An Introduction to Fiscal Impact Analysis

By Thane Harrison and Charlie French

"Is growth good or bad for the property tax base in my town?" asks a member of the Planning Board. The answer is not a simple one—it can be both good and bad. It all depends on the type of growth and the town's capacity to absorb that growth. Short of that, there is really no easy answer to the question of whether growth is good or bad for a city or town's purse strings.

Estimating the Fiscal Impact of New Development

Whenever land is developed in a given municipality—whether for residential, industrial, or commercial use—a host of new costs are incurred by the municipal government in order to provide additional services and infrastructures to that development. Such services include the expansion of fire protection, policing and emergency services, just to name a few. A variety of infrastructure costs are also incurred, such as the provision of water, sewer and roads. Therefore, it is important that municipalities determine whether or not the flow of new property tax revenues from a new development will balance out the incurred costs. After all, it is municipal government's responsibility to its property taxpayers to project the demand that new development places on municipal services and on the budget. The following merely introduces one of many possible methods that municipalities can use to estimate the cost of new development. This method is called fiscal impact analysis (FIA).

What Is Fiscal Impact Analysis?

Fiscal impact analysis is "[a] projection of the direct, current and public costs and revenues associated with residential or non-residential growth to the local jurisdiction(s) in which the growth is taking place" (Burchell, 1978).

The terms 'direct,' 'current,' and 'public' in the preceding definition are critical to understanding the concept of fiscal impact analysis. With regard to direct costs, FIA is constrained to examining the *immediate* costs and revenues of the development being examined. For example, if one were analyzing a proposal to build a new baseball stadium, the new tax revenue from the building and property—as well as the costs for providing additional public security and emergency services (police, fire, ambulance, etc.)—would factor into the analysis. However, the effect of the stadium on neighboring property values or the impact on

business at local restaurants would *not* be accounted for. Those latter effects are considered to be indirect effects of the new development. The current effects aspect of FIA means that the analysis provides a means of estimating the financial impact of a development as if the project were in existence and in use today. This entails an implicit assumption that changes in prices over time affect both revenues and costs on a parallel basis over time, so that the projection made in the 'current' period will stay consistent over the near term.

The final key to understanding fiscal impact analysis is that it only deals with public, or governmental, costs and revenues. Logic would dictate that any development will also have a fiscal impact on the private sector. Hence, it is important to note that FIA only seeks to quantify the cumulative effect on the government's revenues and expenses and not the effect on private interests that are affected by a development.

How Is a Fiscal Impact Analysis Performed?

The types of fiscal impact analysis outlined in this article are based on the work of Robert W. Burchell and other scholars from the Rutgers University Center for Urban Policy Research. It is not uncommon to hear the term "Fiscal Impact Analysis" used to include other methods, including Cost of Community Services Studies, Input-Output Models and Fiscal Impact Models. While it would be unfair to exclude those other techniques from being referred to as FIA, it is important that municipal leaders understand the foundations of FIA.

There are essentially six methods outlined in the *Fiscal Impact Handbook* that can be used to estimate the cost of development (Burchell, 1978). These methods are the Per Capita Multiplier, Case Study, Service Standard, Comparable City, Proportional Valuation and Employment Anticipation. In most cases, revenues are calculated by multiplying the current tax rates by expected changes in the tax base. In municipalities with few forms of taxation, this is relatively simple. In areas where there are a multitude of taxes, this process can be more difficult. In any case, the following are six methods, summarized from Burchell's *Fiscal Impact Handbook*, for estimating the cost of development:

1) Per Capita Multiplier Method

This technique—primarily used for residential development FIA—uses

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average government cost per person and school costs per pupil multiplied by a projection of the expected number of new people and students to estimate the costs of a new development. The recommended multipliers for population and enrollment changes can be derived using U.S. Census data.

2) Case Study Method

The case study method can be used for residential and non-residential FIA. This method involves interviewing local officials and experts (that is, school administrators, people involved in local budget process, etc.) to get an estimate of how different government bodies will be affected by a given development. The expert estimates are then combined, to account for the impacts in different areas to create an overall estimate of the fiscal impact of a development.

3) Service Standard Method

The service standard method uses U.S. Census of Governments data to calculate the average manpower per 1000 people and capital-to-operating expenditure ratios for 8 municipal functions. The fiscal expenses are then calculated based on expected population changes, service manpower requirements, local salaries, statutory obligations and expenses per employee.

4) Comparable City Method

As the name indicates, this method is based on finding a municipality that has a similar population and growth rate as the city or town in question is projected to have. The underlying assumption of this method is that cities or towns of comparable size and growth rates spend similar amounts on municipal and educational expenditures.

5) Proportional Evaluation Method

This method is used for non-residential development FIA, whereby the development is assigned a portion of the municipality's costs based on the proportion of local property it comprises. However, because municipal expenditures for a single development are not always linear with regard to the development's size, this method can overstate the cost of large developments and understate the cost of small developments.

6) Employment Anticipation Method

Another method for estimating the fiscal impact of non-residential developments is the employment anticipation method. This method hinges on an estimate of the number of employees a development would add to the municipality. In effect, estimates of the additional cost for each new employee across various municipal sectors are multiplied by the anticipated increase in employees in order to create the total cost estimate for the city.

Pluses and Minuses of FIA

Compared to simpler methods of examining the fiscal impacts of development, such as Cost of Community Services studies, the FIA provides a much more refined estimate, since it is calculated using a more stratified level of analysis. Likewise, it enables one to examine the marginal impacts of development as opposed to the total and average impacts. The advantage of using FIA to look at the marginal effects on a development by development basis is that it provides officials a more detailed forecast of what to expect from a particular development.

In spite of FIA's increased specificity over other fiscal impact methods, one drawback is that it requires more

data in order to get refined estimates. This often proves to be an obstacle for those unfamiliar with economic models who attempt to use FIA methods. As new software modules are developed to incorporate increasingly complex variables, users may find themselves lost in the technical aspects of the process. If users lack an understanding of the process, then they may also be unfamiliar with the limitations of the analysis. One particular limitation is that most simple forms of FIA fail to incorporate variation in the costs of providing services over space. For example, residential development in an urban setting that is close to existing roadways is likely to cost less in terms of government services than a new development several miles away from the nearest existing residential area. This may not be reflected in the analysis. In spite of its limitations and its complexities, FIA can certainly provide municipalities with a wealth of data that they can incorporate into the land use decision making process.

What Do FIA's Generally Find?

Based on studies done by Burchell (1992) and others, there appear to be certain types of development that *generally* pose a positive fiscal impact on municipalities and school districts, including research parks, general office parks, industrial development, high-rise garden apartments, age-restricted housing, and 1-2 bedroom condominiums. Not only do these forms of development typically generate enough property tax revenue to pay for new municipal infrastructures and services, but they also have a positive fiscal impact on the school district.

Other types of development may actually have a negative fiscal impact on municipalities and a positive impact on the school district. These include retail facilities, 1-2 bedroom townhouses, and expensive 3-4 bedroom homes. In fact, some studies indicate that certain types of housing developments can cost municipalities more in infrastructure and services than they generate in new property tax revenues over the short term. Even so, it is important to note that while small townhouses and expensive 3-4 bedroom homes may cost municipalities with regard to infrastructure and services, they may actually generate enough tax revenue to have a positive fiscal impact on the school district (Burchell 1992).

Lastly, and perhaps most controversial, are research findings indicating that certain types of development have a negative fiscal impact on both the municipality and on the school district. These include 3-4 bedroom townhouses, inexpensive 3-4 bedroom homes, 3+ bedroom garden apartments, and mobile homes. These types of development often do not bring in enough tax revenues to cover the added infrastructure and service costs, and they may also tax the school system (Burchell 1992).

Can FIA Answer All of Your Municipality's Questions?

While FIA can answer some specific questions regarding the impacts of various types of development on a municipality's budget, one must remember that FIA is entirely dependent on the assumptions that the analyst makes—assumptions about the number of school-aged kids per household and assumptions about the costs of providing infrastructure and services in a varied landscape. Furthermore, no two developments are alike. Therefore, the actual fiscal impacts of a given development on the municipal budget are influenced by factors such as the location of existing infrastructures and the current capacity of the school system.

There are also a lot of important considerations that fall outside of the realm of municipal budgets. For example, fiscal impacts of development on abutters, local businesses and natural resources are not accounted for in most Fiscal Impact models. Perhaps more important, FIA does not consider the issue of equity and social responsibility. For instance, while it may be easy to identify the fiscal downsides of low-income housing on municipal and school budgets, municipalities also bear some level of responsibility for ensuring access to affordable housing, as is dictated by the Fair Housing Act. Lastly, communities maintain certain values that cannot be assigned a price tag, such as the intrinsic value of nature, cultural heritage, and aesthetics. In fact, according to a recent UNH study conducted by Drs. Mark

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Ducey, Richard England, and Andrew Smith, 29 communities across the state considered bond issues to finance land conservation projects in 2002. The bond issues passed in most of these communities, with nearly half of them over $1 million dollars. Many argue that open space doesn't cost communities much in the way of services or infrastructure, and therefore should have a positive fiscal impact on the municipality, as well as the school district. Others disagree with this notion, citing that open space precludes other land uses that may have a stronger positive fiscal impact on both the municipality and the school district.

To conclude, while fiscal impact analysis may not provide *all* of the answers for a municipality to base land use decisions upon, it is one of many useful tools that decision-makers can utilize in their decision-making process. ■

Thane Harrison is a second-year graduate student with UNH's Department of Resource Economics and a graduate assistant for UNH Cooperative Extension. Charlie French is UNH Cooperative Extension's Community and Economic Development Specialist. For more information about Cooperative Extension's community and economic development outreach programs, visit: http://ceinfo.unh.edu/CommDev/CommDev.htm

Resources for More Information on FIA

Burchell, R.W. and D. Listokin. *Fiscal Impact Procedures—State of the Art: The Subset Questions of Non-residential and Open Space Costs,* The Center for Urban Policy Research: New Brunswick, NJ, 1992, p 43.

Burchell, R.W., D. Listokin, & W.R. Dolphin. *The New Practitioner's Guide to Fiscal Impact Analysis.* Center for Urban Policy Research: New Brunswick, NJ, 1985.

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Indiana Local Government Information Web site, *The Fiscal Impact of Development,* www.agecon.purdue.edu/crd/LocalgovSecond%20Level%20pages/topic_fiscal_impact.htm

Ryan, B. & S.J. Taff. *Estimating Fiscal Impacts of Residential Developments in Smaller Communities.* Minnesota Extension Service, University of Minnesota. December, 1996.