THE COMMUNITY INCOME MULTIPLIER

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Generally, economic impact analyses rely on income multipliers derived from regional or state studies to estimate the total economic impact of local economic changes on a community's growth. Since using such income multipliers may overestimate the impact on a community, analysts need to distinguish between regional/state income multipliers and a community income multiplier.

The Income Multiplier Effect

The economic system of a community may be viewed as an income stream, that is, economic transactions in a community consist of a flow of goods and services in exchange for income. Community growth occurs when new economic activity is generated which increases the income stream. Community economic development efforts usually emphasize enhancing outside income sources. Common examples of these kinds of efforts include increases in manufacturing, tourist, agricultural and retail sales activities.

Once a dollar generated by one of these activities enters the community's economy, it is respent several times by different people. In economic terms, this respending process is referred to as the income multiplier effect and provides wages, salaries and profits for local residents. An additional dollar spent ultimately may yield a multiple of two, three, or four dollars worth of transactions or income in the entire economy.

Leakages from the Community Stream

During the respending process generated by an initial change in economic activity, some of the income "leaks out" of the community's income stream. While this income continues to enhance regional, state and national income streams, it does not enhance local community growth and must be omitted from calculations of the community income multiplier.

The number of times a dollar is respent in a community depends on the size of the major leakages which include: (1) state and federal taxes, (2) wages and salaries paid to non-residents, (3) goods and services purchased outside the community by local residents and (4) profits earned by local branches of outside firms.

State and federal tax payments made by community residents are no longer available for spending within the community. However, communities may benefit directly or indirectly from government transactions supported by these tax revenues. Benefits such as highways, hospitals and parks may not be received in the form of individual income, and as such cannot be respent by local residents. Therefore, non-local taxes represent a leakage from the community's income stream. (Social security contributions represent a similar leakage.) After income deductions for tax payments, residents of the community make a major decision which determines the magnitude of the community income multiplier: they decide what proportion of the remaining income to spend or save. Obviously, the respending process will generate a greater impact if community residents favor spending.

Some income generated in the community will be earned by non-residents. Wages and salaries paid to non-residents are taken to their respective communities and, to the extent that these employees and their families do most of their shopping in other communities, that income becomes a part of another income stream.

One of the major sources of income leakage from the community's income stream is the purchase of goods and services outside of the community by local businesses. A large portion of income spent in most communities quickly leaves that community as local retailers purchase their merchandise from out-of-town wholesalers. While local merchants might desire to "purchase locally," few, if any, communities (indeed few national economies) can produce the array of goods and services demanded by local residents and

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thus be self-sufficient. Purchases of equipment, utilities and other material and services by local businesses create an additional leakage from the local income stream.

Another major source of income leakage occurs when goods and services are purchased outside the community by local residents. Many communities have insufficiently developed retail trade sectors, lack the depth of selection and/or do not compete price-wise with nearby retail trade centers to attract the local residents’ consumer dollar. Once these dollars are spent for merchandise or services at out-of-town establishments, they enter a part of another community’s income stream.

Many communities rely on local branches of chain stores and catalog outlets to provide local residents access to the array of merchandise demanded. The presence of these outlets may benefit the entire local business sector by encouraging local residents to purchase within the community and provide employment and income for local residents. However, profits earned by local branches of outside firms represent a leakage to the community’s income stream.

**An Illustration of the Income Multiplier Process**

To correctly calculate a community income multiplier, analysts need to measure the various leakages from the income accurately. Assume that an analyst has successfully identified and measured the leakages for two hypothetical communities, X and Y. The analyst has found that community X has considerably larger income leakages than community Y because (1) a larger proportion of X’s employees come from other towns, (2) businesses in X find it necessary to purchase more of their needs out-of-town than do their counterparts in Y and (3) consumers in X spend a greater proportion of their income in other communities than do consumers in Y. After taking all of these characteristics into consideration, assume that the analyst has determined that 25 percent of any new income flow into X is respent in X and that 40 percent of any new income flow into Y is respent in Y.

From this information, income multipliers for the two communities can be computed. Table 1 contains the computations for five respending cycles and the totals of all spending that would occur in the two communities.

With the conditions assumed in this illustration, community X has a community income multiplier of 1.33 which is obtained by dividing the total spending by the initial income inflow (6666.67 + $5000.00 = 1.33). Community Y has a community income multiplier of 1.66 in this example.

| Table 1. Income Multiplier Computations for Hypothetical Communities X and Y |
|---------------------------------|---|
| **Initial Income Inflow**       | $5000.00 | $5000.00 |
| **2nd Round of Responding**     | 1250.00  | 2000.00  |
| **3rd Round of Responding**     | 312.50   | 800.00   |
| **4th Round of Responding**     | 78.13    | 320.00   |
| **5th Round of Responding**     | 19.53    | 128.00   |
| **Total Spending**              | $6666.67 | $8333.33 |

Both of these multipliers may be considerably less than multipliers obtained from studies encompassing geographic areas larger than single communities. Recent studies by the Texas Agricultural Experiment Station indicate that rural community residents may spend 77 percent of their income locally and rural businesses may purchase only 27 percent of their inputs locally. Thus, community income multipliers less than 2.0 may be reasonable in many rural communities.

**Further Considerations**

In addition to the leakages, analysts must take into consideration the time necessary for the total multiplier effect to occur. Income multipliers indicate the total impact that can be anticipated, but do not provide a measure of time required for the respending process to complete its cycle.

While income multipliers help measure the total impact of the respending process, this tool does not identify the recipients of the income generated. To assess the economic impact, analysts must determine which sectors of the community’s economy benefit and which sectors, if any, may be adversely affected. More detailed studies would be required to determine the answers to these additional considerations.

**Conclusions**

Utilizing income multipliers to assess the potential impact of economic change on communities is a common practice. Since most existing income multipliers are the product of regional and/or state analytical models, caution must be exercised to avoid overestimating impact which may occur only in these larger economic regions. Community income multipliers must take into account a number of leakages which are likely to occur in any community’s income stream.


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