischlerBise determined that City and County services provided to the residential component of the development would exceed operating revenue generated.

Conclusion

A similar approach could be used in Gilroy for the Los Olivos development. To date, the conversation around the development has lacked a firm grounding in an independent study of the fiscal impacts of the development on the City's bottom line. The fiscal impact analysis for the Imperial County LAFCO provided context for a discussion of the long term implications of the annexation and development for the financial standing of the City and the County. A similar analysis would help frame the discussion in Gilroy.

Figure 22. City of El Centro Revenues and Expenditures

REVENUES			
Residential - Single Family	**SF Units**	**Revenue Per SF Unit**	**Total**
Property Tax	1,557	$631	$982,492
Real Estate Transfer Tax	1,557	$17	$26,284
Other General Fund	1,557	$439	$684,183
Capital	1,557	$197	$306,020
Special Fund	1,557	$289	$449,822
Subtotal		**$1,573**	**$2,448,800**
Residential - Multi-Family	**MF Units**	**Revenue Per MF Unit**	**Total**
Property Tax	178	$401	$71,360
Real Estate Transfer Tax	178	$11	$1,909
Other General Fund	178	$314	$55,941
Capital	178	$141	$25,010
Special Fund	178	$156	$27,830
Subtotal		**$1,023**	**$182,051**
Nonresidential (Commercial)	**Sq. Ft.**	**Revenue Per 1,000 Sq. Ft.**	**Total**
Property Tax	674,406	$242	$163,254
Real Estate Transfer Tax	674,406	$6	$4,367
Sales Tax	674,406	$1,161	$782,837
Other General Fund	674,406	$30	$20,271
Capital	674,406	$72	$48,734
Special Fund	674,406	$158	$106,466
Subtotal		**$1,670**	**$1,125,929**
TOTAL REVENUES			**$3,756,780**
EXPENDITURES			
Residential - Single Family	**SF Units**	**Exp. Per SF Unit**	**Total**
General Fund	1,557	$1,517	$2,362,660
Capital	1,557	$197	$306,033
Special Fund	1,557	$155	$241,021
Subtotal		**$1,869**	**$2,909,713**
Residential - Multi-Family	**MF Units**	**Exp. Per MF Unit**	**Total**
General Fund	178	$1,084	$192,972
Capital	178	$141	$25,022
Special Fund	178	$109	$19,348
Subtotal		**$1,333**	**$237,343**
Nonresidential (Commercial)	**Sq. Ft.**	**Exp. Per 1,000 Sq. Ft.**	**Total**
General Fund	674,406	$790	$532,791
Capital	674,406	$72	$48,764
Special Fund	674,406	$319	$214,836
Subtotal		**$1,181**	**$796,392**
TOTAL EXPENDITURES			**$3,943,448**
NET			**($186,668)**

Source: TischlerBise

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Background on Infill Development

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- Defines "infill development" and situates it within the smart growth paradigm
- Highlights challenges of infill development not present in greenfield development: The higher expense of land assembly due to small parcels with fragmented ownership; the potential of environmental contamination from prior uses; the likelihood of higher upfront capital costs; the presence of limited financing options due to a lack of knowledge of infill development among banks and investors; and the probability of longer regulatory approval processes in places with more conventional codes.
- Demonstrates how demographic, social, and economic trends are increasing the demand for infill development in residential and office markets
- Argues lower infrastructure costs and better economic returns are driving developers to this segment of the development market

Fiscal Impact Analysis Background

Bise II, L. Carson. *Fiscal Impact Analysis: Methodologies for Planners*. Chicago, IL: APA Planners Press, 2010.

- Describes the general benefits of fiscal impact analysis: that it encourages anticipation of changes; helps define achievable levels of service; projects capital facility needs; clarifies development policy impacts; calculates revenues and helps in the development of revenue strategies; encourages "what if" questions; and promotes public education regarding the connection between land use and fiscal condition
- Discusses the different types of fiscal impact analysis: cost of land uses analysis, project analysis, and area-wide analysis
- Presents various analytical methodologies and required elements for deployment
- Discusses strategies and approaches to communicate the results

Edwards, Mary M., and Jack R. Huddleston, "Prospects and Perils of Fiscal Impact Analysis." *Journal of the American Planning Association* 76(1): 25-41, 2010.

- Explores different types of fiscal impact analysis approaches.
- Provides a comparison of when different types of fiscal impact analysis approaches are appropriate based on local conditions.
- Supports the use of average-cost analysis approach because the per capita multipliers replicate local budget conditions and is therefore accurate.

Bise II, L. Carson. "Fiscal Impact Analysis: How Today's Decisions Affect Tomorrow's Budgets." ICMA IQ Report, Vol 39: No. 5, 2007.

- Defines fiscal impact analysis.
- Delineates its components, including local revenue structures, levels of service, existing infrastructure capacity, and the demographic and market characteristics of new growth.
- Presents the common planning and finance applications of fiscal impact analysis, including to analyze land-use policies, demographic-economic changes, rezonings, annexations, and infrastructure plans, as well as contributing to capital improvement planning, revenue forecasting, fiscal planning, budget projections, and level-of-service changes.
- Reviews common methodologies used to collect and analyze fiscal information, including average and marginal costing techniques.
- Uses five case studies to illustrate how fiscal impact analysis can be used depending on local circumstances.
- Notes that fiscal impact analysis often helps communities anticipate change, define achievable levels of service, effectively project capital facility needs, clarify the impact of development policies, calculate and boast revenues, and encourages scenario-planning.

Burchell, Robert W. and David Listokin. *The Fiscal Guidebook: A Practitioner's Guide*. Washington, D.C.: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 1980.

- Seminal publication on fiscal impact analysis and the relationship between local government finance and land uses.
- Presents a hierarchy of commercial and residential land uses and their positive, negative, or breakeven fiscal impacts on local governments and school districts.
- Does not examine numerous other factors that influence the fiscal results of different land uses, including local revenue structure, levels of services, the capacity of existing infrastructure, and demographic and market characteristics of new growth.

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- Discusses the limitations of fiscal impact analysis, including the professional capacity required to undertake an analysis, the potential for political factors to cloud discussion of the results, and, frequently, a lack of consideration for social and some environmental factors.
- Notes that there are spatial implications of development that are not always addressed by conventional fiscal impact analysis.
- Covers the average and marginal costing methods for estimating fiscal impacts.
- Describes the local factors influencing the choice of method: the property tax structure, the nature of the community (e.g., population size and density, historic and current growth patterns, and service delivery mechanisms), the type of development, the purpose of analysis, the level of expertise required, and the accuracy and availability of data.

- Delves into how different types of development will impact analysis, including compact development vs. sprawl, residential vs. nonresidential development, agricultural land vs. residential land, and infill vs. edge development.
- Details new approaches [at the time], such as cost of community services studies.

Natural Resources Defense Council. "Developments and Dollars: An Introduction to Fiscal Impact Analysis in Land Use Planning." June 2000. http://www.nrdc.org/cities/smartgrowth/dd/ddinx.asp.

- Highly readable introduction to fiscal impact analysis and its role in evaluating the impact of a new development on a community.
- Reminds the reader that fiscal impact analysis should be only one factor of evaluating a development: the community should also consider environmental quality, sense of community, and social considerations (which are often hard to measure).
- Provides short explanations of methods for analyzing the operating side of a government budget.
- Notes the difficulty of analyzing capital infrastructure, given the large level of capacity created by new investment.
- Cautions practitioners to beware overlapping cities, counties, and service districts.

Fiscal Impact Analysis of Infill Development and Smart Growth

Burchell *et al.* "Costs of Sprawl—2000." TCRP Report 74. 2000.
http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_74-a.pdf

- One of the seminal publications/reports on the topic frequently cited by current researchers and advocates.
- Presents the fiscal implications of sprawl and details its resource impacts (conversion of greenspace; extension of water, sewer; higher local public-service costs) and personal costs (longer travel miles and higher travel costs and the potential of urban decline).
- Provides several counter-arguments in favor of sprawl, chiefly that this development pattern reflects consumer preferences for less-expensive, low-density living and provides more variety in tax levels and social services.

Economic & Planning Systems, Inc. "California Infill Finance Options Analysis." September 9, 2014.
http://sgc.ca.gov/docs/SGC_FINAL_REPORT_9.9.14.pdf

- Provides an overview of economic and fiscal trends facing local government in California in dealing with infill development, including a devolution of financing responsibilities to local governments and limitations precipitated by the passage of Proposition 13 (1978) and Proposition 218 (1996).
- Notes that public expectations of service delivery appear higher than ever.
- Observes increased federal and state regulatory mandates for the environment, many of which are unfunded.

- Details the unique California environment for development impact fees, Special Benefit Assessment Districts and Community Facilities Districts, parcel taxes, and Infrastructure Financing Districts.

Meis, Kate. "Fiscal Impact Tools Change Local Planning." *Government Finance Review*. Government Finance Officers Association: December 2013. http://www.gfoa.org/sites/default/files/GFR_DEC_13_40.pdf

- Uses Sacramento as a case study and details the City's use of Sacramento Area Council of Government's (SACOG) Integrated Model for Planning and Cost Scenarios (iMPACS).
- SACOG embarked on a 50 year "blueprint" project from 2000 to 2050 to address the impact of its current low-density development pattern on growing congestion and increasing air pollution.
- iMPACS allows for baseline and alternative scenario planning and helps jurisdictions to assess infrastructure demand from proposed development; estimate existing infrastructure capacity; estimate capital and operational costs for new infrastructure; determine public service needs; compare expected costs and revenues of developments; and identify thresholds of development necessitating new infrastructure investment.
- SACOG shared iMPACS with local governments and other regional planning organizations in the state.
- Details the California High Speed Rail Authority and Strategic Growth Council's "Vision California" effort, as well as the "Urban Footprint" map-based tool and "RapidFire" spreadsheet-based tool that could be used to determine how to accommodate California's expected 60 million new residents and 24 million new jobs by 2050.

Smart Growth America and RCL Co. "The Fiscal Implications of Development Patterns: A Model for Municipal Analysis." April 2015. http://www.smartgrowthamerica.org/research/the-fiscal-implications-of-development-patterns/

- The approach varies costs for roads, water/wastewater, stormwater, fire services, school transportation, and solid waste collection by development density under hypothetical scenarios.
- Assumes increased property tax revenues due to an average premium applied to property values for residential and commercial properties, based on the assumption that walkable urban areas have higher values compared to low-density areas.
- The report and associated case examples reflect more of a marketing approach to support the organization's goal of higher density development patterns.

Chicago Metropolitan Area Planning. "Fiscal and Economic Impact Analysis of Local Development Decisions." January 2014. http://www.cmap.illinois.gov/economy/tax-policy/impacts-of-local-development-decisions

- The report found that residential developments can have slightly negative or low fiscal impacts, but high-density, infill development and mixed-use development can generate high positive fiscal returns. Negative impacts are caused by the need to maintain new lane miles and provide

services. Higher positive returns were especially evident in high property tax communities and older communities with excess infrastructure capacity.

- Residential developments have higher fiscal impacts if their support of retail development is part of the fiscal analysis. This gets more complicated with sales tax collected at the point of sale and reflected as such in the analysis.
- Office and industrial uses generally have low to moderate fiscal impacts. Costs are dependent on infrastructure availability, service requirements, and tenant types. Office development tends to have higher revenues for a municipality because of property values, but costs are driven by the tenant and vary. Both can stress transportation systems due to heavy truck wear or traffic.
- Retail uses often generate the highest positive fiscal impact due to sales tax revenues.
- Overbuilding of a particular type of development leads to high vacancy rates, lower rents, decreased investment, and lower returns to municipalities.

Environmental Protection Agency. "Smart Growth and Economic Success: Benefits for Real Estate Developers, Investors, Businesses, and Local Governments." December 2012. http://www2.epa.gov/sites/production/files/documents/smart_growth_and_economic_success.pdf

- Presents the economic and fiscal advantages of compact development include higher revenue generation per acre of land and potential infrastructure and service delivery cost savings.
- Argues that the creation of walkable places increases sales and sale prices yielding higher property and sales tax revenue to local governments.
- Advocates for a diverse range of land uses, building types, transportation modes, housing, workplace locations, and stores, which in turn increase sales and investment values and increase the tax base from higher property values.
- Notes the redevelopment and reuse of brownfields, greyfields, and redfields can expand the tax base, especially when already served by infrastructure.

Environmental Protection Agency. "Smart Growth and Economic Success: Strategies for Local Governments." March 2014. http://www2.epa.gov/smartgrowth/smart-growth-and-economic-success-strategies-local-governments

- Presents an infill and smart growth case study of Lancaster, California.
- Argues that smart growth strategies, including infill and compact development patterns, reduce infrastructure construction costs.
- Notes that centralized development patterns reduce long-term service delivery costs by decreasing operation and maintenance costs, particularly for schools and public safety.
- Observes property tax revenues are boosted when properties are located in compact developments in established town and city centers with transit access and streets suitable for walking and biking.
- Notes that sales tax revenue increases in retail districts that are walkable and bikeable.
- Discusses Fresno's 2010 fiscal impact analysis exercise.

Fulton *et al*. "Building Better Budgets." Smart Growth America. 2014. http://www.smartgrowthamerica.org/building-better-budgets

- Estimates that one-third of a typical municipality's budget is affected by local development patterns.
- Argues that smart growth development costs one-third less in upfront infrastructure (including roads, sewers, and water lines), saves municipalities an average of 10 percent on ongoing delivery of services (such as police, ambulance, and fire), and generates 10 times more tax revenue per acre than conventional suburban development.
- The report reflects more of a marketing approach to support the organization's goal of higher density development patterns.

Thompson, David. "Suburban Sprawl: Exposing Hidden Costs, Identifying Innovations." University of Ottawa: Sustainable Prosperity Network. 2013. http://thecostofsprawl.com/

- Denser development spreads the fixed costs of infrastructure over more businesses and households, reducing per-unit costs
- Posits that roads, transit, piping, waste pickup, policing, libraries, and fire-fighting cost more in suburban areas.
- Suggests that making new developments pay their real costs could help to balance municipal finances.
- Compact neighborhoods with lower municipal infrastructure costs frequently subsidize sprawling areas due to the structure of development charges.
- Local governments' development charges and property taxes rarely reflect the increase infrastructure costs of sprawling, low-density communities.
- Smog created by increased automobile usage in low-density communities is an externality that is not reflected by pricing.
- Cost calculations often do not take into account repair and maintenance decades in the future.
- Competition among municipalities often causes them to approve developments that aren't fiscally beneficial.
- Despite the fact that development costs vary considerable (relatively low near existing infrastructure and higher further away), many municipalities charge a flat development charge rate per unit or per unit area (square footage). Thus, location, density, and other cost drivers are ignored. Report suggests that municipalities should shift to area-specific ratings rather than marginal cost rating.
- Further suggests the need for utility pricing reform along similar lines, or implement it as a frontage levy to incentivize more dense development.
- Another solution could be land taxation, and not its improvements, to incentivize development in downtown areas with derelict buildings, empty lots, and low-value parking lots. Other reforms needed include property class reform, which often results in disincentives for dense development, and consideration of spatially-based tax rates.
- Municipalities could also target tax reductions for development of brownfield sites, for instance.

California-specific Resources

Schildt, Chris. "Strategies for Fiscally Sustainable Infill Housing." The Center for Community Innovation. September 2011. http://communityinnovation.berkeley.edu/reports/Fiscally-Sustainable-Infill.pdf.

- Notes that infill homes usually cost less per unit to a locality than low-density greenfield housing, in terms of both infrastructure and public services, but also that revenues from infill homes do not always cover related costs due to California's highly restrictive property tax laws
- Reminds the reader that some cities are full-service cities, while many offer partial services (limited service-provision through special districts).
- Encourages cities to adopt mobility-based impact fees for new development that include pedestrian, bicycle, and public transit considerations (rather than automobile-focused fees).
- Recommends cities revise zoning regulations to allow roof-top open spaces or joint use agreements with nearby schools to ease developer concerns regarding the high cost of land in infill areas for parks.
- Notes that infill housing can take advantage of excess capacity in existing infrastructure and locational efficiencies to lower initial and ongoing costs.
- Details potential savings for infrastructure (transportation, sewage and water, utilities, and capital costs for services) and public services (police, fire, parks, and libraries).
- Notes that aside from general revenue sources (property taxes and sales tax), California cities can implement Utility Users Taxes (UUTs) on gas, electric, and water, which infill units typically use less of (usually about 5% of bill and levied on 50% of California households); Transit Occupancy Taxes on visitors staying in hotels (levied by more than three quarters of cities); and Business License Taxes (levied by most major cities).
- Describes strategies California cities can use to raise additional revenues from housing development: impact fees, special assessments (require simple-majority approval), and Mello Roos Community Facilities Districts (require 2/3 majority approval among land owners).
- Explains value capture from upzoning and density bonuses for developments with affordable housing.
- Includes a case study on the City of San Jose.

Council of Infill Builders. "Bringing Downtown Back: Ways to Boost Infill Development in the San Joaquin Valley." Sacramento, CA: Undated. http://www.councilofinfillbuilders.org/resources/bringing-downtown-back.html

- Develops a list of four key barriers to infill development in the San Joaquin Valley: lack of downtown amenities and attractions, poor downtown infrastructure, lack of financing for "first-in" infill projects, and a lack of constraint on sprawling development.
- Suggests improved urban design and amenities, flexible zoning in key infill areas that allows for new product types and interim uses, prioritization of infrastructure in infill areas, use of air district funding to finance "first-in" infill projects, and tiered or differential development impact fees.

- Notes that the Valley is expecting massive population growth in coming decades and a larger market for attached and smaller-lot homes.
- Recommends local government leaders encourage and enable events in infill areas, ensure local zoning allows for flexible use of infill space, consider implementing form-based codes, tier density allowances and tiered fee systems, waive fees for "first-in" or pioneer projects, and upzone in transit station areas and corridors.

Council of Infill Builders. "Valuing Downtowns: Upward Not Outward is a Smart Revenue Strategy for Local Governments." Undated. http://www.councilofinfillbuilders.org/resources/PDFs/Valuing-Downtowns.pdf

- Study found that investing in San Joaquin Valley downtowns yielded more property tax revenue per acre than on the periphery.

U.S. Environmental Protection Agency. "Attracting Infill Development in Distressed Communities: 30 Strategies." Undated. http://www2.epa.gov/sites/production/files/2015-05/documents/fresno_final_report_042215_508_final.pdf

- Presents strategies for promoting infill development, such as setting tiered impact fees and easing parking requirements in fill locations.
- Suggests several strategies for bridging the financing gap present in many infill projects, including enacting property tax abatement programs in infill areas, implementing a land value tax, and starting a land banking program.
- Highlights the infrastructure finance and property tax revenue benefits of infill development.
- Presents a case study of infill development in Fresno, California.

Domus Development. "Infill Development in a Post-redevelopment World." January 2014. http://www.bernadetteaustin.org/uploads/1/4/4/7/1447286/infill_development_in_a_post-redevelopment_world.pdf

- Notes that although the infrastructure investments for greenfield development are often more than for infill projects, existing infrastructure for the latter is often older and requires extensive repairs.
- Argues that impact fees are disproportionately high for infill development.
- Presents five infill development case studies in California.

ULI – San Francisco. "After Redevelopment: New Tools and Strategies to Promote Economic Development and Build Sustainable Communities." Undated. http://sf.uli.org/wp-content/uploads/sites/47/2011/05/ULI-SF_AfterRedevelopment_FINAL_18Nov131.pdf

- Details the impact of the abolition of RDAs in California.
- Proposes the implementation of a new, less-formal redevelopment program.

Relationships between Infill Development and Climate Change

Kooshian, Chuck and Steve Winkelman. "Growing Wealthier: Smart Growth, Climate Change and Prosperity." Center for Clean Air Policy. 2011. http://growingwealthier.info/docs/growing_wealthier.pdf

- Notes that smart growth development patterns limit vehicle miles traveled (VMT) by bringing origins and destinations closer together and encouraging the use of alternative modes of transportation besides the private automobile.
- Argues that limiting VMT does not limit prosperity: smart growth patterns can limit housing plus transportation costs, enhance property values by increasing walkability and transportation options, and potentially improve health.
- Argues mixed-use development generates more public revenue per acre, attracts more private benefits, enhances tourism opportunities, reduces the need for parking and road infrastructure, shrinks service areas, and reduces the costs of urban decline.

Elkind, Ethan. "Plan for the Future: How Local Governments Can Help Implement California's Landmark Land Use and Climate Change Legislation." November 2011.
http://www.councilofinfillbuilders.org/resources/PDFs/PlanForTheFuture.pdf

- Connects sustainable development with SB 375.
- Argues there is a market demand for compact development.

Elkind, Ethan. "Removing the Roadblocks: How to Make Sustainable Development Happen Now." November 2011 Update.
http://about.bankofamerica.com/assets/pdf/Removing_the_Roadblocks_August_2009_Update.pdf

- Recommends directing infrastructure to transit-rich areas.
- Suggests directing fees and taxes to non-desirable forms of development, including

IX. RELATED PUBLISHED AND ONLINE TOOLS

Urban Footprint, Calthorpe Analytics (http://calthorpeanalytics.com/)

- Land use, policy, and resource planning tool
- Technical Summary: http://www.calthorpe.com/files/UrbanFootprint%20Technical%20Summary%20-%20July%202012.pdf
- Introductory Webinar: https://www.youtube.com/watch?v=cvL8uTgmXGQ
- Introductory Presentation: http://www.scag.ca.gov/committees/committeedoclibrary/mtf092612_urbanfootprint.pdf

Rapidfire, Calthorpe Analytics

- Spreadsheet-based tool that analyzes the impact of land use patterns on energy, water, and transportation
- Technical Summary: http://www.calthorpe.com/files/Rapid%20Fire%20V%202.0%20Tech%20Summary_0.pdf

Housing + Transportation Index, Center for Neighborhood Technology
http://htaindex.cnt.org/

- Explores the tradeoff between housing and transportation costs, based on data from several hundred U.S. metropolitan regions
- Demonstrates homeowners can save thousands of dollars annually by located in compact developments

X. ORGANIZATIONS

CalCOG: http://www.calcog.org/
MPOs: http://www.ca-ilg.org/post/californias-18-metropolitan-planning-organizations
CA Planning Roundtable: http://www.cproundtable.org/
APA CA: http://www.apacalifornia.org/
Center for Neighborhood Technology http://www.cnt.org/
ULI San Francisco: http://sf.uli.org/
ULI Los Angeles: http://la.uli.org/
ULI Orange County/Inland Empire: http://orangecounty.uli.org/
ULI Sacramento: http://sacramento.uli.org/
ULI San Diego/Tijuana: http://sandiego-tijuana.uli.org/
ICMA: http://icma.org/en/icma/home
Council of Infill Builders: http://www.councilofinfillbuilders.org/index.html
Local Government Commission: http://www.lgc.org/

XI. LIST OF TOOLS FOR INCENTIVIZING INFILL DEVELOPMENT

The following types of tools will be relevant in the Technical Assistance portion of the project and will have fiscal implications for the respective communities.

- Incentive Zoning
- Land Value Taxation
- Form-based Codes
- Tax Increment Financing (TIF)
- Tax Credits and Abatements
- Impact and Development Fee Waivers