

Understanding Your Community's Economic Base

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Community leaders continually make important decisions that affect their community's economic growth and development. To make informed decisions, leaders need a thorough understanding of the community's economic base. This guide explains a method to measure a local economic base and compare it with other communities.

What is the economic base?

The economic base deals with how a community earns its living. It consists of that proportion of employment and income generated in a local community that determines the overall level of production. The growth, decline or stagnation of the local community rests upon the basic economic activity, which goes beyond local needs.

There are several measures of economic activity, but employment and income are the most commonly used in actual case studies. Information about employment and income values are the easiest to find at the county level.

Division of an area's economic forces into basic and non-basic categories can provide valuable information for concerned citizens. For example, how much of the area's basic employment is tied to one industry or firm?

Base studies identify the area's primary sources of employment and earnings. In some communities, small industries may be identified as major supporters of service or locally oriented employment.

Some firms produce primarily for the export market. For example, in rural counties, most of the agricultural production and manufacturing output probably are sold outside the producing county.

In the following analysis, assume that all the employment and income in farming, agricultural services, forestry, fisheries, mining and manufacturing are basic, or export-oriented. The federal government, social security recipients, transfer payments and residents commuting to work outside the county also are considered totally basic because they bring outside money into the community.

Additional employment in food retailing may exist to supply food to residents living outside the local area. The level of employment in food retailing that exists to supply non-local residents is called basic. Food retailing can be a "mixed" economic sector.

In mixed sectors, employment or income in excess of local needs contributes to a community's economic base. One way to measure your local economic base is to compare, sector by sector, your community's employment and income with that of similar communities in the Midwest.

The percentage distributions (group averages) of employment and income, including social security recipients, transfer payments and commuters-to work, have been calculated for 1984-86 (Table 1).

Base computation for an industry

Table 1 shows the average percent of **employment**, including social security recipients and commuters, and **income** accounted for by 15 major categories in counties. These values are a group average employment or income. They are key values used in computing basic employment and income in individual communities. These group averages are based upon the typical conditions in 439 non-metropolitan counties in a nine-state midwestern region.

Table 1

Employment and income group averages for midwestern non-metropolitan counties, 1984-86

Economic sector	Group average employment distribution	Group average income distribution
Totally basic industries		
Farming	8.1 percent	6.0 percent
Agricultural services, forestry, fisheries	0.6 percent	0.5 percent
Mining	1.0 percent	1.7 percent
Manufacturing	10.3 percent	14.6 percent
Federal government	2.1 percent	2.2 percent
Transfer payments or Social Security recipients	28.3 percent	20.0 percent
Commuters	7.5 percent	6.5 percent
Mixed industries		
Construction	3.0 percent	4.1 percent
Transportation, communications, utilities	2.8 percent	4.9 percent
Wholesale trade	2.5 percent	3.1 percent
Retail trade	9.8 percent	6.6 percent
Finance, insurance, real estate	3.3 percent	2.3 percent
Services	12.5 percent	3.7 percent
State and local government	8.2 percent	8.5 percent
Dividends, interest and rent (adjusted)	NA	15.3 percent

Worksheet A (Table 2) shows the typical data necessary for an employment base analysis of a typical county. It illustrates the essential elements of a simple base analysis. Leaders can use this worksheet as a guide for such an analysis, given the information included in columns 2 and 3.

Table 2
Worksheet A

Calculation of basic and non-basic employment for study area

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Basic industries	Employment in study area	Group average total employment	Allocation to basic employment	Basic employment	Percent basic	Non-basic employment	Percent non-basic employment
Farming	1017	8.1 percent	All =	1017	16.2	0	0
Agricultural services, forest, fisheries	59	0.6 percent	All =	59	0.9	0	0
Mining	0	1.0 percent	All =	0	0	0	0
Manufacturing	102	10.3 percent	All =	102	1.6	0	0
Federal government	100	2.1 percent	All =	100	1.6	0	0
Social Security	1800	28.3 percent	All =	1800	28.7	0	0
Commuters	339*	7.5 percent	All =	339	5.4	0	0
Mixed Industries	Employment in study area	Group average times total**	Employment if typical	Enter if positive***			
Construction	185	3.0 percent x 6277	= 188	0	0	185	2.9
Transportation, communication and utilities	171	2.8 percent x 6277	= 175	0	0	171	2.7
Wholesale trade	166	2.5 percent x 6277	= 157	9	0.14	157	2.5
Retail trade	519	9.8 percent x 6277	= 615	0	0	519	8.3
Finance, insurance, R.E.	222	3.3 percent x 6277	= 207	15	0.23	207	3.3
Services	1178	12.5 percent x 6277	= 785	393	6.3	785	12.5
State and local government	419	8.2 percent x 6277	= 515	0	0	419	6.7
Total employment	6277			3834	61.1	2443	38.9

*Enter the number of people who commute to work outside of the county.

**Enter total employment.

***Enter positive figures under Basic employment. Negative figures represent the number of jobs less than the group average for the industrial category.

Examination of Table 2

Column 1 lists industry categories. This listing is arbitrary; a more detailed breakdown of industry is possible. Column 2 shows the actual employment in the county by industry. Column 3 indicates the percentage distribution of industrial employment of a group of similar counties between 1984 and 1986.

The percentages in column 3 are the **group average percent employment**. These figures are important in a base analysis. It enables an individual county trade area to compare its employment in an industry with that of the average of similar counties.

Follow this procedure to find the basic employment (Column 5) in a **particular mixed industry**:

- Multiply the figure in Column 3 for a particular sector by the county's total employment. For example, the retail trade sector on Worksheet A shows (0.098×6277) or 615 persons are expected to be employed in retail trades in this county.
- Compare this total with the actual number employed. In the retail sector example, the difference between actual (Column 2) and expected (Column 4) employment is minus 96 persons. In this case, there are 96 fewer retail employees than the average for midwestern non-metropolitan counties. There is no basic employment in the retail sector in this county.

A careful interpretation is needed, but this minus number in the example suggests that the community is relatively low in retail trade employment. It may indicate that retail trades are not meeting local needs.

Go through the same procedure with services. The computation yields a positive figure of 393, which indicates more employment than the typical county has in this category. It is this positive figure that contributes to the total economic base of the example county. This positive figure would be entered in Column 5.

Notice that the illustration of base computation by industry for the mixed industries shows they may have both basic and non-basic components. (Remember that the non-basic component of a mixed industry serves local needs; the basic component serves needs outside the local area.) Assume that the first five industries — farming, agricultural services, forestry and fisheries, mining, manufacturing and federal government — are all basic employment.

Most of the agricultural output of a small, rural county is sold outside the county to processors and distributors. Some are sold through direct marketing on a local basis, but generally not enough to affect the analysis. The same is believed to be true for manufacturing plants located in low-population rural areas and for mining and federal government employment. Although these are approximations, statistical analysis of large numbers of counties suggest results accurate enough for practical purposes.

Social security recipients also are basic. Their incomes come from the federal government. Commuters who live in the county but work outside are also basic.

After all industries are completed for Column 5 (Worksheet A, Table 2), compute the total basic employment by adding the **positive** values in Column 5. In this example, the total is 3,834.

This example shows that farming, social security, commuters and service are the most important basic industries. They account for 93 percent of basic employment. (Column 6, Table 2). In the mixed industries, wholesale trade; finance, insurance and real estate; and services provide a positive contribution to the economic base.

Other mixed industries provide less employment than the average for similar counties. This suggests that local leaders might look for ways to increase employment in these industries.

These interpretations are meant to show local officials and interested citizens ways to develop and use a simple base analysis. You should be able to make more realistic interpretations of these data as you become familiar with your local economy.

The same kind of worksheet is used for analyzing income data with the addition of a sector for dividends, interest and rent, which accounts for 15.3 percent of total income for the counties studied.

Copies of both types of worksheets are shown in the publication *Foundations of an Economic Base Study*, available from MU Department of Community Development.

Income computations are made in the same manner as were those for employment data (Table 2). Interpretations are made in terms of income.

Economic base multipliers

Economic base multipliers and economic base computations help by:

- Determining strengths and weaknesses in the local economy by comparing its economic base to similar communities.
- Determining the impact of actual or projected change in the economic base upon other sectors of the local economy. A more detailed discussion of the use of multipliers is provided in MU publication DM3006, referred to above.

In summary, the computations and monitoring of the economic base of a city, county or region can be a useful tool for local business and government leaders in determining the sources of basic economic activity in their area. A changing base may signal other kinds of changes well in advance so that decision makers may respond earlier than would be possible otherwise.

Note that the procedure for computing the economic base discussed in this guide is appropriate for counties with largely rural economies. Larger cities and metropolitan areas need to modify this procedure.

Data availability

County employment and income data prepared by the Bureau of Economic Analysis, U.S. Department of Commerce, are available from the MU Office of Social and Economic Data Analysis. The only adjustment to these data is to reduce "Dividends, Interest and Rent" by 30 percent to account for imputed rent attributed to owner-occupied homes and free services associated with checking and savings accounts.

Data for the number of social security recipients in a county can be obtained at the nearest social security office.

Additional information

- The procedure used to estimate economic base multipliers is explained in: Curtis Braschler and John A. Kuehn, "Estimation of Employment Multipliers for Planning in Ozarks Nonmetropolitan Counties," *Southern Journal of Agricultural Economics*, July 1976, pp. 187-192.
- A more detailed discussion of economic base concepts and applications is available in a publication from the MU Department of Community Development: John A. Croll and John Tharp, *Foundations of an Economic Base Study*.

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Related MU Extension publications

- DM3006, Economic Base Multipliers and Community Growth
<http://extension.missouri.edu/p/DM3006>
- DM3007, The Language of Economic Development: A Reference Guide for Economic Developers
<http://extension.missouri.edu/p/DM3007>
- DM3035, Potential for Retail Trades in Rural Communities
<http://extension.missouri.edu/p/DM3035>

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