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Fiscal Impact Analysis: How Today's Decisions Affect Tomorrow's Budgets

By L. Carson Bise II, AICP
TischlerBise

Most states require local governments to prepare a balanced budget on an annual basis. However, most states do not require that jurisdictions conduct fiscal impact evaluations to help ensure that local officials understand the short- and long-term fiscal effects of land-use and development policies and of new developments that are approved. A fiscal impact analysis clarifies the financial effects of such policies and practices by projecting net cash flow to the public sector resulting from residential and nonresidential development. A fiscal impact analysis can enable local governments to address short- and long-term planning, budget, and finance issues.

This report discusses the applications of fiscal impact analysis and reviews common methodologies used to collect and analyze information.

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* *"Defining fiscal impact analysis" text is included here. The other four sections are available in the full report.*

Fiscal Impact Analysis: How Today's Decisions Affect Tomorrow's Budgets

***Carson Bise**, AICP, is President of TischlerBise, a consulting firm specializing in fiscal impact analysis, impact fees and revenue strategies. He has conducted fiscal evaluations in twenty-five states, ranging from evaluations of multiple land use scenarios, specific development projects, annexations, urban service provision, tax-increment financing and concurrency/adequate public facilities monitoring. Mr. Bise has developed and implemented more fiscal impact models utilizing the case study-marginal approach than any consultant in the country. He is also a leading national figure on impact fees, having completed over 125 impact fees. Mr. Bise has also written and lectured extensively on fiscal impact analysis, impact fees and revenue strategies. He is currently on the Board of Directors of the National Impact Fee Roundtable and is Chair of the American Planning Association Paying for Growth Task Force.*

Defining Fiscal Impact Analysis

A fiscal impact analysis projects the net cash flow to the public sector (the local government and, in many cases, the school district) resulting from new development – residential, commercial, industrial, or other. It is important to distinguish a fiscal impact analysis from an economic impact analysis. Whereas a fiscal impact analysis projects the cash flow to the public sector, an economic impact analysis projects the cash to the private sector, measured in income, jobs, output, indirect impacts. A fiscal impact analysis is similar to the cash flow analysis a developer conducts in order to project costs and revenues likely to result from a proposed development for two to ten years in the future. Just as a household benefits by forecasting its long-term cash flow needs (incorporating anticipated 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 during changing financial circumstances if they anticipate and plan for future costs and revenues.

Fiscal analysis enables local governments to estimate the difference between the costs of providing services for new development and the taxes, user fees, and other revenues that will be collected as a result of new development. Fiscal impact analysis can be used to evaluate the fiscal effect of an individual project (such as a request for rezoning), of a change in land-use policies (such as increasing allowable densities for development), or of a proposed annexation.

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. Local governments should not use the results of a fiscal impact analysis to practice "fiscal zoning," the practice of excluding or denying development proposals that are a financial drain or are less beneficial fiscally than other alternatives. While a fiscal impact analysis is an important consideration in planning decisions, it is only one of several issues to be considered, since the project may advance a community's goals related to affordable housing, economic diversity, and quality of life. Moreover, localities have a responsibility to consider other impacts as well. 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. Nevertheless, fiscal impact data can be used as part of a larger cost-benefit analysis to craft a land use plan that incorporates the appropriate mix of land uses necessary to achieve fiscal sustainability or, at a minimum, fiscal neutrality.

Numerous factors influence the fiscal results for different land uses. These factors include but are not limited to the local revenue structure, local levels of service, capacity of existing infrastructure, as well as the demographic and market characteristics of new growth.

Local Revenue Structure

The key determinant in the calculation of the net fiscal results generated by new development is the local revenue structure. Every community relies on at least one predominant revenue source, and some communities rely on several. Common revenue sources include property tax, local sales tax and local income tax.

An important component of the revenue structure is the formulas that are used for the distribution and collection of various taxes. With the exception of property tax, the distribution and collection formulas for most revenues vary greatly from state to state. Some states where sales tax is collected allow communities to exact 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. The same situation exists with income tax—a "piggyback" tax—on top of the state income tax. In certain states, as in Maryland, this tax is collected by place of residence. In others, as in Ohio, it is collected by place employment.

Levels of Service

Another important factor in the fiscal equation is the levels of service currently being provided in a community. The existing level of service is defined as the facility or service standard currently being funded through the budget. Examples of level of service standards are pupil teacher ratios (for example, one teacher per twenty-four students) and acres of parkland per capita. This is an important factor since levels of service generally vary from community to community.

Capacity of Existing Infrastructure

The capacity of existing infrastructure in a community also has a bearing on the fiscal sustainability of new development. One community, for example, may have the capacity to absorb a large number of additional vehicle trips on its existing road network and a significant number of additional students in its high school. This community can absorb more growth than a community without excess capacity, without making additional infrastructure investment.

Demographic and Market Characteristics of New Growth

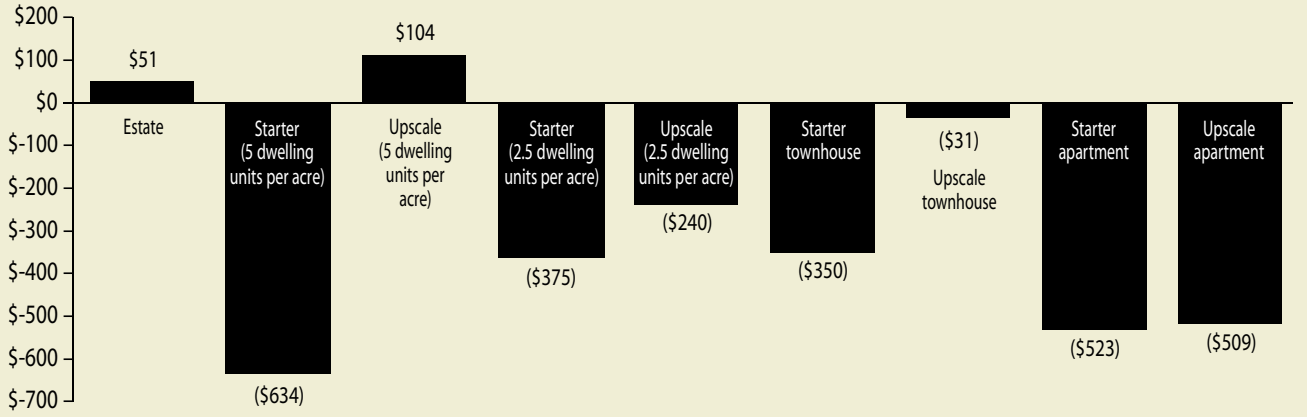
Next to a community's revenue structure, no other factor has as great an impact on the net fiscal results as the demographic and market characteristics of different land uses. Examples of demographic and market variables for residential development include average household size, pupil generation rate,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

The relative importance of the various demographic and market factors depends on a community's revenue structure. For example, Figure 1 shows the annual net fiscal results for nine residential land uses. Data are from a TischlerBise study prepared for Holly Springs, North Carolina, where property tax is the largest source of revenue, accounting for almost 54 percent of general fund revenue in FY2000. The next largest revenue, the sales tax, provided 14 percent of total revenue. Because of this revenue structure, market value is the primary determinant of the fiscal results.

Only two of the nine residential prototypes generate annual net revenue to the City of Holly Springs. To understand the importance of market value in these fiscal results, one must look no further than the two five-dwelling-unit-per-acre prototypes, which include an "upscale" prototype as well as a "starter home" prototype. The demographic characteristics are the same for both of these residential prototypes; however, there is a difference of $115,000 in the market value (tax value), resulting in substantial net deficits on a per unit basis for the starter home prototype and modest net revenues for the upscale version of the prototype.

The dynamics of fiscal impact are shown in Figure 2. To assess accurately the fiscal impacts of changing land use or demographics, the local government must first define an acceptable level of service for all relevant services (e.g., police, fire, public works, recreation, etc.). When evaluating the costs associated with providing the acceptable levels of service, the local government should consider existing unused capacities of public

Figure 1 Annual Net Fiscal Results for Nine Residential Land Uses in Holly Springs, North Carolina, Fiscal Year 2000, Dollars per Unit



Source: TischlerBise, Inc.

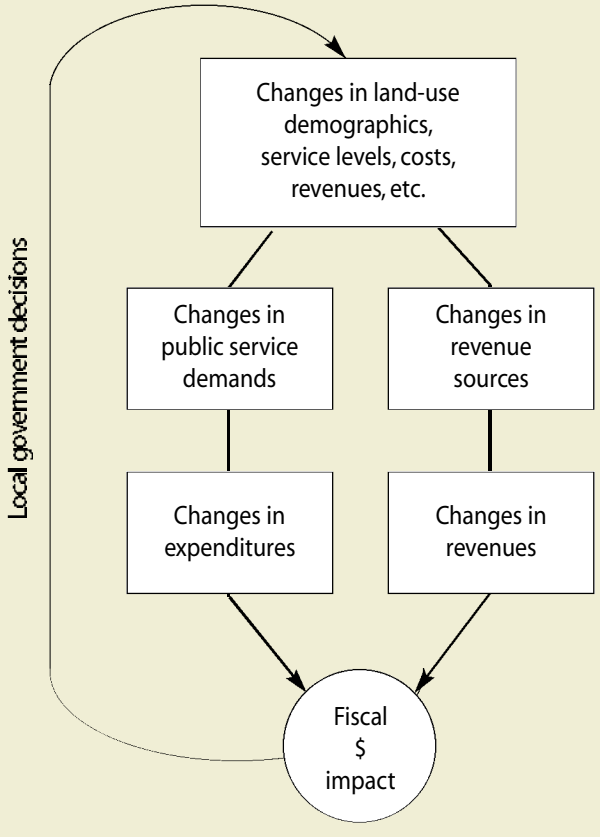
services and programs, especially of capital facilities. The new development, or new demand, will be expressed in terms of changes in population, employment, or land use projected to result from the scenarios being evaluated.

Using local information, and perhaps comparing it to regional or national average-cost information, the local government next estimates future capital costs, operating expenses, and special and general revenues that will result from providing the acceptable level of service to the potential new development. In other words, the local government projects the annual costs—by department—of servicing new development, the annual revenues generated by the new development, and the net surplus or deficit.

The information can help local officials estimate a new development's specific impact on tax rates, bonding capacity, and bonding margin. If local officials are thinking about changing land-use policy, fiscal impact analysis alternatively can help them determine whether the proposed regulatory revisions will result in a fiscal surplus or in a deficit. If new infrastructure must be built to serve growth, then local officials can estimate the size of the short-term deficit and determine when revenues generated by growth should begin to enter the local government's budget.

Because a fiscal analysis will indicate whether and when a jurisdiction could face budgets deficits, the local government is able to weigh land-use policy decisions, acceptable levels of service, plans for capital investments, and long-term borrowing needs. In addition, a projected fiscal deficit can prompt local officials to evaluate current and future revenue sources. Even if a fiscal evaluation indicates a surplus, the local government may wish to change its use of revenue sources to fund infrastructure replacement or higher levels of service.

Figure 2 The Dynamics of Fiscal Impact



Source: TischlerBise, Inc.

Population and Service Demand

Let's look at a specific example of fiscal impact analysis: evaluating how an increase in population will increase the demand for a service such as recreation. A developer requests the rezoning of a 300-acre parcel from a density of one unit per acre to four units per acre. First, as part of the process of ascertaining an acceptable level of service, the services provided by the recreation department must be defined. In this case, the level of service for a community park might be described in terms of the number and type of housing units or in terms of population. For instance, an acceptable level of service might be defined as one community park for every 3,000 single-family detached housing units, or for every 7,500 people.

After the level of service is defined, the cost and revenue factors are determined. It is desirable to define the costs as precisely as practical. In our example, the capital costs for a community park could be defined in terms of acres of land required, plus equipment and other improvements per park. Operating expenses could be defined in terms of program personnel, materials, supplies, and other related items used every year. The process might also consider the existing capacity of nearby parks, the different thresholds at which new services would be added to the existing parks, and the date when additional parkland would be required.

Another step is the projection of any dedicated capital revenues associated with providing the service. In our example, the local government must anticipate impact fee revenue.

Types of Fiscal Impact Analyses

Most fiscal impact analyses conducted throughout the country fall into one of three categories:

Cost-of-land-uses analysis

The first type of analysis can be classified as a cost-of-land-uses fiscal impact analysis. The characteristics of various residential (i.e., single family, townhouse, apartment) and nonresidential (i.e., 1,000 square feet of retail, industrial, office) prototypes are defined, and the annual costs and revenues are then determined for each prototype in order to show the generalized impacts each land use independently has on a local government's budget. Typical factors used to define these prototypes include persons per household, equivalent dwelling units, road frontage, employment per 1,000 square feet, vehicle trips, assessed value, etc. Table A shows an example of inputs used in defining residential land-use prototypes.

Table A Residential Land-Use Prototypes, Cost-of-Land-Uses Fiscal Analysis, Lawrence, Kansas

Prototype	Persons per household[1]	Taxable value per unit[2] (dollars)	Vehicle trips per unit[3]	Trip adjustment factor[3] (percent)	Minimum lot frontage (feet)[4]
Single-family detached, suburban (RS-2 district)	2.65	31,377	9.57	50	60
Single-family detached, urban (RS-2 district)	2.65	29,740	9.57	50	50
Duplex (RMD district)	2.08	23,370	5.86	50	30
Apartment (PRD district)	1.83	9,038	6.72	50	10

Source: TischlerBise, Inc.

1 Based on 2000 U.S. census data.

2 Based on a sample of assessment data from recent construction by city staff.

3 Based on *Trip Generation*, 7th ed. (Washington, D.C.: Institute of Transportation Engineers, 2003).

4 Based on information provided by city staff; apartment information from TischlerBise experience.

Project analysis

The second type of fiscal impact analysis, a project analysis, is the most common type of fiscal analysis conducted by local governments. In this type of analysis, one or multiple development schedules are evaluated for their fiscal impact over a specified period of time. Whereas a cost-of-land-uses fiscal impact analysis evaluates the impact of individual land uses, a project analysis evaluates the overall fiscal impacts of all land uses combined. However, 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, usually in isolation.

Areawide analysis

The third type of fiscal impact analysis, an areawide 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 the analysis area over a defined period, usually between ten and twenty years. In this type of analysis, it is common to evaluate different development scenarios. These scenarios can include variations in absorption schedules, comparison of alternative land-use plans, or a comparison of alternative development patterns. Table B shows an example of annual scenario projections for residential and nonresidential land uses.

Table B Example of Annual Scenario Projections for Residential and Nonresidential Land Uses

Land uses	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Office (sq. ft.)	0	158,000	183,000	225,000	0	112,500	225,000	112,500	225,000
Retail (sq. ft.)	75,000	47,000	0	0	0	0	0	0	0
Industrial (sq. ft.)	0	0	0	0	0	0	0	0	0
Other (sq. ft.)	0	0	0	0	0	0	0	0	0
Multifamily units (no.)	398	398	152	0	0	0	0	0	0
Single-family attached units (no.)	360	319	0	0	0	0	0	0	0
Single-family detached units (no.)	114	150	0	0	0	0	0	0	0

Source: TischlerBise, Inc.

Benefits of Fiscal Impact Analysis

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

Encourages Anticipation of Change One of the major benefits of fiscal impact analysis is that it describes what happens to a jurisdiction when change occurs. The fiscal analysis measures the impact of growth (or decline) on a local government's services, including capital facilities, and the resulting costs and revenues. This is different from the preparation of the next year's budget. In most cases, a fiscal analysis does not replicate the budget; it projects marginal changes in the budget given possible land-use, demographic mix, and employment changes.

Helps Define Achievable Levels of Service In order to quantify levels of service, department heads and managers must choose an indicator as a basis: the number of residents or jobs in the community, the number of average daily trips on local roads, or some other appropriate denominator. Defining the level of service promotes discussion about the adequacy of services and enables the local government to determine through fiscal analysis whether the community can afford various levels of service, in terms of both the costs of new or expanded capital facilities and in the 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 for each development alternative being evaluated.

The evaluation of capital facilities needs can be helpful in developing or revising the local government's CIP. The costs and staging of facilities included in the CIP are often based on the independent best estimates of the departments whose activities or programs are affected by the proposed capital improvements. In some cases the projections made by the different departments affected by growth are similar; at other times they vary widely.

Clarifies Development Policy Impacts In most cases, fiscal impact analysis focuses on the effects of growth or development, which are usually defined in a development scenario. 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 is a very important aspect of a fiscal impact analysis that provides local officials with information to evaluate the logic of the assumptions underlying policies or proposals.

Under an optimistic development scenario, for example, a community may project population growth of 25,000 over a twenty-year period. The fiscal impact analysis can be used to project how the various types of housing that could accommodate this growth (garden apartments, townhomes, single-family homes, and condominiums) would affect the need for services over time. Because this scenario projects job growth as well, the fiscal analysis could also assess the fiscal impact of alternative job growth pictures (for example, mostly offices with some retail versus industrial growth with some office and retail). Using this process, local officials can review existing and proposed policies from a more informed perspective.

Calculates Revenues; Helps in the Development of Revenue Strategies A fiscal analysis can show the magnitude of the revenues that would 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 for each alternative considered. This enables local officials to consider 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. 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 can also be evaluated.

Encourages "What If" Questions A good fiscal impact analysis with a narrative explaining all assumptions and inputs encourages managers 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. 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.