Indiana is Different: Measuring Economic Activity in the United States and Indiana

Morton J. Marcus: Director Emeritus, Indiana Business Research Center, Kelley School of Business, Indiana University

> *Of twenty-one sectors, Indiana's largest was durable goods manufacturing in both 1997 and 2006. In 1997, this sector represented 18.1 percent of the state's total GDP; this was the highest level recorded in the nation. By 2006, durable goods remained the largest portion of Indiana's GDP at 20.5 percent.*

The two most common measures of economic activity are output and income.

The first is most familiar to us—Gross Domestic Product (GDP). This is the number reported at least three times for each quarter of the year by the media. It measures the value of goods and services produced in the United States in a given time period. This number is available for the nation quarterly and annually and for states and metropolitan areas annually (see **Table 1**).

The second way of assessing economic activity is through personal income. This number is reported monthly, quarterly, and annually for the nation; it is available quarterly and annually for states and metro areas, and annually only for counties. Personal income is the sum of wages, salaries, bonuses, employer paid benefits, Social Security, unemployment compensation, dividends, interest, rent, and other payments to individuals. It excludes capital gains and withdrawals from personal savings (retirement accounts) that are important to determining the spending capability of the population.

Personal income is considered one of the premier measures of economic well-being. But personal income depends primarily on the value of output (GDP). Both measures are developed and distributed by the U.S. Bureau of Economic Analysis. Here we will examine GDP for states and the nation.

Indiana in the National Perspective

In 1997, Indiana contributed 2.1 percent of the nation's GDP and ranked as the fifteenth largest economy among the fifty states. By 2006, Indiana's share of U.S. GDP fell to 1.9 percent—making the Hoosier state the sixteenth largest economy. This seemingly small decline of -0.2 percentage points was the ninth highest loss of GDP share in the nation.

During this period, Indiana's GDP (adjusted for inflation) grew by 21.6 percent (thirty-eighth in the nation) compared to the U.S. rate of 31 percent. Arizona led the nation at 61.8 percent and Alaska trailed all states at 4.2 percent (see **Figure 1**).

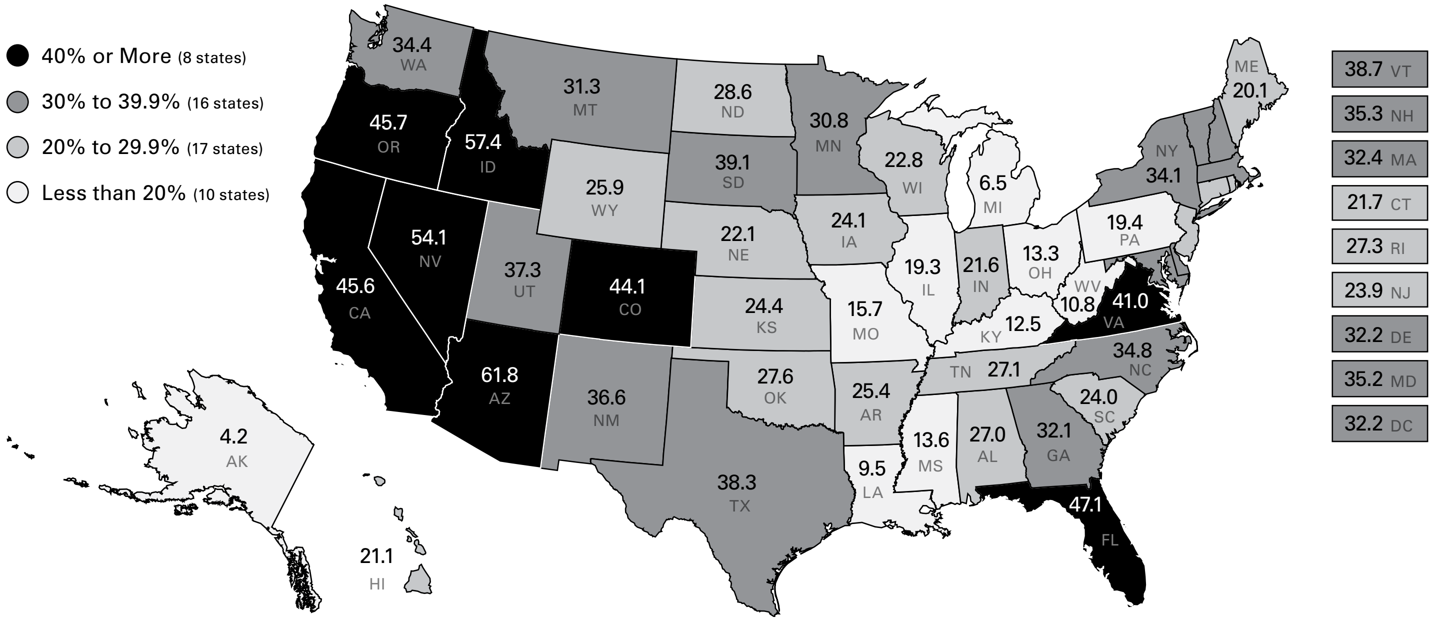
Of twenty-one sectors, Indiana's largest was durable goods manufacturing in both 1997 and 2006. In 1997, this sector represented 18.1 percent of the state's total GDP; this was the highest level recorded in the nation. By 2006, durable goods remained the largest portion of Indiana's GDP at 20.5 percent, but three states had higher dependence on durable goods than Indiana (Oregon, Idaho, and New Mexico).

As seen in **Figure 2**, Indiana's second largest sector in 2006 was nondurable goods manufacturing at 10 percent of the state's GDP. Thus, manufacturing's two sectors combined yielded 30.5 percent of the value of output in the state, higher than any other state in the union. Overall, Indiana ranked eighth

Table 1: Definitions Matter: Gross Domestic Product and Personal Income

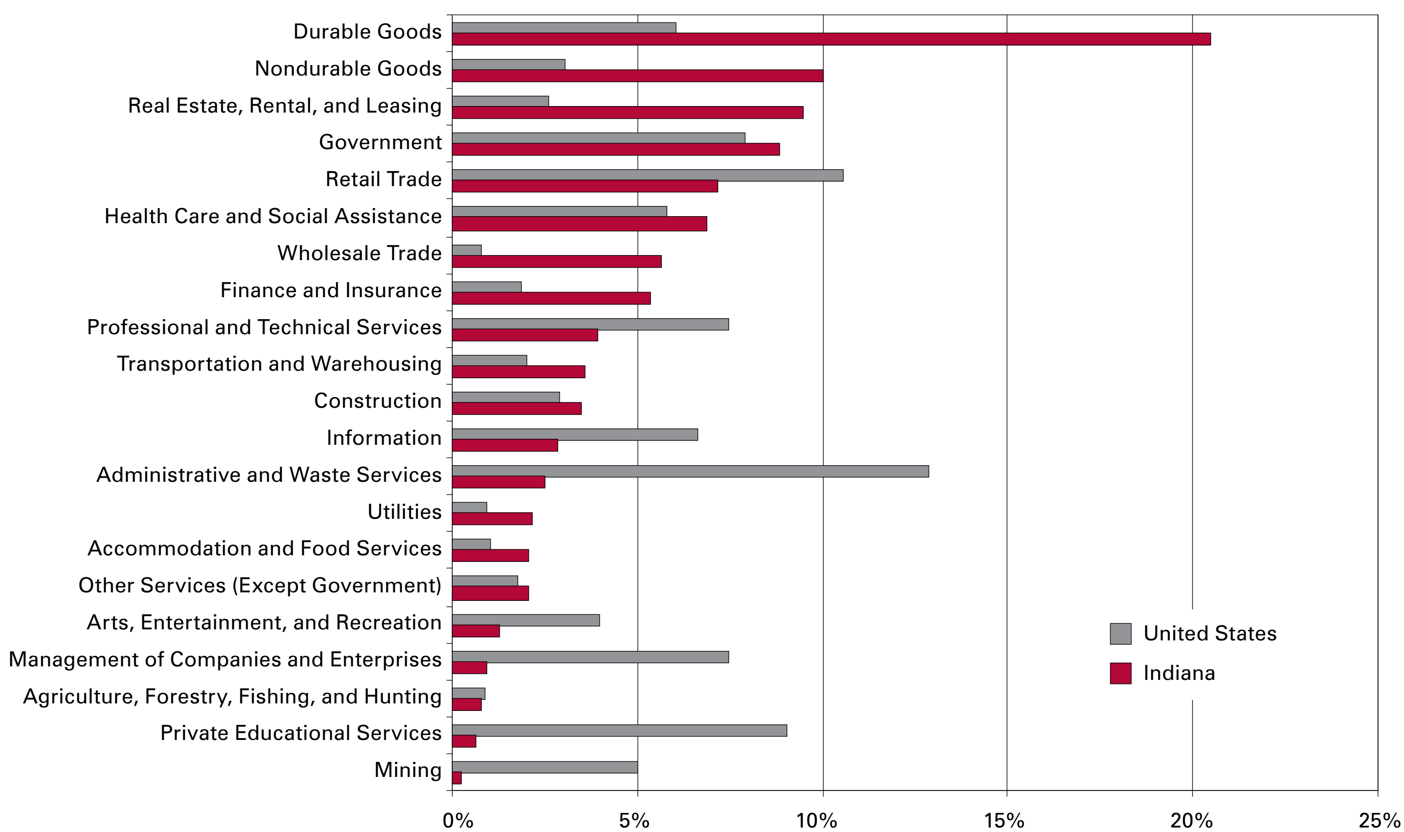
	Gross Domestic Product	Personal Income
Measures:	Values of goods and services produced in the United States	Sum of wages, salaries, bonuses, employer paid benefits, Social Security, unemployment compensation, dividends, interest, rent, and other payments to individuals
Availability of Data:	Nation: Quarterly and annually States and metros: Annually	Nation: Monthly, quarterly, and annually States and metros: Quarterly and annually Counties: Annually

■ FIGURE 1: **Percent Change in Total Real Gross Domestic Product, 1997 to 2006**



Source: IBRC, using Bureau of Economic Analysis data

■ FIGURE 2: **Percent of GDP by Industry, 2006**



Source: IBRC, using Bureau of Economic Analysis data

among the fifty states in the amount of manufacturing generated in the United States.

How different is Indiana from the United States? Alternatively phrased, how much of Indiana's output would have to be shifted among sectors to meet the national distribution? The answer is 43.5 percentage points. How did we establish that?

Look again at **Figure 2**. Indiana has 20.5 percent of its GDP in durable goods while the nation has 6 percent; the difference is 14.4 percentage points. Indiana has 10 percent of its GDP in nondurable goods with the United States at 3 percent; the difference, 7 percentage points. Add those two differences together and you have 21.4 percentage points, or more than half of the difference that would have to be reallocated to meet the national profile.

If you add together all of the sectors where Indiana has a higher percent of its GDP than does the nation, you will get a difference of 43.5 percentage points. Do the same with the sectors where the nation exceeds Indiana (for example, private educational services) and once again the sum will be 43.5 percentage points.

Is this a great difference or a small one? It turns out that Indiana ranks eighth in the nation in its difference from the U.S. average. Farthest from that norm is Delaware at 56 points, followed by Wyoming and Alaska. Most like the nation is Texas at 33.3 percentage points, followed by Colorado and Missouri. It is no surprise that two of the largest states (Texas and California) are in the top six of similarity to the United States since those states have so much weight in any national data set.

It is somewhat surprising that Michigan, Illinois, Ohio, Kentucky, and Wisconsin are so much more like the nation than Indiana, which is bunched with Oregon, Iowa, Nevada, and Montana (see **Figure 3**).

Leading Sectors

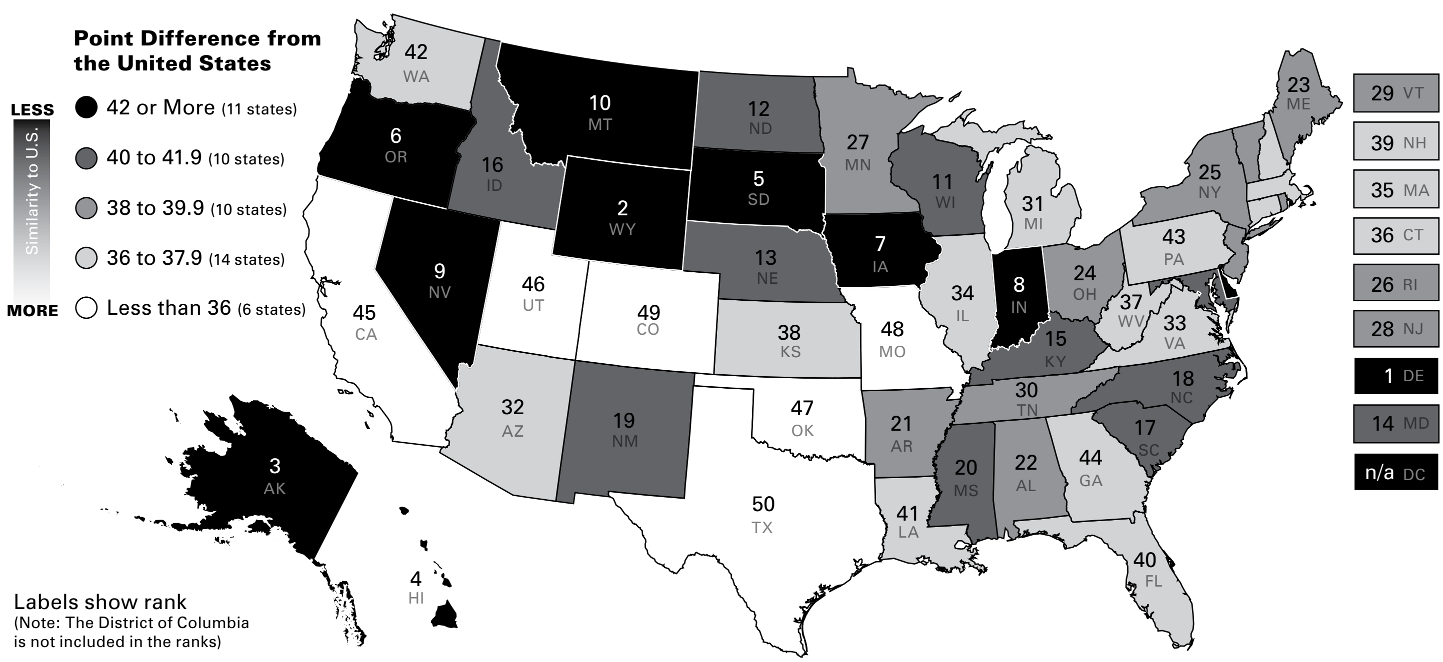
The leading sector in 2006 was Indiana's durable goods manufacturing. That was also true in eleven other states. Leading the nation was real estate, rental, and leasing, not only for the nation as a whole, but also in sixteen states. Government was the leading sector in fifteen states. Finance and insurance was out in front in four states (Delaware, New York, Connecticut, and South Dakota). Nondurable goods manufacturing was on top in Louisiana (petroleum products) and North Carolina (textiles and apparel), as shown in **Figure 4**.

Leading States

We would expect California and other large states to have higher percentages of each sector's output. In that we are not disappointed.

California has the largest share of output in sixteen of twenty-one sectors (see **Table 2**). New York is out in front in three sectors (finance and insurance, management of companies and organizations, and private educational services). Texas claims the remaining two (mining and utilities).

FIGURE 3: Similar or Not? Measuring the Difference between State Business Activity and the U.S. Distribution, 2006



Source: IBRC, using Bureau of Economic Analysis data

It is impressive to see that California has 19.9 percent of the nation's output in agriculture, forestry, and fisheries. However, in North Dakota, that same sector accounts for 7 percent of the state's GDP, which is more than in any other state. Yet, as seen in **Figure 4**, government is North Dakota's leading sector at 14.3 percent. We can thus say that California leads the nation in agriculture, forestry, and fisheries … but that North Dakota has a greater dependence on agriculture than any other state … but that sector is only half a large as North Dakota's leading sector (government). Who is on first?

Note of Caution

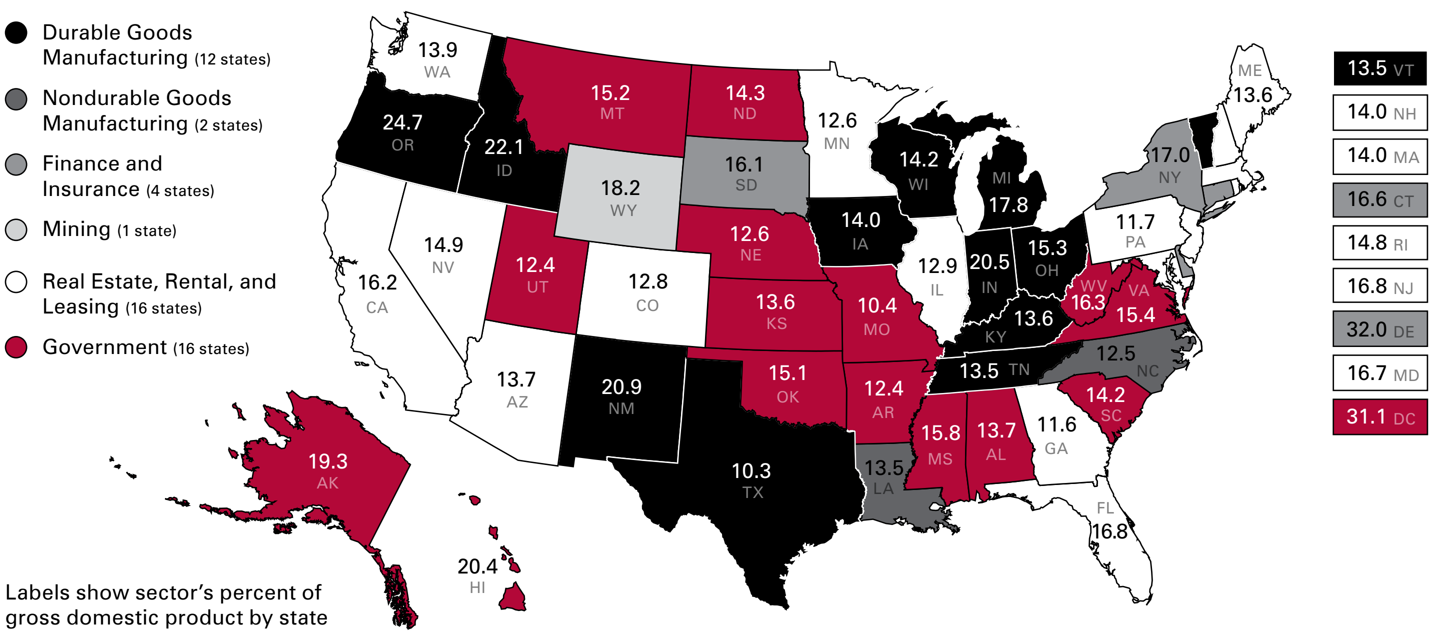
This series of GDP for states is still young. Detailed changes over time are not easy to interpret for individual sectors and we will avoid that here. But this series will become more powerful in decision making as leaders and economic analysts gain knowledge and comfort with it.

Table 2: Leading States by Industry

Sector	Largest State	Percent of U.S. GDP	Leading in State	Percent of State GDP
Mining	Texas	36.9%	Wyoming	18.2%
Agriculture, Forestry, Fishing, and Hunting	California	19.9%	North Dakota	7.0%
Arts, Entertainment, and Recreation	California	17.2%	Nevada	2.6%
Finance and Insurance	New York	17.2%	Delaware	32.0%
Information	California	16.9%	Colorado	11.4%
Real Estate, Rental, and Leasing	California	16.9%	Hawaii	17.9%
Professional and Technical Services	California	16.0%	Virginia	13.0%
Retail Trade	California	13.9%	Mississippi	10.5%
Durable Goods Manufacturing	California	13.7%	Oregon	24.7%
Administrative and Waste Services	California	13.6%	Florida	5.1%
Other Services (Except Government)	California	13.1%	Utah	2.9%
Accommodation and Food Services	California	13.1%	Nevada	14.0%
Wholesale Trade	California	12.9%	North Dakota	8.2%
Construction	California	12.8%	Nevada	8.3%
Private Educational Services	New York	12.7%	Massachusetts	2.0%
Utilities	Texas	12.6%	Wyoming	5.3%
Government	California	12.3%	Hawaii	20.4%
Management of Companies and Enterprises	New York	11.8%	Delaware	4.7%
Health Care and Social Assistance	California	11.4%	Maine	10.4%
Transportation and Warehousing	California	10.7%	Alaska	13.1%
Nondurable Goods Manufacturing	California	9.4%	Louisiana	13.5%

Source: Bureau of Economic Analysis

Figure 4: Largest Sector by State, 2006



Source: IBRC, using Bureau of Economic Analysis data