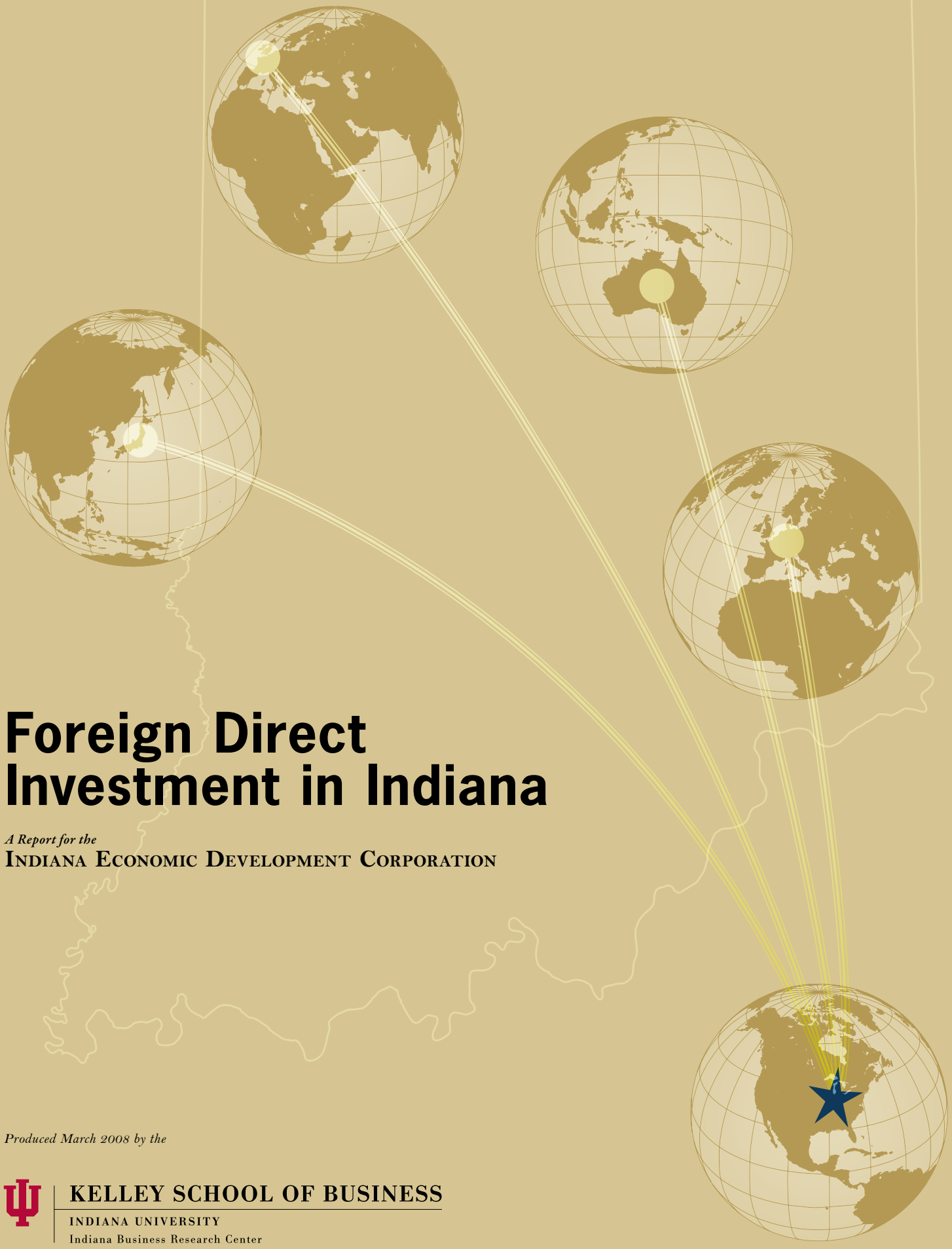

Foreign Direct Investment in Indiana

A Report for the
INDIANA ECONOMIC DEVELOPMENT CORPORATION

Produced March 2008 by the

KELLEY SCHOOL OF BUSINESS
INDIANA UNIVERSITY
Indiana Business Research Center

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Foreign Direct Investment in Indiana: March 2008

Access the electronic version of this report at www.stats.indiana.edu/topic/exports.asp
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Executive Summary

Despite the turmoil in the global credit markets, opinion leaders still expect foreign direct investment (FDI) to increase in 2008. According to the 2007 A.T. Kearney FDI Confidence Index, senior executives surveyed at the world's largest companies were optimistic about the prospects for developing nations and increasingly targeting them for more corporate investment in the years ahead. The index provides a look at the future prospects for international investment flows. Companies participating in the survey account for more than $3.8 trillion in annual global revenue, according to the December 2007 A.T. Kearney press release.[1]

China and India are the most attractive destinations according to the A.T. Kearney survey, followed by the United States and the United Kingdom. Investors were evenly split over their plans for U.S. investment. Amid concerns about the country's economic health, 52 percent of executives said they plan to increase their investments in the United States over the next three years, while 44 percent said they plan no change and 4 percent plan a decrease in their U.S. investments. The number one reason given for not investing more in the United States was the availability of other overseas investment options.

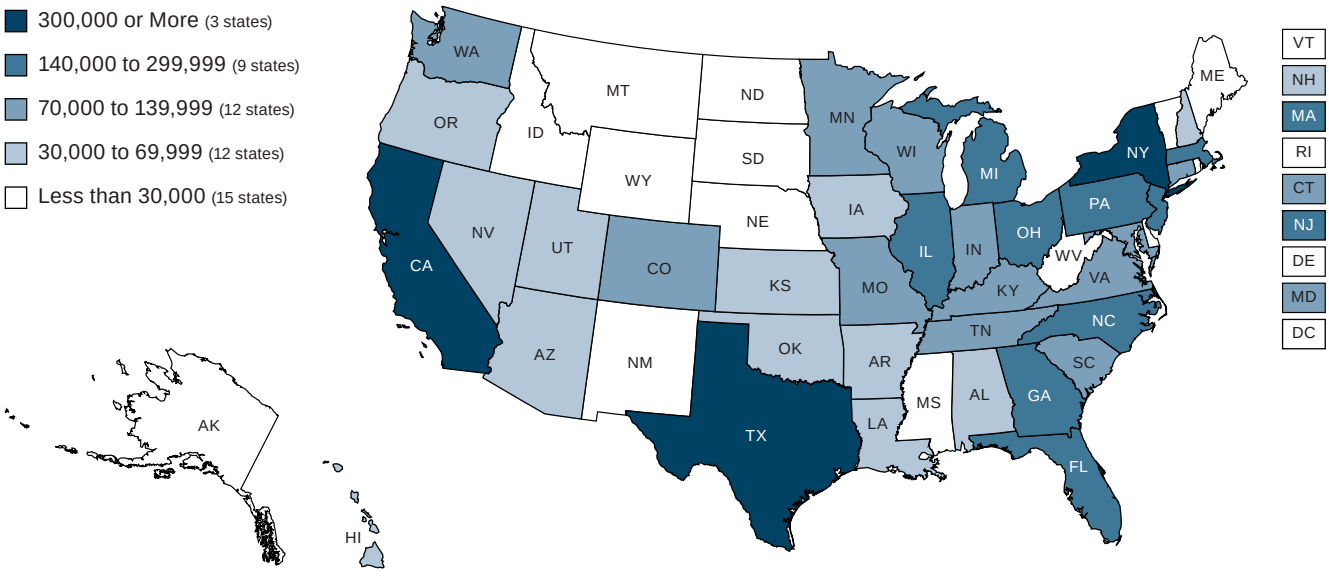
No single source of FDI data presents a complete picture. Using different concepts and data collection methods, the United Nations Conference on Trade and Development (UNCTAD), the Organisation for Economic Co-operation and Development (OECD), the U.S. Bureau of Economic Analysis, the Indiana Economic Development Corporation (IEDC), the Indiana Chamber of Commerce and OCO Consulting[2] all collect and disseminate investment data. Each data series has strengths and weaknesses. As a result, this report uses these data sources and series collectively in order to present as complete a picture as possible.

In 2000, global FDI hit a record $1.4 trillion and rapidly declined until 2003. Since 2003, global FDI has gone from $558 billion to $1.31 trillion in 2006.[3] Worldwide, the largest three recipients of FDI were the United States ($175.4 billion), the United Kingdom ($139.5 billion) and France ($81.1 billion).

The leading sources of FDI largely mirrored the leading destinations. The five leading sources of FDI were the United States, France, Spain, Switzerland and the United Kingdom. In terms of net FDI sources in 2006, the top five OECD source countries were Spain, the United States, Japan, Switzerland and Germany. The year 2006 was something of an anomaly for the United States because its cumulative total over the last 10 years indicates that the United States has been a net FDI destination.

According to UNCTAD, the rise in global FDI was partially fueled by rising corporate profits and was partially a result of the rising value of cross-border merger and acquisition due to higher stock prices. In addition to the growth of mergers and acquisitions (M&As), greenfield investment also increased, especially in developing and transition economies.[4]

Figure I: Majority-Owned U.S. Affiliate Employment, 2005



Source: Bureau of Economic Analysis

The relative ranking of the world's top non-financial transnational companies has been stable. In 2005, General Electric had the greatest value of foreign assets, the British company Vodafone Group had the highest percentage of assets in foreign investments (89.1 percent), and the Royal/Dutch Shell Group had the greatest percentage of company employees based in foreign operations (84.4 percent).

In 2005, employment of majority-owned U.S. affiliates was 5.1 million. While the number of jobs fell by nearly 46,000 (or about 1 percent), expenditures for property, plant and equipment by majority-owned U.S. affiliates increased $8.8 billion (or 7.8 percent) from 2004 to 2005.

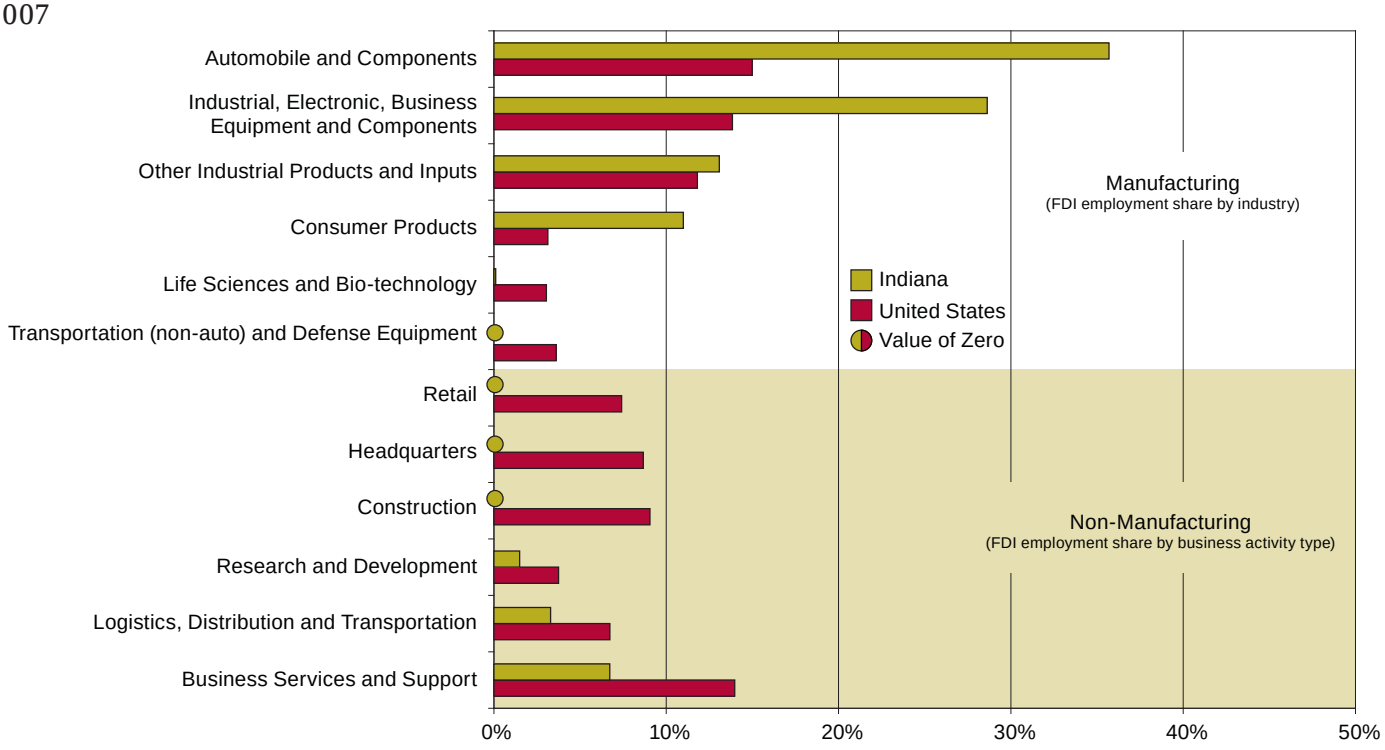
Indiana Highlights

- Indiana ranked eighth nationally for the gross value of property, plant and equipment of majority-owned U.S. affiliates in 2005.
- In 2005, the ratio of the gross value of property, plant and equipment of majority-owned U.S. affiliates to Indiana's gross state product was 0.145.[5] Kentucky had a higher ratio, but the ratio for Indiana was well above the national average and all other Midwestern states.
- Majority-owned U.S. affiliates employed 139,900 people in 2005, or 4.4 percent of all private industry employment in Indiana (see **Figure I**).
- In 2005, 92,000 Hoosier manufacturing jobs were attributed to majority-owned U.S. affiliates. Manufacturing jobs represent 66 percent of majority-owned U.S. affiliate employment, the third greatest share in the nation.
- Parent companies from Europe account for 65.4 percent of Indiana's majority-owned U.S. affiliate employment, followed by Asia/Pacific countries (24.4 percent) and Canada (6.0 percent).
- The United Kingdom is the number one source of majority-owned U.S. affiliate employment (32,400 jobs). Japan contributes the second greatest number (32,000 jobs). Germany contributes 25,100 jobs.

New FDI Announcements in 2007 for Indiana

This report, for the first time, presents FDI data on greenfield and expansions from OCO Consulting.[6] According to this data source, Indiana will gain nearly 5,000 jobs created by foreign investment in expansions of existing establishments

Figure II: Share of New FDI Jobs by Business Activity in the United States and Indiana, Announcements in 2007



Source: OCO Monitor

and greenfield investments, comparable to the IEDC's announcements in 2007 of 5,397 new jobs due to upcoming FDI. Most of that new employment will be in the automobile manufacturing industry (about 36 percent). By way of contrast, the share of new jobs in automobile and auto-component manufacturing for the United States was 15 percent. **Figures II** and **III** show that Indiana will continue to gain manufacturing employment from FDI at a far greater proportion than the nation as a whole. The dispersion of jobs among industries and business activities was far greater for the United States than for Indiana.[7] FDI for Indiana is still heavily concentrated in manufacturing.

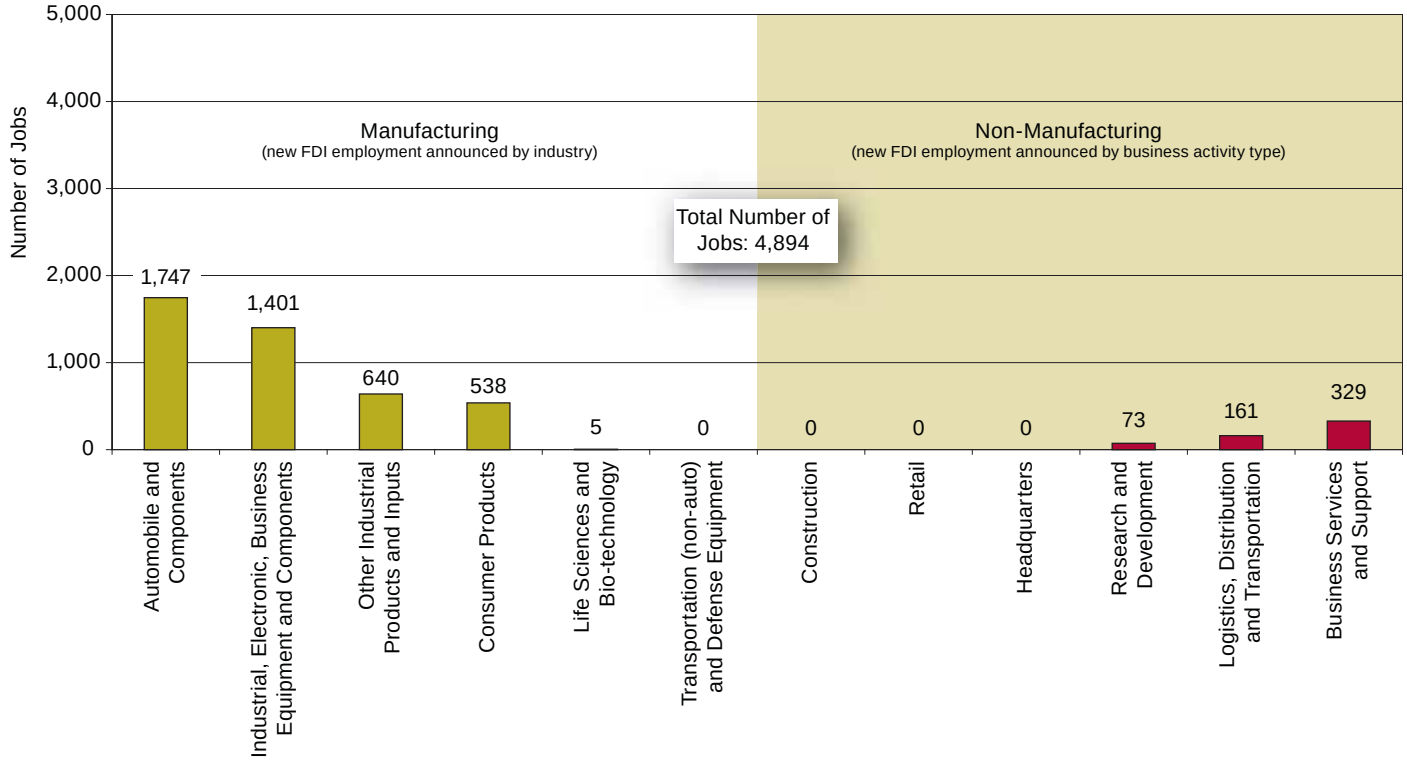
This report is one of an annual series for Indiana that focuses on foreign direct investment. Please send any comments about this report to ibrc@iupui.edu. ■

"Indiana will continue to gain manufacturing employment from FDI at a far greater proportion than the nation as a whole."

Notes

1. The A.T. Kearney FDI Confidence Index measures executive opinion about foreign direct investment flows in the future. Available at www.atkearney.com/main.taf?p=1,5,1,201
2. OCO Consulting data are new to the annual FDI report this year. These data are discussed and presented in the last section of the report.
3. Source: A.T. Kearney citing UNCTAD data.
4. For the purposes of this report, transition economies refer to Southeast Europe and the CIS unless otherwise noted.
5. The greater the ratio, the more significant FDI is to a state economy. The ratio can exceed unity.
6. The OCO data report FDI and its expected employment as announced in the media and company press releases. In all but a few cases, the expected investment and job gains will occur in future years.
7. Manufacturing, because it is so important for both FDI inflows and for Indiana's economic output, is highlighted and broken down by industry. The remaining business activities were grouped into categories that are roughly defined by service industries. Presenting the data by industry would not provide any insight into the type of the firms commitment or the type of job that would be created.

Figure III: New FDI Created Jobs, 2007 Indiana Announcements



Source: OCO Monitor
Note that the data from OCO Monitor differ from official sources like the IEDC because of how OCO collects the data. (See pages 24–26 for more details on the differences in data.) OCO Consulting does not have access to official sources and in the instances that the data differ, the official government records (like the IEDC) of FDI commitments are more accurate. However, the OCO data does allow one to make comparisons across states and counties to establish general trends over time.

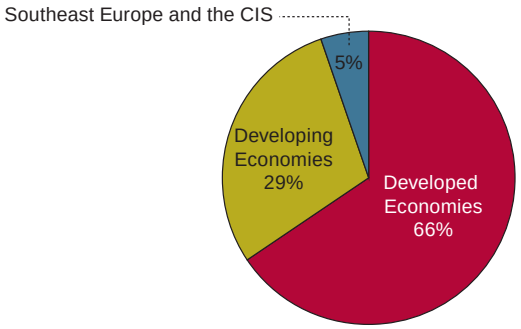
World FDI Inflows and Outflows

The foreign direct investment (FDI) environment continues to improve after having sagged for three years from 2002 through 2004. According to the United Nations Conference on Trade and Development (UNCTAD) World Investment Report for 2006, global FDI inflows rose by 38 percent in 2006, reaching $1.3 trillion. This total falls just short of the record level of $1.4 trillion attained in 2000.

FDI inflows increased across the spectrum of countries. Developing and transition countries registered record levels, increasing 21 percent and 68 percent, respectively. FDI inflows to developed countries picked up pace in 2006, increasing by 45 percent. The United States regained its position as the leading host country, followed by the United Kingdom and France. Among the developing economies, China, Hong Kong (China) and Singapore received the largest FDI inflows.

As the volume of FDI fell following 2000, the share that developed economies received also fell. Developed countries received 81 percent of FDI in 2000, but by 2006 that share fell to 66 percent (see **Figure A-1**). The inflow of FDI into developing economies increased $110 billion from 2005 to 2006, sustaining the upswing in FDI inflows that began in 2002. As **Figure A-2** shows, since 2000, the inflow of FDI relative to GDP has only been on an upward trend for Southeast Europe and the Commonwealth of Independent States (CIS).[1] For developing economies, however, the ratio of FDI to GDP has been up and down since 2000.

Figure A-1: FDI Inflows as a Percent of World FDI Inflows, 2006

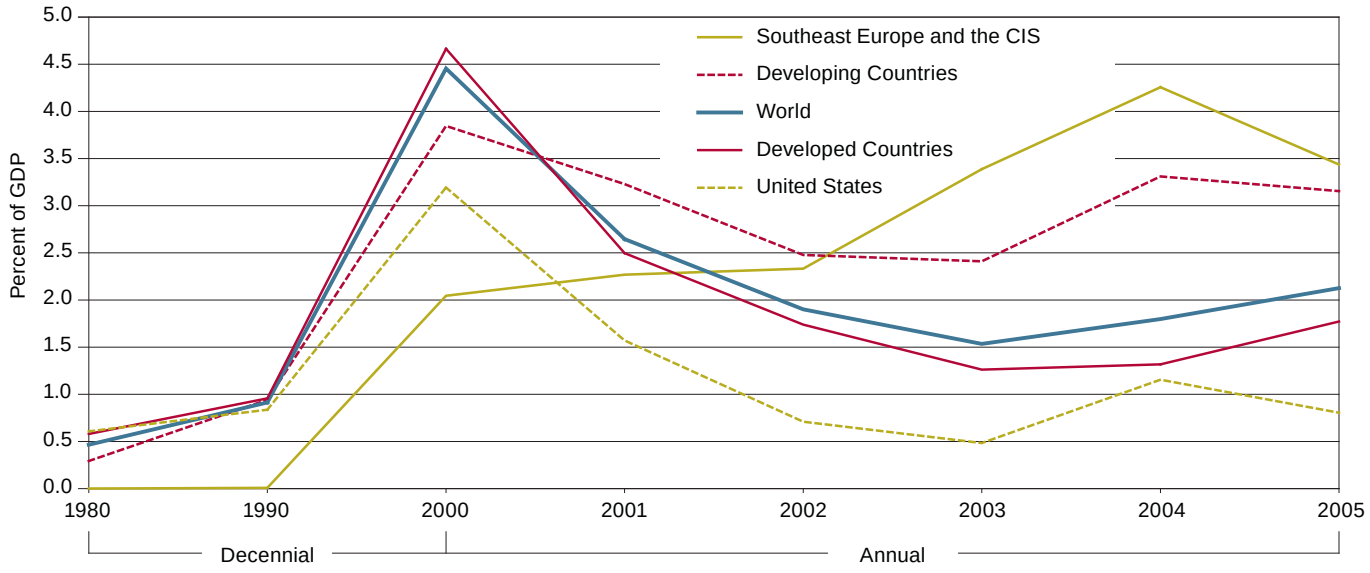


Source: UNCTAD World Investment Report for 2007

According to UNCTAD, global FDI inflows were driven by several factors:

- Increasing corporate profits worldwide
- Higher stock prices
- Increase in the value of cross-border mergers and acquisitions (M&As)
- Reinvested earnings
- Favorable financing conditions
- Greenfield investments in developing and transition economies

Figure A-2: FDI Inflows as a Percent of GDP, 2006



Note: The GDP data from UNCTAD refer to Southeast Europe and the CIS as Economies in Transition
Source: UNCTAD World Investment Report for 2007

Mergers and Acquisitions

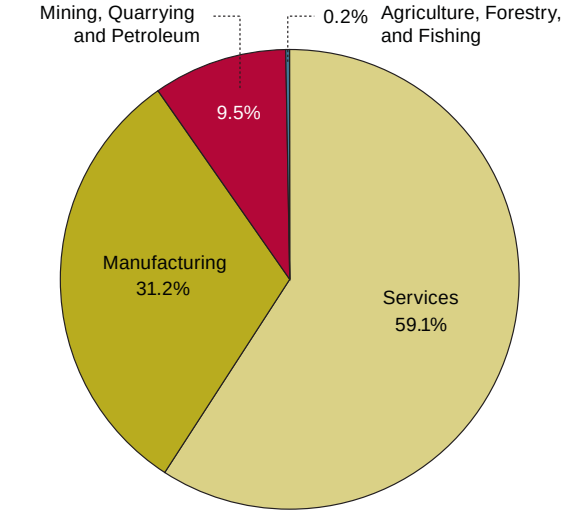
The M&A activity in services continues to dominate world FDI inflows (see **Figure A-3**). Over the course of the last three years, cross-border M&As (sales) in services accounted for an average of 58.5 percent of FDI flows in 2006, compared to a three-year average of 49 percent from 1989 to 1991 (the earliest period for which data are available). As presented in **Figure A-4**, three service industry sectors—finance, business activities, and transport, storage and communications—are responsible for almost three-fourths of the M&A activity in services. The latter sector—transport, storage and communications—has grown considerably since the late 1980s, although the explosion in communications rather than growth in transport and storage services most likely drove most of the escalation in the closing year of the last decade.

Manufacturing, the second largest sector, registered 31 percent share of FDI M&A sales activity in 2006, down from 47 percent in 1990. Fuelled by increasing commodity and energy demand, M&A investments in mining, quarrying and petroleum have been robust in recent years, even when accounting for the bumpy nature of the sector. Since 2001, the three-year moving average of M&A activity in mining, quarrying and petroleum has increased 5 percentage points. **Figures A-3**, **A-4** and **A-5** present this story graphically.

There were increases in cross-border M&As over the year for developed, developing and "transition" (i.e., for Southeast Europe and CIS) economies. Developed economies accounted for almost 83 percent of the total value of M&As. UNCTAD reports that developing and transition countries had 14 percent and 3 percent of the total (sales) value of M&As, respectively. This represents an increase in the share of M&A activity for developing and transition economies over the last five years. While the average rate of growth in M&A activity worldwide increased by 7.8 percent since 2001, the average rate of growth for developing and transition economies was 8.1 and 40.7 percent, respectively. The United States accounted for 19.6 percent of all M&As in terms of dollar value, which was still well below the three-year average at the turn of the century.

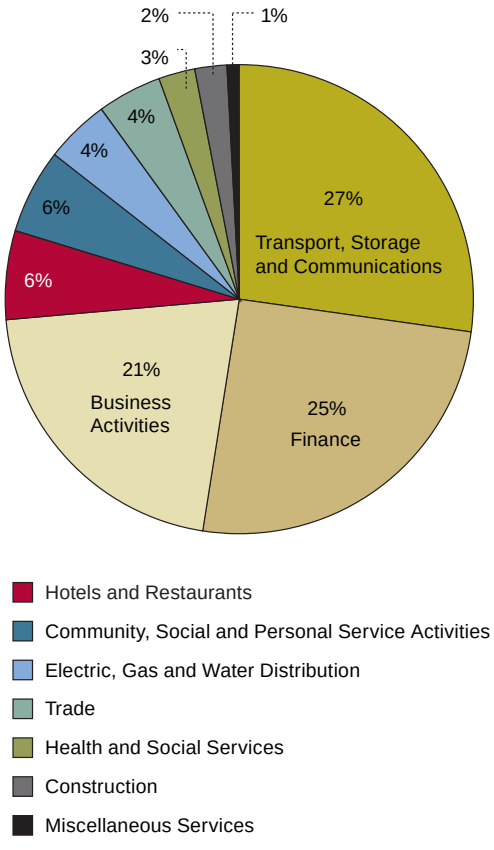
In terms of the number of M&A deals, however, the U.S. share has been remarkably consistent over the last five or six years, even while the share for all developed economies has declined slightly. **Figure A-6** presents the distribution of FDI M&As among developed countries. Just as the dollar value of M&A activity has increased for developing and transition economies, the share of the number of deals has also edged up.

Figure A-3: World FDI Resulting from Mergers and Acquisitions by Sector, 2006



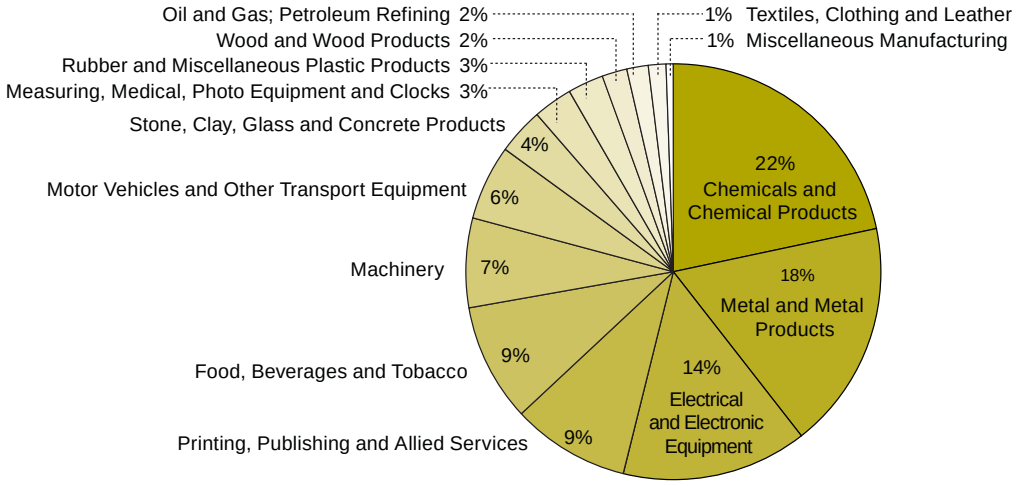
Source: UNCTAD World Investment Report for 2007

Figure A-4: World FDI Resulting from Mergers and Acquisitions in the Service Industries, 2006



Source: UNCTAD World Investment Report for 2007

Figure A-5: World FDI Resulting from Mergers and Acquisitions in the Manufacturing Industry, 2006



Note: Percentages may not add to 100 due to rounding
Source: UNCTAD World Investment Report for 2007

Private equity funds have been an important driver in the uptick in global M&A activity. There was an 18 percent increase, equal to $158 billion, in cross-border M&As by these type of funds. In contrast to the M&A boom in the late 1990s—the year 2000 is still the high watermark—the 2006 M&A transactions have been financed by cash and debt, rather than an exchange of shares. In 2006, there were 172 deals worth over $1 billion, accounting for about two-thirds of the total value of M&As.

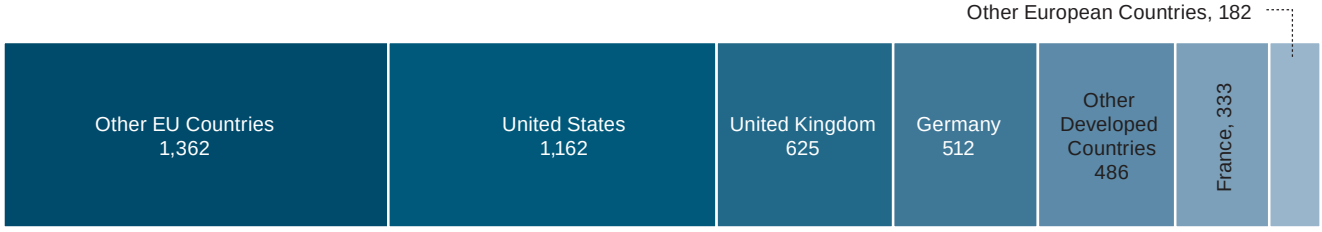
The 2006 M&A boom was widespread across regions. Due to several large deals in the mining sector, cross-border M&As in North America almost doubled. Companies from developing and transition economies have also driven the M&A growth recently, the largest in 2006 being the $17 billion acquisition of the Canadian firm Inco by Vale (formerly CVRD) of Brazil. In Europe, Spanish companies have been particularly active on the M&A front with cross-border acquisitions reaching a record-breaking $78 billion. UNCTAD also reports that the geographic pattern of FDI is shifting, with a greater emphasis on new countries and developing countries serving as both host and home countries.

Exporters of FDI

From 2005 to 2006, FDI outflows from developed countries grew by 31 percent and accounted for 84 percent of world FDI outflows (see **Figure A-7**). The growth in FDI outflows from developing countries bettered the developed country growth, increasing by 34 percent. After the negative blip of FDI outflows in 2005 due to a one-year change in the tax code, the United States regained its top position among FDI investors in 2006 with $217 billion. France and Spain claim the number two and three positions with $115 and $90 billion, respectively. Switzerland, the United Kingdom and Germany were close behind at about $80 billion each.

The year 2000 is still the high watermark for world FDI outflows, but just barely. Globally, FDI outflows reached $1.2

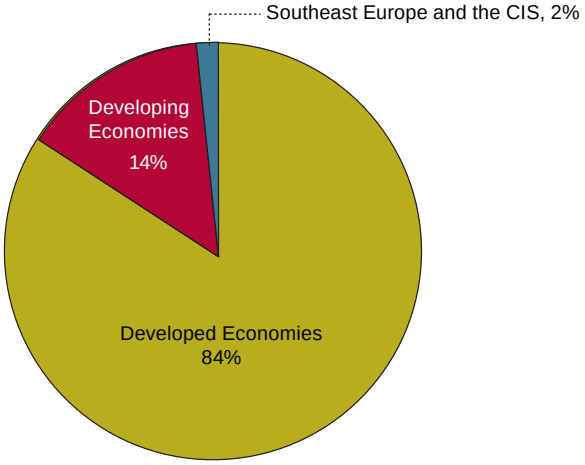
Figure A-6: Distribution of FDI Merger and Acquisition Deals for Developed Countries, 2006



Labels show number of merger and acquisition deals

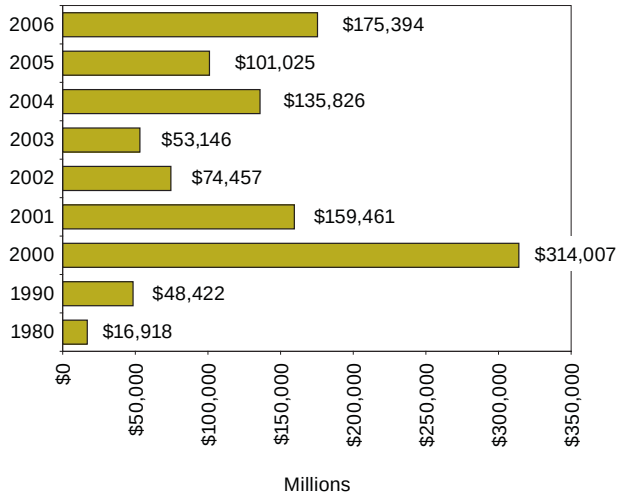
Source: UNCTAD World Investment Report for 2007

Figure A-7: FDI Outflows as a Percent of World Outflows, 2006



Source: UNCTAD World Investment Report for 2007

Figure A-9: U.S. FDI Inflows from the World



Source: UNCTAD World Investment Report for 2007

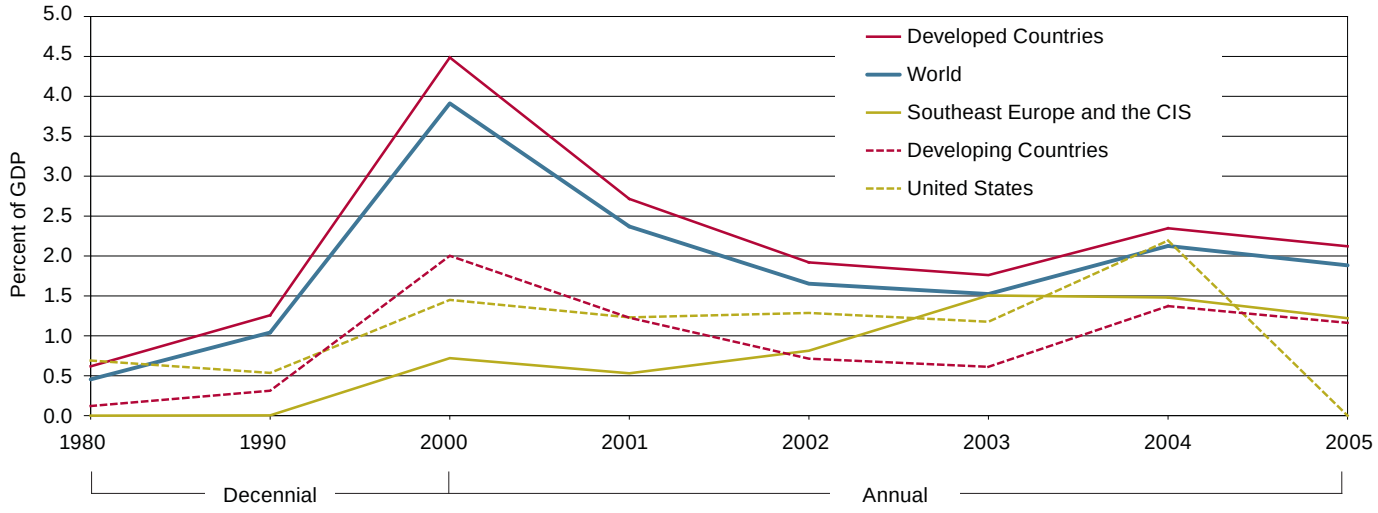
trillion in 2006, less than 2 percent behind the 2000 total. As a percentage of GDP, however, FDI outflows are still well behind 2000 (see **Figure A-8**). The United States and the transition economies have not followed that trend.[2] Foreign participation in the United States and the transition economies has grown relative to most developed and developing countries.

U.S. FDI Inflows and Outflows

Since 2000, the FDI inflows to the United States have been on a rollercoaster. From 2000 to 2003, the value of FDI inflows fell from $314 to $53 billion. The upswing has not been even, as **Figure A-9** shows. The 2006 value is still a mere 56 percent of the 2000 peak.

The change in the U.S. tax code for the single year of 2005 is evident in **Figure A-10**. The year 2004 was particularly strong for U.S. FDI outflows, and, paired with the year 2005, makes an assessment of a discernable trend difficult. One can say, however, that the average rate of growth of FDI outflows from 2000 to the present has diminished slightly compared to the 1990s.

Figure A-8: FDI Outflows as a Percent of GDP

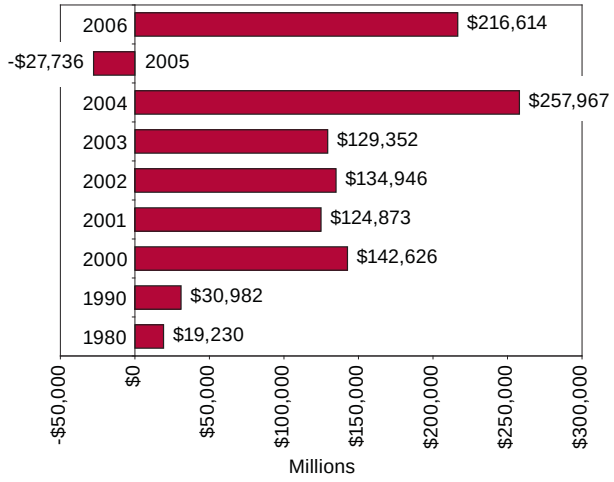


Note: Adjusted for the one-time tax effect, the FDI as a percentage of GDP in 2005 would be greater than in the year 2000 for the United States.
Source: UNCTAD World Investment Report for 2007

Top 10 Non-Financial Transnational Companies

Table 1 presents the world's top 10 non-financial transnational companies (TNCs) ranked by the value of their foreign assets. General Electric remained at the number one slot with foreign assets of $412.7 billion. The top 10 TNCs were in one of the following industries: electrical and electronic equipment, motor vehicles, telecommunications and the exploration, refining and distribution of petroleum. Although General Electric had the greatest value of foreign assets, the British company Vodafone Group had the greatest share of foreign assets as a percent of the corporation's total assets (89 percent). As a proportion of foreign employees that make up the company's workforce, the Royal/Dutch Shell Group tops the list with 92,000 foreign employees—84.4 percent of the total number of employees within the corporation. ■

Figure A-10: U.S. FDI Outflows to the World



Source: UNCTAD World Investment Report for 2007

Notes

1. The CIS is an alliance consisting of 11 former Soviet Republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan.

2. The American Jobs Creation Act of 2004 reduced the rate of taxation on U.S. multinational enterprises' qualifying dividends from abroad for the year 2005. As a result, the 2005 distributions of earnings from foreign affiliates to parents in the United States were greater than would have been otherwise. Reinvested earnings, the other side of the earnings coin, were lower by a similar amount, thus lowering that component of U.S. direct investment abroad. Adjusted for the one-time tax effect, the FDI as a percentage of GDP in 2005 would be greater than in the year 2000.

Table 1: World's Top 10 Non-Financial Transnational Companies, 2005

Ranked by						Assets		Sales		Employment			Number of Affiliates		
Foreign Assets	TNI[b]	II[c]	Corporation	Home Economy	Industry[d]	Foreign[e]	Total	Foreign[f]	Total	Foreign	Total	TNI[b] (Percent)	Foreign	Total	II[c]
1	70	42	General Electric	United States	Electrical and Electronic Equipment	412,692	673,342	59,815	149,702	155,000	316,000	50.1	1,184	1,527	77.5
2	8	94	Vodafone Group Plc	United Kingdom	Telecommunications	196,396	220,499	39,497	52,428	51,052	61,672	82.4	77	210	36.7
3	85	72	General Motors	United States	Motor Vehicles	175,254	476,078	65,288	192,604	194,000	335,000	42.9	91	158	57.6
4	16	61	British Petroleum Company Plc	United Kingdom	Petroleum Exploration, Refinery and Distribution	161,174	206,914	200,293	253,621	78,100	96,200	79.4	417	602	69.3
5	29	80	Royal Dutch/ Shell Group	United Kingdom, Netherlands	Petroleum Exploration, Refinery and Distribution	151,324	219,516	184,047	306,731	92,000	109,000	71.1	507	964	52.6
6	38	43	ExxonMobil	United States	Petroleum Exploration, Refinery and Distribution	143,860	208,335	248,402	358,955	52,920	84,000	67.1	256	331	77.3
7	64	95	Toyota Motor Corp.	Japan	Motor Vehicles	131,676	244,391	117,721	186,177	107,763	285,977	51.6	141	391	36.1
8	79	56	Ford Motor	United States	Motor Vehicles	119,131	269,476	80,325	177,089	160,000	300,000	47.6	201	285	70.5
9	27	55	Total	France	Petroleum Exploration, Refinery and Distribution	108,098	125,717	132,960	178,300	64,126	112,877	72.5	401	567	70.7
10	94	36	Electricite de France	France	Electricity, Gas and Water	91,478	202,431	26,060	63,578	17,801	161,560	32.4	218	276	79

a. All data are based on the companies' annual reports unless otherwise stated.
b. TNI is the abbreviation for "Transnationality Index." The Transnationality Index is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment. The ranking in the second column is based on TNI of the top 100 TNCs.
c. II is the abbreviation for "Internationalization Index." The index is calculated as the number of foreign affiliates divided by number of all affiliates (Note: Affiliates counted in this table refer to only majority-owned affiliates).
d. Industry classification for companies follows the United States Standard Industrial Classification as used by the U.S. Securities and Exchange Commission (SEC).
e. In a number of cases, companies reported only partial foreign assets. In these cases, the ratio of the partial foreign assets to the partial (total) assets was applied to total assets to calculate the total foreign assets. In all cases, the resulting figures have been sent for confirmation to the companies.
f. Foreign sales are based on the origin of the sales unless otherwise stated.
(p) preliminary data
Source: UNCTAD 2007 World Investment Report

OECD Countries and FDI

The Organisation for Economic Co-operation and Development (OECD) reports that the global environment for FDI continued to improve in 2006.[1] Table B-1 shows the economic growth of OECD countries and five other large economies. This economic growth combined with solid stock prices and robust business profitability contributed to the strong FDI picture. In addition, multinational enterprises based in developing or emerging economies became more active in the OECD countries. Private equity companies also allocated large sums to corporate takeovers.

In 2006, FDI flows to and from OECD countries increased appreciably to reach levels approaching the year 2000 high watermark. Outflows were up by 29 percent to $1,120 billion, while inflows increased 22 percent to $910 billion. A small number of extremely large cross-border mergers and acquisitions boosted the FDI transactions total. The five largest totaled approximately $120 billion.

Foreign Direct Investment Inflows

Direct investment into OECD countries increased to $910 billion, a 46 percent increase from 2005 to 2006. The U.S. regained the top position in FDI inflows, as shown in **Figure B-1**. The United Kingdom ranked second in FDI inflows in 2006, even after falling by 28 percent from 2005. The United States was briefly eclipsed by the United Kingdom in 2005 due, in large part, to the restructuring of the petroleum conglomerate Shell/Royal Dutch and in part due to several large cross-border mergers and acquisitions, such as the takeover of Peninsular and Oriental Steam Navigation Company by Dubai Ports World of the United Arab Emirates.

For the year 2006, only $14 billion of the $184 billion in FDI inflows to the United States were devoted to greenfield investments. The remaining balance was devoted to the takeover of existing businesses. Mergers and acquisitions were the primary drivers for the large total inflows for the United Kingdom as well, with the five largest totaling about $60 billion.

Behind the United Kingdom are France, Canada and Germany, all of which saw FDI inflows increase 28 percent, 97 percent and 31 percent, respectively. Two massive takeovers account for the dramatic jump in Canadian FDI inflows, accounting for more than half of Canada's $67 billion.

Table B-1: Rate of Economic Growth for OECD Countries and Five Other Large Economies

Country	Average Rate of Growth, 1995–2006
China	8.8%
Ireland	7.1%
India	6.4%
Luxembourg	4.7%
Republic of Korea	4.4%
Slovak Republic	4.4%
Poland	4.3%
Turkey	4.2%
Iceland	4.1%
Hungary	4.1%
Russian Federation	4.0%
Greece	3.9%
Mexico	3.6%
Spain	3.6%
Finland	3.6%
Australia	3.4%
United States	**3.3%**
Canada	3.2%
New Zealand	2.9%
Sweden	2.8%
Czech Republic	2.8%
Norway	2.8%
United Kingdom	2.7%
Brazil	2.5%
Netherlands	2.3%
Austria	2.3%
Portugal	2.2%
Denmark	2.2%
Belgium	2.1%
France	2.1%
Switzerland	1.6%
Germany	1.5%
Italy	1.3%
Japan	1.3%

Notes: Average rate of growth based on constant (2000) U.S. dollar series (NY.GDP.MKTP.KD). Growth rates can be sensitive to the method of deflation, base year and selected currency. Highlighted cells are not OECD members.
Source: World Development Indicators of the World Bank. (WDI online 12/26/07)

Foreign Direct Investment Outflows

The outflow of FDI from OECD countries increased by 56 percent in 2006, or $404 billion. This was largely due to the United States recovering its top ranking following a one-off tax provision in 2005 that caused a drop of $235 billion from the previous year.[2] Even without the large jump in U.S. FDI outflows, the OECD (less the United States) would have registered an increase of nearly 34 percent. The OECD average, however, masks the uneven performance of individual countries. The United Kingdom registered a decline in FDI outflows of about 5 percent, placing it in the fifth position together with Germany, behind France (second), Spain (third) and Switzerland (fourth). The Netherlands, after experiencing a dramatic increase in FDI outflows in 2005 that placed it at the number one slot, returned to a level closer to 2004 and dropped out of the OECD top 10.

Switzerland is an interesting case. Outward FDI rose to $82 billion—the highest level on record—from $54 billion in 2005. Increases in capital flows to foreign subsidiaries, especially by financial institutions, contributed a significant share of the record FDI outflow. Finance and holding companies, banks, chemical industries and other manufacturing industry acquisitions abroad were also of note.

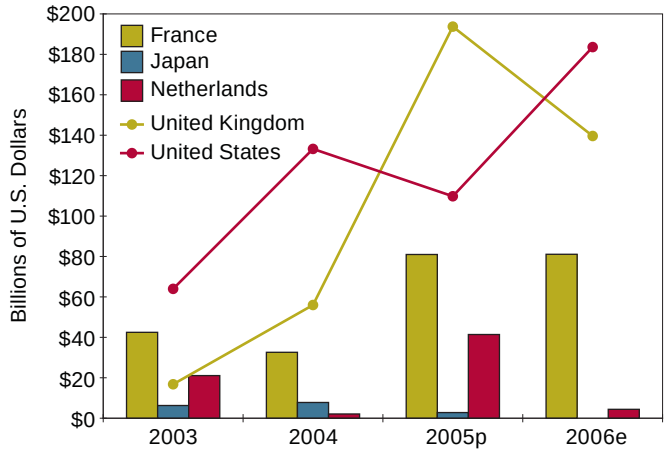
Japan, a source of significant greenfield investments in the state of Indiana, invested about $50 billion in 2006 (see **Figure B-2**). This is a level not achieved since 1990. The increase in these outward investments, however, were directed to the Netherlands and the United Kingdom.

Relationship of Inflows and Outflows

U.S. companies invest overseas. Foreign firms invest in the United States. Is there a relationship between the inflows and the outflows?

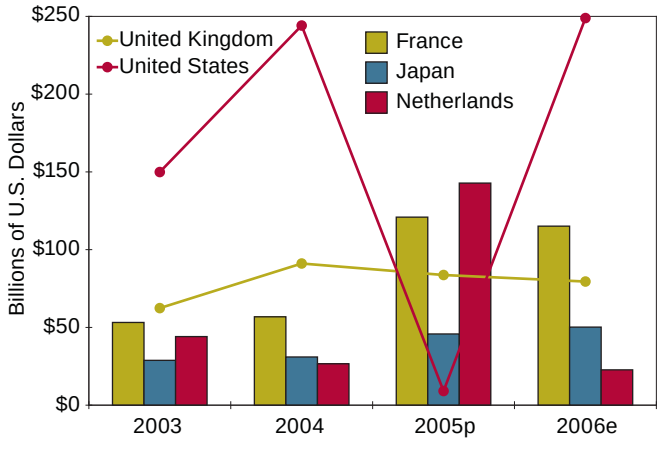
France, Japan, the United Kingdom, Switzerland, the Netherlands and Spain have been the main net exporters among OECD countries between 1997 and 2006, as shown in **Figure B-3**. Over the last decade, the main net recipients of OECD FDI have been Mexico, Poland, the United States, the Czech Republic, Australia, Turkey and Korea. Given that they are high-income countries, the United States and Australia as high net FDI importers are a curious phenomenon. Most high net FDI recipients have below-average incomes with rapid economic development and new market opportunities. On the other hand, firms may be attracted to the United States' steady economic growth and open markets. The fact that the United States is still much bigger than the second largest economy, as **Table B-2** reports, may also enhance its desirability as an investment target. On the other hand, the fact that so much U.S. currency is held by other countries due to the persistent current account deficit may also contribute to the relative attractiveness of U.S. assets.

Figure B-1: Direct Investment Inflows into Select OECD Countries, 2003–2006



Notes: Data are converted to U.S. dollars using average exchange rates; p=preliminary; e=estimate
Source: 2006 data are from OECD 2007; prior data are from OECD Factbook 2007

Figure B-2: Direct Investment Outflows from Select OECD Countries, 2003–2006



Notes: Data are converted to U.S. dollars using average exchange rates; p=preliminary; e=estimate
Source: 2006 data are from OECD 2007; prior data are from OECD Factbook 2007

Sector Trends in FDI

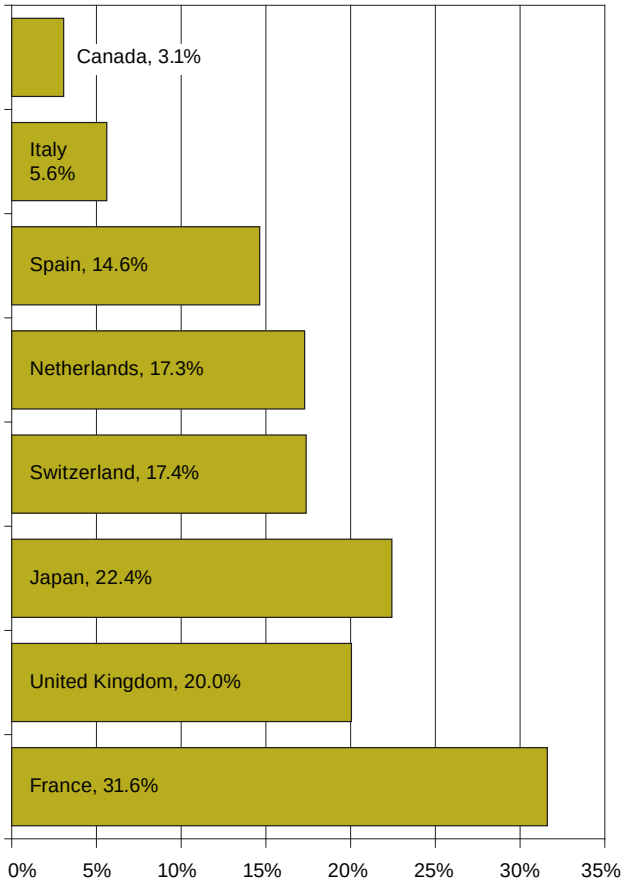
According to the 2007 OECD report, cross-border M&A activity was relatively evenly split across the main economic sectors in 2006. As reported by Thompson Financial,[3] the sector with the greatest cross-border M&A amount occurred in mining and raw material processing and totaled $119 billion. At a total transaction value of $94 billion, the telecommunications sector M&A deals ranked second. Cross-border M&A activity in the financial sector totaled $85 billion.

The OECD report also noted that the first half of 2007 continued the cross-border M&A momentum of 2006. If the early months are indicative of the whole year, then 2007 will be another banner year for large M&A transactions. In the opening months of 2007, M&A activity in the energy sector was particularly strong. Four out of the top 10 M&A deals were energy related. ■

Notes

1. OECD, "Trends and recent developments in foreign direct investment," Chapter 2 in *International Investment Perspectives: Freedom of Investment in a Changing World*, 2007 edition. Available online at http://oberon.sourceoecd.org/vl=1410300/cl=31/nw=1/rpsv/cgi-bin/fulltextew.pl?prpsv=/ij/oecdthemes/9998007x/v2007n17/s1/p1l.idx.
2. The American Jobs Creation Act of 2004 reduced the rate of taxation on U.S. multinational enterprises' qualifying dividends from abroad for the year 2005. As a result, the 2005 distributions of earnings from foreign affiliates to parents in the United States were greater than would have been otherwise. Reinvested earnings, the other side of the earnings coin, were lower by a similar amount, thus lowering that component of U.S. direct investment abroad.
3. The OECD uses data from Thompson Financial for tracking M&A activity by industry. The transactions are not limited to the OECD countries and only include deals greater than $500 million.

Figure B-3: Percent of Total Cumulative Net FDI Outflows from Select OECD Countries, 1997–2006



Source: 2006 data are from OECD 2007; prior data are from OECD Factbook 2007

Table B-2: World's Largest Economies, 2006

Country	2006 (Billions of Current Dollars)	Percent of World Economy
United States	$13,201.8	27.4%
Japan	$4,340.1	9.0%
Germany	$2,906.7	6.0%
China	$2,668.1	5.5%
United Kingdom	$2,345.0	4.9%
France	$2,230.7	4.6%
Italy	$1,844.7	3.8%
Canada	$1,251.5	2.6%
Spain	$1,224.0	2.5%
Brazil	$1,068.0	2.2%
Russian Federation	$986.9	2.0%
India	$906.3	1.9%
Republic of Korea	$888.0	1.8%
Mexico	$839.2	1.7%
Australia	$768.2	1.6%
Netherlands	$657.6	1.4%

Source: World Development Indicators of the World Bank. (WDI on-line 12/26/07, series NY.GDP.MKTP.CD)

FDI in the United States and Indiana

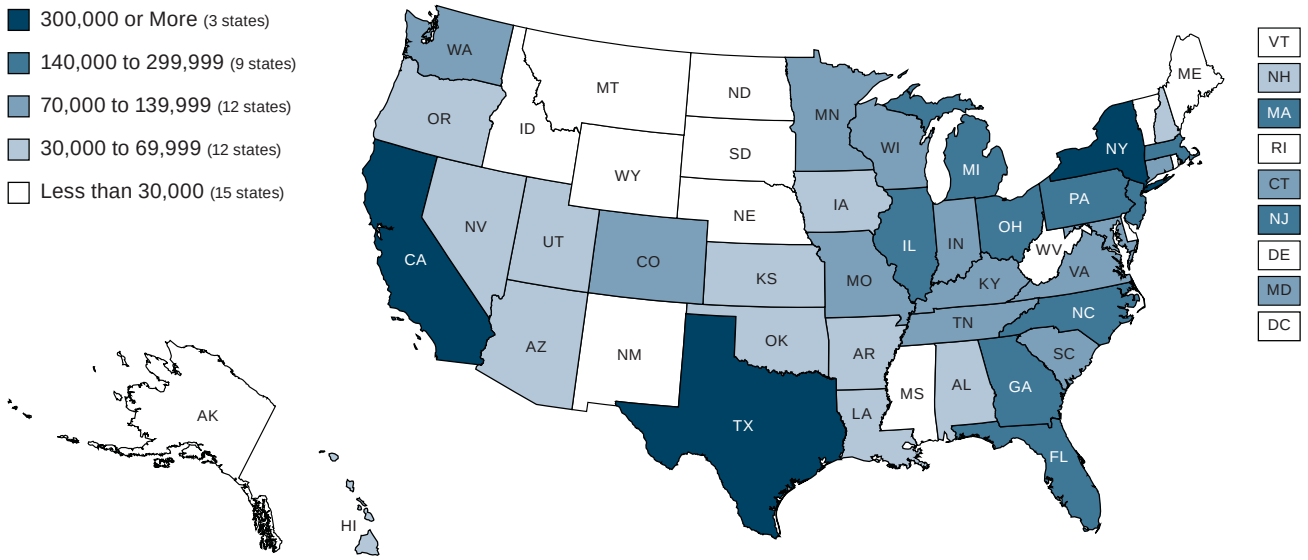
Investment in the United States

Foreign direct investment plays a significant role in Indiana's economy, perhaps a more significant role than for the rest of the nation. For example, Indiana ranked 13th nationally for employment by majority-owned U.S. affiliates in 2005.

Total Employment

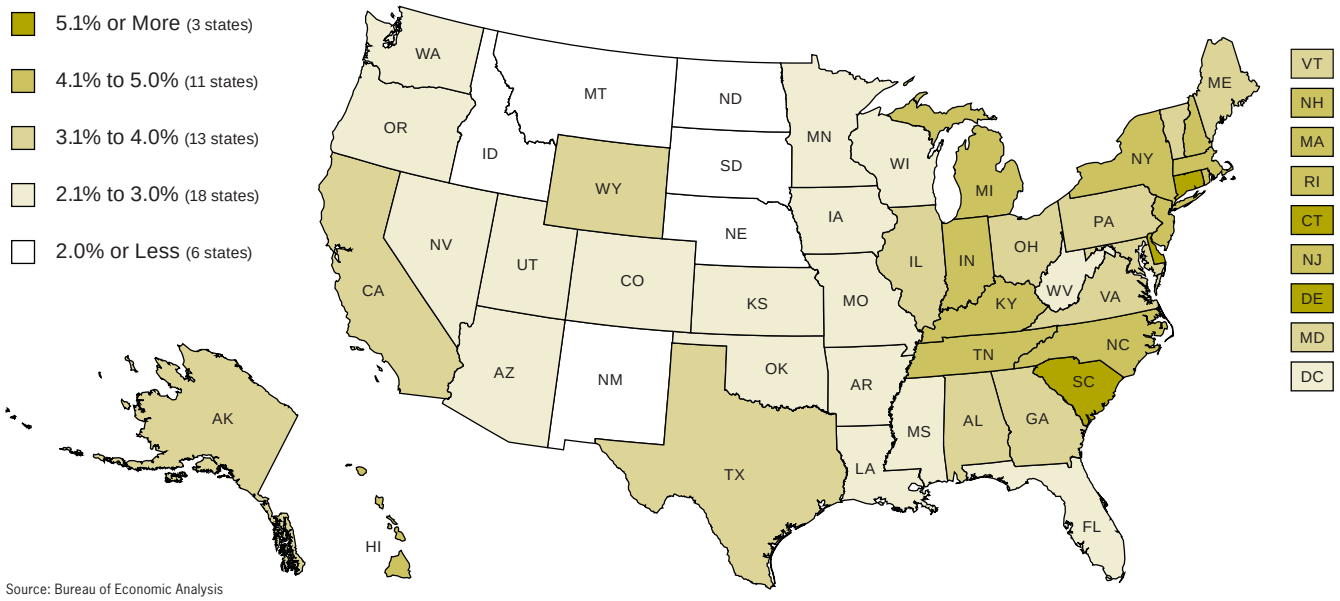
In Indiana, 139,900 employees worked for businesses in which a foreign investor or company had at least a 50 percent stake in 2005 (see **Figure C-1**). These businesses, called majority-owned U.S. affiliates (MOUSA), represent 4.4 percent of total private industry employment in Indiana (see **Figure C-2**).[1]

Figure C-1: Majority-Owned U.S. Affiliate Employment, 2005



Source: Bureau of Economic Analysis

Figure C-2: Majority-Owned U.S. Affiliate Employment as a Percent of Total Private Employment, 2005

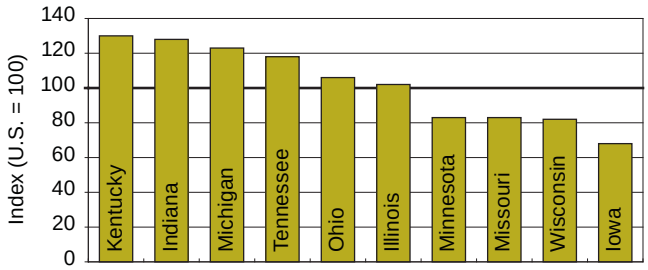


Source: Bureau of Economic Analysis

Indiana's MOUSA share of total jobs surpassed those of the United States and most of the Midwest (see **Figure C-3**). MOUSA jobs peaked in 2000 for the United States, Indiana and most Midwestern states. Since 2002, MOUSA employment has stabilized and even increased slightly in Indiana. While it has continued to shrink in the nation as a whole and in several neighboring states (see **Figure C-4**).

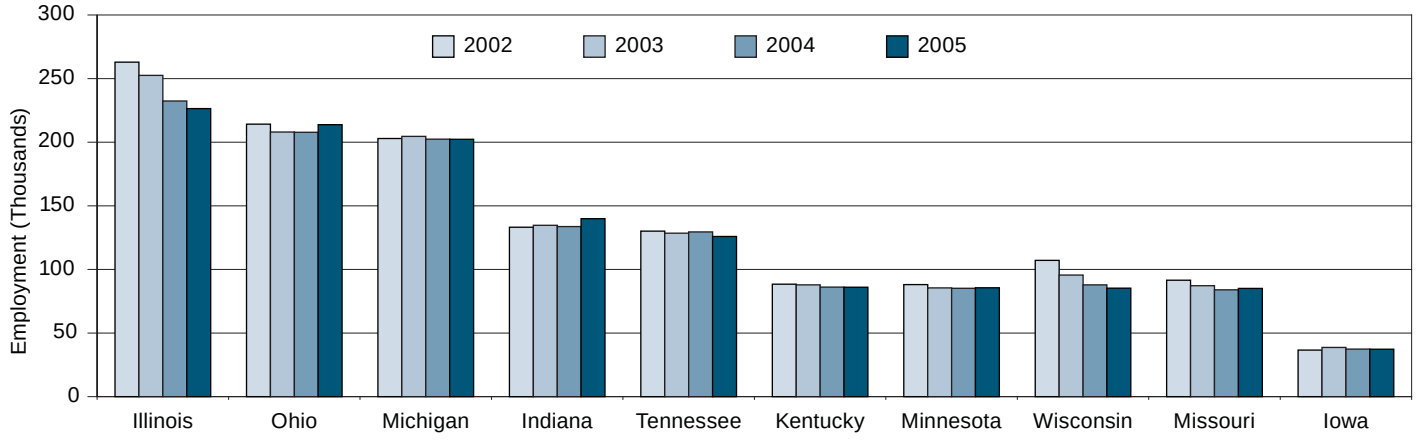
On an average rate basis, Hoosier job loss was less than for the United States between 2000 and 2005. From 2002 to 2005, there was an uptick in MOUSA employment in the Hoosier data. Indiana ranked seventh in the average annual percent

Figure C-3: Share of Private Industry Jobs by Majority-Owned U.S. Affiliates in the Midwest Compared to the Nation, 2005



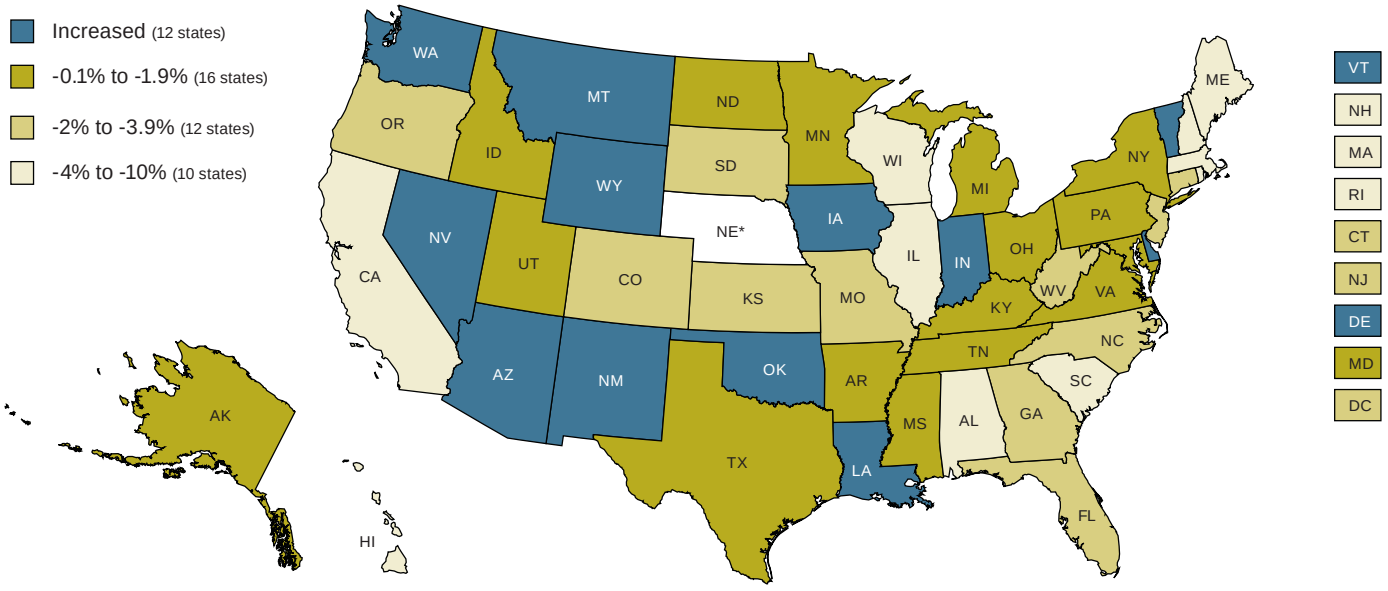
Source: Bureau of Economic Analysis and Bureau of Labor Statistics

Figure C-4: Majority-Owned U.S. Affiliates Employment Trends in the Midwest



Source: Bureau of Economic Analysis

Figure C-5: Average Annual Percent Change in Majority-Owned U.S. Affiliate Employment, 2002 to 2005



*Nebraska posted 0 percent change from 2002 to 2005
Source: Bureau of Economic Analysis

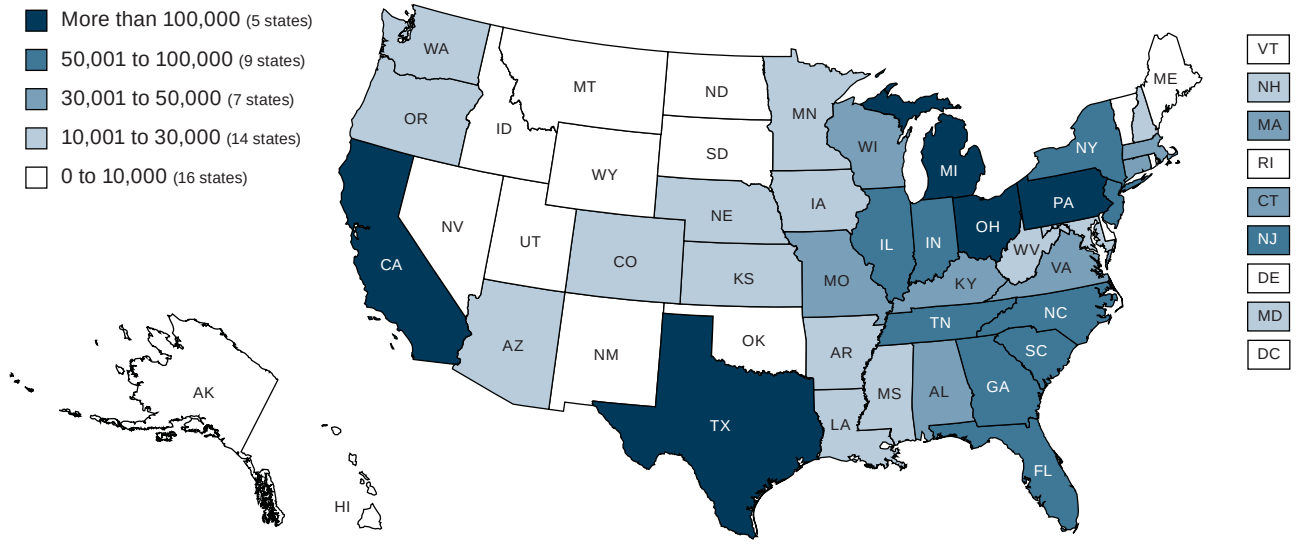
change in employment (see **Figure C-5**). Only 12 states showed positive job growth in the same period.

Manufacturing Employment

In 2005, MOUSAs provided 92,000 Hoosier manufacturing jobs (see **Figure C-6**). MOUSA manufacturing jobs represent 15.7 percent of total private manufacturing employment in Indiana (see **Figure C-7**). Indiana's share is larger than the United States and most of the Midwest. Only Michigan, Kentucky and Tennessee have greater manufacturing shares than Indiana (see **Figure C-8**).

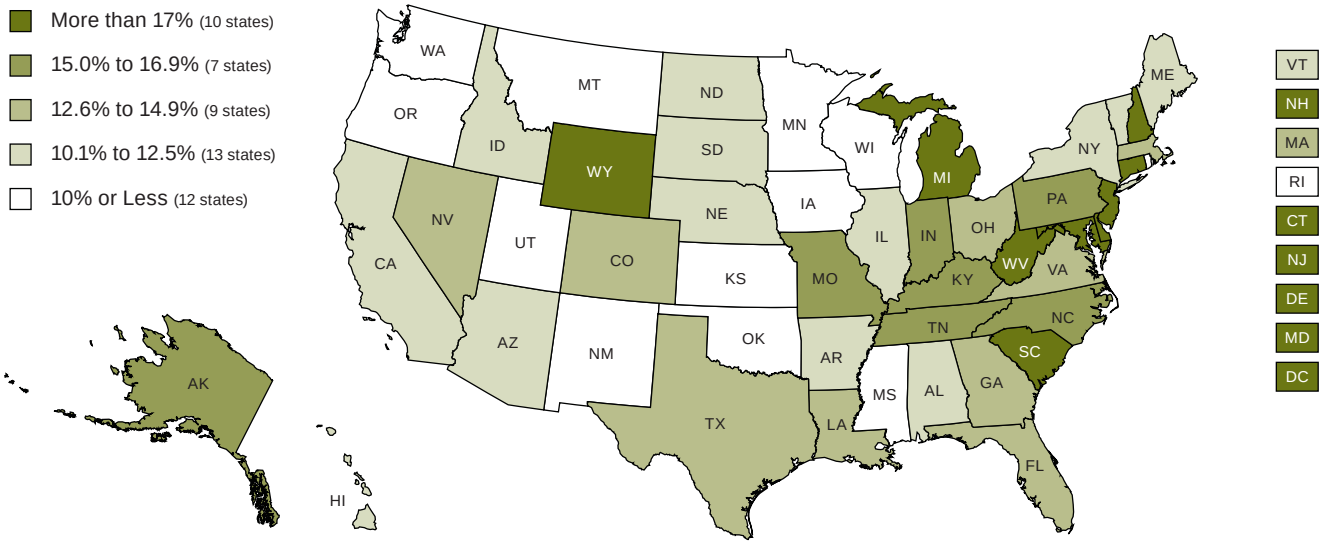
Manufacturing jobs represent 65.8 percent of MOUSA jobs in Indiana, the third highest share in the nation in 2005. The manufacturing sector's share of MOUSA jobs in Minnesota

Figure C-6: Majority-Owned U.S. Affiliate Manufacturing Employment, 2005



Source: Bureau of Economic Analysis

Figure C-7: Majority-Owned U.S. Affiliate Manufacturing Employment as a Percent of Total Private Manufacturing Employment, 2005



Source: Bureau of Economic Analysis

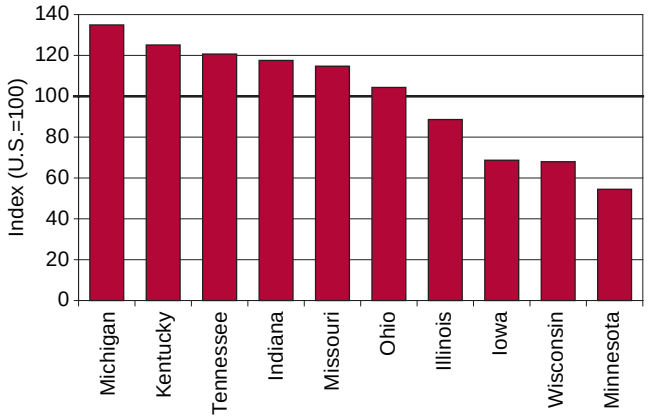
was less than half as large (30.8 percent). This would indicate that FDI employment, and foreign participation, is spread more evenly across sectors in Minnesota, as most MOUSA employment is outside of manufacturing. For example, MOUSA employment in the information sector represents 19 percent of total MOUSA employment in Minnesota, compared to 2.5 percent in Indiana. **Figure C-9** shows that a preponderance of Midwest MOUSA employment is biased toward manufacturing, with Illinois, Iowa, Wisconsin and Minnesota being the exceptions.

Investment

For the United States, the gross value of property, plant and equipment held by majority-owned U.S. affiliates totaled $1.1 trillion in 2005. Indiana ranked eighth nationally in gross value of MOUSA property, plant and equipment in a state. That translates to a little over 3.1 percent of the total MOUSA investment in the United States on a gross value basis. California, the state with the greatest gross value of MOUSA investment, is home to 8.6 percent of the nation's FDI.

The measure of economic output for a state is called "gross domestic product by state" (GDP), formerly referred to as gross state product. The ratio of FDI in property, plant and equipment to economic output—GDP by state—can be used to show the relative significance of foreign investment in a state. As **Figure C-10** shows, Indiana's ratio of 0.145 was below Kentucky's, but greater than all other Midwestern states.

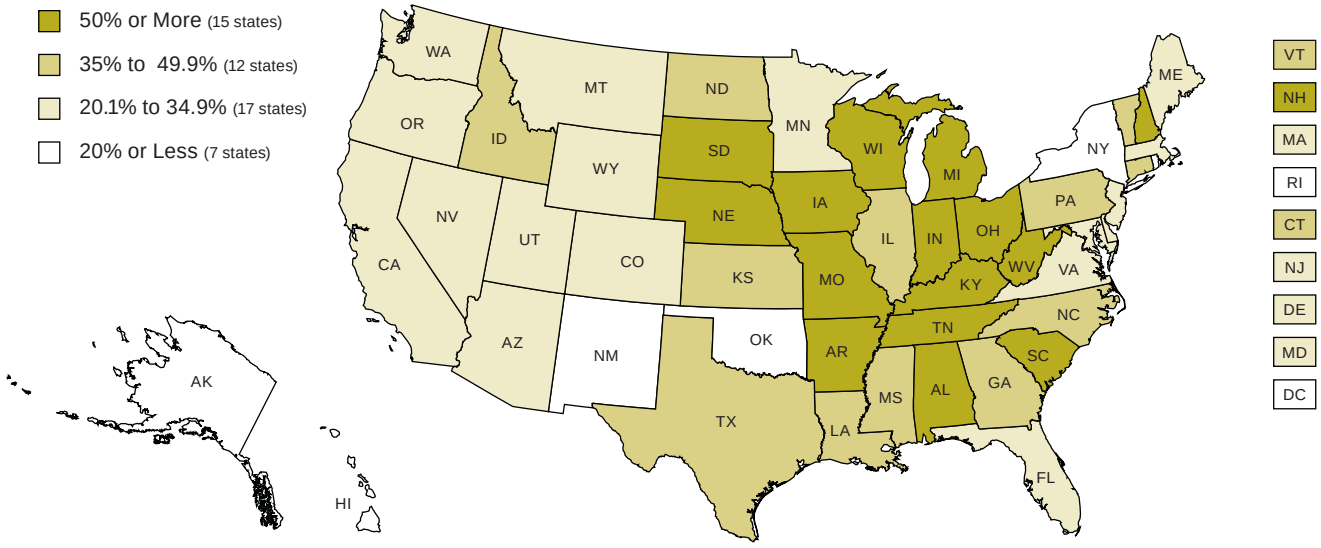
Figure C-8: Share of Total Private Manufacturing Jobs of Majority-Owned U.S. Affiliates Compared to the Nation, 2005



Source: Bureau of Economic Analysis

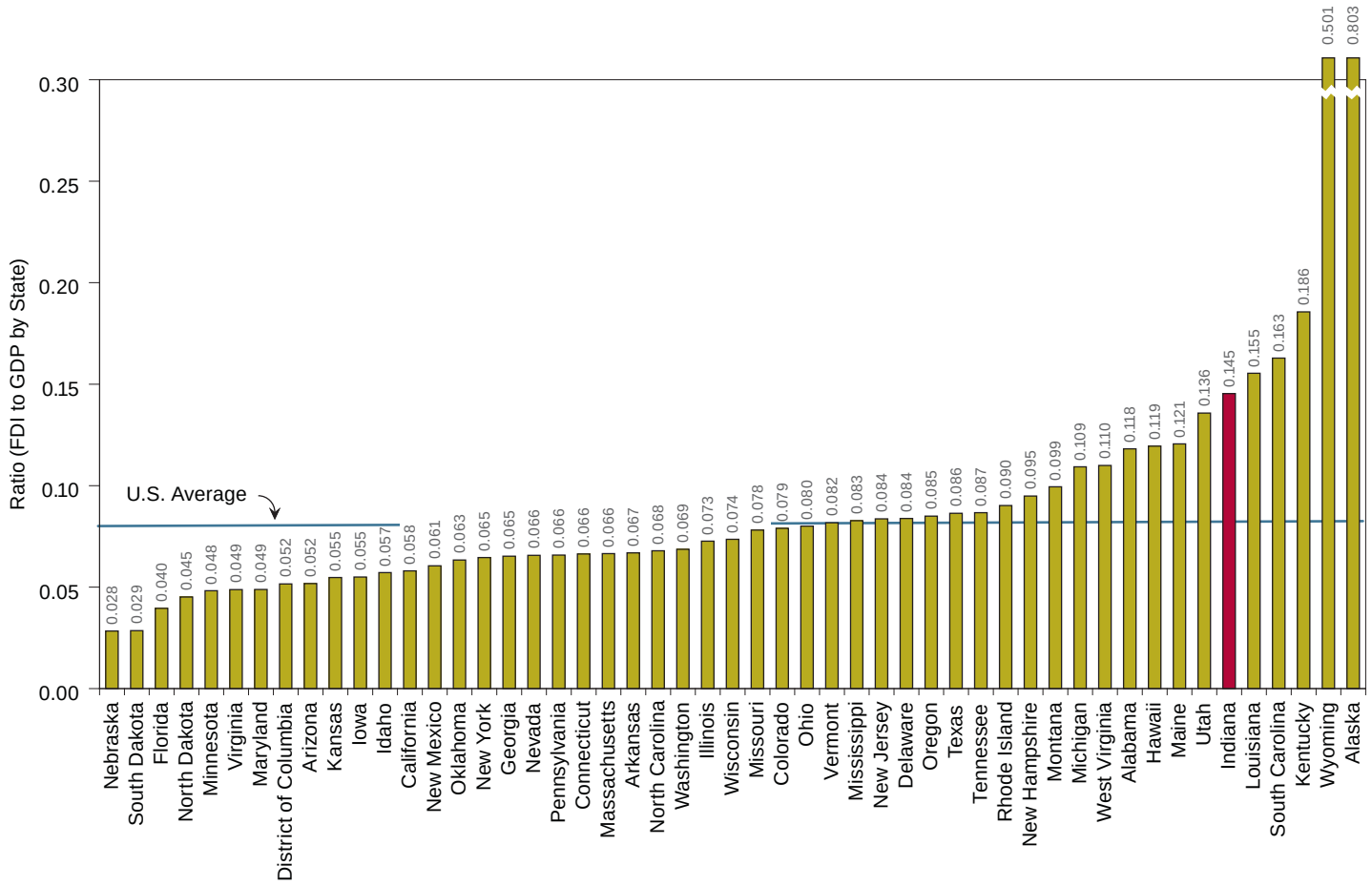
"A preponderance of Midwest MOUSA employment is biased toward manufacturing."

Figure C-9: Majority-Owned U.S. Affiliate Jobs: Manufacturing as a Percent of Total, 2005



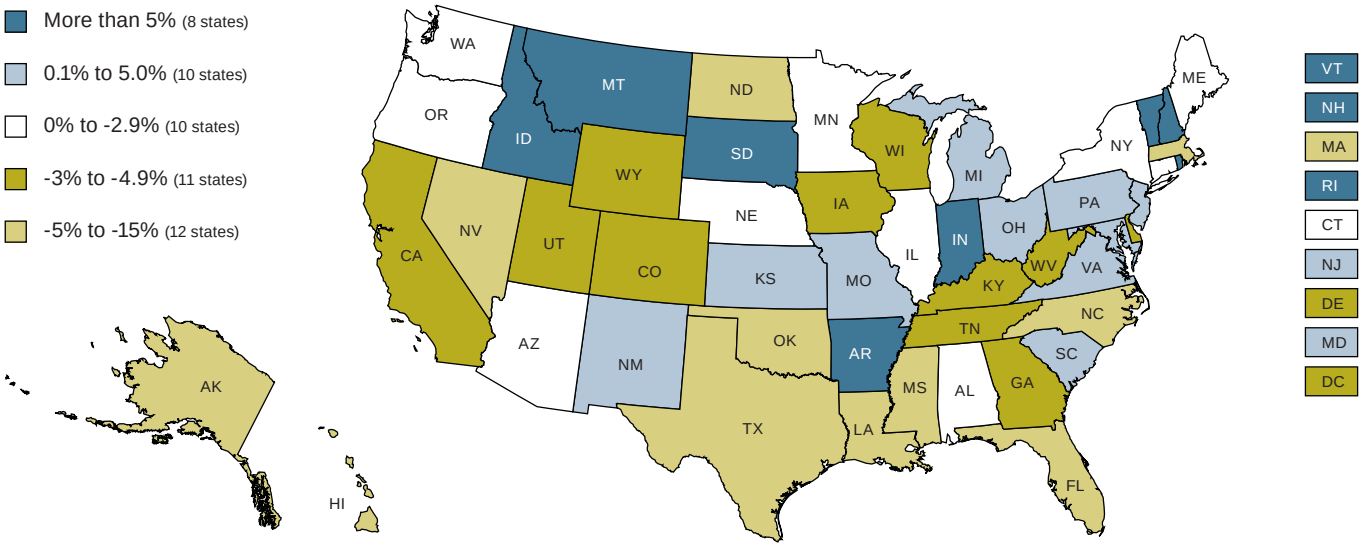
Source: Bureau of Economic Analysis

Figure C-10: Ratio of Foreign Direct Investment to GDP by State, 2005



Source: Bureau of Economic Analysis

Figure C-11: Change in the Ratio of Foreign Direct Investment to GDP by State, 2004 to 2005



Source: Bureau of Economic Analysis

Figure C-11 shows the change in the relative importance of (MOUSA) FDI to a state's economy from 2004 to 2005. In most cases, the rate of economic growth exceeded the rate of growth in foreign direct investment. FDI flowing into Indiana, however, grew more quickly than the state's gross domestic product.

Commercial property investment in Indiana was a mere 3.3 percent of the gross book value of MOUSA property, plant and equipment in 2005, well below the national average of 13.3 percent. **Figure C-12** shows that other Midwestern states have a far larger portion of FDI invested in commercial property than Indiana. Indiana's traditional strength in manufacturing is reflected in foreign interests investing more heavily in manufacturing plant and equipment than in commercial property.

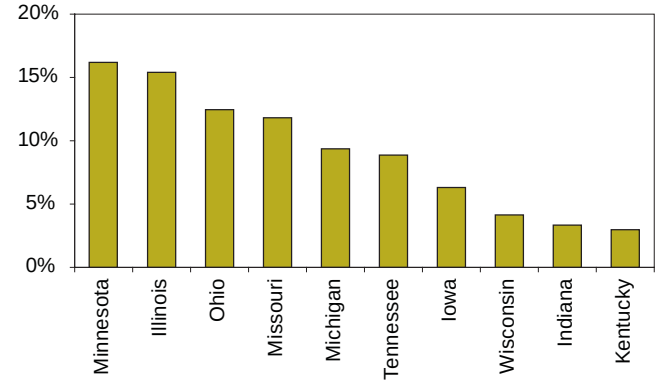
Between 2002 and 2005, MOUSA employment in the United States fell by about 340,000 jobs, or about 2.2 percent at an average annual rate. The gross value of property, plant and equipment, however, increased by $67.8 billion, or 2.2 percent at an average annual rate. The value of Indiana's MOUSA property, plant and equipment increased $6.4 billion, or an impressive average annual rate of 6.8 percent over the same period. As **Figure C-13** shows, this rate is higher than any other Midwestern state. In contrast, Wisconsin and 13 other states across the nation experienced a decrease in the gross value of property, plant and equipment.

From 2002 to 2005, investment in commercial property was not a contributing factor to the increase in the value of property, plant and equipment of the MOUSAs operating in Indiana. FDI in commercial property in Indiana was flat from 2002 to 2005, as was the nation as a whole. Indiana's gross value of commercial property for MOUSAs grew at a mere 0.6 percent, in line with the national average rate of 0.5 percent. As **Figure C-14** shows, the experience of Midwestern states was not consistent. Iowa, Minnesota and Michigan registered significant increases while Illinois, Tennessee and Kentucky posted significant declines in the gross value of MOUSA commercial property.

FDI by Industry

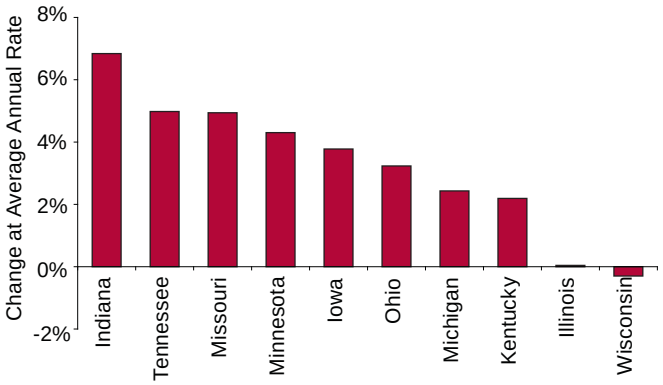
Rather than counting dollars of investment, it may make more sense to use employment as the preferred measure of FDI impact. After all, accounting for changes in the value of the dollar against other currencies along with keeping track of net changes in the capital stock—that is, accounting for new

Figure C-12: Percentage of Gross Value of Property, Plant and Equipment Invested in Commercial Property, 2005



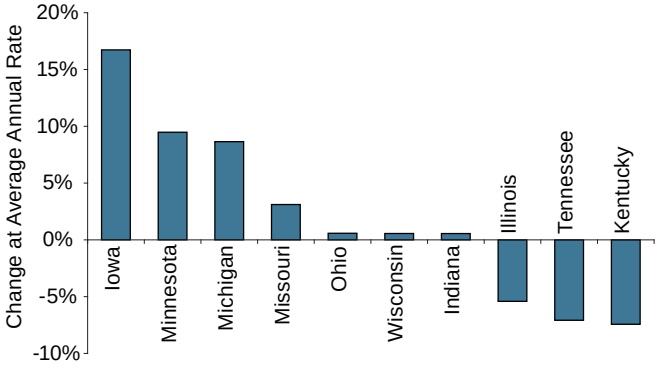
Source: Bureau of Economic Analysis

Figure C-13: Percent Change in the Gross Value of Property, Plant and Equipment for Majority-Owned U.S. Affiliates in the Midwest, 2002–2005



Source: Bureau of Economic Analysis

Figure C-14: Percent Change in the Gross Value of Commercial Property, 2002–2005



Source: Bureau of Economic Analysis

investment flows and depreciation—can be a challenge. On the other hand, the value of a job is not directly affected by changes in exchange rates, nor do most jobs "depreciate" or suffer a reduction in wages. As a result, this section presents the structure of MOUSA employment by industry.

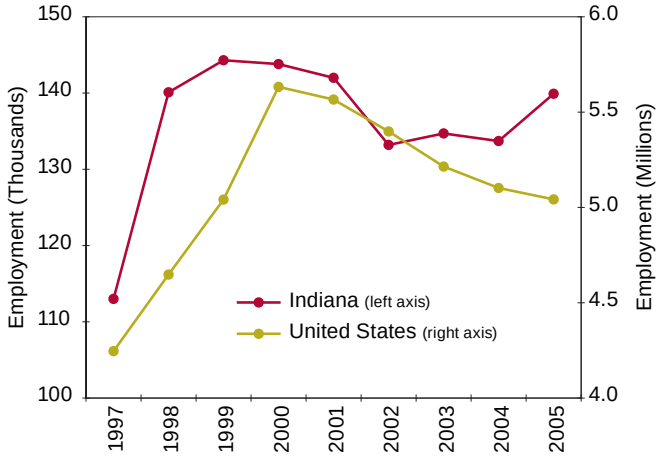
As **Figure C-15** shows, Indiana MOUSA employment has been up and down, but is making its way back up to the 1999 high watermark. The U.S. statistics, however, show that MOUSA employment has been declining through 2005.

Figure C-16 shows the extent to which the manufacturing sector contributes to MOUSA employment in Indiana. Indiana's 66 percent of MOUSA employment engaged in manufacturing earned it the number three slot in the nation for 2005.

The second largest employment by a single sector was wholesale trade. In the United States, majority-owned U.S. affiliate employment is distributed more evenly across industries, although the manufacturing sector is still responsible for the greatest number of jobs (39.1 percent).

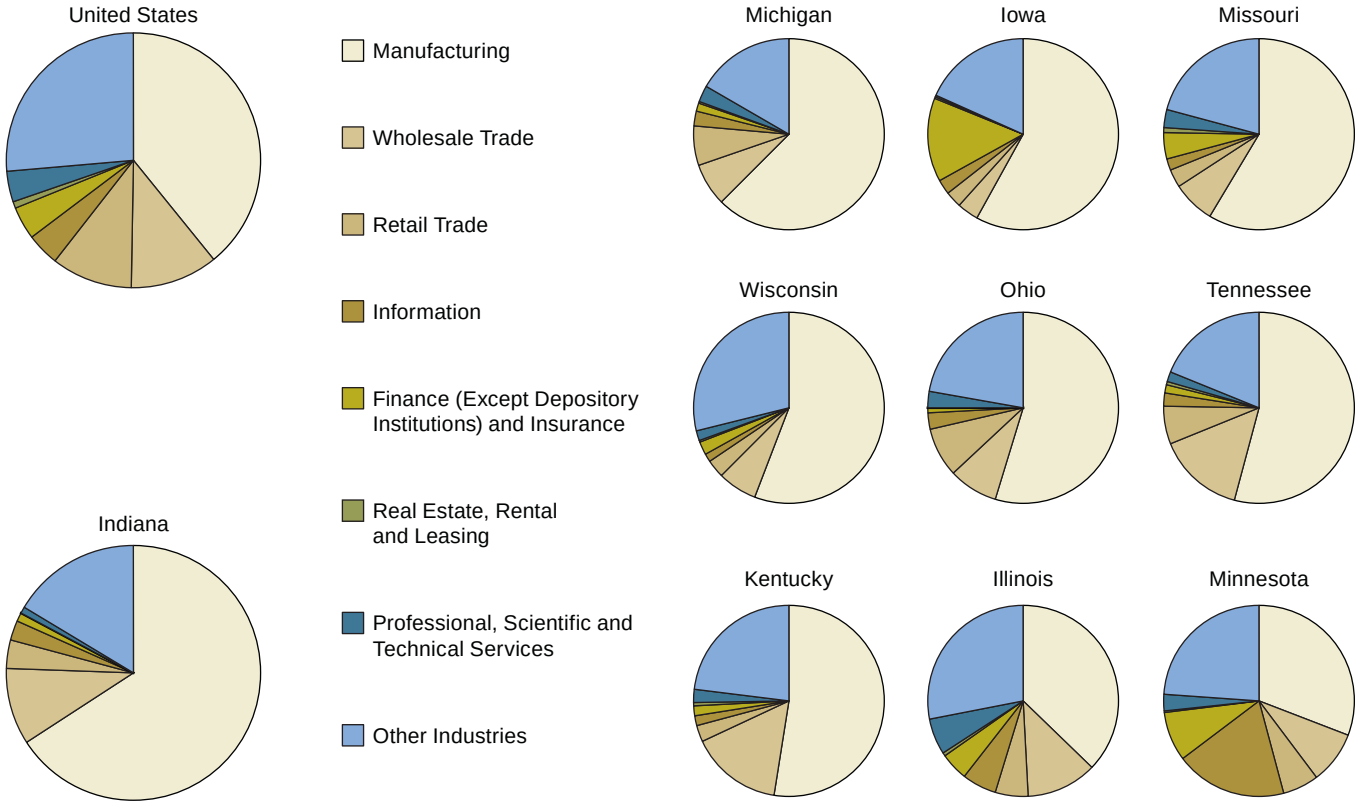
Foreign-controlled U.S. businesses in Indiana comprised 4.1 percent of all private industry employment in 2005 (see **Table C-1**). Indiana's share was greater than the nation and greater than all Midwestern states, with the exception of Kentucky. In 2005, Indiana's share of foreign-controlled U.S. business

Figure C-15: Majority-Owned U.S. Affiliate Employment in Indiana and the United States



Source: Bureau of Economic Analysis

Figure C-16: Share of Majority-Owned U.S. Affiliate Employment by Sector, 2005



Source: Bureau of Economic Analysis

employment in manufacturing was 15.7 percent, behind Kentucky, Michigan and Tennessee.

The Origin of FDI

In 2005, 65.4 percent of Indiana's majority-owned U.S. affiliate employment is attributed to Europe, followed by Asia/Pacific countries (24.4 percent) and Canada (6 percent). In the United States as a whole, Europe is even more strongly represented, with 69.2 percent of MOUSA employment. The Asia and Pacific region is the source of 14.9 percent of U.S. jobs and 7.4 percent of jobs are attributed to Canada. **Figure C-17** shows the relative portions of employment by country of origin. Note that the Asia/Pacific region has a particularly heavy presence in Kentucky and Tennessee.

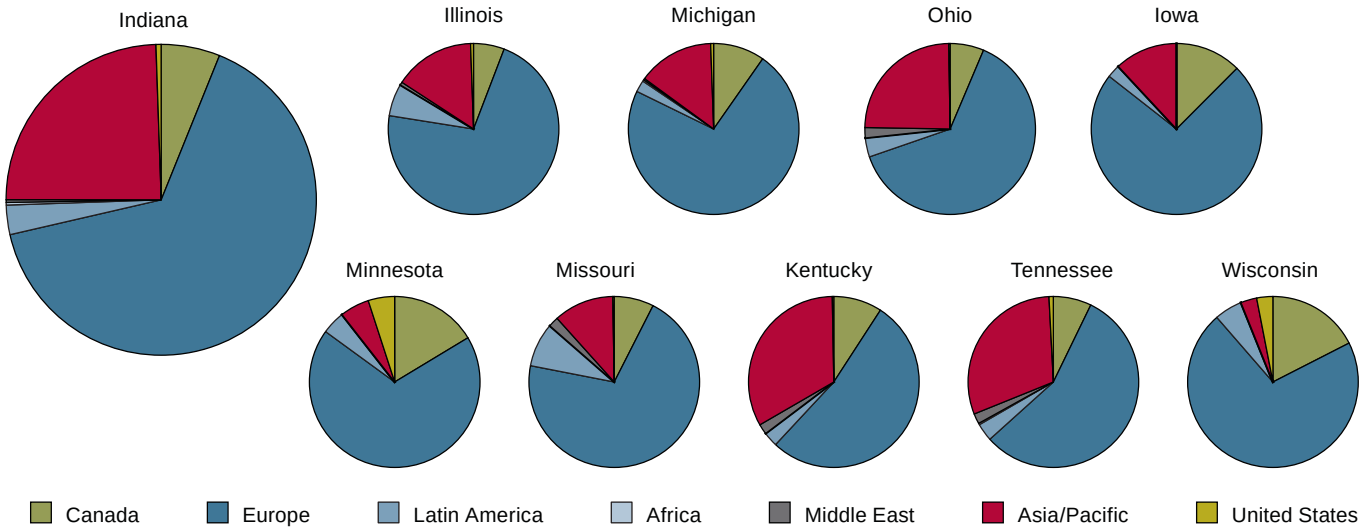
In 2005, Japan lost its position as the number one source of MOUSA jobs in Indiana. The United Kingdom claimed that title with 32,400 jobs, just edging out Japan's 32,000 jobs. Germany held the third position, contributing 25,100 jobs. While Europe contributes a lower proportion of Indiana jobs, as cited above, relative to the U.S. average, Indiana has much stronger linkages to the individual countries of the United Kingdom, Germany and France (see **Figure C-18**).

Table C-1: Employment of Majority-Owned Nonbank U.S. Affiliates by Industry of Affiliate, 2005

State	Indicator	All Industries	Manufacturing	Wholesale Trade	Retail Trade	Information	Finance (Except Depository Institutions) and Insurance	Real Estate, Rental and Leasing	Professional, Scientific and Technical Services	Other Industries
United States	Majority-Owned Affiliate Jobs*	5,085.7	1,986.6	567.8	531.1	211.9	200.7	48.1	197.1	1,342.3
	Percent of Total Private Industry Jobs	3.5%	13.4%	8.9%	2.8%	5.9%	2.5%	0.7%	1.7%	1.7%
Indiana	Majority-Owned Affiliate Jobs*	139.9	92.0	13.7	5.2	3.5	1.3	0.2	0.9	23.1
	Percent of Total Private Industry Jobs	4.4%	15.7%	10.3%	1.3%	7.3%	1.0%	0.2%	0.6%	1.5%
Michigan	Majority-Owned Affiliate Jobs*	202.3	126.4	14.8	13.5	4.9	3.1	0.5	5.2	34.0
	Percent of Total Private Industry Jobs	4.3%	18.0%	7.8%	2.7%	6.1%	1.4%	0.2%	1.4%	1.4%
Ohio	Majority-Owned Affiliate Jobs*	213.8	116.8	17.8	17.7	6.0	1.9	0.3	5.8	47.4
	Percent of Total Private Industry Jobs	3.7%	14.0%	6.9%	2.3%	5.7%	0.6%	0.1%	1.6%	1.6%
Wisconsin	Majority-Owned Affiliate Jobs*	85.3	47.7	5.5	2.7	1.3	1.9	0.2	1.3	24.7
	Percent of Total Private Industry Jobs	2.8%	9.1%	4.2%	0.7%	2.3%	1.1%	0.2%	0.8%	1.7%
Iowa	Majority-Owned Affiliate Jobs*	37.3	21.7	1.3	1.0	1.0	5.3	0.1	0.1	6.8
	Percent of Total Private Industry Jobs	2.3%	9.2%	1.8%	0.4%	2.7%	5.0%	0.2%	0.1%	0.9%
Minnesota	Majority-Owned Affiliate Jobs*	85.6	26.4	7.6	5.1	16.3	7.0	0.4	2.2	20.5
	Percent of Total Private Industry Jobs	2.9%	7.3%	5.3%	1.3%	23.8%	3.8%	0.3%	1.1%	1.3%
Missouri	Majority-Owned Affiliate Jobs*	85.1	49.3	6.2	2.4	1.8	n/a[a]	0.5	2.7	n/a[b]
	Percent of Total Private Industry Jobs	2.9%	15.3%	4.7%	0.6%	2.5%	n/a	0.4%	1.4%	n/a
Kentucky	Majority-Owned Affiliate Jobs*	86.0	45.2	13.3	2.4	1.5	1.5	0.3	2.0	19.8
	Percent of Total Private Industry Jobs	4.5%	16.7%	16.4%	0.9%	4.4%	1.7%	0.5%	2.0%	2.0%
Tennessee	Majority-Owned Affiliate Jobs*	125.9	68.4	18.3	8.3	2.8	1.6	0.6	2.3	23.7
	Percent of Total Private Industry Jobs	4.1%	16.1%	12.8%	2.0%	4.7%	1.1%	0.5%	1.3%	1.5%
Illinois	Majority-Owned Affiliate Jobs*	226.4	84.1	27.3	12.3	13.4	10.8	1.1	13.9	63.5
	Percent of Total Private Industry Jobs	3.5%	11.8%	8.4%	1.6%	9.7%	2.4%	0.4%	2.7%	1.9%

*Data are in thousands
Notes: a = 2,500 to 4,999; b = 10,000 to 24,999. Highlighted cells show where states are greater than Indiana.
Source: Bureau of Economic Analysis

Figure C-17: Midwestern States' Majority-Owned U.S. Affiliate Employment by Source, 2005

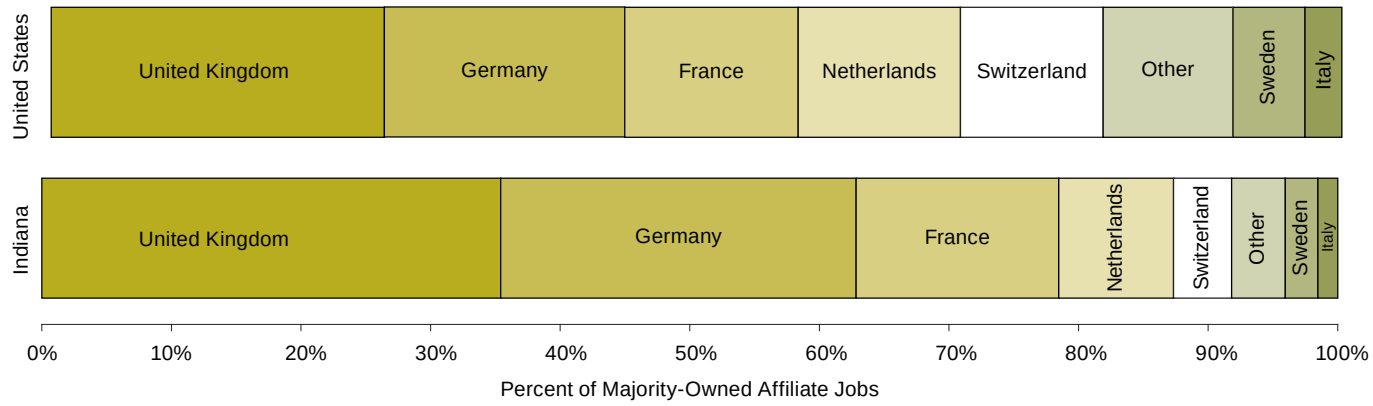


Note: The UBO is the person or persons that ultimately owns or controls the U.S. affiliate. A foreign parent is the first link in the ownership chain of a U.S. affiliate. Unlike the foreign parent, the UBO may be located in the United States.
Source: Bureau of Economic Analysis

Figures C-19 and **C-20** present the source of the dollar amount of gross property, plant and equipment by the country in which the ultimate beneficial owner (UBO) resides.[2] The dollar amount invested shows the differences in the foreign interests in Indiana and the nation. The majority of investment in the United States and Indiana by foreign parents has primarily come from Europe. The Asia/Pacific region is second, but this region's share in Indiana is about one and a half times as much as its share nationwide. Considering that Canada is such an important trading partner for Indiana, it is almost surprising that, relatively speaking, Canadian FDI share in Indiana is less than half that for the United States. FDI originating in Africa and the Middle East is so small for Indiana that it almost does not register.

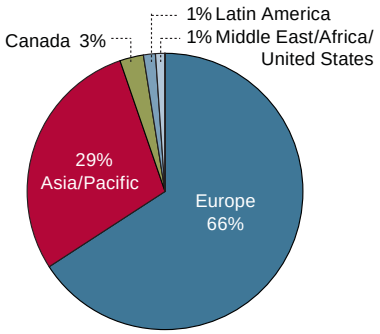
In terms of foreign participation in the U.S. economy, the manufacturing sector is a disproportionately important sector. In 2005, manufacturing contributed approximately 14.5 percent of the nation's privately produced GDP.[3] By way of comparison, an order of magnitude estimate attributes 44.9 percent of MOUSA produced value-added (or GDP) to manufacturing.[4] The dominant source of MOUSA manufacturing employment for both Indiana and the United States was Europe. In 2005, 60 percent of manufacturing jobs in the United States and Indiana were attributed to European parent companies.

Figure C-18: Majority-Owned U.S. Affiliate Employment Contributed by European Parent Companies, 2005



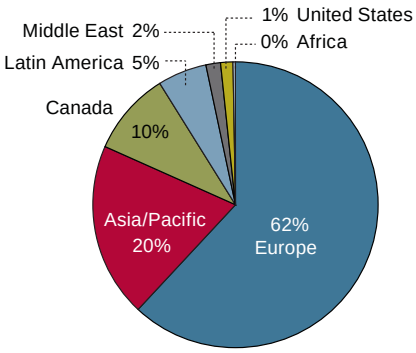
Source: Bureau of Economic Analysis

Figure C-19: Indiana's Majority-Owned U.S. Affiliates FDI by Country of UBO, 2005



Source: Bureau of Economic Analysis

Figure C-20: United States' Majority Owned U.S. Affiliates FDI by Country of UBO, 2005



Source: Bureau of Economic Analysis

There are notable differences between the sources for the other 40 percent of manufacturing jobs. In the United States, more MOUSA employment was originated by Latin America and Canada while the Asia/Pacific region provides a larger share of Indiana's MOUSA manufacturing employment. **Figure C-21** presents a picture of the relative balance of manufacturing employment for the United States and Indiana by the source of FDI and the country in which the UBO resides.

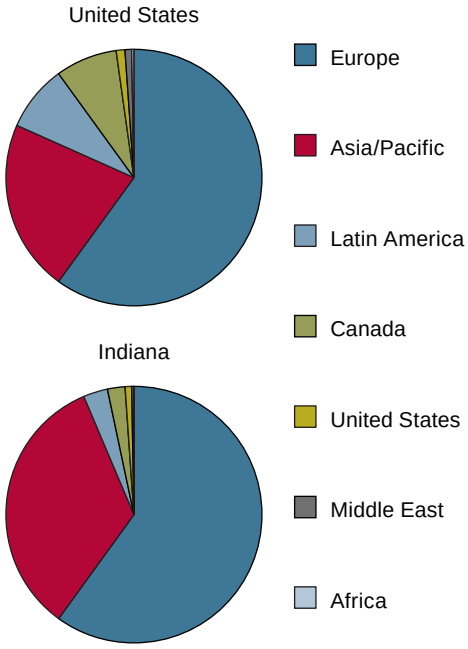
Conclusion

Given the corporate restructuring in the automobile industry, foreign direct investment is playing an increasingly important role in the economy of Indiana. Foreign participation in Indiana is well above the average for the nation. FDI in manufacturing is especially important, contributing 65.8 percent of majority-owned U.S. affiliate jobs in the state. The nation and Indiana shed manufacturing jobs at about the same rate from 2000 to 2003. MOUSA manufacturing employment followed the national trends. But since 2003, Indiana's MOUSA manufacturing employment has diverged from the national pattern and is trending upward. Last year's FDI report anticipated that Indiana's manufacturing employment would stabilize. Rather than stabilize, the MOUSA employment picture has been improving. ■

Notes

1. It is important to note a recent shift in the emphasis in how foreign investment is measured. The better measure of foreign participation in the United States and Indiana is to track the finance and operations of majority-owned affiliates, rather than all affiliates. "All affiliates" refers to those foreign entities that have at least a 10 percent stake in a U.S. company. Unless otherwise specified, all the data and references are for majority-owned U.S. affiliates.
2. The UBO is the person or persons that ultimately owns or controls the U.S. affiliate. A foreign parent is the first link in the ownership chain of a U.S. affiliate. Unlike the foreign parent, however, the UBO may be located in the United States.
3. Based on BEA's GDP by Industry estimates. The percentage was calculated by dividing manufacturing GDP by the net of privately produced GDP less GDP produced by Federal Reserve banks and firms engaged in credit intermediation and related activities. This percentage is an approximate number given that MOUSA value added data do not include banks or any imputations included in the GDP statistics.
4. Comparing these two percentages is not strictly correct because the MOUSA data do not include value added by banks, nor does it include value added imputations elsewhere in the National Income and Product Accounts. This is intended to be an order of magnitude comparison. That said, those caveats do not diminish the fact that MOUSA investment and production is considerably more concentrated in manufacturing.

Figure C-21: Majority-Owned U.S. Affiliates Manufacturing Employment by Country of Ultimate Beneficial Owner, 2005



Source: Bureau of Economic Analysis

Foreign Direct Investment Data

An alert reader would note that this report uses three different data sources—a source for each section—to track trends in FDI. In general, the sources correspond with the scope of the FDI trends: UN data for global investment flows, OECD data for trends more focused on developed economies and BEA data for cross-border investment figures for the United States and states. All of these data sources work to produce timely and accurate data. That said, because of difficulties in collecting, processing and disseminating data, it seems like the data are anything but timely. And as the lag increases, the data seem to become less and less relevant.

In an effort to acquire FDI data that are more current, the IBRC has subscribed to OCO Monitor, a tracking system that collects greenfield investment announcements into a database. While the data in the OCO Monitor database may not be subject to an accountant's scrutiny, as are the investment data reported by the BEA, the data are considerably timelier. OCO Monitor is a real-time monitoring tool that measures foreign direct investment through an array of partnerships with leading media and research firms. These data are the source of greenfield data for the Economist Intelligence Unit and the UNCTAD World Investment Report.[1]

This section will compare the new OCO FDI data with those used in the previous sections. It will examine the benefits and limitations of the various types and sources of FDI data. In this way, one can maximize the effectiveness and insightfulness of one's analysis. Whether evaluating the impact of a firm decision to sell a significant ownership stake to a foreign investor or a state's strategy to attract new foreign investment, the ability to conduct sound analysis is dependent on the quality of the underlying information. The subsequent issues of the FDI in Indiana report will present the OCO data in addition to the more established sources of the UN, OECD and BEA.

In order to provide a context, this section will first discuss the uses of FDI data, followed by a brief discussion of key FDI concepts. The third section outlines the sources of FDI data. Finally, in the fourth section, the strengths and weaknesses of the OCO Monitor data are presented.

Who Uses FDI Data and Why

The process of netting outflows of foreign direct investment (FDI) is done to measure strategic long-term real investments of an economy. What are the questions that users wish to answer? Users of FDI data focus broadly on the indications of globalization, the internationalization of production, the integration of markets and the contribution of growth to economies.[2] Government statistical agencies collect and report the data. Firms and other government agencies (or policy makers) use the data. In addition, academic researchers also use FDI data in their attempt to understand the workings of the global and local economies.

Firms

At the corporate level, many multinational corporations do strategic reviews to plan their resource allocation for strategic business units (SBUs). This plan often takes into account an internal analysis of the firm and external analysis of various marketplaces. Some firms examine FDI data to identify industry investments and market trends. The primary purposes of the firm's foreign direct investments are to establish affiliates to gain access to local markets or to use a country as a base for supplying other markets. Research suggests that a secondary purpose may also exist. Firms may seek tax breaks and position "pass through" investments in tax havens such as the British Virgin Islands, Bermuda, Panama and the Cayman Islands. While some of the investment in these tax havens represents real economic activity, much of it involves shifting income and assets to avoid or reduce taxes.

Governments and Policy Makers

Increasingly, state and local governments have recognized the need to encourage economic development and, thereby, increase incomes and the standard of living. Agencies and policy

> ***"Investment to increase production (or productivity), whether it comes from across the street or across the ocean, is an important driver of economic development."***

makers understand that investment to increase production (or productivity), whether it comes from across the street or across the ocean, is an important driver of economic development. As a result, these agencies and policy makers track trends in FDI and its concomitant employment. Some enterprising state agencies have started to inventory their resources in an effort to highlight the advantages their state may have over other states. Using state-level data, these agencies map the competitive landscape in order to better target the type of firms that would find their state an attractive location to operate.

Researchers

What drives economic and income growth? Policy makers want to know the answer to that question (and the question of how policy can encourage economic growth) and typically turn to research economists for the answers. In broad strokes, economists have found a strong relationship between investment and economic income growth. As alluded to above, investment in capital typically raises the productivity of labor and, with it, increases income. The mergers and acquisitions that lead to technology transfers and improved production processes increase productivity. Significant FDI flows are also indicative of an open and flexible economy (at the national, state and local level) that, in turn, tends to have higher rates of economic growth.

There are more opportunities to learn how FDI drives growth or is an indicator for the capacity to grow. In addition to a flow of financial capital, FDI, it is hypothesized by economists and business researchers, is a vehicle for the transmission of ideas, technological knowledge, organizational knowledge and business knowledge. This transmission takes place through FDI operations, the production, employment, capital investment, and R&D of multinational firms, rather than from the financial flows involved. Because there are no data that can serve to measure these aspects of multinational firms, FDI is often used as a proxy.[3]

"FDI is a vehicle for the transmission of ideas, technological knowledge, organizational knowledge and business knowledge."

Key FDI Concepts

There are several analytical dimensions to FDI data. The first dimension measures operational characteristics and the degree of foreign participation in a national or state economy. It aggregates operational characteristics of a U.S. affiliate into two groups according to the relative control of a firm by a foreign entity: A U.S. affiliate is a firm that has at least 10 percent control by a foreign entity, whereas a majority-owned U.S. affiliate is 50 percent owned by a foreign entity. The latter is considered the better measure of foreign participation in a national or state economy. As a result, the third section (FDI in the United States and Indiana) in this report presented only majority-owned statistics.

Another dimension is financial inflows and outflows of investment. Direct investment is composed of equity capital, reinvested earnings and other capital. Equity capital is straightforward. It reflects private or public financial capital contributions to a firm. Reinvested, or undistributed, earnings are treated as flows from the investor to the affiliate because they increase the investment position of the investor. Other capital refers to the borrowing or lending of funds between direct investors and subsidiaries.

The OCO Monitor data highlights another dimension of FDI, namely, the difference between greenfield investments and mergers and acquisitions.

Greenfield Data

Greenfield data are transactions that mainly involve newly created assets coming under control of the foreign firms. Greenfield data indicate direct investment in new facilities or the expansion of existing facilities. These investments are the primary target of a host nation's promotional efforts because they create new production capacity and jobs, transfer technology and know-how, and can lead to linkages to the global marketplace. The Organization for International Investment cites the benefits of greenfield investment for regional and national economies to include increased employment (often at higher wages than domestic firms); investments in research and development; and additional capital investments. Criticism of the efficiencies obtained from greenfield investments includes the loss of market share for competing domestic firms. Another criticism of greenfield investment is that profits are perceived

to bypass local economies, and instead flow back entirely to the multinational's home economy. Critics contrast this to local industries whose profits are seen to flow back entirely into the domestic economy.[4]

Mergers and Acquisitions

Another important measurement is through mergers and acquisitions (M&A). These are transfers of existing assets from local firms to foreign firms. Unlike greenfield investment, M&As in general provide no direct tangible benefit to the local economy. Because no new physical assets are created, there are few employment benefits. Unless production expands, there is little or no increase in value added produced at the firm and, hence, there is no increase in labor income. Moreover, in most M&A deals, the new owners are merely absentee landlords and the profits are not re-circulated in the local economy. Nevertheless, mergers and acquisitions are a significant form of FDI and until around 1997, accounted for nearly 90 percent of the FDI flow into the United States. Mergers are the most common way for multinationals to do FDI (Calderón, Loayza and Servén, 2002).

In contrast to greenfield investment, M&As are a lower-risk channel to operating in a foreign environment and expanding into new markets. Firms without extensive foreign experience will often pursue M&As before going in alone with a new facility. An M&A, therefore, might be a better first-step that facilitates the learning of a new foreign market.

Sources of FDI Data

Bureau of Economic Analysis

The BEA is the official source of foreign direct investment data. Using surveys, the BEA captures foreign direct investment flows by gathering data about the transactions between foreign parents and their U.S. affiliates. Every five years, comprehensive benchmark surveys capture detailed operating and financial data on establishments and the companies that own them. In non-benchmark years, the BEA surveys a sample of companies on a quarterly and annual basis to update the comprehensive data collected in the benchmark years.

"An M&A might be a better first-step that facilitates the learning of a new foreign market."

Table D-1: Investment Outlays by Type of Investment, 2003–2006

In Millions of Dollars	2003	2004	2005	2006
Total Outlays	$63,591	$86,219	$91,390	$161,533
Type of Investment:				
U.S. Businesses Acquired	$50,212	$72,738	$73,997	$147,827
U.S. Businesses Established	$13,379	$13,481	$17,393	$13,706

Source: Bureau of Economic Analysis

The BEA uses these data for several purposes, but two applications are important for this report. The financial and operating data of U.S. affiliates covers U.S. affiliates' balance sheets and income statements, employment and compensation of employees, sources of finance, and other state specific data. These data cover the entire establishment's financial and operating characteristics as well as the nature and prominence of the foreign parent's stake in the establishment. These data are used to answer broad questions about how FDI affects the U.S. economy.

The second data series is U.S. businesses newly acquired or established by foreign direct investors. This set focuses specifically on outlays by foreign direct investors to acquire or establish affiliates in the United States.[5] The figures for acquisitions incorporate the last year of operating data before the acquisition while establishment figures are projections for the coming year. The BEA does not publish greenfield data or expansion data per se. Probably the closest concept to greenfield and expansion information would be the "U.S. businesses established" data. As **Table D-1** shows, a vast majority of investments are acquired U.S. business.

While FDI data from the BEA may lag behind other sources, it is the most comprehensive and thoroughly scrubbed. For example, the BEA calculates and reports investment positions using three methods: traditional historical cost, current cost and market value. There are significant time lags because the firms have several months to compile and report their data, in the same way that taxpayers have several months to complete their tax returns. After the data are collected, the BEA ensures that

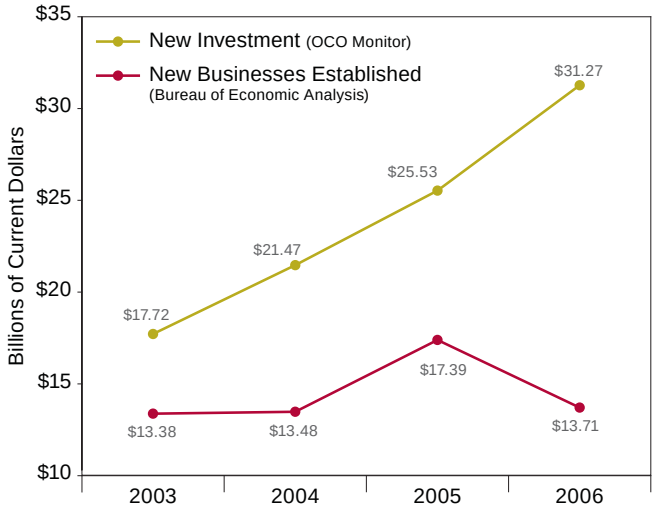
the survey data squares with other third-party data sources. The BEA searches Securities and Exchange Commission filings, media reports and private databases to identify new business and track transactions between firms. The BEA, like most other government statistical agencies, typically tracks economic data on an establishment basis. Most financial statements, however, are reported by companies. This makes harmonizing operating data (establishments) and financial statement data (companies) a non-trivial task.

OCO Monitor

As stated earlier, OCO Monitor tracks greenfield investment and plant and equipment expansions using media releases. Unlike the data collected by the BEA, OCO Monitor does not report official data collected by government statistical agencies. The data are not sanctioned by national governments nor are the data audited by chartered accountants. The media releases, however, are compared to official company press releases by OCO Consulting. The OCO data are future oriented. That is, they represent pledges of investment and employment in the undefined future. While BEA data count all the employees on the payroll at any given establishment and report it with a significant lag between the reference year and the publication year, the OCO Monitor data count the number of employees that the firm states will be employed in the future at a new establishment or at the expansion of an existing establishment as those jobs and investments are announced.

The OCO Monitor data set has several key benefits. First, when compared to BEA data, the OCO Monitor data may have more relevance for real-time FDI investment analysis. This can be attributed to the short lead-time needed to verify new FDI investment announcements vs. the 18 months to 24 months needed to collect, assemble and harmonize financial and operating statistics. For this reason, OCO Monitor's role is best suited as a feedback and planning device. Secondly, the project specific data that OCO Monitor provides give one the ability to determine the characteristics of the projects. They may also provide some insight as to the nature of the business model of different firms engaged in new plant investment. For example, one pharmaceutical firm may invest in a new facility to manufacture generic drugs while another firm may pursue a higher value added approach by establishing R&D facilities as well as a manufacturing plant. These would be two completely different business models, but the nature of those models would not be evident in the BEA data. Finally, by bringing in other

Figure D-1: New Investment in the United States by Foreign Parent Companies



Source: OCO Monitor and Bureau of Economic Analysis

sources of data one will be able to evaluate trends in project life cycles (OCO Monitor).

There are weaknesses with this set as well. Most notably is that the data represent promises and may not reflect actual investments. Moreover, some investments and employment numbers are estimated. Consider a case in which a firm makes an announcement about their investment plan, but does not note the details. OCO Consulting uses industry specific ratios to estimate the investment and employment impact for a particular type of operation. Manufacturing facilities, distribution centers, sales offices and retail outlets all have different employment and investment profiles. When necessary, OCO uses historical operational and industry data to "fill in the blanks" for the dollar value of investment and employment for any particular investment announcement. As a result, one should take care when interpreting capital expenditures and jobs.

It is also impossible to track net changes in employment due to international transactions and investment decisions. BEA data report the number of heads that work at a particular site for a year; they are net of any increases and decreases in the workforce. OCO tracks announcements for increases in employment and investment. It does not track announced reductions in workforce, mass layoff or the withdrawal of investment. There could be a number of cases in which companies invest in a new plant and equipment only to close aging facilities. Currently no tools exist for a user to review

any follow through to update the data by OCO Monitor (OCO Monitor).

As **Figure D-1** shows, there is a significant difference between the BEA data and OCO data. Recall, however, that OCO tracks announcements for investment in the future, while the BEA tracks investments in the reporting year. Only after several more years would one be able to ascertain if there are similar trends in the two data series. One would expect lags between the OCO and BEA data, even if they measured exactly the same thing. Given that they do not measure the same concept—BEA data are net figures while OCO data are gross increases—it may be futile, if not foolish, to expect the series to be comparable. A case in point: even while the BEA reported increases in investment in U.S. business in each year from 2003 to 2005, The BEA also reported that employment by majority-owned U.S. affiliates declined in each year over the same period. On the other hand, from the OCO perspective, jobs follow investment. With the OCO data, the glass is always half full.

What is the source to use? It depends. The BEA is the gold standard in terms of official, auditable data. Economists can use BEA data to perform research on the drivers and sources of economic growth. BEA data is detailed and comprehensive, suitable for understanding the dynamics and structure of economic activity. On the other hand, the lag between the reference year and the reporting year for BEA data makes it less relevant for policy practitioners who have to operate in real time.

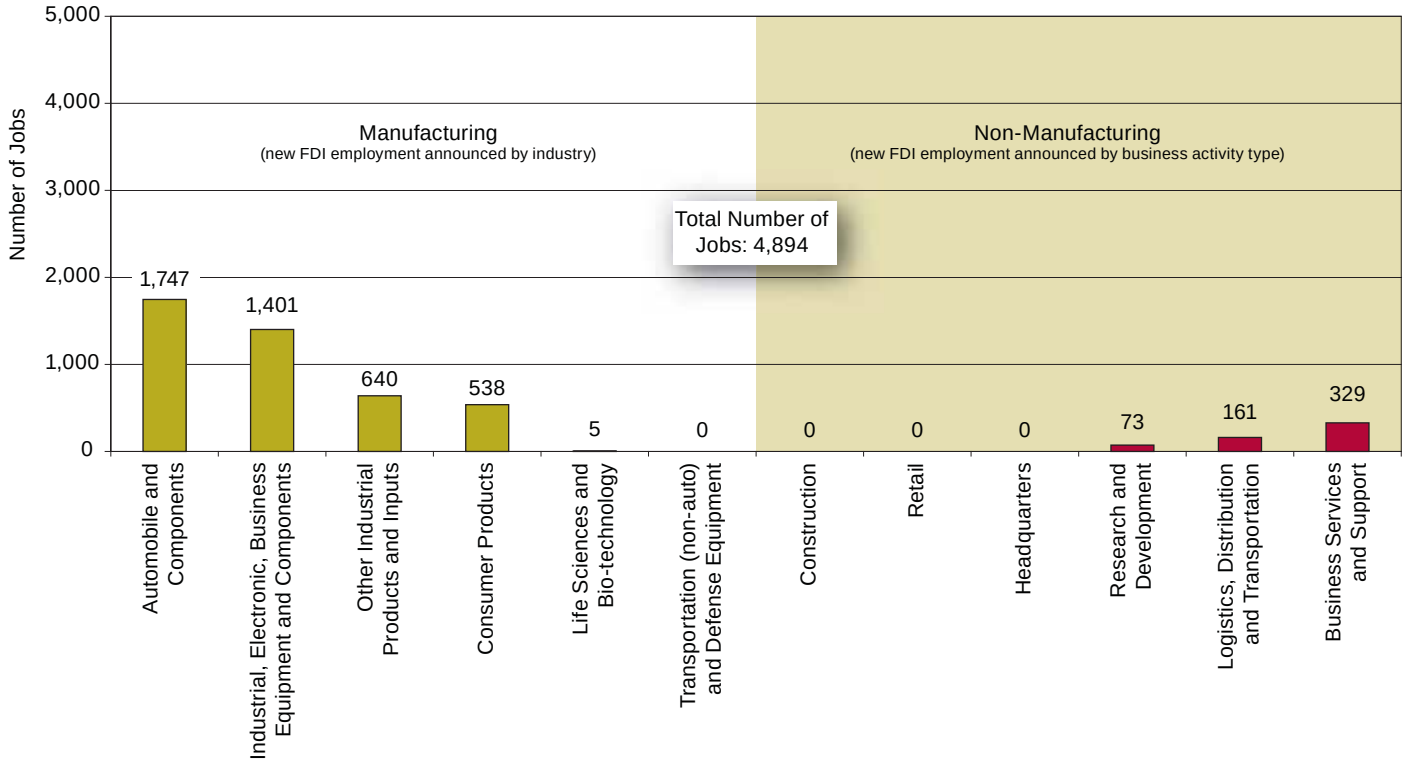
Using the OCO data, one can get a very current read on how well a state is doing in attracting FDI. Practitioners can also compare recent trends between states and countries. One can also conduct analysis on a company level, while one can only perform industry analysis with BEA data.

Given that there are strengths and weaknesses to both, future reports will present data from both sources.

FDI and Employment Announcements for the United States and Indiana

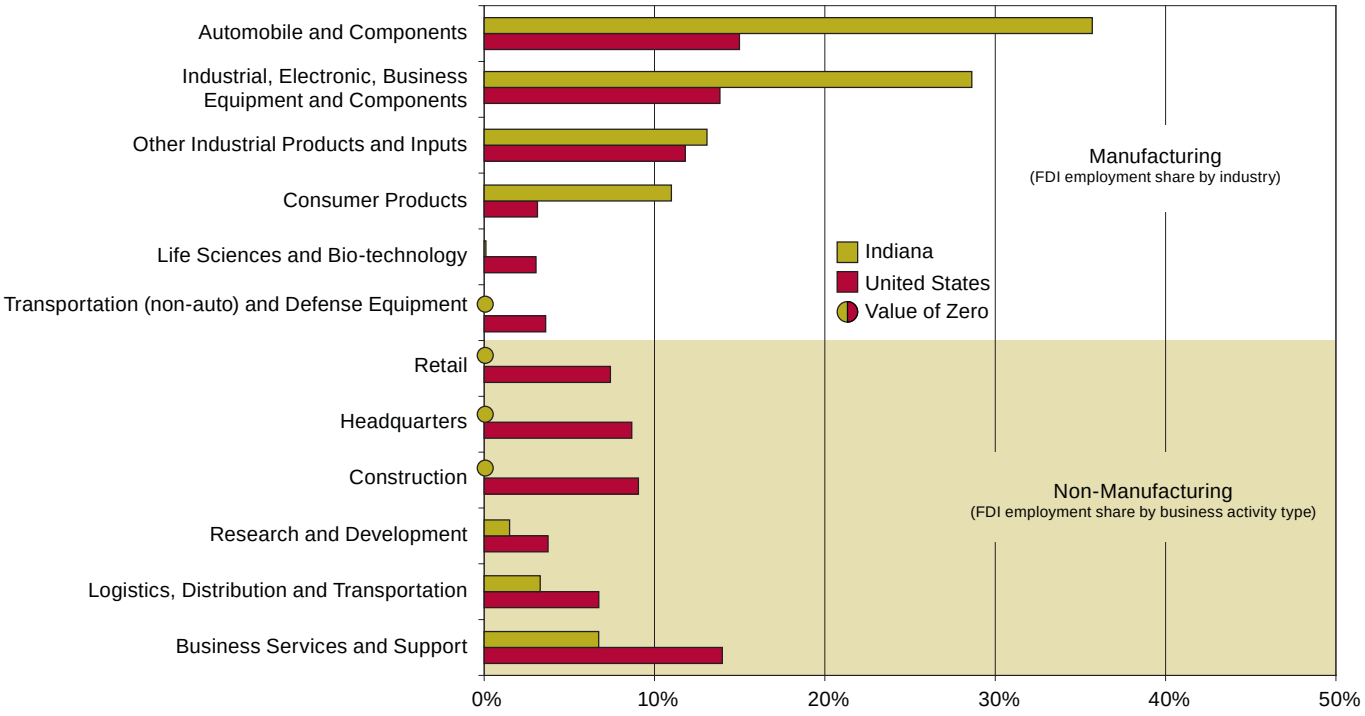
Figure D-2 provides a current picture of FDI trends in Indiana. It also provides a glimpse at the data reported by OCO Monitor.

Figure D-2: New FDI Created Job Announcements for Indiana, 2007



Source: OCO Monitor

Figure D-3: Share of New FDI Jobs by Business Activity in the United States and Indiana, 2007



Source: OCO Monitor

The data are organized in a slightly unorthodox fashion, but one that presents a good snapshot of FDI employment announcements in Indiana. The OCO Monitor data allow the user to organize according to industry and business activity. This graph creates a hybrid presentation. This is so one can pull apart the activities associated with a particular industry. When one thinks in terms of an industry, say pharmaceuticals, it is usually in terms of its primary activity, in this instance, manufacturing drugs. A pharmaceutical firm also engages in research and development, establishes sales offices and regional headquarters, and sets up call centers for customers. In this presentation, the business activity of manufacturing is broken down into six industries. This permits one to get an impression of the type of manufacturing jobs coming to Indiana. (Otherwise, the manufacturing activity would be huge and all other activities would be small in comparison.) If one categorized exclusively on an industry basis, there would be no way of knowing whether that pharmaceutical firm's presence was high-paying R&D or low-paying call centers.

Figure D-3 shows the relative share of the announced jobs by business activity for both the United States and Indiana. FDI-related jobs were more evenly spread among industries and activities in the United States than in Indiana. No more than 15 percent of jobs are going to any one manufacturing industry or business activity in the United States. It is likely that Indiana's future economic base will look much like its past economic base, at least in terms of foreign participation.

We look forward to bringing you foreign direct investment reports on a regular basis. Please send any comments about this report to ibrc@iupui.edu. ■

Notes

1. OCO Monitor, 2008. Available at www.ocomonitor.com. All subsequent references are cited as (OCO Monitor).
2. M. Everett, *Foreign Direct Investment: An Analysis of Its Significance*, Central Bank and Financial Services Authority of Ireland Quarterly Bulletin, 2006(4): 19.
3. R.E. Lipsey, *What Do Users of FDI Data Want to Learn from Them and Do the Data Tell Them the Truth?* United Nations Conference on Trade and Development, 2005: 13.
4. C. Calderón, N. Loayza and L. Servén, *Greenfield FDI vs. Mergers and Acquisitions: Does the Distinction Matter?* Working Papers Central Bank of Chile, 2002(173): 34. All subsequent references are cited as (Calderón, Loayza and Servén, 2002)
5. Anne Y. Kester and Panel on International Capital Transactions, N.R.C., in *Following the Money: U.S. Finance in the World Economy*, 1995: 58–63.

Appendix

International Investment Commitments in Indiana, 2005–2007

The following maps represent international projects completed by the Indiana Economic Development Corporation (IEDC) from 2005 to 2007. The companies have committed to create a certain number of jobs and invest an indicated amount in order to be eligible to receive state incentives. The international investments listed below do not represent all foreign companies existing in the state or other investments that have been carried out by foreign-owned companies without state assistance.

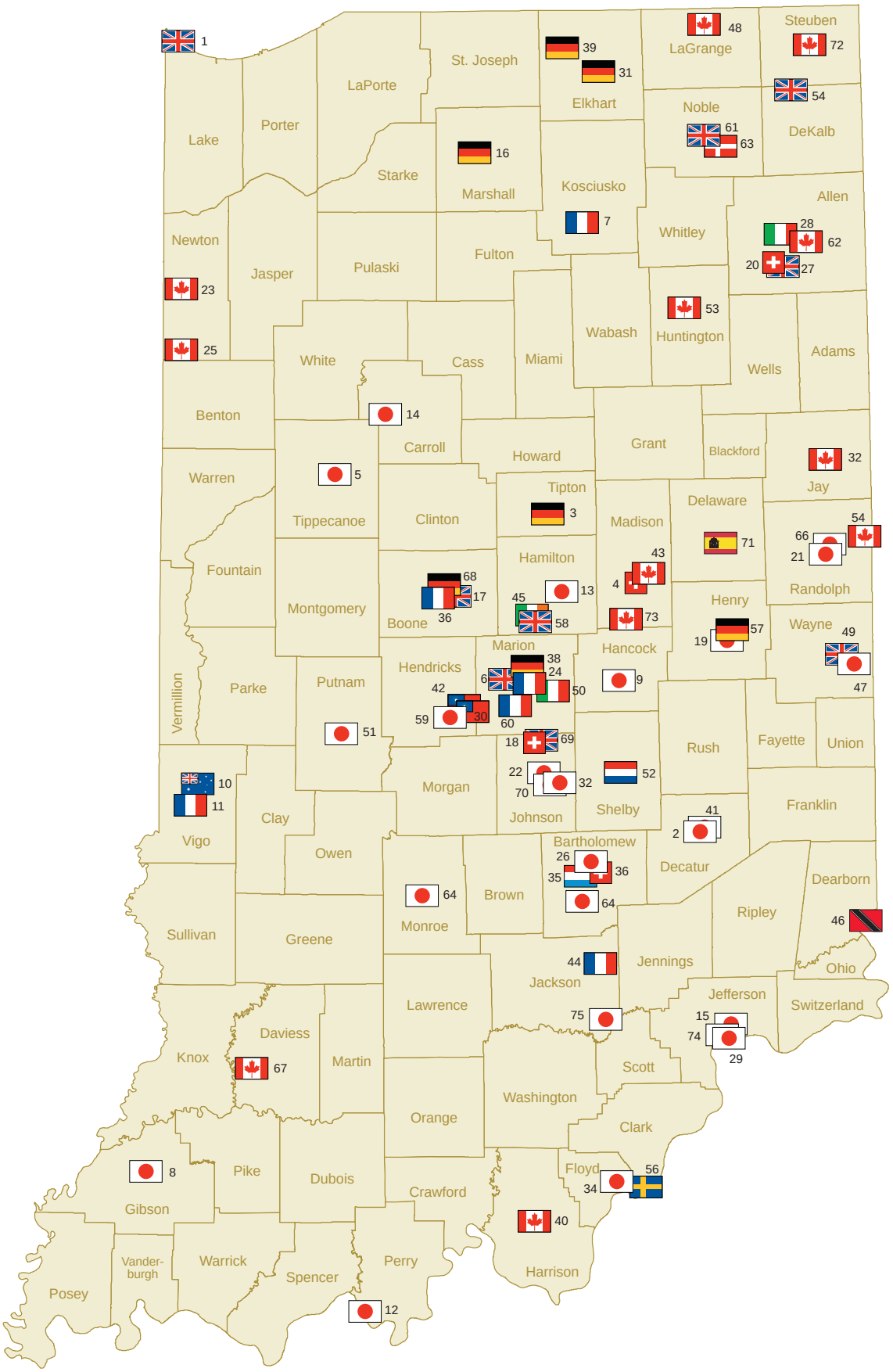
Country	Rank by Investment	Company	Industry	City	County	New Jobs	Investment	Type of Project*
Australia	10	Boral Bricks, Inc.	Manufacturing–Bricks	Terre Haute	Vigo	50	$55,700,000	N
Canada	23	INIG, Inc.	Manufacturing–Paper	Morocco	Newton	80	$23,600,000	N
	25	Ice River Springs Kentland, LLC	Manufacturing–Bottled Water	Kentland	Newton	56	$20,000,000	N
	32	Doane Pet Care Company	Manufacturing–Pet Food	Portland	Jay	51	$12,800,000	E
	40	Martinrea International, Inc.	Manufacturing–Auto	Corydon	Harrison	322	$10,970,668.80	N
	43	Mancor Industries, Inc.	Manufacturing–Auto	Anderson	Madison	80	$10,000,000	N
	48	Magna Powertrain	Manufacturing–Auto	Howe	LaGrange	0	$6,940,000	E
	53	CFM U.S. Corp.	Manufacturing–Fireplaces	Huntington	Huntington	214	$4,400,000	E
	54	Westfield Distributing, Inc.	Manufacturing–Grain	Union City	Randolph	71	$4,300,000	N
	62	MTC–Manufacturing & Technology Centre	Distribution–Refurbished Electronics	New Haven	Allen	60	$2,500,000	N
	67	Olon Industries, Inc.	Manufacturing–Furniture Parts	Washington	Daviess	13	$1,800,000	E
	72	iHire, LLC	Information Technology	Angola	Steuben	30	$1,335,360.00	E
	73	Atlas Cold Storage USA, Inc.	Life Sciences–Logistics	Pendleton	Madison	38	$1,172,953.60	N
Denmark	63	Novozymes Biologicals, Inc.	Biotech	Albion	Noble	5	$2,300,000	E
France	7	Louis Dreyfus Agricultural Industries, LLC	Agriculture–Manufacturing	Claypool	Kosciusko	85	$135,000,000	N
	11	CertainTeed Corp.	Manufacturing–Building Products	Terre Haute	Vigo	145	$55,000,000	N
	24	Redcats USA	Disbursement–Logistics	Indianapolis	Marion	42	$21,400,000	E
	36	Hachette Book Group USA	Distribution	Lebanon	Boone	38	$12,000,000	E
	44	Valeo Sylvania	Manufacturing–Auto	Seymour	Jackson	173	$9,309,060.80	E
	60	Veolia Water Indianapolis	Headquarters	Indianapolis	Marion	95	$3,200,000	N
Germany	3	GETRAG	Manufacturing–Auto	Tipton	Tipton	1,400	$455,000,000	N
	16	Zentis Food Solutions North America, LLC	Manufacturing	Plymouth	Marshall	154	$42,500,000	N
	31	Benteler Automotive Corp.	Manufacturing–Auto	Goshen	Elkhart	290	$13,897,728.00	E
	38	Schneider Corp.	Headquarters–Engineering	Indianapolis	Marion	141	$11,675,476.80	E
	57	KVK US Technologies, Inc.	Manufacturing–Lawn Plastic Molds	New Castle	Henry	25	$3,500,000	N
	68	Festool USA	Headquarters–Distribution	Noblesville	Boone	30	$1,747,200.00	N
	39	Siemens Medical Solutions Diagnostics	Life Sciences	Elkhart	Elkhart	68	$11,100,000	E
Ireland	45	Baker Hill Corp.	Information Technology	Carmel	Hamilton	226	$9,200,000	E
Italy	28	Valbruna Slater Stainless, Inc.	Manufacturing–Steel	Ft. Wayne	Allen	20	$16,700,000	E
	50	GVS Filter Technology, Inc.	Life Sciences–Manufacturing	Indianapolis	Marion	115	$6,013,488.00	E

*N = new; E = expansion
Source: IEDC

Country	Rank by Investment	Company	Industry	City	County	New Jobs	Investment	Type of Project*
Japan	2	Honda	Manufacturing–Auto	Greensburg	Decatur	2,067	$550,000,000	N
	5	Toyota Motor North America, Inc.	Manufacturing–Auto	Lafayette	Tippecanoe	1,000	$200,000,000	N
	8	Toyota Boshoku	Manufacturing–Auto	Princeton	Gibson	230	$66,000,000	N
	9	Keihin IPT Manufacturing, Inc.	Manufacturing–Auto	Greenfield	Hancock	70	$60,000,000	E
	12	ATTC Manufacturing, Inc.	Manufacturing–Auto	Tell City	Perry	90	$49,900,000	E
	13	SMC Corp. of America	Disb./Manufacturing–Headquarters	Noblesville	Hamilton	275	$45,500,000	E
	14	Indiana Packers Corp.	Processing–Food	Delphi	Carroll	125	$43,000,000	E
	15	Arvin Sango, Inc.	Manufacturing–Auto	Madison	Jefferson	39	$42,800,000	E
	19	TS Tech North America, Inc.	Manufacturing–Auto	New Castle	Henry	300	$32,800,000	N
	21	TOMASCO Indiana, LLC	Manufacturing–Auto	Winchester	Randolph	140	$29,300,000	E
	22	KYB Manufacturing N. America, Inc.	Manufacturing–Auto	Franklin	Johnson	51	$24,000,000	E
	26	Sunright America, Inc.	Manufacturing–Auto	Columbus	Bartholomew	45	$19,400,000	E
	29	Madison Precision Products, Inc.	Manufacturing–Auto	Madison	Jefferson	66	$15,900,000	E
	32	Nishina Industrial Co. d/b/a Indiana Hydraulic Equipment, Corp.	Manufacturing–Auto	Franklin	Johnson	34	$12,800,000	N
	34	Hitachi Cable Indiana, Inc.	Manufacturing–Auto	New Albany	Floyd	159	$12,700,000	E
	41	Midwest Express	Manufacturing–Auto	Greensburg	Decatur	46	$10,800,000	N
	47	TBK America, Inc.	Manufacturing–Auto	Richmond	Wayne	70	$8,600,000	N
	51	Chiyoda USA Corp.	Manufacturing–Auto	Greencastle	Putnam	200	$5,720,000.00	N
	59	Epson America, Inc.	Distribution–Logistics	Plainfield	Hendricks	132	$3,286,483.20	E
	64	MIRWEC Film, Inc.	Manufacturing–Film	Bloomington	Monroe	12	$2,200,000	E
	64	Enkei America Moldings, Inc.	Manufacturing–Auto	Columbus	Bartholomew	10	$2,200,000	N
	66	Tomasco Indiana, LLC	Manufacturing–Auto	Winchester	Randolph	82	$2,103,004.80	E
	70	NSK Precision America, Inc.	Manufacturing–Auto	Franklin	Johnson	28	$1,549,766.40	E
	74	Arvin Sango, Inc.	Manufacturing–Auto	Madison	Jefferson	26	$977,766.40	E
	75	Aisin Chemical Manufacturing, Inc.	Manufacturing–Auto.	Crothersville	Jackson	25	$767,520.00	N
Luxemburg	35	PMG Indiana Corp.	Manufacturing–Auto	Columbus	Bartholomew	73	$12,500,000	E
Netherlands	52	Ten Cate Enbi, Inc.	Manufacturing–Image Rollers	Shelbyville	Shelby	34	$4,600,000	E
Spain	71	Miasa Automotive, LLC	Manufacturing–Auto	Muncie	Delaware	12	$1,400,000	N
Sweden	56	Becker Acroma Corp.	Manufacturing–Coatings	Jeffersonville	Clark	38	$4,000,000	N
Switzerland	4	Nestle USA, Inc.	Manufacturing–Food	Anderson	Madison	341	$338,000,000	N
	18	Nestle Waters North America Holding, Inc.	Manufacturing–Bottle Water	Greenwood	Johnson	64	$33,400,000	N
	20	Dreyer's Grand Ice Cream	Manufacturing–Food	Fort Wayne	Allen	68	$30,400,000	E
	36	Georg Utz, Inc.	Manufacturing–Plastic Storage	Columbus	Bartholomew	100	$12,000,000	E
Taiwan	30	Q-Edge Corp.	Manufacturing–Information Technology–	Plainfield	Hendricks	1,456	$15,500,000	E
	42	Q-Edge Corp.	Manufacturing–Information Technology	Plainfield	Hendricks	390	$10,496,928.00	E
Trinidad	46	Lawrenceburg Distillers Indiana	Manufacturing–Distillery	Lawrenceburg	Dearborn	150	$8,900,000	N
United Kingdom	1	BP Products North America, Inc.	Refining–Petroleum	Whiting	Lake	74	$3,000,000,000	E
	6	Rolls-Royce	Manufacturing–Auto	Indianapolis	Marion	600	$145,000,000	E
	27	BAE Systems Controls, Inc.	Operations -Headquarters	Ft. Wayne	Allen	36	$19,200,000	E
	49	Marvel Industries	Manufacturing–Refrigeration	Richmond	Wayne	20	$6,300,000	E
	54	TI Automotive	Manufacturing–Auto	Ashley	DeKalb	87	$4,300,000	E
	58	Oxford BioSignals, Inc.	Life Sciences	Carmel	Hamilton	124	$3,400,000	E
	61	Dexter Axle, Inc.	Manufacturing–Auto	Albion	Noble	96	$2,875,392.00	E
	69	Keronite, Inc.	Manufacturing–Alloys	Greenwood	Johnson	25	$1,550,000	E
	17	To be announced	Distribution	Lebanon	Boone	100	$38,700,000	N

*N = new; E = expansion
Source: IEDC

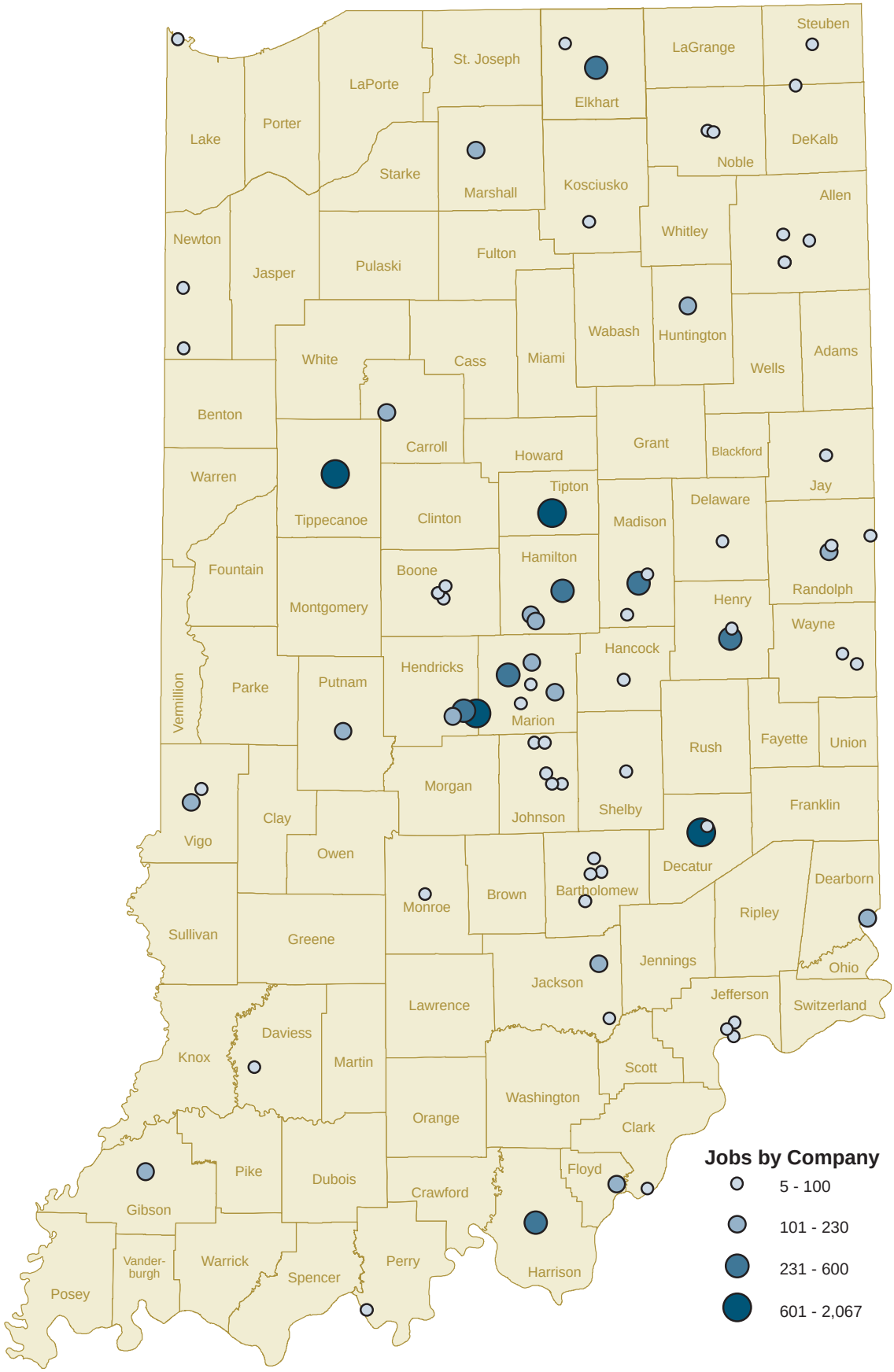
International Investment Commitments in Indiana, 2005–2007



- Australia
- Canada
- Denmark
- France
- Germany
- Ireland
- Italy
- Japan
- Luxemburg
- Netherlands
- Spain
- Sweden
- Switzerland
- Taiwan
- Trinidad
- United Kingdom

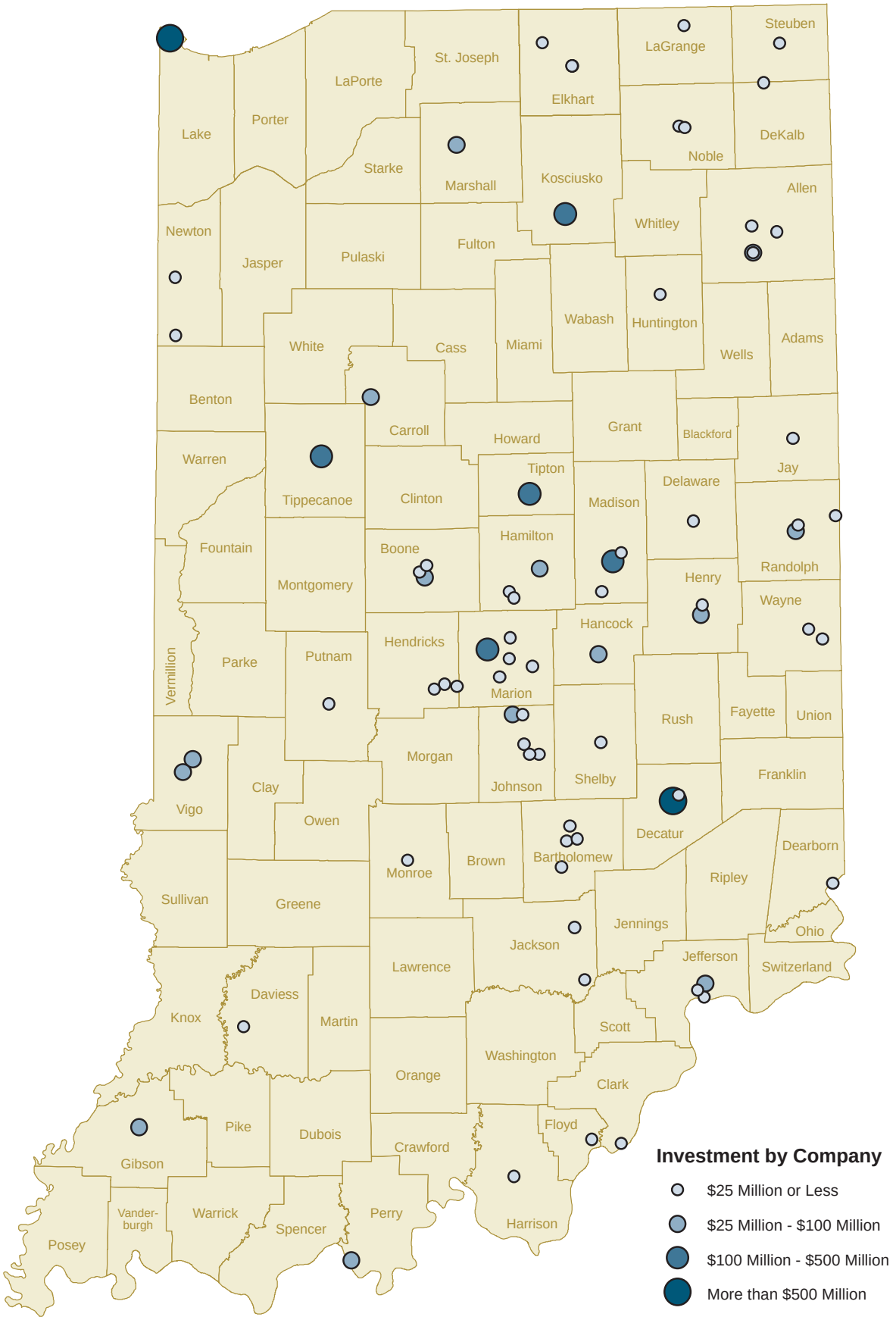
Notes: Labels show rank by investment. Flags are located randomly within each city
Source: Indiana Business Research Center, using data from the Indiana Economic Development Corporation, January 2008

New Job Commitments by International Businesses in Indiana, 2005–2007



Note: Symbols are located randomly within each city
Source: Indiana Business Research Center, using data from the Indiana Economic Development Corporation, January 2008

New International Investment Commitments in Indiana, 2005–2007



Note: Symbols are located randomly within each city
Source: Indiana Business Research Center, using data from the Indiana Economic Development Corporation, January 2008