

**The Economic Contributions to the  
U.S. National and State Economies by the  
Oil and Natural Gas Industry**

**Prepared for**

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ECONOMIES BY THE OIL AND NATURAL GAS INDUSTRY**

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# THE ECONOMIC CONTRIBUTIONS TO THE U.S. NATIONAL AND STATE ECONOMIES BY THE OIL AND NATURAL GAS INDUSTRY

## 1. Introduction

As a critical link in the nation's energy supply, the oil and natural gas industry makes many important contributions to the U.S. economy by providing an economical energy source for transportation and the production of other goods. According to U.S. Department of Energy, the oil sector currently supplies more than 40% of the nation's total energy demands and more than 99% of the fuel used by Americans in their cars and trucks, while 900 of the next 1000 U.S. power plants will use natural gas. In fact, natural gas has become increasingly popular as an alternative transportation fuel, because it is domestically produced and readily available to end-users through the existing utility infrastructure.

In addition to the important products made available by the oil and natural gas industry, the industry also makes significant economic contributions as an employer and purchaser of goods and services. The oil and natural gas industry is one of the largest employers in the country, employing millions of Americans in exploring, producing, processing, transporting, and marketing oil and natural gas. Millions of other jobs are supported by the industry's purchases of goods and services from other producers. These businesses include equipment suppliers, construction services, management services, food services, and many other types of support services. These supporting businesses, in turn, purchase goods and services, causing additional economic activities. Further, employees and business owners make personal purchases out of the additional income that is generated by this process, sending more new demands rippling through the economy.

The purpose of this research report is to quantify the effects of the oil and natural gas industry's employment and purchases of goods and services on the U.S. national and state economies in terms of jobs, value-added, and labor income. The economic effects of the use of oil and natural gas in the economy are not included in this analysis.

In describing the economic impact of the oil and natural industry through its employment and purchases of goods and services, it is standard to consider three separate channels that in aggregate constitute the total economic impact of the oil and natural gas industry: direct impact, indirect impact, and induced impact.

*Direct impact* is measured as the jobs, labor income, and value added within the oil and natural gas industry. *Indirect impact* is measured as the jobs, labor income, and value added occurring within other industries that provide goods and services to the oil and natural gas industry. *Induced impact* is the change in jobs, labor income, and value added resulting from household spending of income earned either directly or indirectly from the oil and natural gas industry's spending. In total, these three effects result in the oil and natural gas industry having a widespread economic impact throughout all sectors of the economy and in all geographic areas.

Using the IMPLAN input-output modeling system, PricewaterhouseCoopers has built customized multiplier models for the country as a whole and the 50 states and the District of Columbia to document the oil and natural gas industry’s economic contribution at the national and state level in 2004, the most recent historical year for which a consistent set of national and state level data are available from the IMPLAN modeling system.<sup>1</sup> The input-output multiplier models trace all the *backward linkages* among industries in a geographic region.<sup>2</sup> They do not capture any *forward linkages* (i.e., the link between an industry producing a good or service and the consumers of that good or service). The models also do not capture the impact of capital investment in excess of that required to replace depreciated capital. The rest of this report is organized as follows. Section 2 defines the oil and natural gas industry for this study. Section 3 presents the direct impact analysis, followed by indirect and induced impact analysis in Section 4. Detailed state-by-state impact results are included in Appendix A. Data sources used in this research report are discussed in Appendix B.

## 2. Industry Definition

In government economic statistics, the oil and natural gas industry encompasses a number of sectors. Oil and natural gas production is included in the “mining” sector; oil refining is part of the “manufacturing” sector; pipeline operations are included in the “transportation” sector; natural gas distribution is in the “utilities” sector; and oil marketing is considered part of the “wholesale and retail trade” sector.

For the economic impact analysis, PricewaterhouseCoopers has defined the oil and natural gas industry based on the *North American Industry Classification System* (NAICS). Table 1 shows the composition of the industry as defined by PricewaterhouseCoopers, followed by detailed NAICS descriptions.

**Table 1. Composition of Oil and Natural Gas Industry**

| NAICS  | IMPLAN SECTOR | Description   |
|--------|---------------|---|
| 211    | 19            | Oil and gas extraction                                |
| 213111 | 27            | Drilling oil and gas wells                            |
| 213112 | 28            | Support activities for oil and gas operations         |
| 2212   | 31            | Natural gas distribution                              |
| 32411  | 142           | Petroleum refineries                                  |
| 324191 | 145           | Petroleum lubricating oil and grease manufacturing    |
| 4247   | 390*          | Petroleum and petroleum products merchant wholesalers |
| 486    | 396           | Pipeline transportation                               |
| 44711  | 407           | Gasoline stations with convenience stores             |
| 44719  | 407           | Other gasoline stations                               |
| 45431  | 412*          | Fuel dealers  |

\* Other activities outside the oil and natural gas industry are also included in this IMPLAN sector.

<sup>1</sup> The IMPLAN input-output economic modeling system is supported by the Minnesota IMPLAN Group. Its current users include academia, federal, state, and local governments, and the private sector.

<sup>2</sup> A backward linkage is between an industry and its suppliers.

**NAICS 211. Oil and gas extraction.** Establishments in this subsector operate and/or develop oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operating separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum and natural gas; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This subsector includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, and the production of natural gas, sulfur recovery from natural gas, and recovery of hydrocarbon liquids. Establishments in this subsector include those that operate oil and gas wells on their own account or for others on a contract or fee basis.

**NAICS 213111. Drilling oil and gas wells.** This subsector comprises establishments primarily engaged in drilling oil and gas wells for others on a contract or fee basis. This industry includes contractors that specialize in spudding in, drilling in, re-drilling, and directional drilling.

**NAICS 213112. Support activities for oil and gas operations.** This subsector comprises establishments primarily engaged in performing support activities on a contract or fee basis for oil and gas operations (except site preparation and related construction activities). Services included are exploration (except geophysical surveying and mapping); excavating slush pits and cellars, well surveying; running, cutting, and pulling casings, tubes, and rods; cementing wells, shooting wells; perforating well casings; acidizing and chemically treating wells; and cleaning out, bailing, and swabbing wells.

**NAICS 2212. Natural gas distribution.** This subsector comprises: (1) establishments primarily engaged in operating gas distribution systems (e.g., mains, meters); (2) establishments known as gas marketers that buy gas from the well and sell it to a distribution system; (3) establishments known as gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others; and (4) establishments primarily engaged in transmitting and distributing gas to final consumers.

**NAICS 32411. Petroleum refineries.** This subsector comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities: (1) fractionation; (2) straight distillation of crude oil; and (3) cracking.

**NAICS 324191. Petroleum lubricating oil and grease manufacturing.** This subsector comprises establishments primarily engaged in blending or compounding refined petroleum to make lubricating oils and greases and/or re-refining used petroleum lubricating oils.

**NAICS 4247. Petroleum and petroleum products merchant wholesalers.** This subsector comprises establishments with bulk liquid storage facilities primarily engaged in the merchant wholesale distribution of crude petroleum and petroleum products, including liquefied petroleum gas.

**NAICS 486. Pipeline transportation.** Establishments in this subsector use transmission pipelines to transport products, such as crude oil, natural gas, refined petroleum products, and slurry. It also includes the storage of natural gas because the storage is usually done by the pipeline establishment and because a pipeline is inherently a network in which all the nodes are interdependent.

**NAICS 44711. Gasoline stations with convenience stores.** This subsector comprises establishments engaged in retailing automotive fuels (e.g., diesel fuel, gasohol, gasoline) in combination with convenience store or food mart items. These establishments can either be in a convenience store (i.e., food mart) setting or a gasoline station setting. These establishments may also provide automotive repair services.

**NAICS 44719. Other gasoline stations.** This subsector comprises establishments known as gasoline stations (except those with convenience stores) primarily engaged in one of the following: (1) retailing automotive fuels (e.g., diesel fuel, gasohol, gasoline) or (2) retailing these fuels in combination with activities, such as providing repair services; selling automotive oils, replacement parts, and accessories; and/or providing food services

**NAICS 45431. Fuel dealers.** This subsector comprises establishments primarily engaged in retailing heating oil, liquefied petroleum (LP) gas, and other fuels via direct selling.

### **3. Total Economic Impact**

The section presents the estimated total economic impact of the oil and natural gas industry on the U.S. national and state economies. As will be shown below, the oil and natural gas industry has a widespread economic impact throughout all sectors of the economy and across all 50 states and the District of Columbia. The total economic impact we have measured include *direct impact* (the jobs and value added within the oil and natural gas industry), *indirect impact* (the jobs and value added occurring within other industries that provide goods and services to the oil and natural gas industry), and *induced impact* (the change in jobs and value added resulting from household spending of income earned either directly or indirectly from the oil and natural gas industry's spending). The analysis was conducted using published government data sources and the IMPLAN input-output modeling system.

#### *A. National Impact*

As shown in Table 2, the total economic contribution of the oil and natural gas industry in terms of jobs, labor income, and value-added was significant in 2004.

#### Employment

PricewaterhouseCoopers estimates that at the national level, each job in the oil and natural gas industry supported more than two jobs elsewhere in the U.S. economy in 2004. Including direct, indirect, and induced jobs, the oil and natural gas industry's total

**Table 2. Total Contribution of the Oil and Natural Gas Industry to the U.S. Economy, 2004**

| Item                       | Amount    | Percent of U.S. Total |
|----------------------------|-----------|-----------------------|
| Employment*                | 5,929,837 | 3.5%                  |
| Labor Income (\$ millions) | 298,569   | 3.9%                  |
| Value-added (\$ millions)  | 576,925   | 4.9%                  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

employment contribution to the national economy amounted to nearly 6 million full-time and part-time jobs in 2004, accounting for 3.5 percent of the total national employment.

#### Labor Income

The associated labor income (including wages and salaries and benefits as well as proprietors' income) from the total jobs supported by the oil and natural gas industry was estimated to be \$299 billion, or almost 4 percent of the national total.

#### Value Added

Value added refers to the additional value created at a particular stage of production. Economists use the value-added method as a way to avoid double counting, i.e., the counting of the same input twice. It is a useful measure of the overall importance of an industry. The sum of value-added across all industries in a country or region is, by definition, equivalent to its Gross Domestic Product (GDP). Value-added consists of: employee compensation, proprietor income, income from property, and indirect business taxes (i.e., those borne by consumers rather than producers).

PricewaterhouseCoopers estimates that the oil and natural gas industry's total value-added contribution to the U.S. national economy was \$577 billion in 2004, accounting for nearly 5 percent of the U.S. GDP in 2004.

#### *B. State Impact*

The oil and natural gas industry's economic impact reaches all 50 states and the District of Columbia. The impact varies from state to state, depending on factors such as each state's industry mix, wage structure, spending and saving patterns, and connections to other economies.

Table 3a shows the state-by-state total economic impact in terms of jobs, labor income, and value-added, where the states are shown alphabetically. Table 3b is the same as Table 3a, except the states are ranked in order of the industry's total employment contribution as a percent of each state's total employment.

**Table 3a. Total Economic Impact of the Oil and Natural Gas Industry by State in 2004 (Sorted Alphabetically)**

| State                | Employment* |                        | Labor Income |                        | Value Added  |                        |
|----------------------|-------------|------------------------|--------------|------------------------|--------------|------------------------|
|                      | Amount      | Percent of State Total | (\$ Million) | Percent of State Total | (\$ Million) | Percent of State Total |
| Alabama              | 71,608      | 2.9%                   | 2,611        | 2.8%                   | 4,866        | 3.4%                   |
| Alaska               | 35,324      | 8.3%                   | 2,156        | 11.2%                  | 4,677        | 16.2%                  |
| Arizona              | 62,853      | 2.1%                   | 2,444        | 1.9%                   | 4,429        | 2.2%                   |
| Arkansas             | 58,436      | 3.9%                   | 1,987        | 3.8%                   | 3,711        | 4.7%                   |
| California           | 620,030     | 3.1%                   | 37,611       | 3.7%                   | 69,291       | 4.5%                   |
| Colorado             | 125,168     | 4.2%                   | 7,016        | 5.1%                   | 14,456       | 6.6%                   |
| Connecticut          | 47,781      | 2.3%                   | 2,657        | 2.2%                   | 4,951        | 2.6%                   |
| Delaware             | 14,115      | 2.7%                   | 687          | 2.7%                   | 1,188        | 3.1%                   |
| District of Columbia | 7,965       | 1.0%                   | 583          | 0.9%                   | 1,025        | 1.3%                   |
| Florida              | 177,220     | 1.8%                   | 6,613        | 1.8%                   | 11,723       | 2.0%                   |
| Georgia              | 104,445     | 2.1%                   | 4,453        | 2.0%                   | 7,922        | 2.3%                   |
| Hawaii               | 14,588      | 1.8%                   | 585          | 1.8%                   | 1,016        | 2.1%                   |
| Idaho                | 17,029      | 2.0%                   | 529          | 1.9%                   | 968          | 2.3%                   |
| Illinois             | 219,801     | 3.0%                   | 12,432       | 3.6%                   | 22,979       | 4.2%                   |
| Indiana              | 96,652      | 2.7%                   | 3,751        | 2.6%                   | 6,542        | 3.0%                   |
| Iowa                 | 49,036      | 2.5%                   | 1,471        | 2.2%                   | 2,656        | 2.5%                   |
| Kansas               | 94,027      | 5.3%                   | 3,952        | 6.1%                   | 7,568        | 7.4%                   |
| Kentucky             | 78,852      | 3.4%                   | 2,788        | 3.3%                   | 5,106        | 3.8%                   |
| Louisiana            | 275,448     | 11.2%                  | 13,109       | 14.4%                  | 26,803       | 18.2%                  |
| Maine                | 26,594      | 3.3%                   | 775          | 2.8%                   | 1,461        | 3.4%                   |
| Maryland             | 51,779      | 1.6%                   | 2,247        | 1.4%                   | 4,011        | 1.7%                   |
| Massachusetts        | 82,263      | 2.1%                   | 4,411        | 2.0%                   | 8,032        | 2.5%                   |
| Michigan             | 130,101     | 2.4%                   | 6,259        | 2.5%                   | 11,046       | 2.8%                   |
| Minnesota            | 88,482      | 2.6%                   | 3,539        | 2.4%                   | 6,239        | 2.8%                   |
| Mississippi          | 70,053      | 4.8%                   | 2,477        | 5.1%                   | 4,801        | 6.6%                   |
| Missouri             | 89,141      | 2.6%                   | 3,218        | 2.4%                   | 5,719        | 2.8%                   |
| Montana              | 33,103      | 5.5%                   | 1,230        | 6.6%                   | 2,439        | 8.1%                   |
| Nebraska             | 40,204      | 3.3%                   | 2,026        | 4.6%                   | 3,930        | 5.7%                   |
| Nevada               | 30,668      | 2.2%                   | 1,351        | 2.3%                   | 2,463        | 2.6%                   |
| New Hampshire        | 21,759      | 2.7%                   | 849          | 2.5%                   | 1,580        | 3.0%                   |
| New Jersey           | 108,175     | 2.2%                   | 6,320        | 2.4%                   | 11,102       | 2.7%                   |
| New Mexico           | 66,259      | 6.4%                   | 2,603        | 6.9%                   | 5,504        | 10.1%                  |
| New York             | 178,661     | 1.7%                   | 10,053       | 1.7%                   | 18,185       | 2.0%                   |
| North Carolina       | 109,731     | 2.2%                   | 4,103        | 2.1%                   | 7,364        | 2.4%                   |
| North Dakota         | 22,387      | 4.8%                   | 857          | 5.8%                   | 1,728        | 7.3%                   |
| Ohio                 | 178,977     | 2.7%                   | 7,303        | 2.7%                   | 13,250       | 3.2%                   |
| Oklahoma             | 250,160     | 12.4%                  | 12,707       | 17.4%                  | 26,337       | 22.3%                  |
| Oregon               | 45,296      | 2.1%                   | 1,701        | 2.0%                   | 3,069        | 2.4%                   |
| Pennsylvania         | 207,975     | 3.0%                   | 9,552        | 3.1%                   | 17,205       | 3.6%                   |
| Rhode Island         | 12,818      | 2.1%                   | 559          | 2.2%                   | 1,035        | 2.8%                   |
| South Carolina       | 51,993      | 2.2%                   | 1,637        | 2.0%                   | 2,975        | 2.3%                   |
| South Dakota         | 16,447      | 3.1%                   | 480          | 2.8%                   | 902          | 3.5%                   |
| Tennessee            | 86,683      | 2.5%                   | 3,259        | 2.3%                   | 5,813        | 2.6%                   |
| Texas                | 1,329,052   | 10.5%                  | 84,150       | 14.7%                  | 175,902      | 18.6%                  |
| Utah                 | 55,044      | 3.8%                   | 2,307        | 4.3%                   | 4,342        | 5.5%                   |
| Vermont              | 12,374      | 3.0%                   | 370          | 2.5%                   | 705          | 3.4%                   |
| Virginia             | 105,738     | 2.3%                   | 4,232        | 1.9%                   | 7,704        | 2.4%                   |
| Washington           | 81,723      | 2.3%                   | 3,869        | 2.3%                   | 6,773        | 2.6%                   |
| West Virginia        | 52,547      | 5.9%                   | 1,960        | 6.2%                   | 3,899        | 8.0%                   |
| Wisconsin            | 73,760      | 2.1%                   | 2,506        | 1.9%                   | 4,422        | 2.2%                   |
| Wyoming              | 49,513      | 14.2%                  | 2,223        | 17.9%                  | 5,109        | 25.3%                  |
| U.S. Total           | 5,929,837   | 3.5%                   | 298,569      | 3.9%                   | 576,925      | 4.9%                   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 3b. Total Economic Impact of the Oil and Natural Gas Industry by State in 2004 (Sorted by Employment Share of State Total)**

| State                | Employment* |                        | Labor Income |                        | Value Added  |                        |
|----------------------|-------------|------------------------|--------------|------------------------|--------------|------------------------|
|                      | Amount      | Percent of State Total | (\$ Million) | Percent of State Total | (\$ Million) | Percent of State Total |
| Wyoming              | 49,513      | 14.2%                  | 2,223        | 17.9%                  | 5,109        | 25.3%                  |
| Oklahoma             | 250,160     | 12.4%                  | 12,707       | 17.4%                  | 26,337       | 22.3%                  |
| Louisiana            | 275,448     | 11.2%                  | 13,109       | 14.4%                  | 26,803       | 18.2%                  |
| Texas                | 1,329,052   | 10.5%                  | 84,150       | 14.7%                  | 175,902      | 18.6%                  |
| Alaska               | 35,324      | 8.3%                   | 2,156        | 11.2%                  | 4,677        | 16.2%                  |
| New Mexico           | 66,259      | 6.4%                   | 2,603        | 6.9%                   | 5,504        | 10.1%                  |
| West Virginia        | 52,547      | 5.9%                   | 1,960        | 6.2%                   | 3,899        | 8.0%                   |
| Montana              | 33,103      | 5.5%                   | 1,230        | 6.6%                   | 2,439        | 8.1%                   |
| Kansas               | 94,027      | 5.3%                   | 3,952        | 6.1%                   | 7,568        | 7.4%                   |
| North Dakota         | 22,387      | 4.8%                   | 857          | 5.8%                   | 1,728        | 7.3%                   |
| Mississippi          | 70,053      | 4.8%                   | 2,477        | 5.1%                   | 4,801        | 6.6%                   |
| Colorado             | 125,168     | 4.2%                   | 7,016        | 5.1%                   | 14,456       | 6.6%                   |
| Arkansas             | 58,436      | 3.9%                   | 1,987        | 3.8%                   | 3,711        | 4.7%                   |
| Utah                 | 55,044      | 3.8%                   | 2,307        | 4.3%                   | 4,342        | 5.5%                   |
| Kentucky             | 78,852      | 3.4%                   | 2,788        | 3.3%                   | 5,106        | 3.8%                   |
| Nebraska             | 40,204      | 3.3%                   | 2,026        | 4.6%                   | 3,930        | 5.7%                   |
| Maine                | 26,594      | 3.3%                   | 775          | 2.8%                   | 1,461        | 3.4%                   |
| South Dakota         | 16,447      | 3.1%                   | 480          | 2.8%                   | 902          | 3.5%                   |
| California           | 620,030     | 3.1%                   | 37,611       | 3.7%                   | 69,291       | 4.5%                   |
| Illinois             | 219,801     | 3.0%                   | 12,432       | 3.6%                   | 22,979       | 4.2%                   |
| Pennsylvania         | 207,975     | 3.0%                   | 9,552        | 3.1%                   | 17,205       | 3.6%                   |
| Vermont              | 12,374      | 3.0%                   | 370          | 2.5%                   | 705          | 3.4%                   |
| Alabama              | 71,608      | 2.9%                   | 2,611        | 2.8%                   | 4,866        | 3.4%                   |
| Delaware             | 14,115      | 2.7%                   | 687          | 2.7%                   | 1,188        | 3.1%                   |
| Indiana              | 96,652      | 2.7%                   | 3,751        | 2.6%                   | 6,542        | 3.0%                   |
| Ohio                 | 178,977     | 2.7%                   | 7,303        | 2.7%                   | 13,250       | 3.2%                   |
| New Hampshire        | 21,759      | 2.7%                   | 849          | 2.5%                   | 1,580        | 3.0%                   |
| Minnesota            | 88,482      | 2.6%                   | 3,539        | 2.4%                   | 6,239        | 2.8%                   |
| Missouri             | 89,141      | 2.6%                   | 3,218        | 2.4%                   | 5,719        | 2.8%                   |
| Iowa                 | 49,036      | 2.5%                   | 1,471        | 2.2%                   | 2,656        | 2.5%                   |
| Tennessee            | 86,683      | 2.5%                   | 3,259        | 2.3%                   | 5,813        | 2.6%                   |
| Michigan             | 130,101     | 2.4%                   | 6,259        | 2.5%                   | 11,046       | 2.8%                   |
| Virginia             | 105,738     | 2.3%                   | 4,232        | 1.9%                   | 7,704        | 2.4%                   |
| Washington           | 81,723      | 2.3%                   | 3,869        | 2.3%                   | 6,773        | 2.6%                   |
| Connecticut          | 47,781      | 2.3%                   | 2,657        | 2.2%                   | 4,951        | 2.6%                   |
| South Carolina       | 51,993      | 2.2%                   | 1,637        | 2.0%                   | 2,975        | 2.3%                   |
| New Jersey           | 108,175     | 2.2%                   | 6,320        | 2.4%                   | 11,102       | 2.7%                   |
| Nevada               | 30,668      | 2.2%                   | 1,351        | 2.3%                   | 2,463        | 2.6%                   |
| North Carolina       | 109,731     | 2.2%                   | 4,103        | 2.1%                   | 7,364        | 2.4%                   |
| Oregon               | 45,296      | 2.1%                   | 1,701        | 2.0%                   | 3,069        | 2.4%                   |
| Rhode Island         | 12,818      | 2.1%                   | 559          | 2.2%                   | 1,035        | 2.8%                   |
| Wisconsin            | 73,760      | 2.1%                   | 2,506        | 1.9%                   | 4,422        | 2.2%                   |
| Georgia              | 104,445     | 2.1%                   | 4,453        | 2.0%                   | 7,922        | 2.3%                   |
| Massachusetts        | 82,263      | 2.1%                   | 4,411        | 2.0%                   | 8,032        | 2.5%                   |
| Arizona              | 62,853      | 2.1%                   | 2,444        | 1.9%                   | 4,429        | 2.2%                   |
| Idaho                | 17,029      | 2.0%                   | 529          | 1.9%                   | 968          | 2.3%                   |
| Hawaii               | 14,588      | 1.8%                   | 585          | 1.8%                   | 1,016        | 2.1%                   |
| Florida              | 177,220     | 1.8%                   | 6,613        | 1.8%                   | 11,723       | 2.0%                   |
| New York             | 178,661     | 1.7%                   | 10,053       | 1.7%                   | 18,185       | 2.0%                   |
| Maryland             | 51,779      | 1.6%                   | 2,247        | 1.4%                   | 4,011        | 1.7%                   |
| District of Columbia | 7,965       | 1.0%                   | 583          | 0.9%                   | 1,025        | 1.3%                   |
| U.S. Total           | 5,929,837   | 3.5%                   | 298,569      | 3.9%                   | 576,925      | 4.9%                   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

## Employment

The total number of jobs directly and indirectly attributable to the oil and natural gas industry as a percent of each state's total employment in 2004 ranged from 1 percent (the District of Columbia) to 14.2 percent (Wyoming), where the oil and natural gas industry was responsible for one in every seven jobs in the state. Besides Wyoming, the oil and natural gas industry directly and indirectly supported more than 5 percent of the total employment in the following states in 2004: Oklahoma (12.4 percent), Louisiana (11.2 percent), Texas (10.5 percent), Alaska (8.3 percent), New Mexico (6.4 percent), West Virginia (5.9 percent), Montana (5.5 percent), and Kansas (5.3 percent). In the top 9 states, the oil and natural gas industry was responsible for one in every eleven jobs. It may also be noted that except for Hawaii, Florida, New York, Maryland, and the District of Columbia, the oil and natural gas industry directly and indirectly supported at least 2 percent of total employment in each state.

## Labor Income

As a percent of each state's total labor income (including wages and salaries and benefits as well as proprietors' income), the labor income from the total jobs directly and indirectly supported by the oil and natural gas industry ranged from 0.9 percent (the District of Columbia) to 17.9 percent (Wyoming) in 2004. The industry's total labor income contribution exceeded 5 percent of the state total in 12 states: Wyoming (17.9 percent), Oklahoma (17.4 percent), Texas (14.7 percent), Louisiana (14.4 percent), Alaska (11.2 percent), New Mexico (6.9 percent), Montana (6.6 percent), West Virginia (6.2 percent), Kansas (6.1 percent), North Dakota (5.8 percent), Mississippi (5.1 percent), and Colorado (5.1 percent).

## Value Added

As a percent of each state's total value-added or GDP, the oil and natural gas industry's total value-added contribution ranged from 1.3 percent (the District of Columbia) to 25.3 percent (Wyoming) in 2004. The industry's total value-added contribution exceeded 5 percent of the state total in 14 states: Wyoming (25.3 percent), Oklahoma (22.3 percent), Texas (18.6 percent), Louisiana (18.2 percent), Alaska (16.2 percent), New Mexico (10.1 percent), Montana (8.1 percent), West Virginia (8.0 percent), Kansas (7.4 percent), North Dakota (7.3 percent), Colorado (6.6 percent), Mississippi (6.6 percent), Nebraska (5.7 percent), and Utah (5.5 percent).

## **4. Economic Impact Breakdown: Direct, Indirect, and Induced Impacts**

As noted earlier, the total economic impact presented in the previous section includes *direct impact* (the jobs, labor income, and value added within the oil and natural gas industry), *indirect impact* (the jobs and value added occurring within other industries that provide goods and services to the oil and natural gas industry), and *induced impact* (the change in jobs and value added resulting from household spending of income earned

either directly or indirectly from the oil and natural gas industry's spending). In this section, the three different economic impacts will be separately identified.

*Direct Impact*

Table 4 shows the direct impact of the oil and natural gas industry by the IMPLAN subsectors for the country as a whole in terms of employment, labor income, and value-added.

**Table 4. Direct Impact of the Oil and Natural Gas Industry in the U.S. Economy by Sub-sector, 2004**

| NAICS        | Sub-sector Description                             | Employment*      | Labor Income (\$ millions)** | Value-Added (\$ millions) |
|--------------|--|------------------|------------------------------|---------------------------|
| 211          | Oil and gas extraction                             | 377,383          | 38,737                       | 103,221                   |
| 213111       | Drilling oil and gas wells                         | 60,291           | 3,835                        | 16,489                    |
| 213112       | Support activities for oil and gas operations      | 153,827          | 9,698                        | 22,906                    |
| 2212         | Natural gas distribution                           | 105,024          | 14,138                       | 31,549                    |
| 32411        | Petroleum refineries                               | 68,621           | 18,449                       | 28,223                    |
| 324191       | Petroleum lubricating oil and grease manufacturing | 9,301            | 1,515                        | 1,332                     |
| 4247         | Wholesale Trade - Petroleum                        | 107,429          | 6,774                        | 12,321                    |
| 486          | Pipeline transportation                            | 37,210           | 7,375                        | 10,641                    |
| 44711, 44719 | Gasoline stations                                  | 843,814          | 21,256                       | 44,538                    |
| 45431        | Fuel dealers                                       | <u>100,677</u>   | <u>1,398</u>                 | <u>4,576</u>              |
|              | <b>Total Oil and Natural Gas Industry</b>          | <b>1,863,578</b> | <b>123,175</b>               | <b>275,795</b>            |

Source: IMPLAN 2004 database and U.S. Census Bureau.

\*Employment is defined as the number of full-time and part-time jobs.

\*\* Includes wages and salaries and benefits as well as proprietors' income.

The primary data source for the direct impact of the oil and natural gas industry is the IMPLAN 2004 database. The IMPLAN database represents a consistent set of economic data processed from various published sources (such as the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) and Regional Economic Information System (REIS), the Census Bureau's County Business Patterns (CBP), and the Bureau of Labor Statistics' Covered Employee and Wages Program (CEW)) in a variety of formats and under varying disclosure restrictions. In cases where a NAICS code in our definition of the oil and natural gas industry does not have a one-to-one correspondence with an IMPLAN sector, employment data from the Census Bureau for the NAICS code were used and PricewaterhouseCoopers estimated the corresponding value-added and labor income using the IMPLAN database. **Appendix B** provides a more detailed discussion of the data sources.

Table 5a shows the direct employment, labor income, and value-added impacts of the oil and natural gas industry as a whole by state, where the states are shown alphabetically. Table 5b is the same as Table 5a, except the states are ranked by the oil and natural gas industry's direct employment.

**Table 5a. Direct Impact of the Oil and Natural Gas Industry by State in 2004**  
(Sorted Alphabetically)

| State                | Direct Employment | Direct Labor Income | Direct Value-Added |
|----------------------|-------------------|---------------------|--------------------|
|                      | Amount            | (\$ Million)        | (\$ Million)       |
| Alabama              | 29,008            | 1,053               | 2,193              |
| Alaska               | 13,627            | 1,365               | 3,264              |
| Arizona              | 21,862            | 712                 | 1,486              |
| Arkansas             | 23,428            | 813                 | 1,756              |
| California           | 147,713           | 14,187              | 30,015             |
| Colorado             | 38,163            | 3,085               | 7,596              |
| Connecticut          | 14,949            | 764                 | 1,779              |
| Delaware             | 4,271             | 196                 | 372                |
| District of Columbia | 2,153             | 139                 | 295                |
| Florida              | 54,027            | 1,475               | 3,112              |
| Georgia              | 35,610            | 1,247               | 2,580              |
| Hawaii               | 3,829             | 150                 | 281                |
| Idaho                | 6,642             | 191                 | 400                |
| Illinois             | 52,642            | 4,304               | 9,275              |
| Indiana              | 33,804            | 1,302               | 2,442              |
| Iowa                 | 21,398            | 514                 | 1,027              |
| Kansas               | 36,665            | 1,916               | 4,074              |
| Kentucky             | 31,553            | 1,079               | 2,266              |
| Louisiana            | 87,335            | 6,570               | 15,607             |
| Maine                | 12,007            | 271                 | 618                |
| Maryland             | 16,144            | 543                 | 1,148              |
| Massachusetts        | 24,877            | 1,285               | 2,901              |
| Michigan             | 44,045            | 2,232               | 4,316              |
| Minnesota            | 31,391            | 1,028               | 2,063              |
| Mississippi          | 29,073            | 1,173               | 2,578              |
| Missouri             | 33,737            | 1,019               | 2,110              |
| Montana              | 11,153            | 588                 | 1,276              |
| Nebraska             | 13,108            | 1,120               | 2,374              |
| Nevada               | 11,377            | 460                 | 962                |
| New Hampshire        | 8,306             | 267                 | 609                |
| New Jersey           | 28,311            | 1,789               | 3,613              |
| New Mexico           | 27,256            | 1,360               | 3,386              |
| New York             | 52,175            | 2,443               | 5,474              |
| North Carolina       | 39,162            | 1,244               | 2,576              |
| North Dakota         | 9,099             | 454                 | 1,027              |
| Ohio                 | 59,770            | 2,433               | 5,201              |
| Oklahoma             | 85,491            | 7,346               | 16,752             |
| Oregon               | 15,827            | 549                 | 1,132              |
| Pennsylvania         | 64,701            | 3,065               | 6,443              |
| Rhode Island         | 4,059             | 194                 | 438                |
| South Carolina       | 21,148            | 520                 | 1,083              |
| South Dakota         | 7,477             | 196                 | 411                |
| Tennessee            | 31,331            | 931                 | 1,888              |
| Texas                | 360,371           | 42,926              | 100,892            |
| Utah                 | 16,971            | 973                 | 2,083              |
| Vermont              | 5,706             | 144                 | 324                |
| Virginia             | 43,139            | 1,314               | 2,780              |
| Washington           | 23,722            | 1,143               | 2,183              |
| West Virginia        | 24,282            | 1,031               | 2,348              |
| Wisconsin            | 27,768            | 713                 | 1,480              |
| Wyoming              | 21,916            | 1,358               | 3,504              |
| <b>U.S. Total</b>    | <b>1,863,578</b>  | <b>123,175</b>      | <b>275,795</b>     |

Source: The Census Bureau and PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 5b. Direct Impact of the Oil and Natural Gas Industry by State in 2004**  
*(Sorted by Direct Employment)*

| State                | Direct Employment | Direct Labor Income | Direct Value-Added |
|----------------------|-------------------|---------------------|--------------------|
|                      | Amount            | (\$ Million)        | (\$ Million)       |
| Texas                | 360,371           | 42,926              | 100,892            |
| California           | 147,713           | 14,187              | 30,015             |
| Louisiana            | 87,335            | 6,570               | 15,607             |
| Oklahoma             | 85,491            | 7,346               | 16,752             |
| Pennsylvania         | 64,701            | 3,065               | 6,443              |
| Ohio                 | 59,770            | 2,433               | 5,201              |
| Florida              | 54,027            | 1,475               | 3,112              |
| Illinois             | 52,642            | 4,304               | 9,275              |
| New York             | 52,175            | 2,443               | 5,474              |
| Michigan             | 44,045            | 2,232               | 4,316              |
| Virginia             | 43,139            | 1,314               | 2,780              |
| North Carolina       | 39,162            | 1,244               | 2,576              |
| Colorado             | 38,163            | 3,085               | 7,596              |
| Kansas               | 36,665            | 1,916               | 4,074              |
| Georgia              | 35,610            | 1,247               | 2,580              |
| Indiana              | 33,804            | 1,302               | 2,442              |
| Missouri             | 33,737            | 1,019               | 2,110              |
| Kentucky             | 31,553            | 1,079               | 2,266              |
| Minnesota            | 31,391            | 1,028               | 2,063              |
| Tennessee            | 31,331            | 931                 | 1,888              |
| Mississippi          | 29,073            | 1,173               | 2,578              |
| Alabama              | 29,008            | 1,053               | 2,193              |
| New Jersey           | 28,311            | 1,789               | 3,613              |
| Wisconsin            | 27,768            | 713                 | 1,480              |
| New Mexico           | 27,256            | 1,360               | 3,386              |
| Massachusetts        | 24,877            | 1,285               | 2,901              |
| West Virginia        | 24,282            | 1,031               | 2,348              |
| Washington           | 23,722            | 1,143               | 2,183              |
| Arkansas             | 23,428            | 813                 | 1,756              |
| Wyoming              | 21,916            | 1,358               | 3,504              |
| Arizona              | 21,862            | 712                 | 1,486              |
| Iowa                 | 21,398            | 514                 | 1,027              |
| South Carolina       | 21,148            | 520                 | 1,083              |
| Utah                 | 16,971            | 973                 | 2,083              |
| Maryland             | 16,144            | 543                 | 1,148              |
| Oregon               | 15,827            | 549                 | 1,132              |
| Connecticut          | 14,949            | 764                 | 1,779              |
| Alaska               | 13,627            | 1,365               | 3,264              |
| Nebraska             | 13,108            | 1,120               | 2,374              |
| Maine                | 12,007            | 271                 | 618                |
| Nevada               | 11,377            | 460                 | 962                |
| Montana              | 11,153            | 588                 | 1,276              |
| North Dakota         | 9,099             | 454                 | 1,027              |
| New Hampshire        | 8,306             | 267                 | 609                |
| South Dakota         | 7,477             | 196                 | 411                |
| Idaho                | 6,642             | 191                 | 400                |
| Vermont              | 5,706             | 144                 | 324                |
| Delaware             | 4,271             | 196                 | 372                |
| Rhode Island         | 4,059             | 194                 | 438                |
| Hawaii               | 3,829             | 150                 | 281                |
| District of Columbia | 2,153             | 139                 | 295                |
| <b>U.S. Total</b>    | <b>1,863,578</b>  | <b>123,175</b>      | <b>275,795</b>     |

Source: The Census Bureau and PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

### *Indirect and Induced Impacts*

The oil and natural gas industry purchases inputs from a variety of other industries in the form of goods and services, supporting jobs in these industries, and supporting additional rounds of purchases. Meanwhile, employees and business owners make personal purchases out of the additional income that is generated by this process. The jobs, labor income, and value-added supported by this cycle of spending, or multiplier process, are referred to as the indirect and induced economic impacts.

PricewaterhouseCoopers quantified these indirect and induced impacts using the customized impact models PricewaterhouseCoopers has built based on the IMPLAN modeling system for the country as a whole and the 50 states and the District of Columbia.

Table 6 shows the oil and natural gas industry's indirect and induced impacts by sector. PricewaterhouseCoopers estimates that in addition to the 1.9 million direct jobs in the oil and natural gas industry, the industry's purchase of goods and services from other industries supported nearly 4.1 million indirect and induced jobs in other industries across the country in 2004, resulting in nearly 6 million jobs as the total employment contribution of the oil and natural gas industry to the U.S. economy. The service sector received the largest number of indirect and induced jobs (2.3 million) in 2004, followed by wholesale and retail trade sector (0.6 million) and finance, insurance, real estate, rental and leasing sector (0.5 million).

The estimated nationwide indirect and induced labor income and value-added in 2004 were \$175 billion and \$301 billion, respectively.

**Table 6. The Direct, Indirect, and Induced Impacts Impact of the Oil and Natural Gas Industry to the U.S. Economy, 2004**

| Sector Description   | Employment*      | Labor Income (\$ million) | Value-Added (\$ million) |
|--|------------------|---------------------------|--------------------------|
| <b>Direct Impact of the Oil and Natural Gas Industry</b>   | <b>1,863,578</b> | <b>123,175</b>            | <b>275,795</b>           |
| <b>Indirect and Induced Impact on Other Industries**:</b>  | <b>4,066,259</b> | <b>175,395</b>            | <b>301,130</b>           |
| <i>Services</i>  | 2,284,872        | 88,909                    | 119,093                  |
| <i>Wholesale and Retail Trade</i>                          | 605,192          | 23,204                    | 39,753                   |
| <i>Finance, Insurance, Real Estate, Rental and Leasing</i> | 465,946          | 25,708                    | 62,175                   |
| <i>Manufacturing</i>                                       | 306,265          | 18,943                    | 29,492                   |
| <i>Transportation</i>                                      | 223,990          | 10,073                    | 12,881                   |
| <i>Agriculture, Mining, and Utilities</i>                  | 97,864           | 4,380                     | 11,175                   |
| <i>Construction</i>  | 44,097           | 2,024                     | 2,364                    |
| <i>Other</i>   | 38,032           | 2,153                     | 24,196                   |
| <b>Total Economic Impact</b>                               | <b>5,929,837</b> | <b>298,569</b>            | <b>576,925</b>           |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

Table 7a shows the sum of the indirect and induced effects for employment, value-added, and labor income of the oil and natural gas industry in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 7b is the same as Table 7a except the state are ranked in order of the indirect and induced employment effect. The five states with the largest combined indirect and induced employment effects in the oil and natural gas industry in 2004 were, in order: Texas, California, Louisiana, Illinois, and Oklahoma. These top five states accounted for 48.2 percent of the industry's national combined indirect and induced employment, 48.3 percent of the industry's national combined indirect and induced labor income, and 49.4 percent of the industry's national combined indirect and induced value-added in 2004.

Table 8a shows the direct, indirect, induced and total employment contribution of the oil and natural gas industry in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 8b is the same as Table 8a except the states are shown ranked in order of the industry's total employment contribution as a percent of each state's total employment. Using this metric, the top five states in 2004 were, in order: Wyoming (14.2 percent), Oklahoma (12.4 percent), Louisiana (11.2 percent), Texas (10.5 percent), and Alaska (8.3 percent).

Table 9a shows the direct, indirect, induced and total labor income contribution of the oil and natural gas industry in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 9b is the same as Table 9a except the states are shown ranked in order of the industry's total contribution to each state's total labor income. The top five states by this metric in 2004 were, in order: Wyoming (17.9 percent), Oklahoma (17.4 percent), Texas (14.7 percent), Louisiana (14.4 percent), and Alaska (11.2 percent).

Table 10a shows the direct, indirect, induced and total value-added contribution of the oil and natural gas industry in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 10b is the same as Table 10a except the states are shown ranked in order of the industry's total contribution to each state's gross state product (GSP). The top five states by this metric in 2004 were, in order: Wyoming (25.3 percent), Oklahoma (22.3 percent), Texas (18.6 percent), Louisiana (18.2 percent), and Alaska (16.2 percent).

More detailed state-by-state impact results are included in **Appendix A**.

**Table 7a. Indirect and Induced Impacts of the Oil and Natural Gas Industry by State in 2004 (Sorted Alphabetically)**

| State                | Employment |                       | Labor Income |                       | Value-Added  |                       |
|----------------------|------------|-----------------------|--------------|-----------------------|--------------|-----------------------|
|                      | Amount     | Percent of U.S. Total | (\$ Million) | Percent of U.S. Total | (\$ Million) | Percent of U.S. Total |
| Alabama              | 42,600     | 1.0%                  | 1,558        | 0.9%                  | 2,673        | 0.9%                  |
| Alaska               | 21,697     | 0.5%                  | 790          | 0.5%                  | 1,413        | 0.5%                  |
| Arizona              | 40,991     | 1.0%                  | 1,732        | 1.0%                  | 2,943        | 1.0%                  |
| Arkansas             | 35,008     | 0.9%                  | 1,173        | 0.7%                  | 1,955        | 0.6%                  |
| California           | 472,317    | 11.6%                 | 23,424       | 13.4%                 | 39,275       | 13.0%                 |
| Colorado             | 87,004     | 2.1%                  | 3,931        | 2.2%                  | 6,860        | 2.3%                  |
| Connecticut          | 32,832     | 0.8%                  | 1,893        | 1.1%                  | 3,172        | 1.1%                  |
| Delaware             | 9,844      | 0.2%                  | 491          | 0.3%                  | 816          | 0.3%                  |
| District of Columbia | 5,812      | 0.1%                  | 444          | 0.3%                  | 731          | 0.2%                  |
| Florida              | 123,192    | 3.0%                  | 5,138        | 2.9%                  | 8,610        | 2.9%                  |
| Georgia              | 68,834     | 1.7%                  | 3,205        | 1.8%                  | 5,342        | 1.8%                  |
| Hawaii               | 10,759     | 0.3%                  | 435          | 0.2%                  | 735          | 0.2%                  |
| Idaho                | 10,387     | 0.3%                  | 338          | 0.2%                  | 568          | 0.2%                  |
| Illinois             | 167,159    | 4.1%                  | 8,128        | 4.6%                  | 13,703       | 4.6%                  |
| Indiana              | 62,848     | 1.5%                  | 2,448        | 1.4%                  | 4,100        | 1.4%                  |
| Iowa                 | 27,639     | 0.7%                  | 958          | 0.5%                  | 1,629        | 0.5%                  |
| Kansas               | 57,363     | 1.4%                  | 2,036        | 1.2%                  | 3,495        | 1.2%                  |
| Kentucky             | 47,298     | 1.2%                  | 1,709        | 1.0%                  | 2,840        | 0.9%                  |
| Louisiana            | 188,113    | 4.6%                  | 6,539        | 3.7%                  | 11,196       | 3.7%                  |
| Maine                | 14,587     | 0.4%                  | 505          | 0.3%                  | 843          | 0.3%                  |
| Maryland             | 35,635     | 0.9%                  | 1,704        | 1.0%                  | 2,863        | 1.0%                  |
| Massachusetts        | 57,386     | 1.4%                  | 3,126        | 1.8%                  | 5,130        | 1.7%                  |
| Michigan             | 86,056     | 2.1%                  | 4,028        | 2.3%                  | 6,730        | 2.2%                  |
| Minnesota            | 57,090     | 1.4%                  | 2,511        | 1.4%                  | 4,176        | 1.4%                  |
| Mississippi          | 40,980     | 1.0%                  | 1,304        | 0.7%                  | 2,223        | 0.7%                  |
| Missouri             | 55,405     | 1.4%                  | 2,199        | 1.3%                  | 3,609        | 1.2%                  |
| Montana              | 21,951     | 0.5%                  | 642          | 0.4%                  | 1,163        | 0.4%                  |
| Nebraska             | 27,096     | 0.7%                  | 907          | 0.5%                  | 1,556        | 0.5%                  |
| Nevada               | 19,291     | 0.5%                  | 891          | 0.5%                  | 1,501        | 0.5%                  |
| New Hampshire        | 13,453     | 0.3%                  | 582          | 0.3%                  | 972          | 0.3%                  |
| New Jersey           | 79,864     | 2.0%                  | 4,531        | 2.6%                  | 7,488        | 2.5%                  |
| New Mexico           | 39,003     | 1.0%                  | 1,243        | 0.7%                  | 2,118        | 0.7%                  |
| New York             | 126,487    | 3.1%                  | 7,610        | 4.3%                  | 12,711       | 4.2%                  |
| North Carolina       | 70,569     | 1.7%                  | 2,859        | 1.6%                  | 4,788        | 1.6%                  |
| North Dakota         | 13,288     | 0.3%                  | 404          | 0.2%                  | 702          | 0.2%                  |
| Ohio                 | 119,207    | 2.9%                  | 4,870        | 2.8%                  | 8,049        | 2.7%                  |
| Oklahoma             | 164,669    | 4.0%                  | 5,361        | 3.1%                  | 9,585        | 3.2%                  |
| Oregon               | 29,469     | 0.7%                  | 1,152        | 0.7%                  | 1,937        | 0.6%                  |
| Pennsylvania         | 143,273    | 3.5%                  | 6,486        | 3.7%                  | 10,762       | 3.6%                  |
| Rhode Island         | 8,759      | 0.2%                  | 365          | 0.2%                  | 597          | 0.2%                  |
| South Carolina       | 30,845     | 0.8%                  | 1,117        | 0.6%                  | 1,891        | 0.6%                  |
| South Dakota         | 8,970      | 0.2%                  | 284          | 0.2%                  | 491          | 0.2%                  |
| Tennessee            | 55,352     | 1.4%                  | 2,328        | 1.3%                  | 3,925        | 1.3%                  |
| Texas                | 968,681    | 23.8%                 | 41,224       | 23.5%                 | 75,010       | 24.9%                 |
| Utah                 | 38,074     | 0.9%                  | 1,334        | 0.8%                  | 2,259        | 0.8%                  |
| Vermont              | 6,668      | 0.2%                  | 226          | 0.1%                  | 381          | 0.1%                  |
| Virginia             | 62,599     | 1.5%                  | 2,918        | 1.7%                  | 4,924        | 1.6%                  |
| Washington           | 58,001     | 1.4%                  | 2,726        | 1.6%                  | 4,590        | 1.5%                  |
| West Virginia        | 28,265     | 0.7%                  | 928          | 0.5%                  | 1,551        | 0.5%                  |
| Wisconsin            | 45,992     | 1.1%                  | 1,793        | 1.0%                  | 2,942        | 1.0%                  |
| Wyoming              | 27,596     | 0.7%                  | 865          | 0.5%                  | 1,605        | 0.5%                  |
| U.S. Total           | 4,066,259  | 100.0%                | 175,395      | 100.0%                | 301,130      | 100.0%                |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).  
Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 7b. Indirect and Induced Impacts of the Oil and Natural Gas Industry by State in 2004 (Sorted by the Employment Effect)**

| State                | Employment       |                       | Labor Income   |                       | Value-Added    |                       |
|----------------------|------------------|-----------------------|----------------|-----------------------|----------------|-----------------------|
|                      | Amount           | Percent of U.S. Total | (\$ Million)   | Percent of U.S. Total | (\$ Million)   | Percent of U.S. Total |
| Texas                | 968,681          | 23.8%                 | 41,224         | 23.5%                 | 75,010         | 24.9%                 |
| California           | 472,317          | 11.6%                 | 23,424         | 13.4%                 | 39,275         | 13.0%                 |
| Louisiana            | 188,113          | 4.6%                  | 6,539          | 3.7%                  | 11,196         | 3.7%                  |
| Illinois             | 167,159          | 4.1%                  | 8,128          | 4.6%                  | 13,703         | 4.6%                  |
| Oklahoma             | 164,669          | 4.0%                  | 5,361          | 3.1%                  | 9,585          | 3.2%                  |
| Pennsylvania         | 143,273          | 3.5%                  | 6,486          | 3.7%                  | 10,762         | 3.6%                  |
| New York             | 126,487          | 3.1%                  | 7,610          | 4.3%                  | 12,711         | 4.2%                  |
| Florida              | 123,192          | 3.0%                  | 5,138          | 2.9%                  | 8,610          | 2.9%                  |
| Ohio                 | 119,207          | 2.9%                  | 4,870          | 2.8%                  | 8,049          | 2.7%                  |
| Colorado             | 87,004           | 2.1%                  | 3,931          | 2.2%                  | 6,860          | 2.3%                  |
| Michigan             | 86,056           | 2.1%                  | 4,028          | 2.3%                  | 6,730          | 2.2%                  |
| New Jersey           | 79,864           | 2.0%                  | 4,531          | 2.6%                  | 7,488          | 2.5%                  |
| North Carolina       | 70,569           | 1.7%                  | 2,859          | 1.6%                  | 4,788          | 1.6%                  |
| Georgia              | 68,834           | 1.7%                  | 3,205          | 1.8%                  | 5,342          | 1.8%                  |
| Indiana              | 62,848           | 1.5%                  | 2,448          | 1.4%                  | 4,100          | 1.4%                  |
| Virginia             | 62,599           | 1.5%                  | 2,918          | 1.7%                  | 4,924          | 1.6%                  |
| Washington           | 58,001           | 1.4%                  | 2,726          | 1.6%                  | 4,590          | 1.5%                  |
| Massachusetts        | 57,386           | 1.4%                  | 3,126          | 1.8%                  | 5,130          | 1.7%                  |
| Kansas               | 57,363           | 1.4%                  | 2,036          | 1.2%                  | 3,495          | 1.2%                  |
| Minnesota            | 57,090           | 1.4%                  | 2,511          | 1.4%                  | 4,176          | 1.4%                  |
| Missouri             | 55,405           | 1.4%                  | 2,199          | 1.3%                  | 3,609          | 1.2%                  |
| Tennessee            | 55,352           | 1.4%                  | 2,328          | 1.3%                  | 3,925          | 1.3%                  |
| Kentucky             | 47,298           | 1.2%                  | 1,709          | 1.0%                  | 2,840          | 0.9%                  |
| Wisconsin            | 45,992           | 1.1%                  | 1,793          | 1.0%                  | 2,942          | 1.0%                  |
| Alabama              | 42,600           | 1.0%                  | 1,558          | 0.9%                  | 2,673          | 0.9%                  |
| Arizona              | 40,991           | 1.0%                  | 1,732          | 1.0%                  | 2,943          | 1.0%                  |
| Mississippi          | 40,980           | 1.0%                  | 1,304          | 0.7%                  | 2,223          | 0.7%                  |
| New Mexico           | 39,003           | 1.0%                  | 1,243          | 0.7%                  | 2,118          | 0.7%                  |
| Utah                 | 38,074           | 0.9%                  | 1,334          | 0.8%                  | 2,259          | 0.8%                  |
| Maryland             | 35,635           | 0.9%                  | 1,704          | 1.0%                  | 2,863          | 1.0%                  |
| Arkansas             | 35,008           | 0.9%                  | 1,173          | 0.7%                  | 1,955          | 0.6%                  |
| Connecticut          | 32,832           | 0.8%                  | 1,893          | 1.1%                  | 3,172          | 1.1%                  |
| South Carolina       | 30,845           | 0.8%                  | 1,117          | 0.6%                  | 1,891          | 0.6%                  |
| Oregon               | 29,469           | 0.7%                  | 1,152          | 0.7%                  | 1,937          | 0.6%                  |
| West Virginia        | 28,265           | 0.7%                  | 928            | 0.5%                  | 1,551          | 0.5%                  |
| Iowa                 | 27,639           | 0.7%                  | 958            | 0.5%                  | 1,629          | 0.5%                  |
| Wyoming              | 27,596           | 0.7%                  | 865            | 0.5%                  | 1,605          | 0.5%                  |
| Nebraska             | 27,096           | 0.7%                  | 907            | 0.5%                  | 1,556          | 0.5%                  |
| Montana              | 21,951           | 0.5%                  | 642            | 0.4%                  | 1,163          | 0.4%                  |
| Alaska               | 21,697           | 0.5%                  | 790            | 0.5%                  | 1,413          | 0.5%                  |
| Nevada               | 19,291           | 0.5%                  | 891            | 0.5%                  | 1,501          | 0.5%                  |
| Maine                | 14,587           | 0.4%                  | 505            | 0.3%                  | 843            | 0.3%                  |
| New Hampshire        | 13,453           | 0.3%                  | 582            | 0.3%                  | 972            | 0.3%                  |
| North Dakota         | 13,288           | 0.3%                  | 404            | 0.2%                  | 702            | 0.2%                  |
| Hawaii               | 10,759           | 0.3%                  | 435            | 0.2%                  | 735            | 0.2%                  |
| Idaho                | 10,387           | 0.3%                  | 338            | 0.2%                  | 568            | 0.2%                  |
| Delaware             | 9,844            | 0.2%                  | 491            | 0.3%                  | 816            | 0.3%                  |
| South Dakota         | 8,970            | 0.2%                  | 284            | 0.2%                  | 491            | 0.2%                  |
| Rhode Island         | 8,759            | 0.2%                  | 365            | 0.2%                  | 597            | 0.2%                  |
| Vermont              | 6,668            | 0.2%                  | 226            | 0.1%                  | 381            | 0.1%                  |
| District of Columbia | 5,812            | 0.1%                  | 444            | 0.3%                  | 731            | 0.2%                  |
| <b>U.S. Total</b>    | <b>4,066,259</b> | <b>100.0%</b>         | <b>175,395</b> | <b>100.0%</b>         | <b>301,130</b> | <b>100.0%</b>         |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 8a. Employment Impact of the Oil and Natural Gas Industry by State in 2004**  
(Sorted Alphabetically)

| State                | Direct Employment | Indirect Employment | Induced Employment | Total Contribution | Total Contribution as a % of State Total Employment |
|----------------------|-------------------|---------------------|--------------------|--------------------|---|
| Alabama              | 29,008            | 15,095              | 27,506             | 71,608             | 2.9%  |
| Alaska               | 13,627            | 8,004               | 13,694             | 35,324             | 8.3%  |
| Arizona              | 21,862            | 14,113              | 26,877             | 62,853             | 2.1%  |
| Arkansas             | 23,428            | 14,209              | 20,799             | 58,436             | 3.9%  |
| California           | 147,713           | 168,535             | 303,782            | 620,030            | 3.1%  |
| Colorado             | 38,163            | 29,521              | 57,483             | 125,168            | 4.2%  |
| Connecticut          | 14,949            | 11,137              | 21,696             | 47,781             | 2.3%  |
| Delaware             | 4,271             | 3,984               | 5,860              | 14,115             | 2.7%  |
| District of Columbia | 2,153             | 1,846               | 3,966              | 7,965              | 1.0%  |
| Florida              | 54,027            | 41,010              | 82,183             | 177,220            | 1.8%  |
| Georgia              | 35,610            | 22,881              | 45,953             | 104,445            | 2.1%  |
| Hawaii               | 3,829             | 4,122               | 6,637              | 14,588             | 1.8%  |
| Idaho                | 6,642             | 3,276               | 7,112              | 17,029             | 2.0%  |
| Illinois             | 52,642            | 56,038              | 111,121            | 219,801            | 3.0%  |
| Indiana              | 33,804            | 22,545              | 40,303             | 96,652             | 2.7%  |
| Iowa                 | 21,398            | 9,365               | 18,273             | 49,036             | 2.5%  |
| Kansas               | 36,665            | 19,958              | 37,405             | 94,027             | 5.3%  |
| Kentucky             | 31,553            | 18,587              | 28,711             | 78,852             | 3.4%  |
| Louisiana            | 87,335            | 76,619              | 111,494            | 275,448            | 11.2%   |
| Maine                | 12,007            | 5,310               | 9,277              | 26,594             | 3.3%  |
| Maryland             | 16,144            | 11,002              | 24,633             | 51,779             | 1.6%  |
| Massachusetts        | 24,877            | 17,809              | 39,576             | 82,263             | 2.1%  |
| Michigan             | 44,045            | 26,670              | 59,386             | 130,101            | 2.4%  |
| Minnesota            | 31,391            | 20,568              | 36,522             | 88,482             | 2.6%  |
| Mississippi          | 29,073            | 16,948              | 24,032             | 70,053             | 4.8%  |
| Missouri             | 33,737            | 18,475              | 36,930             | 89,141             | 2.6%  |
| Montana              | 11,153            | 9,446               | 12,505             | 33,103             | 5.5%  |
| Nebraska             | 13,108            | 6,755               | 20,341             | 40,204             | 3.3%  |
| Nevada               | 11,377            | 6,688               | 12,603             | 30,668             | 2.2%  |
| New Hampshire        | 8,306             | 4,678               | 8,774              | 21,759             | 2.7%  |
| New Jersey           | 28,311            | 28,825              | 51,039             | 108,175            | 2.2%  |
| New Mexico           | 27,256            | 15,352              | 23,651             | 66,259             | 6.4%  |
| New York             | 52,175            | 37,771              | 88,716             | 178,661            | 1.7%  |
| North Carolina       | 39,162            | 24,483              | 46,086             | 109,731            | 2.2%  |
| North Dakota         | 9,099             | 4,722               | 8,566              | 22,387             | 4.8%  |
| Ohio                 | 59,770            | 41,369              | 77,838             | 178,977            | 2.7%  |
| Oklahoma             | 85,491            | 49,852              | 114,818            | 250,160            | 12.4%   |
| Oregon               | 15,827            | 9,668               | 19,801             | 45,296             | 2.1%  |
| Pennsylvania         | 64,701            | 50,335              | 92,939             | 207,975            | 3.0%  |
| Rhode Island         | 4,059             | 2,708               | 6,051              | 12,818             | 2.1%  |
| South Carolina       | 21,148            | 10,822              | 20,023             | 51,993             | 2.2%  |
| South Dakota         | 7,477             | 3,021               | 5,949              | 16,447             | 3.1%  |
| Tennessee            | 31,331            | 19,041              | 36,311             | 86,683             | 2.5%  |
| Texas                | 360,371           | 337,632             | 631,049            | 1,329,052          | 10.5%   |
| Utah                 | 16,971            | 14,082              | 23,992             | 55,044             | 3.8%  |
| Vermont              | 5,706             | 2,313               | 4,355              | 12,374             | 3.0%  |
| Virginia             | 43,139            | 21,381              | 41,218             | 105,738            | 2.3%  |
| Washington           | 23,722            | 22,046              | 35,955             | 81,723             | 2.3%  |
| West Virginia        | 24,282            | 12,149              | 16,116             | 52,547             | 5.9%  |
| Wisconsin            | 27,768            | 15,343              | 30,650             | 73,760             | 2.1%  |
| Wyoming              | 21,916            | 11,698              | 15,898             | 49,513             | 14.2%   |
| <b>U.S. Total</b>    | <b>1,863,578</b>  | <b>1,419,807</b>    | <b>2,646,452</b>   | <b>5,929,837</b>   | <b>3.5%</b>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 8b. Employment Impact of the Oil and Natural Gas Industry by State in 2004**  
*(Sorted by Employment Share of State Total)*

| State                | Direct Employment | Indirect Employment | Induced Employment | Total Contribution | Total Contribution as a % of State Total Employment |
|----------------------|-------------------|---------------------|--------------------|--------------------|---|
| Wyoming              | 21,916            | 11,698              | 15,898             | 49,513             | 14.2%   |
| Oklahoma             | 85,491            | 49,852              | 114,818            | 250,160            | 12.4%   |
| Louisiana            | 87,335            | 76,619              | 111,494            | 275,448            | 11.2%   |
| Texas                | 360,371           | 337,632             | 631,049            | 1,329,052          | 10.5%   |
| Alaska               | 13,627            | 8,004               | 13,694             | 35,324             | 8.3%  |
| New Mexico           | 27,256            | 15,352              | 23,651             | 66,259             | 6.4%  |
| West Virginia        | 24,282            | 12,149              | 16,116             | 52,547             | 5.9%  |
| Montana              | 11,153            | 9,446               | 12,505             | 33,103             | 5.5%  |
| Kansas               | 36,665            | 19,958              | 37,405             | 94,027             | 5.3%  |
| North Dakota         | 9,099             | 4,722               | 8,566              | 22,387             | 4.8%  |
| Mississippi          | 29,073            | 16,948              | 24,032             | 70,053             | 4.8%  |
| Colorado             | 38,163            | 29,521              | 57,483             | 125,168            | 4.2%  |
| Arkansas             | 23,428            | 14,209              | 20,799             | 58,436             | 3.9%  |
| Utah                 | 16,971            | 14,082              | 23,992             | 55,044             | 3.8%  |
| Kentucky             | 31,553            | 18,587              | 28,711             | 78,852             | 3.4%  |
| Nebraska             | 13,108            | 6,755               | 20,341             | 40,204             | 3.3%  |
| Maine                | 12,007            | 5,310               | 9,277              | 26,594             | 3.3%  |
| South Dakota         | 7,477             | 3,021               | 5,949              | 16,447             | 3.1%  |
| California           | 147,713           | 168,535             | 303,782            | 620,030            | 3.1%  |
| Illinois             | 52,642            | 56,038              | 111,121            | 219,801            | 3.0%  |
| Pennsylvania         | 64,701            | 50,335              | 92,939             | 207,975            | 3.0%  |
| Vermont              | 5,706             | 2,313               | 4,355              | 12,374             | 3.0%  |
| Alabama              | 29,008            | 15,095              | 27,506             | 71,608             | 2.9%  |
| Delaware             | 4,271             | 3,984               | 5,860              | 14,115             | 2.7%  |
| Indiana              | 33,804            | 22,545              | 40,303             | 96,652             | 2.7%  |
| Ohio                 | 59,770            | 41,369              | 77,838             | 178,977            | 2.7%  |
| New Hampshire        | 8,306             | 4,678               | 8,774              | 21,759             | 2.7%  |
| Minnesota            | 31,391            | 20,568              | 36,522             | 88,482             | 2.6%  |
| Missouri             | 33,737            | 18,475              | 36,930             | 89,141             | 2.6%  |
| Iowa                 | 21,398            | 9,365               | 18,273             | 49,036             | 2.5%  |
| Tennessee            | 31,331            | 19,041              | 36,311             | 86,683             | 2.5%  |
| Michigan             | 44,045            | 26,670              | 59,386             | 130,101            | 2.4%  |
| Virginia             | 43,139            | 21,381              | 41,218             | 105,738            | 2.3%  |
| Washington           | 23,722            | 22,046              | 35,955             | 81,723             | 2.3%  |
| Connecticut          | 14,949            | 11,137              | 21,696             | 47,781             | 2.3%  |
| South Carolina       | 21,148            | 10,822              | 20,023             | 51,993             | 2.2%  |
| New Jersey           | 28,311            | 28,825              | 51,039             | 108,175            | 2.2%  |
| Nevada               | 11,377            | 6,688               | 12,603             | 30,668             | 2.2%  |
| North Carolina       | 39,162            | 24,483              | 46,086             | 109,731            | 2.2%  |
| Oregon               | 15,827            | 9,668               | 19,801             | 45,296             | 2.1%  |
| Rhode Island         | 4,059             | 2,708               | 6,051              | 12,818             | 2.1%  |
| Wisconsin            | 27,768            | 15,343              | 30,650             | 73,760             | 2.1%  |
| Georgia              | 35,610            | 22,881              | 45,953             | 104,445            | 2.1%  |
| Massachusetts        | 24,877            | 17,809              | 39,576             | 82,263             | 2.1%  |
| Arizona              | 21,862            | 14,113              | 26,877             | 62,853             | 2.1%  |
| Idaho                | 6,642             | 3,276               | 7,112              | 17,029             | 2.0%  |
| Hawaii               | 3,829             | 4,122               | 6,637              | 14,588             | 1.8%  |
| Florida              | 54,027            | 41,010              | 82,183             | 177,220            | 1.8%  |
| New York             | 52,175            | 37,771              | 88,716             | 178,661            | 1.7%  |
| Maryland             | 16,144            | 11,002              | 24,633             | 51,779             | 1.6%  |
| District of Columbia | 2,153             | 1,846               | 3,966              | 7,965              | 1.0%  |
| U.S. Total           | 1,863,578         | 1,419,807           | 2,646,452          | 5,929,837          | 3.5%  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

Numbers may not add to total due to rounding.

\*Employment is defined as the number of full-time and part-time jobs.

**Table 9a. Impact of the Oil and Natural Gas Industry on Labor Income by State in 2004 (\$million; Sorted Alphabetically)**

| State                | Direct Labor Income | Indirect Labor Income | Induced Labor Income | Total Contribution | Total Contribution as a % of State Total Labor Income |
|----------------------|---------------------|-----------------------|----------------------|--------------------|---|
| Alabama              | 1,053               | 629                   | 929                  | 2,611              | 2.8%  |
| Alaska               | 1,365               | 338                   | 452                  | 2,156              | 11.2%   |
| Arizona              | 712                 | 692                   | 1,040                | 2,444              | 1.9%  |
| Arkansas             | 813                 | 546                   | 628                  | 1,987              | 3.8%  |
| California           | 14,187              | 9,805                 | 13,619               | 37,611             | 3.7%  |
| Colorado             | 3,085               | 1,664                 | 2,267                | 7,016              | 5.1%  |
| Connecticut          | 764                 | 752                   | 1,141                | 2,657              | 2.2%  |
| Delaware             | 196                 | 233                   | 258                  | 687                | 2.7%  |
| District of Columbia | 139                 | 177                   | 267                  | 583                | 0.9%  |
| Florida              | 1,475               | 2,044                 | 3,094                | 6,613              | 1.8%  |
| Georgia              | 1,247               | 1,248                 | 1,957                | 4,453              | 2.0%  |
| Hawaii               | 150                 | 195                   | 240                  | 585                | 1.8%  |
| Idaho                | 191                 | 129                   | 209                  | 529                | 1.9%  |
| Illinois             | 4,304               | 3,361                 | 4,767                | 12,432             | 3.6%  |
| Indiana              | 1,302               | 1,017                 | 1,432                | 3,751              | 2.6%  |
| Iowa                 | 514                 | 378                   | 579                  | 1,471              | 2.2%  |
| Kansas               | 1,916               | 859                   | 1,178                | 3,952              | 6.1%  |
| Kentucky             | 1,079               | 771                   | 938                  | 2,788              | 3.3%  |
| Louisiana            | 6,570               | 3,192                 | 3,347                | 13,109             | 14.4%   |
| Maine                | 271                 | 208                   | 297                  | 775                | 2.8%  |
| Maryland             | 543                 | 633                   | 1,072                | 2,247              | 1.4%  |
| Massachusetts        | 1,285               | 1,170                 | 1,956                | 4,411              | 2.0%  |
| Michigan             | 2,232               | 1,552                 | 2,475                | 6,259              | 2.5%  |
| Minnesota            | 1,028               | 1,071                 | 1,440                | 3,539              | 2.4%  |
| Mississippi          | 1,173               | 614                   | 689                  | 2,477              | 5.1%  |
| Missouri             | 1,019               | 878                   | 1,321                | 3,218              | 2.4%  |
| Montana              | 588                 | 305                   | 337                  | 1,230              | 6.6%  |
| Nebraska             | 1,120               | 281                   | 626                  | 2,026              | 4.6%  |
| Nevada               | 460                 | 363                   | 528                  | 1,351              | 2.3%  |
| New Hampshire        | 267                 | 236                   | 347                  | 849                | 2.5%  |
| New Jersey           | 1,789               | 1,908                 | 2,623                | 6,320              | 2.4%  |
| New Mexico           | 1,360               | 568                   | 676                  | 2,603              | 6.9%  |
| New York             | 2,443               | 2,828                 | 4,782                | 10,053             | 1.7%  |
| North Carolina       | 1,244               | 1,149                 | 1,711                | 4,103              | 2.1%  |
| North Dakota         | 454                 | 169                   | 235                  | 857                | 5.8%  |
| Ohio                 | 2,433               | 2,011                 | 2,860                | 7,303              | 2.7%  |
| Oklahoma             | 7,346               | 2,071                 | 3,290                | 12,707             | 17.4%   |
| Oregon               | 549                 | 445                   | 707                  | 1,701              | 2.0%  |
| Pennsylvania         | 3,065               | 2,714                 | 3,772                | 9,552              | 3.1%  |
| Rhode Island         | 194                 | 134                   | 231                  | 559                | 2.2%  |
| South Carolina       | 520                 | 445                   | 671                  | 1,637              | 2.0%  |
| South Dakota         | 196                 | 112                   | 172                  | 480                | 2.8%  |
| Tennessee            | 931                 | 928                   | 1,400                | 3,259              | 2.3%  |
| Texas                | 42,926              | 17,882                | 23,342               | 84,150             | 14.7%   |
| Utah                 | 973                 | 581                   | 753                  | 2,307              | 4.3%  |
| Vermont              | 144                 | 88                    | 138                  | 370                | 2.5%  |
| Virginia             | 1,314               | 1,201                 | 1,717                | 4,232              | 1.9%  |
| Washington           | 1,143               | 1,216                 | 1,510                | 3,869              | 2.3%  |
| West Virginia        | 1,031               | 461                   | 467                  | 1,960              | 6.2%  |
| Wisconsin            | 713                 | 705                   | 1,088                | 2,506              | 1.9%  |
| Wyoming              | 1,358               | 444                   | 421                  | 2,223              | 17.9%   |
| U.S. Total           | 123,175             | 73,401                | 101,994              | 298,569            | 3.9%  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).  
Numbers may not add to total due to rounding.

**Table 9b. Impact of the Oil and Natural Gas Industry on Labor Income by State in 2004 (\$million; Sorted by Labor Income Share of State Total)**

| State                | Direct Labor Income | Indirect Labor Income | Induced Labor Income | Total Contribution | Total Contribution as a % of State Total Labor Income |
|----------------------|---------------------|-----------------------|----------------------|--------------------|---|
| Wyoming              | 1,358               | 444                   | 421                  | 2,223              | 17.9%   |
| Oklahoma             | 7,346               | 2,071                 | 3,290                | 12,707             | 17.4%   |
| Texas                | 42,926              | 17,882                | 23,342               | 84,150             | 14.7%   |
| Louisiana            | 6,570               | 3,192                 | 3,347                | 13,109             | 14.4%   |
| Alaska               | 1,365               | 338                   | 452                  | 2,156              | 11.2%   |
| New Mexico           | 1,360               | 568                   | 676                  | 2,603              | 6.9%  |
| Montana              | 588                 | 305                   | 337                  | 1,230              | 6.6%  |
| West Virginia        | 1,031               | 461                   | 467                  | 1,960              | 6.2%  |
| Kansas               | 1,916               | 859                   | 1,178                | 3,952              | 6.1%  |
| North Dakota         | 454                 | 169                   | 235                  | 857                | 5.8%  |
| Mississippi          | 1,173               | 614                   | 689                  | 2,477              | 5.1%  |
| Colorado             | 3,085               | 1,664                 | 2,267                | 7,016              | 5.1%  |
| Nebraska             | 1,120               | 281                   | 626                  | 2,026              | 4.6%  |
| Utah                 | 973                 | 581                   | 753                  | 2,307              | 4.3%  |
| Arkansas             | 813                 | 546                   | 628                  | 1,987              | 3.8%  |
| California           | 14,187              | 9,805                 | 13,619               | 37,611             | 3.7%  |
| Illinois             | 4,304               | 3,361                 | 4,767                | 12,432             | 3.6%  |
| Kentucky             | 1,079               | 771                   | 938                  | 2,788              | 3.3%  |
| Pennsylvania         | 3,065               | 2,714                 | 3,772                | 9,552              | 3.1%  |
| South Dakota         | 196                 | 112                   | 172                  | 480                | 2.8%  |
| Alabama              | 1,053               | 629                   | 929                  | 2,611              | 2.8%  |
| Maine                | 271                 | 208                   | 297                  | 775                | 2.8%  |
| Delaware             | 196                 | 233                   | 258                  | 687                | 2.7%  |
| Ohio                 | 2,433               | 2,011                 | 2,860                | 7,303              | 2.7%  |
| Indiana              | 1,302               | 1,017                 | 1,432                | 3,751              | 2.6%  |
| Vermont              | 144                 | 88                    | 138                  | 370                | 2.5%  |
| Michigan             | 2,232               | 1,552                 | 2,475                | 6,259              | 2.5%  |
| New Hampshire        | 267                 | 236                   | 347                  | 849                | 2.5%  |
| Minnesota            | 1,028               | 1,071                 | 1,440                | 3,539              | 2.4%  |
| Missouri             | 1,019               | 878                   | 1,321                | 3,218              | 2.4%  |
| New Jersey           | 1,789               | 1,908                 | 2,623                | 6,320              | 2.4%  |
| Tennessee            | 931                 | 928                   | 1,400                | 3,259              | 2.3%  |
| Washington           | 1,143               | 1,216                 | 1,510                | 3,869              | 2.3%  |
| Nevada               | 460                 | 363                   | 528                  | 1,351              | 2.3%  |
| Rhode Island         | 194                 | 134                   | 231                  | 559                | 2.2%  |
| Connecticut          | 764                 | 752                   | 1,141                | 2,657              | 2.2%  |
| Iowa                 | 514                 | 378                   | 579                  | 1,471              | 2.2%  |
| North Carolina       | 1,244               | 1,149                 | 1,711                | 4,103              | 2.1%  |
| Georgia              | 1,247               | 1,248                 | 1,957                | 4,453              | 2.0%  |
| Massachusetts        | 1,285               | 1,170                 | 1,956                | 4,411              | 2.0%  |
| Oregon               | 549                 | 445                   | 707                  | 1,701              | 2.0%  |
| South Carolina       | 520                 | 445                   | 671                  | 1,637              | 2.0%  |
| Virginia             | 1,314               | 1,201                 | 1,717                | 4,232              | 1.9%  |
| Arizona              | 712                 | 692                   | 1,040                | 2,444              | 1.9%  |
| Wisconsin            | 713                 | 705                   | 1,088                | 2,506              | 1.9%  |
| Idaho                | 191                 | 129                   | 209                  | 529                | 1.9%  |
| Hawaii               | 150                 | 195                   | 240                  | 585                | 1.8%  |
| Florida              | 1,475               | 2,044                 | 3,094                | 6,613              | 1.8%  |
| New York             | 2,443               | 2,828                 | 4,782                | 10,053             | 1.7%  |
| Maryland             | 543                 | 633                   | 1,072                | 2,247              | 1.4%  |
| District of Columbia | 139                 | 177                   | 267                  | 583                | 0.9%  |
| U.S. Total           | 123,175             | 73,401                | 101,994              | 298,569            | 3.9%  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).  
Numbers may not add to total due to rounding.

**Table 10a. Impact of the Oil and Natural Gas Industry on Value-Added by State, 2004 (\$million; Sorted Alphabetically)**

| State                | Direct Value-Added | Indirect Value-Added | Induced Value-Added | Total Contribution | Total Contribution as a % of Gross State Product |
|----------------------|--------------------|----------------------|---------------------|--------------------|--|
| Alabama              | 2,193              | 1,025                | 1,647               | 4,866              | 3.4%   |
| Alaska               | 3,264              | 569                  | 844                 | 4,677              | 16.2%  |
| Arizona              | 1,486              | 1,140                | 1,803               | 4,429              | 2.2%   |
| Arkansas             | 1,756              | 855                  | 1,100               | 3,711              | 4.7%   |
| California           | 30,015             | 15,917               | 23,358              | 69,291             | 4.5%   |
| Colorado             | 7,596              | 2,884                | 3,976               | 14,456             | 6.6%   |
| Connecticut          | 1,779              | 1,230                | 1,942               | 4,951              | 2.6%   |
| Delaware             | 372                | 376                  | 440                 | 1,188              | 3.1%   |
| District of Columbia | 295                | 270                  | 460                 | 1,025              | 1.3%   |
| Florida              | 3,112              | 3,377                | 5,234               | 11,723             | 2.0%   |
| Georgia              | 2,580              | 2,000                | 3,341               | 7,922              | 2.3%   |
| Hawaii               | 281                | 318                  | 417                 | 1,016              | 2.1%   |
| Idaho                | 400                | 203                  | 365                 | 968                | 2.3%   |
| Illinois             | 9,275              | 5,532                | 8,171               | 22,979             | 4.2%   |
| Indiana              | 2,442              | 1,638                | 2,463               | 6,542              | 3.0%   |
| Iowa                 | 1,027              | 614                  | 1,016               | 2,656              | 2.5%   |
| Kansas               | 4,074              | 1,398                | 2,097               | 7,568              | 7.4%   |
| Kentucky             | 2,266              | 1,208                | 1,632               | 5,106              | 3.8%   |
| Louisiana            | 15,607             | 5,189                | 6,008               | 26,803             | 18.2%  |
| Maine                | 618                | 333                  | 510                 | 1,461              | 3.4%   |
| Maryland             | 1,148              | 1,027                | 1,836               | 4,011              | 1.7%   |
| Massachusetts        | 2,901              | 1,876                | 3,254               | 8,032              | 2.5%   |
| Michigan             | 4,316              | 2,476                | 4,254               | 11,046             | 2.8%   |
| Minnesota            | 2,063              | 1,724                | 2,452               | 6,239              | 2.8%   |
| Mississippi          | 2,578              | 985                  | 1,238               | 4,801              | 6.6%   |
| Missouri             | 2,110              | 1,375                | 2,234               | 5,719              | 2.8%   |
| Montana              | 1,276              | 539                  | 624                 | 2,439              | 8.1%   |
| Nebraska             | 2,374              | 448                  | 1,108               | 3,930              | 5.7%   |
| Nevada               | 962                | 600                  | 901                 | 2,463              | 2.6%   |
| New Hampshire        | 609                | 385                  | 586                 | 1,580              | 3.0%   |
| New Jersey           | 3,613              | 3,066                | 4,422               | 11,102             | 2.7%   |
| New Mexico           | 3,386              | 895                  | 1,223               | 5,504              | 10.1%  |
| New York             | 5,474              | 4,666                | 8,045               | 18,185             | 2.0%   |
| North Carolina       | 2,576              | 1,835                | 2,953               | 7,364              | 2.4%   |
| North Dakota         | 1,027              | 277                  | 425                 | 1,728              | 7.3%   |
| Ohio                 | 5,201              | 3,176                | 4,873               | 13,250             | 3.2%   |
| Oklahoma             | 16,752             | 3,585                | 6,000               | 26,337             | 22.3%  |
| Oregon               | 1,132              | 721                  | 1,217               | 3,069              | 2.4%   |
| Pennsylvania         | 6,443              | 4,358                | 6,404               | 17,205             | 3.6%   |
| Rhode Island         | 438                | 210                  | 387                 | 1,035              | 2.8%   |
| South Carolina       | 1,083              | 719                  | 1,172               | 2,975              | 2.3%   |
| South Dakota         | 411                | 185                  | 306                 | 902                | 3.5%   |
| Tennessee            | 1,888              | 1,530                | 2,395               | 5,813              | 2.6%   |
| Texas                | 100,892            | 32,438               | 42,572              | 175,902            | 18.6%  |
| Utah                 | 2,083              | 938                  | 1,321               | 4,342              | 5.5%   |
| Vermont              | 324                | 144                  | 237                 | 705                | 3.4%   |
| Virginia             | 2,780              | 1,953                | 2,971               | 7,704              | 2.4%   |
| Washington           | 2,183              | 1,987                | 2,602               | 6,773              | 2.6%   |
| West Virginia        | 2,348              | 716                  | 835                 | 3,899              | 8.0%   |
| Wisconsin            | 1,480              | 1,103                | 1,839               | 4,422              | 2.2%   |
| Wyoming              | 3,504              | 773                  | 832                 | 5,109              | 25.3%  |
| U.S. Total           | 275,795            | 122,787              | 178,343             | 576,925            | 4.9%   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).  
Numbers may not add to total due to rounding.

**Table 10b. Impact of the Oil and Natural Gas Industry on Value-Added by State in 2004 (\$million; Sorted by Value-Added Share of State GSP)**

| State                | Direct Value-Added | Indirect Value-Added | Induced Value-Added | Total Contribution | Total Contribution as a % of Gross State Product |
|----------------------|--------------------|----------------------|---------------------|--------------------|--|
| Wyoming              | 3,504              | 773                  | 832                 | 5,109              | 25.3%  |
| Oklahoma             | 16,752             | 3,585                | 6,000               | 26,337             | 22.3%  |
| Texas                | 100,892            | 32,438               | 42,572              | 175,902            | 18.6%  |
| Louisiana            | 15,607             | 5,189                | 6,008               | 26,803             | 18.2%  |
| Alaska               | 3,264              | 569                  | 844                 | 4,677              | 16.2%  |
| New Mexico           | 3,386              | 895                  | 1,223               | 5,504              | 10.1%  |
| Montana              | 1,276              | 539                  | 624                 | 2,439              | 8.1%   |
| West Virginia        | 2,348              | 716                  | 835                 | 3,899              | 8.0%   |
| Kansas               | 4,074              | 1,398                | 2,097               | 7,568              | 7.4%   |
| North Dakota         | 1,027              | 277                  | 425                 | 1,728              | 7.3%   |
| Colorado             | 7,596              | 2,884                | 3,976               | 14,456             | 6.6%   |
| Mississippi          | 2,578              | 985                  | 1,238               | 4,801              | 6.6%   |
| Nebraska             | 2,374              | 448                  | 1,108               | 3,930              | 5.7%   |
| Utah                 | 2,083              | 938                  | 1,321               | 4,342              | 5.5%   |
| Arkansas             | 1,756              | 855                  | 1,100               | 3,711              | 4.7%   |
| California           | 30,015             | 15,917               | 23,358              | 69,291             | 4.5%   |
| Illinois             | 9,275              | 5,532                | 8,171               | 22,979             | 4.2%   |
| Kentucky             | 2,266              | 1,208                | 1,632               | 5,106              | 3.8%   |
| Pennsylvania         | 6,443              | 4,358                | 6,404               | 17,205             | 3.6%   |
| South Dakota         | 411                | 185                  | 306                 | 902                | 3.5%   |
| Maine                | 618                | 333                  | 510                 | 1,461              | 3.4%   |
| Alabama              | 2,193              | 1,025                | 1,647               | 4,866              | 3.4%   |
| Vermont              | 324                | 144                  | 237                 | 705                | 3.4%   |
| Ohio                 | 5,201              | 3,176                | 4,873               | 13,250             | 3.2%   |
| Delaware             | 372                | 376                  | 440                 | 1,188              | 3.1%   |
| New Hampshire        | 609                | 385                  | 586                 | 1,580              | 3.0%   |
| Indiana              | 2,442              | 1,638                | 2,463               | 6,542              | 3.0%   |
| Michigan             | 4,316              | 2,476                | 4,254               | 11,046             | 2.8%   |
| Rhode Island         | 438                | 210                  | 387                 | 1,035              | 2.8%   |
| Missouri             | 2,110              | 1,375                | 2,234               | 5,719              | 2.8%   |
| Minnesota            | 2,063              | 1,724                | 2,452               | 6,239              | 2.8%   |
| New Jersey           | 3,613              | 3,066                | 4,422               | 11,102             | 2.7%   |
| Connecticut          | 1,779              | 1,230                | 1,942               | 4,951              | 2.6%   |
| Washington           | 2,183              | 1,987                | 2,602               | 6,773              | 2.6%   |
| Tennessee            | 1,888              | 1,530                | 2,395               | 5,813              | 2.6%   |
| Nevada               | 962                | 600                  | 901                 | 2,463              | 2.6%   |
| Iowa                 | 1,027              | 614                  | 1,016               | 2,656              | 2.5%   |
| Massachusetts        | 2,901              | 1,876                | 3,254               | 8,032              | 2.5%   |
| North Carolina       | 2,576              | 1,835                | 2,953               | 7,364              | 2.4%   |
| Virginia             | 2,780              | 1,953                | 2,971               | 7,704              | 2.4%   |
| Oregon               | 1,132              | 721                  | 1,217               | 3,069              | 2.4%   |
| South Carolina       | 1,083              | 719                  | 1,172               | 2,975              | 2.3%   |
| Idaho                | 400                | 203                  | 365                 | 968                | 2.3%   |
| Georgia              | 2,580              | 2,000                | 3,341               | 7,922              | 2.3%   |
| Arizona              | 1,486              | 1,140                | 1,803               | 4,429              | 2.2%   |
| Wisconsin            | 1,480              | 1,103                | 1,839               | 4,422              | 2.2%   |
| Hawaii               | 281                | 318                  | 417                 | 1,016              | 2.1%   |
| New York             | 5,474              | 4,666                | 8,045               | 18,185             | 2.0%   |
| Florida              | 3,112              | 3,377                | 5,234               | 11,723             | 2.0%   |
| Maryland             | 1,148              | 1,027                | 1,836               | 4,011              | 1.7%   |
| District of Columbia | 295                | 270                  | 460                 | 1,025              | 1.3%   |
| U.S. Total           | 275,795            | 122,787              | 178,343             | 576,925            | 4.9%   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).  
Numbers may not add to total due to rounding.

## **Appendix A: Detailed State-by-State Impact Results**

## The Economic Impact of the Oil and Natural Gas Industry in Alabama

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 29,008        |               |               | 29,008        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 8,106         | 14,697        | 22,803        |
| Wholesale and Retail Trade                          |               | 1,411         | 4,755         | 6,166         |
| Manufacturing                                       |               | 1,785         | 2,676         | 4,461         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,708         | 2,647         | 4,355         |
| Transportation                                      |               | 1,249         | 1,034         | 2,283         |
| Agriculture, Mining, and Utilities                  |               | 293           | 1,129         | 1,422         |
| Construction  |               | 360           | 204           | 563           |
| Other   |               | 183           | 363           | 546           |
| <i>Total Impact</i>                                 | <i>29,008</i> | <i>15,095</i> | <i>27,506</i> | <i>71,608</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,193         |               |               | 2,193         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 403           | 553           | 955           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 217           | 261           | 478           |
| Manufacturing                                       |               | 148           | 214           | 362           |
| Wholesale and Retail Trade                          |               | 102           | 237           | 339           |
| Other   |               | 26            | 234           | 260           |
| Agriculture, Mining, and Utilities                  |               | 49            | 85            | 134           |
| Transportation                                      |               | 65            | 55            | 120           |
| Construction  |               | 16            | 9             | 24            |
| <i>Total Impact</i>                                 | <i>2,193</i>  | <i>1,025</i>  | <i>1,647</i>  | <i>4,866</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,053         |               |               | 1,053         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 302           | 423           | 724           |
| Manufacturing                                       |               | 99            | 136           | 235           |
| Wholesale and Retail Trade                          |               | 58            | 142           | 200           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 75            | 121           | 196           |
| Transportation                                      |               | 53            | 43            | 95            |
| Agriculture, Mining, and Utilities                  |               | 19            | 39            | 57            |
| Other   |               | 11            | 19            | 29            |
| Construction  |               | 13            | 7             | 21            |
| <i>Total Impact</i>                                 | <i>1,053</i>  | <i>629</i>    | <i>929</i>    | <i>2,611</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Alaska

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 13,627        |              |               | 13,627        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 4,649        | 8,210         | 12,859        |
| Wholesale and Retail Trade                          |               | 740          | 2,442         | 3,182         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,148        | 1,568         | 2,717         |
| Transportation                                      |               | 756          | 576           | 1,332         |
| Other   |               | 142          | 358           | 501           |
| Manufacturing                                       |               | 250          | 238           | 489           |
| Agriculture, Mining, and Utilities                  |               | 130          | 227           | 357           |
| Construction  |               | 187          | 74            | 261           |
| <i>Total Impact</i>                                 | <i>13,627</i> | <i>8,004</i> | <i>13,694</i> | <i>35,324</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 3,264         |              |               | 3,264         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 266          | 342           | 608           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 124          | 133           | 257           |
| Other   |               | 16           | 169           | 185           |
| Wholesale and Retail Trade                          |               | 54           | 123           | 176           |
| Transportation                                      |               | 46           | 36            | 82            |
| Agriculture, Mining, and Utilities                  |               | 31           | 24            | 55            |
| Manufacturing                                       |               | 19           | 12            | 30            |
| Construction  |               | 14           | 5             | 19            |
| <i>Total Impact</i>                                 | <i>3,264</i>  | <i>569</i>   | <i>844</i>    | <i>4,677</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,365         |              |               | 1,365         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 189          | 261           | 450           |
| Wholesale and Retail Trade                          |               | 30           | 75            | 105           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 40           | 52            | 92            |
| Transportation                                      |               | 37           | 28            | 65            |
| Other   |               | 8            | 15            | 22            |
| Agriculture, Mining, and Utilities                  |               | 10           | 9             | 20            |
| Manufacturing                                       |               | 12           | 8             | 19            |
| Construction  |               | 12           | 5             | 17            |
| <i>Total Impact</i>                                 | <i>1,365</i>  | <i>338</i>   | <i>452</i>    | <i>2,156</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Arizona

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 21,862        |               |               | 21,862        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 8,143         | 15,329        | 23,472        |
| Wholesale and Retail Trade                          |               | 1,106         | 4,316         | 5,421         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,022         | 3,366         | 5,388         |
| Manufacturing                                       |               | 1,044         | 1,520         | 2,564         |
| Transportation                                      |               | 1,180         | 1,066         | 2,246         |
| Agriculture, Mining, and Utilities                  |               | 190           | 738           | 929           |
| Construction  |               | 263           | 246           | 509           |
| Other   |               | 166           | 295           | 461           |
| <b>Total Impact</b>                                 | <b>21,862</b> | <b>14,113</b> | <b>26,877</b> | <b>62,853</b> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,486         |               |               | 1,486         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 509           | 663           | 1,171         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 310           | 391           | 701           |
| Wholesale and Retail Trade                          |               | 91            | 264           | 355           |
| Other   |               | 27            | 213           | 240           |
| Manufacturing                                       |               | 90            | 135           | 225           |
| Transportation                                      |               | 65            | 63            | 128           |
| Agriculture, Mining, and Utilities                  |               | 32            | 61            | 93            |
| Construction  |               | 16            | 14            | 30            |
| <b>Total Impact</b>                                 | <b>1,486</b>  | <b>1,140</b>  | <b>1,803</b>  | <b>4,429</b>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 712           |               |               | 712           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 376           | 503           | 880           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 114           | 188           | 303           |
| Wholesale and Retail Trade                          |               | 51            | 157           | 208           |
| Manufacturing                                       |               | 61            | 84            | 145           |
| Transportation                                      |               | 52            | 49            | 101           |
| Agriculture, Mining, and Utilities                  |               | 12            | 27            | 39            |
| Other   |               | 12            | 19            | 31            |
| Construction  |               | 14            | 12            | 26            |
| <b>Total Impact</b>                                 | <b>712</b>    | <b>692</b>    | <b>1,040</b>  | <b>2,444</b>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Arkansas

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 23,428        |               |               | 23,428        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 7,722         | 11,167        | 18,888        |
| Wholesale and Retail Trade                          |               | 1,311         | 3,433         | 4,744         |
| Manufacturing                                       |               | 1,624         | 1,960         | 3,584         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,302         | 1,810         | 3,112         |
| Transportation                                      |               | 1,331         | 935           | 2,267         |
| Agriculture, Mining, and Utilities                  |               | 319           | 1,128         | 1,447         |
| Construction  |               | 493           | 147           | 641           |
| Other   |               | 108           | 217           | 325           |
| <i>Total Impact</i>                                 | <i>23,428</i> | <i>14,209</i> | <i>20,799</i> | <i>58,436</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,756         |               |               | 1,756         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 388           | 398           | 786           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 122           | 138           | 260           |
| Wholesale and Retail Trade                          |               | 91            | 154           | 245           |
| Manufacturing                                       |               | 112           | 129           | 242           |
| Other   |               | 11            | 159           | 170           |
| Transportation                                      |               | 68            | 50            | 117           |
| Agriculture, Mining, and Utilities                  |               | 45            | 66            | 111           |
| Construction  |               | 17            | 5             | 23            |
| <i>Total Impact</i>                                 | <i>1,756</i>  | <i>855</i>    | <i>1,100</i>  | <i>3,711</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 813           |               |               | 813           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 282           | 306           | 588           |
| Manufacturing                                       |               | 75            | 81            | 157           |
| Wholesale and Retail Trade                          |               | 51            | 93            | 144           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 45            | 63            | 109           |
| Transportation                                      |               | 55            | 39            | 94            |
| Agriculture, Mining, and Utilities                  |               | 17            | 30            | 47            |
| Construction  |               | 15            | 4             | 20            |
| Other   |               | 6             | 10            | 16            |
| <i>Total Impact</i>                                 | <i>813</i>    | <i>546</i>    | <i>628</i>    | <i>1,987</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in California

[Data pertain to 2004]

| Employment*   |                |                |                |                |
|---|----------------|----------------|----------------|----------------|
| Sector Description                                  | Direct         | Indirect       | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 147,713        |                |                | 147,713        |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                |
| Services  |                | 94,480         | 177,163        | 271,643        |
| Wholesale and Retail Trade                          |                | 19,792         | 48,069         | 67,861         |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 20,634         | 34,776         | 55,410         |
| Manufacturing                                       |                | 14,108         | 19,708         | 33,816         |
| Transportation                                      |                | 13,824         | 11,132         | 24,956         |
| Agriculture, Mining, and Utilities                  |                | 1,971          | 7,982          | 9,953          |
| Other   |                | 1,348          | 3,012          | 4,360          |
| Construction  |                | 2,379          | 1,940          | 4,318          |
| <i>Total Impact</i>                                 | <i>147,713</i> | <i>168,535</i> | <i>303,782</i> | <i>620,030</i> |
| Value-Added (\$ millions)                           |                |                |                |                |
| Sector Description                                  | Direct         | Indirect       | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 30,015         |                |                | 30,015         |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                |
| Services  |                | 7,274          | 9,347          | 16,621         |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 3,684          | 4,609          | 8,292          |
| Wholesale and Retail Trade                          |                | 2,050          | 3,203          | 5,254          |
| Manufacturing                                       |                | 1,358          | 1,980          | 3,337          |
| Other   |                | 172            | 2,800          | 2,972          |
| Transportation                                      |                | 845            | 700            | 1,545          |
| Agriculture, Mining, and Utilities                  |                | 368            | 587            | 954            |
| Construction  |                | 167            | 133            | 299            |
| <i>Total Impact</i>                                 | <i>30,015</i>  | <i>15,917</i>  | <i>23,358</i>  | <i>69,291</i>  |
| Labor Income (\$ millions)                          |                |                |                |                |
| Sector Description                                  | Direct         | Indirect       | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 14,187         |                |                | 14,187         |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                |
| Services  |                | 5,283          | 7,044          | 12,328         |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 1,410          | 2,273          | 3,683          |
| Wholesale and Retail Trade                          |                | 1,138          | 1,917          | 3,055          |
| Manufacturing                                       |                | 921            | 1,237          | 2,158          |
| Transportation                                      |                | 669            | 543            | 1,212          |
| Agriculture, Mining, and Utilities                  |                | 137            | 269            | 406            |
| Other   |                | 104            | 223            | 327            |
| Construction  |                | 143            | 112            | 255            |
| <i>Total Impact</i>                                 | <i>14,187</i>  | <i>9,805</i>   | <i>13,619</i>  | <i>37,611</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Colorado

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 38,163        |               |               | 38,163         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 16,781        | 33,420        | 50,200         |
| Wholesale and Retail Trade                          |               | 2,601         | 9,758         | 12,360         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 4,412         | 7,490         | 11,902         |
| Manufacturing                                       |               | 2,147         | 2,382         | 4,530          |
| Transportation                                      |               | 2,390         | 2,049         | 4,440          |
| Agriculture, Mining, and Utilities                  |               | 417           | 1,358         | 1,775          |
| Other   |               | 302           | 663           | 965            |
| Construction  |               | 471           | 363           | 834            |
| <i>Total Impact</i>                                 | <i>38,163</i> | <i>29,521</i> | <i>57,483</i> | <i>125,168</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 7,596         |               |               | 7,596          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,303         | 1,636         | 2,939          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 834           | 790           | 1,624          |
| Wholesale and Retail Trade                          |               | 238           | 555           | 794            |
| Other   |               | 41            | 524           | 565            |
| Manufacturing                                       |               | 207           | 214           | 421            |
| Transportation                                      |               | 131           | 118           | 249            |
| Agriculture, Mining, and Utilities                  |               | 99            | 117           | 216            |
| Construction  |               | 30            | 23            | 53             |
| <i>Total Impact</i>                                 | <i>7,596</i>  | <i>2,884</i>  | <i>3,976</i>  | <i>14,456</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 3,085         |               |               | 3,085          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 957           | 1,220         | 2,177          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 254           | 381           | 634            |
| Wholesale and Retail Trade                          |               | 133           | 333           | 466            |
| Manufacturing                                       |               | 136           | 136           | 272            |
| Transportation                                      |               | 104           | 91            | 196            |
| Agriculture, Mining, and Utilities                  |               | 34            | 47            | 81             |
| Other   |               | 20            | 39            | 59             |
| Construction  |               | 26            | 19            | 45             |
| <i>Total Impact</i>                                 | <i>3,085</i>  | <i>1,664</i>  | <i>2,267</i>  | <i>7,016</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Connecticut

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 14,949        |               |               | 14,949        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 6,204         | 12,728        | 18,933        |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,736         | 2,693         | 4,429         |
| Wholesale and Retail Trade                          |               | 802           | 3,294         | 4,096         |
| Manufacturing                                       |               | 1,095         | 1,646         | 2,741         |
| Transportation                                      |               | 913           | 716           | 1,629         |
| Agriculture, Mining, and Utilities                  |               | 102           | 284           | 386           |
| Other   |               | 122           | 203           | 324           |
| Construction  |               | 163           | 131           | 294           |
| <b>Total Impact</b>                                 | <b>14,949</b> | <b>11,137</b> | <b>21,696</b> | <b>47,781</b> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,779         |               |               | 1,779         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 562           | 730           | 1,292         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 325           | 440           | 765           |
| Manufacturing                                       |               | 144           | 227           | 371           |
| Wholesale and Retail Trade                          |               | 81            | 244           | 324           |
| Other   |               | 19            | 198           | 217           |
| Transportation                                      |               | 50            | 42            | 92            |
| Agriculture, Mining, and Utilities                  |               | 37            | 52            | 89            |
| Construction  |               | 12            | 10            | 22            |
| <b>Total Impact</b>                                 | <b>1,779</b>  | <b>1,230</b>  | <b>1,942</b>  | <b>4,951</b>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 764           |               |               | 764           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 407           | 554           | 961           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 128           | 225           | 353           |
| Manufacturing                                       |               | 97            | 140           | 237           |
| Wholesale and Retail Trade                          |               | 45            | 144           | 189           |
| Transportation                                      |               | 41            | 33            | 73            |
| Agriculture, Mining, and Utilities                  |               | 13            | 22            | 35            |
| Other   |               | 10            | 16            | 26            |
| Construction  |               | 11            | 8             | 19            |
| <b>Total Impact</b>                                 | <b>764</b>    | <b>752</b>    | <b>1,141</b>  | <b>2,657</b>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Delaware

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 4,271        |              |              | 4,271         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 2,105        | 3,353        | 5,458         |
| Wholesale and Retail Trade                          |              | 606          | 993          | 1,599         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 523          | 795          | 1,319         |
| Manufacturing                                       |              | 259          | 310          | 569           |
| Transportation                                      |              | 347          | 214          | 560           |
| Agriculture, Mining, and Utilities                  |              | 54           | 94           | 148           |
| Construction  |              | 55           | 45           | 100           |
| Other   |              | 36           | 55           | 91            |
| <i>Total Impact</i>                                 | <i>4,271</i> | <i>3,984</i> | <i>5,860</i> | <i>14,115</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 372          |              |              | 372           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 153          | 169          | 322           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 80           | 102          | 182           |
| Wholesale and Retail Trade                          |              | 69           | 59           | 128           |
| Manufacturing                                       |              | 29           | 34           | 63            |
| Other   |              | 4            | 47           | 52            |
| Agriculture, Mining, and Utilities                  |              | 17           | 16           | 33            |
| Transportation                                      |              | 19           | 12           | 31            |
| Construction  |              | 3            | 2            | 6             |
| <i>Total Impact</i>                                 | <i>372</i>   | <i>376</i>   | <i>440</i>   | <i>1,188</i>  |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 196          |              |              | 196           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 115          | 131          | 246           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 34           | 51           | 85            |
| Wholesale and Retail Trade                          |              | 38           | 35           | 73            |
| Manufacturing                                       |              | 19           | 21           | 41            |
| Transportation                                      |              | 15           | 9            | 24            |
| Agriculture, Mining, and Utilities                  |              | 6            | 7            | 12            |
| Other   |              | 2            | 3            | 5             |
| Construction  |              | 3            | 2            | 5             |
| <i>Total Impact</i>                                 | <i>196</i>   | <i>233</i>   | <i>258</i>   | <i>687</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in District of Columbia

[Data pertain to 2004]

| Employment*   |              |              |              |              |
|---|--------------|--------------|--------------|--------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total        |
| Direct Impact of Oil and Natural Gas Industry       | 2,153        |              |              | 2,153        |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |              |
| Services  |              | 1,423        | 3,197        | 4,620        |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 175          | 312          | 487          |
| Wholesale and Retail Trade                          |              | 62           | 173          | 235          |
| Other   |              | 63           | 135          | 198          |
| Transportation                                      |              | 91           | 101          | 192          |
| Manufacturing                                       |              | 17           | 21           | 37           |
| Agriculture, Mining, and Utilities                  |              | 9            | 16           | 26           |
| Construction  |              | 7            | 10           | 18           |
| <i>Total Impact</i>                                 | <i>2,153</i> | <i>1,846</i> | <i>3,966</i> | <i>7,965</i> |
| Value-Added (\$ millions)                           |              |              |              |              |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total        |
| Direct Impact of Oil and Natural Gas Industry       | 295          |              |              | 295          |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |              |
| Services  |              | 188          | 271          | 460          |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 52           | 69           | 120          |
| Other   |              | 10           | 94           | 104          |
| Wholesale and Retail Trade                          |              | 8            | 12           | 20           |
| Transportation                                      |              | 6            | 7            | 13           |
| Agriculture, Mining, and Utilities                  |              | 4            | 4            | 8            |
| Manufacturing                                       |              | 2            | 3            | 5            |
| Construction  |              | 1            | 1            | 1            |
| <i>Total Impact</i>                                 | <i>295</i>   | <i>270</i>   | <i>460</i>   | <i>1,025</i> |
| Labor Income (\$ millions)                          |              |              |              |              |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total        |
| Direct Impact of Oil and Natural Gas Industry       | 139          |              |              | 139          |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |              |
| Services  |              | 138          | 204          | 343          |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 21           | 35           | 55           |
| Other   |              | 5            | 12           | 17           |
| Wholesale and Retail Trade                          |              | 4            | 7            | 11           |
| Transportation                                      |              | 5            | 5            | 10           |
| Manufacturing                                       |              | 2            | 2            | 3            |
| Agriculture, Mining, and Utilities                  |              | 1            | 2            | 3            |
| Construction  |              | 0            | 1            | 1            |
| <i>Total Impact</i>                                 | <i>139</i>   | <i>177</i>   | <i>267</i>   | <i>583</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Florida

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 54,027        |               |               | 54,027         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 24,256        | 48,561        | 72,817         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 6,203         | 10,407        | 16,609         |
| Wholesale and Retail Trade                          |               | 3,167         | 12,750        | 15,916         |
| Transportation                                      |               | 3,382         | 3,329         | 6,712          |
| Manufacturing                                       |               | 2,515         | 3,447         | 5,961          |
| Agriculture, Mining, and Utilities                  |               | 633           | 2,349         | 2,982          |
| Construction  |               | 494           | 614           | 1,108          |
| Other   |               | 360           | 726           | 1,086          |
| <b>Total Impact</b>                                 | <b>54,027</b> | <b>41,010</b> | <b>82,183</b> | <b>177,220</b> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 3,112         |               |               | 3,112          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,656         | 2,214         | 3,871          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 887           | 1,051         | 1,938          |
| Wholesale and Retail Trade                          |               | 267           | 752           | 1,019          |
| Other   |               | 53            | 544           | 597            |
| Manufacturing                                       |               | 211           | 299           | 509            |
| Transportation                                      |               | 177           | 185           | 363            |
| Agriculture, Mining, and Utilities                  |               | 98            | 156           | 255            |
| Construction  |               | 27            | 31            | 59             |
| <b>Total Impact</b>                                 | <b>3,112</b>  | <b>3,377</b>  | <b>5,234</b>  | <b>11,723</b>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 1,475         |               |               | 1,475          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,219         | 1,669         | 2,888          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 309           | 511           | 820            |
| Wholesale and Retail Trade                          |               | 148           | 445           | 593            |
| Manufacturing                                       |               | 142           | 185           | 327            |
| Transportation                                      |               | 141           | 143           | 284            |
| Agriculture, Mining, and Utilities                  |               | 36            | 68            | 103            |
| Other   |               | 25            | 47            | 73             |
| Construction  |               | 24            | 27            | 50             |
| <b>Total Impact</b>                                 | <b>1,475</b>  | <b>2,044</b>  | <b>3,094</b>  | <b>6,613</b>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Georgia

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 35,610        |               |               | 35,610         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 12,659        | 25,226        | 37,885         |
| Wholesale and Retail Trade                          |               | 1,851         | 7,492         | 9,343          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,952         | 4,904         | 7,856          |
| Manufacturing                                       |               | 2,425         | 3,960         | 6,384          |
| Transportation                                      |               | 2,065         | 2,198         | 4,263          |
| Agriculture, Mining, and Utilities                  |               | 354           | 1,361         | 1,715          |
| Other   |               | 220           | 490           | 710            |
| Construction  |               | 357           | 322           | 679            |
| <b>Total Impact</b>                                 | <b>35,610</b> | <b>22,881</b> | <b>45,953</b> | <b>104,445</b> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,580         |               |               | 2,580          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 939           | 1,257         | 2,196          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 424           | 580           | 1,004          |
| Wholesale and Retail Trade                          |               | 162           | 471           | 633            |
| Manufacturing                                       |               | 231           | 392           | 622            |
| Other   |               | 22            | 337           | 359            |
| Transportation                                      |               | 126           | 142           | 268            |
| Agriculture, Mining, and Utilities                  |               | 79            | 147           | 225            |
| Construction  |               | 19            | 16            | 35             |
| <b>Total Impact</b>                                 | <b>2,580</b>  | <b>2,000</b>  | <b>3,341</b>  | <b>7,922</b>   |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 1,247         |               |               | 1,247          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 684           | 944           | 1,629          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 161           | 279           | 440            |
| Manufacturing                                       |               | 155           | 240           | 395            |
| Wholesale and Retail Trade                          |               | 90            | 279           | 369            |
| Transportation                                      |               | 100           | 109           | 209            |
| Agriculture, Mining, and Utilities                  |               | 29            | 65            | 94             |
| Other   |               | 12            | 27            | 39             |
| Construction  |               | 16            | 14            | 30             |
| <b>Total Impact</b>                                 | <b>1,247</b>  | <b>1,248</b>  | <b>1,957</b>  | <b>4,453</b>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Hawaii

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 3,829        |              |              | 3,829         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 2,384        | 4,002        | 6,386         |
| Wholesale and Retail Trade                          |              | 636          | 1,029        | 1,665         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 467          | 704          | 1,171         |
| Transportation                                      |              | 327          | 311          | 638           |
| Agriculture, Mining, and Utilities                  |              | 86           | 220          | 306           |
| Manufacturing                                       |              | 116          | 182          | 298           |
| Other   |              | 73           | 154          | 227           |
| Construction  |              | 31           | 36           | 67            |
| <i>Total Impact</i>                                 | <i>3,829</i> | <i>4,122</i> | <i>6,637</i> | <i>14,588</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 281          |              |              | 281           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 154          | 178          | 332           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 64           | 79           | 143           |
| Wholesale and Retail Trade                          |              | 49           | 52           | 101           |
| Other   |              | 5            | 62           | 67            |
| Transportation                                      |              | 19           | 18           | 37            |
| Agriculture, Mining, and Utilities                  |              | 16           | 15           | 31            |
| Manufacturing                                       |              | 8            | 11           | 19            |
| Construction  |              | 2            | 3            | 5             |
| <i>Total Impact</i>                                 | <i>281</i>   | <i>318</i>   | <i>417</i>   | <i>1,016</i>  |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 150          |              |              | 150           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 112          | 135          | 247           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 25           | 37           | 62            |
| Wholesale and Retail Trade                          |              | 27           | 31           | 58            |
| Transportation                                      |              | 15           | 14           | 29            |
| Agriculture, Mining, and Utilities                  |              | 6            | 6            | 12            |
| Manufacturing                                       |              | 5            | 7            | 12            |
| Other   |              | 3            | 7            | 10            |
| Construction  |              | 2            | 2            | 4             |
| <i>Total Impact</i>                                 | <i>150</i>   | <i>195</i>   | <i>240</i>   | <i>585</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Idaho

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 6,642        |              |              | 6,642         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 1,828        | 3,762        | 5,590         |
| Wholesale and Retail Trade                          |              | 267          | 1,131        | 1,398         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 431          | 715          | 1,145         |
| Manufacturing                                       |              | 311          | 500          | 811           |
| Agriculture, Mining, and Utilities                  |              | 138          | 633          | 771           |
| Transportation                                      |              | 238          | 253          | 491           |
| Other   |              | 29           | 68           | 97            |
| Construction  |              | 34           | 50           | 84            |
| <i>Total Impact</i>                                 | <i>6,642</i> | <i>3,276</i> | <i>7,112</i> | <i>17,029</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 400          |              |              | 400           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 99           | 133          | 231           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 36           | 50           | 87            |
| Wholesale and Retail Trade                          |              | 17           | 53           | 70            |
| Manufacturing                                       |              | 23           | 38           | 61            |
| Other   |              | 3            | 45           | 48            |
| Agriculture, Mining, and Utilities                  |              | 13           | 31           | 44            |
| Transportation                                      |              | 11           | 12           | 23            |
| Construction  |              | 2            | 2            | 4             |
| <i>Total Impact</i>                                 | <i>400</i>   | <i>203</i>   | <i>365</i>   | <i>968</i>    |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 191          |              |              | 191           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 73           | 101          | 174           |
| Wholesale and Retail Trade                          |              | 9            | 32           | 41            |
| Manufacturing                                       |              | 16           | 24           | 39            |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 14           | 24           | 38            |
| Agriculture, Mining, and Utilities                  |              | 5            | 14           | 19            |
| Transportation                                      |              | 9            | 9            | 18            |
| Other   |              | 1            | 3            | 5             |
| Construction  |              | 1            | 2            | 3             |
| <i>Total Impact</i>                                 | <i>191</i>   | <i>129</i>   | <i>209</i>   | <i>529</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Illinois

[Data pertain to 2004]

| Employment*   |               |               |                |                |
|---|---------------|---------------|----------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 52,642        |               |                | 52,642         |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 30,087        | 63,689         | 93,776         |
| Wholesale and Retail Trade                          |               | 6,131         | 18,113         | 24,244         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 6,558         | 12,722         | 19,279         |
| Manufacturing                                       |               | 6,350         | 8,053          | 14,403         |
| Transportation                                      |               | 5,007         | 4,958          | 9,965          |
| Agriculture, Mining, and Utilities                  |               | 759           | 2,078          | 2,838          |
| Construction  |               | 782           | 677            | 1,459          |
| Other   |               | 363           | 831            | 1,195          |
| <i>Total Impact</i>                                 | <i>52,642</i> | <i>56,038</i> | <i>111,121</i> | <i>219,801</i> |
| Value-Added (\$ millions)                           |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 9,275         |               |                | 9,275          |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 2,333         | 3,074          | 5,407          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,294         | 1,679          | 2,974          |
| Wholesale and Retail Trade                          |               | 647           | 1,109          | 1,756          |
| Manufacturing                                       |               | 651           | 826            | 1,477          |
| Other   |               | 54            | 911            | 966            |
| Transportation                                      |               | 300           | 302            | 602            |
| Agriculture, Mining, and Utilities                  |               | 199           | 225            | 424            |
| Construction  |               | 53            | 45             | 97             |
| <i>Total Impact</i>                                 | <i>9,275</i>  | <i>5,532</i>  | <i>8,171</i>   | <i>22,979</i>  |
| Labor Income (\$ millions)                          |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 4,304         |               |                | 4,304          |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 1,725         | 2,346          | 4,070          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 474           | 828            | 1,301          |
| Wholesale and Retail Trade                          |               | 358           | 659            | 1,016          |
| Manufacturing                                       |               | 430           | 518            | 948            |
| Transportation                                      |               | 235           | 233            | 468            |
| Agriculture, Mining, and Utilities                  |               | 68            | 94             | 162            |
| Construction  |               | 45            | 38             | 83             |
| Other   |               | 26            | 53             | 79             |
| <i>Total Impact</i>                                 | <i>4,304</i>  | <i>3,361</i>  | <i>4,767</i>   | <i>12,432</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Indiana

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 33,804        |               |               | 33,804        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 11,194        | 21,323        | 32,517        |
| Wholesale and Retail Trade                          |               | 2,498         | 6,681         | 9,178         |
| Manufacturing                                       |               | 3,292         | 4,854         | 8,146         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,410         | 3,817         | 6,227         |
| Transportation                                      |               | 2,170         | 1,742         | 3,912         |
| Agriculture, Mining, and Utilities                  |               | 420           | 1,317         | 1,737         |
| Construction  |               | 410           | 264           | 674           |
| Other   |               | 152           | 306           | 457           |
| <i>Total Impact</i>                                 | <i>33,804</i> | <i>22,545</i> | <i>40,303</i> | <i>96,652</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,442         |               |               | 2,442         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 597           | 807           | 1,405         |
| Manufacturing                                       |               | 313           | 480           | 793           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 299           | 358           | 657           |
| Wholesale and Retail Trade                          |               | 197           | 326           | 523           |
| Other   |               | 17            | 277           | 294           |
| Transportation                                      |               | 114           | 95            | 209           |
| Agriculture, Mining, and Utilities                  |               | 79            | 106           | 184           |
| Construction  |               | 22            | 14            | 35            |
| <i>Total Impact</i>                                 | <i>2,442</i>  | <i>1,638</i>  | <i>2,463</i>  | <i>6,542</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,302         |               |               | 1,302         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 443           | 622           | 1,065         |
| Manufacturing                                       |               | 211           | 298           | 508           |
| Wholesale and Retail Trade                          |               | 109           | 195           | 304           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 108           | 170           | 278           |
| Transportation                                      |               | 90            | 73            | 164           |
| Agriculture, Mining, and Utilities                  |               | 28            | 46            | 74            |
| Construction  |               | 19            | 12            | 30            |
| Other   |               | 9             | 17            | 25            |
| <i>Total Impact</i>                                 | <i>1,302</i>  | <i>1,017</i>  | <i>1,432</i>  | <i>3,751</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Iowa

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 21,398        |              |               | 21,398        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 4,747        | 9,224         | 13,970        |
| Wholesale and Retail Trade                          |               | 853          | 3,073         | 3,926         |
| Manufacturing                                       |               | 1,190        | 1,811         | 3,001         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,127        | 1,762         | 2,888         |
| Agriculture, Mining, and Utilities                  |               | 337          | 1,401         | 1,738         |
| Transportation                                      |               | 861          | 743           | 1,604         |
| Construction  |               | 178          | 108           | 286           |
| Other   |               | 73           | 152           | 226           |
| <i>Total Impact</i>                                 | <i>21,398</i> | <i>9,365</i> | <i>18,273</i> | <i>49,036</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,027         |              |               | 1,027         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 226          | 309           | 535           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 132          | 165           | 297           |
| Manufacturing                                       |               | 100          | 156           | 255           |
| Wholesale and Retail Trade                          |               | 52           | 144           | 196           |
| Agriculture, Mining, and Utilities                  |               | 43           | 84            | 126           |
| Other   |               | 9            | 115           | 124           |
| Transportation                                      |               | 43           | 38            | 81            |
| Construction  |               | 9            | 5             | 14            |
| <i>Total Impact</i>                                 | <i>1,027</i>  | <i>614</i>   | <i>1,016</i>  | <i>2,656</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 514           |              |               | 514           |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 167          | 237           | 405           |
| Manufacturing                                       |               | 67           | 96            | 163           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 52           | 81            | 132           |
| Wholesale and Retail Trade                          |               | 29           | 86            | 115           |
| Transportation                                      |               | 35           | 30            | 64            |
| Agriculture, Mining, and Utilities                  |               | 16           | 37            | 53            |
| Other   |               | 4            | 8             | 13            |
| Construction  |               | 8            | 4             | 12            |
| <i>Total Impact</i>                                 | <i>514</i>    | <i>378</i>   | <i>579</i>    | <i>1,471</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Kansas

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 36,665        |               |               | 36,665        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 10,305        | 20,925        | 31,230        |
| Wholesale and Retail Trade                          |               | 2,544         | 6,950         | 9,494         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,316         | 4,068         | 6,383         |
| Manufacturing                                       |               | 1,979         | 2,248         | 4,228         |
| Transportation                                      |               | 1,800         | 1,330         | 3,130         |
| Agriculture, Mining, and Utilities                  |               | 399           | 1,299         | 1,698         |
| Construction  |               | 431           | 224           | 656           |
| Other   |               | 184           | 360           | 544           |
| <i>Total Impact</i>                                 | <i>36,665</i> | <i>19,958</i> | <i>37,405</i> | <i>94,027</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 4,074         |               |               | 4,074         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 565           | 786           | 1,351         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 248           | 334           | 582           |
| Wholesale and Retail Trade                          |               | 203           | 318           | 521           |
| Manufacturing                                       |               | 171           | 184           | 355           |
| Other   |               | 24            | 309           | 333           |
| Transportation                                      |               | 95            | 70            | 165           |
| Agriculture, Mining, and Utilities                  |               | 72            | 86            | 158           |
| Construction  |               | 19            | 10            | 29            |
| <i>Total Impact</i>                                 | <i>4,074</i>  | <i>1,398</i>  | <i>2,097</i>  | <i>7,568</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,916         |               |               | 1,916         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 416           | 599           | 1,015         |
| Wholesale and Retail Trade                          |               | 113           | 193           | 306           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 94            | 157           | 251           |
| Manufacturing                                       |               | 108           | 116           | 224           |
| Transportation                                      |               | 76            | 55            | 130           |
| Agriculture, Mining, and Utilities                  |               | 24            | 33            | 57            |
| Other   |               | 10            | 17            | 27            |
| Construction  |               | 17            | 9             | 25            |
| <i>Total Impact</i>                                 | <i>1,916</i>  | <i>859</i>    | <i>1,178</i>  | <i>3,952</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Kentucky

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 31,553        |               |               | 31,553        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 9,981         | 15,303        | 25,284        |
| Wholesale and Retail Trade                          |               | 1,893         | 4,802         | 6,695         |
| Manufacturing                                       |               | 2,011         | 2,563         | 4,574         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,868         | 2,396         | 4,264         |
| Transportation                                      |               | 1,640         | 1,262         | 2,901         |
| Agriculture, Mining, and Utilities                  |               | 455           | 1,892         | 2,347         |
| Construction  |               | 569           | 194           | 762           |
| Other   |               | 171           | 299           | 470           |
| <i>Total Impact</i>                                 | <i>31,553</i> | <i>18,587</i> | <i>28,711</i> | <i>78,852</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,266         |               |               | 2,266         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 509           | 562           | 1,072         |
| Manufacturing                                       |               | 183           | 250           | 433           |
| Wholesale and Retail Trade                          |               | 145           | 235           | 379           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 176           | 197           | 373           |
| Other   |               | 24            | 228           | 252           |
| Transportation                                      |               | 102           | 80            | 181           |
| Agriculture, Mining, and Utilities                  |               | 45            | 72            | 117           |
| Construction  |               | 24            | 8             | 33            |
| <i>Total Impact</i>                                 | <i>2,266</i>  | <i>1,208</i>  | <i>1,632</i>  | <i>5,106</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,079         |               |               | 1,079         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 367           | 436           | 803           |
| Manufacturing                                       |               | 124           | 153           | 278           |
| Wholesale and Retail Trade                          |               | 81            | 141           | 223           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 70            | 92            | 163           |
| Transportation                                      |               | 81            | 61            | 142           |
| Agriculture, Mining, and Utilities                  |               | 16            | 31            | 47            |
| Construction  |               | 21            | 7             | 28            |
| Other   |               | 10            | 15            | 25            |
| <i>Total Impact</i>                                 | <i>1,079</i>  | <i>771</i>    | <i>938</i>    | <i>2,788</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Louisiana

[Data pertain to 2004]

| Employment*   |               |               |                |                |
|---|---------------|---------------|----------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 87,335        |               |                | 87,335         |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 41,182        | 68,710         | 109,892        |
| Wholesale and Retail Trade                          |               | 11,490        | 20,897         | 32,387         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 7,582         | 10,068         | 17,651         |
| Transportation                                      |               | 7,176         | 3,997          | 11,172         |
| Manufacturing                                       |               | 6,035         | 3,738          | 9,773          |
| Agriculture, Mining, and Utilities                  |               | 1,081         | 2,115          | 3,196          |
| Construction  |               | 1,540         | 786            | 2,327          |
| Other   |               | 533           | 1,182          | 1,715          |
| <i>Total Impact</i>                                 | <i>87,335</i> | <i>76,619</i> | <i>111,494</i> | <i>275,448</i> |
| Value-Added (\$ millions)                           |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 15,607        |               |                | 15,607         |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 2,143         | 2,455          | 4,598          |
| Wholesale and Retail Trade                          |               | 918           | 935            | 1,853          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 757           | 822            | 1,579          |
| Other   |               | 35            | 1,027          | 1,063          |
| Manufacturing                                       |               | 558           | 300            | 858            |
| Transportation                                      |               | 402           | 217            | 619            |
| Agriculture, Mining, and Utilities                  |               | 307           | 216            | 524            |
| Construction  |               | 68            | 34             | 102            |
| <i>Total Impact</i>                                 | <i>15,607</i> | <i>5,189</i>  | <i>6,008</i>   | <i>26,803</i>  |
| Labor Income (\$ millions)                          |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 6,570         |               |                | 6,570          |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 1,534         | 1,888          | 3,422          |
| Wholesale and Retail Trade                          |               | 511           | 578            | 1,089          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 282           | 351            | 634            |
| Manufacturing                                       |               | 369           | 194            | 562            |
| Transportation                                      |               | 315           | 170            | 484            |
| Agriculture, Mining, and Utilities                  |               | 101           | 88             | 189            |
| Construction  |               | 58            | 29             | 87             |
| Other   |               | 22            | 49             | 71             |
| <i>Total Impact</i>                                 | <i>6,570</i>  | <i>3,192</i>  | <i>3,347</i>   | <i>13,109</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Maine

[Data pertain to 2004]

| Employment*   |               |              |              |               |
|---|---------------|--------------|--------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 12,007        |              |              | 12,007        |
| Indirect and Induced Impact on Other Industries**:  |               |              |              |               |
| Services  |               | 3,041        | 5,399        | 8,440         |
| Wholesale and Retail Trade                          |               | 412          | 1,527        | 1,940         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 708          | 916          | 1,624         |
| Manufacturing                                       |               | 416          | 600          | 1,015         |
| Transportation                                      |               | 460          | 320          | 780           |
| Agriculture, Mining, and Utilities                  |               | 88           | 317          | 404           |
| Other   |               | 71           | 128          | 199           |
| Construction  |               | 114          | 71           | 185           |
| <i>Total Impact</i>                                 | <i>12,007</i> | <i>5,310</i> | <i>9,277</i> | <i>26,594</i> |
| Value-Added (\$ millions)                           |               |              |              |               |
| Sector Description                                  | Direct        | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 618           |              |              | 618           |
| Indirect and Induced Impact on Other Industries**:  |               |              |              |               |
| Services  |               | 158          | 200          | 358           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 75           | 84           | 158           |
| Wholesale and Retail Trade                          |               | 26           | 76           | 102           |
| Manufacturing                                       |               | 32           | 49           | 80            |
| Other   |               | 5            | 64           | 69            |
| Transportation                                      |               | 21           | 15           | 35            |
| Agriculture, Mining, and Utilities                  |               | 13           | 19           | 32            |
| Construction  |               | 5            | 3            | 7             |
| <i>Total Impact</i>                                 | <i>618</i>    | <i>333</i>   | <i>510</i>   | <i>1,461</i>  |
| Labor Income (\$ millions)                          |               |              |              |               |
| Sector Description                                  | Direct        | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 271           |              |              | 271           |
| Indirect and Induced Impact on Other Industries**:  |               |              |              |               |
| Services  |               | 115          | 154          | 269           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 28           | 40           | 68            |
| Wholesale and Retail Trade                          |               | 15           | 45           | 60            |
| Manufacturing                                       |               | 22           | 30           | 52            |
| Transportation                                      |               | 17           | 11           | 29            |
| Agriculture, Mining, and Utilities                  |               | 4            | 8            | 12            |
| Other   |               | 3            | 6            | 9             |
| Construction  |               | 4            | 2            | 6             |
| <i>Total Impact</i>                                 | <i>271</i>    | <i>208</i>   | <i>297</i>   | <i>775</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Maryland

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 16,144        |               |               | 16,144        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 6,449         | 14,996        | 21,444        |
| Wholesale and Retail Trade                          |               | 859           | 3,674         | 4,534         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,541         | 2,792         | 4,333         |
| Transportation                                      |               | 1,008         | 1,079         | 2,087         |
| Manufacturing                                       |               | 756           | 1,192         | 1,948         |
| Agriculture, Mining, and Utilities                  |               | 103           | 397           | 500           |
| Other   |               | 127           | 301           | 429           |
| Construction  |               | 160           | 201           | 361           |
| <i>Total Impact</i>                                 | <i>16,144</i> | <i>11,002</i> | <i>24,633</i> | <i>51,779</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,148         |               |               | 1,148         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 507           | 769           | 1,276         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 242           | 334           | 576           |
| Wholesale and Retail Trade                          |               | 77            | 231           | 308           |
| Other   |               | 18            | 224           | 242           |
| Manufacturing                                       |               | 78            | 125           | 203           |
| Agriculture, Mining, and Utilities                  |               | 44            | 85            | 129           |
| Transportation                                      |               | 50            | 55            | 105           |
| Construction  |               | 11            | 13            | 24            |
| <i>Total Impact</i>                                 | <i>1,148</i>  | <i>1,027</i>  | <i>1,836</i>  | <i>4,011</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 543           |               |               | 543           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 370           | 580           | 950           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 92            | 166           | 258           |
| Wholesale and Retail Trade                          |               | 43            | 136           | 179           |
| Manufacturing                                       |               | 52            | 77            | 130           |
| Transportation                                      |               | 40            | 43            | 83            |
| Agriculture, Mining, and Utilities                  |               | 17            | 37            | 53            |
| Other   |               | 9             | 21            | 30            |
| Construction  |               | 10            | 11            | 21            |
| <i>Total Impact</i>                                 | <i>543</i>    | <i>633</i>    | <i>1,072</i>  | <i>2,247</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Massachusetts

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 24,877        |               |               | 24,877        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 10,731        | 24,696        | 35,427        |
| Wholesale and Retail Trade                          |               | 1,295         | 5,700         | 6,995         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,129         | 4,088         | 6,217         |
| Manufacturing                                       |               | 1,764         | 2,759         | 4,523         |
| Transportation                                      |               | 1,353         | 1,351         | 2,705         |
| Agriculture, Mining, and Utilities                  |               | 135           | 424           | 559           |
| Construction  |               | 249           | 241           | 490           |
| Other   |               | 153           | 317           | 470           |
| <i>Total Impact</i>                                 | <i>24,877</i> | <i>17,809</i> | <i>39,576</i> | <i>82,263</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,901         |               |               | 2,901         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 927           | 1,368         | 2,295         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 474           | 719           | 1,192         |
| Wholesale and Retail Trade                          |               | 133           | 409           | 541           |
| Manufacturing                                       |               | 186           | 298           | 484           |
| Other   |               | 25            | 309           | 334           |
| Transportation                                      |               | 76            | 77            | 153           |
| Agriculture, Mining, and Utilities                  |               | 39            | 58            | 97            |
| Construction  |               | 18            | 16            | 34            |
| <i>Total Impact</i>                                 | <i>2,901</i>  | <i>1,876</i>  | <i>3,254</i>  | <i>8,032</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,285         |               |               | 1,285         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 687           | 1,045         | 1,733         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 183           | 363           | 546           |
| Wholesale and Retail Trade                          |               | 74            | 241           | 315           |
| Manufacturing                                       |               | 126           | 186           | 312           |
| Transportation                                      |               | 61            | 60            | 121           |
| Agriculture, Mining, and Utilities                  |               | 14            | 24            | 37            |
| Other   |               | 12            | 23            | 35            |
| Construction  |               | 15            | 14            | 29            |
| <i>Total Impact</i>                                 | <i>1,285</i>  | <i>1,170</i>  | <i>1,956</i>  | <i>4,411</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Michigan

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 44,045        |               |               | 44,045         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 14,664        | 33,707        | 48,371         |
| Wholesale and Retail Trade                          |               | 2,317         | 9,797         | 12,114         |
| Manufacturing                                       |               | 3,748         | 5,863         | 9,611          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,704         | 5,525         | 8,229          |
| Transportation                                      |               | 1,984         | 1,961         | 3,945          |
| Agriculture, Mining, and Utilities                  |               | 426           | 1,680         | 2,106          |
| Construction  |               | 646           | 374           | 1,020          |
| Other   |               | 181           | 479           | 660            |
| <i>Total Impact</i>                                 | <i>44,045</i> | <i>26,670</i> | <i>59,386</i> | <i>130,101</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 4,316         |               |               | 4,316          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,055         | 1,487         | 2,542          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 534           | 800           | 1,334          |
| Manufacturing                                       |               | 424           | 680           | 1,104          |
| Wholesale and Retail Trade                          |               | 195           | 540           | 735            |
| Other   |               | 23            | 455           | 478            |
| Transportation                                      |               | 121           | 127           | 248            |
| Agriculture, Mining, and Utilities                  |               | 87            | 144           | 230            |
| Construction  |               | 38            | 21            | 59             |
| <i>Total Impact</i>                                 | <i>4,316</i>  | <i>2,476</i>  | <i>4,254</i>  | <i>11,046</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,232         |               |               | 2,232          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 790           | 1,145         | 1,935          |
| Manufacturing                                       |               | 282           | 423           | 705            |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 197           | 378           | 575            |
| Wholesale and Retail Trade                          |               | 109           | 324           | 432            |
| Transportation                                      |               | 98            | 99            | 197            |
| Agriculture, Mining, and Utilities                  |               | 31            | 59            | 89             |
| Construction  |               | 32            | 18            | 51             |
| Other   |               | 12            | 31            | 43             |
| <i>Total Impact</i>                                 | <i>2,232</i>  | <i>1,552</i>  | <i>2,475</i>  | <i>6,259</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Minnesota

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 31,391        |               |               | 31,391        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 11,038        | 20,200        | 31,237        |
| Wholesale and Retail Trade                          |               | 2,254         | 5,827         | 8,082         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,522         | 3,861         | 6,383         |
| Manufacturing                                       |               | 2,135         | 3,085         | 5,220         |
| Transportation                                      |               | 1,729         | 1,465         | 3,194         |
| Agriculture, Mining, and Utilities                  |               | 433           | 1,613         | 2,046         |
| Construction  |               | 338           | 228           | 567           |
| Other   |               | 118           | 244           | 362           |
| <i>Total Impact</i>                                 | <i>31,391</i> | <i>20,568</i> | <i>36,522</i> | <i>88,482</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,063         |               |               | 2,063         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 741           | 895           | 1,637         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 363           | 459           | 822           |
| Wholesale and Retail Trade                          |               | 219           | 350           | 568           |
| Manufacturing                                       |               | 190           | 285           | 475           |
| Other   |               | 16            | 251           | 267           |
| Transportation                                      |               | 98            | 89            | 187           |
| Agriculture, Mining, and Utilities                  |               | 75            | 110           | 185           |
| Construction  |               | 20            | 13            | 34            |
| <i>Total Impact</i>                                 | <i>2,063</i>  | <i>1,724</i>  | <i>2,452</i>  | <i>6,239</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,028         |               |               | 1,028         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 544           | 684           | 1,228         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 146           | 230           | 376           |
| Wholesale and Retail Trade                          |               | 121           | 207           | 328           |
| Manufacturing                                       |               | 131           | 179           | 310           |
| Transportation                                      |               | 77            | 69            | 146           |
| Agriculture, Mining, and Utilities                  |               | 26            | 46            | 72            |
| Construction  |               | 17            | 11            | 29            |
| Other   |               | 8             | 15            | 23            |
| <i>Total Impact</i>                                 | <i>1,028</i>  | <i>1,071</i>  | <i>1,440</i>  | <i>3,539</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Mississippi

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 29,073        |               |               | 29,073        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 8,864         | 13,136        | 21,999        |
| Wholesale and Retail Trade                          |               | 1,987         | 4,243         | 6,230         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,684         | 2,111         | 3,795         |
| Manufacturing                                       |               | 1,674         | 1,988         | 3,663         |
| Transportation                                      |               | 1,659         | 925           | 2,584         |
| Agriculture, Mining, and Utilities                  |               | 406           | 1,156         | 1,563         |
| Construction  |               | 508           | 152           | 659           |
| Other   |               | 166           | 321           | 487           |
| <i>Total Impact</i>                                 | <i>29,073</i> | <i>16,948</i> | <i>24,032</i> | <i>70,053</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,578         |               |               | 2,578         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 394           | 450           | 844           |
| Wholesale and Retail Trade                          |               | 144           | 185           | 329           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 152           | 154           | 307           |
| Manufacturing                                       |               | 113           | 121           | 234           |
| Other   |               | 15            | 209           | 224           |
| Agriculture, Mining, and Utilities                  |               | 70            | 68            | 138           |
| Transportation                                      |               | 80            | 45            | 125           |
| Construction  |               | 18            | 5             | 23            |
| <i>Total Impact</i>                                 | <i>2,578</i>  | <i>985</i>    | <i>1,238</i>  | <i>4,801</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,173         |               |               | 1,173         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 291           | 348           | 639           |
| Wholesale and Retail Trade                          |               | 80            | 113           | 193           |
| Manufacturing                                       |               | 77            | 78            | 154           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 56            | 69            | 126           |
| Transportation                                      |               | 64            | 35            | 99            |
| Agriculture, Mining, and Utilities                  |               | 24            | 30            | 54            |
| Construction  |               | 16            | 5             | 20            |
| Other   |               | 7             | 12            | 19            |
| <i>Total Impact</i>                                 | <i>1,173</i>  | <i>614</i>    | <i>689</i>    | <i>2,477</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Missouri

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 33,737        |               |               | 33,737        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 9,933         | 20,127        | 30,060        |
| Wholesale and Retail Trade                          |               | 1,514         | 5,817         | 7,331         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,465         | 4,016         | 6,481         |
| Manufacturing                                       |               | 1,957         | 2,895         | 4,852         |
| Transportation                                      |               | 1,671         | 1,614         | 3,285         |
| Agriculture, Mining, and Utilities                  |               | 425           | 1,840         | 2,264         |
| Other   |               | 191           | 385           | 576           |
| Construction  |               | 318           | 238           | 556           |
| <i>Total Impact</i>                                 | <i>33,737</i> | <i>18,475</i> | <i>36,930</i> | <i>89,141</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,110         |               |               | 2,110         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 661           | 872           | 1,533         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 261           | 351           | 612           |
| Manufacturing                                       |               | 173           | 270           | 443           |
| Wholesale and Retail Trade                          |               | 114           | 317           | 432           |
| Other   |               | 22            | 252           | 274           |
| Transportation                                      |               | 86            | 88            | 175           |
| Agriculture, Mining, and Utilities                  |               | 40            | 72            | 112           |
| Construction  |               | 17            | 12            | 29            |
| <i>Total Impact</i>                                 | <i>2,110</i>  | <i>1,375</i>  | <i>2,234</i>  | <i>5,719</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,019         |               |               | 1,019         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 487           | 662           | 1,149         |
| Manufacturing                                       |               | 116           | 167           | 283           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 101           | 172           | 273           |
| Wholesale and Retail Trade                          |               | 64            | 188           | 251           |
| Transportation                                      |               | 69            | 68            | 138           |
| Agriculture, Mining, and Utilities                  |               | 15            | 31            | 46            |
| Other   |               | 12            | 22            | 34            |
| Construction  |               | 14            | 10            | 25            |
| <i>Total Impact</i>                                 | <i>1,019</i>  | <i>878</i>    | <i>1,321</i>  | <i>3,218</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Montana

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 11,153        |              |               | 11,153        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 5,464        | 7,382         | 12,846        |
| Wholesale and Retail Trade                          |               | 1,416        | 2,264         | 3,679         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,027        | 1,261         | 2,287         |
| Transportation                                      |               | 705          | 404           | 1,108         |
| Agriculture, Mining, and Utilities                  |               | 243          | 635           | 878           |
| Manufacturing                                       |               | 346          | 350           | 696           |
| Construction  |               | 182          | 89            | 271           |
| Other   |               | 63           | 121           | 185           |
| <i>Total Impact</i>                                 | <i>11,153</i> | <i>9,446</i> | <i>12,505</i> | <i>33,103</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,276         |              |               | 1,276         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 199          | 220           | 419           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 132          | 130           | 262           |
| Wholesale and Retail Trade                          |               | 94           | 95            | 189           |
| Other   |               | 5            | 94            | 99            |
| Agriculture, Mining, and Utilities                  |               | 45           | 42            | 88            |
| Transportation                                      |               | 34           | 20            | 54            |
| Manufacturing                                       |               | 22           | 20            | 42            |
| Construction  |               | 7            | 4             | 11            |
| <i>Total Impact</i>                                 | <i>1,276</i>  | <i>539</i>   | <i>624</i>    | <i>2,439</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 588           |              |               | 588           |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 143          | 171           | 314           |
| Wholesale and Retail Trade                          |               | 52           | 58            | 110           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 44           | 54            | 98            |
| Transportation                                      |               | 26           | 15            | 42            |
| Agriculture, Mining, and Utilities                  |               | 16           | 17            | 34            |
| Manufacturing                                       |               | 15           | 13            | 27            |
| Construction  |               | 6            | 3             | 9             |
| Other   |               | 3            | 5             | 8             |
| <i>Total Impact</i>                                 | <i>588</i>    | <i>305</i>   | <i>337</i>    | <i>1,230</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Nebraska

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 13,108        |              |               | 13,108        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 3,726        | 11,339        | 15,066        |
| Wholesale and Retail Trade                          |               | 570          | 3,782         | 4,352         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 825          | 2,047         | 2,872         |
| Manufacturing                                       |               | 641          | 1,153         | 1,794         |
| Transportation                                      |               | 609          | 809           | 1,418         |
| Agriculture, Mining, and Utilities                  |               | 157          | 829           | 986           |
| Other   |               | 103          | 260           | 363           |
| Construction  |               | 125          | 121           | 246           |
| <i>Total Impact</i>                                 | <i>13,108</i> | <i>6,755</i> | <i>20,341</i> | <i>40,204</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,374         |              |               | 2,374         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 206          | 403           | 609           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 87           | 166           | 253           |
| Wholesale and Retail Trade                          |               | 35           | 171           | 207           |
| Other   |               | 18           | 177           | 195           |
| Manufacturing                                       |               | 45           | 84            | 130           |
| Transportation                                      |               | 33           | 48            | 81            |
| Agriculture, Mining, and Utilities                  |               | 17           | 52            | 70            |
| Construction  |               | 6            | 6             | 12            |
| <i>Total Impact</i>                                 | <i>2,374</i>  | <i>448</i>   | <i>1,108</i>  | <i>3,930</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,120         |              |               | 1,120         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 150          | 309           | 459           |
| Wholesale and Retail Trade                          |               | 20           | 102           | 122           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 34           | 80            | 114           |
| Manufacturing                                       |               | 31           | 53            | 84            |
| Transportation                                      |               | 27           | 37            | 64            |
| Agriculture, Mining, and Utilities                  |               | 7            | 24            | 31            |
| Other   |               | 7            | 16            | 23            |
| Construction  |               | 5            | 5             | 10            |
| <i>Total Impact</i>                                 | <i>1,120</i>  | <i>281</i>   | <i>626</i>    | <i>2,026</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Nevada

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 11,377        |              |               | 11,377        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 3,857        | 7,404         | 11,261        |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,109        | 1,715         | 2,824         |
| Wholesale and Retail Trade                          |               | 542          | 2,034         | 2,576         |
| Transportation                                      |               | 576          | 543           | 1,119         |
| Manufacturing                                       |               | 351          | 440           | 791           |
| Agriculture, Mining, and Utilities                  |               | 85           | 243           | 327           |
| Construction  |               | 128          | 130           | 258           |
| Other   |               | 41           | 93            | 134           |
| <i>Total Impact</i>                                 | <i>11,377</i> | <i>6,688</i> | <i>12,603</i> | <i>30,668</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 962           |              |               | 962           |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 299          | 391           | 690           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 158          | 175           | 334           |
| Wholesale and Retail Trade                          |               | 46           | 127           | 173           |
| Other   |               | 6            | 100           | 105           |
| Manufacturing                                       |               | 27           | 34            | 61            |
| Transportation                                      |               | 31           | 30            | 61            |
| Agriculture, Mining, and Utilities                  |               | 23           | 36            | 59            |
| Construction  |               | 9            | 8             | 17            |
| <i>Total Impact</i>                                 | <i>962</i>    | <i>600</i>   | <i>901</i>    | <i>2,463</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 460           |              |               | 460           |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 220          | 294           | 514           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 55           | 85            | 140           |
| Wholesale and Retail Trade                          |               | 26           | 75            | 101           |
| Transportation                                      |               | 25           | 23            | 48            |
| Manufacturing                                       |               | 19           | 21            | 40            |
| Agriculture, Mining, and Utilities                  |               | 8            | 15            | 23            |
| Construction  |               | 8            | 7             | 15            |
| Other   |               | 3            | 6             | 9             |
| <i>Total Impact</i>                                 | <i>460</i>    | <i>363</i>   | <i>528</i>    | <i>1,351</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in New Hampshire

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 8,306        |              |              | 8,306         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 2,572        | 5,097        | 7,669         |
| Wholesale and Retail Trade                          |              | 380          | 1,487        | 1,867         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 708          | 950          | 1,658         |
| Manufacturing                                       |              | 472          | 678          | 1,150         |
| Transportation                                      |              | 365          | 268          | 632           |
| Agriculture, Mining, and Utilities                  |              | 62           | 164          | 226           |
| Construction  |              | 86           | 65           | 151           |
| Other   |              | 34           | 67           | 100           |
| <i>Total Impact</i>                                 | <i>8,306</i> | <i>4,678</i> | <i>8,774</i> | <i>21,759</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 609          |              |              | 609           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 174          | 226          | 400           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 95           | 104          | 199           |
| Wholesale and Retail Trade                          |              | 33           | 97           | 130           |
| Manufacturing                                       |              | 43           | 63           | 106           |
| Other   |              | 3            | 60           | 63            |
| Agriculture, Mining, and Utilities                  |              | 16           | 19           | 34            |
| Transportation                                      |              | 18           | 13           | 31            |
| Construction  |              | 5            | 4            | 8             |
| <i>Total Impact</i>                                 | <i>609</i>   | <i>385</i>   | <i>586</i>   | <i>1,580</i>  |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 267          |              |              | 267           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 129          | 174          | 302           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 34           | 51           | 85            |
| Wholesale and Retail Trade                          |              | 18           | 57           | 76            |
| Manufacturing                                       |              | 29           | 40           | 69            |
| Transportation                                      |              | 15           | 10           | 25            |
| Agriculture, Mining, and Utilities                  |              | 5            | 8            | 13            |
| Construction  |              | 4            | 3            | 7             |
| Other   |              | 2            | 4            | 5             |
| <i>Total Impact</i>                                 | <i>267</i>   | <i>236</i>   | <i>347</i>   | <i>849</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in New Jersey

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 28,311        |               |               | 28,311         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 15,739        | 29,414        | 45,153         |
| Wholesale and Retail Trade                          |               | 3,114         | 8,234         | 11,349         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 3,911         | 6,294         | 10,204         |
| Manufacturing                                       |               | 2,432         | 3,244         | 5,676          |
| Transportation                                      |               | 2,854         | 2,583         | 5,437          |
| Agriculture, Mining, and Utilities                  |               | 214           | 544           | 758            |
| Construction  |               | 359           | 296           | 655            |
| Other   |               | 201           | 431           | 633            |
| <i>Total Impact</i>                                 | <i>28,311</i> | <i>28,825</i> | <i>51,039</i> | <i>108,175</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 3,613         |               |               | 3,613          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,404         | 1,750         | 3,154          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 645           | 856           | 1,501          |
| Wholesale and Retail Trade                          |               | 388           | 649           | 1,036          |
| Manufacturing                                       |               | 320           | 446           | 765            |
| Other   |               | 31            | 458           | 488            |
| Transportation                                      |               | 180           | 163           | 343            |
| Agriculture, Mining, and Utilities                  |               | 72            | 80            | 152            |
| Construction  |               | 27            | 22            | 49             |
| <i>Total Impact</i>                                 | <i>3,613</i>  | <i>3,066</i>  | <i>4,422</i>  | <i>11,102</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 1,789         |               |               | 1,789          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,017         | 1,324         | 2,341          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 259           | 432           | 691            |
| Wholesale and Retail Trade                          |               | 214           | 383           | 597            |
| Manufacturing                                       |               | 213           | 274           | 487            |
| Transportation                                      |               | 142           | 127           | 269            |
| Agriculture, Mining, and Utilities                  |               | 24            | 33            | 57             |
| Other   |               | 16            | 32            | 48             |
| Construction  |               | 23            | 18            | 41             |
| <i>Total Impact</i>                                 | <i>1,789</i>  | <i>1,908</i>  | <i>2,623</i>  | <i>6,320</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in New Mexico

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 27,256        |               |               | 27,256        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 9,231         | 14,302        | 23,533        |
| Wholesale and Retail Trade                          |               | 1,582         | 4,241         | 5,823         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,697         | 2,430         | 4,127         |
| Transportation                                      |               | 1,154         | 786           | 1,941         |
| Manufacturing                                       |               | 729           | 694           | 1,423         |
| Agriculture, Mining, and Utilities                  |               | 307           | 665           | 972           |
| Construction  |               | 488           | 178           | 666           |
| Other   |               | 165           | 353           | 518           |
| <i>Total Impact</i>                                 | <i>27,256</i> | <i>15,352</i> | <i>23,651</i> | <i>66,259</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 3,386         |               |               | 3,386         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 435           | 476           | 911           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 152           | 187           | 340           |
| Wholesale and Retail Trade                          |               | 105           | 195           | 300           |
| Other   |               | 17            | 222           | 239           |
| Agriculture, Mining, and Utilities                  |               | 55            | 51            | 106           |
| Transportation                                      |               | 61            | 40            | 101           |
| Manufacturing                                       |               | 49            | 45            | 94            |
| Construction  |               | 21            | 8             | 29            |
| <i>Total Impact</i>                                 | <i>3,386</i>  | <i>895</i>    | <i>1,223</i>  | <i>5,504</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,360         |               |               | 1,360         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 319           | 366           | 684           |
| Wholesale and Retail Trade                          |               | 58            | 118           | 177           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 63            | 85            | 148           |
| Transportation                                      |               | 48            | 31            | 80            |
| Manufacturing                                       |               | 32            | 28            | 61            |
| Agriculture, Mining, and Utilities                  |               | 20            | 24            | 44            |
| Construction  |               | 18            | 6             | 25            |
| Other   |               | 9             | 16            | 24            |
| <i>Total Impact</i>                                 | <i>1,360</i>  | <i>568</i>    | <i>676</i>    | <i>2,603</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in New York

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 52,175        |               |               | 52,175         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 22,220        | 53,765        | 75,984         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 5,132         | 10,672        | 15,804         |
| Wholesale and Retail Trade                          |               | 2,729         | 12,564        | 15,293         |
| Manufacturing                                       |               | 3,393         | 5,294         | 8,687          |
| Transportation                                      |               | 3,120         | 3,745         | 6,865          |
| Agriculture, Mining, and Utilities                  |               | 410           | 1,401         | 1,811          |
| Other   |               | 323           | 807           | 1,130          |
| Construction  |               | 445           | 468           | 913            |
| <i>Total Impact</i>                                 | <i>52,175</i> | <i>37,771</i> | <i>88,716</i> | <i>178,661</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 5,474         |               |               | 5,474          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 2,298         | 3,365         | 5,663          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,350         | 2,039         | 3,389          |
| Wholesale and Retail Trade                          |               | 284           | 892           | 1,176          |
| Manufacturing                                       |               | 353           | 568           | 921            |
| Other   |               | 52            | 740           | 792            |
| Transportation                                      |               | 169           | 203           | 373            |
| Agriculture, Mining, and Utilities                  |               | 129           | 208           | 337            |
| Construction  |               | 30            | 30            | 61             |
| <i>Total Impact</i>                                 | <i>5,474</i>  | <i>4,666</i>  | <i>8,045</i>  | <i>18,185</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,443         |               |               | 2,443          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,686         | 2,547         | 4,233          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 515           | 1,034         | 1,549          |
| Wholesale and Retail Trade                          |               | 157           | 523           | 680            |
| Manufacturing                                       |               | 237           | 347           | 584            |
| Transportation                                      |               | 134           | 157           | 291            |
| Agriculture, Mining, and Utilities                  |               | 46            | 87            | 133            |
| Other   |               | 27            | 62            | 89             |
| Construction  |               | 26            | 26            | 52             |
| <i>Total Impact</i>                                 | <i>2,443</i>  | <i>2,828</i>  | <i>4,782</i>  | <i>10,053</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in North Carolina

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 39,162        |               |               | 39,162         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 13,146        | 25,115        | 38,261         |
| Wholesale and Retail Trade                          |               | 2,033         | 7,487         | 9,520          |
| Manufacturing                                       |               | 3,103         | 4,902         | 8,005          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 3,071         | 4,526         | 7,597          |
| Transportation                                      |               | 2,081         | 1,853         | 3,934          |
| Agriculture, Mining, and Utilities                  |               | 373           | 1,333         | 1,706          |
| Construction  |               | 433           | 370           | 803            |
| Other   |               | 243           | 500           | 742            |
| <i>Total Impact</i>                                 | <i>39,162</i> | <i>24,483</i> | <i>46,086</i> | <i>109,731</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,576         |               |               | 2,576          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 794           | 1,029         | 1,823          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 392           | 498           | 890            |
| Manufacturing                                       |               | 295           | 475           | 770            |
| Wholesale and Retail Trade                          |               | 146           | 402           | 548            |
| Other   |               | 24            | 333           | 356            |
| Transportation                                      |               | 107           | 100           | 207            |
| Agriculture, Mining, and Utilities                  |               | 59            | 100           | 159            |
| Construction  |               | 19            | 16            | 35             |
| <i>Total Impact</i>                                 | <i>2,576</i>  | <i>1,835</i>  | <i>2,953</i>  | <i>7,364</i>   |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 1,244         |               |               | 1,244          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 585           | 781           | 1,366          |
| Manufacturing                                       |               | 197           | 292           | 489            |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 147           | 239           | 386            |
| Wholesale and Retail Trade                          |               | 82            | 239           | 322            |
| Transportation                                      |               | 86            | 78            | 164            |
| Agriculture, Mining, and Utilities                  |               | 22            | 45            | 67             |
| Other   |               | 12            | 24            | 36             |
| Construction  |               | 17            | 14            | 30             |
| <i>Total Impact</i>                                 | <i>1,244</i>  | <i>1,149</i>  | <i>1,711</i>  | <i>4,103</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in North Dakota

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 9,099        |              |              | 9,099         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 2,659        | 4,741        | 7,400         |
| Wholesale and Retail Trade                          |              | 622          | 1,688        | 2,310         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 508          | 795          | 1,303         |
| Agriculture, Mining, and Utilities                  |              | 143          | 562          | 705           |
| Transportation                                      |              | 383          | 288          | 671           |
| Manufacturing                                       |              | 272          | 324          | 596           |
| Other   |              | 52           | 121          | 174           |
| Construction  |              | 83           | 47           | 130           |
| <i>Total Impact</i>                                 | <i>9,099</i> | <i>4,722</i> | <i>8,566</i> | <i>22,387</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,027        |              |              | 1,027         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 120          | 147          | 267           |
| Wholesale and Retail Trade                          |              | 43           | 75           | 117           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 46           | 59           | 106           |
| Other   |              | 3            | 63           | 66            |
| Agriculture, Mining, and Utilities                  |              | 24           | 42           | 65            |
| Manufacturing                                       |              | 19           | 22           | 41            |
| Transportation                                      |              | 19           | 14           | 33            |
| Construction  |              | 4            | 2            | 6             |
| <i>Total Impact</i>                                 | <i>1,027</i> | <i>277</i>   | <i>425</i>   | <i>1,728</i>  |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 454          |              |              | 454           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 85           | 114          | 200           |
| Wholesale and Retail Trade                          |              | 24           | 45           | 68            |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 19           | 28           | 46            |
| Manufacturing                                       |              | 13           | 14           | 27            |
| Transportation                                      |              | 15           | 11           | 26            |
| Agriculture, Mining, and Utilities                  |              | 9            | 17           | 26            |
| Other   |              | 2            | 4            | 5             |
| Construction  |              | 3            | 2            | 5             |
| <i>Total Impact</i>                                 | <i>454</i>   | <i>169</i>   | <i>235</i>   | <i>857</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Ohio

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 59,770        |               |               | 59,770         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 22,304        | 43,615        | 65,918         |
| Wholesale and Retail Trade                          |               | 4,055         | 12,774        | 16,828         |
| Manufacturing                                       |               | 5,328         | 7,460         | 12,787         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 4,613         | 7,813         | 12,426         |
| Transportation                                      |               | 3,504         | 3,133         | 6,637          |
| Agriculture, Mining, and Utilities                  |               | 573           | 1,964         | 2,536          |
| Construction  |               | 721           | 484           | 1,205          |
| Other   |               | 271           | 597           | 868            |
| <i>Total Impact</i>                                 | <i>59,770</i> | <i>41,369</i> | <i>77,838</i> | <i>178,977</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 5,201         |               |               | 5,201          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,384         | 1,777         | 3,162          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 581           | 787           | 1,368          |
| Manufacturing                                       |               | 511           | 734           | 1,246          |
| Wholesale and Retail Trade                          |               | 343           | 696           | 1,038          |
| Other   |               | 34            | 547           | 581            |
| Transportation                                      |               | 192           | 175           | 367            |
| Agriculture, Mining, and Utilities                  |               | 94            | 133           | 227            |
| Construction  |               | 36            | 24            | 60             |
| <i>Total Impact</i>                                 | <i>5,201</i>  | <i>3,176</i>  | <i>4,873</i>  | <i>13,250</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,433         |               |               | 2,433          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,021         | 1,366         | 2,387          |
| Manufacturing                                       |               | 342           | 455           | 797            |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 224           | 380           | 603            |
| Wholesale and Retail Trade                          |               | 190           | 413           | 603            |
| Transportation                                      |               | 153           | 136           | 289            |
| Agriculture, Mining, and Utilities                  |               | 33            | 54            | 86             |
| Other   |               | 17            | 36            | 54             |
| Construction  |               | 31            | 20            | 51             |
| <i>Total Impact</i>                                 | <i>2,433</i>  | <i>2,011</i>  | <i>2,860</i>  | <i>7,303</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Oklahoma

[Data pertain to 2004]

| Employment*   |               |               |                |                |
|---|---------------|---------------|----------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 85,491        |               |                | 85,491         |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 27,406        | 66,978         | 94,384         |
| Wholesale and Retail Trade                          |               | 4,863         | 20,820         | 25,683         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 5,827         | 12,495         | 18,322         |
| Manufacturing                                       |               | 5,460         | 4,916          | 10,376         |
| Transportation                                      |               | 3,868         | 3,642          | 7,510          |
| Agriculture, Mining, and Utilities                  |               | 889           | 3,978          | 4,867          |
| Construction  |               | 1,151         | 774            | 1,925          |
| Other   |               | 386           | 1,216          | 1,602          |
| <i>Total Impact</i>                                 | <i>85,491</i> | <i>49,852</i> | <i>114,818</i> | <i>250,160</i> |
| Value-Added (\$ millions)                           |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 16,752        |               |                | 16,752         |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 1,395         | 2,307          | 3,702          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 801           | 882            | 1,683          |
| Wholesale and Retail Trade                          |               | 348           | 925            | 1,274          |
| Other   |               | 31            | 991            | 1,022          |
| Manufacturing                                       |               | 554           | 423            | 976            |
| Agriculture, Mining, and Utilities                  |               | 222           | 247            | 469            |
| Transportation                                      |               | 191           | 196            | 387            |
| Construction  |               | 44            | 29             | 73             |
| <i>Total Impact</i>                                 | <i>16,752</i> | <i>3,585</i>  | <i>6,000</i>   | <i>26,337</i>  |
| Labor Income (\$ millions)                          |               |               |                |                |
| Sector Description                                  | Direct        | Indirect      | Induced        | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 7,346         |               |                | 7,346          |
| Indirect and Induced Impact on Other Industries**:  |               |               |                |                |
| Services  |               | 1,012         | 1,737          | 2,750          |
| Wholesale and Retail Trade                          |               | 194           | 565            | 759            |
| Manufacturing                                       |               | 361           | 272            | 633            |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 225           | 393            | 618            |
| Transportation                                      |               | 152           | 153            | 305            |
| Agriculture, Mining, and Utilities                  |               | 72            | 98             | 170            |
| Other   |               | 17            | 48             | 65             |
| Construction  |               | 38            | 25             | 63             |
| <i>Total Impact</i>                                 | <i>7,346</i>  | <i>2,071</i>  | <i>3,290</i>   | <i>12,707</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Oregon

[Data pertain to 2004]

| Employment*   |               |              |               |               |
|---|---------------|--------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 15,827        |              |               | 15,827        |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 5,364        | 10,729        | 16,093        |
| Wholesale and Retail Trade                          |               | 752          | 3,090         | 3,842         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,252        | 2,060         | 3,313         |
| Manufacturing                                       |               | 1,045        | 1,690         | 2,735         |
| Transportation                                      |               | 759          | 758           | 1,518         |
| Agriculture, Mining, and Utilities                  |               | 250          | 1,131         | 1,381         |
| Other   |               | 112          | 216           | 328           |
| Construction  |               | 133          | 127           | 260           |
| <i>Total Impact</i>                                 | <i>15,827</i> | <i>9,668</i> | <i>19,801</i> | <i>45,296</i> |
| Value-Added (\$ millions)                           |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,132         |              |               | 1,132         |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 319          | 435           | 755           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 154          | 194           | 349           |
| Wholesale and Retail Trade                          |               | 61           | 183           | 244           |
| Manufacturing                                       |               | 90           | 146           | 236           |
| Other   |               | 18           | 144           | 162           |
| Agriculture, Mining, and Utilities                  |               | 29           | 64            | 93            |
| Transportation                                      |               | 42           | 44            | 86            |
| Construction  |               | 7            | 7             | 14            |
| <i>Total Impact</i>                                 | <i>1,132</i>  | <i>721</i>   | <i>1,217</i>  | <i>3,069</i>  |
| Labor Income (\$ millions)                          |               |              |               |               |
| Sector Description                                  | Direct        | Indirect     | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 549           |              |               | 549           |
| Indirect and Induced Impact on Other Industries**:  |               |              |               |               |
| Services  |               | 235          | 333           | 568           |
| Manufacturing                                       |               | 61           | 91            | 152           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 56           | 93            | 150           |
| Wholesale and Retail Trade                          |               | 34           | 108           | 142           |
| Transportation                                      |               | 33           | 34            | 67            |
| Agriculture, Mining, and Utilities                  |               | 11           | 28            | 40            |
| Other   |               | 8            | 14            | 23            |
| Construction  |               | 6            | 6             | 12            |
| <i>Total Impact</i>                                 | <i>549</i>    | <i>445</i>   | <i>707</i>    | <i>1,701</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Pennsylvania

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 64,701        |               |               | 64,701         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 27,649        | 53,523        | 81,171         |
| Wholesale and Retail Trade                          |               | 5,320         | 15,362        | 20,682         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 5,214         | 9,161         | 14,376         |
| Manufacturing                                       |               | 5,538         | 7,354         | 12,892         |
| Transportation                                      |               | 4,520         | 3,932         | 8,452          |
| Agriculture, Mining, and Utilities                  |               | 734           | 2,318         | 3,052          |
| Construction  |               | 1,057         | 582           | 1,639          |
| Other   |               | 303           | 706           | 1,008          |
| <i>Total Impact</i>                                 | <i>64,701</i> | <i>50,335</i> | <i>92,939</i> | <i>207,975</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 6,443         |               |               | 6,443          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,956         | 2,502         | 4,458          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 810           | 1,081         | 1,891          |
| Wholesale and Retail Trade                          |               | 492           | 874           | 1,366          |
| Manufacturing                                       |               | 550           | 751           | 1,301          |
| Other   |               | 31            | 689           | 720            |
| Transportation                                      |               | 269           | 235           | 504            |
| Agriculture, Mining, and Utilities                  |               | 190           | 238           | 429            |
| Construction  |               | 61            | 33            | 94             |
| <i>Total Impact</i>                                 | <i>6,443</i>  | <i>4,358</i>  | <i>6,404</i>  | <i>17,205</i>  |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 3,065         |               |               | 3,065          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 1,417         | 1,912         | 3,329          |
| Manufacturing                                       |               | 368           | 465           | 833            |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 304           | 524           | 828            |
| Wholesale and Retail Trade                          |               | 272           | 518           | 790            |
| Transportation                                      |               | 214           | 182           | 397            |
| Agriculture, Mining, and Utilities                  |               | 67            | 99            | 165            |
| Construction  |               | 52            | 28            | 80             |
| Other   |               | 20            | 45            | 64             |
| <i>Total Impact</i>                                 | <i>3,065</i>  | <i>2,714</i>  | <i>3,772</i>  | <i>9,552</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Rhode Island

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 4,059        |              |              | 4,059         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 1,600        | 3,692        | 5,291         |
| Wholesale and Retail Trade                          |              | 185          | 860          | 1,045         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 353          | 661          | 1,014         |
| Manufacturing                                       |              | 288          | 486          | 774           |
| Transportation                                      |              | 207          | 207          | 414           |
| Agriculture, Mining, and Utilities                  |              | 17           | 62           | 80            |
| Construction  |              | 38           | 35           | 73            |
| Other   |              | 20           | 48           | 68            |
| <i>Total Impact</i>                                 | <i>4,059</i> | <i>2,708</i> | <i>6,051</i> | <i>12,818</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 438          |              |              | 438           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 105          | 162          | 267           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 47           | 73           | 120           |
| Wholesale and Retail Trade                          |              | 15           | 51           | 66            |
| Manufacturing                                       |              | 22           | 38           | 60            |
| Other   |              | 2            | 42           | 45            |
| Transportation                                      |              | 11           | 11           | 22            |
| Agriculture, Mining, and Utilities                  |              | 5            | 8            | 13            |
| Construction  |              | 2            | 2            | 4             |
| <i>Total Impact</i>                                 | <i>438</i>   | <i>210</i>   | <i>387</i>   | <i>1,035</i>  |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 194          |              |              | 194           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 78           | 125          | 203           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 19           | 36           | 55            |
| Manufacturing                                       |              | 15           | 24           | 39            |
| Wholesale and Retail Trade                          |              | 8            | 30           | 39            |
| Transportation                                      |              | 9            | 8            | 17            |
| Agriculture, Mining, and Utilities                  |              | 2            | 3            | 5             |
| Other   |              | 1            | 3            | 4             |
| Construction  |              | 2            | 2            | 4             |
| <i>Total Impact</i>                                 | <i>194</i>   | <i>134</i>   | <i>231</i>   | <i>559</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in South Carolina

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 21,148        |               |               | 21,148        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 5,676         | 10,652        | 16,327        |
| Wholesale and Retail Trade                          |               | 880           | 3,303         | 4,183         |
| Manufacturing                                       |               | 1,390         | 2,171         | 3,561         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,478         | 2,063         | 3,541         |
| Transportation                                      |               | 881           | 753           | 1,634         |
| Agriculture, Mining, and Utilities                  |               | 201           | 667           | 868           |
| Other   |               | 123           | 246           | 369           |
| Construction  |               | 193           | 169           | 361           |
| <i>Total Impact</i>                                 | <i>21,148</i> | <i>10,822</i> | <i>20,023</i> | <i>51,993</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,083         |               |               | 1,083         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 288           | 393           | 681           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 159           | 186           | 345           |
| Manufacturing                                       |               | 117           | 183           | 299           |
| Wholesale and Retail Trade                          |               | 58            | 166           | 225           |
| Other   |               | 11            | 143           | 153           |
| Agriculture, Mining, and Utilities                  |               | 35            | 56            | 91            |
| Transportation                                      |               | 43            | 38            | 80            |
| Construction  |               | 9             | 7             | 16            |
| <i>Total Impact</i>                                 | <i>1,083</i>  | <i>719</i>    | <i>1,172</i>  | <i>2,975</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 520           |               |               | 520           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 215           | 298           | 513           |
| Manufacturing                                       |               | 78            | 114           | 192           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 58            | 89            | 147           |
| Wholesale and Retail Trade                          |               | 33            | 99            | 132           |
| Transportation                                      |               | 35            | 29            | 64            |
| Agriculture, Mining, and Utilities                  |               | 13            | 24            | 37            |
| Other   |               | 6             | 11            | 17            |
| Construction  |               | 8             | 6             | 14            |
| <i>Total Impact</i>                                 | <i>520</i>    | <i>445</i>    | <i>671</i>    | <i>1,637</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in South Dakota

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 7,477        |              |              | 7,477         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 1,579        | 3,161        | 4,741         |
| Wholesale and Retail Trade                          |              | 281          | 1,007        | 1,288         |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 419          | 624          | 1,043         |
| Manufacturing                                       |              | 274          | 354          | 628           |
| Agriculture, Mining, and Utilities                  |              | 114          | 482          | 597           |
| Transportation                                      |              | 258          | 214          | 472           |
| Construction  |              | 61           | 40           | 101           |
| Other   |              | 34           | 66           | 100           |
| <i>Total Impact</i>                                 | <i>7,477</i> | <i>3,021</i> | <i>5,949</i> | <i>16,447</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 411          |              |              | 411           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 77           | 107          | 184           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 45           | 55           | 100           |
| Wholesale and Retail Trade                          |              | 16           | 45           | 61            |
| Agriculture, Mining, and Utilities                  |              | 14           | 29           | 43            |
| Other   |              | 3            | 37           | 40            |
| Manufacturing                                       |              | 16           | 22           | 38            |
| Transportation                                      |              | 11           | 10           | 21            |
| Construction  |              | 3            | 2            | 4             |
| <i>Total Impact</i>                                 | <i>411</i>   | <i>185</i>   | <i>306</i>   | <i>902</i>    |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 196          |              |              | 196           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 56           | 82           | 138           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 17           | 26           | 43            |
| Wholesale and Retail Trade                          |              | 9            | 27           | 36            |
| Manufacturing                                       |              | 12           | 14           | 26            |
| Agriculture, Mining, and Utilities                  |              | 5            | 13           | 18            |
| Transportation                                      |              | 9            | 8            | 17            |
| Other   |              | 1            | 3            | 4             |
| Construction  |              | 2            | 1            | 4             |
| <i>Total Impact</i>                                 | <i>196</i>   | <i>112</i>   | <i>172</i>   | <i>480</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Tennessee

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 31,331        |               |               | 31,331        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 9,938         | 19,089        | 29,028        |
| Wholesale and Retail Trade                          |               | 1,763         | 5,886         | 7,649         |
| Manufacturing                                       |               | 2,378         | 3,681         | 6,059         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,359         | 3,604         | 5,962         |
| Transportation                                      |               | 1,656         | 1,780         | 3,436         |
| Agriculture, Mining, and Utilities                  |               | 348           | 1,623         | 1,971         |
| Other   |               | 272           | 395           | 667           |
| Construction  |               | 328           | 253           | 580           |
| <i>Total Impact</i>                                 | <i>31,331</i> | <i>19,041</i> | <i>36,311</i> | <i>86,683</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,888         |               |               | 1,888         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 604           | 848           | 1,453         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 374           | 431           | 805           |
| Manufacturing                                       |               | 215           | 344           | 559           |
| Wholesale and Retail Trade                          |               | 142           | 337           | 478           |
| Other   |               | 57            | 275           | 332           |
| Transportation                                      |               | 105           | 111           | 215           |
| Agriculture, Mining, and Utilities                  |               | 18            | 38            | 55            |
| Construction  |               | 15            | 11            | 27            |
| <i>Total Impact</i>                                 | <i>1,888</i>  | <i>1,530</i>  | <i>2,395</i>  | <i>5,813</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 931           |               |               | 931           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 450           | 646           | 1,096         |
| Manufacturing                                       |               | 144           | 214           | 358           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 133           | 205           | 339           |
| Wholesale and Retail Trade                          |               | 79            | 199           | 278           |
| Transportation                                      |               | 82            | 85            | 168           |
| Other   |               | 20            | 25            | 45            |
| Construction  |               | 13            | 10            | 23            |
| Agriculture, Mining, and Utilities                  |               | 7             | 15            | 22            |
| <i>Total Impact</i>                                 | <i>931</i>    | <i>928</i>    | <i>1,400</i>  | <i>3,259</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Texas

[Data pertain to 2004]

| Employment*   |                |                |                |                  |
|---|----------------|----------------|----------------|------------------|
| Sector Description                                  | Direct         | Indirect       | Induced        | Total            |
| Direct Impact of Oil and Natural Gas Industry       | 360,371        |                |                | 360,371          |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                  |
| Services  |                | 174,124        | 357,096        | 531,220          |
| Wholesale and Retail Trade                          |                | 41,588         | 120,286        | 161,874          |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 43,055         | 75,176         | 118,231          |
| Manufacturing                                       |                | 35,434         | 29,978         | 65,412           |
| Transportation                                      |                | 29,941         | 22,316         | 52,257           |
| Agriculture, Mining, and Utilities                  |                | 4,130          | 16,634         | 20,764           |
| Construction  |                | 6,987          | 3,960          | 10,947           |
| Other   |                | 2,373          | 5,604          | 7,977            |
| <i>Total Impact</i>                                 | <i>360,371</i> | <i>337,632</i> | <i>631,049</i> | <i>1,329,052</i> |
| Value-Added (\$ millions)                           |                |                |                |                  |
| Sector Description                                  | Direct         | Indirect       | Induced        | Total            |
| Direct Impact of Oil and Natural Gas Industry       | 100,892        |                |                | 100,892          |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                  |
| Services  |                | 11,094         | 15,327         | 26,422           |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 9,320          | 8,243          | 17,564           |
| Wholesale and Retail Trade                          |                | 4,266          | 6,842          | 11,108           |
| Manufacturing                                       |                | 3,749          | 2,800          | 6,548            |
| Other   |                | 221            | 6,217          | 6,438            |
| Agriculture, Mining, and Utilities                  |                | 1,705          | 1,554          | 3,259            |
| Transportation                                      |                | 1,723          | 1,386          | 3,108            |
| Construction  |                | 360            | 203            | 563              |
| <i>Total Impact</i>                                 | <i>100,892</i> | <i>32,438</i>  | <i>42,572</i>  | <i>175,902</i>   |
| Labor Income (\$ millions)                          |                |                |                |                  |
| Sector Description                                  | Direct         | Indirect       | Induced        | Total            |
| Direct Impact of Oil and Natural Gas Industry       | 42,926         |                |                | 42,926           |
| Indirect and Induced Impact on Other Industries**:  |                |                |                |                  |
| Services  |                | 8,106          | 11,529         | 19,636           |
| Wholesale and Retail Trade                          |                | 2,368          | 4,139          | 6,507            |
| Finance, Insurance, Real Estate, Rental and Leasing |                | 2,640          | 3,761          | 6,401            |
| Manufacturing                                       |                | 2,435          | 1,763          | 4,197            |
| Transportation                                      |                | 1,335          | 1,060          | 2,396            |
| Agriculture, Mining, and Utilities                  |                | 572            | 673            | 1,244            |
| Construction  |                | 312            | 173            | 485              |
| Other   |                | 114            | 244            | 358              |
| <i>Total Impact</i>                                 | <i>42,926</i>  | <i>17,882</i>  | <i>23,342</i>  | <i>84,150</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Utah

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 16,971        |               |               | 16,971        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 7,568         | 13,635        | 21,202        |
| Wholesale and Retail Trade                          |               | 1,579         | 3,981         | 5,560         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,117         | 3,154         | 5,271         |
| Manufacturing                                       |               | 1,144         | 1,421         | 2,566         |
| Transportation                                      |               | 1,153         | 885           | 2,038         |
| Agriculture, Mining, and Utilities                  |               | 185           | 552           | 737           |
| Construction  |               | 239           | 160           | 399           |
| Other   |               | 96            | 203           | 300           |
| <i>Total Impact</i>                                 | <i>16,971</i> | <i>14,082</i> | <i>23,992</i> | <i>55,044</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,083         |               |               | 2,083         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 410           | 502           | 913           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 201           | 246           | 447           |
| Wholesale and Retail Trade                          |               | 122           | 198           | 320           |
| Manufacturing                                       |               | 84            | 102           | 186           |
| Other   |               | 9             | 172           | 181           |
| Transportation                                      |               | 65            | 54            | 119           |
| Agriculture, Mining, and Utilities                  |               | 35            | 38            | 72            |
| Construction  |               | 13            | 8             | 21            |
| <i>Total Impact</i>                                 | <i>2,083</i>  | <i>938</i>    | <i>1,321</i>  | <i>4,342</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 973           |               |               | 973           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 300           | 385           | 686           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 76            | 112           | 188           |
| Wholesale and Retail Trade                          |               | 68            | 119           | 186           |
| Manufacturing                                       |               | 58            | 64            | 122           |
| Transportation                                      |               | 52            | 42            | 93            |
| Agriculture, Mining, and Utilities                  |               | 12            | 15            | 28            |
| Construction  |               | 11            | 7             | 18            |
| Other   |               | 5             | 9             | 14            |
| <i>Total Impact</i>                                 | <i>973</i>    | <i>581</i>    | <i>753</i>    | <i>2,307</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Vermont

[Data pertain to 2004]

| Employment*   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 5,706        |              |              | 5,706         |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 1,300        | 2,587        | 3,887         |
| Wholesale and Retail Trade                          |              | 182          | 654          | 836           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 298          | 387          | 685           |
| Manufacturing                                       |              | 216          | 330          | 547           |
| Transportation                                      |              | 201          | 144          | 345           |
| Agriculture, Mining, and Utilities                  |              | 50           | 175          | 225           |
| Construction  |              | 42           | 36           | 77            |
| Other   |              | 24           | 42           | 66            |
| <i>Total Impact</i>                                 | <i>5,706</i> | <i>2,313</i> | <i>4,355</i> | <i>12,374</i> |
| Value-Added (\$ millions)                           |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 324          |              |              | 324           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 61           | 92           | 153           |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 32           | 36           | 68            |
| Wholesale and Retail Trade                          |              | 12           | 35           | 47            |
| Manufacturing                                       |              | 17           | 27           | 44            |
| Other   |              | 2            | 27           | 29            |
| Agriculture, Mining, and Utilities                  |              | 8            | 12           | 20            |
| Transportation                                      |              | 9            | 7            | 16            |
| Construction  |              | 2            | 2            | 3             |
| <i>Total Impact</i>                                 | <i>324</i>   | <i>144</i>   | <i>237</i>   | <i>705</i>    |
| Labor Income (\$ millions)                          |              |              |              |               |
| Sector Description                                  | Direct       | Indirect     | Induced      | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 144          |              |              | 144           |
| Indirect and Induced Impact on Other Industries**:  |              |              |              |               |
| Services  |              | 45           | 71           | 115           |
| Manufacturing                                       |              | 12           | 16           | 28            |
| Finance, Insurance, Real Estate, Rental and Leasing |              | 11           | 17           | 28            |
| Wholesale and Retail Trade                          |              | 7            | 21           | 27            |
| Transportation                                      |              | 8            | 6            | 13            |
| Agriculture, Mining, and Utilities                  |              | 3            | 5            | 8             |
| Construction  |              | 2            | 1            | 3             |
| Other   |              | 1            | 2            | 3             |
| <i>Total Impact</i>                                 | <i>144</i>   | <i>88</i>    | <i>138</i>   | <i>370</i>    |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Virginia

[Data pertain to 2004]

| Employment*   |               |               |               |                |
|---|---------------|---------------|---------------|----------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 43,139        |               |               | 43,139         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 11,989        | 23,875        | 35,864         |
| Wholesale and Retail Trade                          |               | 1,766         | 6,414         | 8,181          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,717         | 4,143         | 6,860          |
| Manufacturing                                       |               | 1,840         | 2,729         | 4,568          |
| Transportation                                      |               | 1,971         | 1,792         | 3,763          |
| Agriculture, Mining, and Utilities                  |               | 324           | 1,189         | 1,513          |
| Other   |               | 329           | 727           | 1,056          |
| Construction  |               | 445           | 348           | 793            |
| <i>Total Impact</i>                                 | <i>43,139</i> | <i>21,381</i> | <i>41,218</i> | <i>105,738</i> |
| Value-Added (\$ millions)                           |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 2,780         |               |               | 2,780          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 950           | 1,223         | 2,172          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 470           | 530           | 1,000          |
| Wholesale and Retail Trade                          |               | 138           | 359           | 497            |
| Manufacturing                                       |               | 165           | 255           | 420            |
| Other   |               | 29            | 381           | 409            |
| Transportation                                      |               | 104           | 101           | 205            |
| Agriculture, Mining, and Utilities                  |               | 73            | 102           | 175            |
| Construction  |               | 25            | 19            | 44             |
| <i>Total Impact</i>                                 | <i>2,780</i>  | <i>1,953</i>  | <i>2,971</i>  | <i>7,704</i>   |
| Labor Income (\$ millions)                          |               |               |               |                |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total          |
| Direct Impact of Oil and Natural Gas Industry       | 1,314         |               |               | 1,314          |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |                |
| Services  |               | 698           | 920           | 1,618          |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 168           | 255           | 423            |
| Wholesale and Retail Trade                          |               | 77            | 212           | 289            |
| Manufacturing                                       |               | 111           | 157           | 268            |
| Transportation                                      |               | 84            | 78            | 161            |
| Agriculture, Mining, and Utilities                  |               | 26            | 42            | 68             |
| Other   |               | 17            | 36            | 52             |
| Construction  |               | 22            | 16            | 38             |
| <i>Total Impact</i>                                 | <i>1,314</i>  | <i>1,201</i>  | <i>1,717</i>  | <i>4,232</i>   |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Washington

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 23,722        |               |               | 23,722        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 11,674        | 19,982        | 31,656        |
| Wholesale and Retail Trade                          |               | 2,773         | 5,753         | 8,526         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 2,777         | 3,911         | 6,688         |
| Manufacturing                                       |               | 1,780         | 2,409         | 4,189         |
| Transportation                                      |               | 1,871         | 1,397         | 3,267         |
| Agriculture, Mining, and Utilities                  |               | 396           | 1,646         | 2,043         |
| Other   |               | 463           | 606           | 1,069         |
| Construction  |               | 311           | 252           | 563           |
| <i>Total Impact</i>                                 | <i>23,722</i> | <i>22,046</i> | <i>35,955</i> | <i>81,723</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,183         |               |               | 2,183         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 878           | 1,022         | 1,900         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 402           | 466           | 868           |
| Wholesale and Retail Trade                          |               | 282           | 371           | 653           |
| Other   |               | 83            | 336           | 419           |
| Manufacturing                                       |               | 164           | 221           | 385           |
| Transportation                                      |               | 119           | 93            | 211           |
| Agriculture, Mining, and Utilities                  |               | 40            | 78            | 118           |
| Construction  |               | 20            | 16            | 36            |
| <i>Total Impact</i>                                 | <i>2,183</i>  | <i>1,987</i>  | <i>2,602</i>  | <i>6,773</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,143         |               |               | 1,143         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 634           | 773           | 1,407         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 154           | 222           | 377           |
| Wholesale and Retail Trade                          |               | 156           | 220           | 376           |
| Manufacturing                                       |               | 112           | 138           | 249           |
| Transportation                                      |               | 93            | 71            | 164           |
| Other   |               | 33            | 36            | 70            |
| Agriculture, Mining, and Utilities                  |               | 16            | 37            | 53            |
| Construction  |               | 17            | 13            | 30            |
| <i>Total Impact</i>                                 | <i>1,143</i>  | <i>1,216</i>  | <i>1,510</i>  | <i>3,869</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in West Virginia

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 24,282        |               |               | 24,282        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 6,511         | 9,575         | 16,086        |
| Wholesale and Retail Trade                          |               | 1,329         | 2,953         | 4,282         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,100         | 1,270         | 2,370         |
| Manufacturing                                       |               | 1,027         | 743           | 1,769         |
| Transportation                                      |               | 1,173         | 520           | 1,693         |
| Agriculture, Mining, and Utilities                  |               | 281           | 773           | 1,054         |
| Construction  |               | 642           | 106           | 748           |
| Other   |               | 87            | 175           | 263           |
| <i>Total Impact</i>                                 | <i>24,282</i> | <i>12,149</i> | <i>16,116</i> | <i>52,547</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 2,348         |               |               | 2,348         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 301           | 327           | 628           |
| Wholesale and Retail Trade                          |               | 84            | 124           | 208           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 94            | 89            | 183           |
| Manufacturing                                       |               | 92            | 69            | 160           |
| Other   |               | 6             | 135           | 141           |
| Agriculture, Mining, and Utilities                  |               | 52            | 59            | 111           |
| Transportation                                      |               | 59            | 27            | 87            |
| Construction  |               | 28            | 5             | 32            |
| <i>Total Impact</i>                                 | <i>2,348</i>  | <i>716</i>    | <i>835</i>    | <i>3,899</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,031         |               |               | 1,031         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 227           | 255           | 482           |
| Wholesale and Retail Trade                          |               | 47            | 75            | 123           |
| Manufacturing                                       |               | 58            | 42            | 101           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 35            | 40            | 74            |
| Transportation                                      |               | 48            | 21            | 69            |
| Agriculture, Mining, and Utilities                  |               | 18            | 23            | 41            |
| Construction  |               | 24            | 4             | 28            |
| Other   |               | 3             | 7             | 10            |
| <i>Total Impact</i>                                 | <i>1,031</i>  | <i>461</i>    | <i>467</i>    | <i>1,960</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Wisconsin

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 27,768        |               |               | 27,768        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 7,962         | 15,832        | 23,795        |
| Manufacturing                                       |               | 2,509         | 3,988         | 6,497         |
| Wholesale and Retail Trade                          |               | 1,254         | 4,786         | 6,039         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,667         | 2,863         | 4,530         |
| Transportation                                      |               | 1,258         | 1,275         | 2,533         |
| Agriculture, Mining, and Utilities                  |               | 353           | 1,490         | 1,843         |
| Construction  |               | 240           | 184           | 424           |
| Other   |               | 100           | 231           | 332           |
| <i>Total Impact</i>                                 | <i>27,768</i> | <i>15,343</i> | <i>30,650</i> | <i>73,760</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,480         |               |               | 1,480         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 466           | 623           | 1,090         |
| Manufacturing                                       |               | 220           | 359           | 579           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 193           | 272           | 465           |
| Wholesale and Retail Trade                          |               | 92            | 251           | 343           |
| Other   |               | 12            | 184           | 196           |
| Transportation                                      |               | 66            | 69            | 135           |
| Agriculture, Mining, and Utilities                  |               | 40            | 70            | 110           |
| Construction  |               | 14            | 10            | 24            |
| <i>Total Impact</i>                                 | <i>1,480</i>  | <i>1,103</i>  | <i>1,839</i>  | <i>4,422</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 713           |               |               | 713           |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 345           | 477           | 822           |
| Manufacturing                                       |               | 149           | 223           | 372           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 74            | 133           | 207           |
| Wholesale and Retail Trade                          |               | 51            | 148           | 199           |
| Transportation                                      |               | 53            | 54            | 107           |
| Agriculture, Mining, and Utilities                  |               | 15            | 32            | 47            |
| Construction  |               | 12            | 9             | 20            |
| Other   |               | 6             | 13            | 19            |
| <i>Total Impact</i>                                 | <i>713</i>    | <i>705</i>    | <i>1,088</i>  | <i>2,506</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## The Economic Impact of the Oil and Natural Gas Industry in Wyoming

[Data pertain to 2004]

| Employment*   |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 21,916        |               |               | 21,916        |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 6,476         | 9,355         | 15,831        |
| Wholesale and Retail Trade                          |               | 1,502         | 3,287         | 4,789         |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 1,358         | 1,623         | 2,981         |
| Transportation                                      |               | 1,083         | 539           | 1,622         |
| Manufacturing                                       |               | 583           | 303           | 886           |
| Agriculture, Mining, and Utilities                  |               | 288           | 466           | 754           |
| Construction  |               | 318           | 111           | 430           |
| Other   |               | 90            | 214           | 304           |
| <i>Total Impact</i>                                 | <i>21,916</i> | <i>11,698</i> | <i>15,898</i> | <i>49,513</i> |
| Value-Added (\$ millions)                           |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 3,504         |               |               | 3,504         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 304           | 282           | 586           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 174           | 156           | 330           |
| Wholesale and Retail Trade                          |               | 108           | 137           | 245           |
| Other   |               | 6             | 161           | 168           |
| Agriculture, Mining, and Utilities                  |               | 66            | 46            | 113           |
| Transportation                                      |               | 54            | 28            | 82            |
| Manufacturing                                       |               | 46            | 17            | 63            |
| Construction  |               | 15            | 5             | 20            |
| <i>Total Impact</i>                                 | <i>3,504</i>  | <i>773</i>    | <i>832</i>    | <i>5,109</i>  |
| Labor Income (\$ millions)                          |               |               |               |               |
| Sector Description                                  | Direct        | Indirect      | Induced       | Total         |
| Direct Impact of Oil and Natural Gas Industry       | 1,358         |               |               | 1,358         |
| Indirect and Induced Impact on Other Industries**:  |               |               |               |               |
| Services  |               | 217           | 216           | 432           |
| Wholesale and Retail Trade                          |               | 60            | 83            | 143           |
| Finance, Insurance, Real Estate, Rental and Leasing |               | 57            | 60            | 117           |
| Transportation                                      |               | 42            | 22            | 64            |
| Agriculture, Mining, and Utilities                  |               | 24            | 18            | 41            |
| Manufacturing                                       |               | 30            | 11            | 41            |
| Construction  |               | 13            | 4             | 17            |
| Other   |               | 3             | 7             | 10            |
| <i>Total Impact</i>                                 | <i>1,358</i>  | <i>444</i>    | <i>421</i>    | <i>2,223</i>  |

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2004 database).

\*Employment is defined as the number of full-time and part-time jobs.

\*\*Excludes NAICS codes grouped under the oil and natural gas industry.

## Appendix B: Data Sources

This study used the IMPLAN input-output modeling system and its most recent database (for the year 2004 - released in October 2006) as the primary data sources. The U.S. Forest Service, in cooperation with the Federal Emergency Management Agency and the Bureau of Land Management, developed IMPLAN (Impact Analysis for Planning) to help with land resource planning issues. It was later refined by the Minnesota IMPLAN Group. The system has been in use since 1979. Its current clients include academia, federal, state, and local governments, and the private sector.

The IMPLAN database represents a consistent set of economic data processed from various published sources (such as the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) and Regional Economic Information System (REIS), the Census Bureau's County Business Patterns (CBP), and the Bureau of Labor Statistics' Covered Employee and Wages Program (CEW)) in a variety of formats and under varying disclosure restrictions.

The IMPLAN input-output modeling system was used to construct customized economic impact models for the United States and the 50 states and the District of Columbia. The national or state-specific direct employment in the oil and natural gas industry as defined by PricewaterhouseCoopers was used in each model to drive the impact analysis.<sup>3</sup> Direct value-added and labor income corresponding to the national or state-specific direct employment in the oil and natural gas industry were obtained from each model, and the indirect and induced impacts of the oil and natural gas industry on other sectors of the economy in terms of employment, labor income, and value-added were calculated through the multiplier process built in each model.

Because IMPLAN state models capture only the indirect and induced effects within each state, the indirect and induced effects crossing state borders ("cross-state spillover effects") are not captured by the IMPLAN state models. As such, if not corrected, the state-level indirect and induced impacts calculated by the IMPLAN state models would not add up to the overall impact captured by the national model, which includes the cross-state effects. PricewaterhouseCoopers allocated the cross-state indirect and induced employment, labor income, and value-added effects across the 50 states and the District of Columbia in proportion to each state's share of the total national employment, labor income, and value-added. The allocation was done at the industry level. The state indirect and induced effects reported throughout this study include such allocation of the cross-state spillover effects.

In general, most subsectors of the oil and natural gas industry as defined by PricewaterhouseCoopers have a one-to-one correspondence to an IMPLAN sector, thus the 2004 employment for these subsectors were directly obtained from the customized IMPLAN national or state impact models. The exceptions are two NAICS codes, NAICS 4247 (petroleum and petroleum products wholesalers) and NAICS 45431 (fuel dealers). Each is included as part of a larger IMPLAN sector.

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<sup>3</sup> Employment is defined to be the number of full-time and part-time jobs.

We undertook the following procedure to estimate employment for these two NAICS sectors. First, employment numbers for these sectors were obtained from the Census Bureau by combining employee counts from County Business Patterns (CBP) with establishment counts from Nonemployer Statistics (NES).<sup>4</sup> Each nonemployer establishment was assumed to have one owner who acts as the business's sole employee. Thus, in our analysis, data were obtained at both the national level and for each of the 50 states and the District of Columbia.

For these two NAICS sectors, in some states the employee counts were suppressed because of a small number of establishments in these sectors. Since counts were available for these sectors at the national-level and for larger sector aggregations at the state-level, a "raking" process was used to estimate the state-level employee count for the sector of interest. The raking process uses information from known sectors to impute information for the sectors with suppressed data. For example, NAICS sector 45431 (Fuel Dealers) is one of two sub-sectors in NAICS sector 4543 (Nonstore Retailers). A matrix was set up with 51 rows representing the 50 states and the District of Columbia and 2 columns. Thus, each cell in the matrix represents the total employment for a state and sub-sector within sector 4543. When the exact count was not known for a particular cell, the midpoint of the range of values provided by the CBP database was used to determine the initial starting value. Because all cells values were not known, the column totals did not match the national employment counts from CBP. Similarly, the row totals did not match the known state-level totals for sector 4543. A standard raking algorithm was used to adjust the unknown cell values so that both the column and row totals matched the corresponding CBP sub-sector and state sector totals.<sup>5</sup>

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<sup>4</sup> A nonemployer is a business without paid employees. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner's principal source of income.

<sup>5</sup> Oh, H.L. and Scheuren, F. (1987). Modified Raking Ratio Estimation. *Survey Methodology*, vol. 13, no. 2, pp. 209-219.